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28 February 2023

Ms. Nicole Walworth
Project Manager
Department of the Army
U.S. Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
CENAB-ENE-M, Room 09-F-08
Baltimore, MD 21201

Subject: Draft SWMU 49 Monitored Natural Attenuation Sampling Year Seven Report
Contract No. W912DR-15-D-0022, Delivery Order No. W912DR18F0492
Military Munitions Response Program (MMRP) Munitions Response Services
Radford Army Ammunition Plant, Radford, Virginia

Dear Ms. Walworth:

Attached is an electronic copy (Word and PDF) of the Weston Solutions, Inc. (WESTON®) *Draft SWMU 49 Monitored Natural Attenuation Sampling Year Seven Report* for the Environmental and Munitions Response Services – Radford Army Ammunition Plant (RFAAP), in Radford, VA, for review and comment.

We have also provided a copy to RFAAP, the U.S. Army Environmental Command (USAEC), and BAE Systems for their review and comment.

If you have any questions or comments, please do not hesitate to contact me at 757.362.2461.

Very truly yours,
WESTON SOLUTIONS, INC.

Tony Pace
Principal Project Manager

Enclosures

Cc: Mark Gettel, USAEC, w/encl (1 hard copy and CD)
Leonard DiIoia, RFAAP, w/encl (electronic)
Melissa Lincoln, BAE Systems, w/encl (CD)

DRAFT

SWMU 49 MONITORED NATURAL ATTENUATION SAMPLING YEAR SEVEN REPORT

RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

Contract No. W912DR-15-D-0022
Delivery Order No. W912DR18F0492

Prepared For:

U.S. ARMY CORPS OF ENGINEERS
BALTIMORE DISTRICT
Baltimore, MD

and

RADFORD ARMY AMMUNITION PLANT
Radford, VA

Prepared By:

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FEBRUARY 2023

W.O. 03886.552.500.2250

TABLE OF CONTENTS

Section **Page**

1. INTRODUCTION 1-1
1.1 SITE DESCRIPTION AND BACKGROUND 1-2
2. PHYSICAL CHARACTERISTICS 2-1
2.1 TOPOGRAPHY 2-1
2.2 SURFACE WATER 2-1
2.3 GEOLOGY 2-1
2.3.1 Regional Geology 2-1
2.3.2 Site-Specific Geology 2-1
2.4 HYDROGEOLOGY 2-2
2.4.1 Regional Hydrogeology 2-2
2.4.2 Site-Specific Hydrogeology 2-3
3. PREVIOUS INVESTIGATIONS 3-1
4. FIELD ACTIVITIES 4-1
4.1 TWENTY-FIFTH GROUNDWATER SAMPLING 4-1
4.1.1 Groundwater Elevation Measurements 4-1
4.1.2 Groundwater Sampling 4-2
4.1.3 Quality Control Samples 4-3
4.2 TWENTY-SIXTH SEMIANNUAL GROUNDWATER SAMPLING 4-4
4.2.1 Groundwater Elevation Measurements 4-4
4.2.2 Groundwater Sampling 4-4
4.2.3 Quality Control Samples 4-5
5. CHEMICAL ANALYTICAL RESULTS 5-1
5.1 SELECTION OF COMPARISON CRITERIA 5-1
5.2 TWENTY-FIFTH SEMIANNUAL GROUNDWATER RESULTS 5-1
5.3 TWENTY-SIXTH SEMIANNUAL GROUNDWATER RESULTS 5-3
5.4 YEAR SEVEN SAMPLE RESULTS 5-5
5.4.1 Carbon Tetrachloride 5-5
5.4.2 Trichloroethene 5-6
5.5 LABORATORY ANALYSIS, DATA VALIDATION, AND REPORTING 5-6
5.5.1 Precision 5-7
5.5.2 Accuracy 5-8
5.5.3 Representativeness 5-9
5.5.4 Comparability 5-9
5.5.5 Completeness 5-9
5.5.6 Sensitivity 5-9
5.5.7 Data Usability Summary 5-10

TABLE OF CONTENTS (CONTINUED)

Section **Page**

6. MNA EVALUATION OF SWMU 49 6-1
6.1 FIRST LINE OF EVIDENCE: OCCURRENCE OF CONTAMINANTS 6-2
6.1.1 Carbon Tetrachloride 6-2
6.1.2 Trichloroethene 6-2
6.1.3 Statistical Trends 6-2
6.2 SECOND LINE OF EVIDENCE: GEOCHEMICAL CONDITIONS 6-3
6.2.1 Dissolved Oxygen 6-4
6.2.2 Oxidation-Reduction Potential 6-4
6.2.3 pH 6-4
6.2.4 Nitrate 6-4
6.2.5 Ferrous Iron 6-5
6.2.6 Sulfate 6-5
6.2.7 Total Organic Carbon 6-5
6.2.8 Specific Conductivity 6-6
7. SUMMARY AND CONCLUSIONS 7-1
8. REFERENCES 8-1

LIST OF TABLES

Title **Page**

Table 1-1 SWMUs 48 and 49 Groundwater Remedial Goals 1-3
Table 3-1 COCs Detected in SWMUs 48 and 49 Groundwater Samples – 1996 RFI 3-3
Table 3-2 COCs Detected in SWMU 49 Groundwater Samples – 1998 RFI 3-3
Table 3-3 COCs Detected in SWMU 49 Groundwater Samples – 2006 Groundwater Data Report 3-4
Table 3-4 COCs Detected in SWMU 49 Study Area Groundwater Samples – 2007 RFI ... 3-4
Table 3-5 VOCs Detected in SWMU 49 Study Area Groundwater Samples – 2013 Supplemental RFI 3-5
Table 3-6 Analytes Detected in Baseline Monitoring 3-6
Table 4-1 SWMU 49 Year Seven Semiannual Monitoring Analytical Suite 4-6
Table 4-2 SWMU 49 Twenty-Fifth Semiannual Groundwater Elevations 4-7
Table 4-3 SWMU 49 Twenty-Fifth Semiannual Water Quality Parameters 4-8
Table 4-4 SWMU 49 Twenty-Sixth Semiannual Groundwater Elevations 4-9
Table 4-5 SWMU 49 Twenty-Sixth Semiannual Water Quality Parameters 4-10
Table 5-1 SWMU 49 Summary of Detected Constituents in Twenty-Fifth Semiannual Groundwater Samples 5-12
Table 5-2 SWMU 49 Detected Analytes in Twenty-Fifth Semiannual Event Groundwater Samples 5-13
Table 5-3 SWMU 49 Summary of Detected Constituents in Twenty-Sixth Semiannual Groundwater Samples 5-15
Table 5-4 SWMU 49 Detected Analytes in Twenty-Sixth Semiannual Groundwater Samples 5-16
Table 5-5 Summary of Samples and Analyses 5-19
Table 5-6 Analytical Methods 5-19
Table 5-7 Typical Data Qualifiers 5-20
Table 5-8 Holding Time Exceedances 5-20
Table 5-9 Field Duplicate Precision Exceedances 5-20
Table 5-10 MS/MSD RPD Exceedances 5-21
Table 5-11 LCS Recovery Exceedances 5-21
Table 5-12 MS/MSD Recovery Exceedances 5-21
Table 5-13 Serial Dilution 5-22

LIST OF TABLES (CONTINUED)

Title **Page**

Table 5-14 Calibration Exceedances 5-22
Table 5-15 Blank Flags 5-22
Table 6-1 SWMU 49 CT and TCE Semiannual Concentrations 6-8

LIST OF FIGURES

Title **Page**

Figure 1-1 SWMU 49 Site Location Map 1-4
Figure 2-1 SWMU 49 Cross Section 2-4
Figure 2-2 SWMU 49 Cross-Section A-A' 2-5
Figure 2-3 SWMU 49 Cross-Section B-B' 2-6
Figure 2-4 SWMU 49 January 2015 Potentiometric Surface Map 2-7
Figure 4-1 SWMU 49 Monitoring Well Sample Locations 4-11
Figure 4-2 SWMU 49 October 2021 Groundwater Contour Map 4-12
Figure 4-3 SWMU 49 April 2022 Groundwater Contour Map 4-13
Figure 5-1 SWMU 49 October 2021 Carbon Tetrachloride Isopleths 5-23
Figure 5-2 SWMU 49 October 2021 Trichloroethene Isopleths 5-24
Figure 5-3 SWMU 49 April 2022 Carbon Tetrachloride Isopleths 5-25
Figure 5-4 SWMU 49 April 2022 Trichloroethene Isopleths 5-26
Figure 5-5 SWMU 49 Twenty-Fifth Event CT and TCE Concentrations 5-27
Figure 5-6 SWMU 49 Twenty-Sixth Event CT and TCE Concentrations 5-28
Figure 5-7 SWMU 49 CT Concentration Trends 5-29
Figure 5-8 SWMU 49 TCE Concentration Trends 5-30
Figure 6-1 SWMU 49 Twenty-Fifth Event CT to Chloroform Correlation 6-9
Figure 6-2 SWMU 49 Twenty-Fifth Event TCE to cis-1,2-DCE Correlation 6-10
Figure 6-3 SWMU 49 Twenty-Sixth Event CT to Chloroform Correlation 6-11
Figure 6-4 SWMU 49 Twenty-Sixth Event TCE to cis-1,2-DCE Correlation 6-12
Figure 6-5 CT and Chloroform Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3 6-13
Figure 6-6 TCE and cis-1,2-DCE Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3 6-14
Figure 6-7 48MW2 MNA Indicators Years One, Two, Three, Four, Five, Six, and Seven 6-15
Figure 6-8 48MW3 MNA Indicators Years One, Two, Three, Four, Five, Six, and Seven 6-16
Figure 6-9 Water Quality Parameters 48MW2 and 48MW3 Years One, Two, Three, Four, Five, Six, and Seven 6-17

LIST OF APPENDICES

Appendix A-1 Field Sampling Logs

Appendix A-2 Calibration Forms

Appendix B-1 Laboratory Analytical Reports

Appendix B-2 Data Validation Reports

Appendix C Mann-Kendall Analysis

ACRONYMS AND ABBREVIATIONS

>	greater than
≥	greater than or equal to
°C	degrees Celsius
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter
1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
amsl	above mean sea level
bgs	below ground surface
BTOC	below top of casing
CB&I	CB&I Federal Services LLC
CCV	continuing calibration verification
CD	compact disk
cis-1,2-DCE	cis-1,2-dichloroethene
CMO	corrective measures objective
CoC	chain-of-custody
COC	contaminant of concern
COD	chemical oxygen demand
CT	carbon tetrachloride
DO	dissolved oxygen
DoD	U.S. Department of Defense
DTW	depth to water
ELAP	Environmental Laboratory Accreditation Program
Esri	Environmental Systems Research Institute
FD	field duplicate
Fe	iron
Fe^{2+}	ferrous iron
ft	feet/foot
GW	groundwater
HHRA	human health risk assessment
IC	initial calibration
ICV	initial calibration verification
ID	identification
IDW	investigation-derived waste
IT	IT Corporation
ITRC	Interstate Technology and Regulatory Council
Lab Q	laboratory data qualifiers
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
LOD	limit of detection
LOQ	limit of quantitation
LTM	long-term monitoring

ACRONYMS AND ABBREVIATIONS (CONTINUED)

MCL	maximum contaminant level
MDL	method detection limit
mg/L	milligrams per liter
Mn	manganese
MNA	monitored natural attenuation
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
mV	millivolt
MWP	Master Work Plan
NA	not applicable
ND	not detected/non-detect
No.	Number
NT	not tested
NTU	nephelometric turbidity unit
ORP	oxidation-reduction potential
Parsons	Parsons Engineering Science, Inc.
PDS	post-digestion spike
pH	corrosivity/hydrogen ion concentration
PID	photoionization detector
POC	point of compliance
ppm	parts per million
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFAAP	Radford Army Ammunition Plant
RFI	RCRA Facility Investigation
RG	remedial goal
RL	reporting limit
RPD	relative percent difference
RSL	regional screening level
SU	standard unit
SWMU	Solid Waste Management Unit
TCE	trichloroethene
TCL	target compound list
TOC	total organic carbon
U.S.	United States
URS	URS Corporation
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency

ACRONYMS AND ABBREVIATIONS (CONTINUED)

Val Q	validation data qualifiers
Validata	Validata Chemical Services, Inc.
VDEQ	Virginia Department of Environmental Quality
VI	verification investigation
VOC	volatile organic compound
WESTON®	Weston Solutions, Inc.
YSI	Yellow Springs Instrument

1. INTRODUCTION

Weston Solutions, Inc. (WESTON®) has been contracted by the United States (U.S.) Army Corps of Engineers (USACE), Baltimore District, to perform long-term monitoring (LTM) and monitored natural attenuation (MNA) at Solid Waste Management Unit (SWMU) 49 (RAAP-013), Propellant Burning Ash Disposal Area, at Radford Army Ammunition Plant (RFAAP), Radford, VA. This report provides a description of the groundwater sampling activities completed and an analysis of results from the twenty-fifth and twenty-sixth semiannual rounds conducted in 2021 (October) and 2022 (April). Further, this report provides a summary of the Year Seven sampling, consisting of those two sampling events.

This work was performed under Contract Number (No.) W912DR-15-D-0022, Delivery Order No. W912DR18F0492, in accordance with the *Final Master Work Plan, Quality Assurance Plan, Health and Safety Plan* (RFAAP Final MWP) (URS Corporation [URS], 2003) and with Part II (D)(11-21) Interim Measures of the RFAAP Resource Conservation and Recovery Act (RCRA) Corrective Action Permit (U.S. Environmental Protection Agency [USEPA], 2000). Based on the consistency of the data and the fact that quarterly monitoring had been conducted for a full 6 years, groundwater monitoring starting with Year Seven was reduced to a semiannual basis at the 15 monitoring well locations. The Virginia Department of Environmental Quality (VDEQ) approved this recommendation, which was presented in the Year Five report. In October 2021, VDEQ concurred with RFAAP's Class 1 Modification request for the permit, which recommended removal of references to the sampling frequency specified in the Monitored Natural Attenuation Groundwater Monitoring Plan for SWMU 49 contained in Attachment C of the permit.

Groundwater at the SWMU 49 study area has been investigated from the mid-1990s through 2020 and has been fully characterized and delineated. Based on the contamination assessment and human health risk assessment (HHRA) performed and presented in the Draft *SWMU 48/49 RCRA Facility Investigation Report* (Draft SWMU 48/49 RFI Report) (CB&I Federal Services LLC [CB&I], 2014a), carbon tetrachloride (CT) and trichloroethene (TCE) were identified as the primary contaminants of concern (COCs). Note that SWMU 49 used to be a combined study area with SWMU 48; however, previous investigations and sample data have determined that suspected contaminants reportedly disposed of at SWMU 48 were, in fact, likely disposed at SWMU 49.

Therefore, this report concerns only contamination associated with SWMU 49. CT and TCE were identified as the COCs that are contributing to potential future industrial and residential risk at the study area. Based on the MNA results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015), MNA processes, including biodegradation, sorption, dilution, dispersion, and chemical stabilization, are occurring in groundwater at the SWMU 49 study area.

The Year Seven MNA sampling program was developed and conducted in accordance with the USEPA- and VDEQ-approved Draft SWMU 48/49 RFI Report (CB&I, 2014a) and the Draft Final SWMU 49 MNA Groundwater Monitoring Work Plan (CB&I, 2014b). The corrective measures objectives (CMOs) and remedial goals (RGs) were developed and presented in the Draft SWMU 48/49 RFI Report (CB&I, 2014a). The site-specific CMO for SWMU 49 is to reduce COC (i.e., CT and TCE) concentrations to below the RGs/maximum contaminant levels (MCLs) to avoid adversely impacting future beneficial use of groundwater and, to the extent practicable, to achieve the goal of restoring site groundwater to the most beneficial use.

The objectives of the MNA program are as follows:

- To measure and track the reduction of CT and TCE to levels below the RGs as defined in **Table 1-1**.
- To monitor and evaluate the daughter products of the COCs to determine the progress (effectiveness and timeliness) of the degradation process.

1.1 SITE DESCRIPTION AND BACKGROUND

SWMU 49 is located in the southeastern portion of the RFAAP Horseshoe Area, east of the main bridge over the New River. As shown in **Figure 1-1**, the study area is situated on a bluff approximately 120 feet (ft) above and overlooking SWMU 13 and the New River. The SWMU 49 study area is approximately 75 ft long by 83 ft wide and is situated adjacent to SWMUs 48, 50, and 59. Previously, SWMU 49 was combined with these three adjacent areas.

As presented in previous reports (CB&I, 2014a and 2014b), SWMU 49 reportedly received 10 tons of red water ash during its active period. However, the results of environmental sampling to date indicate that the red water ash was likely disposed of in the disposal trenches associated with neighboring SWMU 48. Conversely, sampling indicates that the only wastewater associated with SWMU 48 was disposed of in the SWMU 49 area.

Table 1-1 SWMUs 48 and 49 Groundwater Remedial Goals

Chemical of Interest	Groundwater RG (µg/L)	Groundwater RG Source*[1]
Carbon Tetrachloride	5.0	MCL
Trichloroethene	5.0	MCL

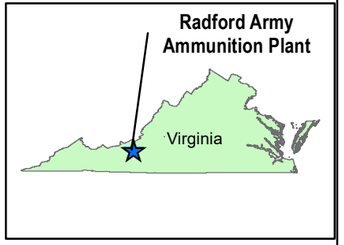
Notes:
* RGs are also the MCLs listed in the USEPA *2018 Edition of the Drinking Water Standards and Health Advisories Tables* (USEPA, 2018).

[1] RGs developed and presented in Draft SWMU 48/49 RFI Report (CB&I, 2014a).

µg/L = micrograms per liter
MCL = maximum contaminant level
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
RG = remedial goal
USEPA = U.S. Environmental Protection Agency

Legend

- SWMU 49 Boundary
- Other SWMU Boundary



Aerial Source:
ESRI Imagery Mapping Service, 2019

N

0 150 300 600 Feet

Prepared By:

Baltimore District

FIGURE 1-1
SWMU 49 SITE LOCATION MAP
RADFORD, VIRGINIA

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2. PHYSICAL CHARACTERISTICS

2.1 TOPOGRAPHY

The land surface at SWMU 49 slopes gently from 1,830 ft above mean sea level (amsl) on the north side of the site to approximately 1,816 ft amsl on the southeast side of the site. The southeast side ends abruptly at a bluff that rises approximately 120 ft above the Burning Grounds (SWMU 13) and the New River. In general, the topography is uneven and hummocky with several small draws and topographic highs.

2.2 SURFACE WATER

SWMU 49 is located on a bluff approximately 120 ft above the New River. Based on topography, surface water runoff is expected to flow approximately 700 ft south to the New River.

2.3 GEOLOGY

2.3.1 Regional Geology

SWMU 49 is located in the New River Valley, which crosses the Valley and Ridge Province approximately perpendicular to the regional strike of bedrock, and cross cuts Cambrian and Ordovician limestone or dolostone. Deep clay-rich residuum is prevalent in areas underlain by carbonate rocks. The valley is covered by river floodplain and terrace deposits; karst topography is dominant throughout the area. A more detailed description of the regional geology is presented in the RFAAP Final MWP (URS, 2003).

2.3.2 Site-Specific Geology

The lithology of the SWMU 49 subsurface was characterized during the advancement of soil borings and monitoring well borings at the site. One soil boring (48SB05) was advanced within SWMU 49 to 37 ft in depth. In addition to soil boring 48SB05, two monitoring wells were installed directly north and south of the target study area: 48MW1 and 48MW2, respectively. Plan views of lines A-A' and B-B' that run through the adjacent sites of SWMU 48, SWMU 50, and SWMU 59 are presented in **Figure 2-1**, with geologic cross sections of A-A' and B-B' presented in **Figures 2-2** and **2-3**, respectively. Based on the borings, the subsurface geology consists of alluvium and residual deposits comprising clay and silt with some sand and gravel overlying

bedrock. Monitoring well 48MW1 was advanced to 154 ft below ground surface (bgs), with the bedrock elevation encountered at 72 ft bgs. Monitoring well 48MW2 was advanced to 133.7 ft bgs, with the bedrock elevation encountered at approximately 41 ft bgs. Depths to bedrock were directly measured at the monitoring well borings. Bedrock elevations ranged from approximately 1,745 to 1,776 ft amsl, with the bedrock surface sloping to the north.

Depth to competent bedrock at the site ranges from approximately 41 to 72 ft bgs. A saprolitic layer, formed from in situ weathering of the carbonate bedrock, immediately overlies the competent bedrock. The saprolite is up to 10 ft in thickness.

Bedrock consists of highly fractured interbedded siltstone, limestone, and dolostone of the Elbrook Formation. The Max Meadows Breccia is evident in outcrops along the slope leading to the river. In the outcrop along the slope, the tectonic breccias and the limestone and dolostone are highly weathered with many solution cavities. The unconsolidated sediment immediately overlying the saprolite consists of alluvial deposits.

Alluvial deposits, consisting primarily of silty sand, overlie channel deposits of fine- to coarse-grained sand and gravel (river jack). These Paleo-channel deposits rest directly on the saprolite. Portions of the disposal areas contain fill material to depths of 9 to 10 ft bgs. A more detailed discussion of the geology and soil at RFAAP is presented in Sections 3.4 through 3.7 of the RFAAP Final MWP (URS, 2003) and in the *Facility-Wide Background Study* (IT Corporation [IT], 2001).

2.4 HYDROGEOLOGY

2.4.1 Regional Hydrogeology

Geologically, the Appalachian Plateaus and Valley and Ridge Province encompass two major tectonic domains: the southern Appalachian Basin and the southeastern part of the Eastern Interior Basin. The hydrogeologic framework is based on generalized stratigraphic succession, with indurated sedimentary rocks of the Paleozoic age forming predominant units.

Groundwater flow paths are typically short, commonly extending no more than several miles in their longest dimension. The largest groundwater supplies are produced from the carbonate rocks, especially where they are associated with thick regolith, an important storage reservoir throughout

the entire area. The regolith serves as a store of recharge that would otherwise be rapidly diverted to overland flow. It also slowly releases water to underlying carbonate aquifers. Because of the widespread distribution of carbonate rocks and associated regolith, abundant precipitation in a humid climate, and relatively steep hydraulic gradients, this region (and locality) is one of the major karstlands in the eastern United States.

Groundwater supplies in the Valley and Ridge Province are generally good quality compared to surface water supplies (Parsons Engineering Science, Inc. [Parsons], 1996). Because of extended contact with minerals, however, many groundwater supplies contain higher levels of dissolved solids than the streams into which they discharge. Because of sinkholes and underground caverns in karst aquifers, there is a high potential for groundwater to be impacted by direct infiltration of contaminated surface water.

2.4.2 Site-Specific Hydrogeology

Monitoring wells installed at SWMU 49 were screened in both the surficial unconsolidated deposits and the underlying bedrock. Boring logs and well construction diagrams for the SWMU 49 study area wells are presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). Water levels were measured in the wells to determine the groundwater flow direction at the site. A groundwater contour map prepared from the baseline MNA monitoring completed in January 2015 is provided in **Figure 2-4**. A steep bluff separates SWMU 49 and SWMU 13; therefore, no monitoring wells are positioned between these sites. Contour lines shown in the figure represent lines of equal elevation of the water table; consequently, groundwater flow direction is always perpendicular to the contour lines and feeds into the New River, which generally runs a south-to-north course, but west-to-east at this location. Groundwater at the site tends to flow south toward SWMU 13 and appears to discharge to the New River, south of the study area. Groundwater elevations at SWMU 49 vary minimally from each of the four sampling quarters, suggesting little seasonal impact on groundwater elevations. Based on the Year Seven groundwater elevations recorded, the flow direction did not change appreciably from semiannual event to semiannual event (see discussion in Sections 4.1.1 and 4.2.1).

Legend

- Well
- Cross Section
- SWMU 49 Boundary

Aerial Source:
Near Map Imagery, February 2020

N

0 55 110 220 Feet

Prepared By:

Baltimore District

FIGURE 2-1
SWMU 49
CROSS SECTION
RADFORD, VIRGINIA

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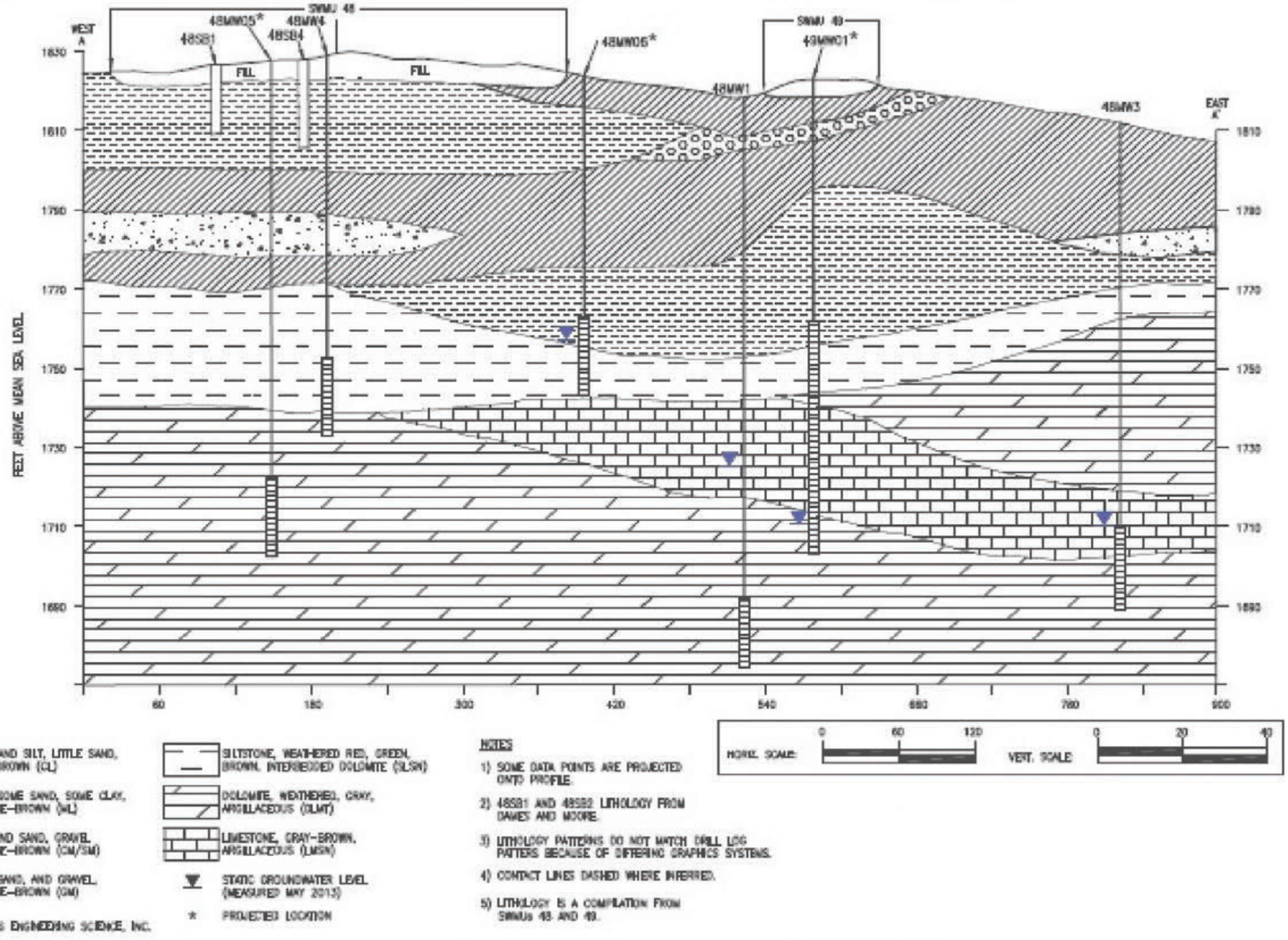


Legend

Aerial Source:
Near Map Imagery, February 2020

N

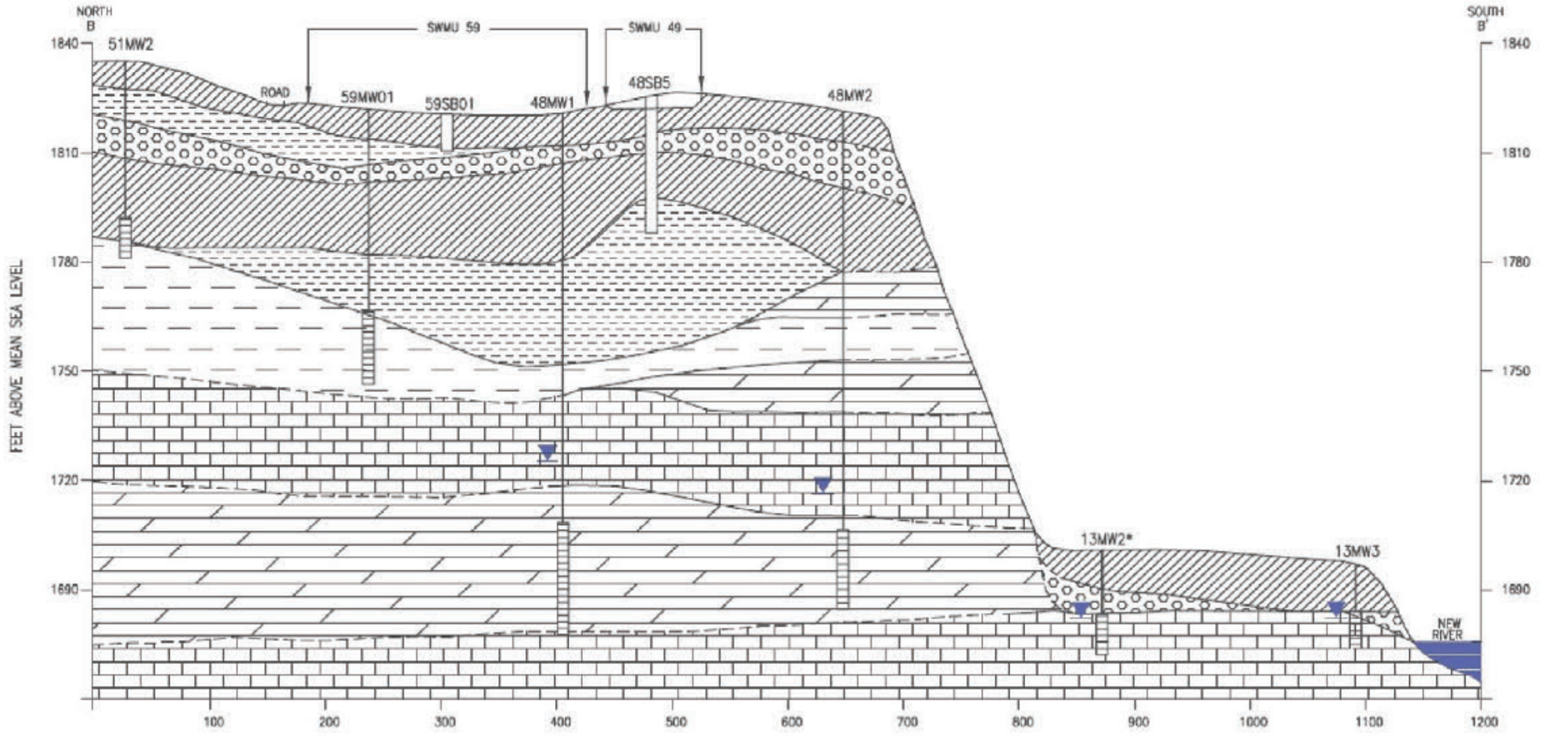
Prepared By:

Baltimore District

FIGURE 2-2
SWMU 49
CROSS SECTION A-A'
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Cross_Section_A_A_Template.mxd, 10/29/2020 9:50:34 AM, johna

20P-0251



HORIZ. SCALE: 0 100 200 VERT. SCALE: 0 30 60

LEGEND

- CLAY AND SILT, LITTLE SAND, RED–BROWN (CL)
- SILT, SOME SAND, SOME CLAY, ORANGE–BROWN (ML)
- SILT AND SAND, GRAVEL ORANGE–BROWN (CM/SM)
- SILT, SAND, AND GRAVEL, ORANGE–BROWN (GM)
- SILTSTONE, WEATHERED RED, GREEN, BROWN, INTERBEDDED DOLOMITE (SLSN)
- DOLOMITE, WEATHERED, GRAY, ARGILLACEOUS (DLMT)
- LIMESTONE, GRAY–BROWN, ARGILLACEOUS (LMSN)
- STATIC GROUNDWATER LEVEL (MEASURED MAY 2013)

NOTES

1) SOME DATA POINTS ARE PROJECTED ONTO PROFILE.
2) 51MW2 AND 13MW2 LITHOLOGY FROM DAMES AND MOORE.
3) LITHOLOGY PATTERNS DO NOT MATCH DRILL LOG PATTERNS BECAUSE OF DIFFERING GRAPHICS SYSTEMS.
4) CONTACT LINES DASHED WHERE INFERRED.
5) ADDITIONAL WELLS SHOWN TO AID IN CROSS–SECTION ACCURACY.

SOURCE: PARSONS ENGINEERING SCIENCE, INC.

Legend

Aerial Source:
Near Map Imagery, February 2020

N

Prepared By:
Baltimore District

FIGURE 2-3
SWMU 49
CROSS SECTION B-B
RADFORD, VIRGINIA

WESTON SOLUTIONS

BSEn
BERING SEA ENVIRONMENTAL LLC

51MW1
51MW2
48MW7
1780
48MW4
1770
1760
59MW1
48MW5
1750
48MW6
1720
1730
48MW1
49MW3
1740
49MW1
SWMU 49
1710
50MW1
48MW3
49MW2
48MW2
1700
50MW2
1690
49MW5
49MW4
13MW2
13MW5
1680
13MW4
13MW3
NEW RIVER

Legend

- Well
- Groundwater Contour
- SWMU 49 Boundary
- Groundwater Flow Direction

Aerial Source:
Near Map Imagery, February 2020

N

0 55 110 220
Feet

Prepared By:

Baltimore District

FIGURE 2-4
SWMU 49 JANUARY 2015
POTENTIOMETRIC SURFACE MAP
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Potentiometric_Surface_Map_Jan2015.mxd, 11/22/2020 3:47:42 PM, johna

3. PREVIOUS INVESTIGATIONS

Seven prior investigations have been conducted at the previously combined study area including SWMUs 48 and 49. In 1987, a RCRA Facility Assessment was conducted to evaluate potentially hazardous waste or hazardous constituent releases and to implement corrective actions, as necessary (U.S. Army Toxic and Hazardous Materials Agency, 1987). In 1992, Dames and Moore performed a verification investigation (VI), which included surface and subsurface soil sampling and a soil gas survey to characterize the nature and extent of contamination (Dames and Moore, 1992). In 1996, Parsons conducted a RCRA Facility Investigation (RFI) to further delineate the extent of contamination identified during the 1992 VI sampling (Parsons, 1996). ICF Kaiser Engineers also performed an RFI in 1999 to further refine the understanding of the nature and extent of contamination identified during the previous investigations (ICF Kaiser, 1999). Additional RFI sampling was conducted by IT/Shaw Environmental, Inc. in 2002, 2006, 2007, and 2013 to collect sufficient data to complete HHRAs and ecological risk assessments (CB&I, 2014a).

In 2014, USEPA and VDEQ approved the Draft SWMU 48/49 RFI Report (CB&I, 2014a), which developed the CMOs and RGs for the MNA program. Direct-push soil borings and the installation and sampling of new and existing monitoring wells were used to characterize the nature and extent of constituents in soil and groundwater at the SWMU 48/49 combined study area, to identify the lateral and vertical extent of impacted soil and chlorinated solvents in groundwater, and to characterize soil lithology and depth to groundwater and bedrock. Details of these investigations are described in Section 3.0 (Field Investigation Program) of the approved Draft SWMU 48/49 RFI Report (CB&I, 2014a). Historical data presenting the SWMU 49 volatile organic compound (VOC) concentrations for CT and TCE in the study area wells can be found in **Tables 3-1** through **3-5**.

WESTON has performed the LTM and MNA at SWMU 49 since October 2019 through the present, including the seventeenth through twentieth quarterly sampling rounds for Year Five of sampling at RFAAP, twenty-first through twenty-fourth quarterly sampling rounds for Year Six of sampling at RFAAP, and twenty-fifth and twenty-sixth semiannual sampling rounds for Year Seven of sampling at RFAAP. The nature and extent assessment identified several VOCs and metals in groundwater as elevated and contributing to potential future risks. Two of the VOCs

associated with potential future industrial and residential risk in the HHRA (CT and TCE) were present above USEPA's MCLs (USEPA, 2018) during the multiple groundwater sampling events at the study area. A comparison of concentrations from the mid-1990s to 2019 indicates that the majority of the VOCs are no longer present in these sampled areas and have broken down through natural processes. Analysis of the groundwater data during this roughly 20-year period shows that concentrations of the CT and TCE plume have changed as follows: (1) decreased overall, (2) decreased to 1 microgram per liter (µg/L) surrounding the center of the plume, and (3) decreased at least by one-half in the center of the plume. The presence of daughter products (i.e., chloroform and cis-1,2-dichloroethene [cis-1,2-DCE]) in groundwater at the study area indicates that limited biological degradation of the chlorinated solvents is occurring.

The HHRA determined that CT and TCE are the primary COCs in groundwater that are contributing potential future industrial and residential risk at the SWMU 49 study area. Because the RFI demonstrated that groundwater contamination is present at concentrations associated with unacceptable human health concerns, CMOs and RGs were developed to address the concerns.

The site-specific CMOs for SWMU 49 are: to reduce COC concentrations to below RGs/MCLs to avoid adversely impacting future beneficial use of groundwater, and, to the extent practicable, to achieve a goal of restoring site groundwater to the most beneficial use. The SWMU 49 groundwater COCs have been identified as CT and TCE. The groundwater RGs (presented in **Table 1-1** of this report) will be used to compare results from groundwater monitoring wells to assess the progress of the MNA.

Table 3-6 provides the analytical results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015). In the initial 2012 sampling, the highest concentrations of CT and TCE were observed in monitoring wells 48MW2 and 48MW3. The plumes are small, appear to be isolated, and have not changed in dimension since 2013. Recommendations provided in the SWMU 49 MNA Sampling Baseline Report called for further monitoring of CT, TCE, and daughter products of these VOCs within the SWMU. The rationale of continued monitoring is to evaluate the effectiveness of the MNA processes.

Table 3-1 COCs Detected in SWMUs 48 and 49 Groundwater Samples – 1996 RFI

Analyte	Sample ID Sample Date	48MW1 1/20/95		48MW1 7/20/95		48MW2 1/19/95		48MW2 7/19/95		48MW3 1/20/95		48MW3 7/21/95		48MW4 7/27/95	
	RG	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q	Result	Lab Q
VOCs (µg/L)															
Carbon Tetrachloride	5	NT		1	U	NT		92		NT		100		1	U
Trichloroethene	5	NT		17		NT		11		NT		37		1	U

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
NT = analyte not tested
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
U = Analyte not detected at the method reporting limit.

Table 3-2 COCs Detected in SWMU 49 Groundwater Samples – 1998 RFI

Analyte	Sample ID Sample Date	48MW1-2 4/8/98					48MW2-2 4/2/98					48MW3-2 4/2/98					48MW4-2 4/8/98				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	5	U	U	5	5	140			5	5	180			5	5	5	U	U	5	5
Trichloroethene	5	8 J			5	5	18 J			5	5	33 J			5	5	5	U	U	5	5

Notes:

Bold outline indicates an RG exceedance.
Shading in the MDL/MRL columns indicates the MDL/MRL is equal to or exceeds a criterion.
-2 = Sample code signifies the second round of sampling conducted at these four wells. Original samples were collected during the 1999 RFI performed by ICF Kaiser.
µg/L = micrograms per liter (parts per billion)
ID = identification
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
J = Value less than MRL and greater than MDL and is considered estimated.
U = Analyte not detected at the method reporting limit.

Val Q = validation data qualifiers
J = Estimated concentration.
U = Analyte not detected.

Table 3-3 COCs Detected in SWMU 49 Groundwater Samples – 2006 Groundwater Data Report

Analyte	Sample ID Sample Date	48MW1 4/13/06					48MW2 4/13/06					48MW3 4/13/06					48MW4 4/11/06				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																					
Carbon Tetrachloride	5	1	U		0.5	1	29.2			0.5	1	51.2			0.5	1	1	U		0.5	1
Trichloroethene	5	5.5			0.5	1	3			0.5	1	7.4			0.5	1	1	U		0.5	1

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
Lab Q = laboratory data qualifiers
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
U = Analyte not detected at the method reporting limit.
VOC = volatile organic compound
Val Q = validation data qualifiers

Table 3-4 COCs Detected in SWMU 49 Study Area Groundwater Samples – 2007 RFI

Analyte	Sample ID Sample Date	48MW1 8/29/07					48MW2 8/29/07					48MW3 8/29/07					48MW4 8/29/07					48MW05 8/30/07					48MW06 8/30/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																														
Carbon Tetrachloride	5	1	U		0.29	1	94.6			0.29	1	60.3			0.29	1	1	U		0.29	1	1	U		0.29	1	1	U		0.29	1
Trichloroethene	5	1.6			0.38	1	11.2			0.38	1	10.1			0.38	1	1	U		0.38	1	1	U		0.38	1	3.7			0.38	1

Analyte	Sample ID Sample Date	48MW07 8/30/07					49MW01 8/29/07					50MW01 8/30/07					50MW02 8/30/07					59MW01 8/29/07				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																										
Carbon Tetrachloride	5	1	U		0.29	1	3.8			0.29	1	1	U		0.29	1	2.7			0.29	1	1	U		0.29	1
Trichloroethene	5	1	U		0.38	1	1	U		0.38	1	1	U		0.38	1	3.4			0.38	1	1	U		0.38	1

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
Lab Q = laboratory data qualifiers
MDL = method detection limit
MRL = method reporting limit
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
U = Analyte not detected at the method reporting limit.
VOC = volatile organic compound
Val Q = validation data qualifiers

Table 3-5 VOCs Detected in SWMU 49 Study Area Groundwater Samples – 2013 Supplemental RFI

Analyte	Sample ID Sample Date	13MW2 5/6/13					13MW3 5/6/13					13MW4 5/6/13					13MW5 5/6/13					48MW1 5/8/13					48MW2 5/9/13					48MW3 5/9/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.432	J	J	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2
1,1-Dichloroethane	NA	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	1.03			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2
1,1-Dichloroethene	NA	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	5.63			0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	0.5	U		0.248	0.5	82.7			0.248	0.5	73.1			0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.453	J	J	0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2	5.97			0.155	0.2	7.89			0.155	0.2
cis-1,2-Dichloroethene	NA	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.817	J	J	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	2.1			0.122	0.2	1.18			0.122	0.2	0.291	J	J	0.122	0.2
Trichloroethene	5	0.2	U		0.161	0.2	1.08			0.161	0.2	1.08			0.161	0.2	0.2	U		0.161	0.2	1.9			0.161	0.2	9.75			0.161	0.2	10.7			0.161	0.2

Analyte	Sample ID Sample Date	48MW06 5/7/13					49MW01 5/8/13					49MW02 5/9/13					49MW03 5/7/13					49MW04 5/6/13					49MW05 5/6/13					50MW02 5/8/13				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	1.66			0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.2	U	UL	0.123	0.2	0.2	U		0.123	0.2	0.2	U		0.123	0.2	0.251	J	J	0.123	0.2
1,1-Dichloroethane	NA	5.86			0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.2	U	UL	0.171	0.2	0.2	U		0.171	0.2	0.2	U		0.171	0.2	0.344	J	J	0.171	0.2
1,1-Dichloroethene	NA	0.301	J	J	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U	UL	0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5	0.5	U		0.2	0.5
Acetone	NA	1	U		0.193	1	1	U		0.193	1	2.41	J	B	0.193	1	1	U	UL	0.193	1	1	U		0.193	1	1	U		0.193	1	1	U		0.193	1
Carbon Tetrachloride	5	0.5	U		0.248	0.5	4.61			0.248	0.5	5.36			0.248	0.5	0.5	U	UL	0.248	0.5	0.664	J	J	0.248	0.5	0.5	U		0.248	0.5	0.919	J	J	0.248	0.5
Chloroform	NA	0.2	U		0.155	0.2	0.193	J	J	0.155	0.2	7.79			0.155	0.2	0.2	U	UL	0.155	0.2	1.25			0.155	0.2	0.2	U		0.155	0.2	0.2	U		0.155	0.2
cis-1,2-Dichloroethene	NA	9.21			0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.2	U	UL	0.103	0.2	0.2	U		0.103	0.2	0.2	U		0.103	0.2	0.373	J	J	0.103	0.2
Methylene Chloride	NA	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	2.3	J	L	0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5	0.5	U		0.149	0.5
Tetrachloroethene	NA	0.801	J	J	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.5	U	UL	0.193	0.5	0.5	U		0.193	0.5	0.5	U		0.193	0.5	0.255	J	J	0.193	0.5
Toluene	NA	0.2	U		0.122	0.2	0.765	J	J	0.122	0.2	1.52			0.122	0.2	0.2	U	UL	0.122	0.2	0.2	U		0.122	0.2	0.2	U		0.122	0.2	0.726	J	J	0.122	0.2
Trichloroethene	5	6.25			0.161	0.2	0.2	U		0.161	0.2	0.934	J	J	0.161	0.2	0.2	U	UL	0.161	0.2	0.2	U		0.161	0.2	0.2	U		0.161	0.2	2.31			0.161	0.2

Notes:

Bold outline indicates an RG exceedance.

µg/L = micrograms per liter (parts per billion)
ID = identification
MDL = method detection limit
MRL = method reporting limit
NA = not applicable
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
J = Value less than MRL and greater than MDL and is considered estimated.
U = Analyte not detected at the method reporting limit.

Val Q = validation data qualifiers
B = Blank contamination. Value detected in sample and associated blank.
J = Estimated concentration.
L = Estimated concentration bias low.
UL = Estimated concentration non-detect bias low.

Table 3-6 Analytes Detected in Baseline Monitoring

Analyte	Sample ID / Sample Date	13MW2 1/26/15					13MW3 1/26/15					13MW4 1/26/15					13MW5 1/26/15					48MW1 1/28/15					48MW2 1/28/15					48MW3 1/27/15					48MW06 1/29/15				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																								
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.454	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.691	DJ	J	0.5	1
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.908	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.28	D		0.5	1
Acetone	NA	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	U		2.5	5	5	XU		2.5	5	27.8	D	B	5	10
Bromoform	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	NU		0.5	1	2	U		1	2
Carbon Tetrachloride	5	0.5	U		0.25	0.5	4.62			0.25	0.5	0.592	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	118	X	J	0.25	0.5	77.4			0.25	0.5	1	XU		0.5	1
Chloroform	NA	0.5	U		0.25	0.5	0.47	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	7.46			0.25	0.5	8.37			0.25	0.5	1	U		0.5	1
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.914	J	J	0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	4.86	D		0.5	1
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	XU		0.25	0.5	1	U		0.5	1
Ethylbenzene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.469	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1
m- & p-Xylene	NA	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	1	U		0.5	1	0.535	J	J	0.5	1	1.32	J	J	0.5	1	0.736	J	J	0.5	1	2	U		1	2
o-Xylene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.285	J	J	0.25	0.5	0.919	J	J	0.25	0.5	0.495	J	J	0.25	0.5	1	U		0.5	1
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	0.709	DJ	J	0.5	1
Trichloroethene	5	0.5	U		0.25	0.5	0.883	J	J	0.25	0.5	0.5	U		0.25	0.5	1.42			0.25	0.5	1.91			0.25	0.5	10.5			0.25	0.5	12.4			0.25	0.5	3.29	D		0.5	1
Miscellaneous (µg/L)																																								
Total Organic Carbon	NA	2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	2500	U		1250	2500	2500	U		1250	2500	1640	J	J	1250	2500
Chloride	NA	2750			170	330	3880			170	330	11500			170	330	NT					3100			170	330	2650			170	330	2220			170	330	9360	D		340	660
Nitrate (as N)	NA	71.5	J	J	33	100	1660			33	100	100	U		33	100	NT					1350			33	100	754			33	100	6400			33	100	5880			33	100
Sulfate	NA	45900			330	1000	126000			330	1000	23800			330	1000	NT					58000			330	1000	16800			330	1000	29800			330	1000	275000	D		660	2000
Methane	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2
Ethene	NA	2	U		1	2	2	U		1	2	2	U		1	2	NT					2	U		1	2	2	U		1	2	2	U		1	2	2	U		1	2

Table 3-6 Analytes Detected in Baseline Monitoring (Continued)

Analyte	Sample ID / Sample Date / RG	48MW07 1/29/15					49MW01 1/28/15					49MW02 1/27/15					49MW03 1/28/15					49MW04 1/26/15					49MW05 1/26/15					50MW02 1/27/15				
	RG	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL	Result	Lab Q	Val Q	MDL	MRL
VOCs (µg/L)																																			
1,1,1-Trichloroethane	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
1,1-Dichloroethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.313	J	J	0.25	0.5
Acetone	NA	5	U		2.5	5	5	U		2.5	5	14	XDJ	B	5	10	5	U		2.5	5	5	U		2.5	5	18.6	DJ	B	5	10	5	XU		2.5	5
Bromoform	NA	0.5	XU		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
Bromomethane	NA	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	1	U		0.5	1
Carbon Tetrachloride	5	0.5	XU		0.25	0.5	4.97	X	J	0.25	0.5	5.05	D		0.5	1	0.5	XU		0.25	0.5	0.662	J	J	0.25	0.5	1	U		0.5	1	1.62			0.25	0.5
Chloroform	NA	0.5	U		0.25	0.5	0.404	J	J	0.25	0.5	1.55	DJ	J	0.5	1	0.5	U		0.25	0.5	1.46			0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
cis-1,2-Dichloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.384	J	J	0.25	0.5
Dibromochloromethane	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	XU		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	XU		0.25	0.5
Ethylbenzene	NA	0.5	U		0.25	0.5	0.262	J	J	0.25	0.5	1.13	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5
m- & p-Xylene	NA	1	U		0.5	1	0.69	J	J	0.5	1	4.06	D		1	2	1	U		0.5	1	1	U		0.5	1	2	U		1	2	0.804	J	J	0.5	1
o-Xylene	NA	0.5	U		0.25	0.5	0.544	J	J	0.25	0.5	2.91	D		0.5	1	0.296	J	J	0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.542	J	J	0.25	0.5
Tetrachloroethene	NA	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	0.311	J	J	0.25	0.5
Trichloroethene	5	0.5	U		0.25	0.5	0.5	U		0.25	0.5	.0501	DJ	J	0.5	1	0.5	U		0.25	0.5	0.5	U		0.25	0.5	1	U		0.5	1	2.08			0.25	0.5
Miscellaneous (µg/L)																																			
Total Organic Carbon	NA	NT					2500	U		1250	2500	2500	U		1250	2500	NT					2500	U		1250	2500	NT					2500	U		1250	2500
Chloride	NA	NT					6030			170	330	3450			170	330	NT					5160			170	330	NT					7270			170	330
Nitrate (as N)	NA	NT					303			33	100	47.6	J	J	33	100	NT					249	J	J	33	100	NT					2060			33	100
Sulfate	NA	NT					1000	U		330	1000	26600			330	1000	NT					53600			330	1000	NT					73200			330	1000
Methane	NA	NT					2	U		1	2	1.54	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2
Ethene	NA	NT					2	U		1	2	1.4	J	J	1	2	NT					2	U		1	2	NT					2	U		1	2

Notes:

Bold outline indicates an RG exceedance.
µg/L = micrograms per liter (parts per billion)
CCV = continuing calibration verification
ICV = initial calibration verification
ID = identification
MDL = method detection limit
MRL = method reporting limit
NA = not applicable
NT = Analyte not tested
RCRA = Resource Conservation and Recovery Act
RFI = RCRA Facility Investigation
RG = remedial goal
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
D = Sample was run at a dilution.
J = Value less than MRL and greater than MDL and is considered estimated.
N = Matrix spike/matrix spike duplicate accuracy and/or precision were outside criteria.
U = Analyte not detected at the method reporting limit.
X = The associated ICV/CCV exceeded the upper control limit.

Val Q = validation data qualifiers
B = Blank contamination. Value detected in sample and associated blank.
J = Estimated concentration.

4. FIELD ACTIVITIES

This section provides a discussion of field activities conducted by WESTON in the Year Seven MNA semiannual monitoring at SWMU 49.

The Year Seven groundwater monitoring consisted of two sampling events conducted in October 2021 (twenty-fifth event) and April 2022 (twenty-sixth event). Fifteen monitoring wells were included in the monitoring well network, 11 of which were sampled on a semiannual basis and 4 on an annual basis in 2022. The Year Seven MNA groundwater monitoring consisted of a synoptic water level measurement and sampling of the 15 point of compliance (POC) monitoring wells for target compound list (TCL) VOCs and dissolved gases (methane, ethane, ethene). In addition, the following indicator parameters were collected: total organic carbon (TOC), dissolved ferrous iron (Fe^{2+}), and the anions chloride, nitrate, and sulfate. Water quality parameters collected during low-flow sampling included corrosivity/hydrogen ion concentration (pH), temperature, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity utilizing a daily calibrated Yellow Springs Instrument (YSI) water quality meter. The list of monitoring wells and sample frequency is provided in **Table 4-1**. Groundwater samples were submitted to a U.S. Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP) accredited laboratory (CT Laboratories, LLC). Field activities were conducted in accordance with the Draft Final SWMU 49 MNA Groundwater Monitoring Work Plan (CB&I, 2014b). Copies of the groundwater sample forms and meter calibration records are presented in **Appendices A-1** and **A-2**, respectively.

4.1 TWENTY-FIFTH GROUNDWATER SAMPLING

Groundwater elevation measurements and samples were collected from 11 POC monitoring wells. The twenty-fifth event of groundwater sampling was conducted 25 through 28 October 2021. Groundwater elevation measurements were collected prior to sampling activities. The locations of monitoring wells sampled during this semiannual event are provided in **Figure 4-1**.

4.1.1 Groundwater Elevation Measurements

Water level elevations were collected during each Year Seven event from the 15 monitoring wells at SWMU 49 prior to the collection of groundwater samples. **Table 4-2** provides the measured

depth-to-water (DTW) levels (from the top of the casing) and groundwater elevations amsl collected on 26 October 2021. **Figure 4-2** presents a groundwater elevation contour map developed from the elevation data collected during this semiannual monitoring event. Groundwater contours were derived using the Environmental Systems Research Institute (Esri) ArcGIS Desktop Spatial Analyst 10.7.1 software and creating a spline interpolated continuous surface based on limited groundwater data collected in the field. The surface model was executed using default values in most cases and was forced to cover an area inclusive of all wells using the extent polygon to define the area of interest. Contour lines were then constructed from the output splined surface at 10-ft and 2-ft intervals, depending on the site, with zero base contour. The results of the automated processing were then reviewed by subject knowledge experts and manually adjusted to accurately represent ground conditions.

4.1.2 Groundwater Sampling

Groundwater samples were collected from 11 of the 15 POC monitoring wells from 26 through 28 October 2021 and analyzed for the analytical suites covering TCL VOCs and the dissolved gases (methane, ethane, and ethene). In addition, the following indicator parameters were collected: TOC, dissolved Fe^{2+}, chloride, nitrate, and sulfate. Water quality parameters collected during low-flow sampling included pH, temperature, specific conductivity, DO, ORP, and turbidity. These parameters are discussed in Section 6.2 regarding the potential for biodegradation in the groundwater at SWMU 49. **Table 4-1** presents the suite of analytes collected for analysis during the twenty-fifth monitoring event.

Groundwater samples were collected by low-flow peristaltic pumps to obtain representative groundwater samples and to minimize investigation-derived waste (IDW) purge water. The following procedures were followed during both semiannual groundwater monitoring events:

1. A photoionization detector (PID) reading was taken upon removing the well cap to determine the presence of potentially hazardous levels of volatile gases. The PID readings were collected during the water elevation sweeps and again during sample collection. All PID readings were within acceptable levels.

2. During the water level sweep, DTW and total depth measurements were recorded to determine the amount of water in the well casing and sand pack. Only approximate total well depths were measured during the semiannual events to confirm that the total depths were consistent with the data from the previous reports.

3. Groundwater samples were collected after all water level elevations had been recorded. The general practice was to lower the peristaltic pump tubing to a depth where the pump tubing inlet was within the screened interval. Ample hydraulic head was maintained above the tubing depth to ensure a sufficient water supply. The pump was connected to a Geocontrol PRO control unit, whereas the discharge tubing was connected to a YSI 556 water quality flow cell.

4. Monitoring wells were pumped at a rate of approximately 200 milliliters per minute. Flow rate was determined by gauging the time it took to fill a 200-milliliter vial. Water quality parameters were recorded continuously including temperature, pH, DO, ORP, turbidity, and specific conductivity. Turbidity was measured using a Hach 2100Q turbidity meter, whereas concentrations of dissolved Fe^{2+} were measured in the field using a Hach DR900 test kit by Method 8146.

5. The groundwater flow rate was maintained during sample collection. Samples were collected, labeled, and packed in ice until shipment to the laboratory. Chain-of-custody (CoC) forms were filled out and shipped with the samples. Copies of the CoC forms are provided in **Appendix B-1**, along with the raw analytical data packages.

Table 4-3 presents a summary of the final (stabilized) water quality readings for each well from the twenty-fifth event. Based on the twenty-fifth event DO data, slightly aerobic groundwater conditions are prominent in 9 of 11 monitoring wells at SWMU 49 (i.e., DO greater than 1 part per million [ppm]). The DO levels ranged from a low of 0.68 milligram per liter (mg/L) at monitoring well 49MW04 to a high of 7.91 mg/L at monitoring well 48MW2. ORP measurements ranged from a low of 6.8 millivolts (mV) at monitoring well 13MW3 to a high of 235.2 mV at monitoring well 49MW01. Measurements of pH ranged from a low of 6.69 standard units (SU) at monitoring well 13MW4 to a high of 7.71 SU at monitoring well 49MW01. As evidenced in **Table 4-3**, all pH measurements were below 8.0. Measuring the suitability of the groundwater to support microbial species is accomplished through pH readings. Microbial activity tends to be reduced outside of a pH range of 5 to 9, and anaerobic microorganisms are typically sensitive to pH extremes (Interstate Technology and Regulatory Council [ITRC], 1999). Measurements of specific conductivity ranged from a low of 429 microsiemens per centimeter (µS/cm) at monitoring well 49MW01 to a high of 668 µS/cm at monitoring well 13MW2.

4.1.3 Quality Control Samples

Quality control (QC) samples, including one duplicate sample, two trip blanks, and one matrix spike/matrix spike duplicate (MS/MSD), were collected during the twenty-fifth monitoring event.

One duplicate sample was collected during the twenty-fifth monitoring event at monitoring well 13MW4 (duplicate as 13TW4) and was analyzed for the same full suite of compounds as the parent sample. Two trip blanks were collected (one for each day [26 and 28 October 2021] of sampling at SWMU 49). Further, one MS/MSD was collected and analyzed for the same full suite of compounds as the parent sample.

One IDW purge water sample (49IDW) was collected and analyzed for pH, chemical oxygen demand (COD), and total Target Analyte List metals. All collected purge water for all events was taken to the ACD area for storage and deposited in a 55-gallon drum labeled 48/49, with RFAAP providing subsequent disposal.

Results of the quality assurance (QA)/QC samples are presented in the raw analytical data package provided in **Appendix B-1**.

4.2 TWENTY-SIXTH SEMIANNUAL GROUNDWATER SAMPLING

Groundwater elevation measurements and samples were collected from all 15 POC monitoring wells. The twenty-sixth event of groundwater sampling was conducted from 26 through 29 April 2022. Groundwater elevation measurements were collected prior to sampling activities. The locations of monitoring wells sampled during this event are provided in **Figure 4-1**.

4.2.1 Groundwater Elevation Measurements

Water level elevations were collected during each Year Seven semiannual event from the 15 monitoring wells at SWMU 49 prior to the collection of groundwater samples. **Table 4-4** provides the measured DTW levels (from the top of the casing) and groundwater elevations amsl collected on 26 April 2022. **Figure 4-3** presents a groundwater elevation contour map developed from the elevation data collected during this monitoring event.

4.2.2 Groundwater Sampling

Groundwater samples were collected from all 15 POC monitoring wells from 26 through 29 April 2022. The twenty-sixth semiannual monitoring samples were tested for the same analytes as the twenty-fifth event, which are presented in **Table 4-1**. In addition, the same MNA indicator parameters were collected in the twenty-sixth event as were collected in the twenty-fifth event:

TOC, dissolved Fe^{2+}, chloride, nitrate, and sulfate. Water quality parameters collected during low-flow sampling included pH, temperature, specific conductivity, DO, ORP, and turbidity. These parameters are discussed in Section 6.2 regarding the potential for biodegradation in the groundwater at SWMU 49.

Groundwater samples were collected applying the same method and approach used during the twenty-fifth semiannual monitoring event: specifically, by low-flow peristaltic pumps.

Table 4-5 presents a summary of the final (stabilized) water quality readings for each well from the twenty-sixth event. Based on the twenty-sixth event DO data, aerobic groundwater conditions exist at SWMU 49 (i.e., DO greater than 1 ppm). The DO levels ranged from a low of 1.2 mg/L at monitoring well 48MW06 to a high of 7.22 mg/L at monitoring well 48MW03. ORP measurements ranged from a low of 97.9 mV at monitoring well 49MW04 to a high of 213.6 mV at monitoring well 50MW02. Measurements of pH ranged from a low of 6.64 SU at monitoring well 50MW02 to a high of 8.07 SU at monitoring well 48MW07. Measurements of specific conductivity ranged from a low of 191 µS/cm at monitoring well 48MW07 to a high of 679 µS/cm at monitoring well 50MW02. Copies of the CoC forms are provided in **Appendix B-1**, along with the raw analytical data packages.

4.2.3 Quality Control Samples

QC samples, including two duplicate samples, three trip blanks, and one MS/MSD, were collected during the twenty-sixth semiannual monitoring event.

Two duplicate samples were collected during the twenty-sixth monitoring event at monitoring wells 49MW04 (duplicate as 49TW04) and 50MW02 (duplicate as 50TW02) and were analyzed for the full suite of compounds as the parent sample. Three trip blanks were collected (one for each day [26 through 28 April 2022] of sampling at SWMU 49). Further, two MS/MSDs were collected and analyzed for the same full suite of compounds as the parent sample.

One IDW purge water sample (49IDW) was collected and analyzed for pH, COD, and total metals.

Table 4-1 SWMU 49 Year Seven Semiannual Monitoring Analytical Suite

Well ID	Frequency	TCL VOCs	Dissolved Gases (Methane, Ethane, Ethene)	MNA Indicator Parameters	Water Quality Parameters
13MW2	Semiannual	X	X	X	X
13MW3	Semiannual	X	X	X	X
13MW4	Semiannual	X	X	X	X
13MW5	Annual	X	X	X	X
48MW1	Semiannual	X	X	X	X
48MW2	Semiannual	X	X	X	X
48MW3	Semiannual	X	X	X	X
48MW06	Semiannual	X	X	X	X
48MW07	Annual	X	X	X	X
49MW01	Semiannual	X	X	X	X
49MW02	Semiannual	X	X	X	X
49MW03	Annual	X	X	X	X
49MW04	Semiannual	X	X	X	X
49MW05	Annual	X	X	X	X
50MW02	Semiannual	X	X	X	X

Notes:
ID = identification
MNA = monitored natural attenuation
TCL = target compound list
VOC = volatile organic compound

Table 4-2 SWMU 49 Twenty-Fifth Semiannual Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Depth to Water* (ft BTOC)	Elevation (top of casing) (ft amsl)	Water Level (ft amsl)	PID Readings (ppm)
48MW06	58 – 78	20	78	66.34	1,822.85	1,756.51	PID = 0.0
48MW1	110 – 140	30	140	108.70	1,816.42	1,707.72	PID = 0.0
48MW2	113 – 134	20	133.7	123.80	1,816.27	1,692.47	PID = 0.0
48MW3	100 – 120	20	120	95.65	1,808.56	1,712.91	PID = 0.0
49MW01	90 – 121	31	121	115.30	1,826.42	1,711.12	PID = 0.0
49MW02	103 – 133	30	133	89.11	1,806.29	1,717.18	PID = 0.0
50MW02	89 – 119	30	119	115.16	1,809.63	1,694.47	PID = 0.0
13MW2	19 – 29	10	29	21.70	1,702.62	1,680.92	PID = 0.0
13MW3	9 – 19	10	19	15.42	1,694.47	1,679.05	PID = 0.0
13MW4	14 – 24	10	24	17.08	1,696.40	1,679.32	PID = 0.0
49MW04	50 – 70	20	72	20.92	1,703.00	1,682.08	PID = 0.0

Notes:
* Groundwater levels measured on 26 October 2021.
amsl = above mean sea level
bgs = below ground surface
BTOC = below top of casing
ft = feet
ID = identification
PID = photoionization detector
ppm = parts per million

Table 4-3 SWMU 49 Twenty-Fifth Semiannual Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Dissolved Oxygen (mg/L)[1]	ORP (mV)	Turbidity (NTU)
48MW06	13.6	466	7.57	0.92	180.4	57.3
48MW1	13.9	519	7.57	3.77	178.8	219.2
48MW2	13.2	493	7.43	7.91	216.9	257.0
48MW3	13.8	629	7.23	2.80	209.0	39.0
49MW01	12.3	429	7.71	5.25	235.2	320.2
49MW02	13.3	510	7.56	3.31	190.6	862.0
50MW02	12.6	603	7.10	4.04	219.0	391.8
13MW2	14.5	668	7.12	5.38	178.9	28.21
13MW3	16.4	566	6.98	2.50	6.8	10.23
13MW4	15.5	450	6.69	3.22	220.9	146.6
49MW04	13.8	598	7.32	0.68	100.1	4.5

Notes:
[1]Despite appropriate calibration, DO levels were significantly above the saturation value for unknown reasons and consequently are questionable.

°C = degrees Celsius
µS/cm = microsiemens per centimeter
DO = dissolved oxygen
ID = identification
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity unit
ORP = oxidation-reduction potential
pH = corrosivity/hydrogen ion concentration

Table 4-4 SWMU 49 Twenty-Sixth Semiannual Groundwater Elevations

Well ID	Screen Interval (ft bgs)	Screen Length (ft)	Total Depth (ft)	Water Level (ft BTOC)	Elevation (top of casing) (ft amsl)	Water Level (ft amsl)	PID Readings (ppm)
48MW07	62 – 82	20	82	49.29	1,833.69	1,784.40	PID = 0.0
13MW5	14 – 25	19	25	16.80	1,696.40	1,679.60	PID = 0.0
49MW03	77 – 117	40	117	105.57	1,811.82	1,706.25	PID = 0.0
49MW05	16 – 37	19	36.8	20.34	1,699.74	1,679.40	PID = 0.0
48MW06	58 – 78	20	78	66.46	1,822.85	1,756.39	PID = 0.0
48MW1	110 – 140	30	140	108.79	1,816.42	1,707.63	PID = 0.0
48MW2	113 – 134	20	133.7	124.75	1,816.27	1,691.52	PID = 0.0
48MW3	100 – 120	20	120	96.66	1,808.56	1,711.90	PID = 0.0
49MW01	90 – 121	31	121	115.70	1,826.42	1,710.72	PID = 0.0
49MW02	103 – 133	30	133	91.50	1,806.29	1,714.79	PID = 0.0
50MW02	89 – 119	30	119	116.14	1,809.63	1,693.49	PID = 0.0
13MW2	19 – 29	10	29	21.76	1,702.62	1,680.86	PID = 0.0
13MW3	9 – 19	10	19	15.30	1,694.47	1,679.17	PID = 0.0
13MW4	14 – 24	10	24	16.73	1,696.40	1,679.67	PID = 0.0
49MW04	50 – 70	20	72	20.90	1,703.00	1,682.1	PID = 0.0

Notes:
amsl = above mean sea level
bgs = below ground surface
BTOC = below top of casing
ft = feet
ID = identification
PID = photoionization detector
ppm = parts per million

Table 4-5 SWMU 49 Twenty-Sixth Semiannual Water Quality Parameters

Well ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)
48MW07	13.6	191	8.07	6.28	167.7	> 1,000
13MW5	13.9	646	7.00	6.24	186.5	5.26
49MW03	13.5	329	7.30	7.22	191.0	17.0
49MW05	13.4	614	7.06	2.50	177.6	5.8
48MW06	13.4	487	7.26	1.20	160.5	57.9
48MW1	12.3	533	7.19	3.03	175.1	10.2
48MW2	13.3	487	7.18	6.17	172.4	218
48MW3	12.6	678	7.00	6.58	175.9	3.12
49MW01	12.8	422	7.30	4.30	189.9	107
49MW02	13.8	533	7.19	4.98	166.9	588
50MW02	11.2	679	6.64	6.22	213.6	169
13MW2	14.1	676	7.06	4.47	144.7	2.45
13MW3	13.7	572	6.99	3.15	183.1	0.31
13MW4	14.4	446	6.83	4.73	184.5	7.44
49MW04	14.7	626	7.22	1.43	97.9	5.86

Notes:
°C = degrees Celsius
> = greater than
µS/cm = microsiemens per centimeter
ID = identification
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric turbidity unit
pH = corrosivity/hydrogen ion concentration

Legend

- Well
- SWMU 49 Boundary

Aerial Source:
Near Map Imagery, February 2020

N

0 55 110 220 Feet

Prepared By:

Baltimore District

FIGURE 4-1
SWMU 49 MONITORING
WELL SAMPLE LOCATIONS
RADFORD, VIRGINIA

File: Y:\Radford\MXD\SWMU\SWMU49_Monitoring_Well_Sample_Locations.mxd, 10/21/2020 1:12:15 PM, johna

Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- Groundwater Contour
- SWMU 49 Boundary

Note:
Contours are in feet above mean sea level (amsl).

Aerial Source:
Near Map Imagery, February 2020

N

0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 4-2
SWMU 49 OCTOBER 2021
GROUNDWATER CONTOUR MAP
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_October2021_Groundwate_ Contour_Map.mxd, 2/2/2023 5:05:12 PM, beckleyp

Legend

- Monitoring Well Sampled Annually
- Monitoring Well Sampled Quarterly
- Well not included in MNA Program
- Groundwater Contour
- SWMU 49 Boundary

Note:
It is the only quarter in which all wells in the program are sampled. (Annual wells)

Aerial Source:
Near Map Imagery, February 2020

N

0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 4-3
SWMU 49 APRIL 2022
GROUNDWATER CONTOUR MAP
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_April2022_Groundwate_ Contour_Map.mxd, 2/2/2023 7:02:47 PM, beckleyp

5. CHEMICAL ANALYTICAL RESULTS

5.1 SELECTION OF COMPARISON CRITERIA

The chemical data collected during the Year Seven MNA groundwater monitoring investigation were compared to RGs selected in the approved Draft SWMU 48/49 RFI Report (CB&I, 2014a). **Tables 5-1** through **5-4** present the analytical results and summaries of the twenty-fifth and twenty-sixth semiannual event monitoring data, including number of results that exceeded the RGs, frequency of detection, the minimum and maximum detected concentrations, and the location of the maximum concentration.

5.2 TWENTY-FIFTH SEMIANNUAL GROUNDWATER RESULTS

Eleven groundwater monitoring wells were sampled during this semiannual monitoring event: 13MW2, 13MW3, 13MW4, 48MW1, 48MW2, 48MW3, 48MW06, 49MW01, 49MW02, 49MW04, and 50MW02, whereas one duplicate sample was collected from monitoring well 13TW4 (duplicate as 13TW4). Sample locations are provided in **Figure 4-1**.

Samples were submitted for TCL VOCs and MNA indicator parameter analyses, including dissolved gases (methane, ethane, and ethene) and dissolved iron (Fe). A summary of detected constituents is provided in **Table 5-1**, and a subset of the results, consistent with the reporting in previous SWMU 49 LTM reports, is presented in **Table 5-2**. The CT plume is shown in **Figure 5-1**, and the TCE plume is shown in **Figure 5-2**. The potential for biodegradation in the groundwater at SWMU 49 is discussed in Section 6.2.

TCL VOCs

Six VOCs were detected in groundwater samples: 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), CT, chloroform, cis-1,2-DCE, and TCE. Nine of the 11 monitoring wells had one or more detections of the VOCs listed above; monitoring wells 49MW02 and 13MW2 did not have any detections of VOCs.

The VOC 1,1,1-TCA was detected at monitoring well 48MW06 at an estimated concentration of 1 µg/L. An RG for 1,1,1-TCA has not been established for SWMU 49; however, the USEPA MCL for 1,1,1-TCA is 200 µg/L (USEPA, 2018).

The VOC 1,1-DCA was detected in two monitoring wells, 48MW06 and 48MW1, at a concentration of 1.1 µg/L (48MW06) and an estimated concentration of 0.65 µg/L (48MW1). An RG for 1,1-DCA has not been established for SWMU 49. There is no USEPA MCL for 1,1-DCA (USEPA, 2018); however, the tapwater regional screening level (RSL) is 2.8 µg/L (USEPA, 2021).

The VOC CT was detected at six monitoring wells: 48MW2, 48MW3, 49MW01, 13MW3, 49MW04, and 50MW02. Three monitoring wells contained CT concentrations that exceeded the RG of 5 µg/L: 48MW2 (24 µg/L), 48MW3 (74 µg/L), and 13MW3 (5.3 µg/L). The range of concentrations detected during this semiannual event went from a low of an estimated value of 0.50 µg/L (49MW04) to a high of 74 µg/L (48MW3). The CT plume is shown in **Figure 5-1**; the size of the area still exceeding the RG of 5 µg/L is estimated at 3.3 acres. The RG exceedance area presented in **Figure 5-1** was estimated based on triangulation of CT concentrations in the wells to establish the area above the RG of 5 µg/L. This methodology was used to estimate the RG exceedance area for all COCs for each semiannual event.

The VOC chloroform was detected in three monitoring wells: 48MW2, 48MW3, and 13MW3. Concentrations ranged from an estimated low of 0.7 µg/L (13TW3) to a high of 22.0 µg/L (48MW3). An RG for chloroform has not been established for SWMU 49; however, the USEPA MCL for chloroform is 80 µg/L (USEPA, 2018).

The VOC cis-1,2-DCE was detected in two monitoring wells, 48MW06 and 48MW1, at a concentration of 2.2 µg/L at 48MW06 and an estimated concentration of 0.71 µg/L at 48MW1. An RG for cis-1,2-DCE has not been established for SWMU 49; however, the USEPA MCL for cis-1,2-DCE is 70 µg/L (USEPA, 2018).

The VOC TCE was detected at seven monitoring wells: 48MW06, 48MW1, 48MW2, 48MW3, 50MW02, 13MW3, and 13MW4 (and field duplicate [FD] 13TW4). Monitoring well 48MW3 contained a concentration of TCE that exceeded the RG of 5 µg/L. The range of concentrations detected during this semiannual event went from an estimated low of 0.89 µg/L (13MW3) to a high of 18.0 µg/L (48MW3). The TCE plume is shown in **Figure 5-2**; the size of the area still exceeding the RG of 5 µg/L is estimated at 0.84 acre.

Miscellaneous Analytes

Groundwater samples were also analyzed for MNA indicators (TOC, dissolved Fe^{2+} and manganese, dissolved gases, chloride, nitrate, and sulfate) for the purposes of evaluating the effectiveness of the MNA process.

TOC was detected in five monitoring wells at a concentration range of 0.53 (48MW3) to 6.1 µg/L (50MW02). Concentrations of dissolved Fe^{2+} ranged from a low of 0.0 mg/L (non-detect) to a high of 0.28 mg/L (49MW02), whereas dissolved manganese levels ranged from a low of 0.0 mg/L (non-detect) to a high of 1.8 mg/L (49MW02). Chloride concentrations ranged from a low estimated value of 1.6 mg/L (49MW02) to an estimated high of 32 mg/L (13MW2). Detected concentrations of nitrate ranged from an estimated low of 0.22 mg/L (13MW2) to a high of 4 mg/L (48MW3). Sulfate concentrations ranged from an estimated low of 0.88 mg/L (49MW01) to a high of 97 mg/L (13MW3). Methane concentrations ranged from an estimated low of 0.46 mg/L (48MW2) to an estimated high of 0.91 mg/L (49MW02). Ethane and ethene went undetected during this semiannual monitoring event. **Table 5-2** presents the MNA indicator parameters sample results.

5.3 TWENTY-SIXTH SEMIANNUAL GROUNDWATER RESULTS

The twenty-sixth semiannual monitoring event served as the annual event for the Year Seven MNA sampling. As such, all 15 POC monitoring wells were sampled: 13MW2, 13MW3, 13MW4, 13MW5, 48MW1, 48MW2, 48MW3, 48MW06, 48MW07, 49MW01, 49MW02, 49MW3, 49MW04, 49MW5, and 50MW02. Two duplicate samples were collected from monitoring wells 49MW04 (duplicate as 49TW04) and 50MW02 (duplicate as 50TW02). Sample locations are provided in **Figure 4-1**. (Note: Both annual and semiannual wells were sampled during this monitoring event.)

Samples were submitted for TCL VOCs, dissolved gases (methane, ethane, and ethene), and MNA indicator parameter analyses. A summary of detected constituents is provided in **Table 5-3**, and a subset of the results, consistent with the reporting in previous SWMU 49 LTM reports, is presented in **Table 5-4**. The CT plume is shown in **Figure 5-3**, and the TCE plume is shown in **Figure 5-4**. The potential for biodegradation in the groundwater at SWMU 49 is discussed in Section 6.2.

TCL VOCs

Five VOCs were detected in groundwater samples: 1,1-DCA, CT, chloroform, cis-1,2-DCE, and TCE. Nine monitoring wells had one or more detected concentrations of the VOCs listed above. Monitoring wells 48MW07 (upgradient well), 13MW5, 49MW03, 49MW05, 49MW02, and 13MW2 did not have detected concentrations of VOCs.

The VOC 1,1,1-TCA was not detected in any of the wells.

The VOC 1,1-DCA was detected at one monitoring well, 48MW1, at an estimated concentration of 0.61 µg/L. An RG for 1,1-DCA has not been established for SWMU 49. There is no USEPA MCL for 1,1-DCA (USEPA, 2018); however, the tapwater RSL is 2.8 µg/L (USEPA, 2021).

The VOC CT was detected at six monitoring wells: 48MW2, 48MW3, 49MW01, 50MW02 (and associated FD 50TW02), 13MW3, and 49MW04 (and associated FD 49TW04). Three monitoring wells contained CT concentrations that exceeded the RG of 5 µg/L: 48MW2 (29 µg/L), 48MW3 (75 µg/L), and 13MW3 (6.0 µg/L). These results are similar to those from the twenty-fifth monitoring event. The size of the area still exceeding the RG of 5 µg/L is the same as the twenty-fifth event and is estimated at 3.3 acres. The range of concentrations detected during this sampling event went from a low of an estimated value of 0.70 µg/L (49TW04) to a high of 74 µg/L (13MW3).

Chloroform was detected in three monitoring wells, 48MW2, 48MW3, and 13MW3, at concentrations ranging from a low of 0.10 µg/L (13MW3) to a high of 10.0 µg/L (48MW3). Compared to the twenty-fifth event monitoring results, the detected concentration of chloroform in monitoring well 48MW2 increased slightly, decreased from 22 µg/L to 10 µg/L in monitoring well 48MW3, and was similar in monitoring well 13MW3. An RG for chloroform has not been established for SWMU 49; however, the USEPA MCL for chloroform is 80 µg/L (USEPA, 2018).

The VOC cis-1,2-DCE was detected in two monitoring wells, 48MW06 and 48MW1, at a concentration of 2.0 µg/L and an estimated concentration of 0.73 µg/L, respectively. When compared to the twenty-fifth event monitoring results, concentrations were similar. An RG for cis-1,2-DCE has not been established for SWMU 49; however, the USEPA MCL for cis-1,2-DCE is 70 µg/L (USEPA, 2018).

The VOC TCE was detected at seven monitoring wells: 48MW06, 48MW1, 48MW2, 48MW3, 50MW02, 13MW3, and 13MW4. Monitoring well 48MW3 contained a concentration of TCE that exceeded the RG of 5 µg/L (13 µg/L). The size of the area still exceeding the RG of 5 µg/L is estimated at 1.8 acres, which is an increase from the twenty-fifth event. The range of concentrations detected during this event went from an estimated low value of 0.68 µg/L (13MW4) to a high of 13.0 µg/L (48MW3) (**Figure 5-4**). When compared to the previous event sampling results, concentrations in most wells were similar.

Miscellaneous Analytes

Groundwater samples were also analyzed for MNA indicators (TOC, dissolved Fe^{2+} and manganese, dissolved gases, chloride, nitrate, and sulfate) for the purposes of evaluating the effectiveness of the MNA process.

TOC was only detected in 1 of the 15 monitoring wells at an estimated value of 0.50 mg/L (48MW06). Concentrations of dissolved Fe^{2+} ranged from a low of 0.01 mg/L to a high of 1.78 mg/L (48MW3). Dissolved manganese levels ranged from a low of 0.10 mg/L to a high of 4.2 mg/L (49MW04). Chloride concentrations ranged from an estimated low of 1.5 mg/L (48TW3) to a high of 11 mg/L (48MW06). Concentrations of nitrate ranged from non-detect to a high of 3.3 mg/L (48MW3). Sulfate concentrations ranged from an estimated low of 3 mg/L (49MW01) to a high of 120 mg/L (13MW3 and 13MW5). Methane was detected in two monitoring wells, 48MW2 and 49MW02, at concentrations of 0.58 µg/L and 2.7 µg/L, respectively. Ethane and ethene went undetected during this semiannual monitoring event. **Table 5-4** presents the MNA indicator parameters sample results.

5.4 YEAR SEVEN SAMPLE RESULTS

This section discusses the results from the Year Seven MNA sampling. Samples collected were analyzed for the full suite of analytical parameters described in **Table 4-1** (TCL VOCs and MNA indicator parameters including dissolved gases [methane, ethane, and ethene] and dissolved Fe^{2+}).

5.4.1 Carbon Tetrachloride

The VOC CT was detected in six monitoring wells during the twenty-fifth and twenty-sixth semiannual monitoring events. CT was detected in monitoring wells 48MW2, 48MW3, 49MW01,

49MW04, 50MW02, and 13MW3 in both semiannual events. The highest concentrations were consistently detected at monitoring wells 48MW2, 48MW3, and 13MW3, with the highest levels (74 µg/L) observed in both Year Seven events at 48MW3. Concentrations detected in these three wells exceeded the RG of 5 µg/L in each semiannual event. In general, the concentrations detected at these three wells were only a slight variable from event to event with no clear increasing or decreasing trend, consistent with Years Two through Seven MNA sampling results. The remaining wells with observed detections were well below the RG and, in general, had concentrations that were relatively steady, with minor fluctuations, throughout the Year Seven MNA sampling. **Figures 5-5** and **5-6** depict the concentrations at these sampling locations throughout Year Seven semiannual sampling. **Figure 5-7** provides a time series plot of CT concentrations dating back to samples collected in 1995.

5.4.2 Trichloroethene

The VOC TCE was detected in seven monitoring wells during both semiannual monitoring events: 48MW06, 48MW1, 48MW2, 48MW3, 50MW02, 13MW3, and 13MW4. The highest concentrations were consistently detected at monitoring well 48MW3. Concentrations detected in monitoring well 48MW3 exceeded the RG of 5 µg/L in both semiannual events (18.0 µg/L and 13.0 µg/L), with no other sample concentrations at other wells exceeding the RG. In general, the concentrations detected in all seven monitoring wells were variable from event to event with no clear increasing or decreasing trend. **Figures 5-5** and **5-6** depict the concentrations at these sampling locations throughout Year Seven of semiannual sampling. **Figure 5-8** provides a time series plot of TCE concentrations dating back to samples collected in 1995.

5.5 LABORATORY ANALYSIS, DATA VALIDATION, AND REPORTING

The Year Seven MNA sampling for SWMU 49 was collected semiannually in October 2021 and April 2022. Groundwater samples were collected in accordance with the Quality Assurance Project Plan (QAPP), revised August 2015. Documentation pertaining to CoC and sample condition was filed in field and laboratory records. A summary of samples and analyses is included in **Table 5-5**. Analytical methods are provided in **Table 5-6**.

The samples were placed into coolers with ice at the time of collection. The CoC forms were completed as the samples were packaged into coolers for transport. Trip blanks, temperature

blanks, and ice were added as required. All coolers were shipped to the main laboratory, CT Laboratories in Baraboo, WI. The trip blanks were packed in the coolers with the VOC and methane/ethane/ethene samples.

The analytical data were reviewed for consistency with the test methods as noted in **Table 5-6** and the project QAPP to ensure that the data set met project data quality objectives and was usable for the purposes of the project. Validation was performed following the National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2014a), National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2014b), and professional judgment. Any anomalies to the requirements for precision, accuracy, representativeness, completeness, comparability, and sensitivity are discussed below, and the data were flagged where appropriate.

Application of Data Flags

General data quality flagging conventions in **Table 5-7** were used to indicate QC anomalies. Data were flagged, where appropriate, in accordance with the National Functional Guidelines and the project QAPP.

Preservation, Temperature, and Hold Time

All sample preservation requirements were met. Most sample analyses were within holding time. Refer to **Table 5-8** for holding time exceedances.

5.5.1 Precision

Precision was measured from the relative percent difference (RPD) between the parent sample/FD, laboratory duplicates, laboratory control sample (LCS), and the MS/MSD pairs. MS/MSD sample collection and analysis were performed at a frequency of 5% of field samples.

Field Duplicates

FDs were collected at a frequency of 10% of field samples. All RPDs were within control limits. **Table 5-9** lists FD exceedances.

Matrix Spike/Matrix Spike Duplicate Relative Percent Difference

The RPDs for aluminum, calcium, iron, and nickel for sample 49IDW during the October 2021 event exceeded their 20% control limit. The positive and non-detect results for these analytes for the sample were qualified as estimated (J) and estimated non-detect (UJ). **Table 5-10** lists MS/MSD RPD exceedances.

5.5.2 Accuracy

Accuracy was measured from laboratory QC sample percent recoveries, including LCS, MS, MSD, and surrogates. Accuracy was also evaluated by determining whether any deviations to method or laboratory requirements for internal standards, initial calibration verification (ICV), and continuing calibration verification (CCV) recoveries were noted in the case narrative(s).

Laboratory Control Sample/Matrix Spike/Matrix Spike Duplicate Recovery

One LCS was analyzed for each batch of 20 samples or fewer. All LCS recoveries were within control limits. As shown in **Table 5-11**, no LCS exceedances were noted.

MS/MSD analysis was performed at a frequency of 5% of field samples. Most recoveries were within control limits. **Table 5-12** presents MS/MSD recoveries outside control limits. The data for the parent sample were flagged as indicated in the table. If no flag was indicated, the data were not flagged. Data were not flagged in cases where the parent sample concentration was greater than four times the spike concentration.

Parent samples only were qualified.

Post-Digestion Spike Recovery Exceedances

Most recoveries were within control limits. There were no post-digestion spike (PDS) recovery exceedances.

Serial Dilution Percent Difference

Most recoveries were within control limits. **Table 5-13** lists the serial dilution percent difference exceedances.

Surrogates

All surrogate recoveries were within control limits. There were no surrogates that exceeded acceptance criteria.

Internal Standards

There were no internal standards outside control limits.

Calibration Verification

Some calibration results were outside control limits. **Table 5-14** summarizes calibration exceedances.

5.5.3 Representativeness

The samples were collected from locations specified in the approved *SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan* (Shaw, 2014). Representativeness of the data is considered acceptable.

5.5.4 Comparability

Comparability was acceptable. Standard analytical methods were used. Standard preparatory and analytical methods were applied to the samples across sampling events. In all cases, the detection limits and limits of detection attained were below the specified limits of quantitation (LOQs). All target compounds detected below the LOQs flagged (J) by the laboratory are considered estimated concentrations.

5.5.5 Completeness

Completeness was measured as the number of usable results versus the total number of results. The data set was 100% complete with no omissions or rejections with respect to analysis. The information fulfilled the data quality objectives of this investigation.

5.5.6 Sensitivity

Sensitivity was measured by evaluating whether the LOQ was less than RGs for constituents with RGs and less than the regulatory criteria for those constituents without RGs. All nominal LOQs were below the regulatory criteria.

Additionally, sensitivity was evaluated by determining whether method blank, trip blank, and rinsate blank results were less than the LOQs. Some analytes were detected in some blanks, leading to qualification of sample results.

Blanks (Calibration [Instrument], Method, Trip, and Rinsate)

Calibration blanks were analyzed throughout analytical runs.

One method blank was analyzed with every batch of 20 samples or fewer for each matrix.

One trip blank was included with each cooler for samples to be analyzed for VOCs and dissolved gases (methane, ethane, and ethene).

Table 5-15 presents samples flagged for blank results; none required qualification. Data quality and usability were not affected.

Reporting Limits

Nominal reporting limits, before adjustments for dilutions, were below the regulatory criteria noted in the project QAPP.

5.5.7 Data Usability Summary

In summary, all data were considered usable with the qualifications discussed above. The completeness goals for the project were met. The data were considered of good quality for the project goals, and no J-flagged results affected the overall conclusions as to whether MNA is occurring.

Low MS/MSD (**Table 5-12**) and PDS percent recoveries indicate that the associated results may be biased low for the associated samples.

The RPDs for laboratory duplicate and FD exceedance indicate that the associated results were estimated or non-detected estimated for the associated samples.

This data quality assessment was prepared by Validata Chemical Services, Inc. (Validata). Validata has provided data validation services since 1990 with completion of more than 350 environmental chemistry data validation contracts for all business sectors, including

35 USACE and 252 additional DoD contracts. Validata has been audited by the USEPA Quality Assurance Section and the U.S. Navy Environmental Project Management Group, and was approved as a data validation service by both agencies. Data validation reports are presented in **Appendix B-2**.

Table 5-1 SWMU 49 Summary of Detected Constituents in Twenty-Fifth Semiannual Groundwater Samples

Analyte	Units	RG	No. of RG Exceedances	No. of Detections	No. of Samples[1]	Minimum Concentration	Maximum Concentration	Location of Maximum
VOCs								
1,1,1-Trichloroethane	µg/L	NA	NA	1	12	ND	1.0	48MW06
1,1-Dichloroethane	µg/L	NA	NA	2	12	ND	1.1	48MW06
Carbon Tetrachloride	µg/L	5	3	6	12	ND	74.0	48MW3
Chloroform	µg/L	NA	NA	3	12	ND	22	48MW3
Cis-1,2-Dichloroethene	µg/L	NA	NA	2	12	ND	2.2	48MW06
Tetrachloroethene	µg/L	NA	NA	0	12	ND	ND	NA
Trichloroethene	µg/L	5	1	8	12	ND	18	48MW3
Miscellaneous								
Chloride	mg/L	NA	NA	13	13	1.6	32	13MW2
Ethane	µg/L	NA	NA	0	13	ND	ND	NA
Ethene	µg/L	NA	NA	0	13	ND	ND	NA
Methane	µg/L	NA	NA	3	13	ND	0.91	49MW02
Nitrate (as N)	mg/L	NA	NA	13	13	0.22	4.0	48MW3
Sulfate	mg/L	NA	NA	13	13	0.88	97	13MW3
Total Organic Carbon	mg/L	NA	NA	6	13	ND	6.1	50MW02

Notes:
[1] Includes two duplicate samples
µg/L = micrograms per liter
mg/L = milligrams per liter
NA = not applicable
ND = non-detect
No. = number
RG = remedial goal
VOC = volatile organic compound

Table 5-2 SWMU 49 Detected Analytes in Twenty-Fifth Semiannual Event Groundwater Samples

Sample ID			48MW06					48MW1					48MW2					48MW3					49MW01					49MW02				
Date Collected			10/28/2021					10/27/2021					10/28/2021					10/28/2021					10/28/2021					10/28/2021				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																															
1,1,1-Trichloroethane	µg/L	NA	1	J		0.2	0.1	1	U	J	0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
1,1-Dichloroethane	µg/L	NA	1.1			0.2	0.1	0.65	J	J	0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
Carbon Tetrachloride	µg/L	5	1	U		0.2	0.1	1	U	UJ	0.2	0.1	**24**			0.2	0.1	**74**			0.2	0.1	2.1			0.2	0.1	1	U	J	0.2	0.1
Chloroform	µg/L	NA	1	U		0.2	0.1	1	U	UJ	0.2	0.1	3.1			0.2	0.1	22			0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
cis-1,2-Dichloroethene	µg/L	NA	2.2			0.2	0.1	0.71	J	J	0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
Tetrachloroethene	µg/L	NA	1	U		0.2	0.1	1	U	J	0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
Trichloroethene	µg/L	5	1.5			0.2	0.1	1.2		J	0.2	0.1	1.7			0.2	0.1	**18**			0.2	0.1	1	U		0.2	0.1	1	U	UJ	0.2	0.1
Miscellaneous																															
Ethane	µg/L	NA	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1
Ethene	µg/L	NA	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1
Methane	µg/L	NA	0.9	U		0.2	0.1	0.9	U		0.2	0.1	0.46	J		0.2	0.1	0.9	U		0.2	0.1	0.9	U		0.2	0.1	0.91	J		0.2	0.1
Chloride	mg/L	NA	9.2			0.2	0.1	7.1			0.2	0.1	1.9	J		0.2	0.1	3.6			0.2	0.1	4.6			0.2	0.1	1.6	J	J	0.2	0.1
Nitrate (as N)	mg/L	NA	0.95			0.2	0.1	2			0.2	0.1	0.85			0.2	0.1	4			0.2	0.1	0.37	J		0.2	0.1	0.36	J	J	0.2	0.1
Sulfate	mg/L	NA	68			0.2	0.1	62			0.2	0.1	3.7			0.2	0.1	19			0.2	0.1	0.88	J	J	0.2	0.1	12		UJ	0.2	0.1
Total Organic Carbon	mg/L	NA	0.77	J		0.2	0.1	1.5	U		0.2	0.1	0.56	J		0.2	0.1	0.53	J		0.2	0.1	1.5	U	U	0.2	0.1	1.5	U		0.2	0.1
MNA																															
Dissolved Mn	mg/L	NA	1					0.6					0.6					0.8					0					1.8				
Dissolved Fe^{2+}	mg/L	NA	0.04					0.04					0.17					0.13					0					0.28				

Table 5-2 SWMU 49 Detected Analytes in Twenty-Fifth Semiannual Event Groundwater Samples (Continued)

Sample ID			50MW02					13MW2					13MW3					13MW4					13TW4 (Field Duplicate of 13MW4)					49MW04				
Date Collected			10/28/2021					10/26/2021					10/26/2021					10/26/2021					10/26/2021					10/26/2021				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																																
1,1,1-Trichloroethane	µg/L	NA	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1
1,1-Dichloroethane	µg/L	NA	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1
Carbon Tetrachloride	µg/L	5	1.2	J		0.2	0.1	1	U		0.2	0.1	**5.3**			0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	0.5	J		0.2	0.1
Chloroform	µg/L	NA	1	U		0.2	0.1	1	U		0.2	0.1	0.7	J		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1
cis-1,2-Dichloroethene	µg/L	NA	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1
Tetrachloroethene	µg/L	NA	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1	1	U		0.2	0.1
Trichloroethene	µg/L	5	1.1	J		0.2	0.1	1	U		0.2	0.1	0.89	J		0.2	0.1	1.2			0.2	0.1	1.7			0.2	0.1	1	U		0.2	0.1
Miscellaneous																																
Ethane	µg/L	NA	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1	0.8	U	0.7	0.2	0.1	0.8	U		0.2	0.1	0.8	U		0.2	0.1
Ethene	µg/L	NA	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1	1.2	U	1	0.2	0.1	1.2	U		0.2	0.1	1.2	U		0.2	0.1
Methane	µg/L	NA	0.78	J		0.2	0.1	0.9	U		0.2	0.1	0.9	U		0.2	0.1	0.9	U	0.6	0.2	0.1	0.9	U		0.2	0.1	0.9	U		0.2	0.1
Chloride	mg/L	NA	6.1			0.2	0.1	32			0.2	0.1	3.6			0.2	0.1	3.6		3.6	0.2	0.1	3.7			0.2	0.1	6			0.2	0.1
Nitrate (as N)	mg/L	NA	0.80			0.2	0.1	0.22	J		0.2	0.1	1.5			0.2	0.1	0.65		1.6	0.2	0.1	0.64			0.2	0.1	0.27			0.2	0.1
Sulfate	mg/L	NA	62			0.2	0.1	36			0.2	0.1	97			0.2	0.1	37		99	0.2	0.1	38			0.2	0.1	62			0.2	0.1
Total Organic Carbon	mg/L	NA	6.1			0.2	0.1	1.5	U		0.2	0.1	1.5	U		0.2	0.1	0.64	J	1.5	0.2	0.1	0.63	J		0.2	0.1	1.5	U		0.2	0.1
MNA																																
Dissolved Mn	mg/L	NA	0.8					0.20					0.7					0.4					0.40					0				
Dissolved Fe^{2+}	mg/L	NA	0.13					0.01					0.04					0.02					0.02					0				

Notes:

[1] Remedial goals developed in Draft SWMU 48/49 RFI Report (CB&I, 2014a).
Exceedances denoted by **bold font.**
µg/L = micrograms per liter (parts per billion)
Fe^{2+} = ferrous iron
ID = identification
LOD = limit of detection
LOQ = limit of quantitation
mg/L = milligrams per liter (parts per million)
Mn = manganese
MNA = monitored natural attenuation
NA = not applicable; remedial goal not established for analyte at SWMU 49
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
VOC = volatile organic compound

Lab Q = laboratory data qualifiers
Val Q = validation data qualifiers
J = Estimated value.
U = Analyte concentration was not above the detection level.
UJ = Non-detected estimated.

Table 5-3 SWMU 49 Summary of Detected Constituents in Twenty-Sixth Semiannual Groundwater Samples

Analyte	Units	RG	No. of RG Exceedances	No. of Detections	No. of Samples[1]	Minimum Concentration	Maximum Concentration	Location of Maximum
VOCs								
1,1,1-Trichloroethane	µg/L	NA	NA	0	17	ND	ND	NA
1,1-Dichloroethane	µg/L	NA	NA	1	17	ND	0.61 J	48MW1
Carbon Tetrachloride	µg/L	5	5	8	17	ND	75	48MW3
Chloroform	µg/L	NA	NA	3	17	ND	10	48MW3
cis-1,2-Dichloroethene	µg/L	NA	NA	2	17	ND	2	48MW06
Tetrachloroethene	µg/L	NA	NA	0	17	ND	ND	NA
Trichloroethene	µg/L	5	2	8	17	ND	13	48MW3
Miscellaneous								
Chloride	mg/L	NA	NA	17	17	1.7	12	48MW06
Ethane	µg/L	NA	NA	0	17	ND	ND	NA
Ethene	µg/L	NA	NA	0	17	ND	ND	NA
Methane	µg/L	NA	NA	2	17	ND	2.7	49MW02
Nitrate (as N)	mg/L	NA	NA	16	17	ND	3.3	48MW3
Sulfate	mg/L	NA	NA	17	17	3	120	13MW5 and 13MW3
Total Organic Carbon	mg/L	NA	NA	1	17	ND	0.5 J	48MW06

Notes:
[1] Includes one duplicate sample
µg/L = micrograms per liter
mg/L = milligrams per liter
NA = not applicable
ND = non-detect
No. = number
RG = remedial goal
VOC = volatile organic compound

Table 5-4 SWMU 49 Detected Analytes in Twenty-Sixth Semiannual Groundwater Samples

Sample ID			48MW07[2]					13MW5[2]					49MW03[2]					49MW05[2]					48MW06					48MW1				
Date Collected			4/28/22					4/27/22					4/28/22					4/27/22					4/27/22					4/29/22				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																																
1,1,1-Trichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096
1,1-Dichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	0.61	J		0.19	0.096
Carbon Tetrachloride	µg/L	5	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096
Chloroform	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096
cis-1,2-Dichloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	2.0			0.19	0.096	0.73	J		0.19	0.096
Tetrachloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096
Trichloroethene	µg/L	5	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1.4			0.19	0.096	2.4			0.19	0.096
Miscellaneous																																
Ethane	µg/L	NA	0.8	U		0.19	0.096	0.8	U		0.19	0.096	0.8	U		0.19	0.096	0.8	U		0.19	0.096	0.8	U		0.19	0.096	0.8	U		0.19	0.096
Ethene	µg/L	NA	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096
Methane	µg/L	NA	0.9	U		0.19	0.096	0.9	U		0.19	0.096	0.9	U		0.19	0.096	0.9	U		0.19	0.096	0.9	U		0.19	0.096	0.9	U		0.19	0.096
Chloride	mg/L	NA	1.6	J		0.19	0.096	5			0.19	0.096	5.2			0.19	0.096	3.4			0.19	0.096	12			0.19	0.096	9.9			0.19	0.096
Nitrate (as N)	mg/L	NA	1.1			0.19	0.096	0.82			0.19	0.096	1.2			0.19	0.096	0.20	U		0.19	0.096	1.0			0.19	0.096	2.5			0.19	0.096
Sulfate	mg/L	NA	4.1			0.19	0.096	120			0.19	0.096	4.6			0.19	0.096	53			0.19	0.096	74			0.19	0.096	63			0.19	0.096
Total Organic Carbon	mg/L	NA	1.5	U		0.19	0.096	1.5	U		0.19	0.096	1.5	U		0.19	0.096	1.5	U		0.19	0.096	0.50	J		0.19	0.096	1.5	U		0.19	0.096
MNA																																
Dissolved Mn	mg/L	NA	0.10					1.8					0.2					0.50					2.3					0.60				
Dissolved Fe^{2+}	mg/L	NA	0.16					0.69					0.45					0.29					0.10					0.01				

Table 5-4 SWMU 49 Detected Analytes in Twenty-Sixth Semiannual Groundwater Samples (Continued)

Sample ID			48MW2					48MW3					49MW01					49MW02					50MW02 / 50TW2 (duplicate)				
Date Collected			4/27/22					4/27/22					4/28/22					4/27/22					4/28/22				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																											
1,1,1-Trichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1 / 1	U		0.19	0.096
1,1-Dichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1 / 1	U		0.19	0.096
Carbon Tetrachloride	µg/L	5	**29**			0.19	0.096	**75**			0.19	0.096	3			0.19	0.096	1	U		0.19	0.096	0.71 / 0.78	J		0.19	0.096
Chloroform	µg/L	NA	3.4			0.19	0.096	10			0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1 / 1	U		0.19	0.096
cis-1,2-Dichloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1 / 1	U		0.19	0.096
Tetrachloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	1 / 1	U		0.19	0.096
Trichloroethene	µg/L	5	1.7			0.19	0.096	**13**			0.19	0.096	1	U		0.19	0.096	1	U		0.19	0.096	0.72 / 0.70	J		0.19	0.096
Miscellaneous																											
Ethane	µg/L	NA	0.8	U		0.19	0.096	0.80	U		0.19	0.096	0.8	U		0.19	0.096	0.8	U		0.19	0.096	0.8 / 0.8	U		0.19	0.096
Ethene	µg/L	NA	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2	U		0.19	0.096	1.2 / 1.2	U		0.19	0.096
Methane	µg/L	NA	0.58	J		0.19	0.096	0.9	U		0.19	0.096	0.9	U		0.19	0.096	2.7			0.19	0.096	0.9 / 0.9	U		0.19	0.096
Chloride	mg/L	NA	2.3	J		0.19	0.096	6.5			0.19	0.096	6.3			0.19	0.096	2.6	J		0.19	0.096	7.8 / 7.8			0.19	0.096
Nitrate (as N)	mg/L	NA	0.78			0.19	0.096	3.3			0.19	0.096	0.41			0.19	0.096	0.35	J		0.19	0.096	2.2 / 2.2			0.19	0.096
Sulfate	mg/L	NA	3.4			0.19	0.096	35			0.19	0.096	3.0			0.19	0.096	13			0.19	0.096	80 / 82			0.19	0.096
Total Organic Carbon	mg/L	NA	1.5	U		0.19	0.096	1.5	U		0.19	0.096	1.5	U		0.19	0.096	1.5	U		0.19	0.096	1.5 / 1.5	U		0.19	0.096
MNA																											
Dissolved Mn	mg/L	NA	0.30					0.50					0.70					0.80					1.4				
Dissolved Fe^{2+}	mg/L	NA	0.73					1.78					0.04					0.91					0.09				

Table 5-4 SWMU 49 Detected Analytes in Twenty-Sixth Semiannual Groundwater Samples (Continued)

Sample ID			13MW2					13MW3					13MW4					49MW04					49TW04 (duplicate of 49MW04)				
Date Collected			4/27/22					4/27/22					4/27/22					4/27/22					4/27/22				
Analyte	Units	Remedial Goals[1]	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD	Result	Lab Q	Val Q	LOQ	LOD
VOCs																											
1,1,1-Trichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.6	U	1	U		1	0.29	1	U		1	0.29	1	U		1	0.29
1,1-Dichloroethane	µg/L	NA	1	U		0.19	0.096	1	U		0.6	U	1	U		1	0.3	1	U		1	0.3	1	U		1	0.3
Carbon Tetrachloride	µg/L	5	1	U		0.19	0.096	**6.0**			4.6		1	U		1	0.3	0.74	J		1	0.3	0.70	J		1	0.3
Chloroform	µg/L	NA	1	U		0.19	0.096	0.1	J		0.41	J	1	U		1	0.3	1	U		1	0.3	1	U		1	0.3
cis-1,2-Dichloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.6	U	1	U		1	0.3	1	U		1	0.3	1	U		1	0.3
Tetrachloroethene	µg/L	NA	1	U		0.19	0.096	1	U		0.6	U	1	U		1	0.27	1	U		1	0.27	1	U		1	0.27
Trichloroethene	µg/L	5	1	U		0.19	0.096	0.95	J		0.79	J	0.68	J		1	0.3	1	U		1	0.3	1	U		1	0.3
Miscellaneous																											
Ethane	µg/L	NA	0.8	U		0.19	0.096	0.8	U		0.8	0.4	0.8	U		0.8	0.4	0.8	U		0.8	0.4	0.8	U		0.8	0.4
Ethene	µg/L	NA	1.2	U		0.19	0.096	1.2	U		1.1	0.5	1.2	U		1.1	0.5	1.2	U		1.1	0.5	1.2	U		1.1	0.5
Methane	µg/L	NA	0.9	U		0.19	0.096	0.9	U		0.7	0.3	0.9	U		0.7	0.3	0.9	U		0.7	0.3	0.9	U		0.7	0.3
Chloride	mg/L	NA	4.9			0.19	0.096	5.1			3	1	6.2			3	1	8.7			3	1	8.0			3	1
Nitrate (as N)	mg/L	NA	0.3	J		0.19	0.096	1.9			0.4	0.12	0.57			0.4	0.12	0.40			0.4	0.12	0.39	J		0.4	0.12
Sulfate	mg/L	NA	45			0.19	0.096	120			15	4	51			15	4	69			3	0.8	67			3	0.8
Total Organic Carbon	mg/L	NA	1.5	U		0.19	0.096	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5	1.5	U		3	0.5
MNA																											
Dissolved Mn	mg/L	NA	0.90					0.60					1.9					4.2					NA				
Dissolved Fe^{2+}	mg/L	NA	0.10					0.01					0.04					0.01					NA				

Notes:
[1] Remedial goals developed in Draft SWMU 48/49 RFI Report (CB&I, 2014a).
[2] Groundwater well sampled annually in April.
Exceedances denoted by **bold font.**
µg/L = micrograms per liter (parts per billion)
Fe^{2+} = ferrous iron
ID = identification
LOD = limit of detection
LOQ = limit of quantitation
mg/L = milligrams per liter (parts per million)
Mn = manganese
MNA = monitored natural attenuation
NA = not applicable; remedial goal not established for analyte at SWMU 49
RFI = RCRA Facility Investigation
SWMU = Solid Waste Management Unit
RCRA = Resource Conservation and Recovery Act
VOC = volatile organic compound
Lab Q = laboratory data qualifiers
Val Q = validation data qualifiers
J = Estimated value.
U = Analyte concentration was not above the detection level.

Table 5-5 Summary of Samples and Analyses

Sampling Event ID	Data Packages	Matrix	TCL VOCs	Methane Ethane Ethene	Chloride Nitrate Sulfate	Metals [1]	TOC	COD pH
October 2021	165461 and 165486	GW	X	X	X	X	X	X
April 2022	169098	GW	X	X	X	X	X	X

Notes:
[1]Ferrous iron and manganese were analyzed for groundwater samples, whereas total metals were only analyzed for IDW samples.
COD = chemical oxygen demand
GW = groundwater
ID = identification
IDW = investigation-derived waste
pH = corrosivity/hydrogen ion concentration
TCL = target compound list
TOC = total organic carbon
VOC = volatile organic compound

Table 5-6 Analytical Methods

Analysis	Analytes	Method
VOCs	Numerous	USEPA SW-846 Method 8260C
Dissolved Gases	Methane Ethane Ethene	USEPA SW-846 Method 8015/RSK-175
Anions	Chloride Nitrate Sulfate	USEPA SW-846 Method 9056A
TOC	TOC	USEPA SW-846 Method 9060A

Notes:
TOC = total organic carbon
USEPA = U.S. Environmental Protection Agency
VOC = volatile organic compound

Table 5-7 Typical Data Qualifiers

Qualifier	Description
R	Rejected: The result is rejected due to deficiencies in the analytical system or the inability to meet quality control (QC) criteria.
M	Matrix effect: The concentration is estimated due to a matrix effect.
J	Estimated: The analyte was positively identified, but the quantitation is an estimate due to discrepancies in meeting certain analyte-specific QC criteria.
J+	Estimated: The analyte was positively identified, but the quantitation is an estimate, possibly biased high, due to discrepancies in meeting certain analyte-specific QC criteria.
J-	Estimated: The analyte was positively identified, but the quantitation is an estimate, possibly biased low, due to discrepancies in meeting certain analyte-specific QC criteria.
B	Blank. The analyte was detected in an associated blank.
U	Undetected: The analyte was analyzed for but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific QC criteria.

Table 5-8 Holding Time Exceedances

Sampling Event	Analysis[1]	Analytes	Result	Samples	Qualifiers
October 2021	Holding time criteria were met.				
April 2022	Anions	Nitrates	Technical holding time	13MW4 and 13MW5	J

Notes:

[1]The holding time for pH analysis is only minutes; therefore, this is expected. The data are still usable for their intended purpose.
J = estimated

Table 5-9 Field Duplicate Precision Exceedances

Sampling Event	Analyte	Flag	RPD
October 2021	No QC limit exceedances		
April 2022	No QC limit exceedances		

Notes:
J = estimated
QC = quality control
RPD = relative percent difference

Table 5-10 MS/MSD RPD Exceedances

Sampling Event	Location (Analyte)	Flag	RPD
October 2021	49IDW (aluminum, calcium, iron, and nickel)	J / UJ	≥20 limit
April 2022	No exceedances		

Notes:
J = estimated
UJ = non-detected estimated
≥ = greater than or equal to
RPD = relative percent difference

Table 5-11 LCS Recovery Exceedances

Sampling Event	Analyte	Flag	Recovery
October 2021	All LCS recovery criteria were met		
April 2022	All LCS recovery criteria were met		

Notes:
LCS = laboratory control sample

Table 5-12 MS/MSD Recovery Exceedances

Sampling Event	Sample ID/Analyte	Recovery	Parent Flag
October 2021	49IDW, 13MW3, 49MW01 (Metals)	Low	J / UJ
April 2022	49IDW (Metals) / 48MW, 48MW07, 13MW4 (Sulfate)	High / Low	J / J

Notes:
J = estimated
UJ = non-detected estimated
ID = identification

Table 5-13 Serial Dilution

Sampling Event	Sample ID/Analyte	Recovery	Parent Flag
October 2021	49IDW (Calcium)	High	J
April 2022	All serial dilution control criteria were met		

Notes:
J = estimated
ID = identification

Table 5-14 Calibration Exceedances

Sampling Event	Analysis	Analytes	Result	Samples	Qualifiers
October 2021	VOCs	1,4-Dioxane	IC, ICV, CCV – low	Lab standards (applies to all samples)	UJ
April 2022	VOCs	1,4-Dioxane	IC, ICV, CCV – low	Lab standards (applies to all samples)	UJ

Notes:
UJ = non-detected estimated
CCV = continuing calibration verification
IC = initial calibration
ICV = initial calibration verification
VOC = volatile organic compound

Table 5-15 Blank Flags

Sampling Event	Type of Blank	Analyte	Samples Qualified	Flag
October 2021	Method Calibration	Magnesium, potassium, antimony, lead, potassium, zinc	None	None
April 2022	Calibration	Sulfate	None	None

Legend

- Well
- SWMU 49 Boundary

Carbon Tetrachloride Isopleths (ug/L)

- 1
- 5
- 50

Aerial Source:
Near Map Imagery, February 2020

N

0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 5-1
SWMU 49 OCTOBER 2021
CARBON TETRACHLORIDE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Tetrachloride_Oct2021.mxd, 2/2/2023 6:16:15 PM, beckleyp

Legend

- Well
- SWMU 49 Boundary

Trichloroethene Isopleths (ug/L)

- 1
- 5

Aerial Source:
Near Map Imagery, February 2020

N

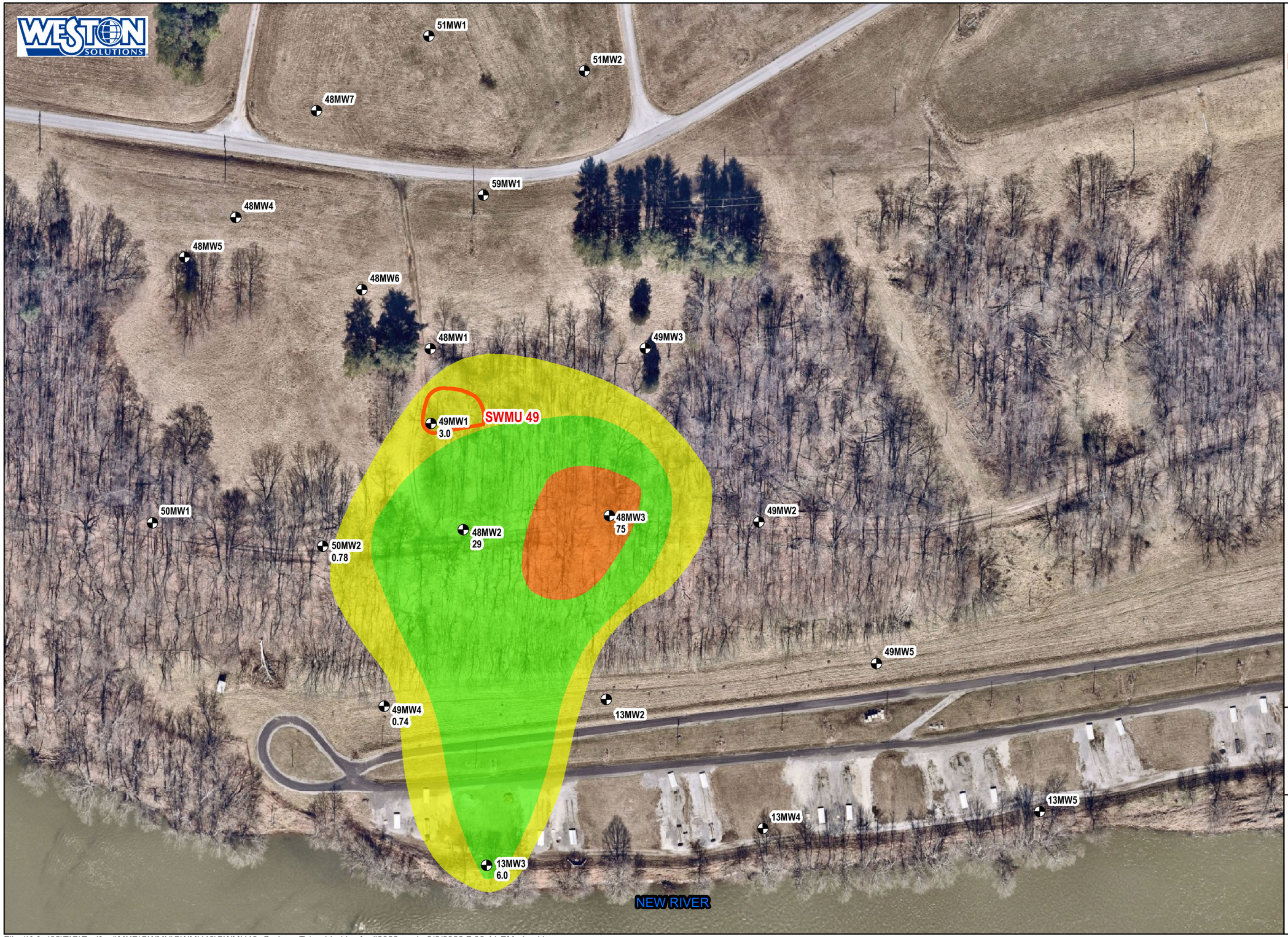
0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 5-2
SWMU 49 OCTOBER 2021
TRICHLOROETHENE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Trichloroethene_Oct2021.mxd, 2/2/2023 7:23:49 PM, beckleyp



Legend

- Well
- SWMU 49 Boundary

Carbon Tetrachloride Isopleths (ug/L)

- 1
- 5
- 50

Aerial Source:
Near Map Imagery, February 2020

N

0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 5-3
SWMU 49 APRIL 2022
CARBON TETRACHLORIDE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Tetrachloride_April2022.mxd, 2/2/2023 7:06:41 PM, beckleyp

Legend

- Well
- SWMU 49 Boundary

Trichloroethene Isopleths (ug/L)

- 1
- 5
- 10

Aerial Source:
Near Map Imagery, February 2020

N

0 45 90 180 Feet

Prepared By:

Baltimore District

FIGURE 5-4
SWMU 49 APRIL 2022
TRICHLOROETHENE ISOPLETHS
RADFORD, VIRGINIA

File: \\fsfed02\TIG\Radford\MXD\SWMU\SWMU49\SWMU49_Carbon_Trichloroethene_April2022.mxd, 2/2/2023 6:58:42 PM, beckleyp

Figure 5-5 SWMU 49 Twenty-Fifth Event CT and TCE Concentrations

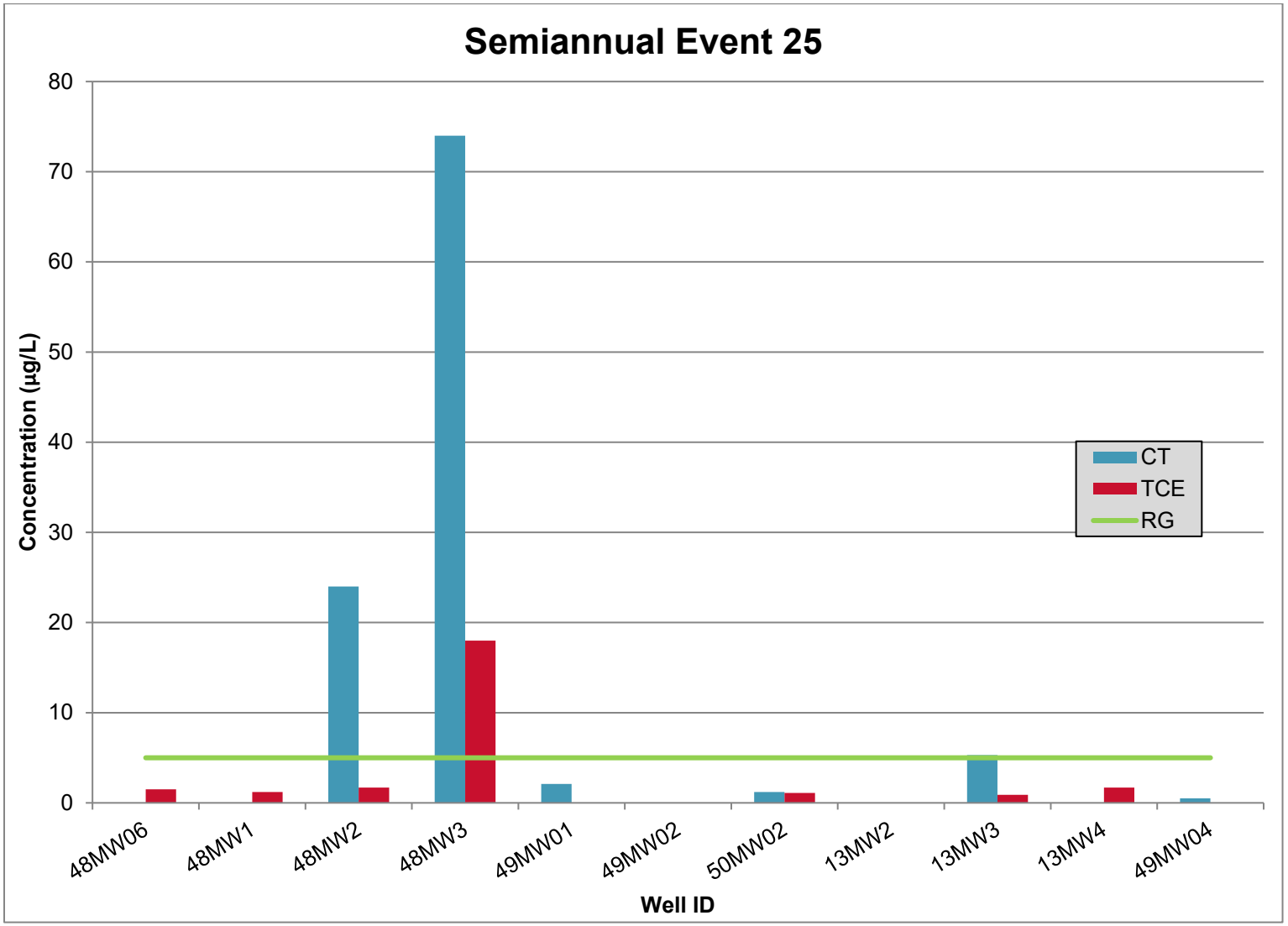


Figure 5-6 SWMU 49 Twenty-Sixth Event CT and TCE Concentrations

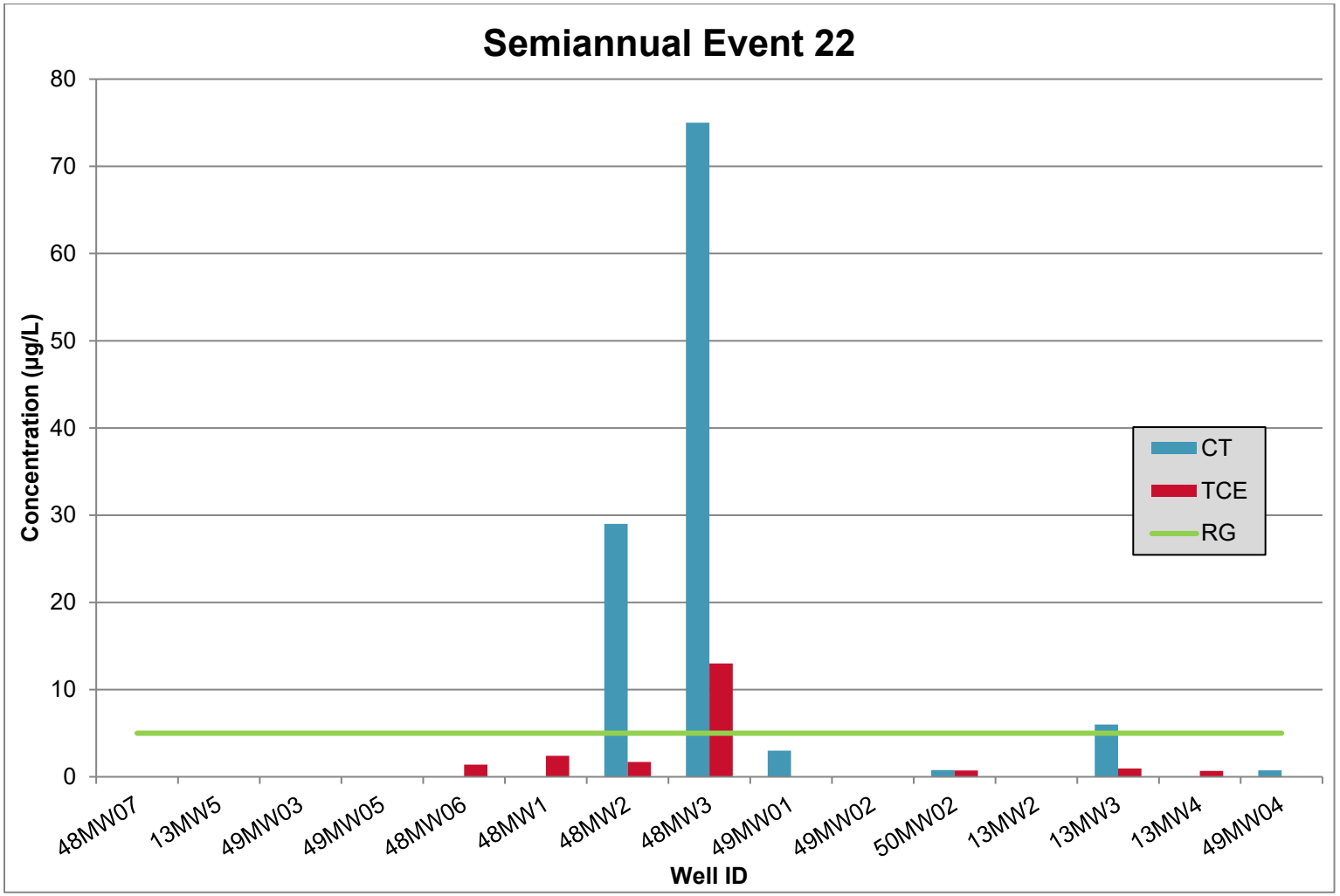
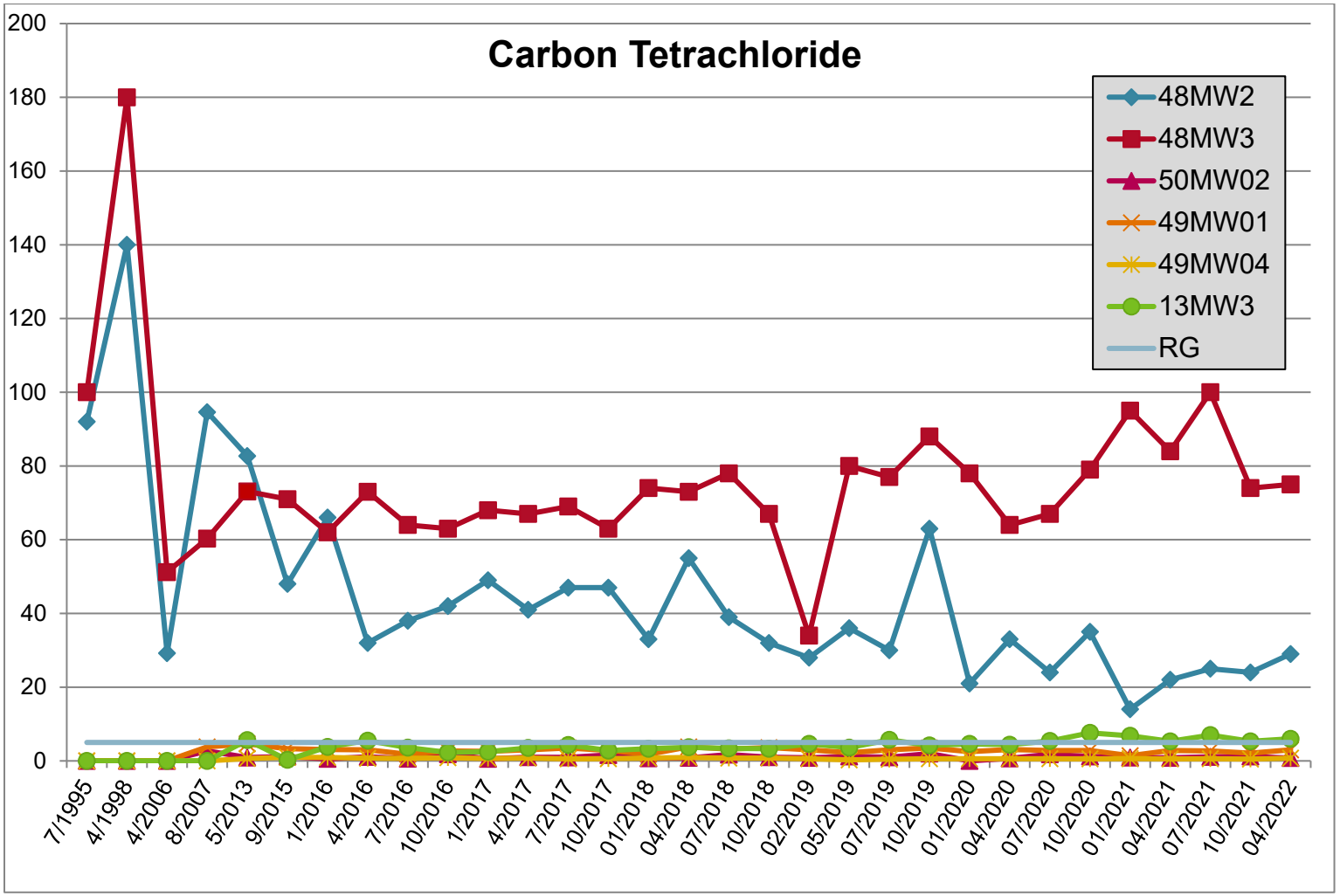
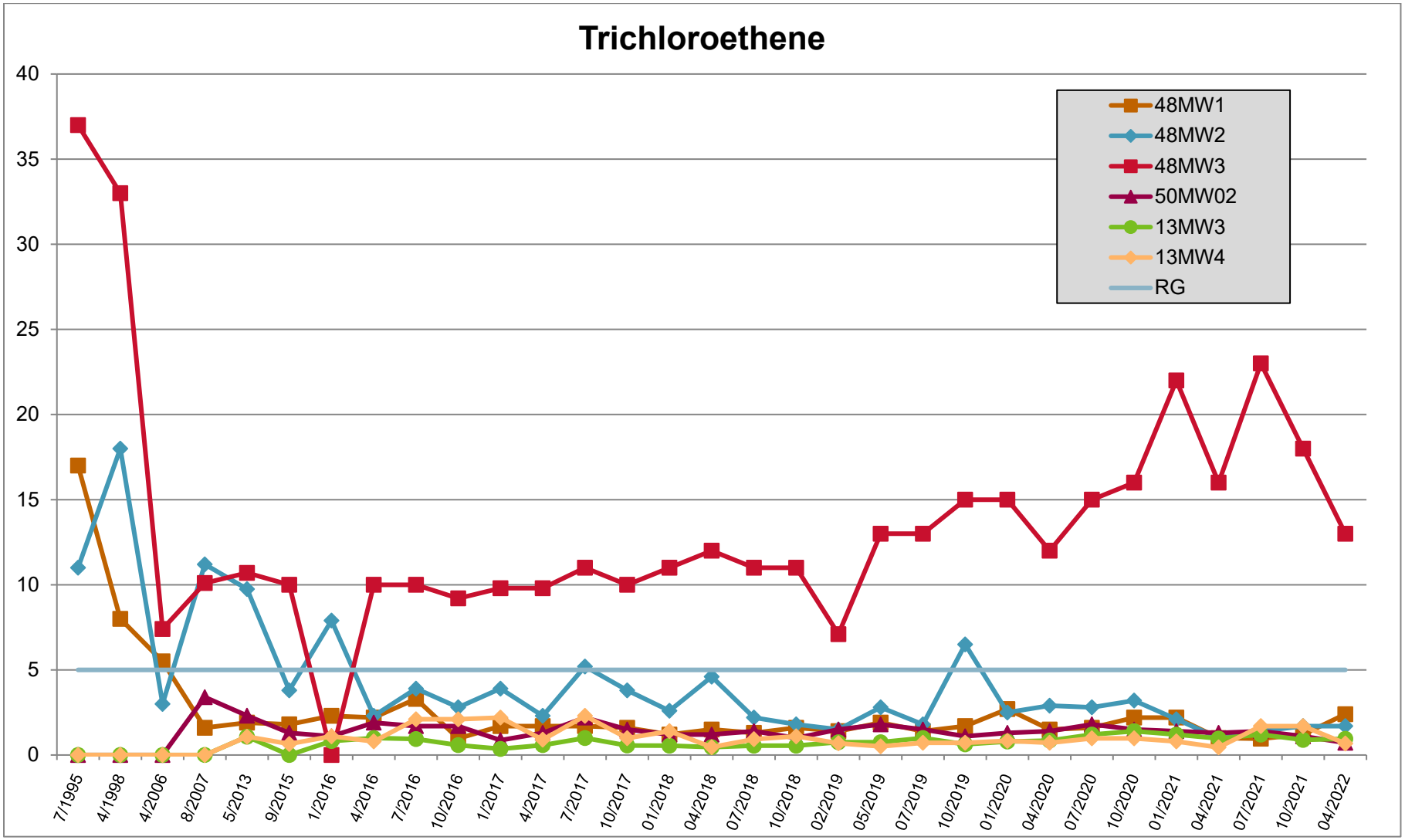


Figure 5-7 SWMU 49 CT Concentration Trends



Note: In order to fit all data on one page, x-axis time intervals do not reflect actual period of time between events.

Figure 5-8 SWMU 49 TCE Concentration Trends



Note: In order to fit all data on one page, x-axis time intervals do not reflect actual period of time between events.

6. MNA EVALUATION OF SWMU 49

This section presents and summarizes the results for the Year Seven MNA sampling. Eleven monitoring wells were sampled in the SWMU 49 study area for two semiannual events (October 2021 and April 2022), whereas four wells were sampled on an annual basis (April 2022 event) during the Year Seven MNA monitoring. Sample results were evaluated to determine whether MNA is continuing to occur at the site.

Consistent with the TCL VOC results from the sampling event in May 2013 and the baseline sampling conducted in January 2015, the highest concentrations of CT were observed in monitoring wells 48MW2 and 48MW3, where the center of the plume is located. Exceedances of the RG for CT were also noted at monitoring well 13MW3 in both events during Year Seven. CT concentrations have hovered around the RG since 2013.

TCE concentrations detected at monitoring well 48MW2, where historically high concentrations had been detected, were below the RG of 5 µg/L in both events. During the Year Seven sampling year, all concentrations of TCE at monitoring well 48MW2 were below the RG of 5 µg/L. Conversely, TCE concentrations in 48MW3 were above the RG in both events of Year Seven.

Based on the Year Seven MNA results, the CT and TCE plumes changed only slightly from sampling event to sampling event (seasonally) (**Figures 5-1** through **5-4**). There were modest changes in the two events with a moderate decrease of TCE at monitoring well 48MW3 in Year Seven from the October 2021 event (18 µg/L) to the April 2022 event (13 µg/L). In general, the CT and TCE plumes were centered on monitoring wells 48MW3/48MW2 and 48MW06/48MW3, respectively. These trends continued throughout the year. The TCE trend continued since Year Two and generally remained undetected at monitoring well 13MW2, except for the nineteenth quarter (0.33 µg/L). In both events during the Year Seven MNA monitoring, detections of CT were found downgradient at monitoring well 13MW3 (ranging from 5.3 µg/L to 6.0 µg/L), which is next to the New River. This concentration range is slightly lower than the Year Six data. As has been the recent trend, TCE was detected downgradient at monitoring wells 13MW3 and 13MW4 (well below the RG).

6.1 FIRST LINE OF EVIDENCE: OCCURRENCE OF CONTAMINANTS

The first line of evidence consists of evaluating contaminant and daughter product concentrations in monitoring wells over time. The VOC CT reduces to form chloroform, and TCE will be reduced to form cis-1,2-DCE, among other by-products. Both CT and TCE attenuate more favorably under anaerobic conditions. Fifteen monitoring wells were included in the MNA monitoring at SWMU 49, which targeted areas with CT and TCE contamination. Historical trends and the results of the Year Seven MNA semiannual groundwater sampling are discussed below, and the CT and TCE data are provided in **Table 6-1**.

6.1.1 Carbon Tetrachloride

There is good correlation of chloroform to CT concentrations for Year Seven monitoring periods. Based on the data, wells with detected concentrations of CT also contained measurable levels of chloroform except for monitoring wells 49MW01, 49MW04, and 50MW02. Based on available data, the presence of chloroform suggests the degradation of CT is occurring at SWMU 49. **Figures 6-1** through **6-4** provide correlation data from the Year Seven MNA sampling.

6.1.2 Trichloroethene

The correlation of cis-1,2-DCE to TCE appears to have improved some over the four quarters of Year Five from that of the Year Three and Year Four MNA results. There is evidence that some correlation exists; however, in wells that contained the highest observed concentrations of TCE (48MW2 and 48MW3), cis-1,2-DCE went undetected in both semiannual events in Year Seven. For both events in Year Seven, MNA cis-1,2-DCE concentrations were above TCE concentrations in monitoring well 48MW06. Based on the available data, a strong correlation of TCE degradation to cis-1,2-DCE cannot yet be determined. **Figures 6-1** through **6-4** provide correlation data from the Year Seven MNA sampling.

6.1.3 Statistical Trends

Mann-Kendall tests were run using the USEPA software package ProUCL (USEPA, 2020). The Mann-Kendall graphs are included as **Appendix C**. Monitoring wells 48MW2 and 48MW3 both displayed high and low outliers for the CT and TCE concentration trends over the past 5 years.

Time series plots were created with and without those initial and/or final sampling data points to compare how the concentration trends would be affected by the varying results.

At monitoring well 48MW2, both CT and TCE experienced decreasing trends, regardless of outlying results or concentration variability. This trend is comparable to all other well sampling during Year Seven, which also display decreasing trends for CT and TCE concentrations. At monitoring well 48MW3, CT has a slight decreasing trend with the initial outlier removed and a steeply decreasing trend with the outlier data from the initial sampling included. At monitoring well 48MW3, TCE has a decreasing trend with all data. Overall, there is a decreasing trend for CT and TCE across the site except for monitoring well 13MW3 (CT and TCE), which is directly downgradient from the highest concentrations in the contaminant plume; therefore, there is CT and TCE migration from the center of the plume to this downgradient location.

6.2 SECOND LINE OF EVIDENCE: GEOCHEMICAL CONDITIONS

Geochemical data are available for both semiannual groundwater monitoring events at SWMU 49. Field parameters (DO, ORP, pH, temperature, and specific conductivity) were collected for both events as part of the low-flow sampling procedures. Laboratory analysis for nitrate, sulfate, and TOC were conducted for both groundwater monitoring events at SWMU 49. These geochemical data are discussed regarding the potential for biodegradation in the groundwater at SWMU 49.

The degradation of CT primarily occurs under anaerobic conditions, either through denitrification, iron reduction, sulfate reduction, or methanogenesis. The environmental degradation of TCE primarily occurs under anaerobic conditions that facilitate reductive chlorination, whereas natural degradation under aerobic oxidizing conditions has been documented but is much less likely to occur. Historical trends and the results of the Year Seven MNA semiannual groundwater sampling are discussed below, and the data are provided in Section 4 tables.

Much of the discussion that follows uses the comparison values provided by USEPA in its *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* (USEPA, 1998).

6.2.1 Dissolved Oxygen

The preferred terminal electron acceptor during aerobic microbial respiration is oxygen, and DO is measured to determine whether the groundwater is under aerobic or anaerobic conditions. Average DO values less than 1 mg/L are tolerable of anaerobic microbial activities. DO levels during the two semiannual monitoring events (October 2021 and April 2022) of Year Seven ranged between 0.68 mg/L and 7.91 mg/L for the October 2021 event and between 1.2 mg/L and 7.22 mg/L for the April 2022 event, indicating aerobic conditions were generally present at the site.

6.2.2 Oxidation-Reduction Potential

ORP values indicate the groundwater's reductive potential and are used to confirm the DO measurements in groundwater. ORP values less than +50 mV typically correspond to mildly reducing, anaerobic conditions, whereas ORP values less than -200 mV correspond to highly reducing, anaerobic conditions.

ORP levels recorded during the Year Seven MNA sampling ranged from 6.8 mV to 235.2 mV for the October 2021 event and from 97.9 mV to 213.6 mV for the April 2022 event, indicating aerobic conditions were present at the site. Aerobic conditions remain most prevalent. Further, with a few minor exceptions, the ORP values and DO readings for both events showed a clear correlation whereby ORP values demonstrating aerobic conditions were confirmed with DO readings.

6.2.3 pH

The pH for optimum microbial activity ranges from 5 SU to 9 SU. Microbial activity may decrease at lower pH values. All pH measurements during Year Seven ranged between 6.64 SU and 8.07 SU, within this optimal pH range. In general, the pH environment at SWMU 49 is suitable for microbial activity.

6.2.4 Nitrate

Following oxygen, microorganisms preferentially use nitrate as a terminal electron acceptor. Depressed nitrate concentrations may indicate nitrate-reducing conditions that promote the degradation of CT forming breakdown by-products. Nitrate levels during Year Seven of MNA sampling were generally low (a calculated average of all measurements is less than 1 mg/L), with

concentrations ranging from 0.22 mg/L to 4.0 mg/L, very similar to Years One through Six of MNA sampling. The highest levels of nitrate were observed at monitoring well 48MW3 with concentrations of 3.3 mg/L (October 2021 event) and 4.0 mg/L (April 2022 event).

6.2.5 Ferrous Iron

Ferric iron is reduced to soluble Fe^{2+} (ferrous iron) in the groundwater where iron-reducing bacteria facilitate activity. An increase in Fe^{2+} concentrations is indicative of iron-reducing conditions and can be used to determine the potential for contaminant precipitation or coprecipitation and for geochemical modeling. Biological reduction of CT is favored in iron-reducing conditions; therefore, elevated levels of Fe^{2+} are an indicator of favorable groundwater conditions. Fe^{2+} concentrations for all wells during Year Seven of MNA monitoring ranged between 0.0 mg/L (non-detect) and 0.28 mg/L for October 2021 and between 0.01 mg/L and 1.78 mg/L for April 2022, indicating that iron-reducing conditions remain low but were higher than Year Six.

6.2.6 Sulfate

After DO and nitrate have been depleted in the microbiological treatment zone, sulfate may be used as a terminal electron acceptor for anaerobic biodegradation. This process is termed “sulfate reduction” and results in the production of sulfide. At higher concentrations, sulfate (and nitrate) may compete with the reductive pathway. Relative amounts of sulfate provide additional lines of evidence of reducing conditions in the aquifer and provide data on changing aquifer conditions. However, reductive dechlorination still occurs in plumes with high concentrations of sulfate (USEPA, 1998). Sulfate concentrations were measured in the groundwater during each of the Year Seven MNA sampling events and were found to range between 0.88 mg/L and 120 mg/L, very similar to the MNA sampling results from Years Two through Six.

6.2.7 Total Organic Carbon

TOC concentrations greater than 20 mg/L are considered adequate to support microbial activity. For the Year Seven MNA monitoring, TOC concentrations ranged from 0.00 mg/L (non-detect) to 6.1 mg/L, suggesting a still unfavorable environment. TOC concentrations during the Year One MNA sampling ranged from 0.0 mg/L (non-detect) to 34 mg/L. TOC concentrations during the Year Two MNA sampling ranged from 0.0 mg/L (non-detect) to 6.0 mg/L, a notable decrease in

TOC concentrations from Year One. TOC concentrations recorded during Year Three monitoring, however, increased from the Year Two high of 6.0 mg/L to 13 mg/L. TOC concentrations during Year Four ranged from 0.00 mg/L (non-detect) to 3.7 mg/L. TOC concentrations in Year Five ranged from 0.00 mg/L (non-detect) to 5.2 mg/L, whereas concentrations ranged from 0.00 mg/L (non-detect) to 2.7 mg/L for Year Six.

6.2.8 Specific Conductivity

Specific conductivity is the indirect measure of the presence of dissolved solids such as chloride, nitrate, sulfate, and Fe, all degradation by-products. **Figure 6-5** provides a time series plot of CT and chloroform concentrations relative to specific conductivity readings for monitoring wells 48MW2 and 48MW3 for Years One through Seven. **Figure 6-6** provides a time series plot of TCE and cis-1,2-DCE concentrations relative to specific conductivity readings for monitoring wells 48MW2 and 48MW3 for Years One through Seven. As with MNA Years Two through Six results, data suggest that TCE and CT contaminants are biodegrading, and more dissolved inorganic ions (such as chlorides, nitrates, sulfates, and Fe) are creating the electrical current witnessed in the specific conductivity readings. Data also suggest that organic compounds do not carry current and, therefore, have almost no conductivity (USACE, 1999). No direct trend in specific conductivity from Years One through Seven is evident.

Figures 6-7 and **6-8** provide time series plots of MNA indicators sulfate, nitrate, chloride, TOC, ethene, and methane in source monitoring wells 48MW2 and 48MW3 for Years One through Seven. Sulfate concentrations are trending slightly lower in monitoring well 48MW2 but had a large increase in monitoring well 48MW3 in Year Seven. Nitrate concentrations remain relatively stable in both monitoring wells 48MW2 and 48MW3. Chloride concentrations in both monitoring wells appear to have had only minor fluctuations over time, whereas TOC concentrations continue to fluctuate slightly. Methane concentrations have shown wide fluctuations in monitoring well 48MW2 over the past 3 years.

Figure 6-9 provides a time series plot of water quality parameters (DO, Fe, and ORP) in monitoring wells 48MW2 and 48MW3 for Years One through Seven. The time series plot shows that the individual trends for DO, Fe, and ORP are relatively consistent in monitoring wells

48MW2 and 48MW3 except for one event in 2020 due to a large increase in DO in monitoring well 48MW2.

Monitoring wells 13MW2, 50MW02, and 48MW3 appear to carry more of the dissolved solids, with high conductivity readings ranging from 668 microsiemens per centimeter (µS/cm) to 676 µS/cm, 603 µS/cm to 679 µS/cm, and 629 µS/cm to 678 µS/cm, respectively. Biodegradation consumes sulfate and nitrate and produces alkalinity. Chloride is the ion that is formed during dechlorination that takes place in an anaerobic reduction zone. Chloride concentrations are fluctuating among all wells.

Monitoring well 48MW2 maintained aerobic conditions during both events of Year Seven monitoring. Chloride concentrations are impacted by more aerobic conditions and would be increasing; however, chloride concentrations are generally stable. Nitrate concentrations appear to be stable at monitoring well 48MW2. Ethane and ethene went undetected in both events at monitoring well 48MW2.

Table 6-1 SWMU 49 CT and TCE Semiannual Concentrations

Parameter	Units	RG	October 2021 (Event 25)	April 2022 (Event 26)
13MW2				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	ND
13MW3				
Carbon Tetrachloride	µg/L	5	**5.3**	**6.0**
Trichloroethene	µg/L	5	0.89	0.95
13MW4				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	1.7 (duplicate)	0.68
13MW5				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
48MW06				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	1.5	1.4
48MW07				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
48MW1				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	1.2	2.4
48MW2				
Carbon Tetrachloride	µg/L	5	**24**	**29**
Trichloroethene	µg/L	5	1.7	1.7
48MW3				
Carbon Tetrachloride	µg/L	5	**74**	**75**
Trichloroethene	µg/L	5	**18**	**13**
49MW01				
Carbon Tetrachloride	µg/L	5	2.1	3
Trichloroethene	µg/L	5	ND	ND
49MW02				
Carbon Tetrachloride	µg/L	5	ND	ND
Trichloroethene	µg/L	5	ND	ND
49MW03				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
49MW04				
Carbon Tetrachloride	µg/L	5	0.50 J	0.74 J
Trichloroethene	µg/L	5	ND	ND
49MW05				
Carbon Tetrachloride	µg/L	5	A	ND
Trichloroethene	µg/L	5	A	ND
50MW02				
Carbon Tetrachloride	µg/L	5	1.2	0.78 (duplicate)
Trichloroethene	µg/L	5	1.1	0.72

Notes:
µg/L = micrograms per liter A = sampled annually ND = non-detect RG = remedial goal
bold values = above remedial goals

Figure 6-1 SWMU 49 Twenty-Fifth Event CT to Chloroform Correlation

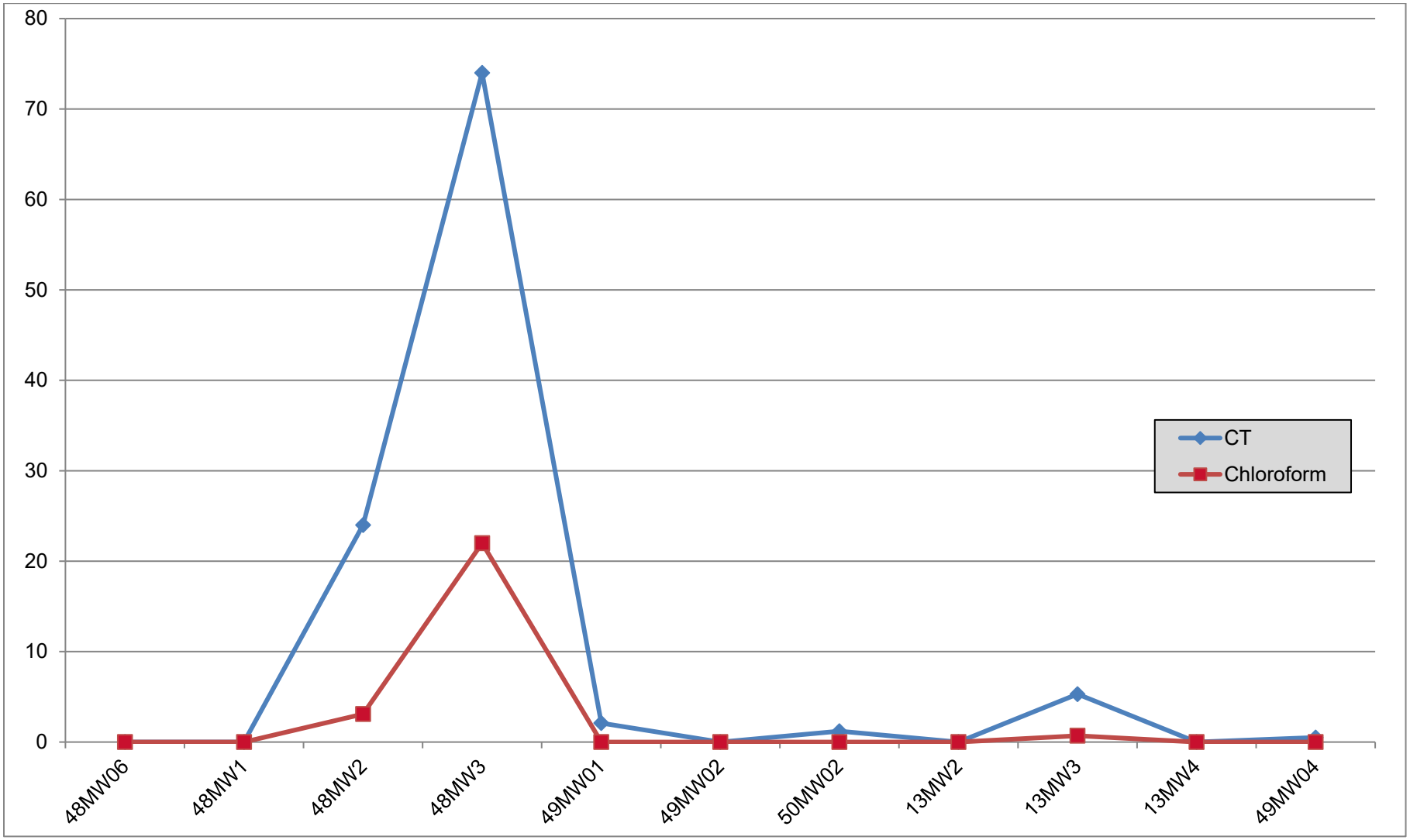


Figure 6-2 SWMU 49 Twenty-Fifth Event TCE to cis-1,2-DCE Correlation

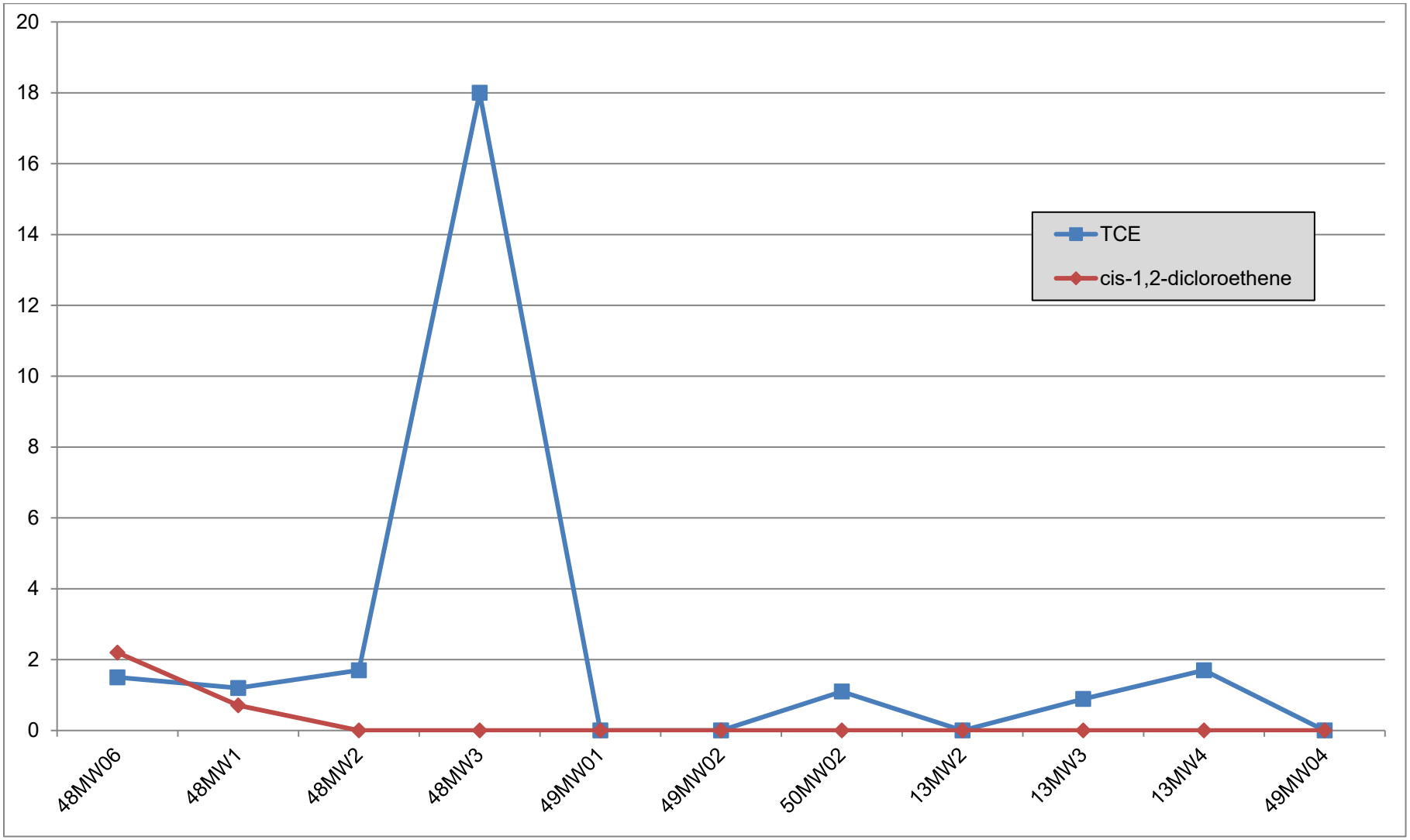


Figure 6-3 SWMU 49 Twenty-Sixth Event CT to Chloroform Correlation

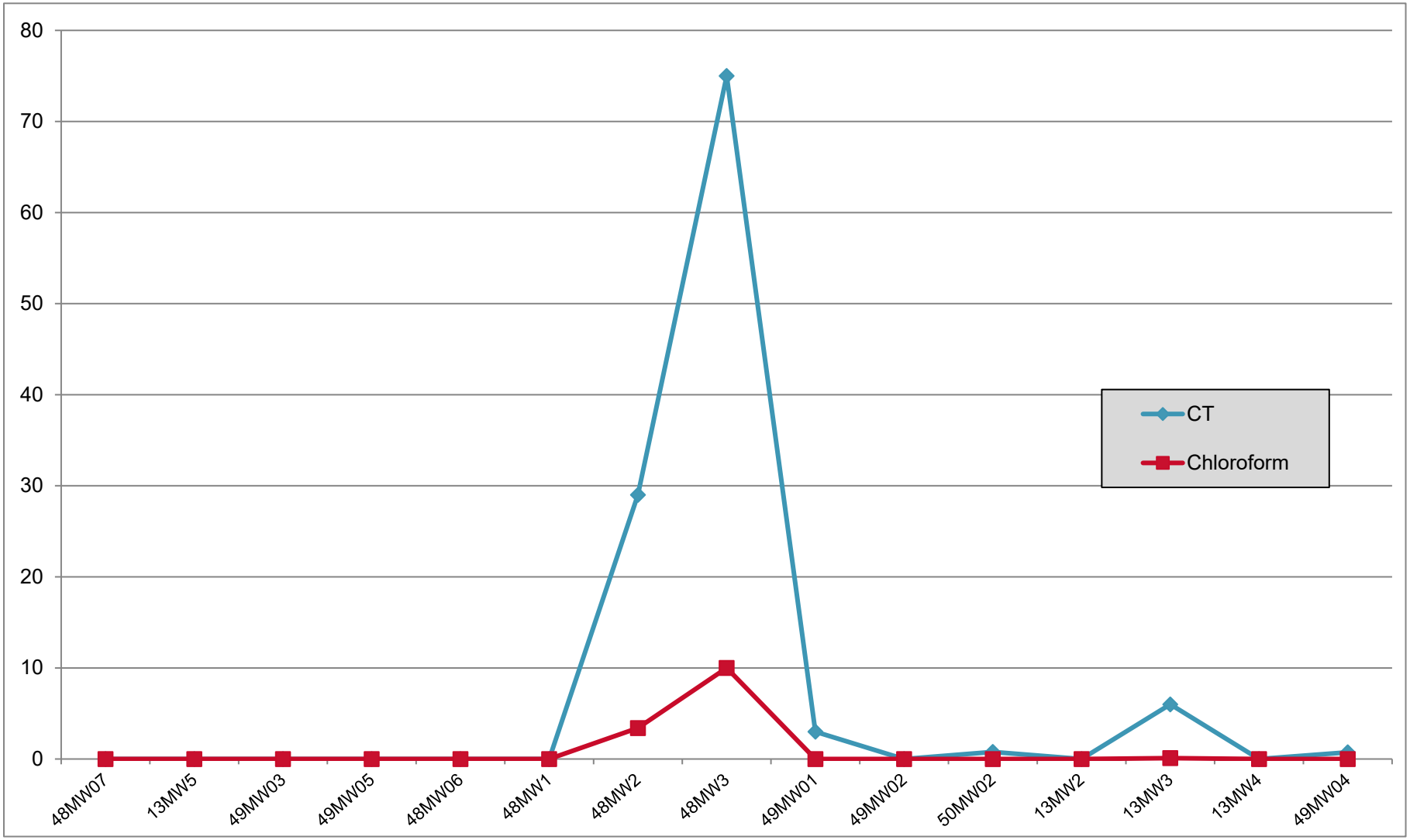


Figure 6-4 SWMU 49 Twenty-Sixth Event TCE to cis-1,2-DCE Correlation

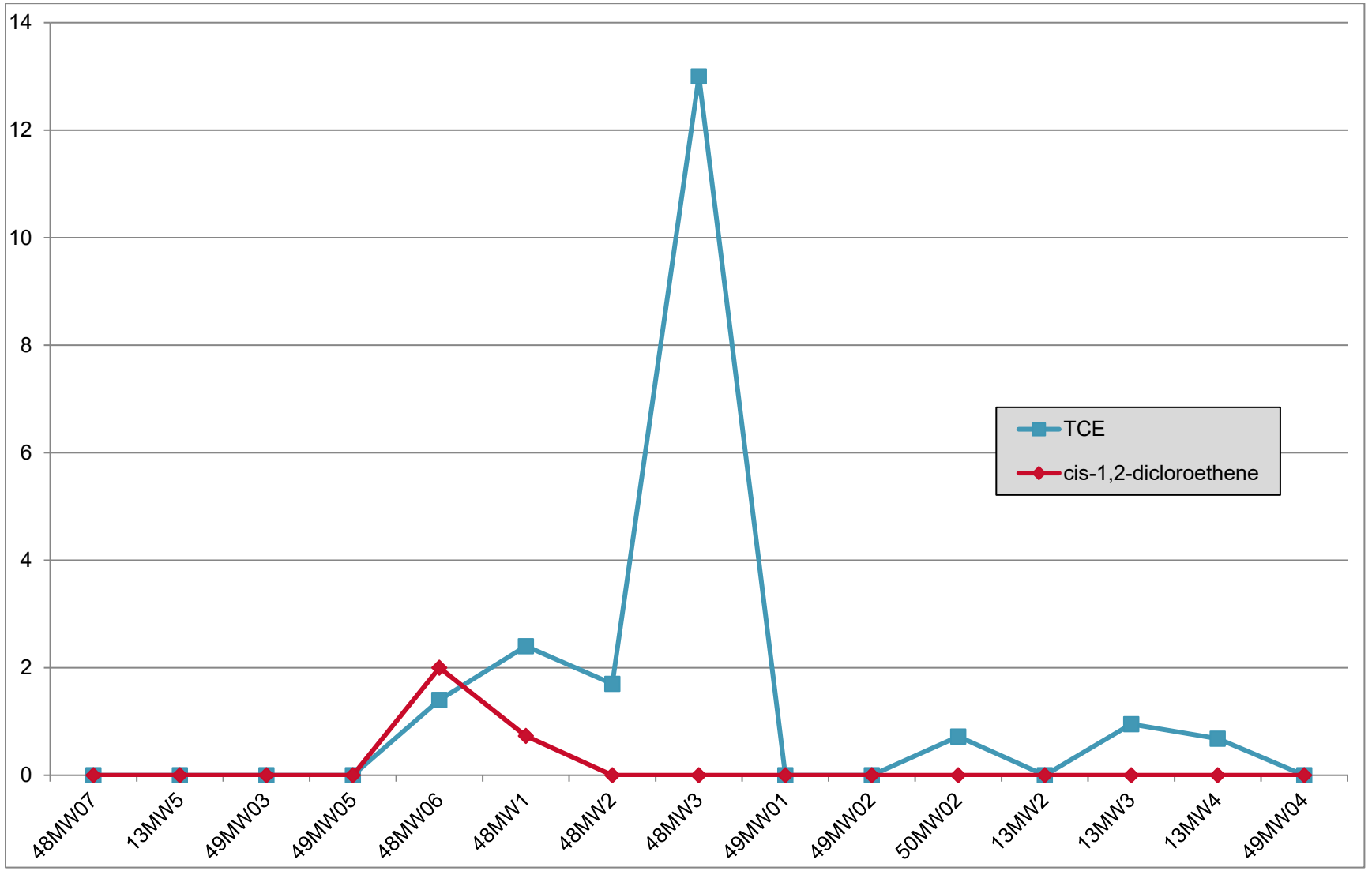


Figure 6-5 CT and Chloroform Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3

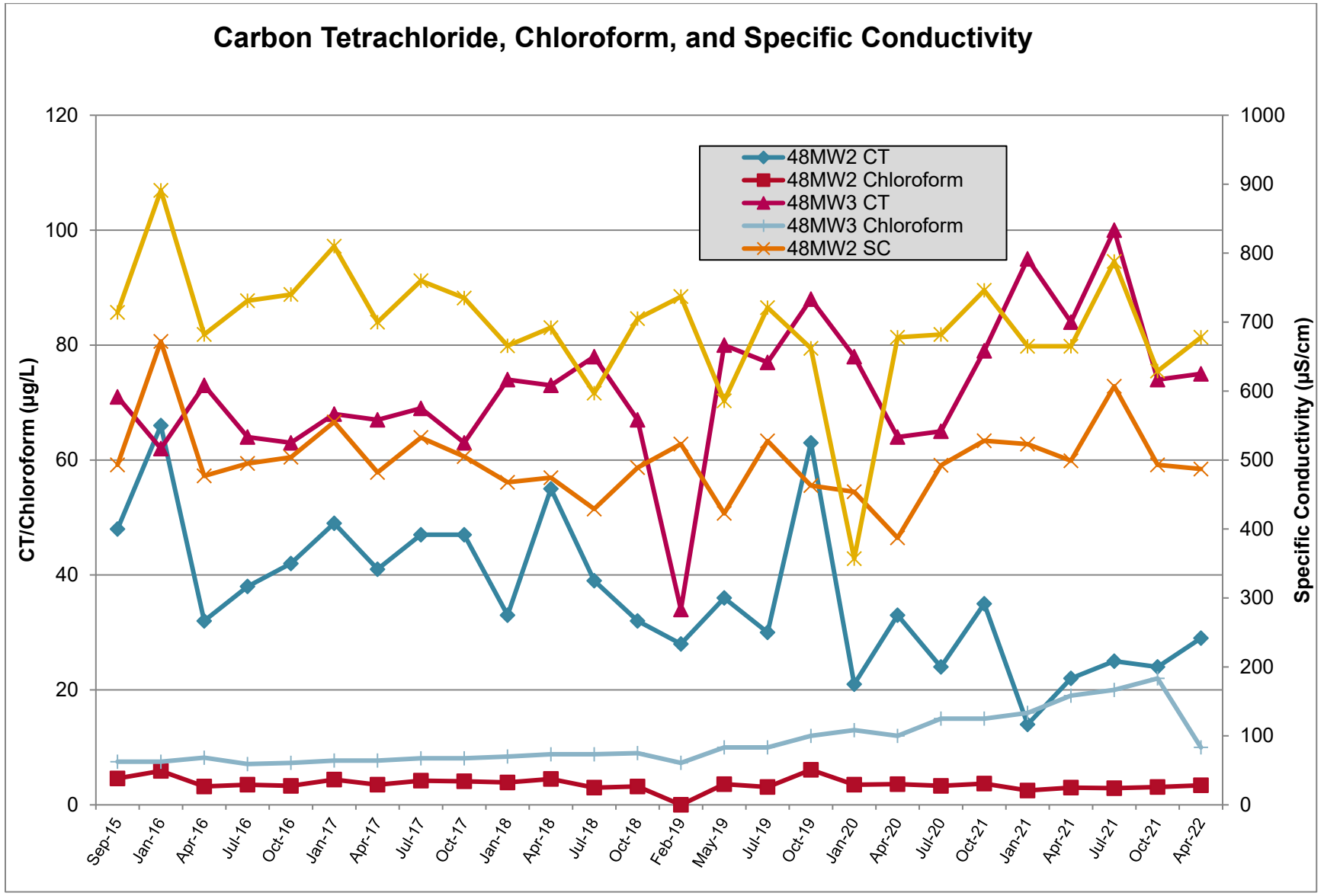


Figure 6-6 TCE and cis-1,2-DCE Concentration Trends Relative to Specific Conductivity 48MW2 and 48MW3

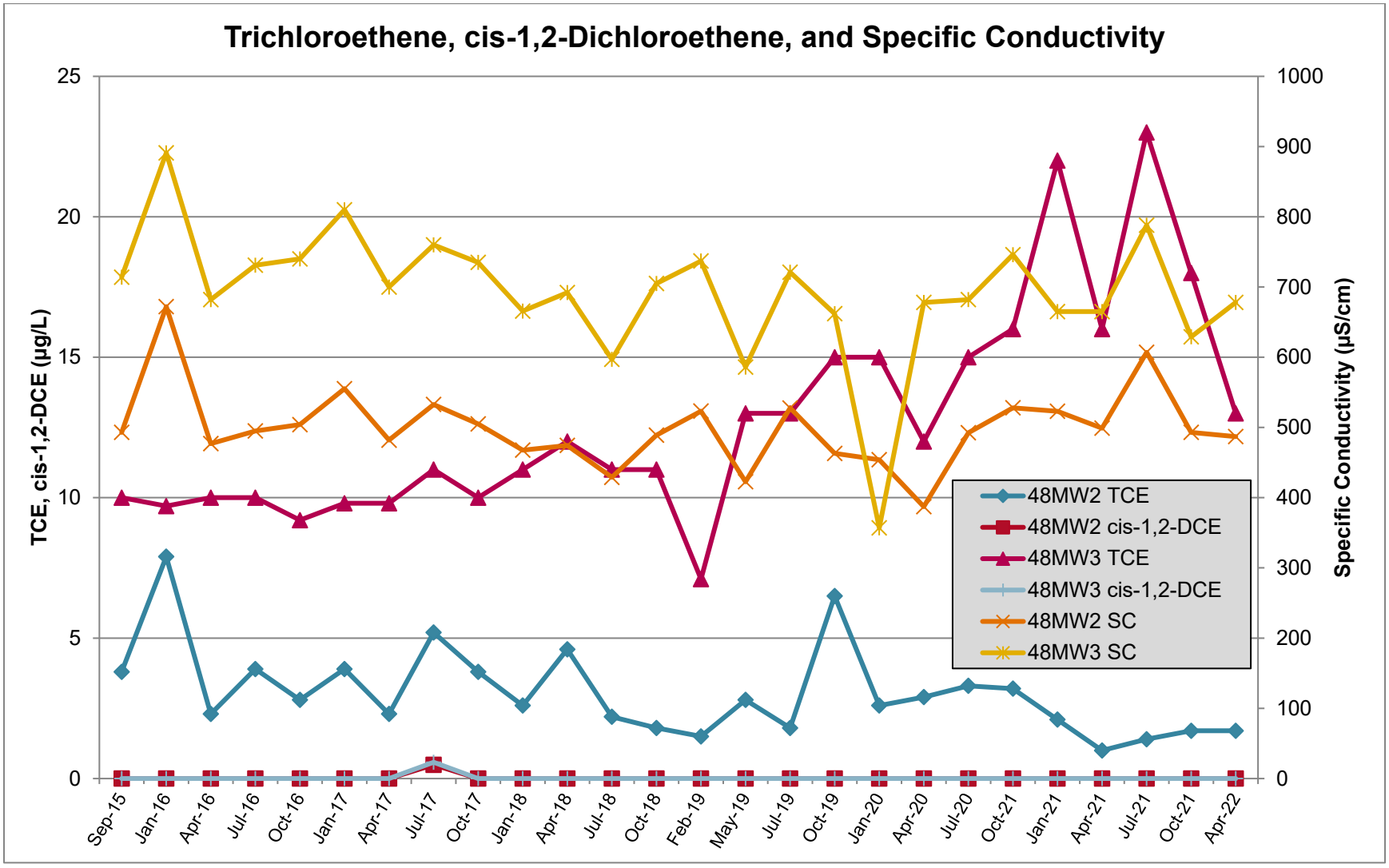


Figure 6-7 48MW2 MNA Indicators Years One, Two, Three, Four, Five, Six, and Seven

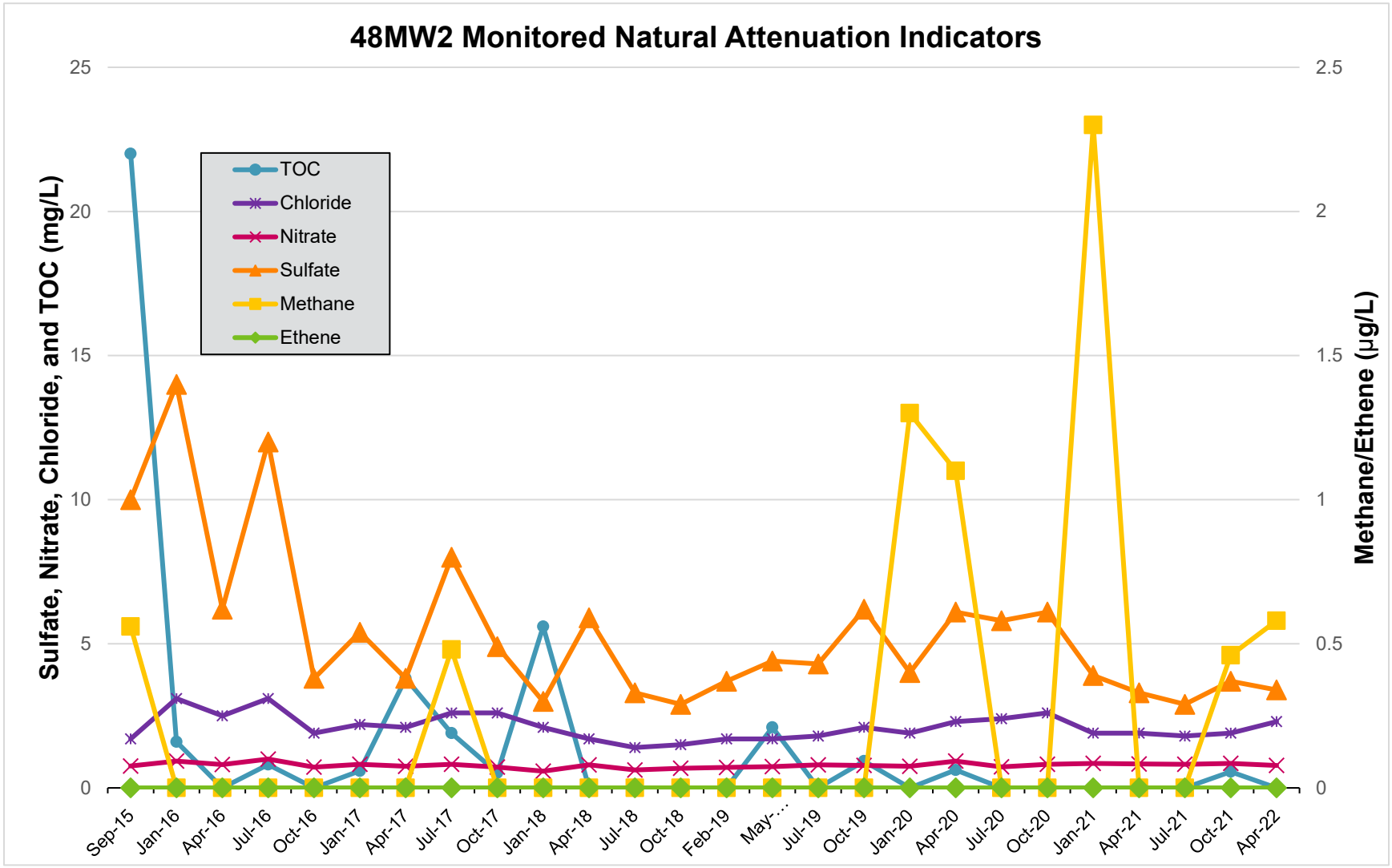


Figure 6-8 48MW3 MNA Indicators Years One, Two, Three, Four, Five, Six, and Seven

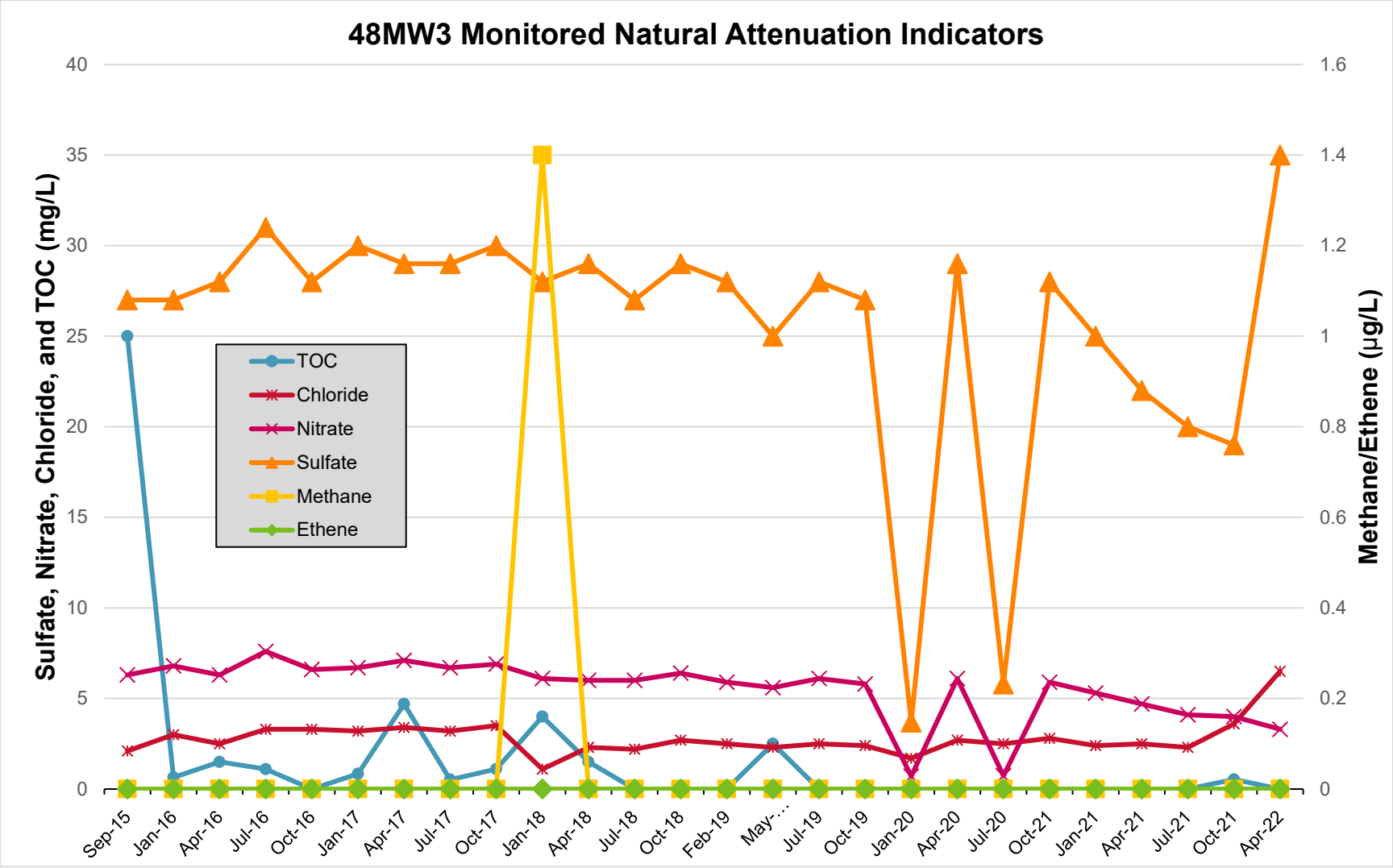
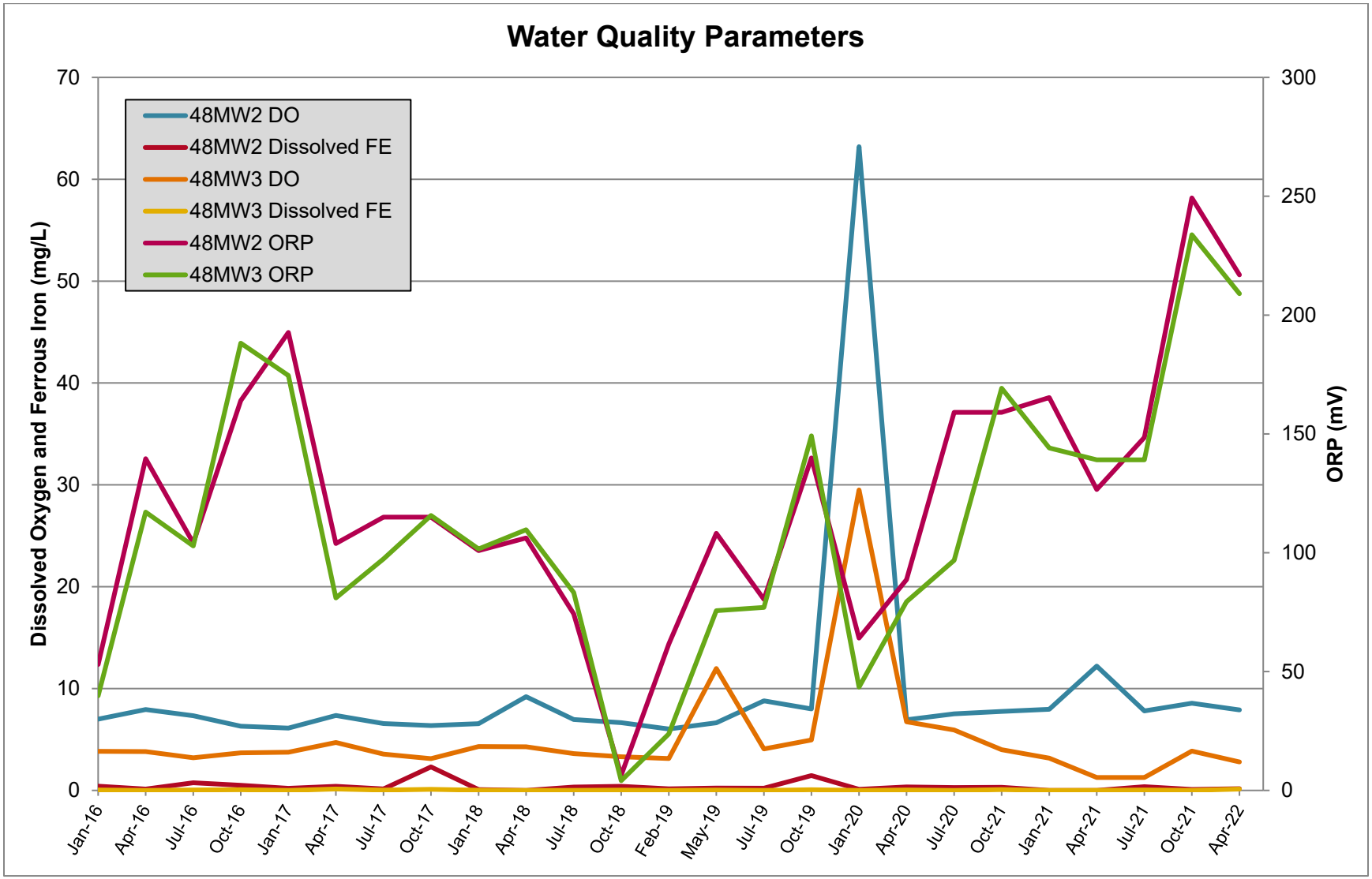


Figure 6-9 Water Quality Parameters 48MW2 and 48MW3 Years One, Two, Three, Four, Five, Six, and Seven



7. SUMMARY AND CONCLUSIONS

Eleven groundwater monitoring wells were sampled on a semiannual (October 2021 and April 2022 events) basis during the Year Seven MNA monitoring at SWMU 49, and four more were sampled on an annual basis (April 2022 event). The two semiannual events of sample data suggest that CT and TCE concentrations are increasing in some wells and decreasing in others, as has been shown historically. CT and TCE remain in exceedance of the RGs. The CT contaminant plume remains centered around monitoring wells 48MW2 and 48MW3, although detections and RG exceedances were observed downgradient along the New River at monitoring well 13MW3 during both events, with a slightly increasing concentration observed. TCE was detected in both events at monitoring wells 48MW06, 48MW1 (located adjacent to 48MW06), 48MW2, 48MW3, and 50MW02, with both detections at 48MW3 above the RG. Further, TCE was detected in both events at monitoring wells 13MW3 and 13MW4, which are located downgradient and adjacent to the New River. Concentrations at these two downgradient wells were below the RG for TCE.

Based on the presence of chloroform in wells where CT was observed, it appears that VOC is continuing to degrade. The data suggest that MNA processes may still be decreasing mass; however, CT concentrations have been variable but generally stable for the past 3 years in monitoring wells 48MW3 and 48MW2. The data suggest that the correlation of cis-1,2-DCE to TCE is not as prevalent as an indicator of degradation. TCE concentrations decreased in Year Seven compared to Year Six in monitoring well 48MW3 and have been slightly variable but stable in other wells over the last 3 years.

In summary, the following conclusions and recommendations are made regarding the potential for MNA in contaminated groundwater at SWMU 49:

- The presence of chloroform suggests that degradation is occurring, which may be aiding in removing CT mass in the groundwater.
- The breakdown product, cis-1,2-DCE, is present at the site, although no substantive correlation continues to exist with TCE. TCE concentrations have decreased at monitoring well 48MW3 from Year Six to Year Seven but remained relatively stable at monitoring well 48MW2.

- Geochemical parameters also indicate that groundwater conditions are currently aerobic (based on DO and ORP levels) and that pH and TOC levels are adequate to promote microbial degradation. Overall, Fe^{2+}, nitrate, and sulfate concentrations do not appear to favor conditions to support degradation. However, conditions still appear to be trending toward a favorable environment for microbial degradation.

- Based on the MNA results presented in the SWMU 49 MNA Sampling Baseline Report (CB&I, 2015), other MNA processes including sorption, dilution, dispersion, and chemical stabilization are occurring in groundwater at the SWMU 49 study area. Conditions appear favorable that these processes will not significantly change or diminish and will continue to contribute to attenuation of the contaminants at SWMU 49.

- Because the groundwater flow pattern is consistent with the historical pattern, the monitoring well network appears adequate to monitor MNA at SWMU 49.

- Based on the consistency of the data, it is recommended that sampling on a semiannual basis at the 15 monitoring well locations continue.

8. REFERENCES

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APPENDIX A-1
FIELD SAMPLING LOGS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/26/2021
Well ID: 13MW2	Weather: Overcast, Misty, 52°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact / Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.6	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 21.72	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1312	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1317	1	22.27	14.6	673	5.50	7.22	~~28.6~~ 168.7	88.66
1322	2	22.50	14.4	671	5.45	7.15	173.0	17.3
1327	3	22.62	14.4	670	5.48	7.13	175.7	22.20
1332	4	22.82	14.5	668	5.38	7.12	178.9	28.21

Red font indicates stabilization criteria to be achieved over three consecutive readings

Final Depth to Water (ft. BTOC): 22.82	Drawdown Observed (ft): 0.55
Odor: YES / NO Sulfur	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 1342	Total Volume Purged (L): 4

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/26/2021 1338	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.01	Sample Collection Depth (ft. BTOC): 28

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/26/2022
Well ID: 13 MW-2	Weather: Rain 70°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments: Pneumatic pump dedicated to well.
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 30.51	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 21.76	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1224	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1225	0.25	22.0	14.2	676	5.03	7.09	144.6	2.72
1230	1.25	22.27	14.1	675	4.79	7.07	143.3	1.84
1235	2.50	22.51	14.1	676	4.53	7.07	144.8	2.28
1240	3.75	22.68	14.1	676	4.47	7.06	144.7	2.45

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 23.0	Drawdown Observed (ft): 1.24
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1250	Total Volume Purged (L): 3.25

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/26/22 1247	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.9	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.10	Sample Collection Depth (ft. BTOC): 30

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/26/2021
Well ID: 13MW3	Weather: Overcast, 52°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 17.7	Well Evacuation Method: (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 15.45	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1049	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1054	1	15.44	16.2	565	1.81	6.96	-1.7	13.2
1059	2	15.44	16.2	565	1.67	6.97	-5.2	9.9
1104	3	15.44	16.2	566	2.17	6.98	1.9	8.63
1109	4	15.44	16.4	566	2.40	6.99	5.7	9.36
1114	5	15.44	16.4	566	2.50	6.98	6.8	~~20~~ 10.23

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 15.44	Drawdown Observed (ft): 0
Odor: YES / NO Sulfur	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 1	Total Volume Purged (L): 5

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/26/2021 1126	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.7	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.04	Sample Collection Depth (ft. BTOC): ~~15~~ 17

COMMENTS

Collected extra volume (x3) for MS/MSD analyses.

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/26/22
Well ID: 13 MW3	Weather: Partly Cloudy 64°F 2mph NE wind
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments: Pneumatic pump dedicated to well.
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 17.61	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 15.30	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1003	Evacuation Rate (Lpm): 0.20
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1005	0.20	15.23	13.5	574.7	3.86	7.01	186.2	13.3
1010	1.0	15.24	13.5	573.7	3.21	6.99	186.1	1.22
1015	2.0	15.24	13.5	573.7	3.20	6.98	185.4	0.66
1020	3.0	15.23	13.7	572.2	3.15	6.99	183.1	0.31

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 15.24	Drawdown Observed (ft): None
Odor: YES /(NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 3.0

SAMPLE COLLECTION INFORMATION

Sample ID: 13 MW 3	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/26/22 1026	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.6	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.01	Sample Collection Depth (ft. BTOC): 17

COMMENTS

MS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMU 49 & 54	Date: Tues. 10/26/2021
Well ID: 13MW4	Weather: Overcast, misty, 52°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact / Damaged	Well ID Tag Condition: Warped
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.41	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 17.11	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0903	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0908	1	17.15	15.2	560	0.63	7.55	179.2	114.7
0913	2	17.16	15.3	553	0.51	7.37	180.0	275
0918	3	17.17	15.4	546	0.67	7.29	180.6	234
0923	4	17.17	15.5	532	0.92	7.17	183.0	139
0928	5	17.17	15.5	514	1.39	7.05	187.0	46.4
0933	6	17.18	15.5	495.8	1.86	6.96	192.1	191
0938	7	17.18	15.4	489.0	2.14	6.92	196.4	187.7
0943	8	17.19	15.4	472.8	2.63	6.84	201.9	75.5
0948	9	17.19	15.4	467.2	2.71	6.78	206.7	116.4
0953	10	17.19	15.5	455.3	3.03	6.73	212.1	126.3
0958	11	17.19	15.3	450.3	3.22	6.69	216.9	147.9
1003	12	17.19	15.5	446.5	3.34	6.66	220.9	146.6

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 17.19	Drawdown Observed (ft): 0.04
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L): 12

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW4	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/26/2021 1010	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: 13TW4	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.4	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.02	Sample Collection Depth (ft. BTOC): 23

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/26/2022
Well ID: 13 MW4	Weather: Partly Cloudy 64°F 2mph NE wind
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Fair
Locked: (YES)/ NO	Measuring Point Marked: (YES)/ NO
Concrete Base: (Intact)/Damaged	Comments: Pneumatic pump dedicated to well. Well placard is bent.
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in (4 in), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 25.40	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 16.73	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 859	Evacuation Rate (Lpm): 0.20
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
903	0.20	16.8	14.4	450.3	5.50	6.85	188.2	5.41
908	1.0	16.8	14.4	448.8	4.90	6.85	186.1	8.18
913	2.0	16.8	14.4	447.8	4.75	6.84	185.3	9.56
918	3.0	16.75	14.4	446.2	4.73	6.83	184.5	7.44

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 16.75	Drawdown Observed (ft): 0.02
Odor: YES /(NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 937	Total Volume Purged (L): 3.0

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW4	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/26/22 925	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.9	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.04	Sample Collection Depth (ft. BTOC): 24

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/26/2022
Well ID: 13MW5	Weather: Sunny 65°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES)/ NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments: dedicated pneumatic pump in well.
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in, (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 26.60	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 16.80	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 740	Evacuation Rate (Lpm): 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
740	0.15	16.80	13.8	647	5.80	6.94	224.7	6.18
745	0.75	16.85	13.7	646	4.70	6.82	219.4	5.10
750	1.50	16.79	13.7	646	4.77	6.90	206.4	5.90
755	2.25	16.80	13.7	646	4.58	6.95	198.4	7.33
800	3.0	16.80	13.7	646	4.67	6.96	194.9	7.64
805	3.75	16.80	13.8	646	5.87	6.98	191.8	4.81
810	4.50	16.80	13.8	645	6.31	7.00	188.4	4.56
815	5.25	16.80	13.9	646	6.24	7.00	186.5	5.26

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 16.71	Drawdown Observed (ft):
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 838	Total Volume Purged (L): 5.25

SAMPLE COLLECTION INFORMATION

Sample ID: 13MW5	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/26/22 821	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 1.8	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.69	Sample Collection Depth (ft. BTOC): 25

COMMENTS

MS/MSD

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMU (49) & 54	Date: 10/27/2021
Well ID: 48MW1	Weather: Fair 55°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged Rusty	Well ID Tag Condition: None.
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 142.6	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 108.74	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1442	Evacuation Rate (Lpm): 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1447	0.25	108.74	14.4	512	4.27	7.61	174.3	243.03
1452	0.50	109.05	14.2	517	3.97	7.59	176.5	214.73
1457	0.75	109.05	14.1	518	3.87	7.59	177.8	224.23
1502	1.0	109.12	13.9	519	3.77	7.57	178.8	219.20

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 109.12	Drawdown Observed (ft): 0.18
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time):	Total Volume Purged (L): 1.0

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW1	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/27/2021 1508	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.6	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.04	Sample Collection Depth (ft. BTOC): 140

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/29/2022
Well ID: 48 MW 1	Weather: Cloudy 50°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in, 4 in, 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 142.0	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 108.79	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0747	Evacuation Rate (Lpm): 0.10
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0850	0.3	108.95	12.0	479.9	4.47	7.20	222.3	86.0
0755	0.8	109.05	12.0	528.7	3.65	7.17	207.9	66.8
0800	1.3	109.14	12.1	533.8	3.35	7.17	198.6	60.5
0805	1.8	109.24	12.0	534.4	3.31	7.18	192.9	46.5
0810	2.3	109.33	12.1	534.2	3.44	7.18	188.9	37.4
0815	2.8	109.37	12.1	534.1	3.29	7.19	186.1	34.5
0820	3.3	109.42	12.2	533.6	3.18	7.19	183.1	24.4
0825	3.8	109.47	12.2	533.3	3.15	7.19	180.9	19.2
0830	4.3	109.52	12.2	532.8	3.10	7.16	179.2	15.6
0835	4.7	109.57	12.2	532.7	3.10	7.19	177.7	12.9
0840	5.3	109.61	12.2	532.3	3.07	7.19	176.4	11.9
0845	5.8	109.64	12.3	532.5	3.03	7.19	175.1	10.2

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 109.70	Drawdown Observed (ft): 1.09
Odor: YES NO	Well Pumped Dry: YES NO
End Well Evacuation (Time): 0900	Total Volume Purged (L): ~~5.09~~ (4) 5.08

SAMPLE COLLECTION INFORMATION

Sample ID: 48 MW 1	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/29/2022 0850	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.6	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.01	Sample Collection Depth (ft. BTOC): 140

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 48MW2	Weather: Mostly cloudy 52°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: None
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 136.5	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 123.80	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1044	Evacuation Rate (Lpm) : 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1049	0.25	124.05	13.1	494.9	8.17	7.47	204.1	1473
1054	0.50	124.08	13.2	496.5	8.04	7.45	208.8	556
1059	0.75	124.22	13.2	496.6	7.96	7.43	212.4	318
1104	1.0	124.20	13.2	496.0	7.93	7.43	214.4	246
1109	1.25	124.27	13.2	493.2	7.91	7.43	216.9	257

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 124.27	Drawdown Observed (ft): 0.22
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L): 1.25

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 1115	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.6	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.17	Sample Collection Depth (ft. BTOC):

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/27/2022
Well ID: 48 MW2	Weather: Sunny 62°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES)/ NO	Measuring Point Marked: (YES)/ NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 136.20	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 124.75	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1336	Evacuation Rate (Lpm): 0.10
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1338	0.2	124.98	13.3	489.9	7.06	7.22	176.9	>1000
1343	0.7	125.03	13.1	491.4	6.88	7.19	176.2	546
1348	1.2	125.12	13.2	490.2	6.54	7.21	174.8	301
1353	1.7	125.19	13.2	489.7	6.34	7.19	173.6	217
1358	2.2	125.17	13.3	487.0	6.17	7.18	172.4	218

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 125.19	Drawdown Observed (ft): 0.44
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1412	Total Volume Purged (L): ~2.2

SAMPLE COLLECTION INFORMATION

Sample ID: 48 MW 2	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/27/22 1404	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.3	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.73	Sample Collection Depth (ft. BTOC): 132

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 48MW3	Weather: Cloudy, 57°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact / Damaged	Well ID Tag Condition: None
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 122.35	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 95.66	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1223	Evacuation Rate (Lpm) : 0.02
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
12:23	0.02	95.73	13.9	621	5.81	7.39	199.4	18.5
12:28	0.1	95.74	13.9	623	5.42	7.35	202.7	22.53
12:33	0.2	95.78	13.8	625	4.45	7.29	205.4	26.48
12:38	0.3	95.83	13.7	627	4.11	7.26	207.3	32.99
12:43	0.4	95.80	13.7	627	3.70	7.25	208.2	39.37
12:48	0.5	95.85	13.8	629	3.16	7.24	208.9	40.22
12:53	0.6	95.88	13.8	629	2.80	7.23	209.0	38.96

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 95.88	Drawdown Observed (ft): 0.15
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L): 0.6

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW3	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 1259	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.8	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.13	Sample Collection Depth (ft. BTOC): 115

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/27/2022
Well ID: 48 MW 3	Weather: Sunny 62°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES)/NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in, (4 in.), 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 122.35	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 96.66	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1228	Evacuation Rate (Lpm): 0.10
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1230	0.2	96.91	12.6	678	7.45	7.00	175.6	14.7
1235	0.7	97.0	12.6	678	6.93	7.01	175.6	5.08
1240	1.2	97.11	12.5	677	7.12	7.01	175.6	5.52
1245	1.7	97.21	12.6	678	6.58	7.00	175.9	3.12

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 97.41	Drawdown Observed (ft): 0.75
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1302	Total Volume Purged (L): 3.40

SAMPLE COLLECTION INFORMATION

Sample ID: 48 MW 3	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/27/2022 0252	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: ____	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 1.78	Sample Collection Depth (ft. BTOC): 120

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 48MW6	Weather: Cloudy, light rain, 57°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: None
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 79.6	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 66.35	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1536	Evacuation Rate (Lpm): 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.2

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1541	0.75	67.98	13.6	396.5	1.36	7.92	174.1	800
1546	1.50	68.07	13.5	397.3	1.29	7.86	175.5	234
1551	2.25	68.32	13.6	399.0	1.22	7.82	176.1	156
1556	3.0	68.40	13.6	403.9	1.17	7.78	176.7	92
1601	3.75	68.44	13.6	416.8	1.10	7.72	177.8	93
1606	4.50	68.44	13.6	429.6	1.06	7.67	178.8	75
1611	5.25	68.40	13.6	446.6	0.99	7.62	179.7	59.6
1616	6.00	68.25	13.6	465.8	0.92	7.57	180.4	57.3

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 48MW6	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 1622	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 1.0	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.04	Sample Collection Depth (ft. BTOC): 77

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/27/2022
Well ID: 48 MW 6	Weather: Sunny 63°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: None
Locked: (YES) NO	Measuring Point Marked: YES (NO)
Concrete Base: (Intact) Damaged	Comments: well not marked in field.
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 79.56	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 66.46	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1449	Evacuation Rate (Lpm) : 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1451	0.3	67.30	14.5	386.1	2.92	7.55	164.4	858
1456	1.05	67.57	13.9	383.7	1.76	7.54	163.3	454
1501	1.80	67.75	13.9	383.7	1.47	7.50	161.6	198
1506	2.55	67.86	13.6	384.8	1.38	7.50	161.0	129
1511	3.3	67.96	13.6	409.1	1.27	7.39	162.4	97.3
1516	4.05	68.02	13.7	430.5	1.21	7.36	161.3	83.9
1521	4.80	68.57	13.6	438.9	1.19	7.35	160.3	70.7
1526	5.55	68.05	13.5	463.2	1.16	7.29	160.4	60.9
1531	6.30	68.07	13.4	487.0	1.20	7.26	160.5	57.9

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 67.69	Drawdown Observed (ft): 1.23
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1543	Total Volume Purged (L): ~6.30

SAMPLE COLLECTION INFORMATION

Sample ID: 48 MW6	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/27/2022 1537	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 2.3	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.10	Sample Collection Depth (ft. BTOC): 77

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/28/2022
Well ID: 48 MW07	Weather: Sunny 65°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in.) 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 83.97	Well Evacuation Method (peristaltic, (bladder pump) other):
Depth to Water (ft. BTOC): 49.29	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1433	Evacuation Rate (Lpm) : 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1435	0.3	49.64	14.1	191.0	12.31	8.09	175.0	>1000
1440	1.05	50.47	13.8	191.3	7.12	8.11	173.7	>1000
1445	1.8	50.94	13.9	191.3	6.91	8.12	172.9	>1000
1450	2.55	51.65	13.8	191.4	6.67	8.11	172.3	>1000
1455	3.3	52.23	13.7	191.5	6.58	8.11	171.2	>1000
1500	4.05	52.51	13.7	191.5	6.53	8.09	170.3	>1000
1505	4.8	53.01	13.7	191.1	6.24	8.08	169.1	>1000
1510	5.55	53.01	13.6	191.2	6.28	8.07	167.7	≈1000
~~1515~~	~~6.3~~							
~~1520~~	~~7.05~~							
~~1525~~	~~7.8~~							
~~1530~~	~~8.55~~							

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 53.10	Drawdown Observed (ft): 3.81
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1524	Total Volume Purged (L): 5.55

SAMPLE COLLECTION INFORMATION

Sample ID: 48 MW 07	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/28/2022 1520	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.1	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.16	Sample Collection Depth (ft. BTOC): 80

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 49MW01	Weather: Fair, 55°F, Wind 3SW, 43°F
Sampling Team: M. Ewell / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Poor
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1½, 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 124.3	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 115.30	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0759	Evacuation Rate (Lpm): 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0804	0.25	115.48	11.2	439.1	9.14	8.12	244.7	1,243
0809	0.50	115.50	11.7	433.9	6.76	7.90	242.4	628.15
0814	0.75	115.50	12.1	429.4	5.74	7.79	239.4	406.09
0819	1.0	115.50	12.2	427.1	5.42	7.74	237.0	375.16
0824	1.25	115.50	12.3	425.5	5.25	7.71	235.2	320.16

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 115.30	Drawdown Observed (ft): 0.2
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time):	Total Volume Purged (L): 1.25

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW01	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 0829	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0	Sample Collection Depth (ft. BTOC): 123

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/28/2022
Well ID: 49 MW 01	Weather: Sunny 55°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES)/ NO	Measuring Point Marked: (YES)/NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 124.27	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 115.70	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1123	Evacuation Rate (Lpm) : 0.1
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1126	0.3	115.90	12.7	421.4	5.42	7.34	202.5	>1000
1131	0.8	115.96	12.7	421.7	4.69	7.30	200.2	887
1136	1.3	115.97	12.7	421.6	4.46	7.30	198.3	581
1141	1.8	116.0	12.7	421.5	4.41	7.31	196.8	423
1146	2.3	116.0	12.7	421.5	4.37	7.31	195.4	333
1151	2.8	116.0	12.7	421.8	4.70	7.29	194.6	254
1156	3.3	116.0	12.7	421.7	4.49	7.30	193.6	205
1201	3.8	116.02	12.7	422.0	4.31	7.30	192.7	171
1206	4.3	116.03	12.7	422.0	4.33	7.31	192.1	151
1211	4.8	116.02	12.7	422.5	4.32	7.30	191.3	134
1216	5.8	116.05	12.7	422.4	4.34	7.30	190.5	106
1221	6.3	116.02	12.8	422.2	4.30	7.30	189.9	107

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 116.02	Drawdown Observed (ft): 0.32
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time): 1233	Total Volume Purged (L): 6.3

SAMPLE COLLECTION INFORMATION

Sample ID: 49 MW 01	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/28/2022 1226	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.7	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.04	Sample Collection Depth (ft. BTOC): 120

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 49MW02	Weather: Cloudy, 57°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact) / Damaged	Well ID Tag Condition: None
Locked: (YES) / NO	Measuring Point Marked: YES / (NO)
Concrete Base: (Intact) / Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 134.7	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 89.13	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1427	Evacuation Rate (Lpm): 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1432	0.25	~~89.80~~ 90.07	13.6	512	6.87	7.77	175.1	584
1437	0.50	90.71	13.4	511	4.17	7.67	181.0	709
1442	0.75	91.30	13.4	511	3.59	7.62	184.8	715
1447	1.0	91.73	13.4	510	3.38	7.59	188.0	765
1452	1.25	92.27	13.3	510	3.31	7.56	190.6	862

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC):	Drawdown Observed (ft):
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW02	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 1457	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 1.8	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.78	Sample Collection Depth (ft. BTOC): 130

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/27/2022
Well ID: 49 MW2	Weather: Sunny 60°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 134.73	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 91.50	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1101	Evacuation Rate (Lpm): 0.18
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1105	0.4	91.76	13.8	531.9	129.6	7.24	172.0	562
1110	0.9	92.35	13.6	532.8	5.88	7.20	170.1	637
1115	1.4	92.85	13.6	533.3	5.23	7.18	168.9	608
1120	1.9	93.56	13.7	532.7	4.90	7.20	167.8	564
1125	2.4	93.95	13.8	532.9	4.98	7.19	166.9	588

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 93.95	Drawdown Observed (ft): 2.45
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 1140	Total Volume Purged (L): 3.9

SAMPLE COLLECTION INFORMATION

Sample ID: 49 MW 2	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/27/22 1132	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.8	Sample Collection Method: Low Flow Other:
Ferrous Iron (mg/L): 0.91	Sample Collection Depth (ft. BTOC): 130

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/28/2022
Well ID: 49 MW 03	Weather: Sunny 60°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: Good
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 119.70	Well Evacuation Method (peristaltic, (bladder pump), other):
Depth to Water (ft. BTOC): 105.57	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1306	Evacuation Rate (Lpm) : 0.15
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1310	0.6	105.57	13.5	326.9	7.95	7.32	203.0	>1000
1315	1.35	105.65	13.5	327.5	7.60	7.31	200.3	426
1320	2.10	105.62	13.5	327.9	7.44	7.31	198.1	120
1325	2.85	105.59	13.2	328.6	7.49	7.22	196.4	58.7
1330	3.6	105.61	13.5	327.1	7.35	7.31	198.0	32.6
1335	4.35	105.63	13.2	328.5	7.31	7.31	194.2	25.4
1340	5.1	105.61	13.5	328.5	7.31	7.31	193.2	21.2
1345	5.85	105.62	13.7	328.8	7.24	7.31	191.7	17.9
1350	6.6	105.61	13.5	328.8	7.22	7.30	191.0	17.0

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 105.6	Drawdown Observed (ft): 0.04
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1410	Total Volume Purged (L): 6.6

SAMPLE COLLECTION INFORMATION

Sample ID: 49 MW 03	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/28/2022 1356	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: ———	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.2	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.45	Sample Collection Depth (ft. BTOC): 115

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/26/2021
Well ID: 49MW04	Weather: Overcast, 52°F
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: None
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged Buried	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 73.	Well Evacuation Method (peristaltic, bladder pump, other)
Depth to Water (ft. BTOC): 20.92	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1200	Evacuation Rate (Lpm): 0.2
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.1

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1205	1	23.28	14.2	599	0.91	7.46	122.8	6.44
1210	2	24.32	14.1	599	0.79	7.88	112.8	5.80
1215	3	25.20	13.8	600	0.74	7.35	105.9	5.02
1220	4	25.80	13.8	600	0.70	7.34	102.1	4.75
1225	5	26.36	13.8	598	0.68	7.32	100.1	4.53

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 26.36	Drawdown Observed (ft): 3.08
Odor: YES / NO Sulfur	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 1230	Total Volume Purged (L): 5

SAMPLE COLLECTION INFORMATION

Sample ID: 49MW04	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/26/2021 1230	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.0	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.0	Sample Collection Depth (ft. BTOC): 65

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/26/22
Well ID: 49 MW 04	Weather: Partly Cloudy 64°F 2mph NE wind
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact) Damaged	Well ID Tag Condition: Good
Locked: (YES) NO	Measuring Point Marked: (YES) NO
Concrete Base: (Intact) Damaged	Comments: Concrete base covered w/ soil + debris
Casing Diameter: ½ in., ¾ in., 1 in., 1 ½ (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 72.92	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 20.90	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 1058	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
1100	0.25	22.13	15.8	636	3.44	7.24	26.9	615
1105	1.25	23.64	15.1	629	2.88	7.24	66.0	107
1110	2.50	24.30	14.8	630	2.64	7.23	83.0	26.7
1115	3.75	25.11	14.7	626	2.48	7.23	91.3	19.2
1120	5.0	25.75	14.6	627	2.18	7.23	94.0	14.0
1125	6.25	26.21	14.6	627	1.92	7.23	94.5	12.3
1130	7.50	26.6	14.4	628	1.75	7.23	95.1	9.95
1135	8.75	26.92	14.5	627	1.56	7.22	96.3	6.85
1140	10.0	27.09	14.7	626	1.43	7.22	97.9	5.86

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 27.92	Drawdown Observed (ft): 7.02
Odor: YES (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 1158	Total Volume Purged (L): 10.0

SAMPLE COLLECTION INFORMATION

Sample ID: 49 MW 04	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/26/22 1146	(SWMU 49) VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: 49 TW04	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 4.2	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.01	Sample Collection Depth (ft. BTOC): 70

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/27/2022
Well ID: 49 MW 05	Weather: Sunny 45°F
Sampling Team: Paul Taylor, Tyler Vas	Sampler's Signature: Tyler Vas

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: Good
Locked: (YES) / NO	Measuring Point Marked: (YES) / NO
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼, (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 39.78	Well Evacuation Method: (peristaltic), bladder pump, other):
Depth to Water (ft. BTOC): 20.34	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 748	Evacuation Rate (Lpm): 0.25
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5-minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
751	0.75	21.15	13.1	650	3.74	7.03	214.1	145
756	2.0	21.54	13.1	653	3.57	7.04	205.2	35.5
801	3.25	21.81	13.1	652	3.54	7.04	198.7	17.4
806	4.5	21.98	13.1	649	3.32	7.05	193.6	12.2
811	5.75	22.11	13.1	646.9	3.09	7.04	189.3	7.97
816	7.0	22.2	13.3	633.4	2.83	7.08	185.0	6.74
821	8.25	22.3	13.3	625.7	2.69	7.06	181.0	4.32
826	9.5	22.37	13.4	614.4	2.50	7.06	177.6	5.80

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 22.37	Drawdown Observed (ft): 2.03
Odor: YES / (NO)	Well Pumped Dry: YES (NO)
End Well Evacuation (Time): 0835	Total Volume Purged (L): 11.75

SAMPLE COLLECTION INFORMATION

Sample ID: 49 MW 05	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/27/2022 0832	(SWMU 49): VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous Fe, & Mn
Duplicate Sample ID: —	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous Fe, & Mn
Manganese (mg/L): 0.5	Sample Collection Method: (Low Flow) Other:
Ferrous Iron (mg/L): 0.29	Sample Collection Depth (ft. BTOC): 38

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 10/28/2021
Well ID: 50MW02	Weather: Cloudy
Sampling Team: M. Ewald / P. Taylor	Sampler's Signature:

WELL INSPECTION

Protective Casing: (Intact)/Damaged	Well ID Tag Condition: None
Locked: (YES) / NO	Measuring Point Marked: YES / (NO)
Concrete Base: (Intact)/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., (2 in.), 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.4	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 115.18	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0912	Evacuation Rate (Lpm) : 0.05
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0917	0.25	115.20	12.1	598	4.40	7.19	206.6	1,912
0922	0.50	115.20	12.3	599	4.26	7.16	209.9	1,796
0927	0.75	115.20	12.5	599	4.16	7.12	213.4	1,347
0932	1.0	115.20	12.5	600	4.13	7.11	215.3	1,176
0937	1.25	115.20	12.6	601	4.08	7.11	216.9	1,133
0942	1.50	115.20	12.5	601	4.06	7.11	218.0	654
0947	1.75	115.20	12.6	603	4.04	7.10	219.0	391.8

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 115.20	Drawdown Observed (ft): 0.02
Odor: YES / (NO)	Well Pumped Dry: YES / (NO)
End Well Evacuation (Time):	Total Volume Purged (L):

SAMPLE COLLECTION INFORMATION

Sample ID: 50MW02	PARAMETERS (Circle all applicable):
Sample Date & Time: 10/28/2021 0952	(SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID:	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 0.8	Sample Collection Method: (Low Flow (LF)) Other:
Ferrous Iron (mg/L): 0.13	Sample Collection Depth (ft. BTOC): 118

COMMENTS

WELL EVACUATION/SAMPLING FORM

GENERAL INFORMATION

Radford Army Ammunition Plant SWMUs 49 & 54	Date: 4/28/2022
Well ID: 50 MW2	Weather: Sunny 50°F
Sampling Team: Paul Taylor, Tyler VRS	Sampler's Signature:

WELL INSPECTION

Protective Casing: Intact/Damaged	Well ID Tag Condition: Good
Locked: YES / NO	Measuring Point Marked: YES / NO
Concrete Base: Intact/Damaged	Comments:
Casing Diameter: ½ in., ¾ in., 1 in., 1 ¼ in., 2 in., 3 in., 4 in., 6 in., 8 in.	

WELL EVACUATION INFORMATION

Total Depth (feet Below Top of Casing = ft. BTOC): 120.45	Well Evacuation Method (peristaltic, bladder pump, other):
Depth to Water (ft. BTOC): 116.14	Screen Interval (ft. BGS):
Begin Well Evacuation (Time): 0845	Evacuation Rate (Lpm): 0.10
Stop Evacuation (Time/Reason):	Restart Time:
	Headspace (ppm): 0.0

INDICATOR PARAMETERS

Time: (5 minute intervals)	Volume Purged (L):	Depth to Water (ft. BTOC):	Temperature (°C): (3%)	Specific Conductivity (µS/cm): (3%)	D.O. (mg/L): (10%)	pH: (±0.1)	ORP (mV): (±10 mV)	Turbidity (NTU): (10%)
0847	0.2	116.23	12.1	714	6.97	6.66	244.2	>1000
0852	0.7	116.15	12.0	707	6.45	6.63	236.8	>1000
0857	1.2	116.16	11.9	695	6.09	6.59	227.9	>1000
0902	1.7	116.17	11.8	686	6.08	6.60	223.2	897
0907	2.2	116.17	11.7	683	5.87	6.58	221.4	594
0912	2.7	116.16	11.7	682	6.07	6.58	218.6	438
0917	3.2	116.16	11.7	682	6.52	6.58	215.9	352
0922	3.7	116.16	11.7	682	5.86	6.60	213.9	264
0927	4.2	116.16	11.5	683	6.09	6.61	214.1	206
0932	4.7	116.16	11.2	683	6.26	6.64	214.6	195
0937	5.2	116.16	11.1	681	6.33	6.62	214.2	173
0942	6.2	116.17	11.2	679	6.22	6.64	213.6	169

Red font indicates stabilization criteria to be achieved over three consecutive readings.

Final Depth to Water (ft. BTOC): 116.17	Drawdown Observed (ft): 0.03
Odor: YES / NO	Well Pumped Dry: YES / NO
End Well Evacuation (Time): 1057	Total Volume Purged (L): 6.2

SAMPLE COLLECTION INFORMATION

Sample ID: 50 MW2	PARAMETERS (Circle all applicable):
Sample Date & Time: 4/28/2022 0948	SWMU 49: VOCs, MEE, Chloride/Nitrate/Sulfate, TOC, Ferrous FE, & Mn
Duplicate Sample ID: 50 FW2	SWMU 54: Explosives, Perchlorate, Chlorate/Chlorite, Chloride/Nitrate/Sulfate, TIC, TOC, Ferrous FE, & Mn
Manganese (mg/L): 1.4	Sample Collection Method: Low Flow (LF) Other:
Ferrous Iron (mg/L): 0.09	Sample Collection Depth (ft. BTOC): 119

COMMENTS

Synoptic Water Level Measurements

Radford Army Ammunition Plant SWMUs 49 & 54

Radford AAP, Virginia

Well Identification	Date	Time	Headspace Reading (ppm)	Depth to Water (ft BTOC)	Total Well Depth (ft BTOC)	Notes/Field Observations
SWMU 49						
13MW2	4/26/22	1215	0.0	21.76	30.51	Pneumatic pump dedicated to well.
13MW3	4/26/22	949	0.0	15.30	17.61	Pneumatic pump dedicated to well.
13MW4	4/26/22	851	0.0	16.73	25.40	Pneumatic pump dedicated to well. Soft bottom (Sediment build up)
13MW5	4/26/22	714	0.0	16.80	26.60	Pneumatic pump dedicated to well.
49MW4	4/26/22	1047	0.0	20.90	72.92	49 MW 04; Concrete base covered w/ soil.
49MW5	4/27/22	716	0.0	20.34	39.78	49 MW 05
48MW1	4/27/22	941	0.0	108.79	142.0	Soft bottom
48MW2	4/27/22	1016	0.0	124.75	136.20	Soft bottom
48MW3	4/27/22	1019	0.0	96.66	122.35	Soft bottom
48MW6	4/27/22	917	0.0	66.46	79.56	
MW7	4/27/22	907	0.0	49.29	83.97	Soft bottom
49MW1	4/27/22	951	0.0	115.70	124.27	
49MW2	4/27/22	1027	0.0	91.50	134.73	Soft bottom
49MW3	4/27/22	930	0.0	105.57	119.70	mud on probe
50MW2	4/27/22	1001	0.0	116.14	120.45	Soft bottom; mud on probe.
SWMU 54						
54MW1	4/26/22	1548	0.0	18.82	60.2	
54MW10	4/25/22	1408	0.0	16.00	30.38	Soft bottom (Sediment build up)
54MW12	4/26/22	1359	0.0	24.94	33.0	
54MW13	4/25/22	1023	0.0	21.38	25.35	

Key: ppm = parts per million ft = feet TOC = top of casing BTOC = below top of casing

APPENDIX A-2
CALIBRATION FORMS

Equipment Calibration Log

Project: Radford Groundwater Sampling – SWMUs 49 and 54

Date/Time	Equipment Description	Equipment ID	Calibration				
			Calibration Standard/Value	Pre-Calibration Readings	Post-Calibration Readings	Performed By	Lot No./Expiration Date/Comments
October 2021 Sampling Event							
10-26-2021/11:03	MultiRAE	22414	CO/50 ppm	35 ppm	49 ppm	Paul Taylor	Lot No. 304-401842189-1 Expires: 04/12/2022
			H_2S/10 ppm	12.5 ppm	10.0 ppm	Paul Taylor	
			LEL/50%	48.0%	49%	Paul Taylor	
			O_2/18.0%	18.1%	18.0%	Paul Taylor	
			VOC/100 ppm	91.2 ppm	100.4 ppm	Paul Taylor	Lot No. 304-40180617-1 Expires: 08/12/2023
10-26-2021/11:10	YSI – DSS	22813	Turbidity/123 NTU	143.44 NTU	122.11 NTU	Paul Taylor	
April 2022 Sampling Event							
04-26-2021/10:55	MultiRAE	22110	CO/50 ppm	39 ppm	48 ppm	Paul Taylor	Lot No. 304-401842189-1 Expires: 04/12/2022
			H_2S/10 ppm	13.8 ppm	10.2 ppm	Paul Taylor	
			LEL/50%	48.0%	50%	Paul Taylor	
			O_2/18.0%	18.0%	18.1%	Paul Taylor	
			VOC/100 ppm	94.1 ppm	101.0 ppm	Paul Taylor	Lot No. 304-40180617-1 Expires: 08/12/2023
04-26-2021/11:02	YSI – DSS	22549	Turbidity/123 NTU	132.22 NTU	123.71 NTU	Paul Taylor	

Notes:

CO = carbon monoxide
DSS = digital sampling system
H_2S = hydrogen sulfide
LEL = lower explosive limit
No. = number
NTU = nephelometric turbidity unit
O_2 = oxygen
ppm = parts per million
SWMU = Solid Waste Management Unit
VOC = volatile organic compound
YSI = Yellow Springs Instrument

APPENDIX B-1
LABORATORY ANALYTICAL REPORTS

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ANALYTICAL RESULTS FOR:

ANTHONY PACE
WESTON SOLUTIONS, INC.
2 EATON STREET
SUITE 603
HAMPTON, VA 23669

PROJECT SITE:	RFAAP SWMU-49; RADFORD, VA
DOD CONTRACT #:	
PROJECT #:	
SDG:	***165461***
FOLDERS:	165461, 165487, 165524
PREPARED:	December 3, 2021
TOTAL # OF PAGES:	1199

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: Brett Szymanski
PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 460203), LA (primary NELAP 115843), ISO17025 (A2LA 3806.01)

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Table of Contents

Section	Page
Cover Page	1
Table of Contents	2
Case Narrative and Summary of Detects (if applicable)	3
Data Qualifier Sheet	7
Sample Delivery Group Summary	9
QC Batch Cross Reference	10
VOC QC Summary Documents	13
VOC Sample Data Documents	99
VOC ICAL Documents	191
VOC CCV Documents	282
VOC QC Documents	328
VOC Logbook Documents	350
Metals CLP Forms Documents	391
Metals Raw Data Documents	479
Metals Logbook Documents	755
Inorganic CLP Forms Documents	938
Inorganic Raw Data Documents	1038
Inorganic Logbook Documents	1131
Chain of Custody, PM Confirmation and Sample Condition Forms	1172

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Case Narrative

Client: Weston Solutions
Project: RFAAP SWMU-49, Radford, VA
Sample Receipt Dates: 10/27/2021, 10/28/2021, 10/29/2021
SDG #: *165461* (Folder #'s 165461, 165487, 165524)

Fourteen water samples were received and analyzed for a variety of parameters, including: VOCs, Dissolved Gases, Metals, pH, COD, Anions, and TOC. Two Trip Blanks were included with the VOCs. The assigned sample ID number, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. A breakdown of sample receipt information can be found on the Sample Condition Report located in the last section of the data package and any exceptions are noted below. The analyses were performed following DOD QSM 5.3 requirements.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a Reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Methods 8260C (VOC) and RSK-175 (Dissolved Gases). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

VOC (8260C) Water Analysis

Analytical Run # 196904

CCV1 (analyzed 11/01/2021 @ 09:08 on VMS3) had a low recovery outside of specified criteria for 1,4-dioxane. This compound was qualified with a "Z" flag in the associated samples.

Dissolved Gases (RSK-175) Analysis

Analytical Run # 196980 (Methane, Ethene, Ethane)

All analytical results for this run met the method/project specified quality control criteria.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7470A (Hg). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals (6010C) Water Analysis

Continuing Calibration Verification (CCV) standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 196999

Magnesium was detected in the Method Blank (MB) greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). The sample was reported and not qualified because the MB result was less than 1/10th of the sample result.

The Duplicate (DUP) for sample # 1067793 was not applicable for antimony, arsenic, beryllium, cadmium, calcium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc because the parent sample results were less than five times the Limit of Quantitation (LOQ). A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The DUP for sample # 1067793 was not acceptable for aluminum and iron because the results exceeded the Relative Percent Difference (RPD) limit. The parent sample was reported and qualified with a "Y" flag for the failing elements.

The Matrix Spike (MS) and MSD for sample # 1067793 had recoveries outside the specified limits for aluminum, calcium, iron, manganese, silver, and thallium. A Serial Dilution (L) was analyzed and was not applicable for iron, silver, and thallium because the parent sample raw results were less than 50 times the LOQ. The L was not acceptable for calcium because the result exceeded the RPD limit. A Post Digestion Spike (PDS) was analyzed and was unacceptable for silver. The parent sample was reported and qualified with an "M" flag for the failing element.

ICP Sodium & Potassium (6010C) Water Analysis

Analytical Run # 197000

The DUP for sample # 1067793 was not applicable for sodium and potassium because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

CVAA Mercury (7470A) Water Analysis

Analytical Run # 197150

The sample QC was performed on a sample from SDG # 165486.

All analytical results for this run met the method/project specified quality control criteria.

Inorganic Analysis:

The samples were analyzed using US EPA Methods 9060A (TOC), 9040C (pH), 410.4 (COD) and 9056A (Anions). All samples were analyzed within the holding time unless noted below. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Anions (9056A) Water Analysis

Analytical Run # 196851

The MSD for sample # 1066469 had a low recovery for sulfate. The parent sample result for this analyte was qualified with an "M" flag.

Analytical Run # 196892

The MS/MSD analysis for this run was performed on a sample from a different SDG (SDG # 165486).

Analytical Run # 196929

All analytical results for this run met the method/project specified quality control criteria.

COD (410.4) Water Analysis

Analytical Run # 197021

The MS/MSD analysis for this run was performed on a sample from a different SDG (SDG # 165486).

pH (9040C) Water Analysis

Analytical Run # 196942

All analytical results for these runs met the method/project specified quality control criteria.

TOC (9060A) Water Analysis

Analytical Run # 197155

All analytical results for this run met the method/project specified quality control criteria.

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Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

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MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

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www.ctlaboratories.com

Sample Delivery Group

165461

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMU 49
Project #:

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	1066466	165461		TB-1	TRIP BLANK	10/26/2021	10/27/2021
2	1066467	165461		13MW4	GROUND WATER	10/26/2021	10/27/2021
3	1066468	165461		13TW4	GROUND WATER	10/26/2021	10/27/2021
4	1066469	165461		13MW3	GROUND WATER	10/26/2021	10/27/2021
5	1066470	165461		49MW04	GROUND WATER	10/26/2021	10/27/2021
6	1066471	165461		13MW2	GROUND WATER	10/26/2021	10/27/2021
7	1066854	165487		48MW1	GROUND WATER	10/27/2021	10/28/2021
8	1067785	165524		TB-2	TRIP BLANK	10/27/2021	10/29/2021
9	1067786	165524		48MW1	GROUND WATER	10/27/2021	10/29/2021
10	1067787	165524		49MW01	GROUND WATER	10/28/2021	10/29/2021
11	1067788	165524		50MW02	GROUND WATER	10/28/2021	10/29/2021
12	1067789	165524		48MW2	GROUND WATER	10/28/2021	10/29/2021
13	1067790	165524		48MW3	GROUND WATER	10/28/2021	10/29/2021
14	1067791	165524		49MW02	GROUND WATER	10/28/2021	10/29/2021
15	1067792	165524		48MW6	GROUND WATER	10/28/2021	10/29/2021
16	1067793	165524		49-IDW	GROUND WATER	10/28/2021	10/29/2021

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QC Batch Cross Reference Summary

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name:	RADFORD AAP SWMU 49
Project #:	
Report Date:	12/01/2021
Date Received:	10/29/2021
SDG #:	165461

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	pH	EPA 9040C	GROUND WATER		196942

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	COD QSM	EPA 410.4	GROUND WATER	83211	197021

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1066467	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1066468	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1066469	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1066470	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1066471	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1066854	Anions QSM 5.0	EPA 9056A	GROUND WATER		196892
1067787	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1067788	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1067789	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1067790	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1067791	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1067792	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929
1066469	Anions QSM 5.0	EPA 9056A	GROUND WATER		196851
1067792	Anions QSM 5.0	EPA 9056A	GROUND WATER		196929

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1066467	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1066468	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1066469	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1066470	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1066471	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1066854	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1067787	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155

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Project Name: RADFORD AAP SWMU 49
Project #:
SDG #: 165461

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067788	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1067789	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1067790	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1067791	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155
1067792	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		197155

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	83193	197000

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	83193	197000

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	83194	196999
1067793	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	83194	196999
1067793	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	83194	196999

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067793	Mercury, Total QSM	EPA 7470A	GROUND WATER	83168	197150

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1066466	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		196904
1066467	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1066468	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1066469	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1066470	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1066471	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067785	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		196904
1067786	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067787	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067788	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067789	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067790	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067791	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904
1067792	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904

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Project Name: RADFORD AAP SWMU 49
Project #:
SDG #: 165461

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1067790	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		196904

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1066467	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1066468	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1066469	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1066470	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1066471	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067786	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067787	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067788	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067789	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067790	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067791	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980
1067792	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	83207	196980

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:24	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	5.3		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.70	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	0.89	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.2		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.65	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.71	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.9		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:42	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.46	J	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	24		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.1		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.1		0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	22		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	0.35	J	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	18		0.39	1.0	1.2	1.2

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:46	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	5
Date & Time Analyzed:	11/01/2021 / 16:17	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	74		1.9	5.0	6.0	6.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.1		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	2.2		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.5		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	2.1		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:35	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.91	J	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	0.50	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:16	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.2		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.1	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:38	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.78	J	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

CT LABORATORIES
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Sample Description

METHOD BLANK

1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1068809
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
74-84-0	Ethane	11/01/2021	14:47	0.38	U	0.38	1.0	***0.4***
74-85-1	Ethene	11/01/2021	14:47	0.59	U	0.59	1.4	***0.6***
74-82-8	Methane	11/01/2021	14:47	0.45	U	0.45	1.0	***0.4***

CT LABORATORIES
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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069142
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	11/01/2021	10:06	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	11/01/2021	10:06	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	11/01/2021	10:06	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	11/01/2021	10:06	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	11/01/2021	10:06	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	11/01/2021	10:06	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	11/01/2021	10:06	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	11/01/2021	10:06	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	11/01/2021	10:06	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	11/01/2021	10:06	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	11/01/2021	10:06	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	11/01/2021	10:06	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	11/01/2021	10:06	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	11/01/2021	10:06	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	11/01/2021	10:06	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	11/01/2021	10:06	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	11/01/2021	10:06	4.1	U	4.1	20	***10***
71-43-2	Benzene	11/01/2021	10:06	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	11/01/2021	10:06	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	11/01/2021	10:06	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	11/01/2021	10:06	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	11/01/2021	10:06	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	11/01/2021	10:06	0.83	U	0.83	4.0	***2.0***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069142
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	11/01/2021	10:06	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	11/01/2021	10:06	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	11/01/2021	10:06	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	11/01/2021	10:06	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	11/01/2021	10:06	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	11/01/2021	10:06	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	11/01/2021	10:06	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	11/01/2021	10:06	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	11/01/2021	10:06	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	11/01/2021	10:06	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	11/01/2021	10:06	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	11/01/2021	10:06	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	11/01/2021	10:06	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	11/01/2021	10:06	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	11/01/2021	10:06	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	11/01/2021	10:06	0.28	U	0.28	1.1	***0.55***
108-87-2	Methylcyclohexane	11/01/2021	10:06	0.78	U	0.78	2.4	***1.2***
75-09-2	Methylene chloride	11/01/2021	10:06	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	11/01/2021	10:06	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	11/01/2021	10:06	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	11/01/2021	10:06	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	11/01/2021	10:06	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	11/01/2021	10:06	0.35	U	0.35	1.1	***0.55***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069142
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
10061-02-6	trans-1,3-Dichloropropene	11/01/2021	10:06	0.56	U	0.56	2.1	***1.05***
79-01-6	Trichloroethene	11/01/2021	10:06	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	11/01/2021	10:06	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	11/01/2021	10:06	0.12	U	0.12	0.50	***0.25***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069168
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	11/02/2021	09:59	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	11/02/2021	09:59	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	11/02/2021	09:59	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	11/02/2021	09:59	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	11/02/2021	09:59	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	11/02/2021	09:59	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	11/02/2021	09:59	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	11/02/2021	09:59	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	11/02/2021	09:59	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	11/02/2021	09:59	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	11/02/2021	09:59	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	11/02/2021	09:59	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	11/02/2021	09:59	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	11/02/2021	09:59	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	11/02/2021	09:59	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	11/02/2021	09:59	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	11/02/2021	09:59	4.1	U	4.1	20	***10***
71-43-2	Benzene	11/02/2021	09:59	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	11/02/2021	09:59	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	11/02/2021	09:59	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	11/02/2021	09:59	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	11/02/2021	09:59	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	11/02/2021	09:59	0.83	U	0.83	4.0	***2.0***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069168
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	11/02/2021	09:59	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	11/02/2021	09:59	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	11/02/2021	09:59	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	11/02/2021	09:59	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	11/02/2021	09:59	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	11/02/2021	09:59	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	11/02/2021	09:59	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	11/02/2021	09:59	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	11/02/2021	09:59	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	11/02/2021	09:59	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	11/02/2021	09:59	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	11/02/2021	09:59	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	11/02/2021	09:59	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	11/02/2021	09:59	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	11/02/2021	09:59	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	11/02/2021	09:59	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	11/02/2021	09:59	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	11/02/2021	09:59	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	11/02/2021	09:59	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	11/02/2021	09:59	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	11/02/2021	09:59	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	11/02/2021	09:59	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	11/02/2021	09:59	0.56	U	0.56	2.1	***1.05***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:		SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1069168
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	196904	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	11/02/2021	09:59	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	11/02/2021	09:59	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	11/02/2021	09:59	0.12	U	0.12	0.50	***0.25***

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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	165461
Analytical Run #:	196904	ICAL Calibration #:	W102921.

CTLab #	1066466				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	95.0	89	112	
Dibromofluoromethane	100	99.0	80	119	
CTLab #	**1066467**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	101	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	97.0	80	119	
CTLab #	**1066468**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	103	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1066469**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	103	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1066470**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	98.0	80	119	
CTLab #	**1066471**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	103	85	114	
d8-Toluene	100	97.0	89	112	
Dibromofluoromethane	100	99.0	80	119	

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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	165461
Analytical Run #:	196904	ICAL Calibration #:	W102921.

CTLab #	1067785				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	95.0	89	112	
Dibromofluoromethane	100	98.0	80	119	

CTLab #	1067786				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	100	80	119	

CTLab #	1067787				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	104	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	1067788				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	97.0	80	119	

CTLab #	1067789				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	97.0	80	119	

CTLab #	1067790				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	81	118	
Bromofluorobenzene	100	103	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	98.0	80	119	

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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	165461
Analytical Run #:	196904	ICAL Calibration #:	W102921.

CTLab #	1067791				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	107	81	118	
Bromofluorobenzene	100	103	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	98.0	80	119	

CTLab #	1067792				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	1068745	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	104	85	114	
d8-Toluene	100	97.0	89	112	
Dibromofluoromethane	100	99.0	80	119	

CTLab #	1068746	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	70	120	
Bromofluorobenzene	100	104	70	120	
d8-Toluene	100	97.0	85	120	
Dibromofluoromethane	100	99.0	85	115	

CTLab #	1069093	Sample Type:	Matrix Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	98.0	89	112	
Dibromofluoromethane	100	101	80	119	

CTLab #	1069094	Sample Type:	Matrix Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	96.0	89	112	
Dibromofluoromethane	100	101	80	119	

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WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Analytical Method:	EPA 8260C	SDG:	165461
Analytical Run #:	196904	ICAL Calibration #:	W102921.

CTLab #	1069095	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	107	50	150	
Bromofluorobenzene	100	99.0	50	150	
d8-Toluene	100	98.0	50	150	
Dibromofluoromethane	100	102	50	150	
CTLab #	**1069142**	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	70	120	
Bromofluorobenzene	100	103	75	120	
d8-Toluene	100	95.0	85	120	
Dibromofluoromethane	100	98.0	85	115	
CTLab #	**1069149**	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	70	120	
Bromofluorobenzene	100	100	70	120	
d8-Toluene	100	97.0	85	120	
Dibromofluoromethane	100	100	85	115	
CTLab #	**1069168**	Sample Type:	Normal Field Sample		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	106	70	120	
Bromofluorobenzene	100	101	75	120	
d8-Toluene	100	96.0	85	120	
Dibromofluoromethane	100	99.0	85	115	
CTLab #	**1069400**	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	50	150	
Bromofluorobenzene	100	104	50	150	
d8-Toluene	100	96.0	50	150	
Dibromofluoromethane	100	99.0	50	150	

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3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 165461
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 196904
Sample No.: 1069093
Parent Sample No.: 1066469
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	11/01/2021	19:08	74-131	9.66	BDL	10.0	97
1,1,2,2-Tetrachloroethane	11/01/2021	19:08	71-121	10.5	BDL	10.0	105
1,1,2-Trichloroethane	11/01/2021	19:08	80-119	9.10	BDL	10.0	91
1,1-Dichloroethane	11/01/2021	19:08	77-125	9.04	BDL	10.0	90
1,1-Dichloroethene	11/01/2021	19:08	71-131	9.89	BDL	10.0	99
1,2,3-Trichlorobenzene	11/01/2021	19:08	69-129	10.4	BDL	10.0	104
1,2,4-Trichlorobenzene	11/01/2021	19:08	69-130	9.79	BDL	10.0	98
1,2-Dibromo-3-chloropropane	11/01/2021	19:08	62-128	9.26	BDL	10.0	93
1,2-Dibromoethane	11/01/2021	19:08	77-121	9.75	BDL	10.0	98
1,2-Dichlorobenzene	11/01/2021	19:08	80-119	9.48	BDL	10.0	95
1,2-Dichloroethane	11/01/2021	19:08	73-128	9.05	BDL	10.0	90
1,2-Dichloropropane	11/01/2021	19:08	78-122	9.04	BDL	10.0	90
1,3-Dichlorobenzene	11/01/2021	19:08	80-119	10.2	BDL	10.0	102
1,4-Dioxane	11/01/2021	19:08	59-139	455	BDL	500	91
2-Butanone	11/01/2021	19:08	56-143	94.3	BDL	100	94
2-Hexanone	11/01/2021	19:08	57-139	100	BDL	100	100
4-Methyl-2-pentanone	11/01/2021	19:08	67-130	91.6	BDL	100	92
Acetone	11/01/2021	19:08	39-160	88.4	BDL	100	88
Benzene	11/01/2021	19:08	79-120	9.35	BDL	10.0	94
Bromochloromethane	11/01/2021	19:08	78-123	9.21	BDL	10.0	92
Bromodichloromethane	11/01/2021	19:08	79-125	8.77	BDL	10.0	88
Bromoform	11/01/2021	19:08	66-130	9.01	BDL	10.0	90
Bromomethane	11/01/2021	19:08	53-141	8.87	BDL	10.0	89
Carbon disulfide	11/01/2021	19:08	64-133	19.9	BDL	20.0	100
Carbon tetrachloride	11/01/2021	19:08	72-136	15.2	5.3	10.0	99
Chlorobenzene	11/01/2021	19:08	82-118	9.88	BDL	10.0	99
Chloroethane	11/01/2021	19:08	60-138	10.3	3.2	10.0	71
Chloroform	11/01/2021	19:08	79-124	9.86	0.70	10.0	92
Chloromethane	11/01/2021	19:08	50-139	8.46	BDL	10.0	85
cis-1,2-Dichloroethene	11/01/2021	19:08	78-123	9.10	BDL	10.0	91
cis-1,3-Dichloropropene	11/01/2021	19:08	75-124	8.91	BDL	10.0	89

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WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 165461
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 196904
Sample No.: 1069093
Parent Sample No.: 1066469
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Cyclohexane	11/01/2021	19:08	71-130	10.1	BDL	10.0	101
Dibromochloromethane	11/01/2021	19:08	74-126	9.26	BDL	10.0	93
Dichlorodifluoromethane	11/01/2021	19:08	32-152	8.52	BDL	10.0	85
Ethylbenzene	11/01/2021	19:08	79-121	10.4	BDL	10.0	104
Freon 113	11/01/2021	19:08	70-136	19.9	BDL	20.0	100
Isopropylbenzene	11/01/2021	19:08	72-131	10.7	BDL	10.0	107
m & p-Xylene	11/01/2021	19:08	80-121	20.8	BDL	20.0	104
Methyl Acetate	11/01/2021	19:08	56-136	8.11	BDL	10.0	81
Methyl tert-butyl ether	11/01/2021	19:08	71-124	8.99	BDL	10.0	90
Methylcyclohexane	11/01/2021	19:08	72-132	9.83	BDL	10.0	98
Methylene chloride	11/01/2021	19:08	74-124	8.43	BDL	10.0	84
o-Xylene	11/01/2021	19:08	78-122	9.91	BDL	10.0	99
Styrene	11/01/2021	19:08	78-123	9.86	BDL	10.0	99
Tetrachloroethene	11/01/2021	19:08	74-129	9.91	BDL	10.0	99
Toluene	11/01/2021	19:08	80-121	9.27	BDL	10.0	93
trans-1,2-Dichloroethene	11/01/2021	19:08	75-124	9.46	BDL	10.0	95
trans-1,3-Dichloropropene	11/01/2021	19:08	73-127	8.67	BDL	10.0	87
Trichloroethene	11/01/2021	19:08	79-123	10.2	0.89	10.0	93
Trichlorofluoromethane	11/01/2021	19:08	65-141	10.4	BDL	10.0	104
Vinyl chloride	11/01/2021	19:08	58-137	9.91	BDL	10.0	99

Spike Recovery: 0 out of 51 outside QC limits

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3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description

13MW3

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: GROUND WATER SDG No.: 165461

Analytical Method: RSK 175 Concentration Units: ug/L

Analytical Run #: 196980 Sample No.: 1068807 Parent Sample No.: 1066469

Analytical Prep Batch #: 83207 Analytical Preparation Date/Time: 11/01/2021 13:05

ICAL Calibration #: P4DG070121

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	11/01/2021	15:07	74-131	3.53	BDL	4.60	77
Ethene	11/01/2021	15:07	72-133	5.11	BDL	6.34	81
Methane	11/01/2021	15:07	73-125	1.77	BDL	2.21	80

Spike Recovery: 0 out of 3 outside QC limits

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3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 165461
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 196904
Sample No.: 1069094
Parent Sample No.: 1069093
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
1,1,1-Trichloroethane	11/01/2021	19:37	10.5	10.0	105	8	74-131	20
1,1,2,2-Tetrachloroethane	11/01/2021	19:37	11.4	10.0	114	7	71-121	20
1,1,2-Trichloroethane	11/01/2021	19:37	9.33	10.0	93	3	80-119	20
1,1-Dichloroethane	11/01/2021	19:37	9.75	10.0	98	8	77-125	20
1,1-Dichloroethene	11/01/2021	19:37	10.5	10.0	105	6	71-131	20
1,2,3-Trichlorobenzene	11/01/2021	19:37	11.5	10.0	115	10	69-129	20
1,2,4-Trichlorobenzene	11/01/2021	19:37	10.8	10.0	108	10	69-130	20
1,2-Dibromo-3-chloropropane	11/01/2021	19:37	10.3	10.0	103	11	62-128	20
1,2-Dibromoethane	11/01/2021	19:37	10.4	10.0	104	6	77-121	20
1,2-Dichlorobenzene	11/01/2021	19:37	10.1	10.0	101	7	80-119	20
1,2-Dichloroethane	11/01/2021	19:37	9.67	10.0	97	7	73-128	20
1,2-Dichloropropane	11/01/2021	19:37	9.49	10.0	95	5	78-122	20
1,3-Dichlorobenzene	11/01/2021	19:37	11.1	10.0	111	8	80-119	20
1,4-Dioxane	11/01/2021	19:37	484	500	97	6	59-139	20
2-Butanone	11/01/2021	19:37	98.2	100	98	4	56-143	20
2-Hexanone	11/01/2021	19:37	110	100	110	9	57-139	20
4-Methyl-2-pentanone	11/01/2021	19:37	96.7	100	97	5	67-130	20
Acetone	11/01/2021	19:37	93.8	100	94	6	39-160	20
Benzene	11/01/2021	19:37	9.92	10.0	99	6	79-120	20
Bromochloromethane	11/01/2021	19:37	9.67	10.0	97	5	78-123	20
Bromodichloromethane	11/01/2021	19:37	9.54	10.0	95	8	79-125	20
Bromoform	11/01/2021	19:37	9.71	10.0	97	7	66-130	20
Bromomethane	11/01/2021	19:37	8.59	10.0	86	3	53-141	20
Carbon disulfide	11/01/2021	19:37	21.5	20.0	108	7	64-133	20
Carbon tetrachloride	11/01/2021	19:37	16.0	10.0	107	5	72-136	20
Chlorobenzene	11/01/2021	19:37	10.5	10.0	105	6	82-118	20
Chloroethane	11/01/2021	19:37	10.9	10.0	77	6	60-138	20
Chloroform	11/01/2021	19:37	10.3	10.0	96	5	79-124	20
Chloromethane	11/01/2021	19:37	9.20	10.0	92	8	50-139	20
cis-1,2-Dichloroethene	11/01/2021	19:37	9.78	10.0	98	7	78-123	20
cis-1,3-Dichloropropene	11/01/2021	19:37	9.52	10.0	95	7	75-124	20

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3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: GROUND WATER
SDG No.: 165461
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 196904
Sample No.: 1069094
Parent Sample No.: 1069093
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Cyclohexane	11/01/2021	19:37	11.1	10.0	111	9	71-130	20
Dibromochloromethane	11/01/2021	19:37	10.1	10.0	101	8	74-126	20
Dichlorodifluoromethane	11/01/2021	19:37	9.23	10.0	92	8	32-152	20
Ethylbenzene	11/01/2021	19:37	11.2	10.0	112	7	79-121	20
Freon 113	11/01/2021	19:37	21.3	20.0	106	7	70-136	20
Isopropylbenzene	11/01/2021	19:37	11.5	10.0	115	8	72-131	20
m & p-Xylene	11/01/2021	19:37	22.4	20.0	112	8	80-121	20
Methyl Acetate	11/01/2021	19:37	7.97	10.0	80	2	56-136	20
Methyl tert-butyl ether	11/01/2021	19:37	9.47	10.0	95	5	71-124	20
Methylcyclohexane	11/01/2021	19:37	10.8	10.0	108	9	72-132	20
Methylene chloride	11/01/2021	19:37	9.13	10.0	91	8	74-124	20
o-Xylene	11/01/2021	19:37	10.9	10.0	109	10	78-122	20
Styrene	11/01/2021	19:37	10.8	10.0	108	9	78-123	20
Tetrachloroethene	11/01/2021	19:37	10.4	10.0	104	5	74-129	20
Toluene	11/01/2021	19:37	9.89	10.0	99	6	80-121	20
trans-1,2-Dichloroethene	11/01/2021	19:37	9.81	10.0	98	4	75-124	20
trans-1,3-Dichloropropene	11/01/2021	19:37	9.41	10.0	94	8	73-127	20
Trichloroethene	11/01/2021	19:37	10.8	10.0	99	6	79-123	20
Trichlorofluoromethane	11/01/2021	19:37	11.2	10.0	112	8	65-141	20
Vinyl chloride	11/01/2021	19:37	10.4	10.0	104	5	58-137	20

RPD or Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

13MW3

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: GROUND WATER SDG No.: 165461

Analytical Method: RSK 175 Concentration Units: ug/L

Analytical Run #: 196980 Sample No.: 1068808 Parent Sample No.: 1068807

Analytical Prep Batch #: 83207 Analytical Preparation Date/Time: 11/01/2021 13:05

ICAL Calibration #: P4DG070121

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Ethane	11/01/2021	15:12	3.62	4.60	79	2	74-131	30
Ethene	11/01/2021	15:12	5.15	6.34	81	1	72-133	30
Methane	11/01/2021	15:12	1.77	2.21	80	0	73-125	30

RPD or Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample No.: 1068745
SDG No.: 165461
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1068745
Parent Sample No.:
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 196904
ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	11/01/2021	09:08	74-131	9.92		10.0	99
1,1,2,2-Tetrachloroethane	11/01/2021	09:08	71-121	10.7		10.0	107
1,1,2-Trichloroethane	11/01/2021	09:08	80-119	9.35		10.0	94
1,1-Dichloroethane	11/01/2021	09:08	77-125	9.13		10.0	91
1,1-Dichloroethene	11/01/2021	09:08	71-131	10.2		10.0	102
1,2,3-Trichlorobenzene	11/01/2021	09:08	69-129	11.0		10.0	110
1,2,4-Trichlorobenzene	11/01/2021	09:08	69-130	10.8		10.0	108
1,2-Dibromo-3-chloropropane	11/01/2021	09:08	62-128	10.2		10.0	102
1,2-Dibromoethane	11/01/2021	09:08	77-121	10.0		10.0	100
1,2-Dichlorobenzene	11/01/2021	09:08	80-119	10.2		10.0	102
1,2-Dichloroethane	11/01/2021	09:08	73-128	9.37		10.0	94
1,2-Dichloropropane	11/01/2021	09:08	78-122	9.12		10.0	91
1,3-Dichlorobenzene	11/01/2021	09:08	80-119	11.0		10.0	110
2-Butanone	11/01/2021	09:08	56-143	86.8		100	87
2-Hexanone	11/01/2021	09:08	57-139	94.5		100	94
4-Methyl-2-pentanone	11/01/2021	09:08	67-130	85.2		100	85
Acetone	11/01/2021	09:08	39-160	85.2		100	85
Benzene	11/01/2021	09:08	79-120	9.44		10.0	94
Bromochloromethane	11/01/2021	09:08	78-123	9.34		10.0	93
Bromodichloromethane	11/01/2021	09:08	79-125	9.74		10.0	97
Bromoform	11/01/2021	09:08	66-130	10.3		10.0	103
Bromomethane	11/01/2021	09:08	53-141	9.08		10.0	91
Carbon disulfide	11/01/2021	09:08	64-133	21.5		20.0	108
Carbon tetrachloride	11/01/2021	09:08	72-136	10.5		10.0	105
Chlorobenzene	11/01/2021	09:08	82-118	10.2		10.0	102
Chloroethane	11/01/2021	09:08	60-138	9.39		10.0	94
Chloroform	11/01/2021	09:08	79-124	9.21		10.0	92
Chloromethane	11/01/2021	09:08	50-139	9.40		10.0	94

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Sample No.: 1068745

SDG No.: 165461

Analytical Method: EPA 8260C

Concentration Units: ug/L

Sample No.: 1068745

Parent Sample No.:

Analytical Prep Batch #: 0

Analytical Preparation Date/Time:

Analytical Run #: 196904

ICAL Calibration #: W102921.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
cis-1,2-Dichloroethene	11/01/2021	09:08	78-123	9.23		10.0	92
cis-1,3-Dichloropropene	11/01/2021	09:08	75-124	10.1		10.0	101
Cyclohexane	11/01/2021	09:08	71-130	10.9		10.0	109
Dibromochloromethane	11/01/2021	09:08	74-126	10.4		10.0	104
Dichlorodifluoromethane	11/01/2021	09:08	32-152	10.1		10.0	101
Ethylbenzene	11/01/2021	09:08	79-121	10.8		10.0	108
Freon 113	11/01/2021	09:08	70-136	21.6		20.0	108
Isopropylbenzene	11/01/2021	09:08	72-131	11.2		10.0	112
m & p-Xylene	11/01/2021	09:08	80-121	21.3		20.0	106
Methyl Acetate	11/01/2021	09:08	56-136	8.31		10.0	83
Methyl tert-butyl ether	11/01/2021	09:08	71-124	9.38		10.0	94
Methylcyclohexane	11/01/2021	09:08	72-132	11.1		10.0	111
Methylene chloride	11/01/2021	09:08	74-124	9.11		10.0	91
o-Xylene	11/01/2021	09:08	78-122	10.3		10.0	103
Styrene	11/01/2021	09:08	78-123	10.5		10.0	105
Tetrachloroethene	11/01/2021	09:08	74-129	9.75		10.0	98
Toluene	11/01/2021	09:08	80-121	9.59		10.0	96
trans-1,2-Dichloroethene	11/01/2021	09:08	75-124	9.64		10.0	96
trans-1,3-Dichloropropene	11/01/2021	09:08	73-127	10.1		10.0	101
Trichloroethene	11/01/2021	09:08	79-123	9.26		10.0	93
Trichlorofluoromethane	11/01/2021	09:08	65-141	10.4		10.0	104
Vinyl chloride	11/01/2021	09:08	58-137	10.0		10.0	100

Spike Recovery: 0 out of 50 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Sample No.: 1068810

SDG No.: 165461

Analytical Method: RSK 175

Concentration Units: ug/L

Sample No.: 1068810

Parent Sample No.:

Analytical Prep Batch #: 83207

Analytical Preparation Date/Time: 11/01/2021 13:05

Analytical Run #: 196980

ICAL Calibration #: P4DG070121

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	11/01/2021	14:42	74-131	3.76		4.60	82
Ethene	11/01/2021	14:42	72-133	5.19		6.34	82
Methane	11/01/2021	14:42	73-125	1.85		2.21	84

Spike Recovery: 0 out of 3 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1068809	SDG No.:	165461
Matrix:	LIQUID	Date Extracted:	11/01/2021
Date Analyzed:	11/01/2021	Time Analyzed:	14:47
Analytical Method:	RSK 175	Extraction Method:	METHOD
Analytical Run #:	196980	Extraction Batch #:	83207
		ICAL Calibration #:	P4DG070121

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	CCV	1069073	11/01/2021 14:38	P4DG070121
2	LCSW	1068810	11/01/2021 14:42	P4DG070121
3	MBW	1068809	11/01/2021 14:47	P4DG070121
4	13MW4	1066467	11/01/2021 14:55	P4DG070121
5	13TW4	1066468	11/01/2021 14:59	P4DG070121
6	13MW3	1066469	11/01/2021 15:03	P4DG070121
7	13MW3MSW	1068807	11/01/2021 15:07	P4DG070121
8	13MW3MSDW	1068808	11/01/2021 15:12	P4DG070121
9	49MW04	1066470	11/01/2021 15:16	P4DG070121
10	13MW2	1066471	11/01/2021 15:24	P4DG070121
11	48MW1	1067786	11/01/2021 15:30	P4DG070121
12	49MW01	1067787	11/01/2021 15:35	P4DG070121
13	50MW02	1067788	11/01/2021 15:38	P4DG070121
14	48MW2	1067789	11/01/2021 15:42	P4DG070121
15	48MW3	1067790	11/01/2021 15:46	P4DG070121
16	CCV	1069074	11/01/2021 15:49	P4DG070121
17	49MW02	1067791	11/01/2021 15:57	P4DG070121
18	48MW6	1067792	11/01/2021 16:00	P4DG070121
19	CCV	1069075	11/01/2021 16:04	P4DG070121

CT LABORATORIES
delivering more than data from your environmental analyses

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Sample ID:	1069142	SDG No.:	165461
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	11/01/2021	Time Analyzed:	10:06
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	196904	Extraction Batch #:	0
		ICAL Calibration #:	W102921.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	1069409	11/01/2021 08:48	
2	LCSW	1068745	11/01/2021 09:08	W102921.
3	CCV	1068746	11/01/2021 09:08	W102921.
4	MBW	1069142	11/01/2021 10:06	W102921.
5	TB-1	1066466	11/01/2021 10:34	W102921.
6	TB-2	1067785	11/01/2021 11:02	W102921.
7	13MW4	1066467	11/01/2021 11:59	W102921.
8	13TW4	1066468	11/01/2021 12:29	W102921.
9	13MW3	1066469	11/01/2021 12:57	W102921.
10	49MW04	1066470	11/01/2021 13:25	W102921.
11	13MW2	1066471	11/01/2021 13:55	W102921.
12	48MW1	1067786	11/01/2021 14:23	W102921.
13	49MW01	1067787	11/01/2021 14:51	W102921.
14	50MW02	1067788	11/01/2021 15:20	W102921.
15	48MW2	1067789	11/01/2021 15:47	W102921.
16	48MW3	1067790	11/01/2021 16:17	W102921.
17	49MW02	1067791	11/01/2021 16:45	W102921.
18	48MW6	1067792	11/01/2021 17:14	W102921.
19	13MW3MSW	1069093	11/01/2021 19:08	W102921.
20	13MW3MSDW	1069094	11/01/2021 19:37	W102921.
21	CCVF	1069095	11/01/2021 20:07	W102921.
22	BFB	1069410	11/02/2021 07:21	
23	CCV	1069149	11/02/2021 08:04	W102921.
24	CCB	1069168	11/02/2021 09:59	W102921.
25	48MW3	1067790	11/02/2021 10:55	W102921.
26	CCVF	1069400	11/02/2021 11:52	W102921.

BFB

Data File : C:\INSTARCH\DATA\OCT2921\BFB1.D Vial: 1
Acq On : 29 Oct 2021 9:25 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.650 to 4.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.4	13784	PASS
75	95	30	60	52.8	32528	PASS
95	95	100	100	100.0	61664	PASS
96	95	5	9	7.2	4469	PASS
173	174	0.00	2	0.0	5	PASS
174	95	50	100	79.7	49152	PASS
175	174	5	9	7.9	3889	PASS
176	174	95	101	97.9	48104	PASS
177	176	5	9	7.0	3377	PASS

W102921.M Tue Nov 02 08:56:25 2021

Injection Log Summary Report

Method : Y:\VMS3\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method
Start (Tune) File ID : Y:\VMS3\INSTARCH\DATA\OCT2921\BFB1.D
Injection Date : 29 Oct 2021 Log Time Period (hrs) : ALL
Injection Time : 09:25 Total files within period : 17
Sample Directory : Y:\VMS3\INSTARCH\DATA\OCT2921\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	29 Oct 2021	10:37
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	29 Oct 2021	11:05
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	29 Oct 2021	11:35
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	29 Oct 2021	12:03
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	29 Oct 2021	12:32
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	29 Oct 2021	13:00
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	29 Oct 2021	13:30
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	29 Oct 2021	13:58
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	29 Oct 2021	14:27
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	29 Oct 2021	15:24
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	29 Oct 2021	15:53
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2,5.0 mL DI H20 P	29 Oct 2021	17:19

BFB

Data File : C:\Instarch\Data\NOV0121\BFB1.D Vial: 1
Acq On : 1 Nov 2021 8:48 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.644 to 4.650 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.9	9998	PASS
75	95	30	60	53.1	23192	PASS
95	95	100	100	100.0	43708	PASS
96	95	5	9	6.4	2800	PASS
173	174	0.00	2	0.5	154	PASS
174	95	50	100	74.5	32584	PASS
175	174	5	9	6.9	2255	PASS
176	174	95	101	97.0	31608	PASS
177	176	5	9	7.9	2509	PASS

W102921.M Tue Nov 02 13:20:57 2021

BFB

Data File : C:\Instarch\Data\NOV0121\BFB2.D Vial: 26
Acq On : 2 Nov 2021 7:21 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.9	21947	PASS
75	95	30	60	53.5	53539	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	6.5	6501	PASS
173	174	0.00	2	0.7	562	PASS
174	95	50	100	81.5	81492	PASS
175	174	5	9	8.1	6573	PASS
176	174	95	101	95.8	78085	PASS
177	176	5	9	7.3	5698	PASS

W102921.M Tue Nov 02 13:21:36 2021

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\NOV0121\BFB1.D
Injection Date : 1 Nov 2021 Log Time Period (hrs) : ALL
Injection Time : 08:48 Total files within period : 35
Sample Directory : C:\INSTARCH\DATA\NOV0121\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	196904,LCSW, 10.0/100 ug/L, 5.0 m	1 Nov 2021	09:08
MB1	1.00	1.00	1.00	196904,MBW, pH<2,5.0 mL DI H20 P	1 Nov 2021	10:06
1066466	1.00	1.00	1.00	196904,1066466, pH<2,5.0 mL Purged	1 Nov 2021	10:34
1067785	1.00	1.00	1.00	196904,1067785, pH<2,5.0 mL Purged	1 Nov 2021	11:02
1066467	1.00	1.00	1.00	196904,1066467, pH<2,5.0 mL Purged	1 Nov 2021	11:59
1066468	1.00	1.00	1.00	196904,1066468, pH<2,5.0 mL Purged	1 Nov 2021	12:29
1066469	1.00	1.00	1.00	196904,1066469, pH<2,5.0 mL Purged	1 Nov 2021	12:57
1066470	1.00	1.00	1.00	196904,1066470, pH<2,5.0 mL Purged	1 Nov 2021	13:25
1066471	1.00	1.00	1.00	196904,1066471, pH<2,5.0 mL Purged	1 Nov 2021	13:55
1067786	1.00	1.00	1.00	196904,1067786, pH<2,5.0 mL Purged	1 Nov 2021	14:23
1067787	1.00	1.00	1.00	196904,1067787, pH<2,5.0 mL Purged	1 Nov 2021	14:51
1067788	1.00	1.00	1.00	196904,1067788, pH<2,5.0 mL Purged	1 Nov 2021	15:20
1067789	1.00	1.00	1.00	196904,1067789, pH<2,5.0 mL Purged	1 Nov 2021	15:47
1067790	1.00	1.00	1.00	196904,1067790,5 pH<2,5.0 mL Purged	1 Nov 2021	16:17
1067791	1.00	1.00	1.00	196904,1067791, pH<2,5.0 mL Purged	1 Nov 2021	16:45
1067792	1.00	1.00	1.00	196904,1067792, pH<2,5.0 mL Purged	1 Nov 2021	17:14

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1066469MS   1.00   1.00   1.00 196904,MSW1066469,    1 Nov 2021 19:08
                              pH<2,5.0 mL  Purged
1066469SD   1.00   1.00   1.00 196904,MSDW1066469,   1 Nov 2021 19:37
                              pH<2,5.0 mL  Purged
CCVF-LCSD1   1.00   1.00   1.00 196904,LCSDW,         1 Nov 2021 20:07
                              10.0/100 ug/L, 5.0 m
BFB2       1.00   1.00   1.00 BFB DIRECT INJ.       2 Nov 2021 07:21
                              50 ng Inj.
CCV2       1.00   1.00   1.00 196904,LCSW,          2 Nov 2021 08:04
                              10.0/100 ug/L, 5.0 m
CCB1       1.00   1.00   1.00 196904,CCB,           2 Nov 2021 09:59
                              pH<2,5.0 mL DI H20 P
1067790R   1.00   1.00   1.00 196904,1067790,       2 Nov 2021 10:55
                              pH<2,5.0 mL  Purged
CCVF2      1.00   1.00   1.00 196904,CCVF,          2 Nov 2021 11:52
                              10.0/100 ug/L, 5.0 m
```

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 29 Oct 2021
Instrument ID : VMS3 Time Analyzed : 12:32 pm
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1211415	7.69	1025017	11.60	566655	14.91
UPPER LIMIT	2422830	8.19	2050034	12.10	1133310	15.41
LOWER LIMIT	605708	7.19	512509	11.10	283328	14.41
File ID Sample						
1066466 196904,10	1303649	7.69	1012368	11.60	522979	14.91
1066467 196904,10	1270063	7.69	980550	11.61	511724	14.91
1066468 196904,10	1257328	7.70	982978	11.61	511655	14.91
1066469 196904,10	1262972	7.69	986531	11.61	506989	14.91
1066470 196904,10	1256928	7.69	967058	11.61	504248	14.91
1066471 196904,10	1249427	7.70	980219	11.60	498762	14.91
1067785 196904,10	1289179	7.70	996260	11.61	522174	14.91
1067786 196904,10	1231786	7.69	960738	11.61	500917	14.91
1067787 196904,10	1237243	7.70	966172	11.61	488129	14.91
1067788 196904,10	1247121	7.69	959561	11.60	498874	14.91
1067789 196904,10	1223373	7.69	947134	11.61	490064	14.91
1067790 196904,10	1236818	7.70	951028	11.61	494421	14.91
1067790R 196904,10	1267138	7.69	977773	11.61	504361	14.91
1067791 196904,10	1253689	7.69	967450	11.61	495634	14.91
1067792 196904,10	1244103	7.70	960227	11.61	497303	14.91
19FS08~D 196904,MS	1260792	7.69	975938	11.61	519022	14.91
1C7O1A~0 196904,MS	1291699	7.70	990055	11.61	531198	14.91
CCB1 196904,CC	1258537	7.70	969532	11.61	503256	14.91
CCV2 196904,LC	1317990	7.69	1003878	11.60	540485	14.91
CCVF2 196904,CC	1326819	7.70	1019494	11.61	536891	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 29 Oct 2021
Instrument ID : VMS3 Time Analyzed : 12:32 pm
GC Column : ID : (mm) Heated Purge (Y:N) :

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1211415	7.69	1025017	11.60	566655	14.91
UPPER LIMIT	2422830	8.19	2050034	12.10	1133310	15.41
LOWER LIMIT	605708	7.19	512509	11.10	283328	14.41
File ID Sample						
CCV-LCS1 196904,LC	1399490	7.69	1085541	11.60	571295	14.91
CJQBR0~Z 196904,LC	1302395	7.70	1021126	11.60	540943	14.91
MB1 196904,MB	1333649	7.70	1032585	11.61	540220	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066466.D Vial: 5
Acq On : 1 Nov 2021 10:34 Operator: DGS-RLD
Sample : 196904,1066466, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:08 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1303649	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1012368	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	522979	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.84	113	332489	19.785 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %		
45) SURR12DCAd4	7.25	102	95174	21.073 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %		
61) SURRd8Tolule	9.70	98	1275389	18.993 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 95 %		
83) SURR4BrFBenz	13.24	95	504309	20.359 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	2.11	50	3446	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.83	64	10074	0.8291 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	13132	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.24	76	4933	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.83	59	17139	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	6.19	59	2659	N.D.	
31) 22dichloropr	6.20	77	3621	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	7657	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066466.D Vial: 5
Acq On : 1 Nov 2021 10:34 Operator: DGS-RLD
Sample : 196904,1066466, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:08 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2592	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066466.D Vial: 5
Acq On : 1 Nov 2021 10:34 Operator: DGS-RLD
Sample : 196904,1066466, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:08 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

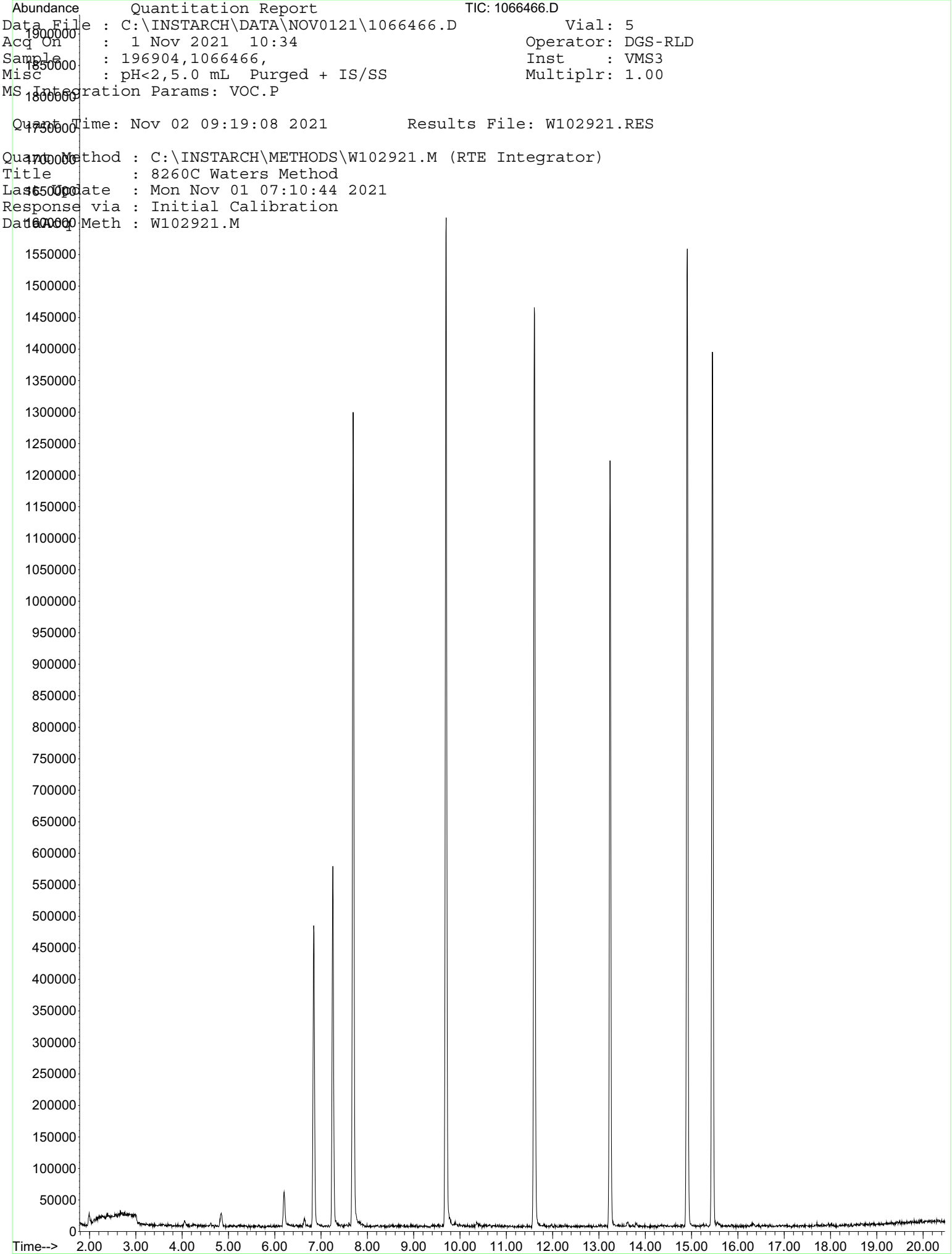
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	2564	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

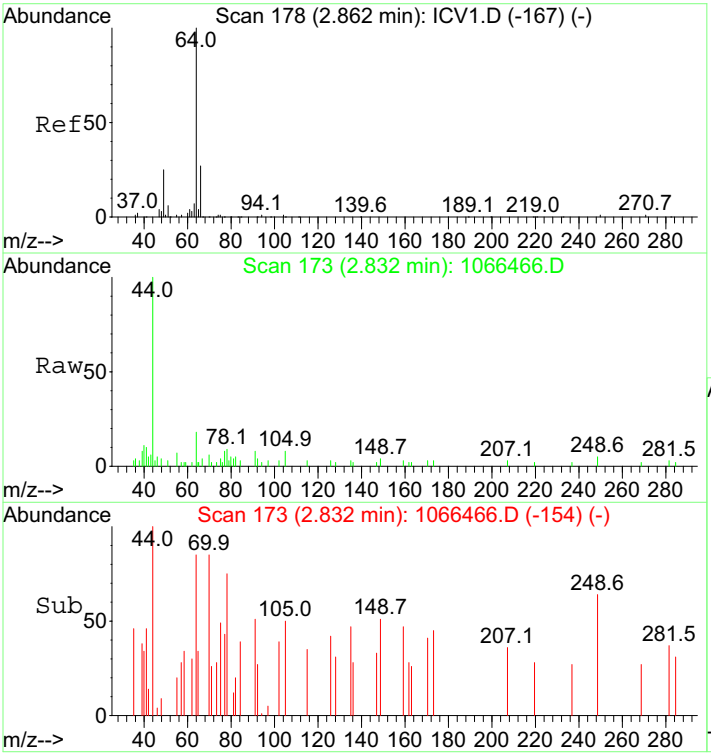
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1066466.D Vial: 5
Acq On : 1 Nov 2021 10:34 Operator: DGS-RLD
Sample : 196904,1066466, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:08 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

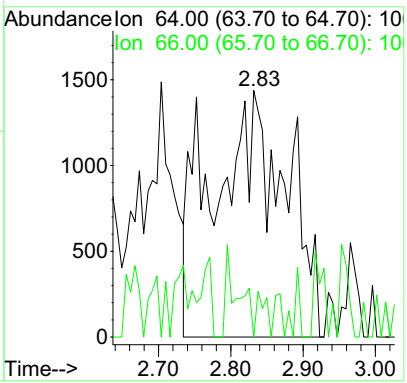




#6
Chloroethane
Concen: 0.83 ug/L
RT: 2.83 min Scan# 173
Delta R.T. -0.04 min
Lab File: 1066466.D
Acq: 1 Nov 2021 10:34

Tgt Ion: 64 Resp: 10074

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

[redacted]

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067785.D Vial: 6
Acq On : 1 Nov 2021 11:02 Operator: DGS-RLD
Sample : 196904,1067785, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:13 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1289179	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	996260	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	522174	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	325422	19.582	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	90881	20.348	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1266254	19.069	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 95 %			
83) SURR4BrFBenz	13.24	95	506168	20.466	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	2.11	50	3220	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	2.87	64	3005	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	4.06	43	11805	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	4.25	76	4586	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	4.85	59	5160	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	6.65	42	8448	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067785.D Vial: 6
Acq On : 1 Nov 2021 11:02 Operator: DGS-RLD
Sample : 196904,1067785, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:13 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2806	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\NOV0121\1067785.D Vial: 6
Acq On : 1 Nov 2021 11:02 Operator: DGS-RLD
Sample : 196904,1067785, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:13 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

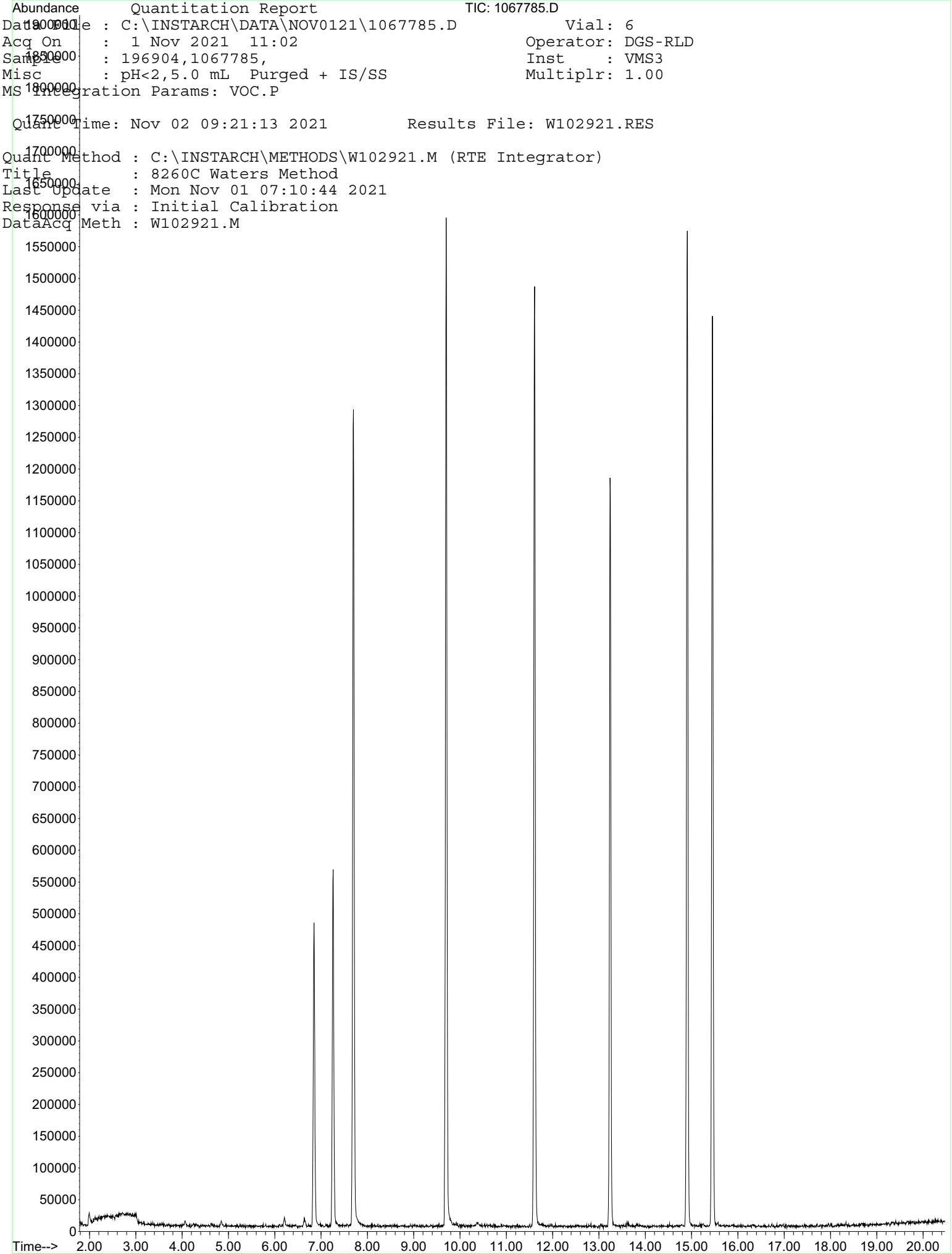
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 1067785.D

Data File : C:\INSTARCH\DATA\NOV0121\1067785.D Vial: 6
Acq On : 1 Nov 2021 11:02 Operator: DGS-RLD
Sample : 196904,1067785, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:13 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066467.D Vial: 8
Acq On : 1 Nov 2021 11:59 Operator: DGS-RLD
Sample : 196904,1066467, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:19 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1270063	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	980550	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	511724	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	317308	19.381 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 97 %			
45) SURR12DCAd4	7.25	102	91073	20.698 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	1252684	19.148 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	490733	20.247 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	7768	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3872	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	3258	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	8085	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066467.D Vial: 8
Acq On : 1 Nov 2021 11:59 Operator: DGS-RLD
Sample : 196904,1066467, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:19 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	19733	1.2242	ug/L	97
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	2554	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	2509	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.47	91	3169	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066467.D Vial: 8
Acq On : 1 Nov 2021 11:59 Operator: DGS-RLD
Sample : 196904,1066467, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:19 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

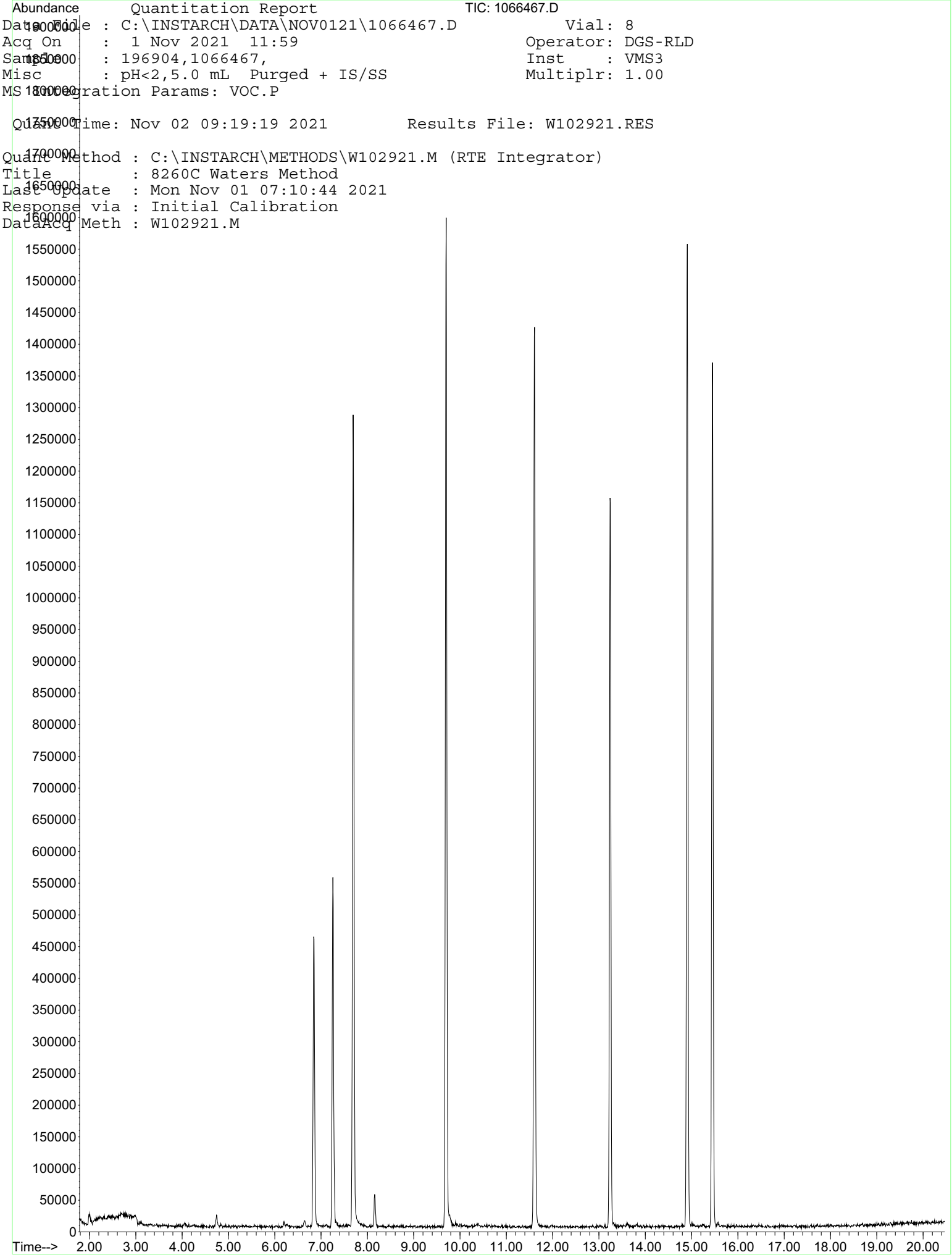
(#) = qualifier out of range (m) = manual integration

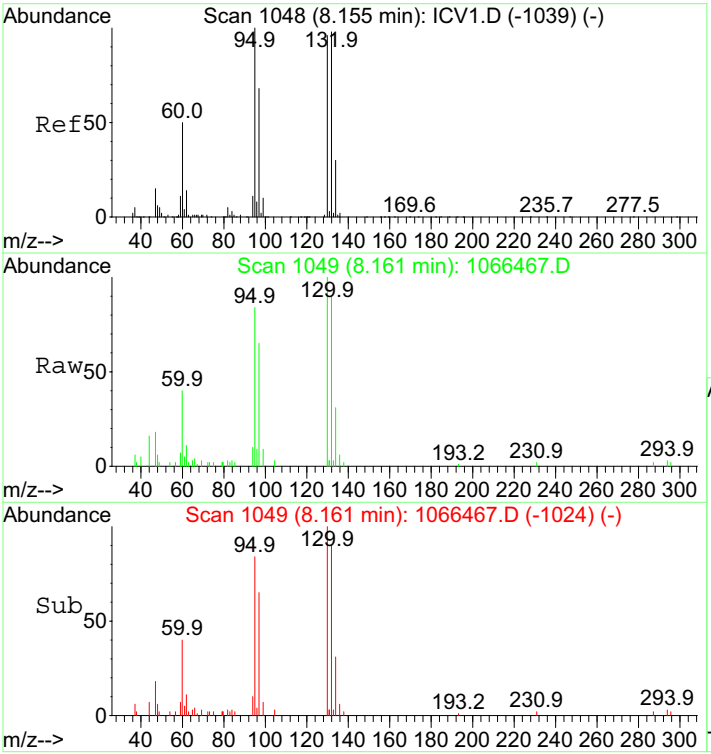
Quantitation Report (RTE)

Data File : C:\INSTARCH\DATA\NOV0121\1066467.D Vial: 8
Acq On : 1 Nov 2021 11:59 Operator: DGS-RLD
Sample : 196904,1066467, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:19 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

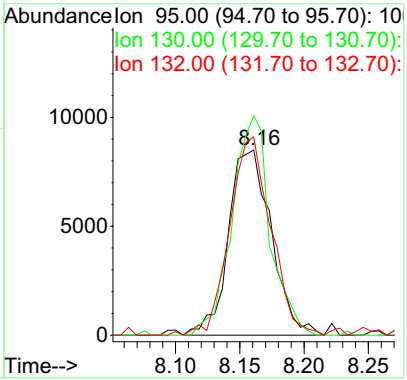




#49
trichloroete
Concen: 1.22 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1066467.D
Acq: 1 Nov 2021 11:59

Tgt Ion: 95 Resp: 19733

Ion	Ratio	Lower	Upper
95	100		
130	105.7	83.1	123.1
132	103.1	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066468.D Vial: 9
Acq On : 1 Nov 2021 12:29 Operator: DGS-RLD
Sample : 196904,1066468, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1257328	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	982978	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	511655	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	318858	19.673 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %		
45) SURR12DCAd4	7.26	102	89302	20.501 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.70	98	1239814	19.143 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %		
83) SURR4BrFBenz	13.24	95	500563	20.655 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.86	64	8376	0.7147 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	7253	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.24	76	3625	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	8033	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066468.D Vial: 9
Acq On : 1 Nov 2021 12:29 Operator: DGS-RLD
Sample : 196904,1066468, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	26736	1.6755	ug/L	100
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.45	91	3043	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066468.D Vial: 9
Acq On : 1 Nov 2021 12:29 Operator: DGS-RLD
Sample : 196904,1066468, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

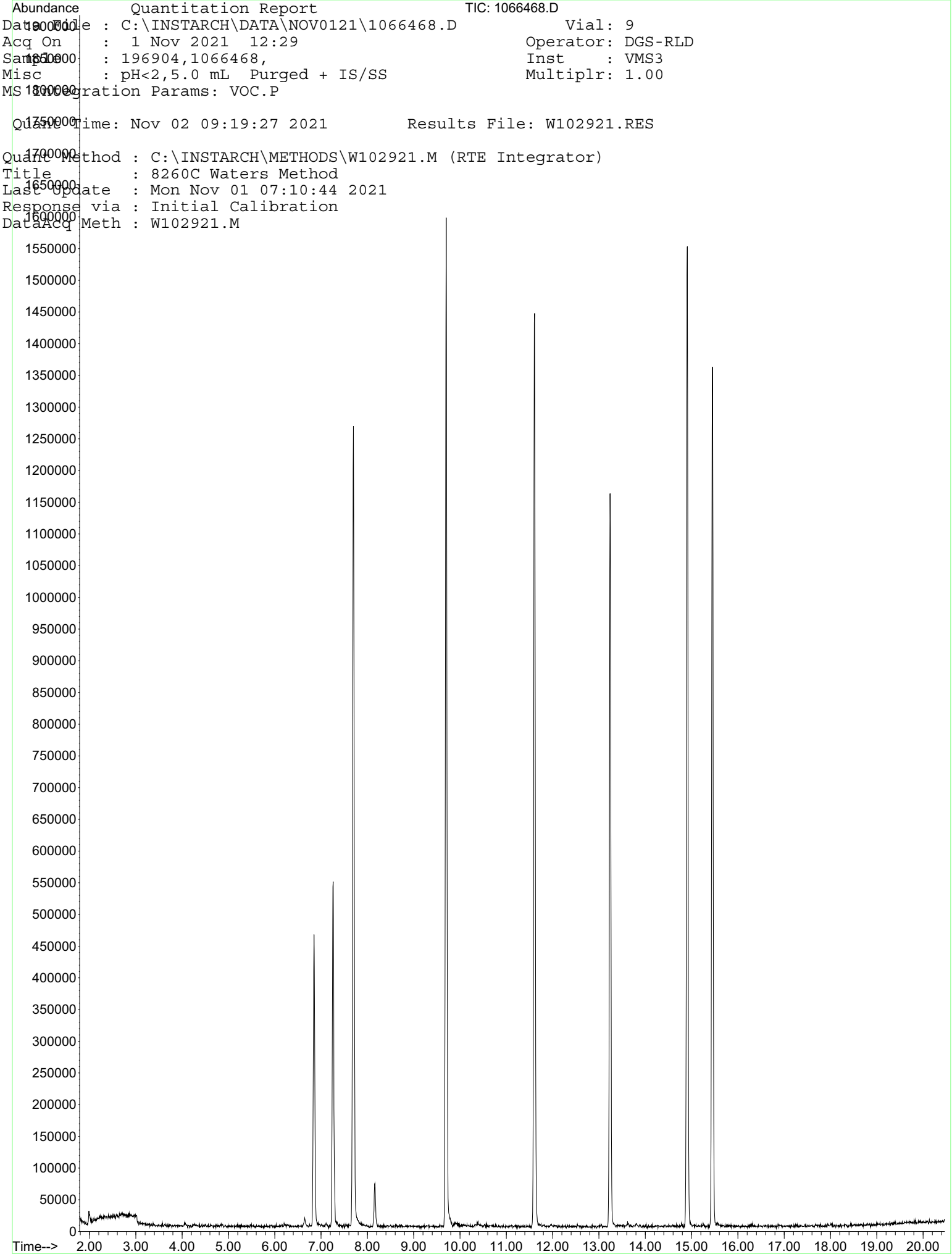
Quantitation Report

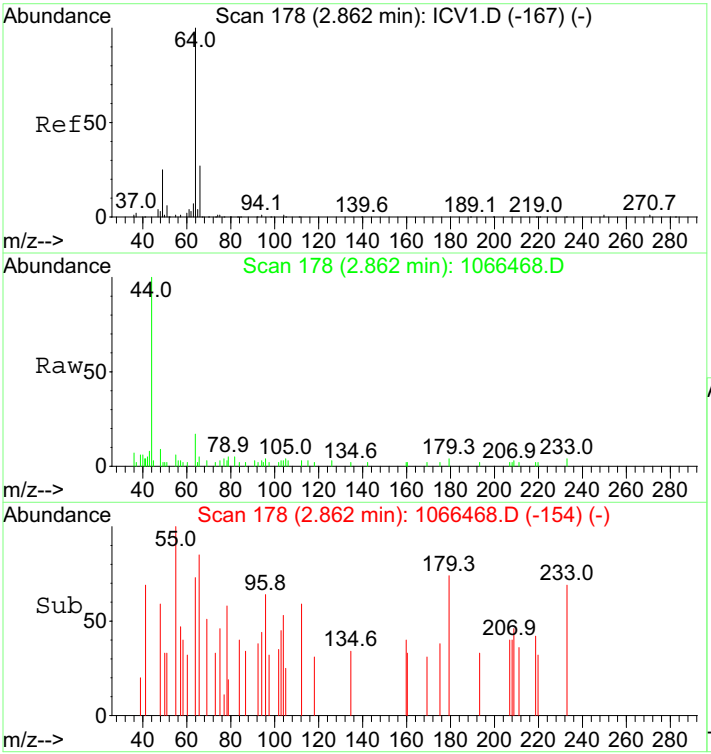
TIC: 1066468.D

Data File : C:\INSTARCH\DATA\NOV0121\1066468.D Vial: 9
Acq On : 1 Nov 2021 12:29 Operator: DGS-RLD
Sample : 196904,1066468, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

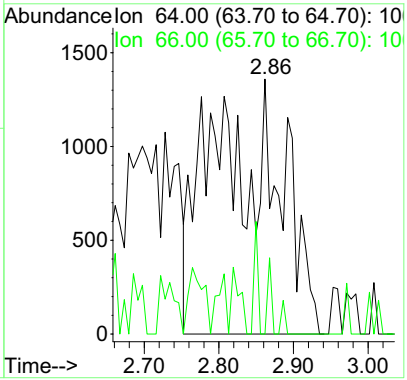




#6
Chloroethane
Concen: 0.71 ug/L
RT: 2.86 min Scan# 178
Delta R.T. -0.01 min
Lab File: 1066468.D
Acq: 1 Nov 2021 12:29

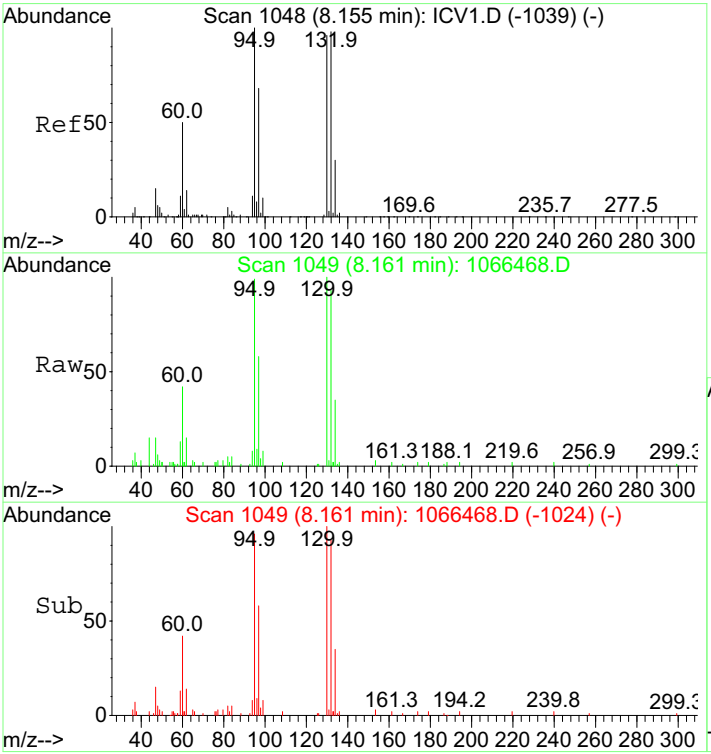
Tgt Ion: 64 Resp: 8376

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

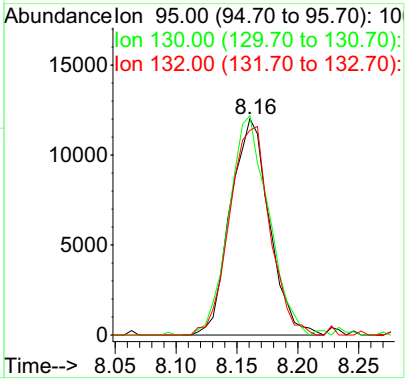
[redacted]



#49
trichloroete
Concen: 1.68 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1066468.D
Acq: 1 Nov 2021 12:29

Tgt Ion: 95 Resp: 26736

Ion	Ratio	Lower	Upper
95	100		
130	103.3	83.1	123.1
132	99.4	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469.D Vial: 10
Acq On : 1 Nov 2021 12:57 Operator: DGS-RLD
Sample : 196904,1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:36 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1262972	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	986531	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	506989	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.84	113	319827	19.645 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %		
45) SURR12DCAd4	7.25	102	89536	20.463 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.69	98	1252700	19.256 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %		
83) SURR4BrFBenz	13.24	95	495066	20.617 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.84	64	37092	3.1508 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	5009	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	7218	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.24	76	4172	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.83	59	3360	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	8530	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469.D Vial: 10
Acq On : 1 Nov 2021 12:57 Operator: DGS-RLD
Sample : 196904,1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:36 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	19413	0.7012	ug/L	99
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	97003	5.3313	ug/L	100
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	14238	0.8883	ug/L	100
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.60	91	2539	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469.D Vial: 10
Acq On : 1 Nov 2021 12:57 Operator: DGS-RLD
Sample : 196904,1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:36 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

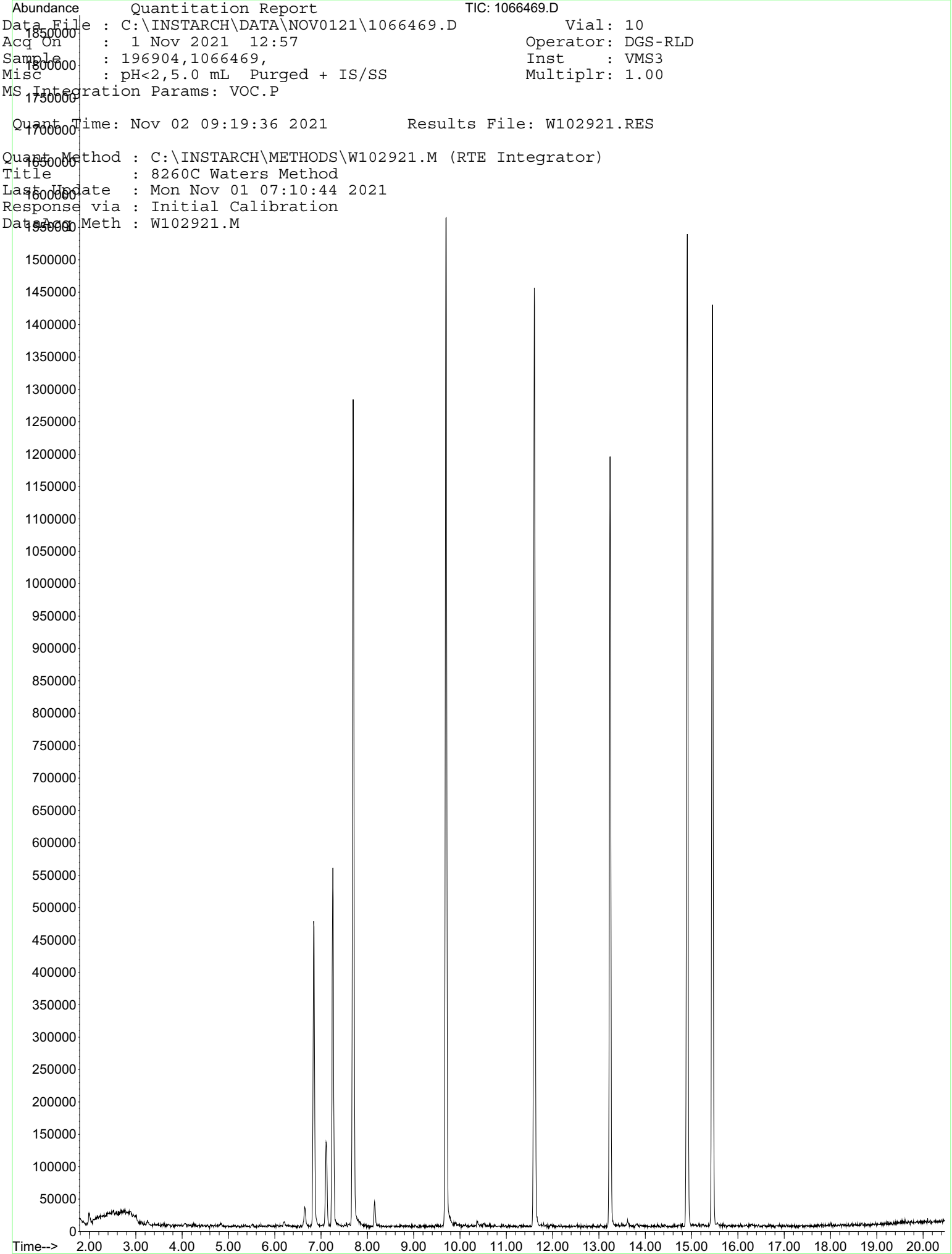
(#) = qualifier out of range (m) = manual integration

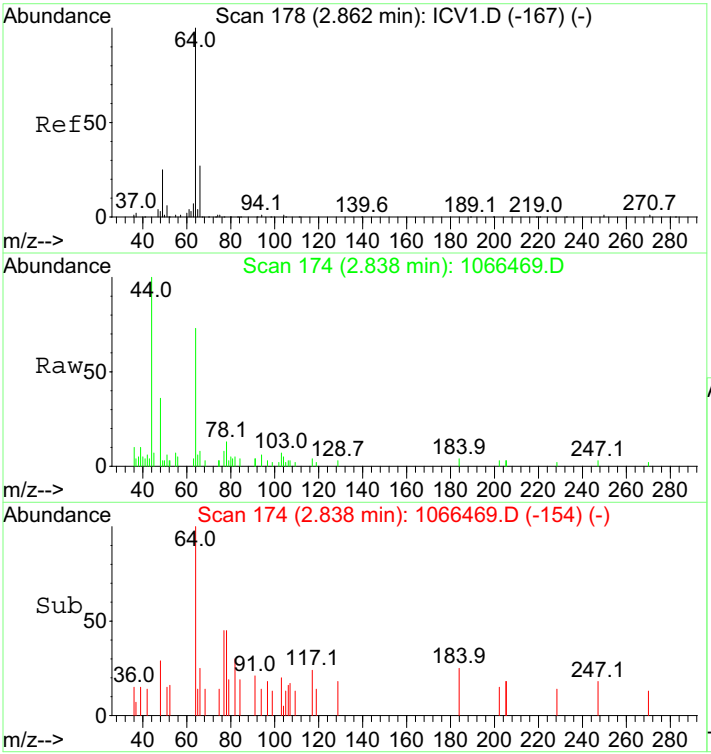
Abundance Quantitation Report TIC: 1066469.D

Data File : C:\INSTARCH\DATA\NOV0121\1066469.D Vial: 10
Acq On : 1 Nov 2021 12:57 Operator: DGS-RLD
Sample : 196904,1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:36 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

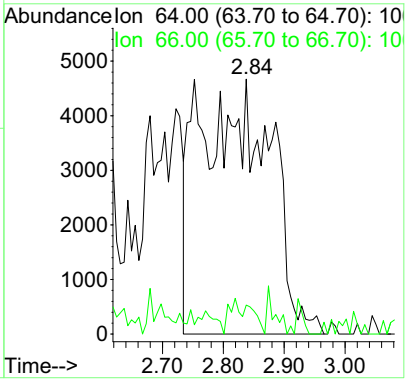




#6
Chloroethane
Concen: 3.15 ug/L
RT: 2.84 min Scan# 174
Delta R.T. -0.03 min
Lab File: 1066469.D
Acq: 1 Nov 2021 12:57

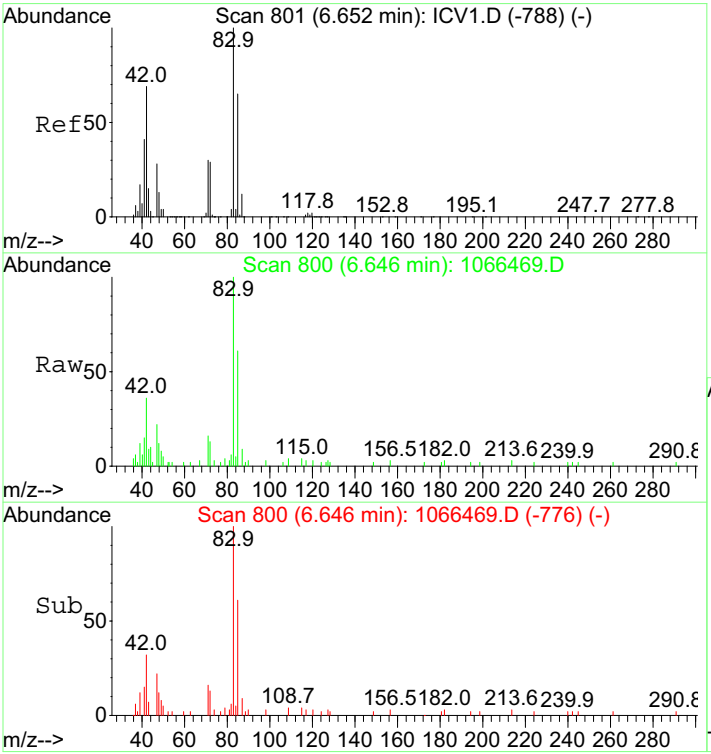
Tgt Ion: 64 Resp: 37092

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

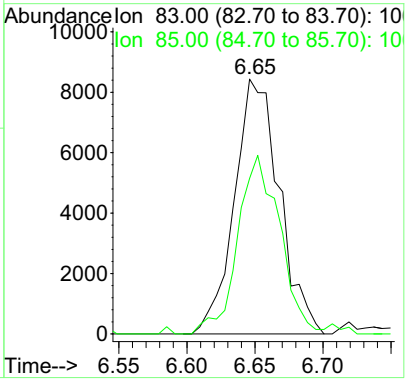
[redacted]

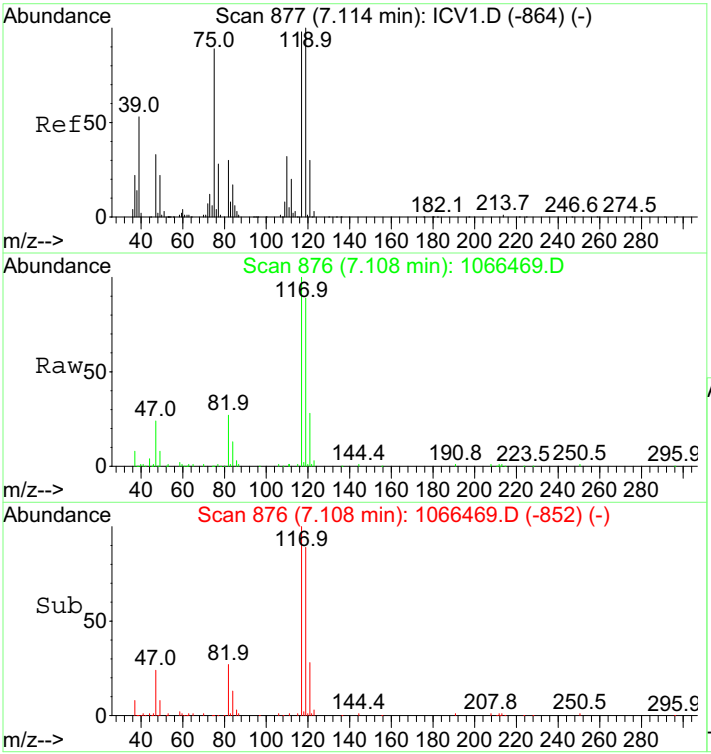


#39
Chloroform
Concen: 0.70 ug/L
RT: 6.65 min Scan# 800
Delta R.T. -0.01 min
Lab File: 1066469.D
Acq: 1 Nov 2021 12:57

Tgt Ion: 83 Resp: 19413

Ion	Ratio	Lower	Upper
83	100		
85	65.7	46.3	86.3

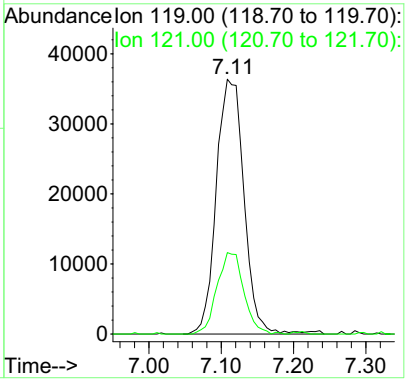


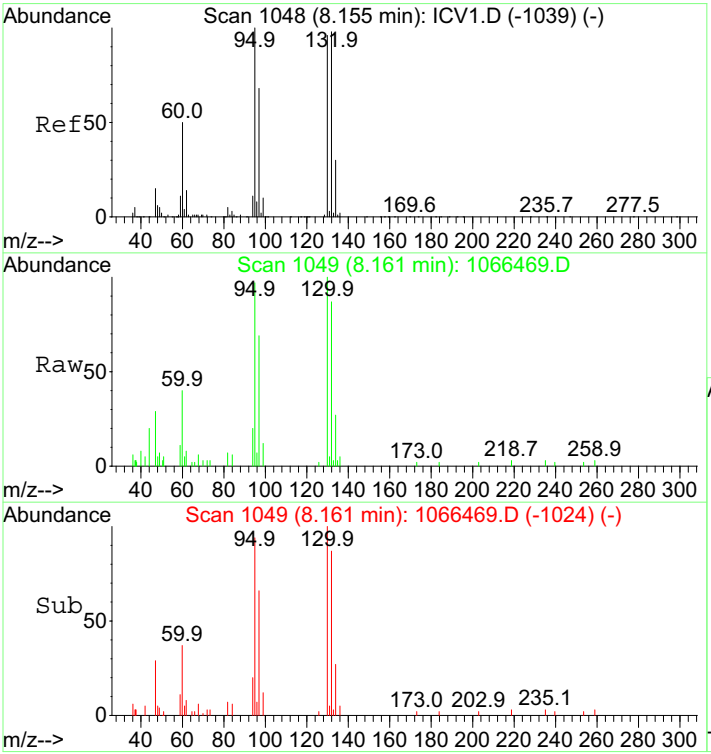


#43
Carbtetraclo
Concen: 5.33 ug/L
RT: 7.11 min Scan# 876
Delta R.T. -0.01 min
Lab File: 1066469.D
Acq: 1 Nov 2021 12:57

Tgt Ion:119 Resp: 97003

Ion	Ratio	Lower	Upper
119	100		
121	30.9	10.7	50.7

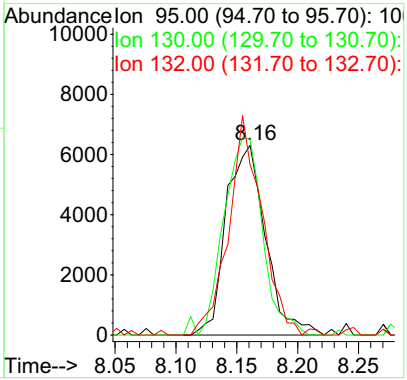




#49
trichloroete
Concen: 0.89 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1066469.D
Acq: 1 Nov 2021 12:57

Tgt Ion: 95 Resp: 14238

Ion	Ratio	Lower	Upper
95	100		
130	103.3	83.1	123.1
132	98.6	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066470.D Vial: 11
Acq On : 1 Nov 2021 13:25 Operator: DGS-RLD
Sample : 196904,1066470, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:02 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1256928	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	967058	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	504248	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	318813	19.677	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	88762	20.384	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1246353	19.251	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	488101	20.437	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	2.11	50	3353	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.74	64	14171	1.2096	ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	7103	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.24	76	4028	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	7627	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066470.D Vial: 11
Acq On : 1 Nov 2021 13:25 Operator: DGS-RLD
Sample : 196904,1066470, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:02 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	9040	0.4992	ug/L	87
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.47	91	2567	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066470.D Vial: 11
Acq On : 1 Nov 2021 13:25 Operator: DGS-RLD
Sample : 196904,1066470, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:02 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

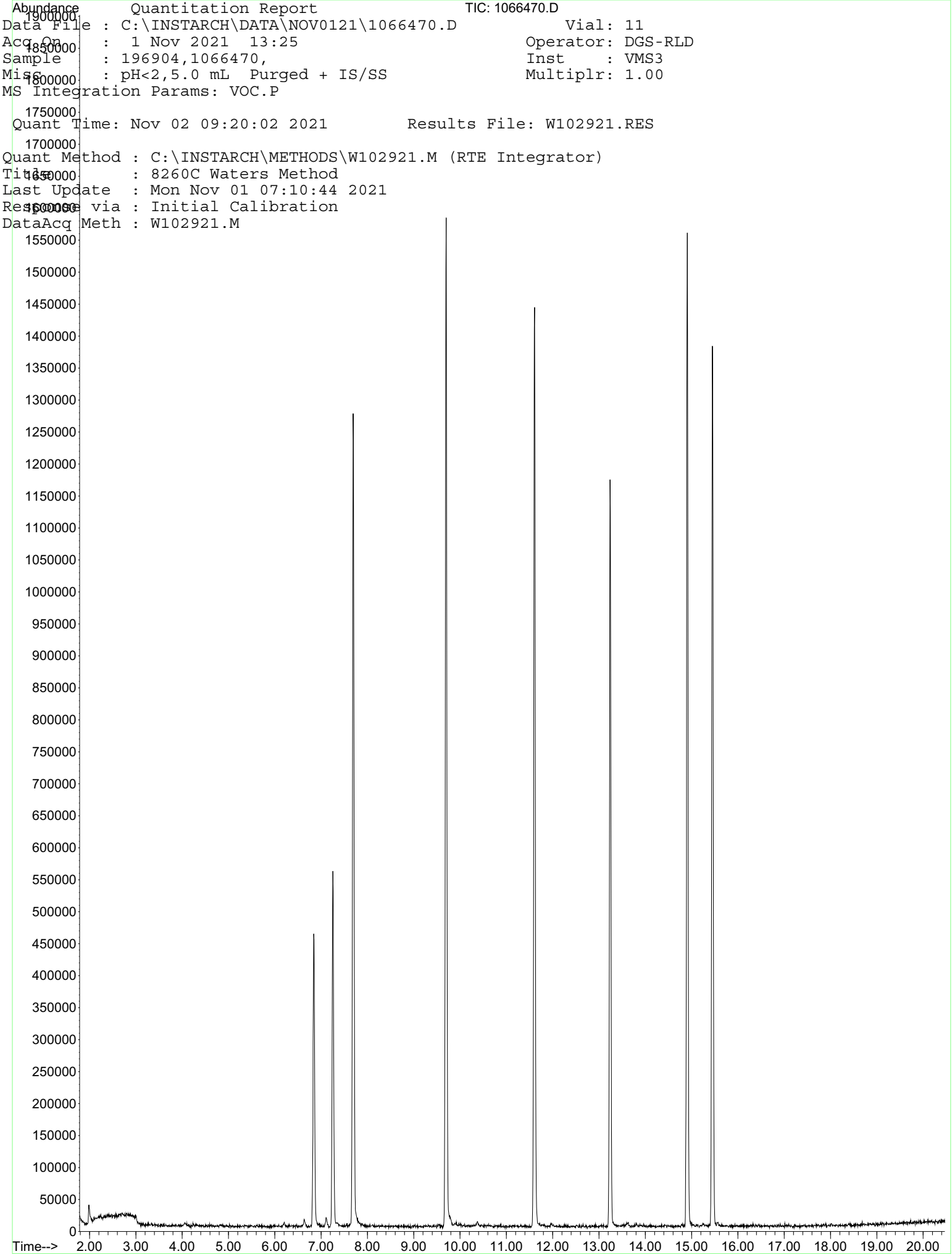
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	0.00	180	0	N.D.		
103)	Hexachlorobu	0.00	225	0	N.D.		
104)	Naphthalene	0.00	128	0	N.D.		
105)	123Trichlben	0.00	180	0	N.D.		

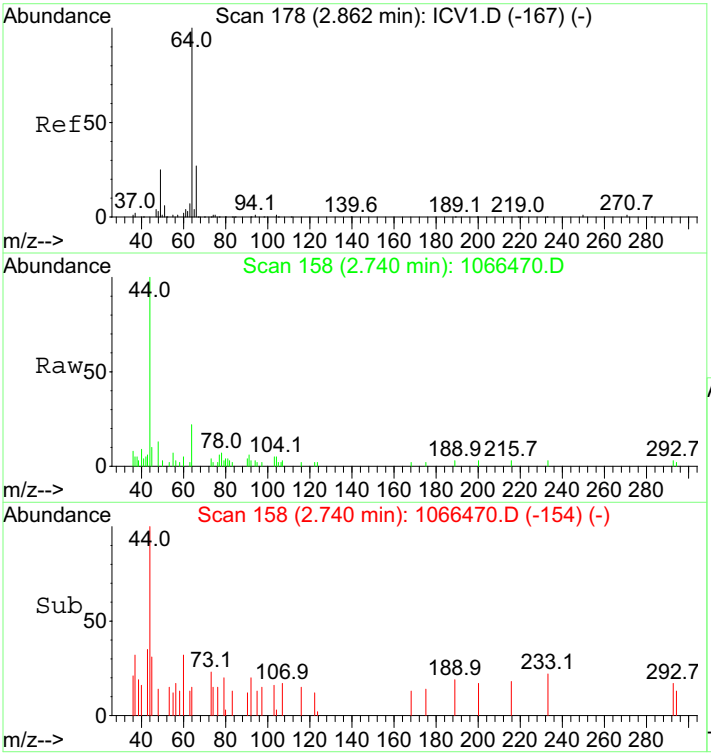
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1066470.D Vial: 11
Acq On : 1 Nov 2021 13:25 Operator: DGS-RLD
Sample : 196904,1066470, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:02 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

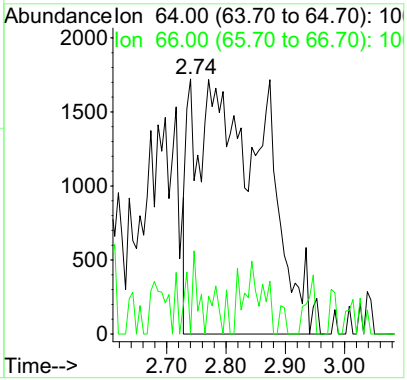




#6
Chloroethane
Concen: 1.21 ug/L
RT: 2.74 min Scan# 158
Delta R.T. -0.13 min
Lab File: 1066470.D
Acq: 1 Nov 2021 13:25

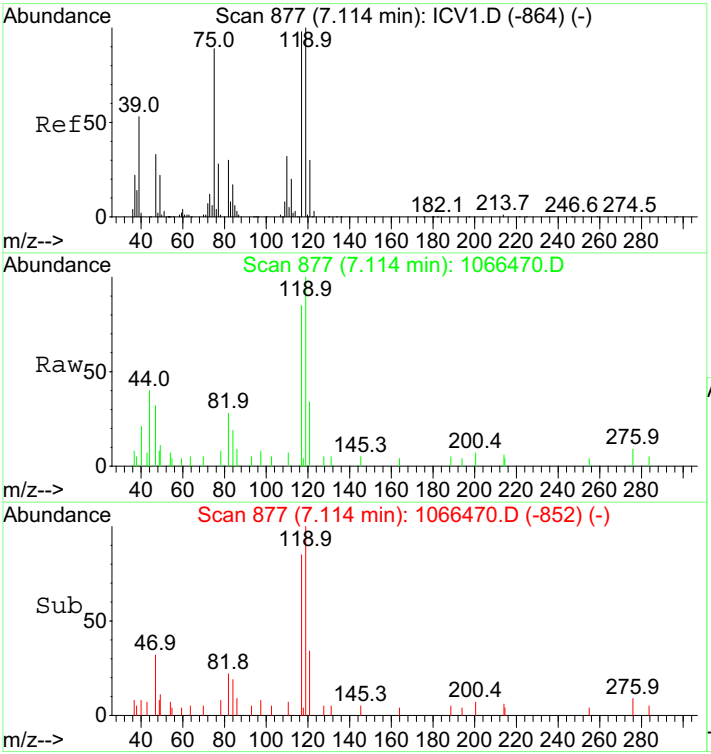
Tgt Ion: 64 Resp: 14171

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

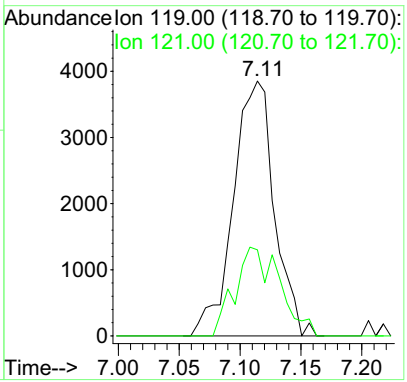
[redacted]



#43
Carbtetraclo
Concen: 0.50 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.00 min
Lab File: 1066470.D
Acq: 1 Nov 2021 13:25

Tgt Ion:119 Resp: 9040

Ion	Ratio	Lower	Upper
119	100		
121	37.9	10.7	50.7



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066471.D Vial: 12
Acq On : 1 Nov 2021 13:55 Operator: DGS-RLD
Sample : 196904,1066471, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:18 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1249427	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	980219	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	498762	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	320266	19.885 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.25	102	90266	20.853 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 104 %			
61) SURRd8Tolule	9.70	98	1248238	19.395 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 97 %			
83) SURR4BrFBenz	13.24	95	485685	20.560 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.87	64	3204	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	7678	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	3358	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.86	59	3031	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	7025	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066471.D Vial: 12
Acq On : 1 Nov 2021 13:55 Operator: DGS-RLD
Sample : 196904,1066471, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:18 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.60	91	2697	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066471.D Vial: 12
Acq On : 1 Nov 2021 13:55 Operator: DGS-RLD
Sample : 196904,1066471, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:18 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

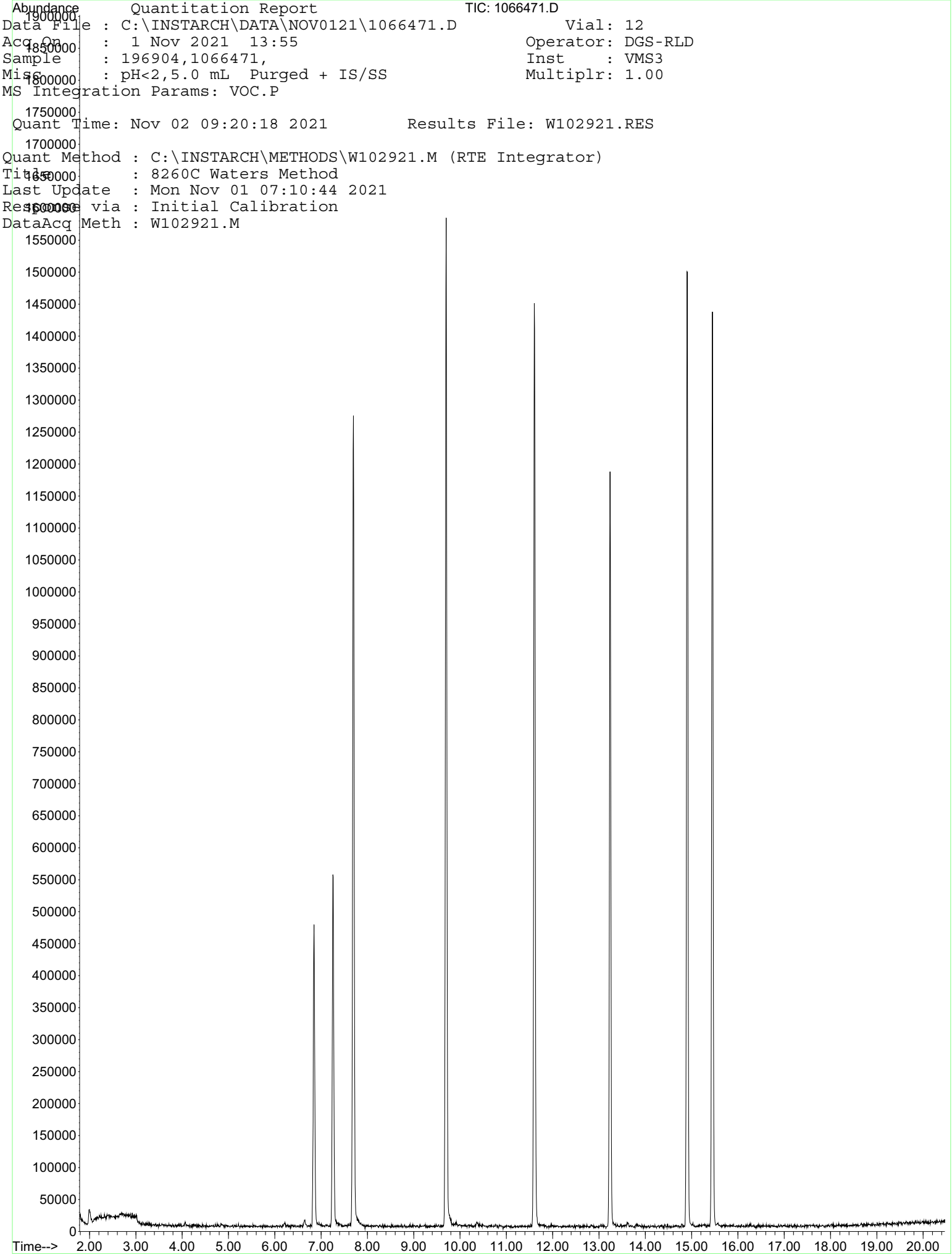
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	0.00	180	0	N.D.		
103)	Hexachlorobu	0.00	225	0	N.D.		
104)	Naphthalene	0.00	128	0	N.D.		
105)	123Trichlben	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1066471.D Vial: 12
Acq. On : 1 Nov 2021 13:55 Operator: DGS-RLD
Sample : 196904,1066471, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:20:18 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067786.D Vial: 13
Acq On : 1 Nov 2021 14:23 Operator: DGS-RLD
Sample : 196904,1067786, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1231786	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	960738	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	500917	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	316189	19.913	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	88625	20.768	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104	%		
61) SURRd8Tolule	9.70	98	1220846	19.242	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96	%		
83) SURR4BrFBenz	13.24	95	485354	20.457	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.84	64	4408	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.71	67	2970	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	6514	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.25	76	2891	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.84	59	3766	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	5.53	63	18567	0.6527	ug/L	96
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	6.26	96	11855	0.7133	ug/L	92
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	7532	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067786.D Vial: 13
Acq On : 1 Nov 2021 14:23 Operator: DGS-RLD
Sample : 196904,1067786, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	6.88	97	6312	0.2911 ug/L	88
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.15	95	29223	1.8693 ug/L	99
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	6455	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	10.51	166	3452	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	11.80	91	2555	N.D.	
76)	m p-Xylene	11.96	106	3549	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	12.53	104	2638	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	14.43	105	3857	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.46	91	2578	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067786.D Vial: 13
Acq On : 1 Nov 2021 14:23 Operator: DGS-RLD
Sample : 196904,1067786, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

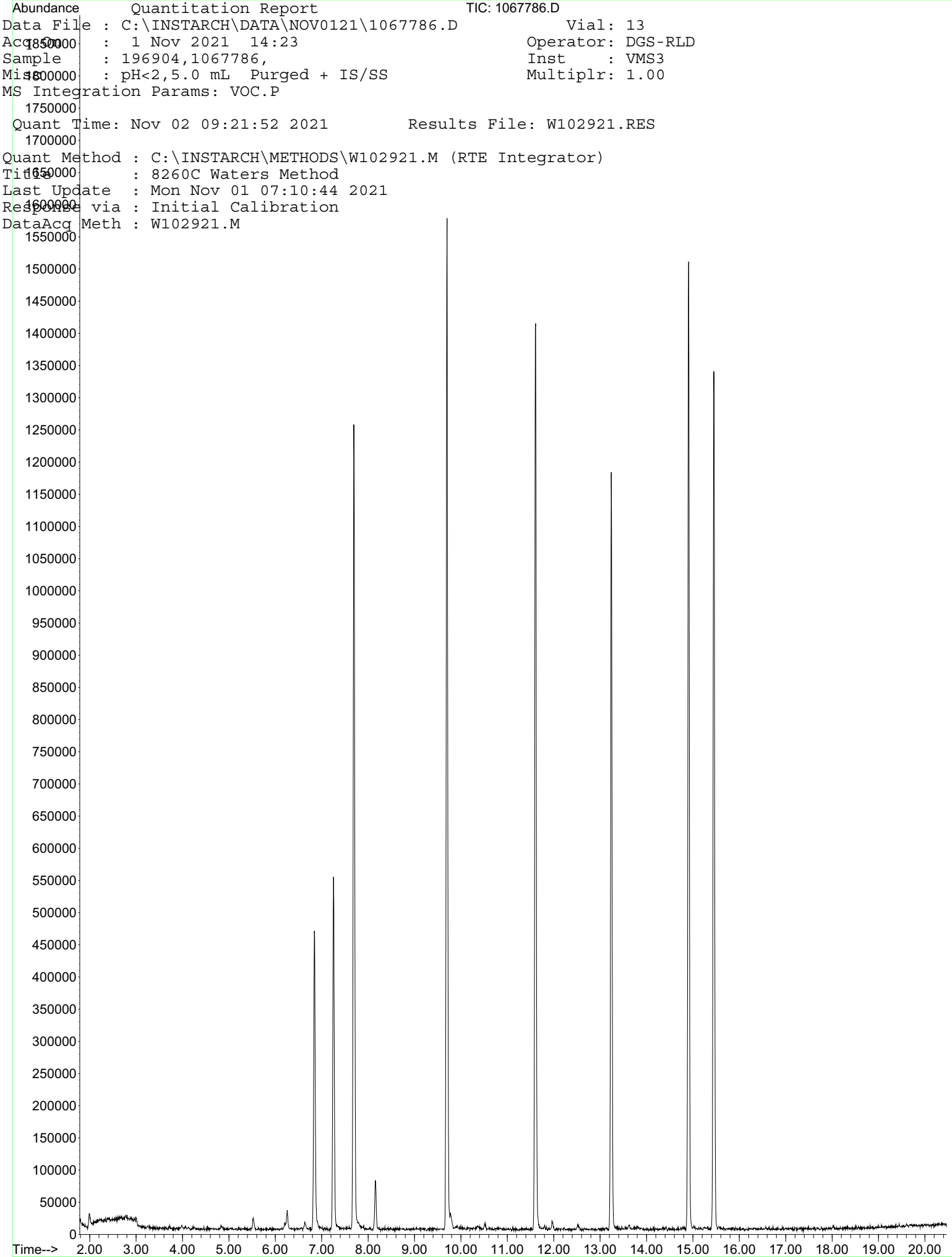
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	2547	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

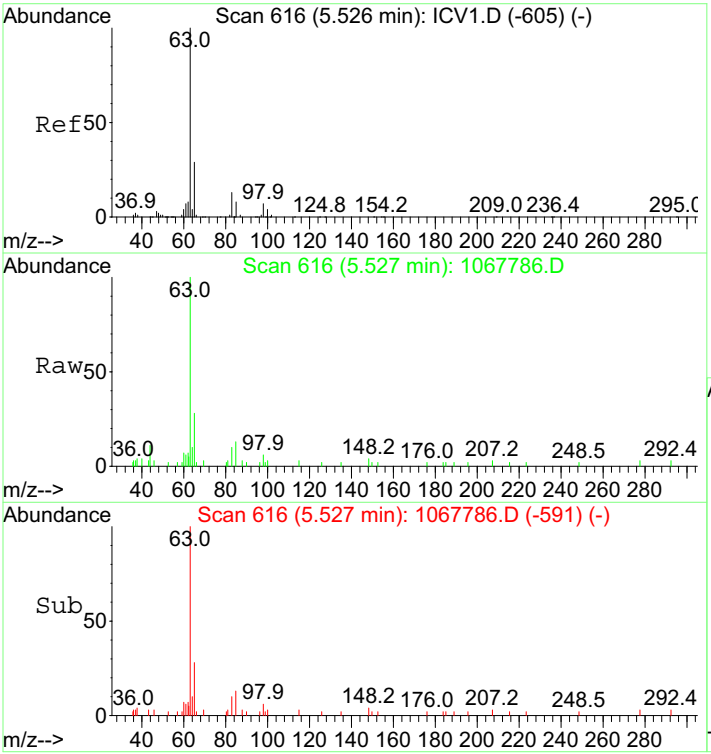
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1067786.D Vial: 13
Acq On : 1 Nov 2021 14:23 Operator: DGS-RLD
Sample : 196904,1067786, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:21:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

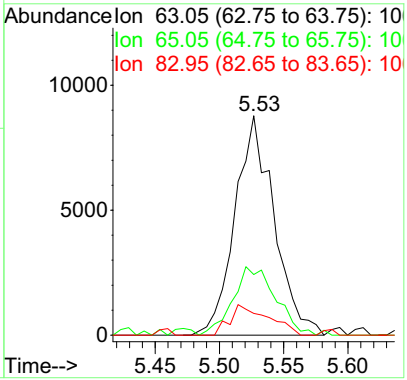


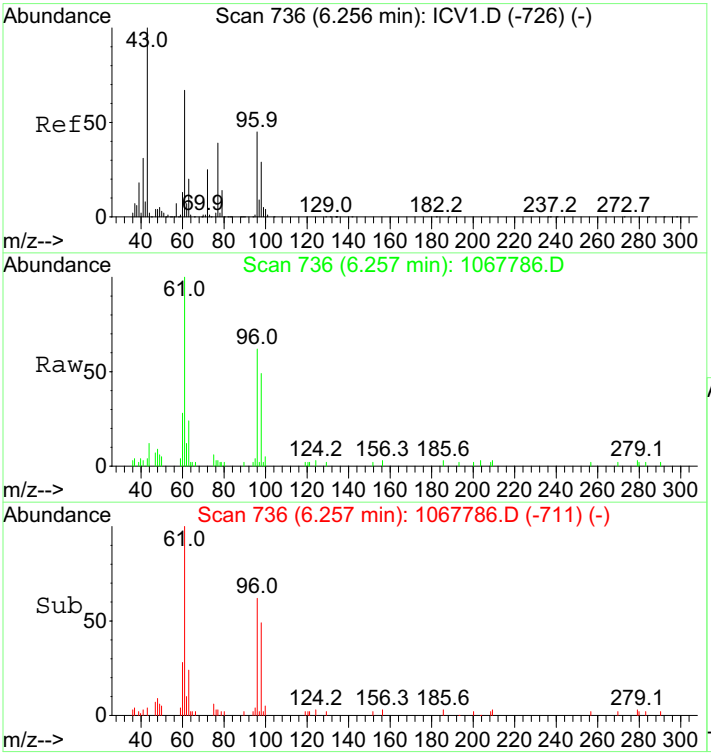


#26
11dichlorota
Concen: 0.65 ug/L
RT: 5.53 min Scan# 616
Delta R.T. 0.00 min
Lab File: 1067786.D
Acq: 1 Nov 2021 14:23

Tgt Ion: 63 Resp: 18567

Ion	Ratio	Lower	Upper
63	100		
65	34.3	12.2	52.2
83	13.7	0.0	32.1

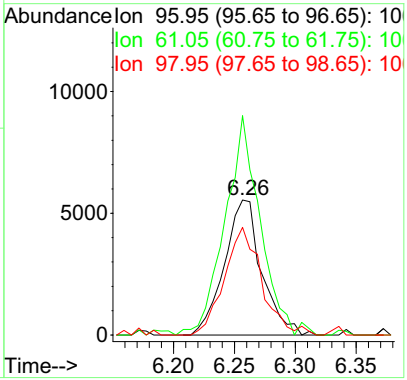


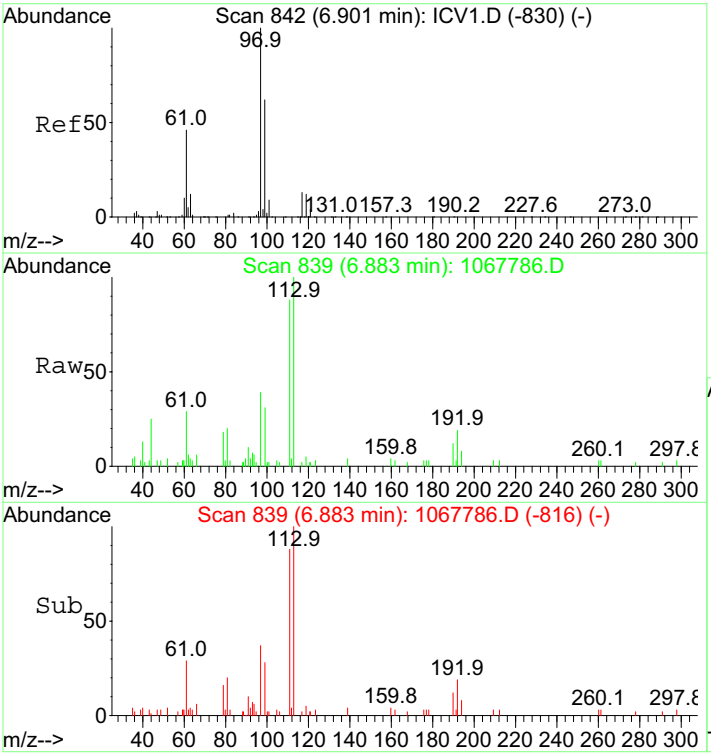


#32
c12dichlorte
Concen: 0.71 ug/L
RT: 6.26 min Scan# 736
Delta R.T. 0.00 min
Lab File: 1067786.D
Acq: 1 Nov 2021 14:23

Tgt Ion: 96 Resp: 11855

Ion	Ratio	Lower	Upper
96	100		
61	152.9	129.7	169.7
98	79.5	42.6	82.6

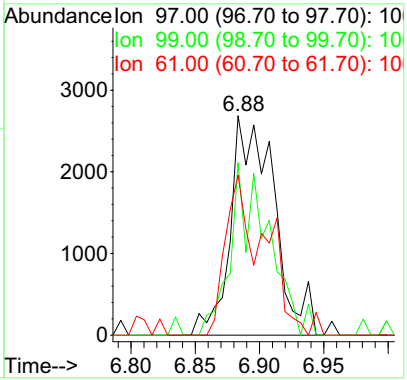


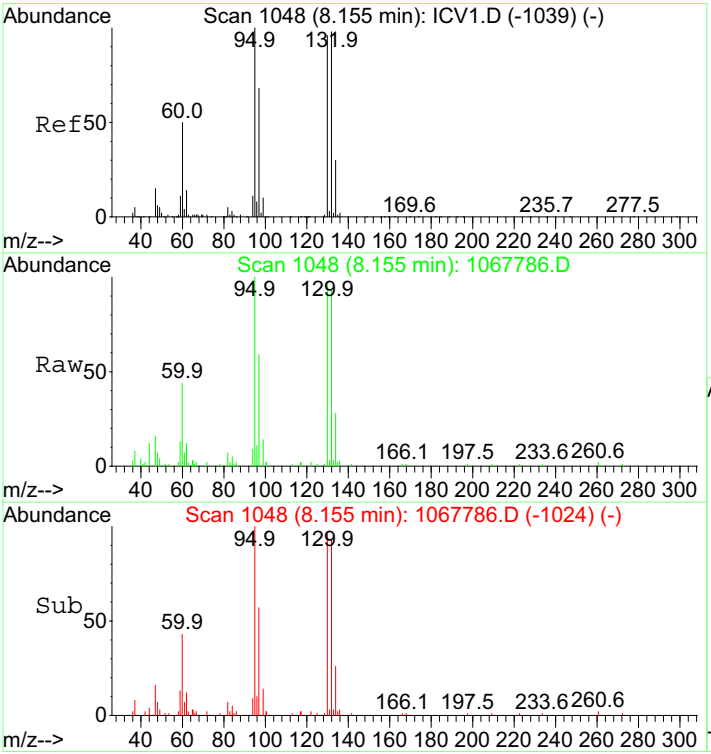


#40
111trichlota
Concen: 0.29 ug/L
RT: 6.88 min Scan# 839
Delta R.T. -0.01 min
Lab File: 1067786.D
Acq: 1 Nov 2021 14:23

Tgt Ion: 97 Resp: 6312

Ion	Ratio	Lower	Upper
97	100		
99	68.5	45.6	85.6
61	65.1	29.8	69.8

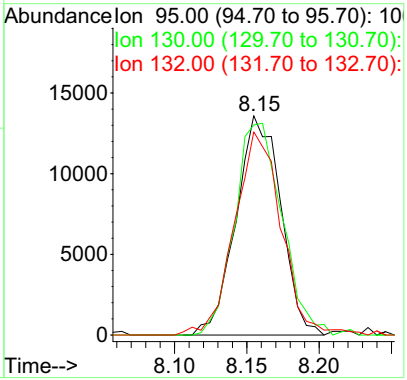




#49
trichloroete
Concen: 1.87 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1067786.D
Acq: 1 Nov 2021 14:23

Tgt Ion: 95 Resp: 29223

Ion	Ratio	Lower	Upper
95	100		
130	103.4	83.1	123.1
132	96.9	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067787.D Vial: 14
Acq On : 1 Nov 2021 14:51 Operator: DGS-RLD
Sample : 196904,1067787, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:31 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1237243	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	966172	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	488129	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	316567	19.849	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.27	102	88428	20.630	ug/L	0.01
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	1229609	19.294	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	479949	20.759	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 104 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	0.00	64	0	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	3.72	67	15770	0.7071	ug/L	97
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	4.03	101	6301	N.D.		
15) Acetone	4.07	43	6558	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.25	76	3285	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.85	59	8787	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.65	42	7513	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067787.D Vial: 14
Acq On : 1 Nov 2021 14:51 Operator: DGS-RLD
Sample : 196904,1067787, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:31 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	10143	0.3740 ug/L	88
40)	111trichlota	6.91	97	2762	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.11	119	36998	2.0757 ug/L	98
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	7318	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	2539	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	11.97	106	3436	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	12.53	104	3737	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067787.D Vial: 14
Acq On : 1 Nov 2021 14:51 Operator: DGS-RLD
Sample : 196904,1067787, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:31 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

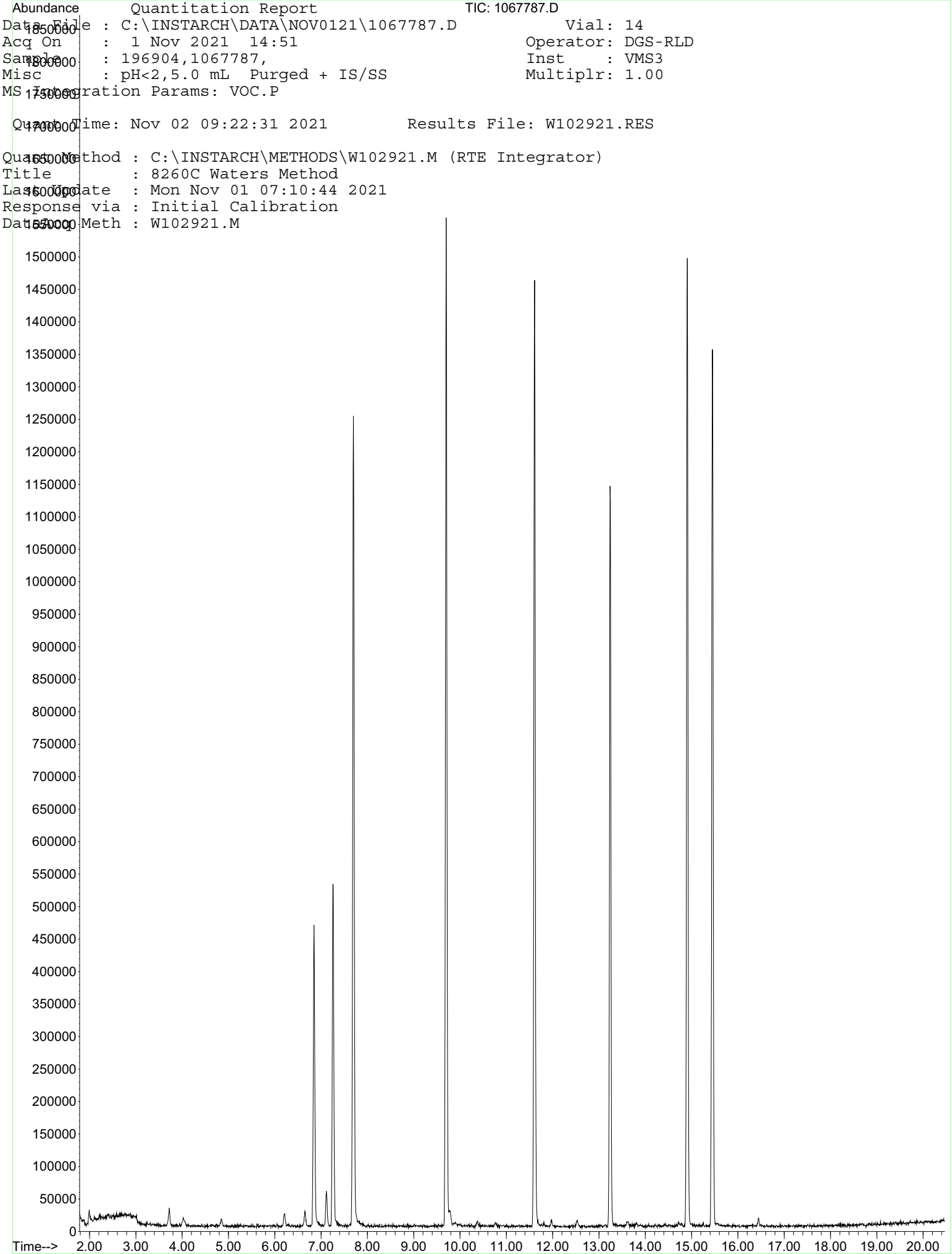
Quantitation Report

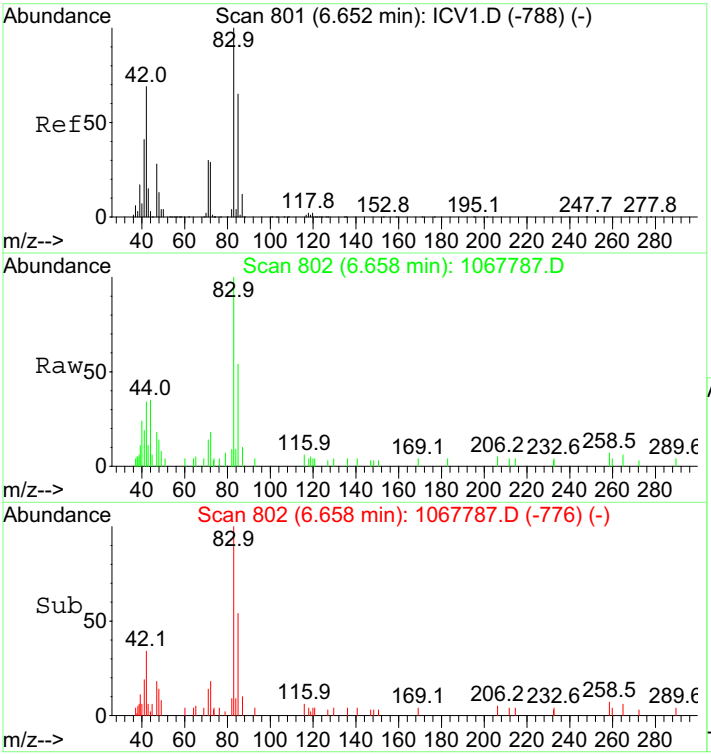
TIC: 1067787.D

Data File : C:\INSTARCH\DATA\NOV0121\1067787.D Vial: 14
Acq On : 1 Nov 2021 14:51 Operator: DGS-RLD
Sample : 196904,1067787, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:31 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
Data Path Meth : W102921.M

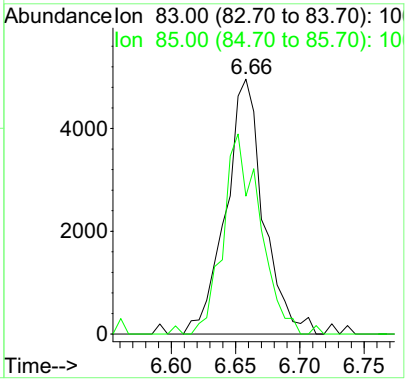


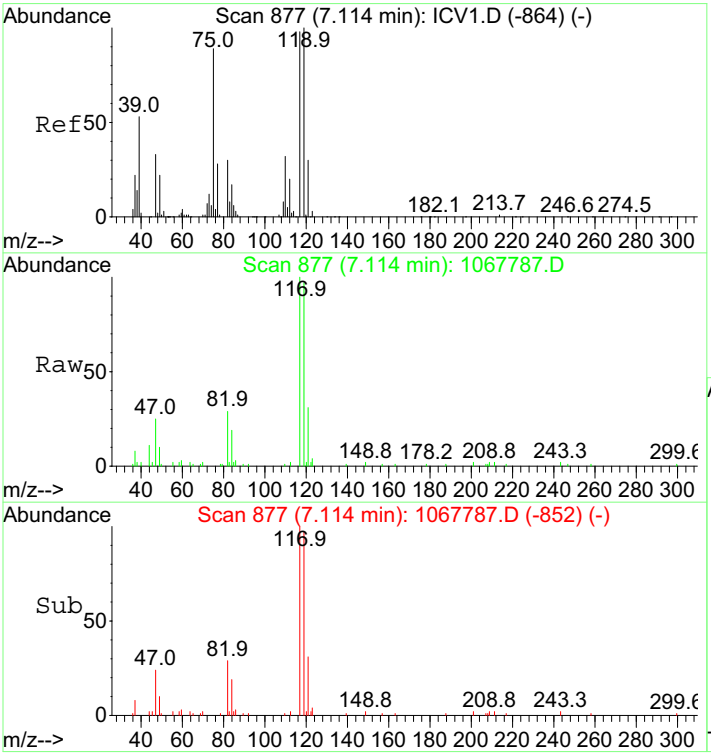


#39
Chloroform
Concen: 0.37 ug/L
RT: 6.66 min Scan# 802
Delta R.T. 0.01 min
Lab File: 1067787.D
Acq: 1 Nov 2021 14:51

Tgt Ion: 83 Resp: 10143

Ion	Ratio	Lower	Upper
83	100		
85	76.0	46.3	86.3

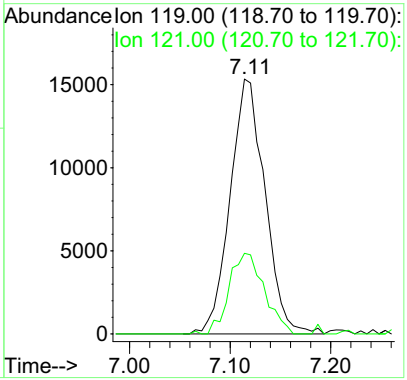




#43
Carbtetraclo
Concen: 2.08 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.00 min
Lab File: 1067787.D
Acq: 1 Nov 2021 14:51

Tgt Ion:119 Resp: 36998

Ion	Ratio	Lower	Upper
119	100		
121	32.0	10.7	50.7



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067788.D Vial: 15
Acq On : 1 Nov 2021 15:20 Operator: DGS-RLD
Sample : 196904,1067788, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1247121	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	959561	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	498874	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	310984	19.344	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 97 %			
45) SURR12DCAd4	7.25	102	87649	20.286	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %			
61) SURRd8Tolule	9.69	98	1232043	19.179	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	483224	20.451	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	3.25	101	2812	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	4.05	43	6373	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	4.25	76	3197	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	0.00	59	0	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	5.52	63	6493	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	6.26	96	4734	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	6.64	42	6054	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067788.D Vial: 15
Acq On : 1 Nov 2021 15:20 Operator: DGS-RLD
Sample : 196904,1067788, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	7075	N.D.		
40)	111trichlota	6.90	97	3444	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	21899	1.2189	ug/L	86
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.15	95	17281	1.0918	ug/L	95
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	5478	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	10.52	166	2600	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	11.81	91	3008	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	12.52	104	5656	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	13.12	55	3874	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067788.D Vial: 15
Acq On : 1 Nov 2021 15:20 Operator: DGS-RLD
Sample : 196904,1067788, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

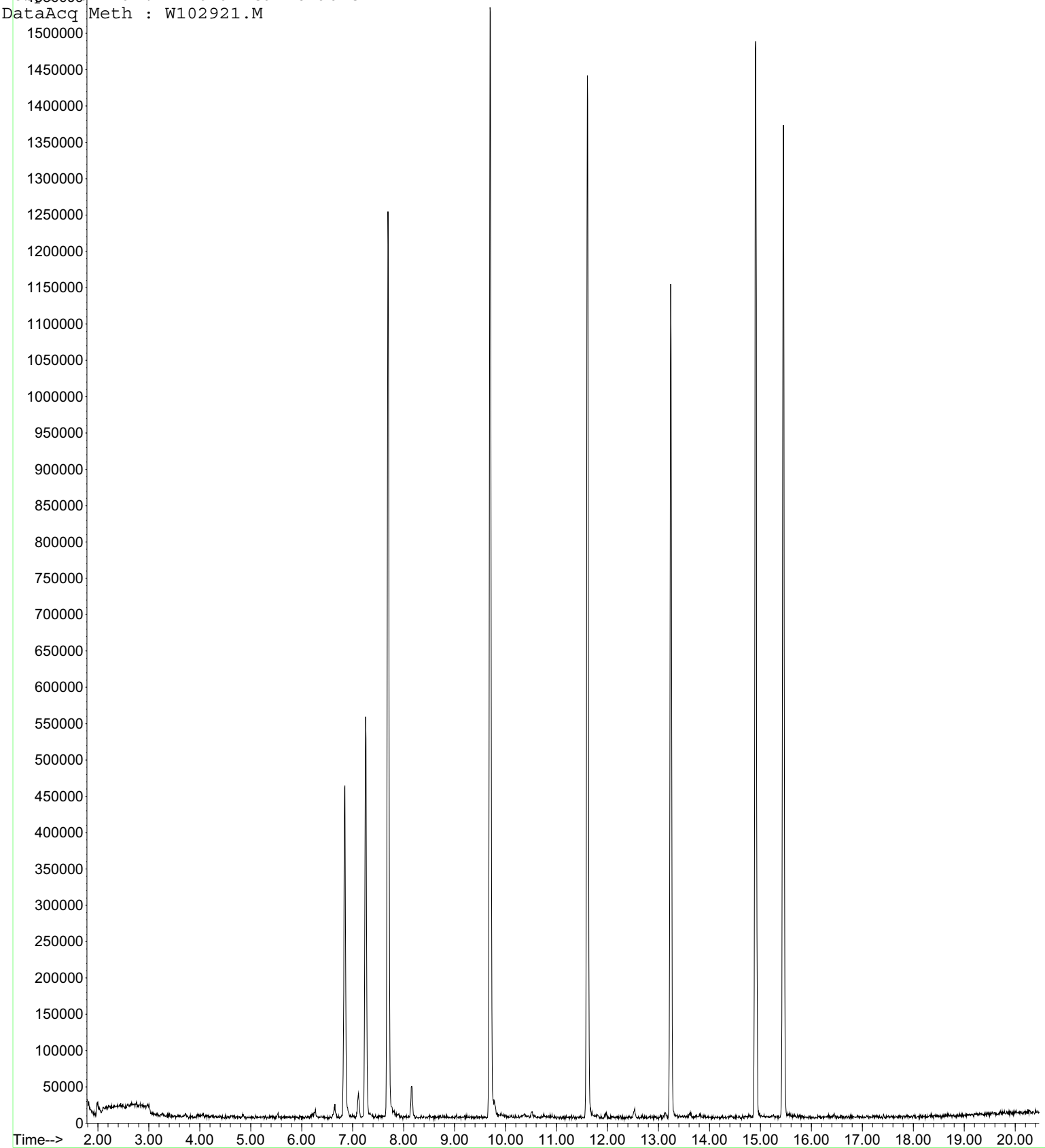
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

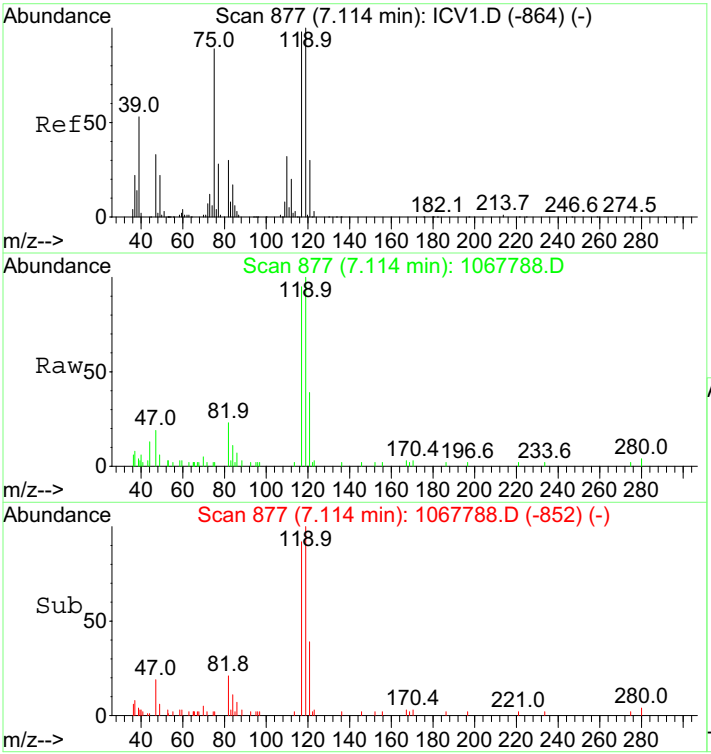
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1067788.D Vial: 15
Acq On : 1 Nov 2021 15:20 Operator: DGS-RLD
Sample : 196904,1067788, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

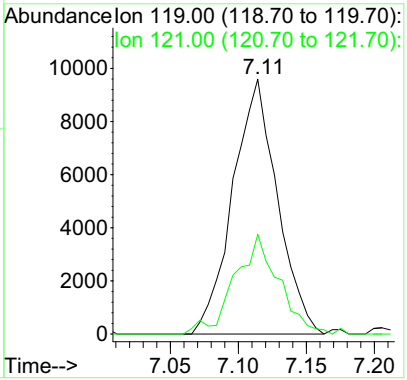


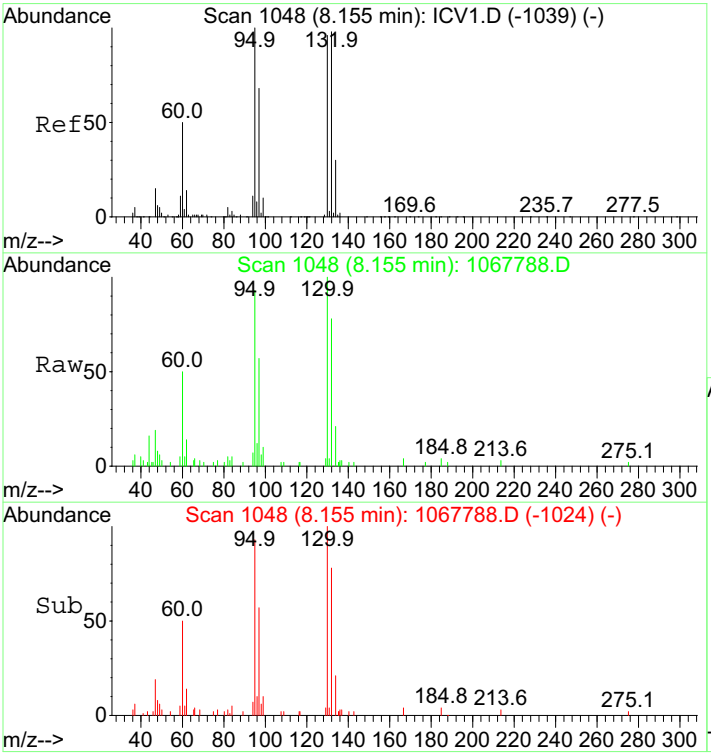


#43
Carbtetraclo
Concen: 1.22 ug/L
RT: 7.11 min Scan# 877
Delta R.T. 0.00 min
Lab File: 1067788.D
Acq: 1 Nov 2021 15:20

Tgt Ion:119 Resp: 21899

Ion	Ratio	Lower	Upper
119	100		
121	38.3	10.7	50.7

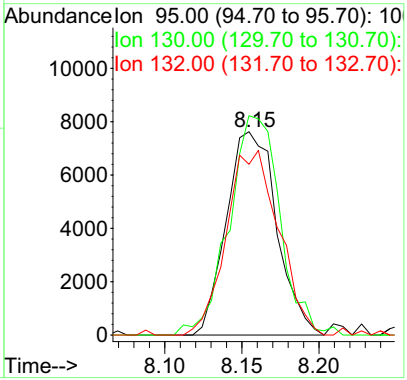




#49
trichloroete
Concen: 1.09 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1067788.D
Acq: 1 Nov 2021 15:20

Tgt Ion: 95 Resp: 17281

Ion	Ratio	Lower	Upper
95	100		
130	109.5	83.1	123.1
132	94.5	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067789.D Vial: 16
Acq On : 1 Nov 2021 15:47 Operator: DGS-RLD
Sample : 196904,1067789, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1223373	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	947134	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	490064	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	306373	19.427 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 97 %			
45) SURR12DCAd4	7.26	102	86421	20.390 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1206847	19.152 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	472976	20.377 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	2.11	50	2536	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.86	64	3226	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	5997	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	4616	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	7803	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.63	42	8012	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067789.D Vial: 16
Acq On : 1 Nov 2021 15:47 Operator: DGS-RLD
Sample : 196904,1067789, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	82156	3.0633	ug/L	98
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	424834	24.1049	ug/L	97
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	26608	1.7137	ug/L	98
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	4604	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	11.98	106	3331	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	14.43	105	3141	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067789.D Vial: 16
Acq On : 1 Nov 2021 15:47 Operator: DGS-RLD
Sample : 196904,1067789, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

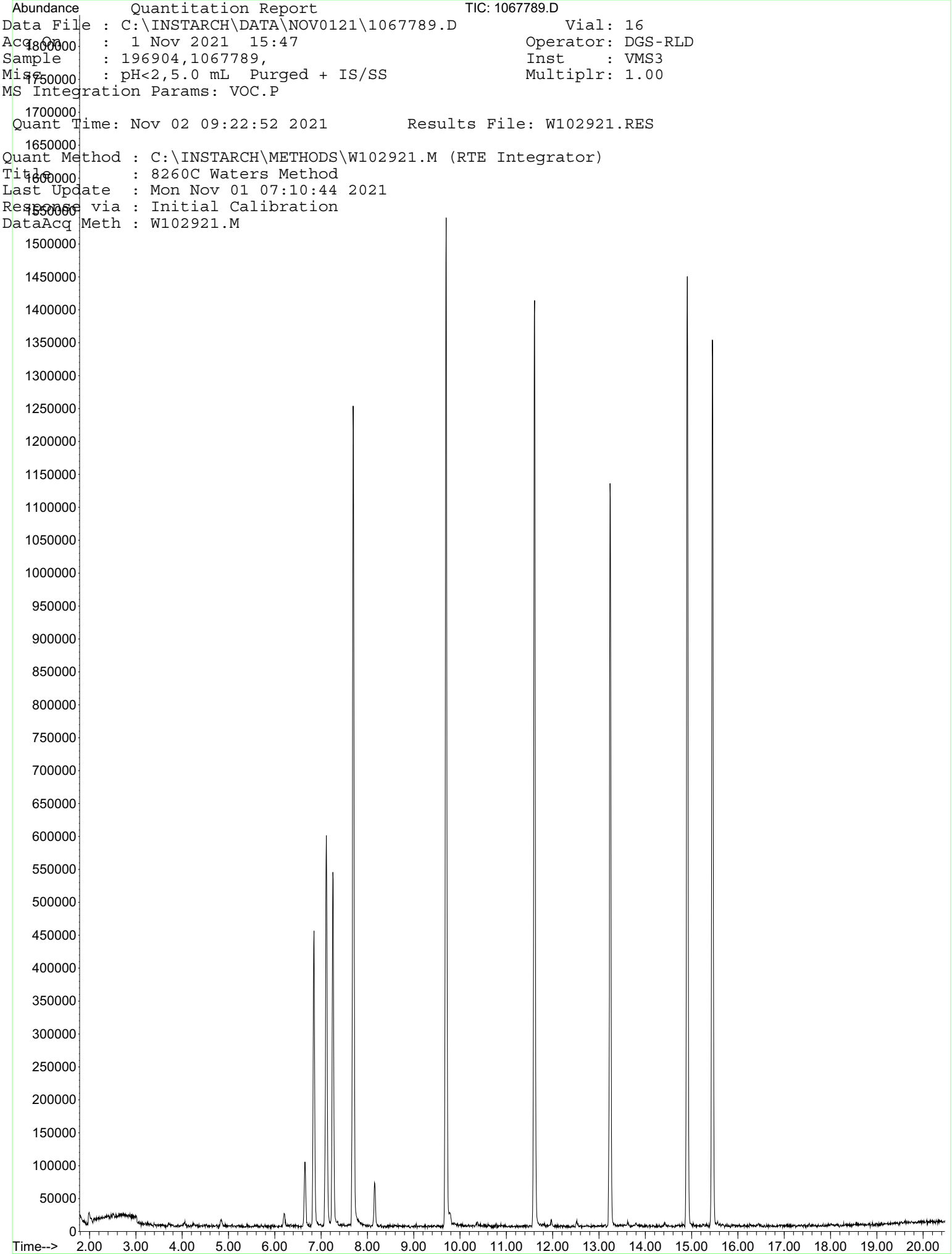
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

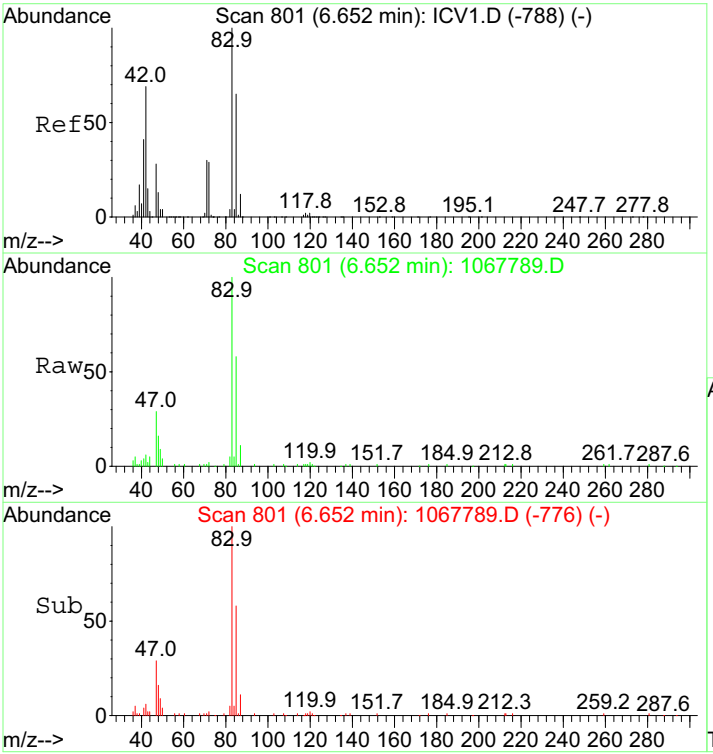
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1067789.D Vial: 16
Acq On : 1 Nov 2021 15:47 Operator: DGS-RLD
Sample : 196904,1067789, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:22:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

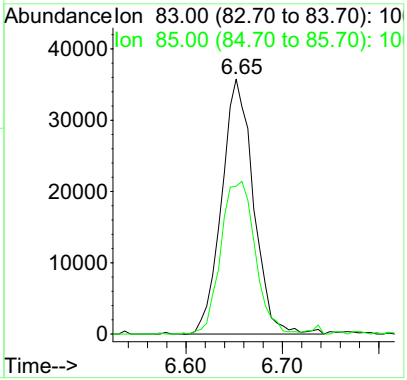


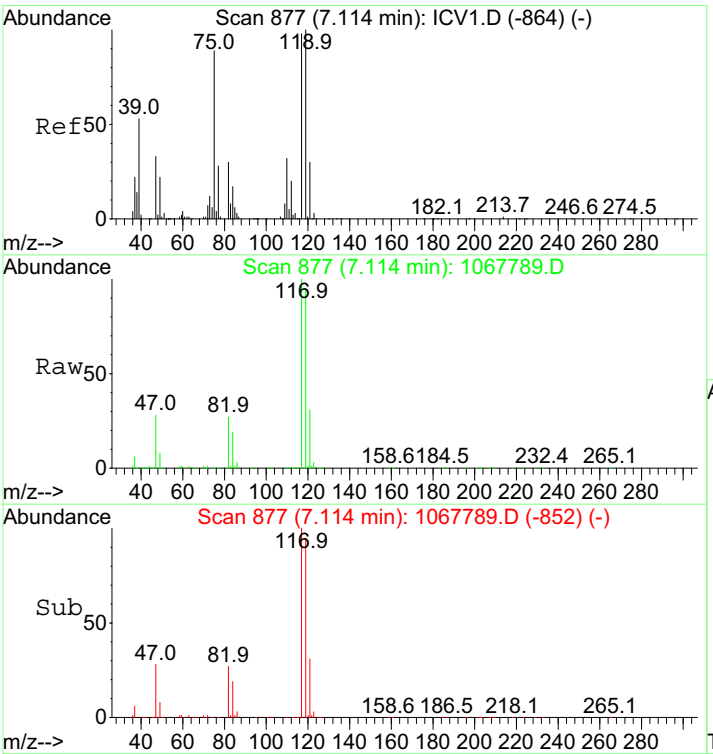


#39
Chloroform
Concen: 3.06 ug/L
RT: 6.65 min Scan# 801
Delta R.T. 0.00 min
Lab File: 1067789.D
Acq: 1 Nov 2021 15:47

Tgt Ion: 83 Resp: 82156

Ion	Ratio	Lower	Upper
83	100		
85	64.6	46.3	86.3

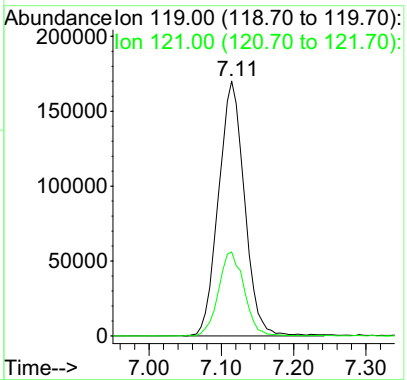


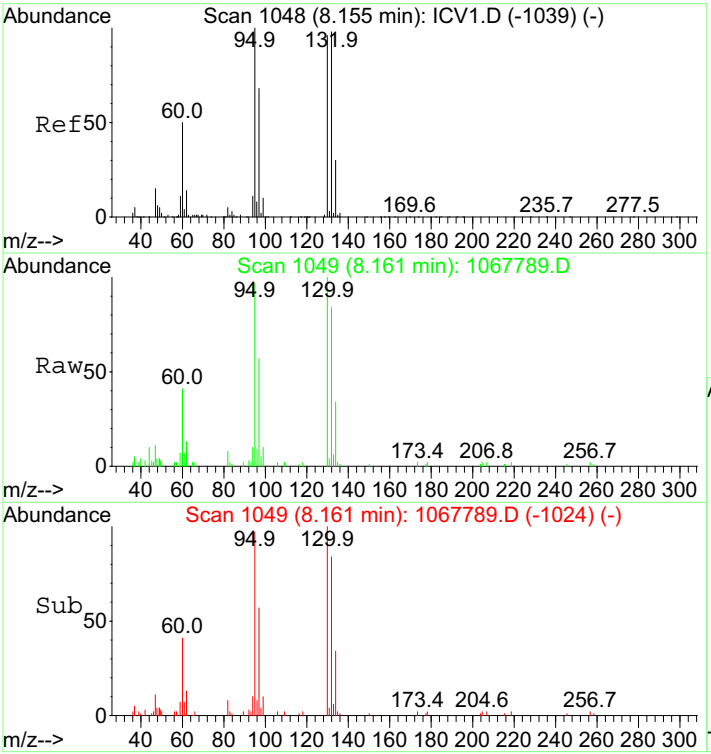


#43
Carbtetraclo
Concen: 24.10 ug/L
RT: 7.11 min Scan# 877
Delta R.T. 0.00 min
Lab File: 1067789.D
Acq: 1 Nov 2021 15:47

Tgt Ion:119 Resp: 424834

Ion	Ratio	Lower	Upper
119	100		
121	32.6	10.7	50.7

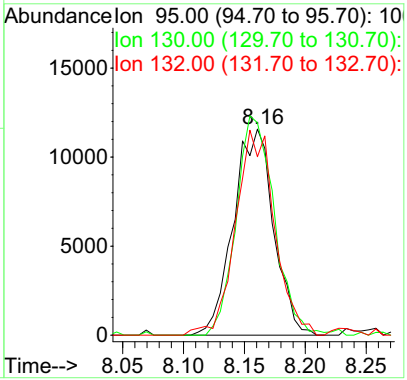




#49
trichloroete
Concen: 1.71 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1067789.D
Acq: 1 Nov 2021 15:47

Tgt Ion: 95 Resp: 26608

Ion	Ratio	Lower	Upper
95	100		
130	101.1	83.1	123.1
132	96.5	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790.D Vial: 17
Acq On : 1 Nov 2021 16:17 Operator: DGS-RLD
Sample : 196904,1067790,5 Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:14 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1236818	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	951028	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	494421	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	316122	19.828	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.26	102	86560	20.201	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %			
61) SURRd8Tolule	9.70	98	1218530	19.127	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	477830	20.405	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	2.87	64	4166	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	4.05	43	22117	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	4.25	76	3960	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	4.62	84	3935	N.D.
21) tbutylalcohol	4.85	59	2734	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	6.65	42	14338	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790.D Vial: 17
Acq On : 1 Nov 2021 16:17 Operator: DGS-RLD
Sample : 196904,1067790,5 Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:14 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	109588	4.0418 ug/L	98
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.12	119	265335	14.8913 ug/L	98
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	7.35	62	8546	0.3821 ug/L #	86
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.15	95	49207	3.1348 ug/L	94
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	12.53	104	2721	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.13	55	2786	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	15.48	146	3027	Below Cal #	1
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790.D Vial: 17
Acq On : 1 Nov 2021 16:17 Operator: DGS-RLD
Sample : 196904,1067790,5 Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:14 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	0.00	180	0	N.D.		
103)	Hexachlorobu	0.00	225	0	N.D.		
104)	Naphthalene	0.00	128	0	N.D.		
105)	123Trichlben	0.00	180	0	N.D.		

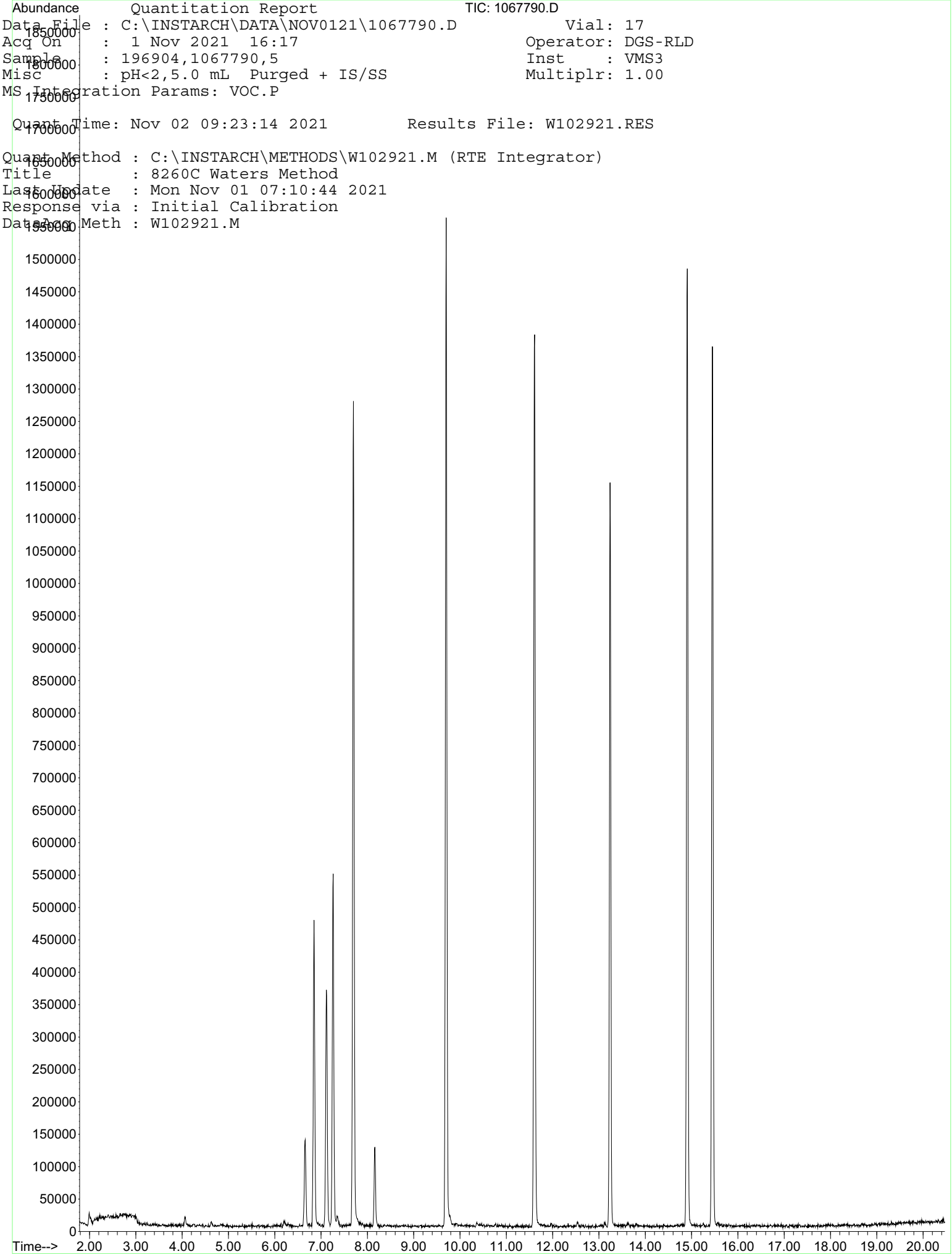
(#) = qualifier out of range (m) = manual integration

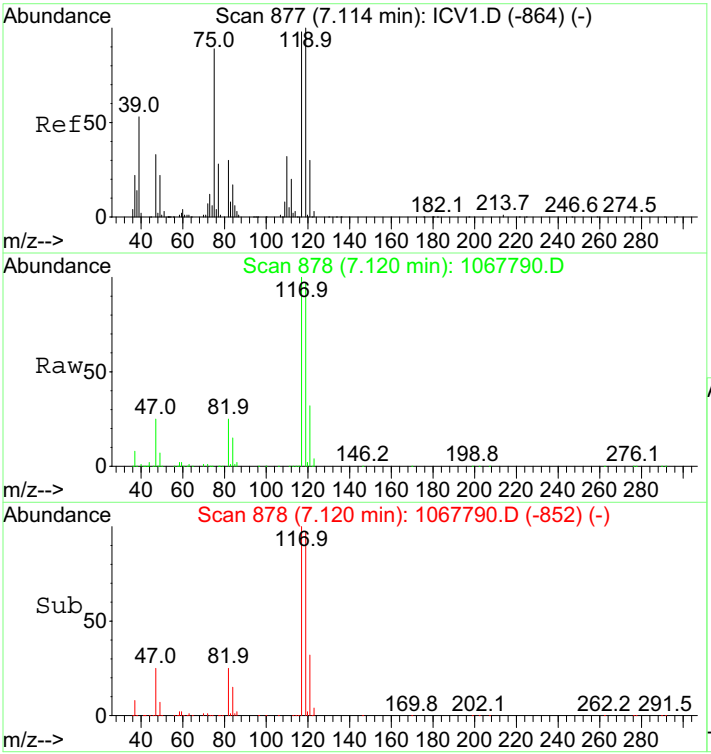
Abundance Quantitation Report TIC: 1067790.D

Data File : C:\INSTARCH\DATA\NOV0121\1067790.D Vial: 17
Acq On : 1 Nov 2021 16:17 Operator: DGS-RLD
Sample : 196904,1067790,5 Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:14 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

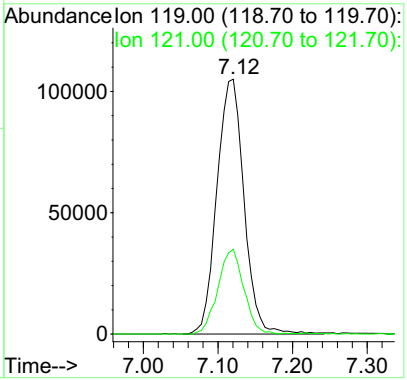




#43
Carbtetraclo
Concen: 14.89 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.01 min
Lab File: 1067790.D
Acq: 1 Nov 2021 16:17

Tgt Ion:119 Resp: 265335

Ion	Ratio	Lower	Upper
119	100		
121	31.7	10.7	50.7



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067791.D Vial: 18
Acq On : 1 Nov 2021 16:45 Operator: DGS-RLD
Sample : 196904,1067791, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:39 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1253689	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	967450	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	495634	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	318095	19.683 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %		
45) SURR12DCAd4	7.25	102	92655	21.333 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 107 %		
61) SURRd8Tolule	9.70	98	1242879	19.247 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %		
83) SURR4BrFBenz	13.24	95	485041	20.662 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	2.11	50	2955	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.82	64	6236	0.5337 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	5662	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.27	76	2873	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	7120	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067791.D Vial: 18
Acq On : 1 Nov 2021 16:45 Operator: DGS-RLD
Sample : 196904,1067791, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:39 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	4294	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	2517	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	11.97	106	2552	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067791.D Vial: 18
Acq On : 1 Nov 2021 16:45 Operator: DGS-RLD
Sample : 196904,1067791, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:39 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

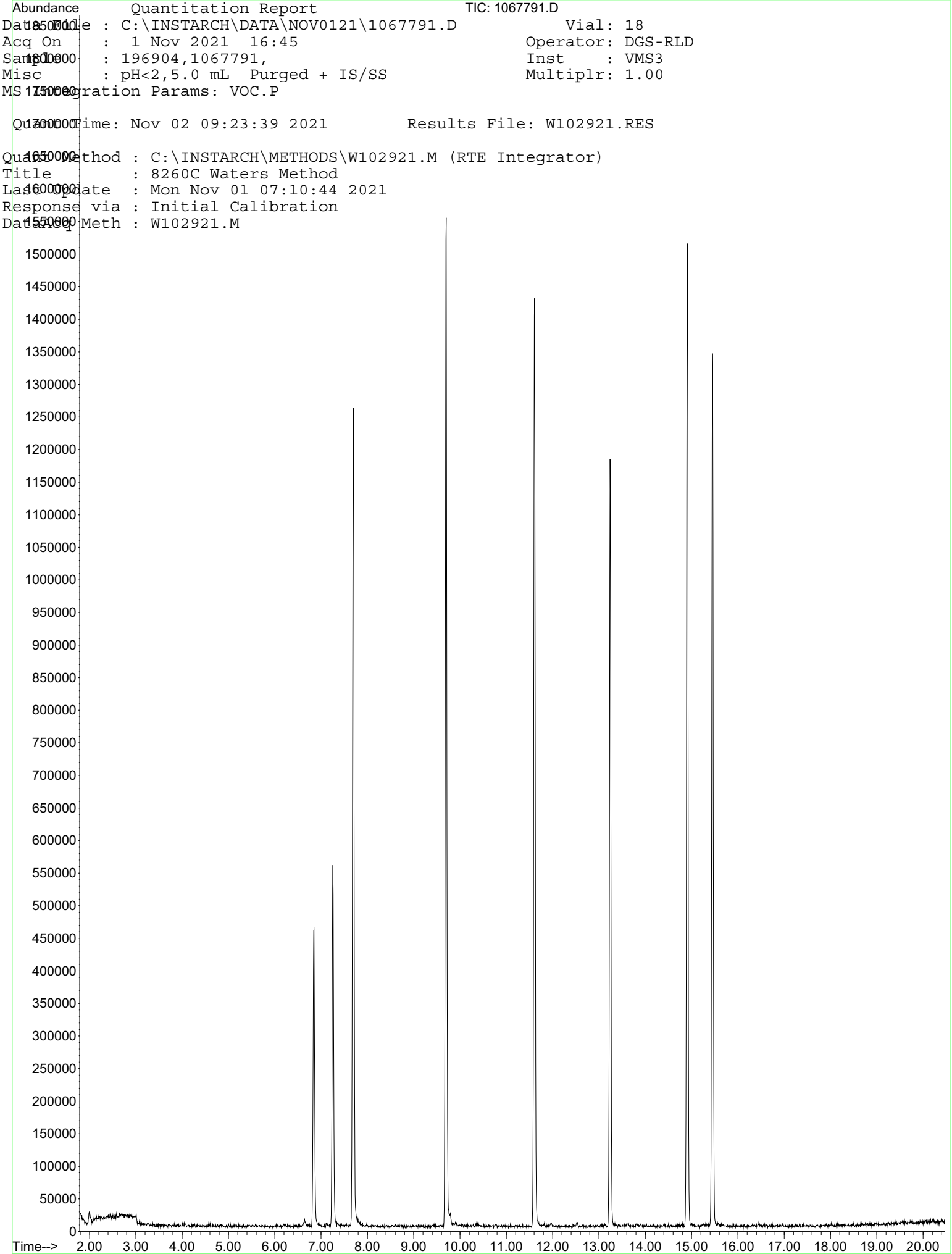
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

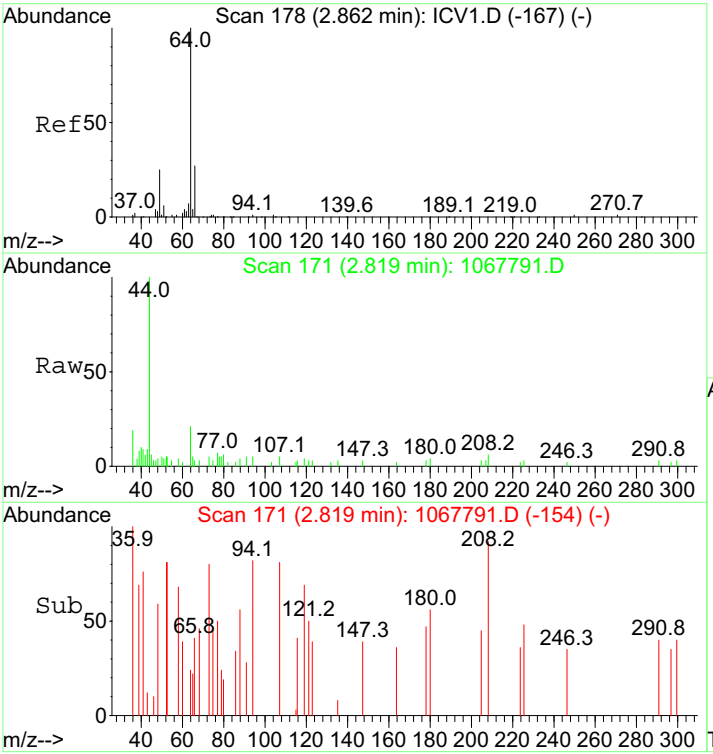
(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\NOV0121\1067791.D Vial: 18
Acq On : 1 Nov 2021 16:45 Operator: DGS-RLD
Sample : 196904,1067791, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:23:39 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

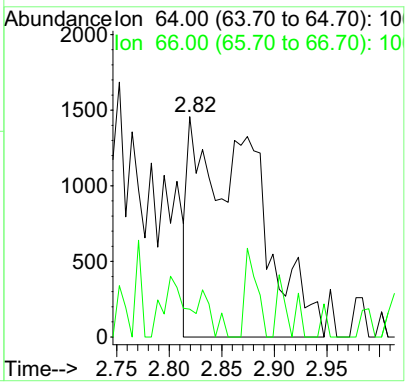




#6
Chloroethane
Concen: 0.53 ug/L
RT: 2.82 min Scan# 171
Delta R.T. -0.05 min
Lab File: 1067791.D
Acq: 1 Nov 2021 16:45

Tgt Ion: 64 Resp: 6236

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

[redacted]

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067792.D Vial: 19
Acq On : 1 Nov 2021 17:14 Operator: DGS-RLD
Sample : 196904,1067792, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:24:05 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1244103	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	960227	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	497303	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	319078	19.896	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.26	102	84610	19.630	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %			
61) SURRd8Tolule	9.70	98	1226321	19.136	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	482372	20.479	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.84	64	3977	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	6862	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.25	76	3474	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	0.00	59	0	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	5.53	63	32257	1.1227	ug/L	99
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	6.26	96	37284	2.2210	ug/L	95
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.65	42	7369	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067792.D Vial: 19
Acq On : 1 Nov 2021 17:14 Operator: DGS-RLD
Sample : 196904,1067792, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:24:05 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	6.91	97	3507	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	7.36	78	14531	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	23644	1.4975	ug/L	92
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	10.52	166	3532	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.60	91	2779	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067792.D Vial: 19
Acq On : 1 Nov 2021 17:14 Operator: DGS-RLD
Sample : 196904,1067792, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:24:05 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

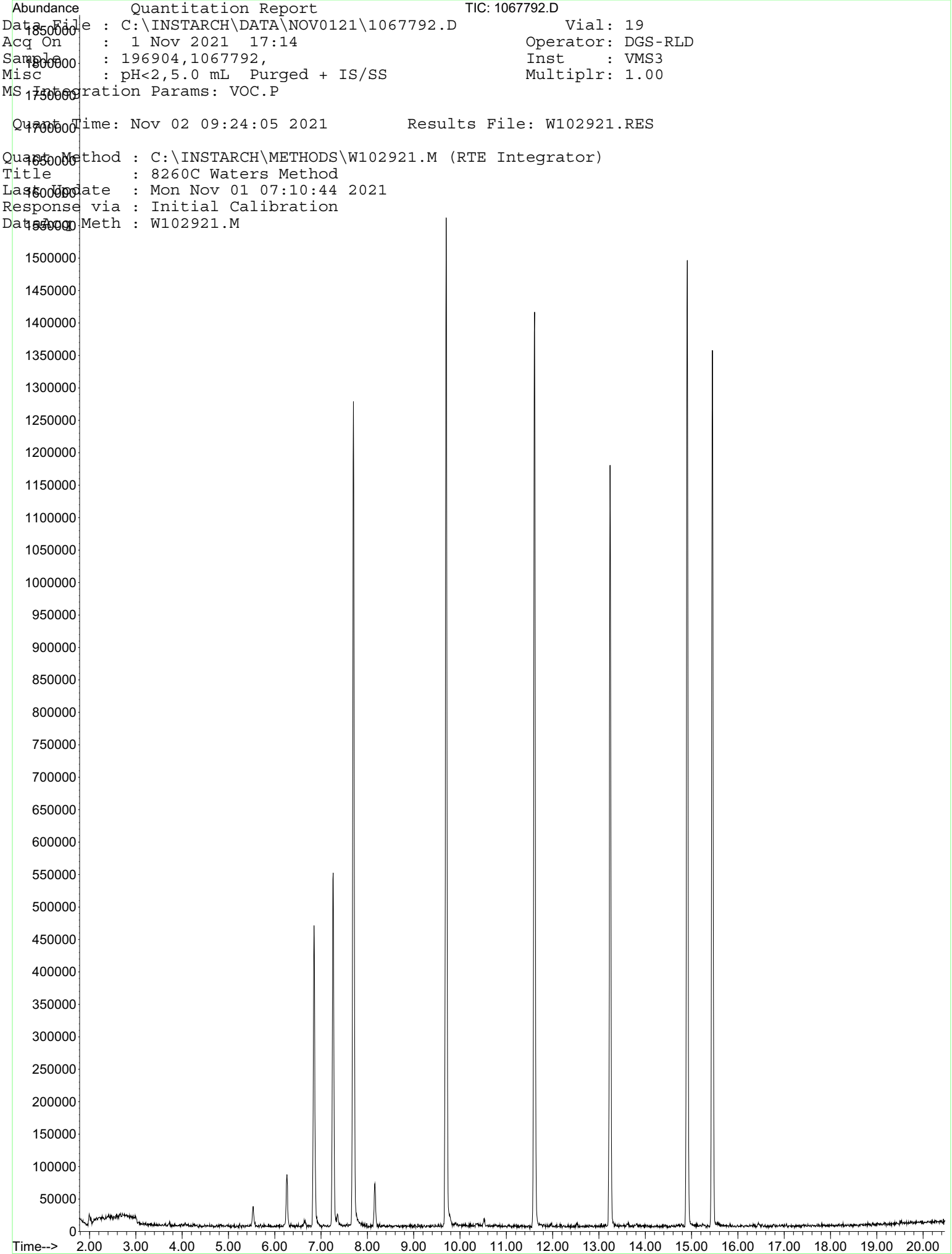
(#) = qualifier out of range (m) = manual integration

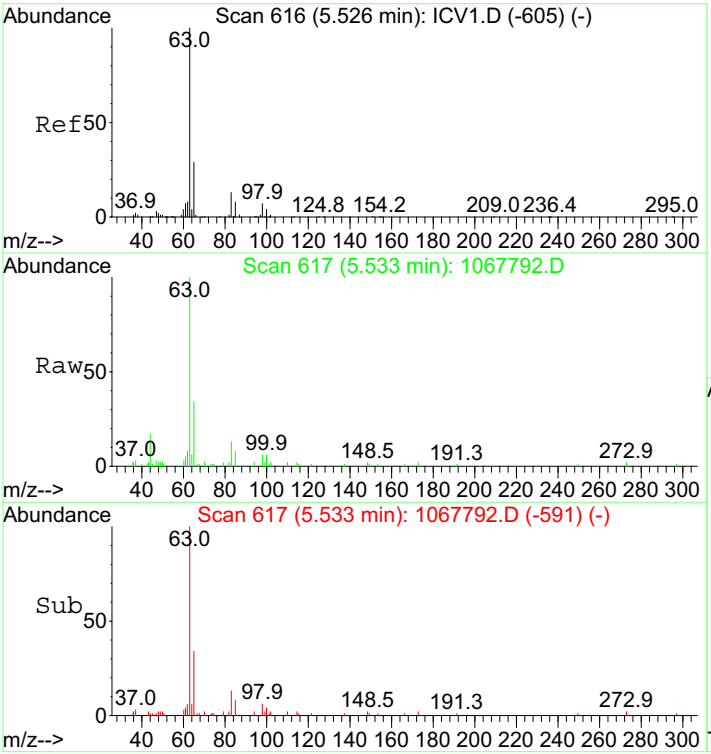
Abundance Quantitation Report TIC: 1067792.D

Data File : C:\INSTARCH\DATA\NOV0121\1067792.D Vial: 19
Acq On : 1 Nov 2021 17:14 Operator: DGS-RLD
Sample : 196904,1067792, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:24:05 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
Data Acq Meth : W102921.M

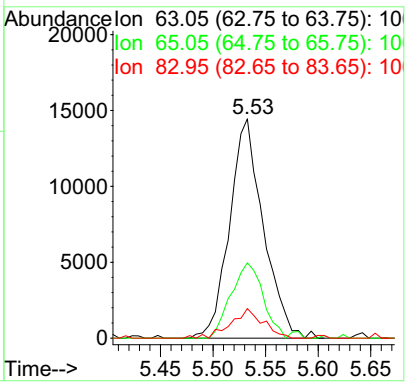


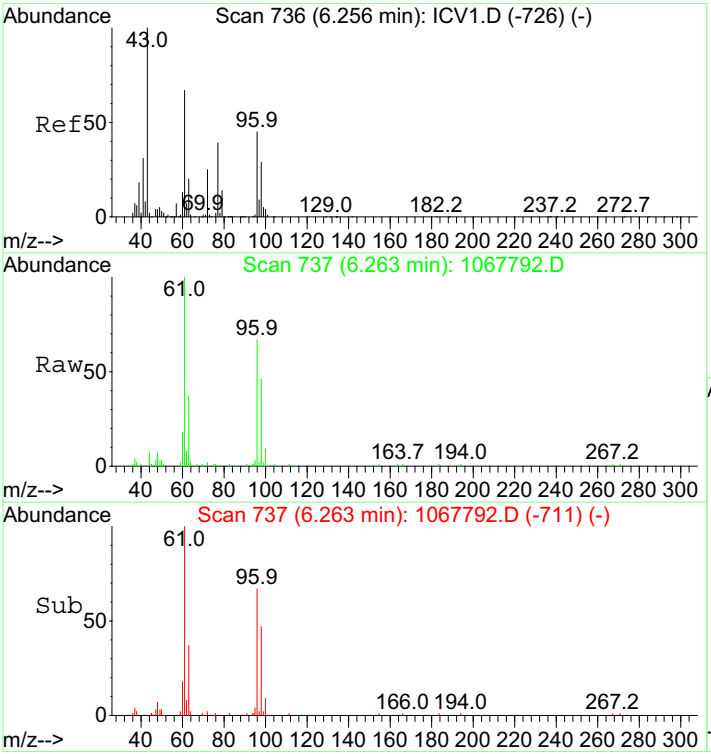


#26
11dichlorota
Concen: 1.12 ug/L
RT: 5.53 min Scan# 617
Delta R.T. 0.01 min
Lab File: 1067792.D
Acq: 1 Nov 2021 17:14

Tgt Ion: 63 Resp: 32257

Ion	Ratio	Lower	Upper
63	100		
65	32.4	12.2	52.2
83	12.6	0.0	32.1

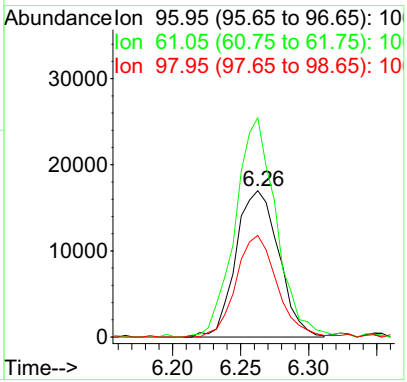


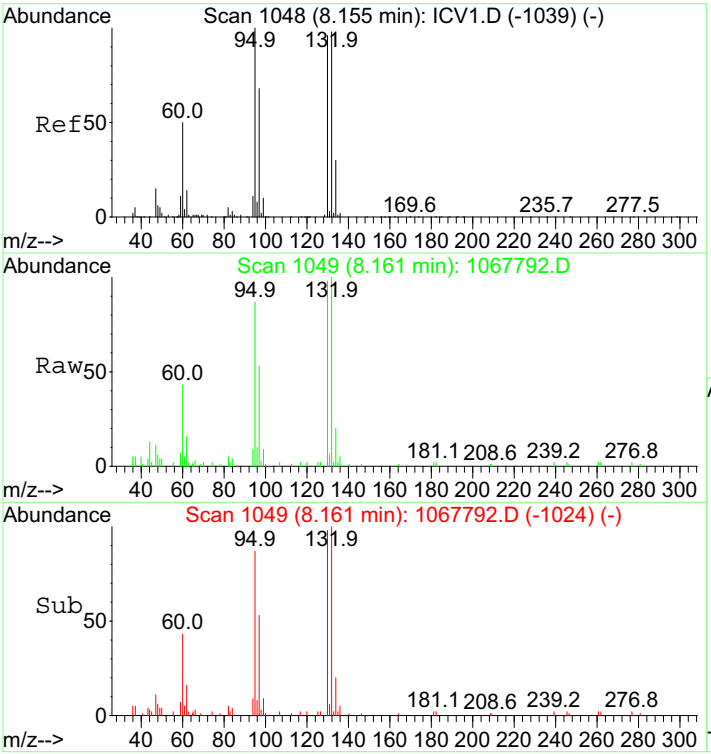


#32
c12dichlorte
Concen: 2.22 ug/L
RT: 6.26 min Scan# 737
Delta R.T. 0.01 min
Lab File: 1067792.D
Acq: 1 Nov 2021 17:14

Tgt Ion: 96 Resp: 37284

Ion	Ratio	Lower	Upper
96	100		
61	143.7	129.7	169.7
98	66.8	42.6	82.6

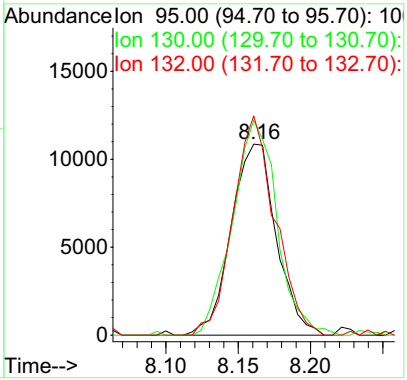




#49
trichloroete
Concen: 1.50 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1067792.D
Acq: 1 Nov 2021 17:14

Tgt Ion: 95 Resp: 23644

Ion	Ratio	Lower	Upper
95	100		
130	110.8	83.1	123.1
132	107.0	78.8	118.8



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790R.D Vial: 34
Acq On : 2 Nov 2021 10:55 Operator: DGS-RLD
Sample : 196904,1067790, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 11:15:42 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1267138	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	977773	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	504361	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	320809	19.640	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	92511	21.073	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105 %			
61) SURRd8Tolule	9.70	98	1256479	19.251	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	490555	20.535	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	0.00	50	0	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.74	64	9188	0.7779	ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.05	43	5924	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.24	76	6456	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	0.00	84	0	N.D.		
21) tbutylalcohol	4.86	59	2774	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	5.62	43	2876	Below Cal	#	71
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.65	42	8285	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790R.D Vial: 34
Acq On : 2 Nov 2021 10:55 Operator: DGS-RLD
Sample : 196904,1067790, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 11:15:42 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	618905	22.2799 ug/L	100
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.11	119	1714446	93.9170 ug/L	92
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	7.35	62	48797	2.1295 ug/L	99
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.15	95	292706	18.2013 ug/L	98
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	9301	0.2314 ug/L	92
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.64	43	2588	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.60	91	2774	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	11.81	91	3360	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	12.54	104	14429	0.3501 ug/L	89
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	13.12	55	11002	11.8750 ug/L #	91
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	14.42	105	2966	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.49	91	2706	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1067790R.D Vial: 34
Acq On : 2 Nov 2021 10:55 Operator: DGS-RLD
Sample : 196904,1067790, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 11:15:42 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	6304	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

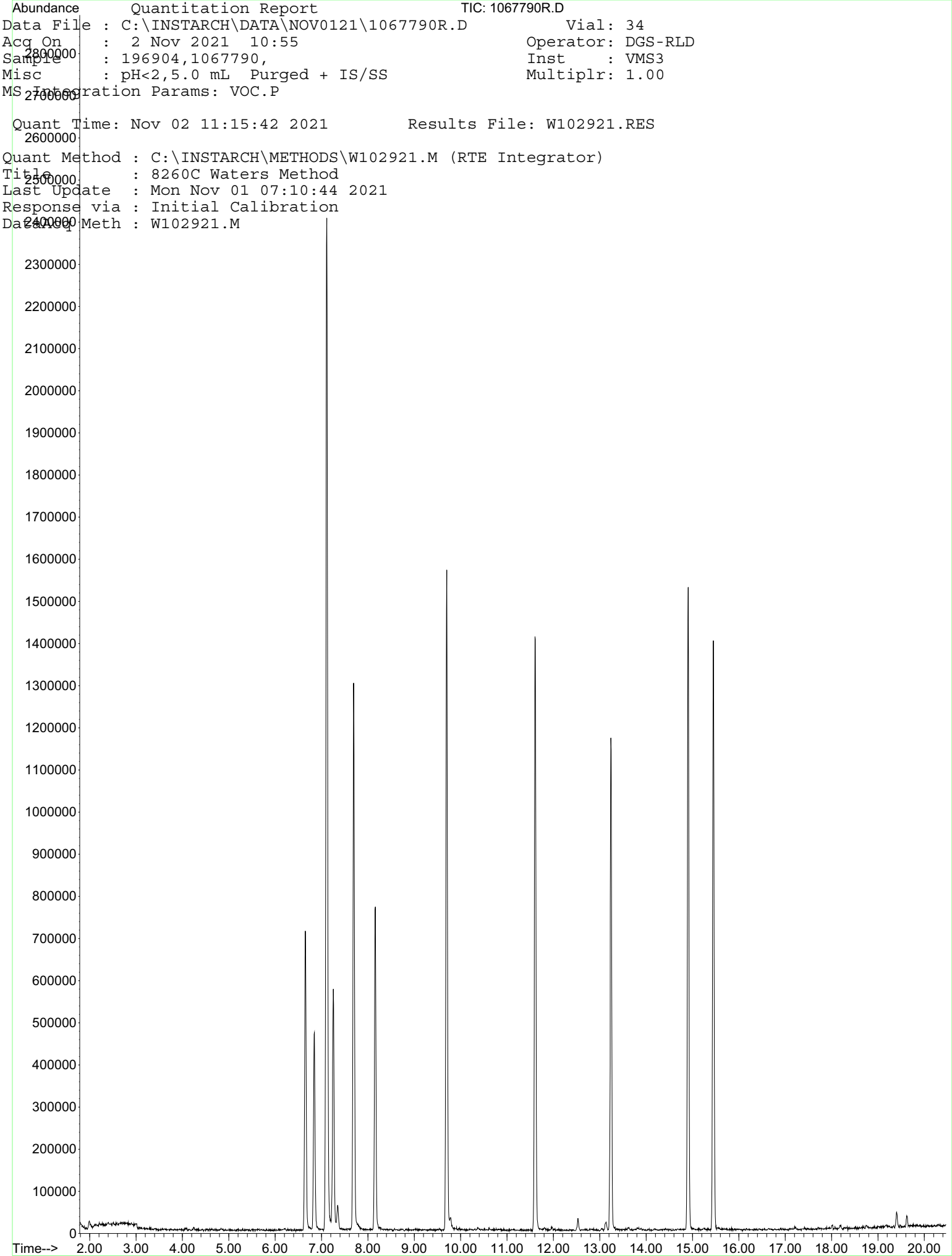
(#) = qualifier out of range (m) = manual integration

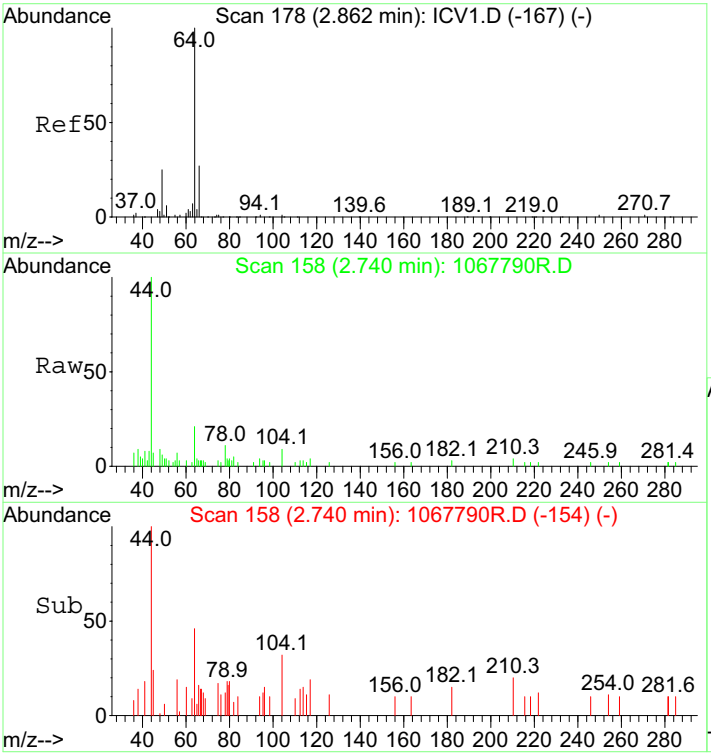
Abundance Quantitation Report TIC: 1067790R.D

Data File : C:\INSTARCH\DATA\NOV0121\1067790R.D Vial: 34
Acq On : 2 Nov 2021 10:55 Operator: DGS-RLD
Sample : 196904,1067790, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 11:15:42 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

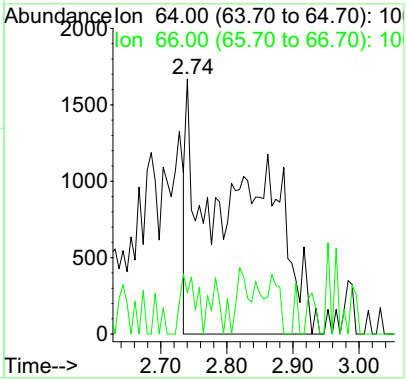




#6
Chloroethane
Concen: 0.78 ug/L
RT: 2.74 min Scan# 158
Delta R.T. -0.13 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

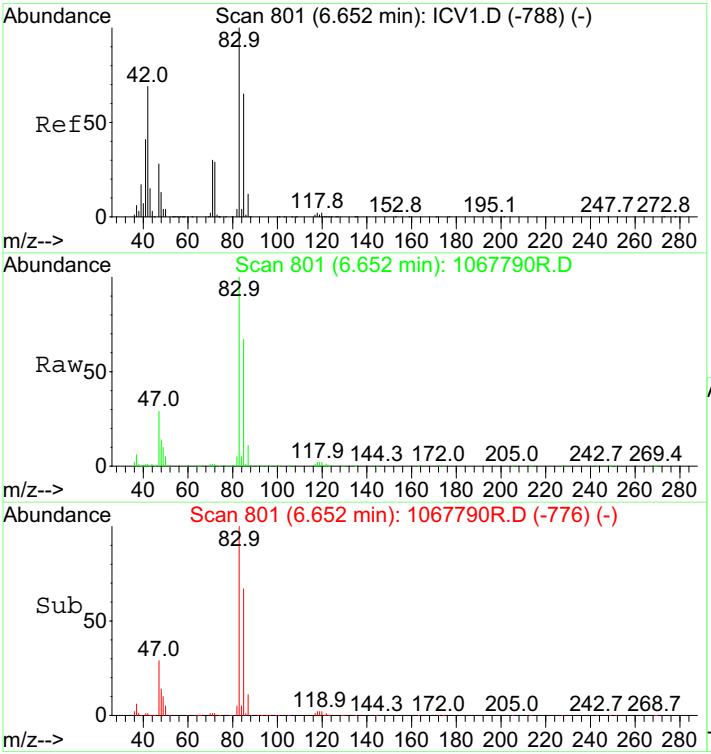
Tgt Ion: 64 Resp: 9188

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

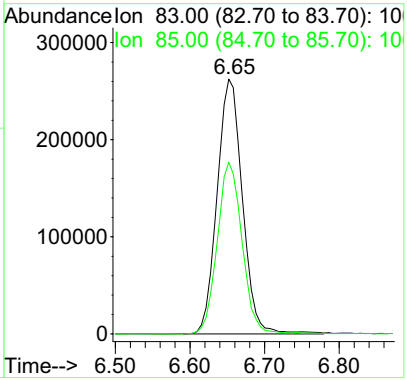
[redacted]

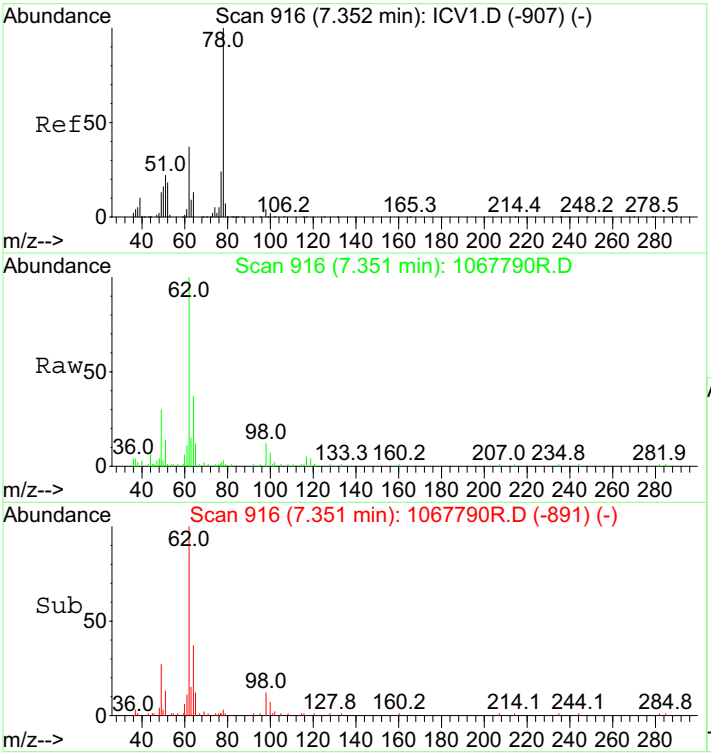


#39
Chloroform
Concen: 22.28 ug/L
RT: 6.65 min Scan# 801
Delta R.T. -0.00 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

Tgt Ion: 83 Resp: 618905

Ion	Ratio	Lower	Upper
83	100		
85	66.1	46.3	86.3

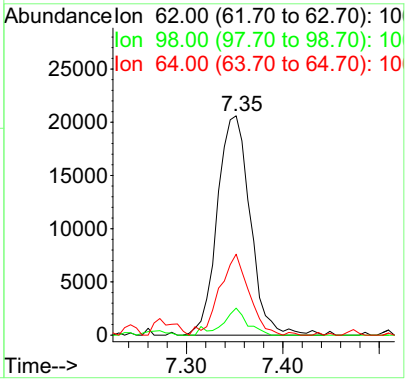


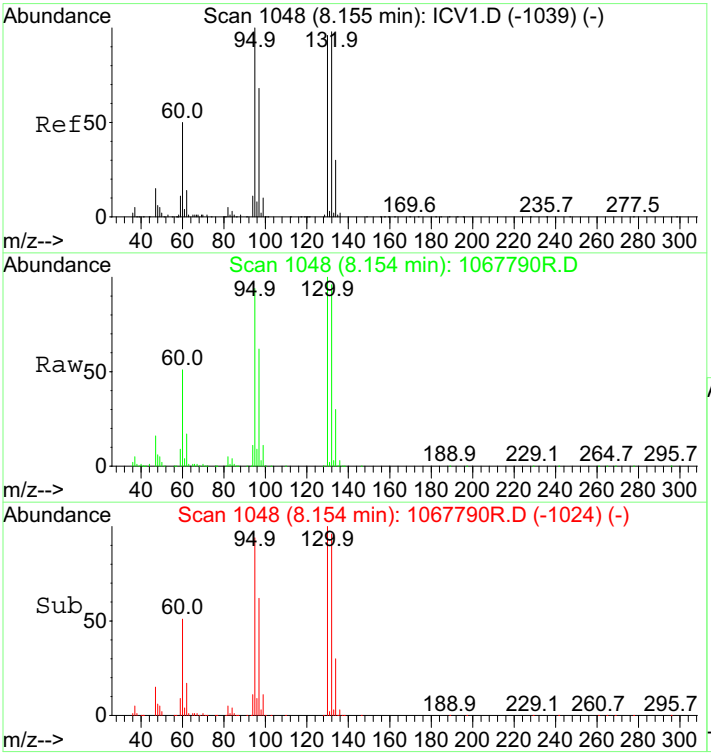


#47
12dichlorota
Concen: 2.13 ug/L
RT: 7.35 min Scan# 916
Delta R.T. -0.00 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

Tgt Ion: 62 Resp: 48797

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	28.5
64	33.0	12.3	52.3

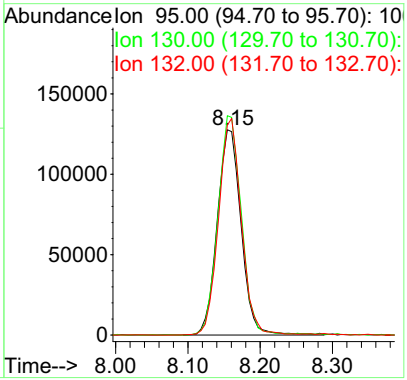


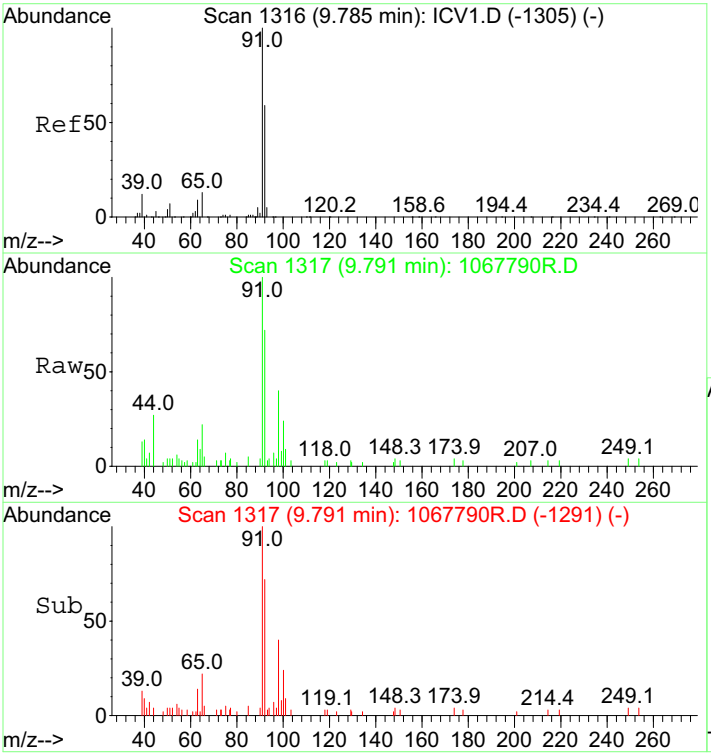


#49
trichloroete
Concen: 18.20 ug/L
RT: 8.15 min Scan# 1048
Delta R.T. -0.01 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

Tgt Ion: 95 Resp: 292706

Ion	Ratio	Lower	Upper
95	100		
130	105.1	83.1	123.1
132	100.9	78.8	118.8

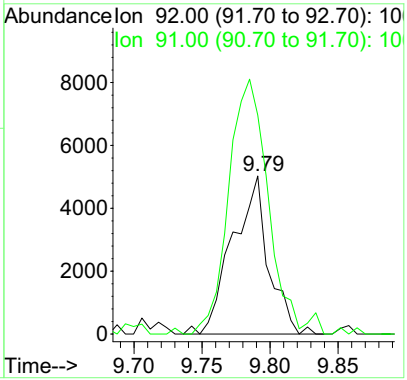


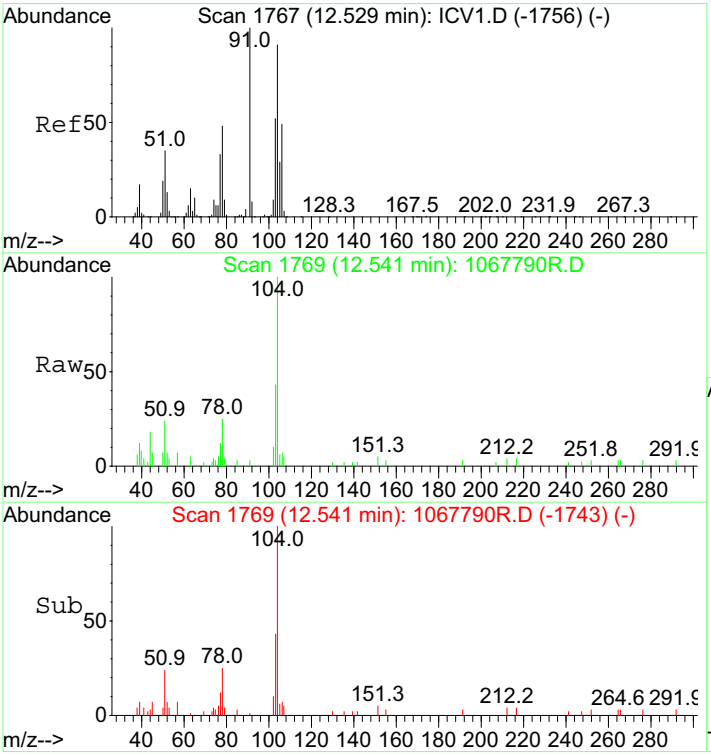


#62
Toluene
Concen: 0.23 ug/L
RT: 9.79 min Scan# 1317
Delta R.T. 0.01 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

Tgt Ion: 92 Resp: 9301

Ion	Ratio	Lower	Upper
92	100		
91	177.2	146.6	186.6

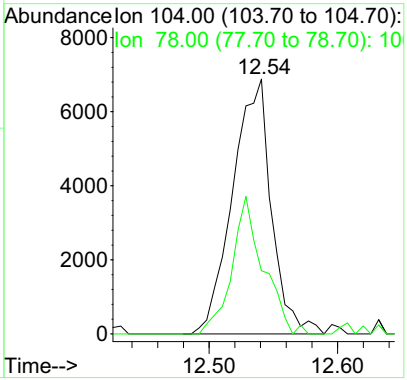




#78
Styrene
Concen: 0.35 ug/L
RT: 12.54 min Scan# 1769
Delta R.T. 0.01 min
Lab File: 1067790R.D
Acq: 2 Nov 2021 10:55

Tgt Ion:104 Resp: 14429

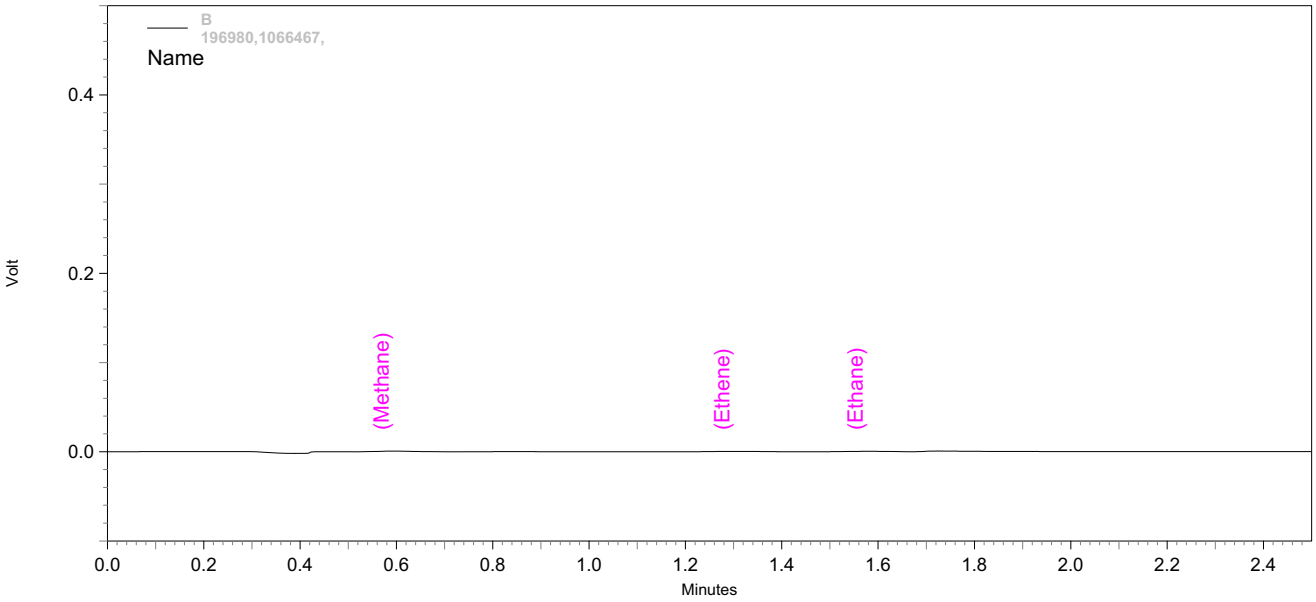
Ion	Ratio	Lower	Upper
104	100		
78	43.4	31.1	71.1



Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1066467,
Acquired: Nov 01, 2021 14:55:42
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



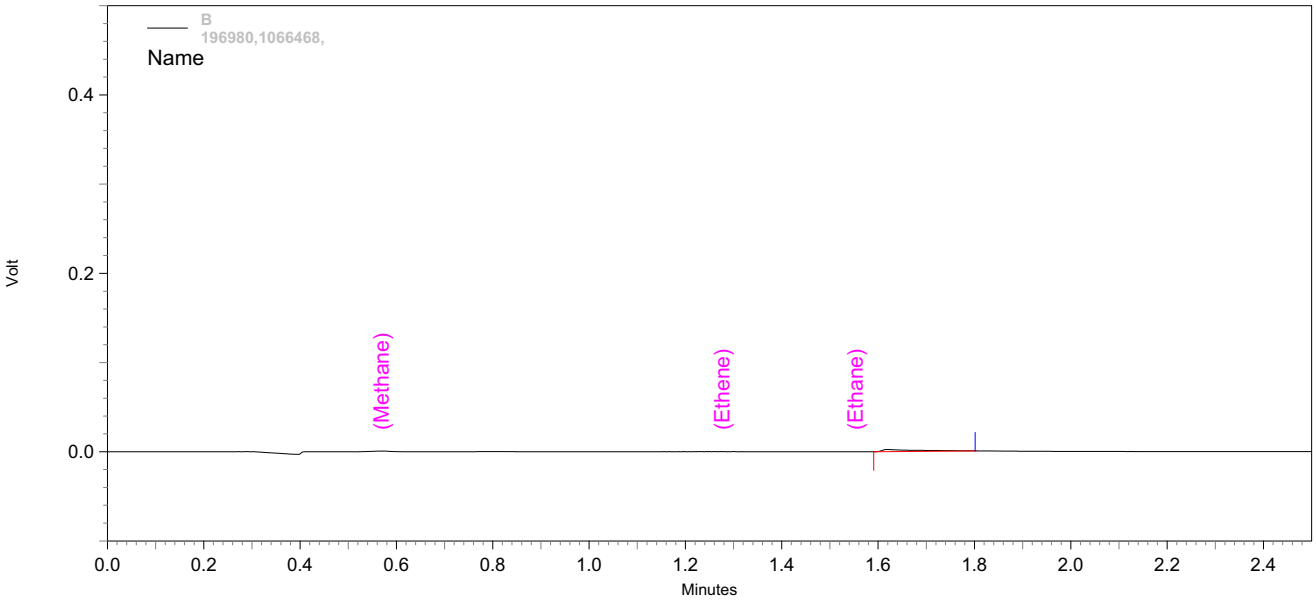
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1066468,
Acquired: Nov 01, 2021 14:59:27
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



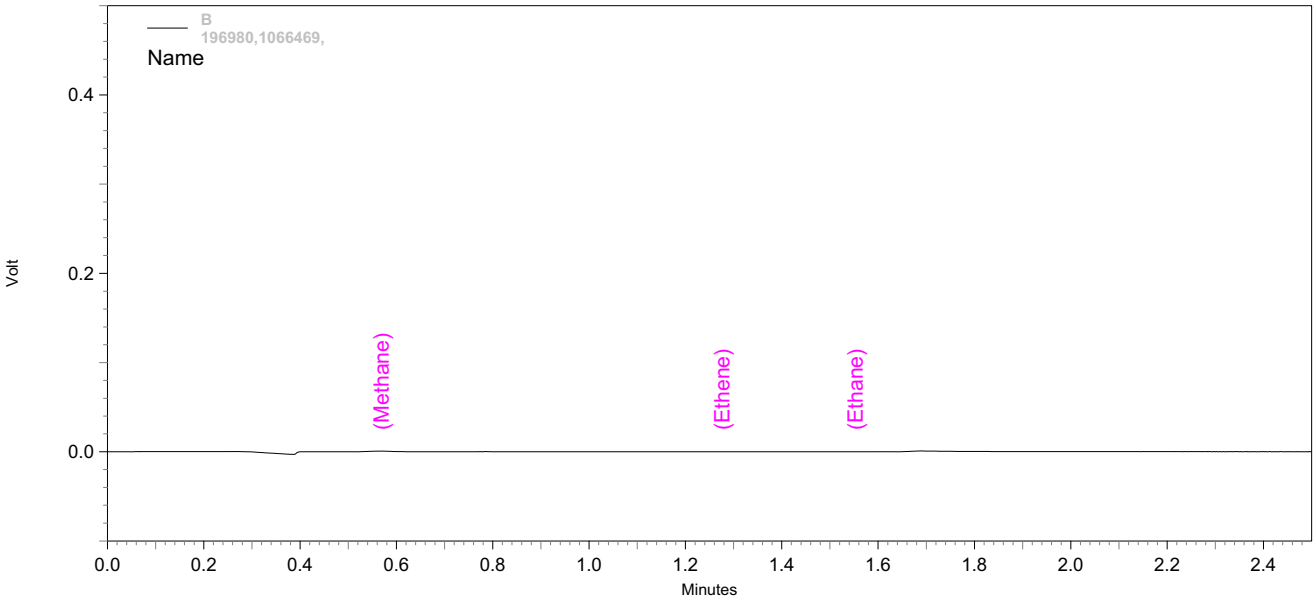
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**
1		**1.618**	**0.000**	**11731**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1066469,
Acquired: Nov 01, 2021 15:03:14
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



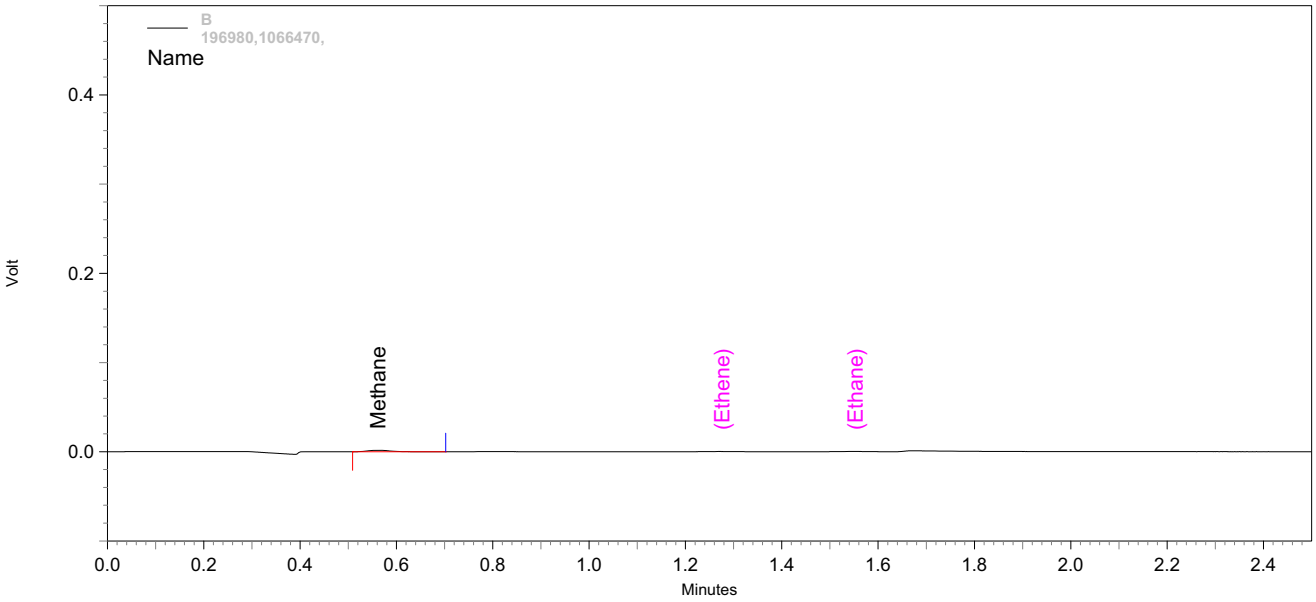
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1066470,
Acquired: Nov 01, 2021 15:16:40
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



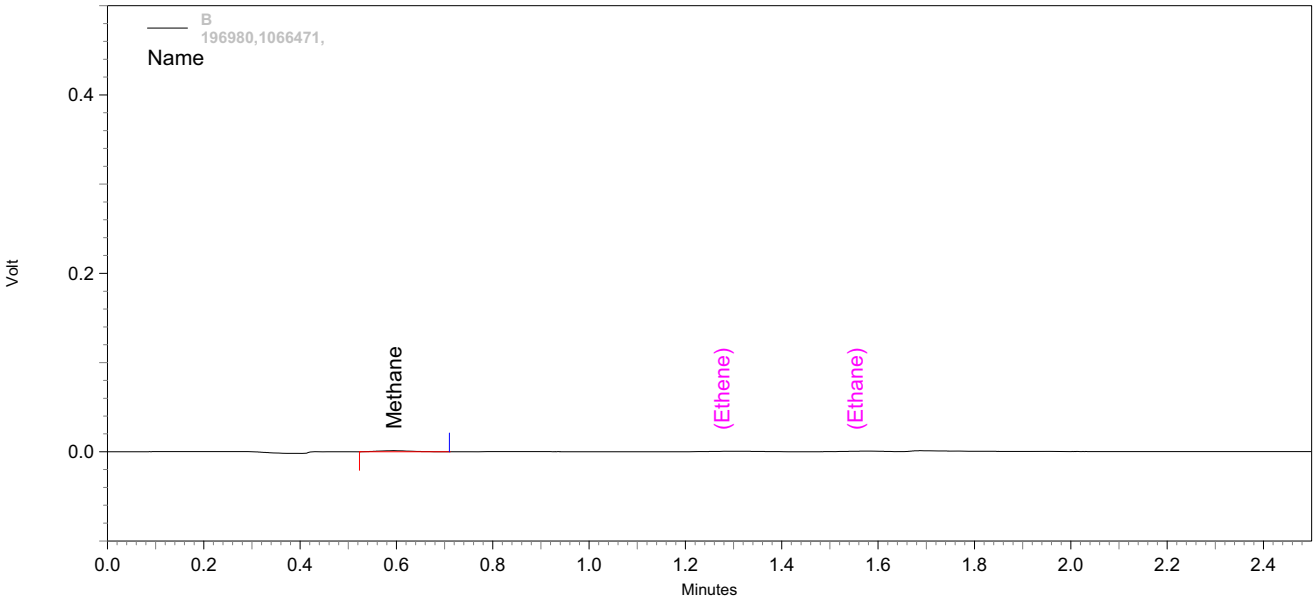
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.562**	**0.569**	**5184**	**1.185**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1066471,
Acquired: Nov 01, 2021 15:24:28
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



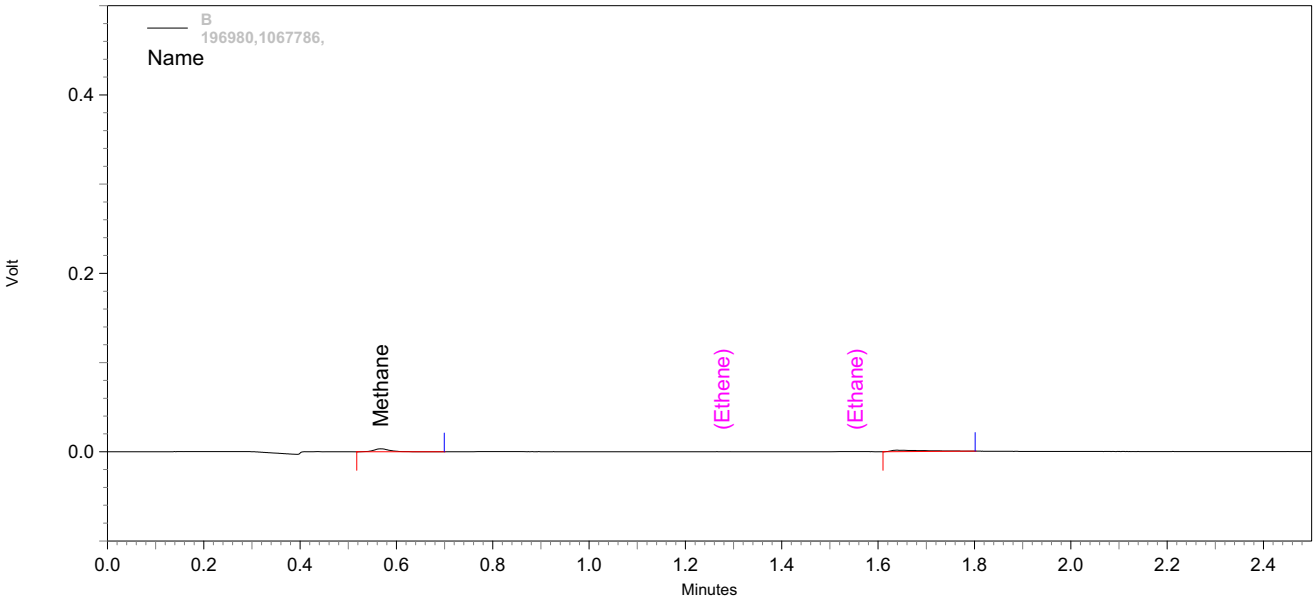
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.595**	**0.569**	**5042**	**1.148**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067786,
Acquired: Nov 01, 2021 15:30:58
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



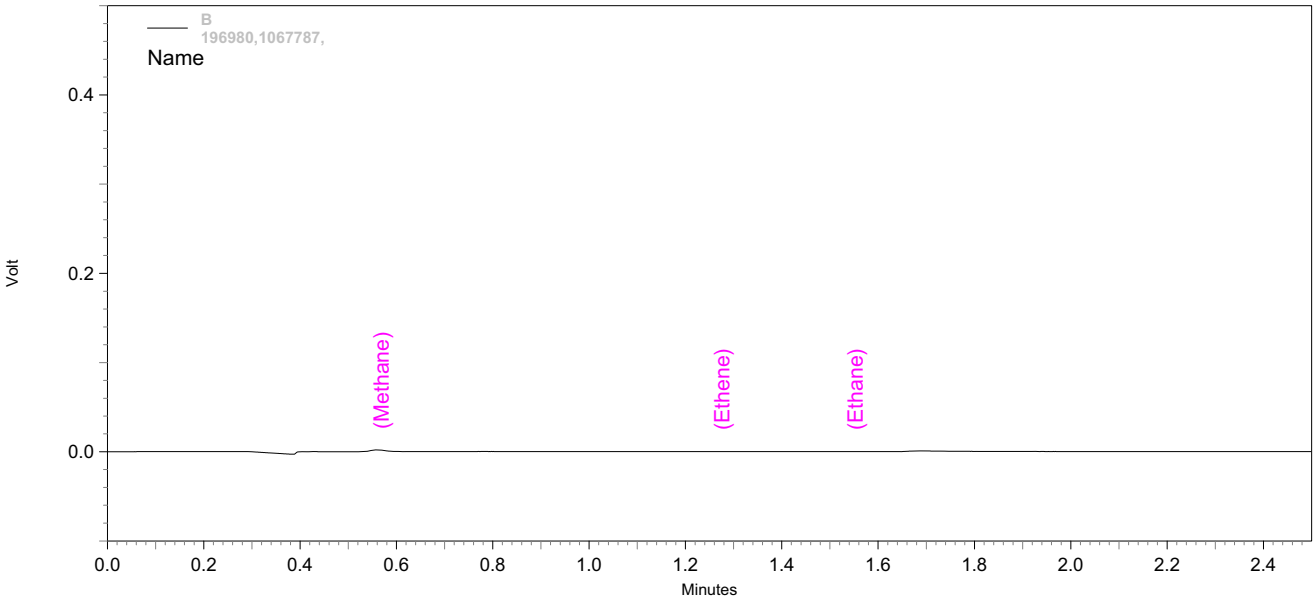
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.567**	**0.569**	**7438**	**1.768**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**
2		**1.638**	**0.000**	**7669**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\013.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067787,
Acquired: Nov 01, 2021 15:35:07
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



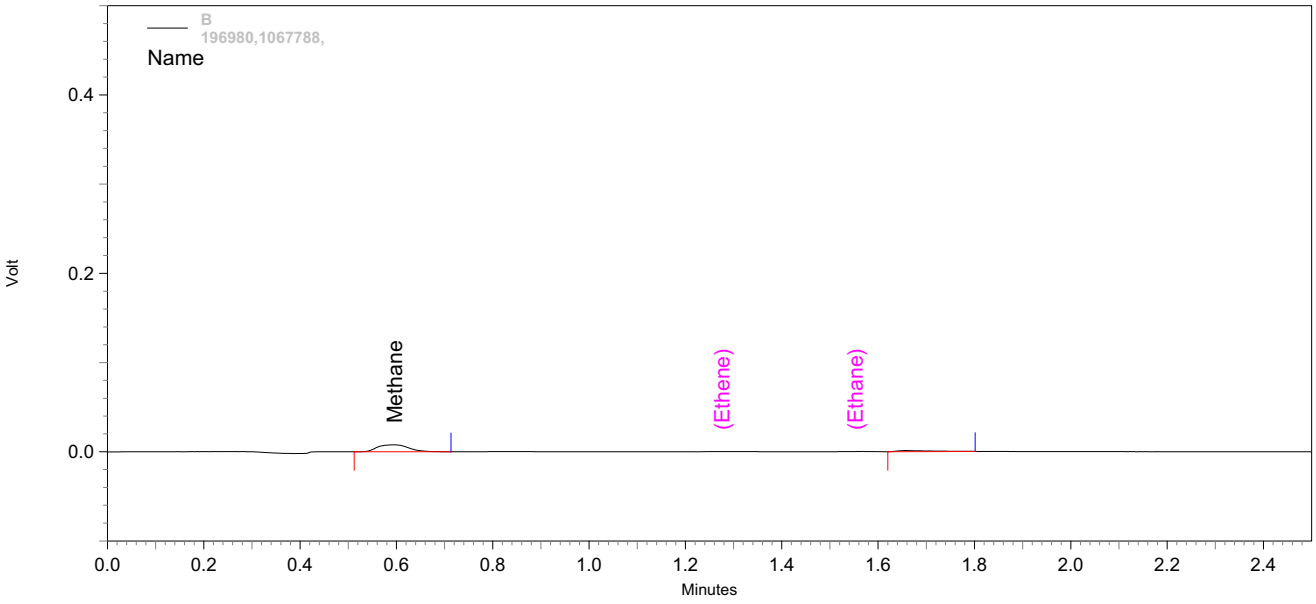
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\014.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067788,
Acquired: Nov 01, 2021 15:38:53
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



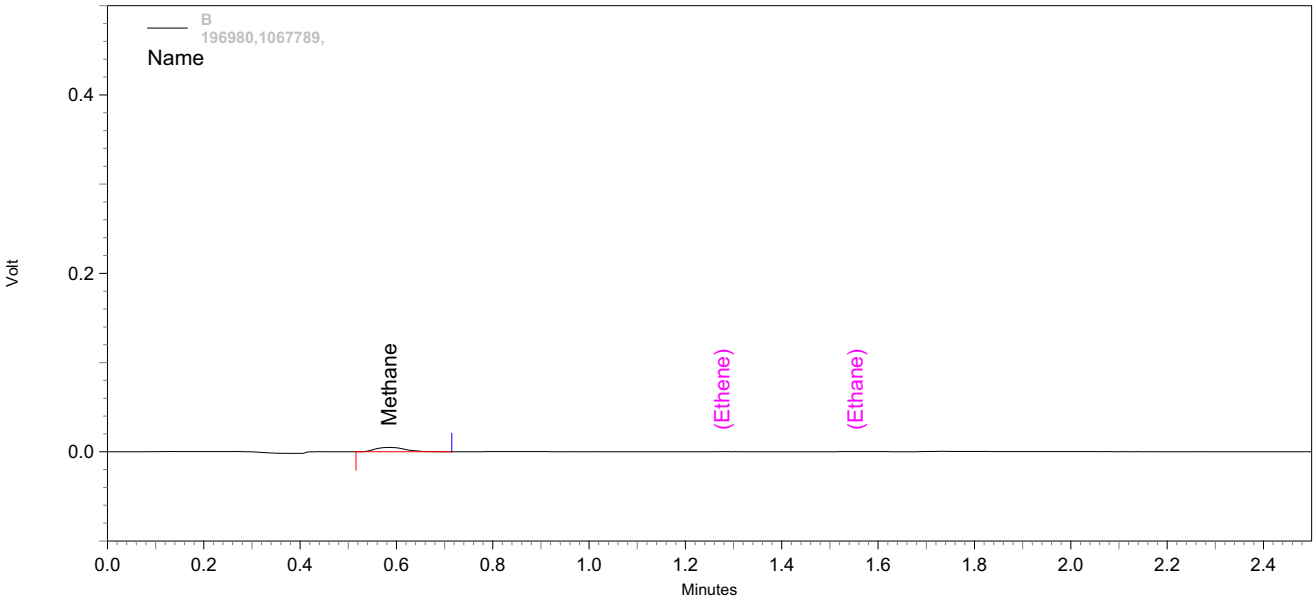
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.597**	**0.569**	**34800**	**8.848**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**
2		**1.653**	**0.000**	**5631**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\015.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067789,
Acquired: Nov 01, 2021 15:42:50
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



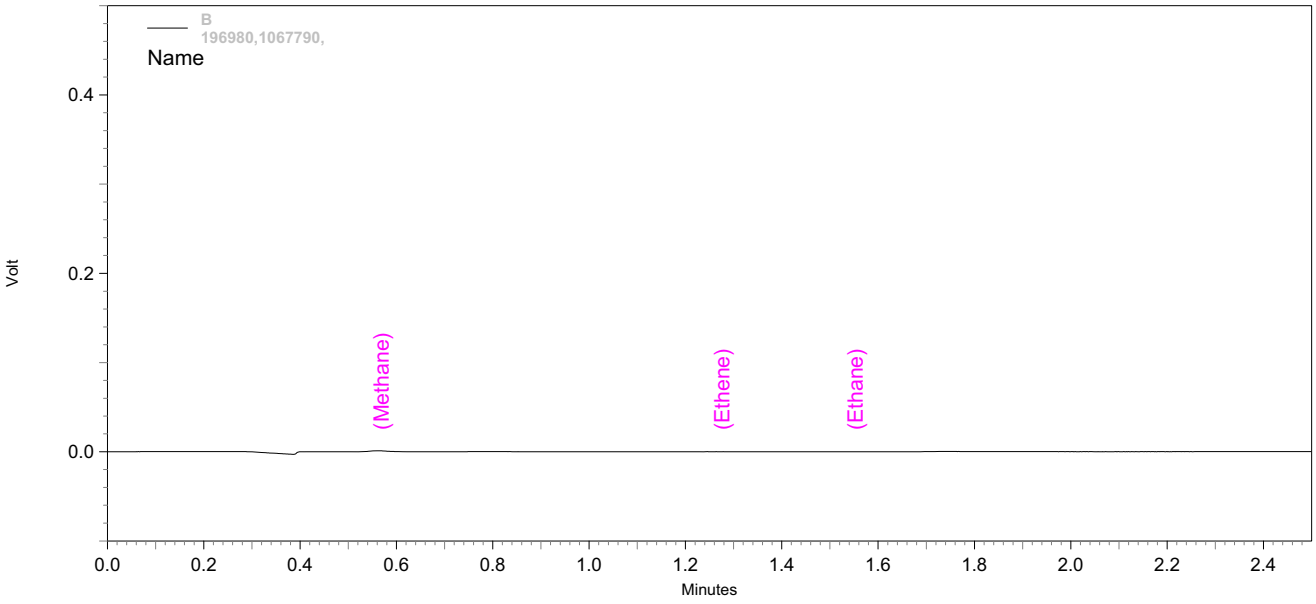
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.585**	**0.569**	**20834**	**5.235**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\016.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067790,
Acquired: Nov 01, 2021 15:46:39
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



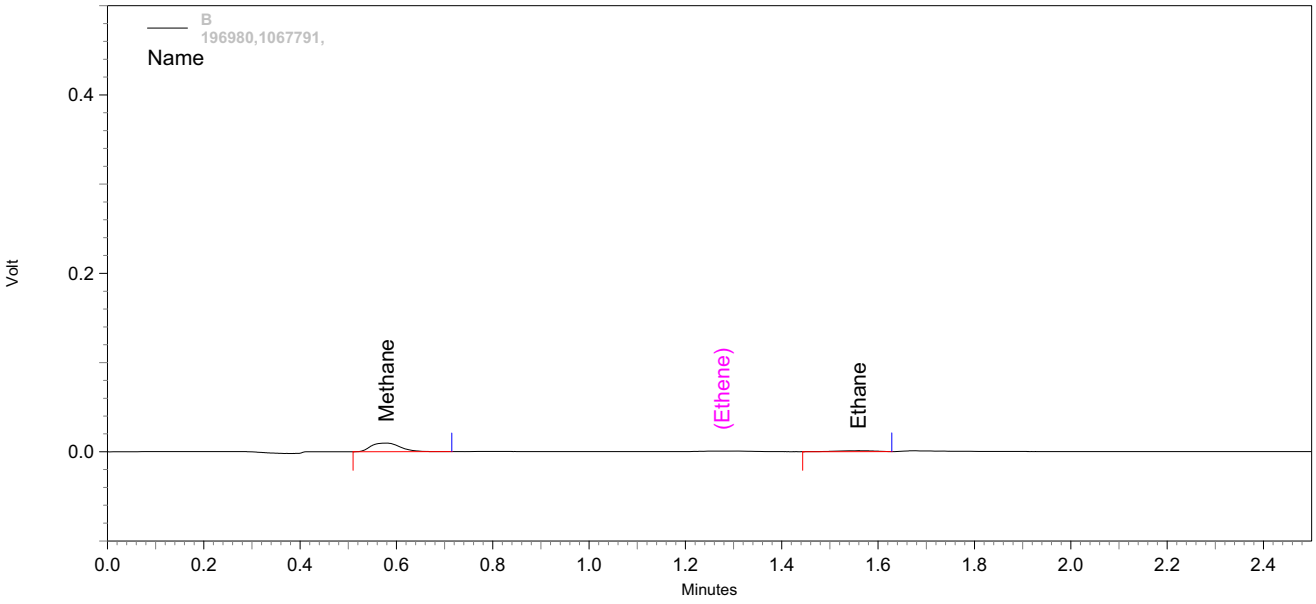
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\019.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067791,
Acquired: Nov 01, 2021 15:57:01
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



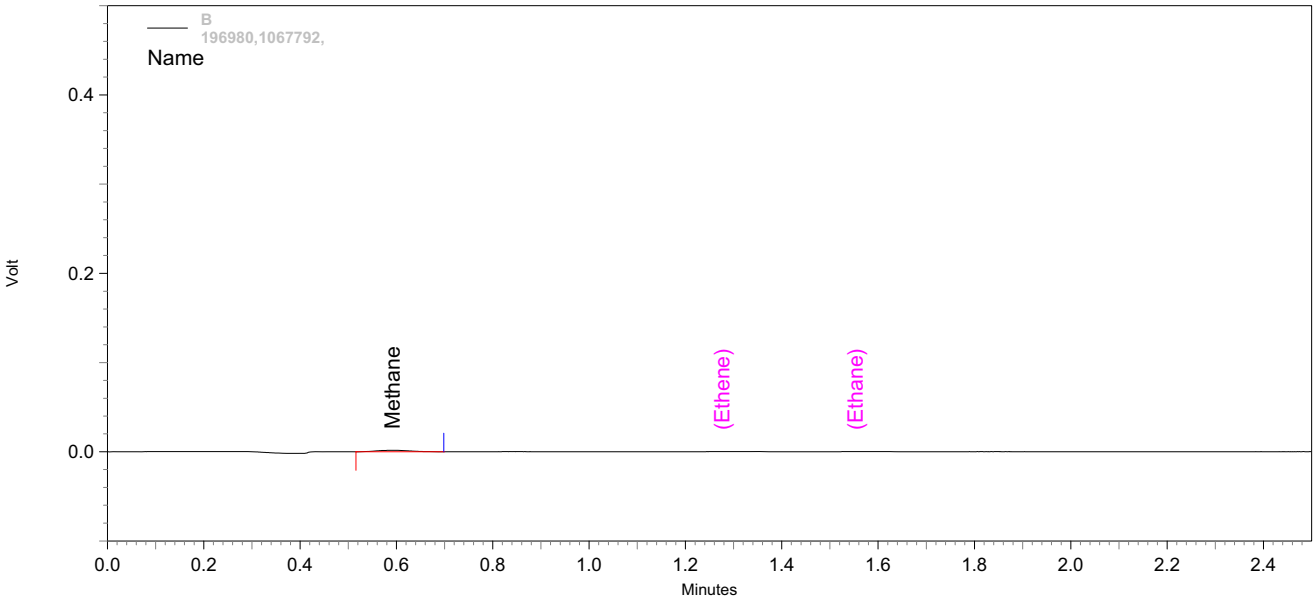
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.579**	**0.569**	**40447**	**10.309**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
2	**Ethane**	**1.559**	**1.553**	**5203**	**0.416**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\020.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,1067792,
Acquired: Nov 01, 2021 16:00:59
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.592**	**0.569**	**7370**	**1.751**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Method Path : C:\INSTARCH\METHODS\
Method File : W102921.M
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response Via : Initial Calibration

Calibration Files ug/L
1 0.5/5.0 =WCAL1.D 2 1.0/10.0 =WCAL2.D 3 2.0/20.0 =WCAL3.D
4 5.0/50.0 =WCAL4.D 5 10.0/100.0 =WCAL5.D 6 20.0/200.0 =WCAL6.D
7 30.0/300.0 =WCAL7.D 8 40.0/400.0 =WCAL8.D 9 80.0/800.0 =WCAL9.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
			8	9							
1)	I	FLUOROBENZENE**ISTD**	----------ISTD----------								
2)	PT	Dichlorodi	0.216	0.218	0.177	0.228	0.239	0.233	0.232	0.220	8.30
			0.227	0.213							
3)	PT	Chloromethan	0.395	0.373	0.326	0.322	0.296	0.296	0.286	0.314	14.53
			0.281	0.253							
4)	PT	VinylChlorid	0.281	0.309	0.276	0.309	0.308	0.300	0.291	0.292	5.70
			0.291	0.262							
5)	PT	Bromomethane		0.161	0.184	0.173	0.152	0.151	0.140	-----	
			0.136	0.102							
								Q	A= -0.016 R=1.000		
									B= 0.167		
									C= 0.000		
6)	PT	Chloroethane		0.185	0.191	0.207	0.194	0.189	0.181	0.186	6.88
			0.182	0.162							
7)	T	Dichloroflmetha	0.375	0.359	0.386	0.387	0.364	0.358	0.350	0.362	5.66
			0.354	0.320							
8)	PT	Trichlorofma	0.296	0.346	0.286	0.371	0.367	0.359	0.356	0.339	9.11
			0.349	0.321							
9)	T	Ethylether	0.246	0.240	0.220	0.223	0.225	0.229	0.221	0.225	5.48
			0.222	0.203							
10)	T	dichlorotfluoro	0.344	0.389	0.335	0.371	0.380	0.372	0.368	0.361	5.82
			0.360	0.327							
11)	T	propyleneoxide		0.055	0.060	0.057	0.055	0.059	0.055	0.056	5.99
			0.058	0.049							
12)	T	Acrolein		0.058	0.061	0.059	0.056	0.060	0.056	0.057	5.34
			0.059	0.051							
13)	PT	11dichlorthe	0.179	0.201	0.198	0.215	0.222	0.216	0.217	0.207	6.51
			0.216	0.203							
14)	PT	Trichlorotfluor	0.168	0.210	0.170	0.219	0.238	0.229	0.226	0.210	11.96
			0.222	0.206							
15)	PT	Acetone	0.113	0.108	0.112	0.105	0.097	0.098	0.084	0.097#	14.72
			0.089	0.070							
16)	T	Iodomethane		0.126	0.199	0.250	0.262	0.284	0.283	-----	
			0.283	0.259							
								Q	A= -0.006 R=1.000		
									B= 0.312		
									C= -0.027		
17)	PT	Carbon Dislf	0.583	0.597	0.564	0.612	0.601	0.592	0.559	0.570	7.39
			0.548	0.473							
18)	T	allylchloride	0.436	0.408	0.436	0.443	0.423	0.421	0.397	0.409	8.70
			0.389	0.327							
19)	PT	methylacetate		0.077	0.086	0.093	0.086	0.092	0.086	0.087#	5.96
			0.092	0.086							
20)	PT	Methylchlorid	0.316	0.284	0.280	0.275	0.236	0.258	0.242	0.262	11.07
			0.244	0.224							
21)	T	tbutylalcohol	0.032	0.031	0.031	0.030	0.027	0.029	0.025	0.028#	13.42
			0.027	0.020							
22)	T	Acrylonitrile		0.124	0.119	0.117	0.113	0.118	0.110	0.114	7.67
			0.112	0.095							
23)	PT	t12dichlorte	0.253	0.243	0.246	0.249	0.235	0.246	0.240	0.241	3.78
			0.239	0.222							
24)	PT	MtBE	0.772	0.722	0.734	0.705	0.668	0.688	0.659	0.687	8.22

			0.656	0.576							
25)	T	Hexane	0.286	0.342	0.268	0.365	0.384	0.377	0.363	0.339	12.15
			0.350	0.312							
26)	PT	11dichlorota	0.516	0.481	0.496	0.471	0.454	0.463	0.441	0.462	7.64
			0.441	0.394							
27)	T	Vinylacetate	0.616	0.600	0.596	0.566	0.500	0.437	0.368	-----	
			0.323								
								Q	A= -0.011	R=0.999	
									B= 0.535		
									C= 0.069		
28)	T	chloroprene	0.385	0.417	0.398	0.459	0.445	0.441	0.429	0.415	7.88
			0.412	0.354							
29)	T	Diisopether	0.792	0.894	0.930	0.917	0.852	0.879	0.852	0.851	7.82
			0.827	0.717							
30)	T	ETBE	0.774	0.779	0.747	0.756	0.706	0.721	0.699	0.720	7.57
			0.695	0.601							
31)	T	22dichloropr	0.341	0.333	0.341	0.344	0.332	0.343	0.349	0.339	2.22
			0.343	0.324							
32)	PT	c12dichlorte	0.273	0.269	0.284	0.278	0.272	0.273	0.269	0.270	3.91
			0.264	0.246							
33)	PT	2Butanone		0.035	0.038	0.037	0.036	0.039	0.035	0.036#	5.27
			0.037	0.033							
34)	T	propionitrile		0.049	0.048	0.049	0.046	0.049	0.044	0.047	6.94
			0.047	0.040							
35)	T	Ethylacetate		0.013	0.013	0.012	0.012	0.013	0.012	0.012#	4.70
			0.013	0.012							
36)	T	methacrylonitri		0.118	0.120	0.128	0.115	0.128	0.121	0.121	5.10
			0.129	0.113							
37)	T	Bromochlorma	0.133	0.119	0.127	0.127	0.119	0.125	0.125	0.124	4.11
			0.125	0.117							
38)	T	Tetrahydofur	0.129	0.119	0.108	0.104	0.096	0.098	0.087	0.104	13.91
			0.090								
39)	PT	Chloroform	0.485	0.458	0.457	0.450	0.425	0.442	0.423	0.438	6.77
			0.425	0.380							
40)	PT	111trichlota	0.325	0.340	0.334	0.372	0.364	0.369	0.366	0.352	5.16
			0.364	0.336							
41)	S	SURRDibrflma	0.251	0.255	0.256	0.256	0.259	0.261	0.260	0.258	1.45
			0.263	0.260							
42)	PT	Cyclohexane	0.338	0.405	0.358	0.447	0.476	0.472	0.462	0.426	11.72
			0.455	0.422							
43)	PT	Carbtetraclo	0.249	0.271	0.259	0.285	0.293	0.310	0.312	0.288	8.26
			0.312	0.301							
44)	T	11dicloprope		0.107	0.111	0.115	0.118	0.122	0.125	0.118	5.17
			0.123	0.120							
45)	S	SURR12DCAd4	0.069	0.069	0.068	0.068	0.070	0.071	0.071	0.069	1.62
			0.070	0.069							
46)	PT	Benzene	1.142	1.069	1.062	1.081	0.994	0.985	0.931	0.990	11.98
			0.901	0.748							
47)	PT	12dichlorota	0.380	0.385	0.364	0.371	0.352	0.366	0.361	0.362	5.15
			0.355	0.321							
48)	T	TAME	0.733	0.689	0.675	0.699	0.650	0.671	0.660	0.667	6.56
			0.651	0.573							
49)	PT	trichloroete	0.245	0.262	0.247	0.271	0.256	0.259	0.254	0.254	4.01
			0.254	0.236							
50)	PT	methylcyclohexa	0.356	0.409	0.371	0.484	0.508	0.498	0.496	0.452	12.97
			0.491	0.454							
51)	PT	12dicloropra	0.311	0.278	0.285	0.293	0.277	0.287	0.282	0.283	4.94
			0.278	0.259							
52)	T	23Dicl1propene		0.419	0.402	0.419	0.394	0.409	0.405	0.403	3.66
			0.404	0.373							
53)	T	Dibromometha		0.162	0.164	0.159	0.149	0.158	0.152	0.156	3.89
			0.155	0.147							
54)	T	methylmethacryl		0.220	0.213	0.213	0.197	0.220	0.209	0.212	4.36
			0.220	0.200							
55)	T	14dioxane		0.003	0.004	0.004	0.004	0.004	0.003	0.004#	5.70
			0.004	0.003							
56)	PT	Bromodiclrma	0.321	0.295	0.303	0.318	0.299	0.324	0.323	0.311	4.05
			0.323	0.297							
57)	T	2Nitropropane	0.072	0.069	0.074	0.080	0.082	0.092	0.086	0.080	10.01
			0.089	0.074							

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58) T   2CLEVE              0.106 0.113 0.113 0.112 0.122 0.115 0.114   5.42
                    0.122 0.106
59) PT  c13dicloproe    0.374 0.364 0.392 0.402 0.392 0.418 0.411 0.392   4.91
                    0.404 0.369
60) PT  4Meth2Pentan    0.295 0.307 0.307 0.295 0.265 0.254 0.215 -----
                    0.205
                                                  Q  A= -0.004 R=0.998
                                                     B=  0.283
                                                     C=  0.026
61) S   SURRd8Tolule    1.020 1.031 1.030 1.028 1.042 1.030 1.036 1.030   0.61
                    1.028 1.026
62) PT  Toluene         0.706 0.653 0.692 0.671 0.627 0.630 0.610 0.634   8.74
                    0.601 0.521
63) PT  t13Dicloprop    0.358 0.298 0.326 0.342 0.336 0.365 0.365 0.344   6.70
                    0.367 0.335
64) T   ethylmethacryla       0.384 0.372 0.384 0.368 0.389 0.364 0.367   7.16
                    0.371 0.306
65) PT  112Triclotha          0.192 0.187 0.197 0.188 0.198 0.190 0.191   3.29
                    0.197 0.180
66) PT  Tetrachlorte    0.250 0.270 0.240 0.288 0.270 0.283 0.274 0.268   5.70
                    0.276 0.264
67) T   13Diclorpropa   0.451 0.409 0.442 0.436 0.405 0.417 0.404 0.415   6.34
                    0.408 0.363

68) I   d5-CHLOROBENZENE**IST ----------------ISTD---------------------
69) PT  2Hexanone             0.252 0.256 0.254 0.231 0.235 0.200 0.232  10.49
                    0.199
70) PT  Clorodibrmta    0.266 0.247 0.261 0.258 0.253 0.291 0.287 0.271   6.68
                    0.297 0.282
71) PT  12Dibrometha    0.293 0.249 0.262 0.282 0.258 0.287 0.276 0.273   5.69
                    0.286 0.260
72) PT  Chlorobenzen    0.895 0.876 0.867 0.868 0.797 0.828 0.802 0.822   8.18
                    0.787 0.675
73) T   1Clhexane       0.460 0.408 0.377 0.421 0.442 0.450 0.450 0.429   6.26
                    0.445 0.412
74) T   1112Tetclota           0.257 0.257 0.271 0.257 0.289 0.287 0.274   5.64
                    0.293 0.280
75) PT  Ethylbenzene    1.458 1.440 1.455 1.462 1.363 1.392 1.296 1.348  10.99
                    1.257 1.005
76) PT  m p-Xylene      0.511 0.526 0.539 0.553 0.527 0.539 0.517 0.516   6.89
                    0.502 0.431
77) PT  o-Xylene        0.524 0.500 0.510 0.548 0.511 0.544 0.522 0.519   4.20
                    0.530 0.478
78) PT  Styrene         0.866 0.819 0.865 0.870 0.847 0.884 0.858 0.843   5.58
                    0.853 0.727
79) PT  Bromoform             0.140 0.148 0.161 0.151 0.186 0.185 0.170  12.90
                    0.195 0.190
80) PT  Isopropylben    1.253 1.263 1.277 1.367 1.323 1.341 1.263 1.257   8.54
                    1.232 0.997
81) T   cyclohexanone         0.019 0.020 0.019 0.018 0.021 0.016 0.019# 10.17
                    0.022 0.016

82) I   d4-1,4-DICHLOROBENZEN ----------------ISTD---------------------
83) S   SURR4BrFBenz    0.945 0.950 0.952 0.957 0.942 0.947 0.943 0.947   0.86
                    0.958 0.932
84) T   Bromobenzene    0.614 0.651 0.624 0.629 0.595 0.613 0.605 0.612   3.88
                    0.608 0.566
85) PT  1122Tetrclta    0.627 0.651 0.698 0.701 0.661 0.703 0.687 0.673   4.78
                    0.703 0.627
86) T   123Triclproa          0.834 0.809 0.866 0.837 0.915 0.889 0.867   4.74
                    0.927 0.858
87) T   14dichloro2bute       0.176 0.178 0.184 0.194 0.217 0.214 0.203  11.56
                    0.235 0.229
88) T   n-Propylbenz    2.665 2.770 2.796 2.942 2.792 2.716 2.581 2.629  11.15
                    2.455 1.941
89) T   2chlorotolue    1.700 1.697 1.809 1.770 1.635 1.696 1.631 1.653   8.05
                    1.585 1.350
90) T   4chlorotolue    2.066 2.003 2.038 2.049 1.918 1.951 1.877 1.917   8.75
                    1.825 1.527
91) T   135Trimebenz    2.058 1.959 1.948 2.070 1.952 1.963 1.908 1.920   7.70
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                        1.857 1.568
 92) T   tbutylbenzen    1.570 1.676 1.622 1.803 1.770 1.760 1.699 1.671   6.71
                        1.693 1.444
 93) T   124Trimetben    2.006 1.811 1.889 2.000 1.919 1.920 1.866 1.862   7.68
                        1.815 1.528
 94) T   sbutylbenzen    2.285 2.264 2.251 2.531 2.455 2.443 2.343 2.297   8.79
                        2.270 1.829
 95) PT  13Diclorbenz    1.150 1.131 1.154 1.159 1.097 1.128 1.104 1.110   5.06
                        1.093 0.976
 96) T   pIsopropylto    1.931 1.970 2.013 2.123 2.123 2.144 2.054 2.003   7.38
                        2.009 1.661
 97) PT  14dichlorobe    1.763 1.470 1.334 1.248 1.146 1.164 1.138 -----
                        1.119 0.997
                                                    Q  A= -0.056 R=1.000
                                                       B=  1.218
                                                       C=  0.007
 98) PT  12dichlorobe    1.950 1.533 1.349 1.207 1.076 1.083 1.053 -----
                        1.054 0.932
                                                    Q  A= -0.050 R=1.000
                                                       B=  1.130
                                                       C=  0.014
 99) T   nButylbenzen    1.712 1.823 1.773 1.937 1.905 1.916 1.844 1.801   7.35
                        1.795 1.507
100) PT  12dibromo3cl          0.122 0.136 0.123 0.124 0.135 0.132 0.132   6.55
                        0.146 0.138
101) T   135Trichloroben 0.753 0.786 0.754 0.779 0.782 0.807 0.803 0.778   3.33
                        0.806 0.736
102) PT  124Trichlobe    0.712 0.698 0.685 0.650 0.656 0.678 0.678 0.674   3.75
                        0.675 0.629
103) T   Hexachlorobu    0.299 0.260 0.240 0.277 0.283 0.297 0.297 0.285   8.11
                        0.313 0.302
104) T   Naphthalene     1.788 1.576 1.578 1.571 1.508 1.607 1.508 1.557   8.31
                        1.591 1.290
105) T   123Trichlben    0.564 0.588 0.583 0.598 0.598 0.625 0.612 0.597   3.73
                        0.629 0.574
 ------------------------------------------------------------------------------
                                                 Total Average %RSD   6.96
 ------------------------------------------------------------------------------
 L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
 (#) = Out of Range

           W102921.M         Tue Nov 02 07:56:00 2021
```

BFB

Data File : C:\INSTARCH\DATA\OCT2921\BFB1.D Vial: 1
Acq On : 29 Oct 2021 9:25 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.650 to 4.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.4	13784	PASS
75	95	30	60	52.8	32528	PASS
95	95	100	100	100.0	61664	PASS
96	95	5	9	7.2	4469	PASS
173	174	0.00	2	0.0	5	PASS
174	95	50	100	79.7	49152	PASS
175	174	5	9	7.9	3889	PASS
176	174	95	101	97.9	48104	PASS
177	176	5	9	7.0	3377	PASS

W102921.M Tue Nov 02 08:56:25 2021

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL1.D Vial: 4
Acq On : 29 Oct 2021 10:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:05:07 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1236359	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1058248	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	580752	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	310780	19.500	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.25	102	84786	19.795	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.70	98	1260784	19.797	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.24	95	548608	19.945	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	6688	0.4909	ug/L	99
3) Chloromethan	2.10	50	12218	0.6292	ug/L	98
4) VinylChlorid	2.24	62	8675	0.4808	ug/L	96
5) Bromomethane	2.70	94	6452	N.D.		
6) Chloroethane	2.87	64	12785	0.9895	ug/L #	59
7) Dichloroflmethane	3.18	67	11603	0.5191	ug/L	95
8) Trichlorofma	3.26	101	9161	0.4370	ug/L	86
9) Ethylether	3.71	59	7601	0.5453	ug/L	95
10) dichlorotfluoroethan	3.72	67	10632	0.4771	ug/L	93
11) propyleneoxide	3.76	58	16815	4.8728	ug/L	94
12) Acrolein	3.84	56	9291	2.6228	ug/L	98
13) 11dichlorthe	3.99	96	5528	0.4312	ug/L	96
14) Trichlorotfluoroeth	4.02	101	10388	0.8008	ug/L	89
15) Acetone	4.06	43	34937m	5.6451	ug/L	98
16) Iodomethane	4.16	142	6117	N.D.		
17) Carbon Dislf	4.25	76	36012	1.0222	ug/L	96
18) allylchloride	4.47	41	26924	1.0652	ug/L	96
19) methylacetate	4.54	74	3023	0.5604	ug/L #	38
20) Methylchlorid	4.64	84	9772	0.6028	ug/L	95
21) tbutylalcohol	4.83	59	48772	28.2139	ug/L	93
22) Acrylonitrile	4.93	53	18285	2.6006	ug/L	97
23) t12dichlorte	5.00	96	7817	0.5241	ug/L	96
24) MtBE	5.04	73	23869	0.5623	ug/L	92
25) Hexane	5.40	57	17669	0.8442	ug/L	97
26) 11dichlorota	5.53	63	15945	0.5584	ug/L	99
27) Vinylacetate	5.62	43	190418	6.5708	ug/L	94
28) chloroprene	5.65	53	23805	0.9269	ug/L	99
29) Diisopether	5.68	45	24476	0.4652	ug/L	91
30) ETBE	6.13	59	23927	0.5377	ug/L	98
31) 22dichloropr	6.27	77	10538	0.5030	ug/L	99
32) c12dichlorte	6.25	96	8442	0.5060	ug/L	92
33) 2Butanone	6.29	72	10960	4.8938	ug/L	93
34) propionitrile	6.32	54	16775	5.8266	ug/L	95
35) Ethylacetate	6.40	88	1569	2.0518	ug/L #	51
36) methacrylonitrile	6.52	67	8322	1.1085	ug/L	98
37) Bromochlorma	6.55	128	4124	0.5364	ug/L	91
38) Tetrahydofur	6.65	42	39973m	6.4276	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL1.D Vial: 4
Acq On : 29 Oct 2021 10:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:05:07 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.65	83	14987	0.5529 ug/L		90
40)	111trichlota	6.90	97	10031	0.4608 ug/L		93
42)	Cyclohexane	6.99	56	10461	0.3970 ug/L		92
43)	Carbtetraclo	7.11	119	7684	0.4314 ug/L		90
44)	11dicloprope	7.11	110	3331	0.4577 ug/L	#	89
46)	Benzene	7.35	78	35312	0.5767 ug/L		96
47)	12dichlorota	7.35	62	11741	0.5251 ug/L	#	94
48)	TAME	7.53	73	22649	0.5495 ug/L		93
49)	trichloroete	8.17	95	7580	0.4831 ug/L		93
50)	methylcyclohexane	8.43	83	10998	0.3937 ug/L		91
51)	12dicloropra	8.42	63	9604	0.5485 ug/L		88
52)	23Dicl1propene	8.48	75	12296	0.4935 ug/L		91
53)	Dibromometha	8.56	93	5069	0.5264 ug/L		94
54)	methylmethacrylate	8.59	69	5774	0.4414 ug/L		93
55)	14dioxane	8.60	88	6445	N.D.		
56)	Bromodiclrma	8.76	83	9910	0.5147 ug/L	#	92
57)	2Nitropropane	9.02	43	22402	4.5398 ug/L		99
58)	2CLEVE	9.15	63	15377	N.D.		
59)	c13dicloproe	9.33	75	11550	0.4769 ug/L		97
60)	4Meth2Pentan	9.54	43	91321m	5.7616 ug/L		92
62)	Toluene	9.79	92	21809	0.5561 ug/L		93
63)	t13Dicloprop	10.04	75	11065	0.5208 ug/L		91
64)	ethylmethacrylate	10.19	69	23449	1.0333 ug/L		95
65)	112Triclotha	10.28	83	7094	0.6004 ug/L		90
66)	Tetrachlorte	10.51	166	7724	0.4654 ug/L		96
67)	13Diclorpropa	10.50	76	13930	0.5432 ug/L		85
69)	2Hexanone	10.63	43	67584	5.7903 ug/L		98
70)	Clorodibrmta	10.80	129	7042	0.4905 ug/L		87
71)	12Dibrometha	10.97	107	7757	0.5376 ug/L		90
72)	Chlorobenzen	11.65	112	23678	0.5446 ug/L	#	52
73)	1Clhexane	11.63	91	12178	0.5360 ug/L	#	24
74)	1112Tetclota	11.76	131	7606	0.5245 ug/L		90
75)	Ethylbenzene	11.80	91	38570	0.5409 ug/L		100
76)	m p-Xylene	11.97	106	27046	0.9906 ug/L		90
77)	o-Xylene	12.52	106	13853	0.5048 ug/L		95
78)	Styrene	12.53	104	22904	0.5134 ug/L		96
79)	Bromoform	12.77	173	4204	0.4687 ug/L		94
80)	Isopropylben	13.04	105	33158	0.4984 ug/L		99
81)	cyclohexanone	13.13	55	7952	7.9303 ug/L	#	94
84)	Bromobenzene	13.45	156	8909	0.5017 ug/L		99
85)	1122Tetrclta	13.42	83	9105	0.4658 ug/L		87
86)	123Triclproa	13.49	75	12066	0.4793 ug/L		98
87)	14dichloro2butene	13.51	53	2844	0.4817 ug/L		97
88)	n-Propylbenz	13.63	91	38688	0.5069 ug/L		100
89)	2chlorotolue	13.74	91	24689	0.5145 ug/L		89
90)	4chlorotolue	13.90	91	29994	0.5388 ug/L		95
91)	135Trimebenz	13.89	105	29874	0.5358 ug/L		96
92)	tbutylbenzen	14.35	119	22790	0.4698 ug/L		95
93)	124Trimetben	14.43	105	29128	0.5389 ug/L		94
94)	sbutylbenzen	14.67	105	33175	0.4975 ug/L		100
95)	13Diclorbenz	14.82	146	16693	0.5178 ug/L		93
96)	pIsopropylto	14.90	119	28030	0.4819 ug/L	#	96
97)	14dichlorobe	14.94	146	25602m	0.6915 ug/L	#	72
98)	12dichlorobe	15.48	146	28307	0.7808 ug/L	#	76
99)	nButylbenzen	15.49	91	24854	0.4751 ug/L		94
100)	12dibromo3cl	16.58	157	1816	0.4740 ug/L		81
101)	135Trichlorobenzene	16.90	180	10927	0.4834 ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL1.D Vial: 4
Acq On : 29 Oct 2021 10:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:05:07 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	10344	0.5288	ug/L	95
103) Hexachlorobu	17.96	225	4340	0.5236	ug/L	95
104) Naphthalene	18.02	128	25956	0.5739	ug/L	96
105) 123Trichlben	18.33	180	8189	0.4726	ug/L	84

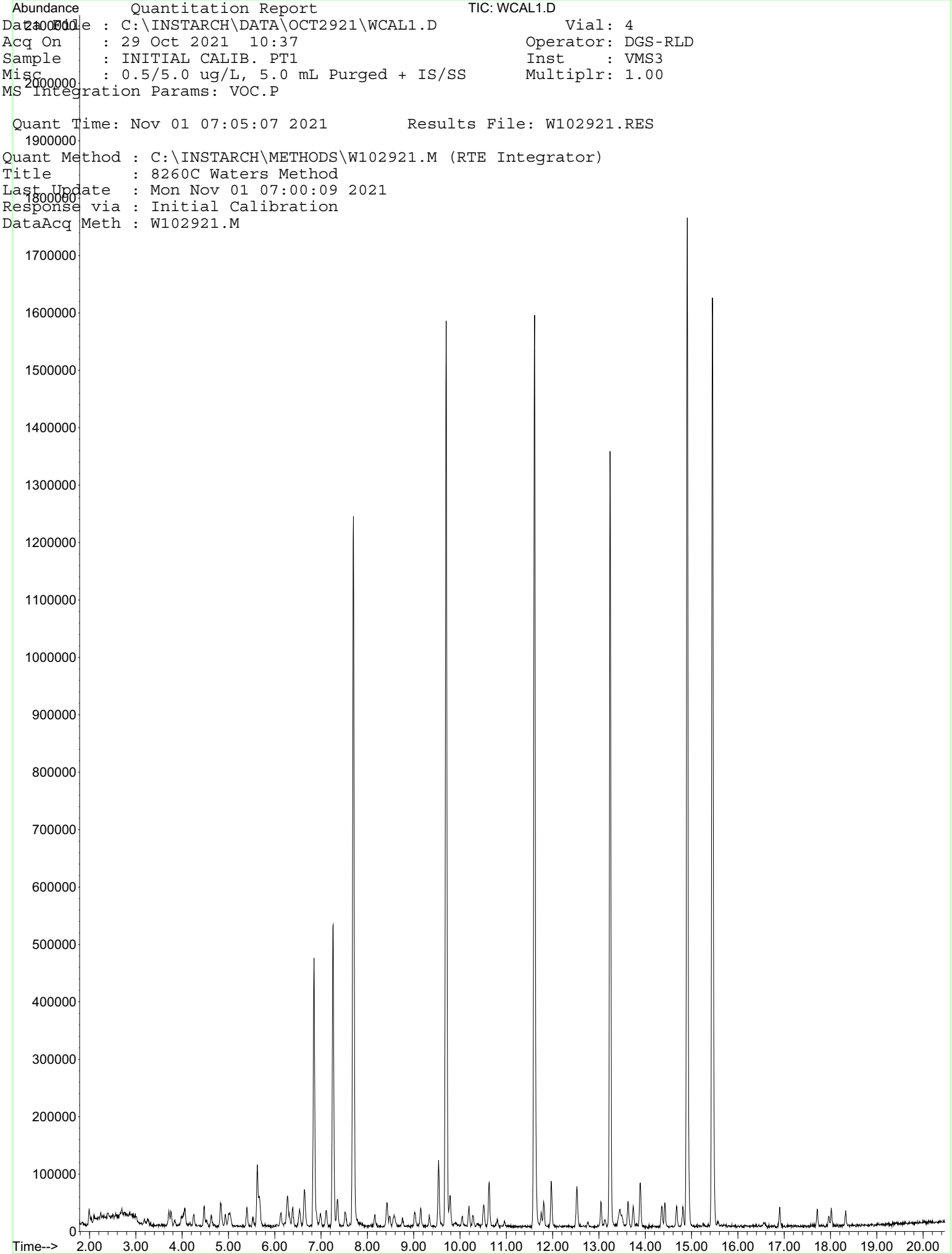
(#) = qualifier out of range (m) = manual integration

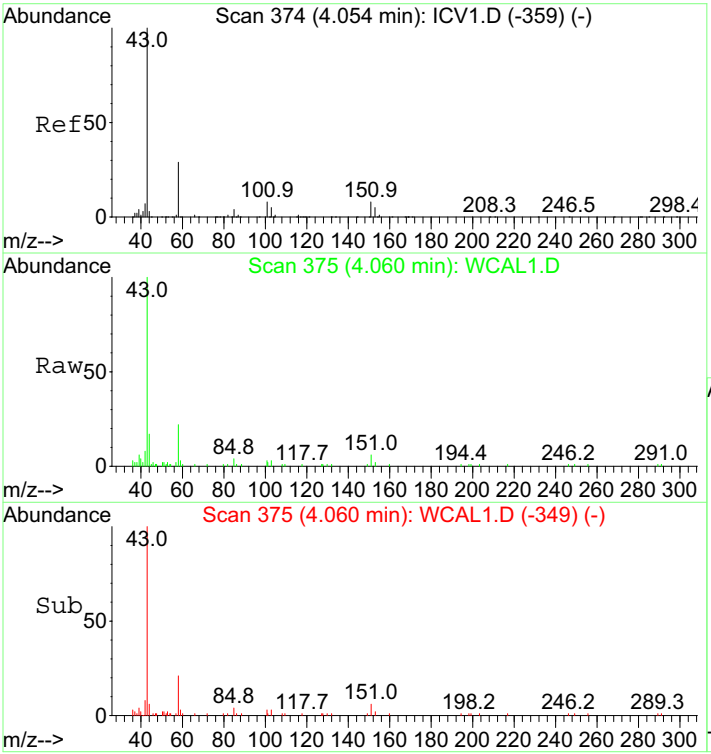
Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL1.D Vial: 4
Acq On : 29 Oct 2021 10:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:05:07 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

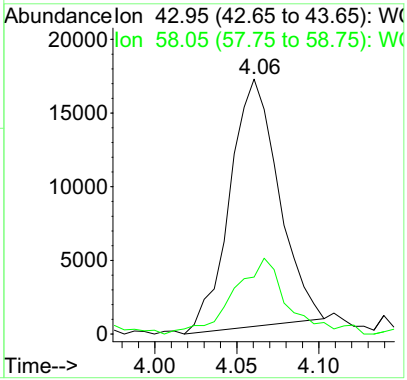


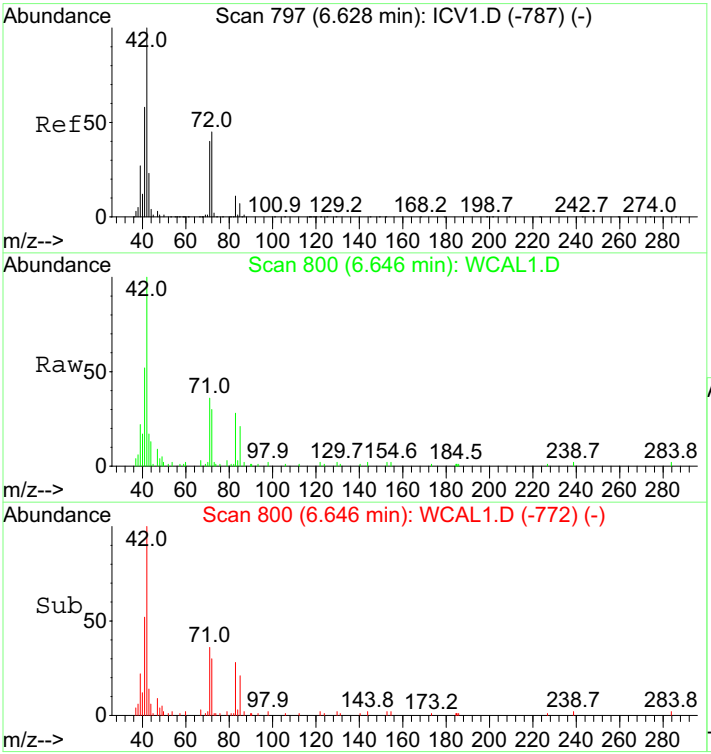


#15
Acetone
Concen: 5.65 ug/L m
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 43 Resp: 34937

Ion	Ratio	Lower	Upper
43	100		
58	34.0	9.2	49.2

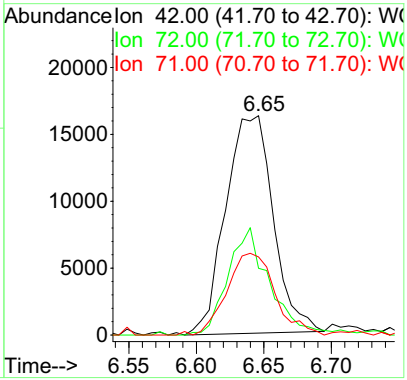




#38
Tetrahydofur
Concen: 6.43 ug/L m
RT: 6.65 min Scan# 800
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 42 Resp: 39973

Ion	Ratio	Lower	Upper
42	100		
72	44.2	21.2	61.2
71	37.9	18.6	58.6



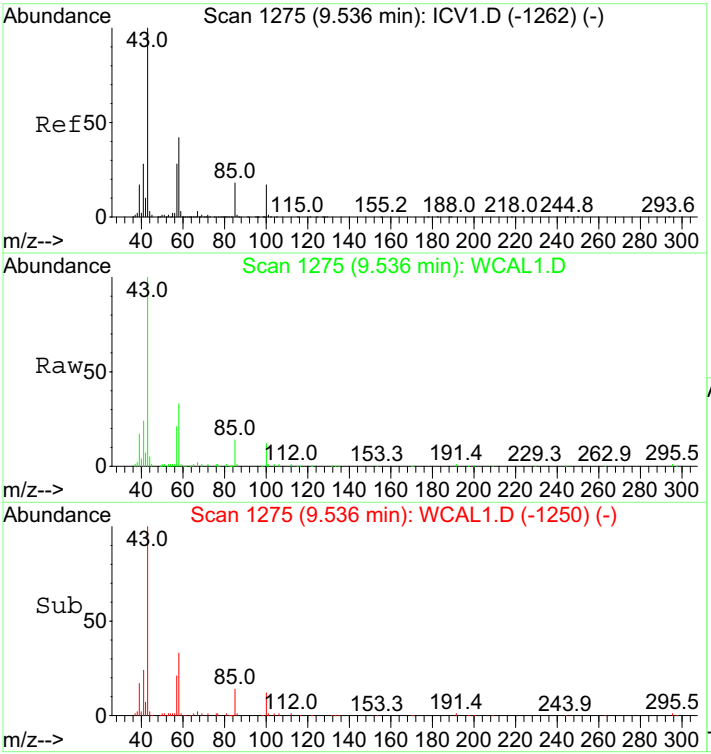
After Manual Integration

DGS 11/02/2021

RJ 11/02/2021

After Manual Integration

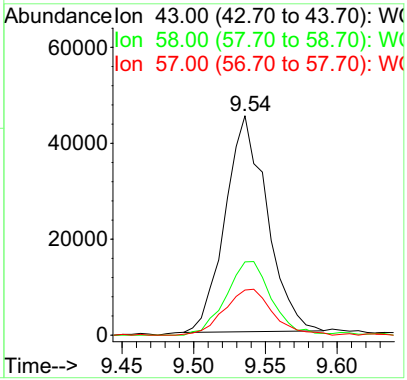
DGS 11/02/2021

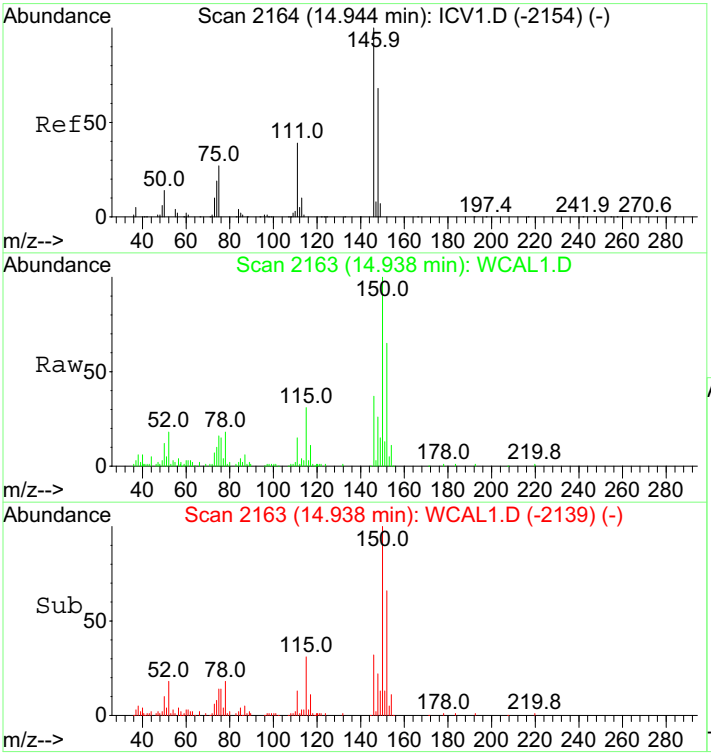


#60
4Meth2Pentan
Concen: 5.76 ug/L m
RT: 9.54 min Scan# 1275
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 43 Resp: 91321

Ion	Ratio	Lower	Upper
43	100		
58	37.8	20.0	60.0
57	24.7	6.0	46.0

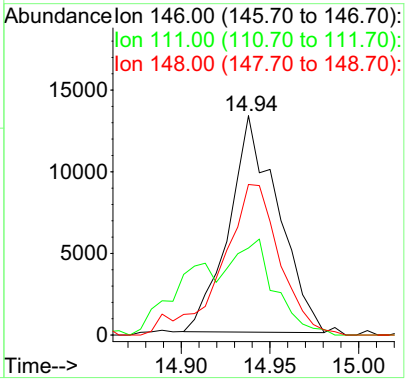




#97
14dichlorobe
Concen: 0.69 ug/L m
RT: 14.94 min Scan# 2163
Delta R.T. -0.01 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion:146 Resp: 25602

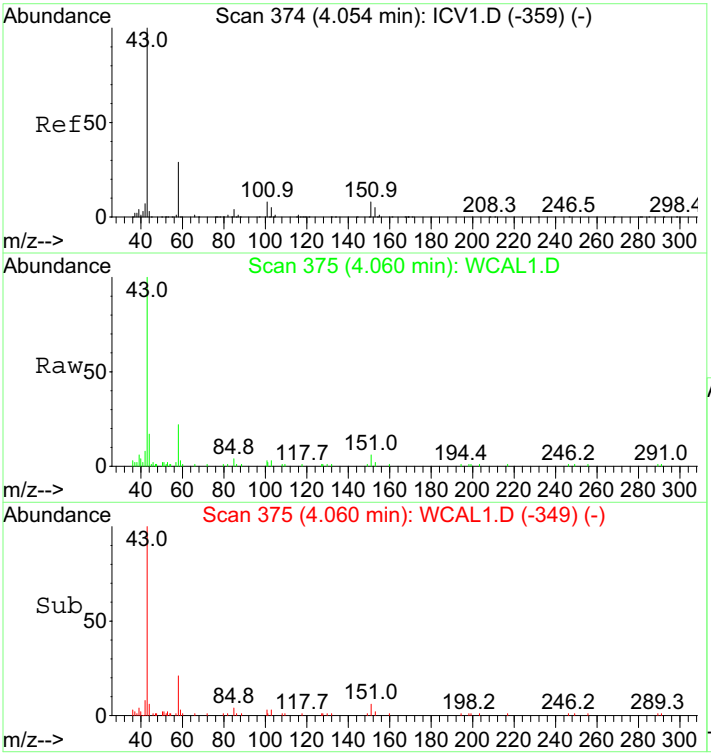
Ion	Ratio	Lower	Upper
146	100		
111	71.3	19.7	59.7#
148	81.3	44.1	84.1



RJ 11/02/2021

Before Manual Integration

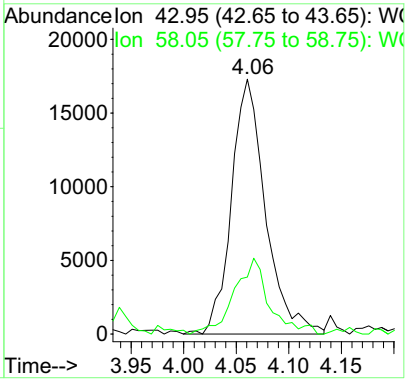
DGS 11/02/2021



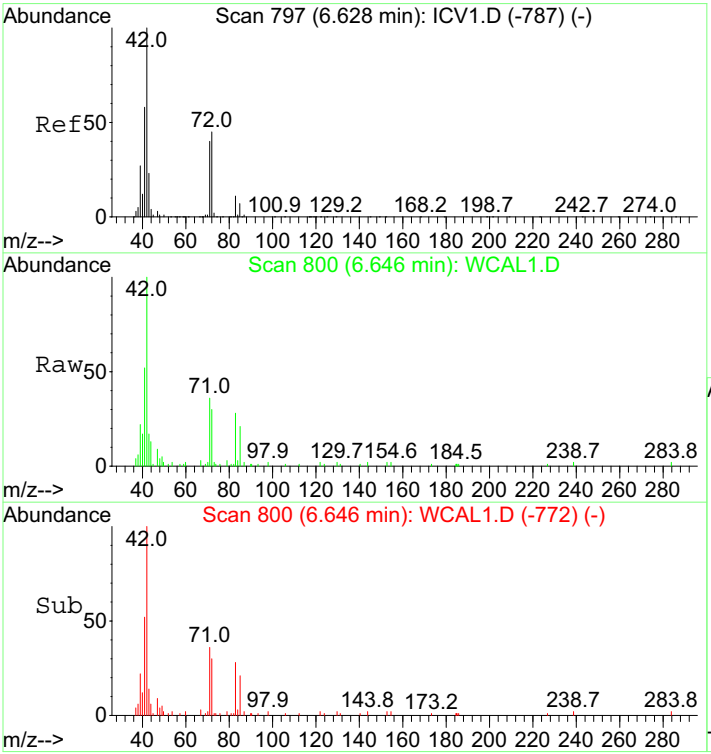
#15
Acetone
Concen: 6.50 ug/L
RT: 4.06 min Scan# 375
Delta R.T. 0.01 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 43 Resp: 39106

Ion	Ratio	Lower	Upper
43	100		
58	30.3	9.2	49.2



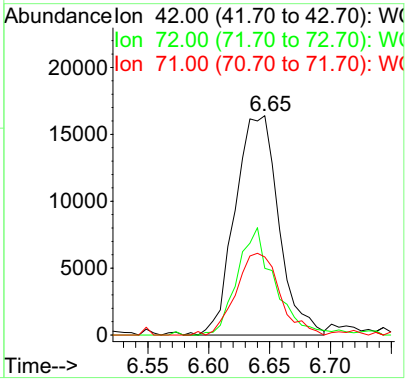
REASON # 2



#38
Tetrahydofur
Concen: 6.36 ug/L
RT: 6.65 min Scan# 800
Delta R.T. 0.02 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 42 Resp: 40884

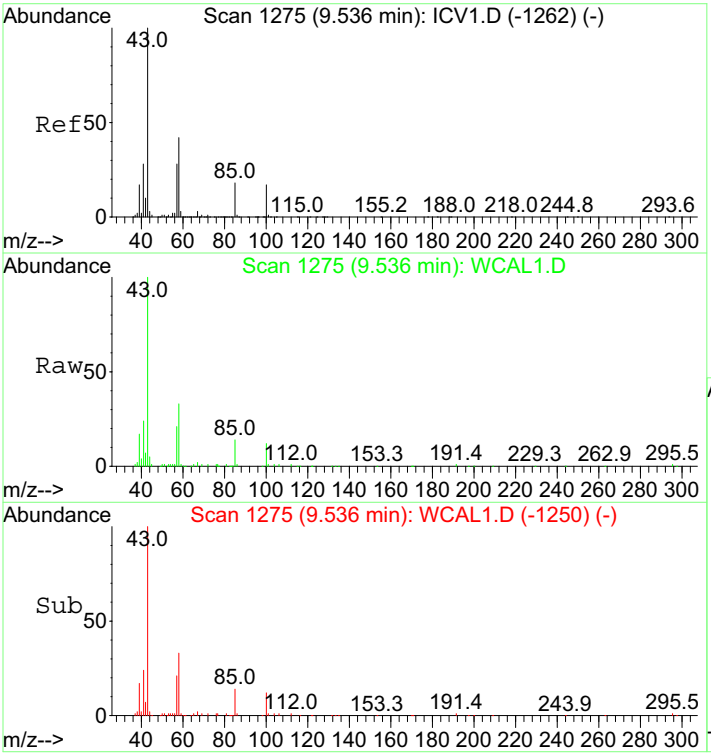
Ion	Ratio	Lower	Upper
42	100		
72	43.2	21.2	61.2
71	37.1	18.6	58.6



REASON # 2

Before Manual Integration

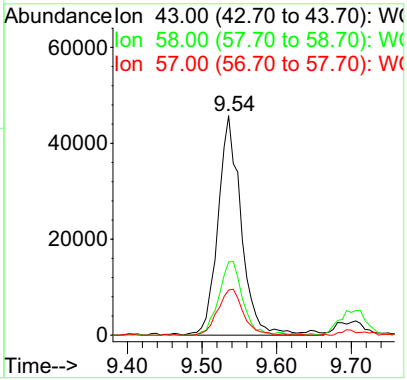
DGS 11/02/2021



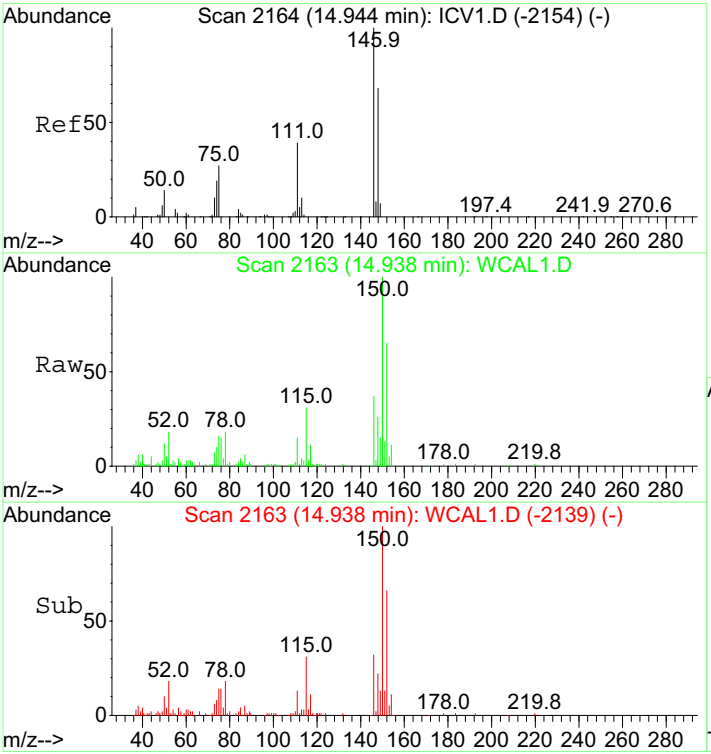
#60
4Meth2Pentan
Concen: 3.86 ug/L
RT: 9.54 min Scan# 1275
Delta R.T. 0.00 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion: 43 Resp: 99471

Ion	Ratio	Lower	Upper
43	100		
58	34.7	20.0	60.0
57	22.7	6.0	46.0



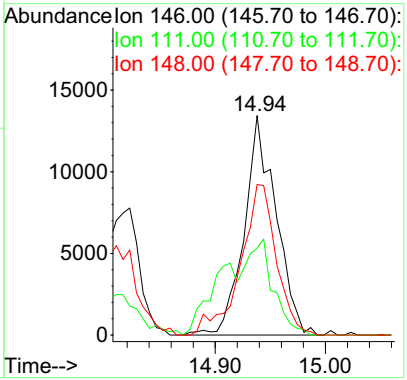
REASON # 2



#97
14dichlorobe
Concen: 0.65 ug/L
RT: 14.94 min Scan# 2163
Delta R.T. -0.01 min
Lab File: WCAL1.D
Acq: 29 Oct 2021 10:37

Tgt Ion:146 Resp: 26985

Ion	Ratio	Lower	Upper
146	100		
111	67.7	19.7	59.7#
148	77.2	44.1	84.1



REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL2.D Vial: 5
Acq On : 29 Oct 2021 11:05 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:12 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1207371	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1028055	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	569734	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	307322	19.746	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99	%		
45) SURR12DCAd4	7.25	102	82895	19.818	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1244869	20.017	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	540998	20.048	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	13139	0.9876	ug/L	91
3) Chloromethan	2.10	50	22531	1.1881	ug/L	94
4) VinylChlorid	2.24	62	18666	1.0593	ug/L #	60
5) Bromomethane	2.70	94	9706m	1.0140	ug/L #	100
6) Chloroethane	2.87	64	11184m	0.8863	ug/L	82
7) Dichloroflmethane	3.18	67	21684	0.9934	ug/L	91
8) Trichlorofma	3.26	101	20872	1.0195	ug/L	90
9) Ethylether	3.71	59	14516	1.0665	ug/L	95
10) dichlorotfluoroethan	3.72	67	23474	1.0786	ug/L	92
11) propyleneoxide	3.76	58	33021	9.7990	ug/L	92
12) Acrolein	3.83	56	17365	5.0197	ug/L	92
13) 11dichlorthe	3.98	96	12109	0.9672	ug/L	94
14) Trichlorotfluoroeth	4.02	101	25319	1.9987	ug/L	96
15) Acetone	4.05	43	65399m	10.8209	ug/L	100
16) Iodomethane	4.16	142	15195	N.D.		
17) Carbon Dislf	4.24	76	72109	2.0959	ug/L	94
18) allylchloride	4.47	41	49320	1.9981	ug/L	93
19) methylacetate	4.53	74	4631	0.8791	ug/L	79
20) Methylchlorid	4.63	84	17154	1.0836	ug/L	93
21) tbutylalcohol	4.83	59	93048	55.1194	ug/L	98
22) Acrylonitrile	4.92	53	37572	5.4720	ug/L	98
23) t12dichlorte	5.00	96	14679	1.0079	ug/L	92
24) MtBE	5.03	73	43608	1.0519	ug/L	98
25) Hexane	5.39	57	41348	2.0230	ug/L	94
26) 11dichlorota	5.53	63	29020	1.0407	ug/L	99
27) Vinylacetate	5.62	43	362350	12.8038	ug/L	96
28) chloroprene	5.66	53	50294	2.0053	ug/L	95
29) Diisopether	5.67	45	53966	1.0504	ug/L	98
30) ETBE	6.13	59	47042	1.0826	ug/L	95
31) 22dichloropr	6.26	77	20126	0.9837	ug/L	97
32) c12dichlorte	6.26	96	16239	0.9968	ug/L	93
33) 2Butanone	6.28	72	21223	9.7039	ug/L	99
34) propionitrile	6.31	54	29731	10.5746	ug/L	98
35) Ethylacetate	6.38	88	3914	5.2414	ug/L #	94
36) methacrylonitrile	6.52	67	14228	1.9407	ug/L	96
37) Bromochlorma	6.54	128	7189	0.9575	ug/L #	89
38) Tetrahydofur	6.63	42	71897	11.8385	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL2.D Vial: 5
Acq On : 29 Oct 2021 11:05 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:12 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.65	83	27666	1.0452	ug/L		96
40)	111trichlota	6.89	97	20506	0.9647	ug/L		97
42)	Cyclohexane	6.99	56	24479	0.9512	ug/L		98
43)	Carbtetraclo	7.12	119	16363	0.9407	ug/L		96
44)	11dicloprope	7.11	110	6478	0.9116	ug/L		94
46)	Benzene	7.35	78	64526	1.0792	ug/L		97
47)	12dichlorota	7.36	62	23253	1.0650	ug/L		98
48)	TAME	7.52	73	41602	1.0335	ug/L		95
49)	trichloroete	8.16	95	15827	1.0329	ug/L		98
50)	methylcyclohexane	8.43	83	24699	0.9053	ug/L		87
51)	12dicloropra	8.42	63	16774	0.9810	ug/L		93
52)	23Dicl1propene	8.48	75	25287	1.0393	ug/L		97
53)	Dibromometha	8.56	93	9791	1.0411	ug/L		95
54)	methylmethacrylate	8.58	69	13305	1.0416	ug/L		91
55)	14dioxane	8.60	88	10534	47.8515	ug/L		81
56)	Bromodiclrma	8.76	83	17793	0.9464	ug/L		93
57)	2Nitropropane	9.02	43	41554	8.6232	ug/L		96
58)	2CLEVE	9.15	63	32016	N.D.			
59)	c13dicloproe	9.33	75	21951	0.9281	ug/L		99
60)	4Meth2Pentan	9.54	43	185480	11.9832	ug/L		92
62)	Toluene	9.78	92	39415	1.0291	ug/L		100
63)	t13Dicloprop	10.05	75	17977	0.8665	ug/L		93
64)	ethylmethacrylate	10.19	69	46378	2.0927	ug/L		95
65)	112Triclotha	10.28	83	11596	1.0050	ug/L		95
66)	Tetrachlorte	10.52	166	16321	1.0070	ug/L		92
67)	13Diclorpropa	10.50	76	24678	0.9854	ug/L		96
69)	2Hexanone	10.62	43	129293	11.4025	ug/L		98
70)	Clorodibrmta	10.81	129	12714	0.9116	ug/L		94
71)	12Dibrometha	10.96	107	12824	0.9149	ug/L		91
72)	Chlorobenzen	11.65	112	45026	1.0660	ug/L		97
73)	1Clhexane	11.63	91	20987	0.9508	ug/L	#	63
74)	1112Tetclota	11.76	131	13217	0.9382	ug/L		92
75)	Ethylbenzene	11.81	91	74043	1.0689	ug/L		98
76)	m p-Xylene	11.98	106	54096	2.0395	ug/L		95
77)	o-Xylene	12.52	106	25721	0.9648	ug/L		96
78)	Styrene	12.53	104	42095	0.9713	ug/L		99
79)	Bromoform	12.75	173	7192	0.8253	ug/L		99
80)	Isopropylben	13.05	105	64912	1.0043	ug/L		98
81)	cyclohexanone	13.12	55	19730	20.2540	ug/L		97
84)	Bromobenzene	13.45	156	18559	1.0654	ug/L		93
85)	1122Tetrclta	13.43	83	18544	0.9671	ug/L		97
86)	123Triclproa	13.49	75	23771	0.9625	ug/L		96
87)	14dichloro2butene	13.51	53	5014	0.8657	ug/L		98
88)	n-Propylbenz	13.63	91	78909	1.0538	ug/L		97
89)	2chlorotolue	13.74	91	48342	1.0269	ug/L		96
90)	4chlorotolue	13.89	91	57064	1.0449	ug/L		96
91)	135Trimebenz	13.89	105	55810	1.0203	ug/L		96
92)	tbutylbenzen	14.36	119	47739	1.0030	ug/L		98
93)	124Trimetben	14.42	105	51597	0.9730	ug/L		96
94)	sbutylbenzen	14.68	105	64482	0.9856	ug/L		98
95)	13Diclorbenz	14.81	146	32225	1.0189	ug/L		95
96)	pIsopropylto	14.90	119	56124	0.9836	ug/L		99
97)	14dichlorobe	14.94	146	41889	1.1533	ug/L		83
98)	12dichlorobe	15.47	146	43660	1.2275	ug/L		87
99)	nButylbenzen	15.49	91	51945	1.0122	ug/L		96
100)	12dibromo3cl	16.58	157	3475	0.9245	ug/L		91
101)	135Trichlorobenzene	16.91	180	22393	1.0098	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL2.D Vial: 5
Acq On : 29 Oct 2021 11:05 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:12 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	19897	1.0368	ug/L	93
103)	Hexachlorobu	17.97	225	7409	0.9111	ug/L	92
104)	Naphthalene	18.02	128	44898	1.0120	ug/L	98
105)	123Trichlben	18.33	180	16755	0.9857	ug/L	98

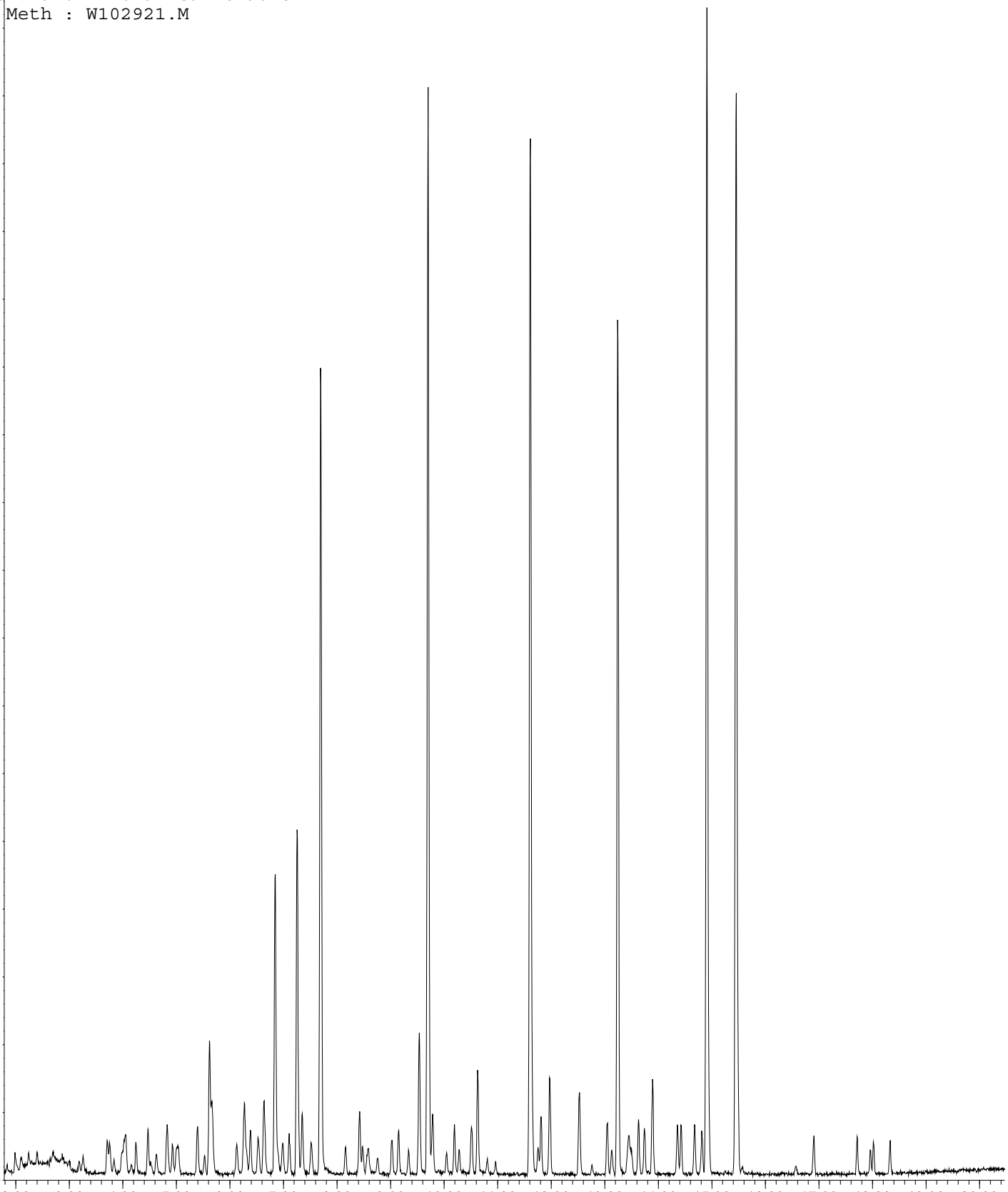
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL2.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL2.D Vial: 5
Acq On : 29 Oct 2021 11:05 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

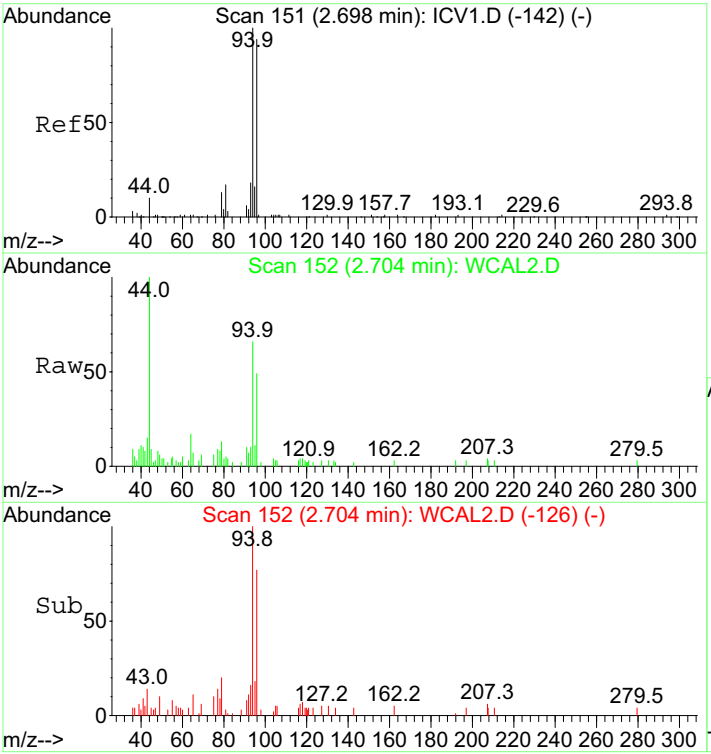
Quant Time: Nov 01 07:06:12 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:00:09 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



After Manual Integration

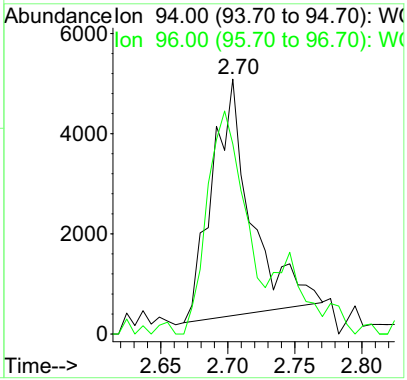
DGS 11/02/2021

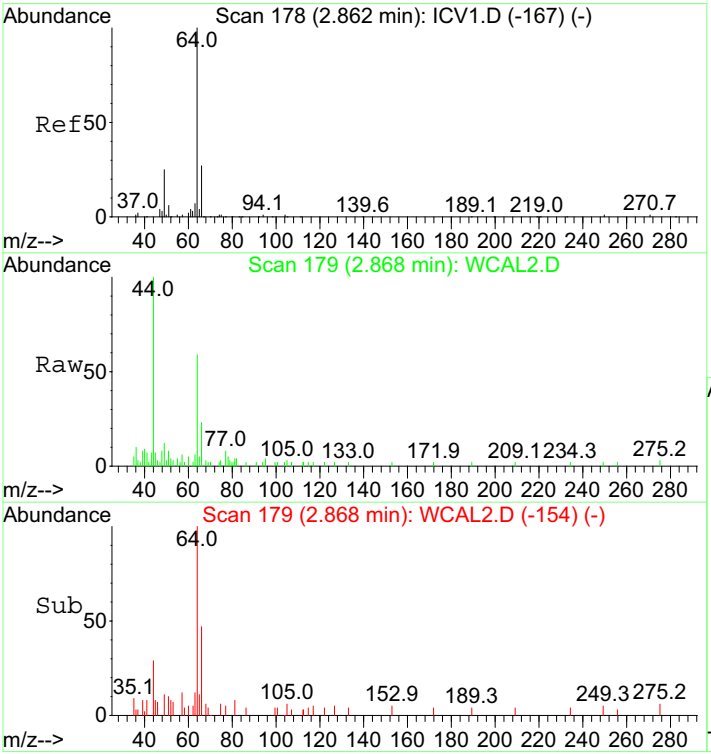


#5
Bromomethane
Concen: 1.01 ug/L m
RT: 2.70 min Scan# 152
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 94 Resp: 9706

Ion	Ratio	Lower	Upper
94	100		
96	120.7	71.8	111.8#

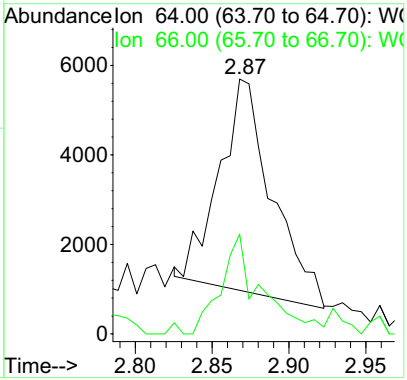




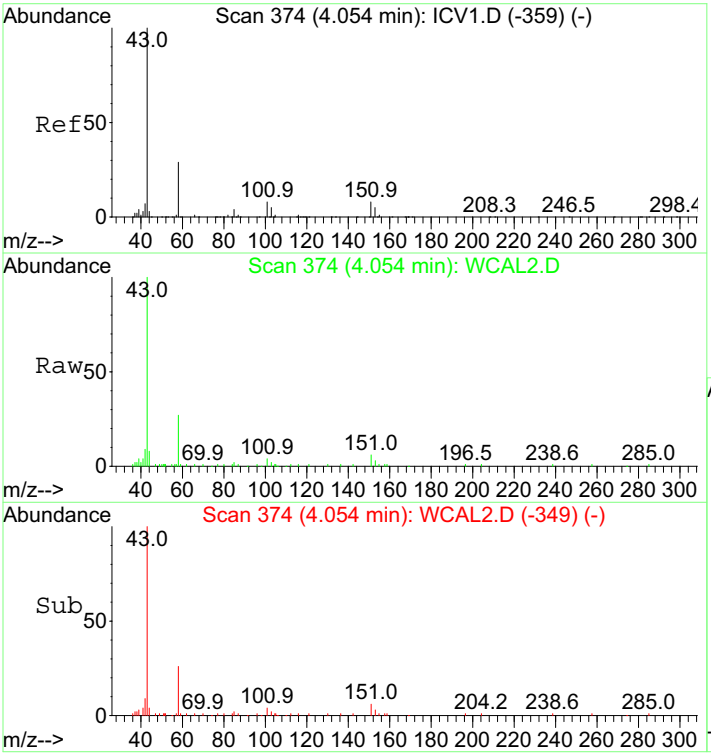
#6
Chloroethane
Concen: 0.89 ug/L m
RT: 2.87 min Scan# 179
Delta R.T. -0.00 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 64 Resp: 11184

Ion	Ratio	Lower	Upper
64	100		
66	36.2	13.5	53.5



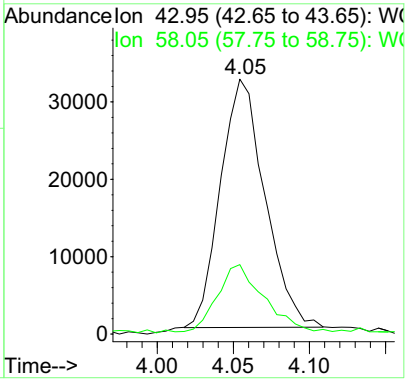
RJ 11/02/2021



#15
Acetone
Concen: 10.82 ug/L m
RT: 4.05 min Scan# 374
Delta R.T. -0.00 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 43 Resp: 65399

Ion	Ratio	Lower	Upper
43	100		
58	32.2	9.2	49.2

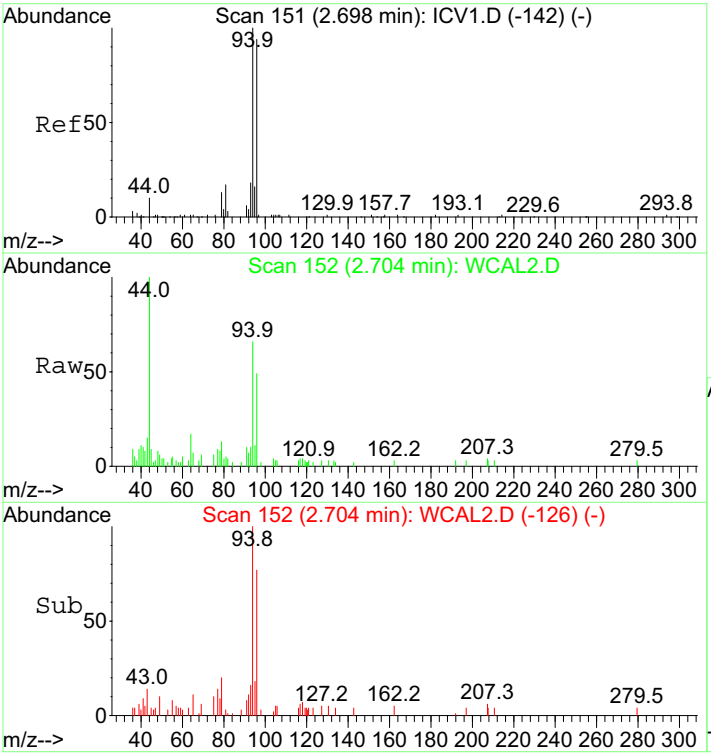


After Manual Integration
DGS 11/02/2021

RJ 11/02/2021

Before Manual Integration

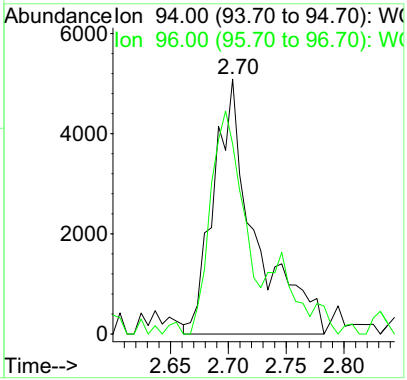
DGS 11/02/2021



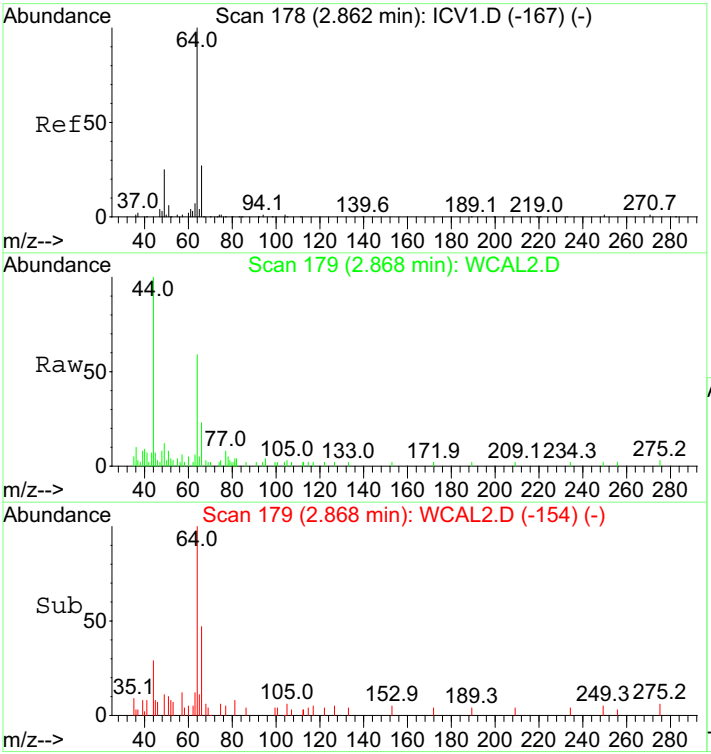
#5
Bromomethane
Concen: 1.23 ug/L
RT: 2.70 min Scan# 152
Delta R.T. 0.01 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 94 Resp: 12705

Ion	Ratio	Lower	Upper
94	100		
96	92.2	71.8	111.8



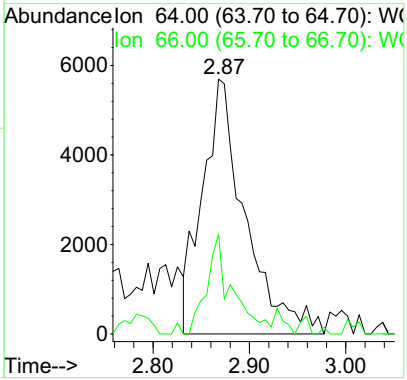
REASON # 2



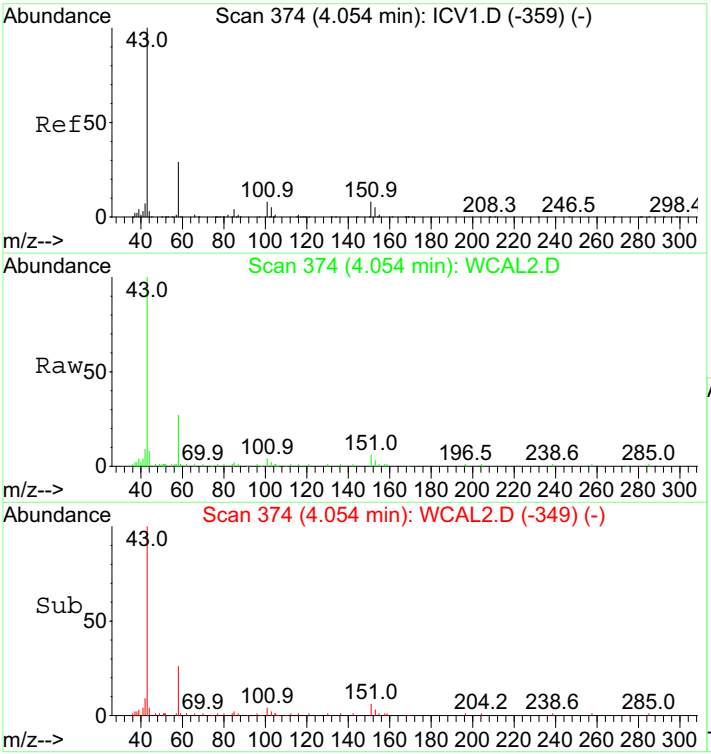
#6
Chloroethane
Concen: 1.56 ug/L
RT: 2.87 min Scan# 179
Delta R.T. -0.00 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 64 Resp: 17543

Ion	Ratio	Lower	Upper
64	100		
66	23.1	13.5	53.5



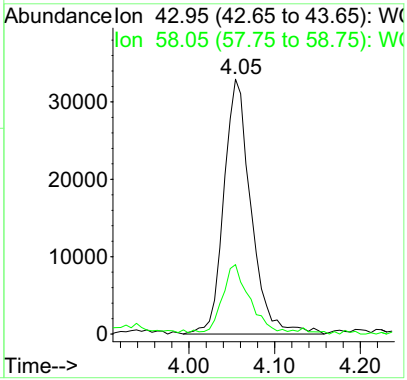
REASON # 2



#15
Acetone
Concen: 12.40 ug/L
RT: 4.05 min Scan# 374
Delta R.T. -0.00 min
Lab File: WCAL2.D
Acq: 29 Oct 2021 11:05

Tgt Ion: 43 Resp: 72782

Ion	Ratio	Lower	Upper
43	100		
58	28.9	9.2	49.2



Before Manual Integration

DGS 11/02/2021

REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL3.D Vial: 6
Acq On : 29 Oct 2021 11:35 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:34 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1203998	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1016325	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	565828	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	308052	20.076 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.25	102	81288	19.504 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %		
61) SURRd8Tolule	9.70	98	1240215	19.982 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.24	95	538511	20.132 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	21348	1.9216 ug/L	82
3) Chloromethan	2.10	50	39295	2.1367 ug/L	100
4) VinylChlorid	2.24	62	33280	2.2290 ug/L #	56
5) Bromomethane	2.70	94	22208m	2.5772 ug/L	95
6) Chloroethane	2.87	64	22961m	1.9679 ug/L	87
7) Dichloroflmethane	3.18	67	46496	2.5281 ug/L	98
8) Trichlorofma	3.26	101	34455	2.0791 ug/L	97
9) Ethylether	3.70	59	26500	2.2059 ug/L	93
10) dichlorotfluoroethan	3.71	67	40330	2.1783 ug/L	94
11) propyleneoxide	3.76	58	71818	29.0616 ug/L	95
12) Acrolein	3.84	56	36450	14.1383 ug/L	99
13) 11dichlorthe	3.98	96	23883	2.4272 ug/L	100
14) Trichlorotfluoroeth	4.02	101	40938	4.1071 ug/L	99
15) Acetone	4.05	43	134277	22.6388 ug/L	97
16) Iodomethane	4.16	142	47965	5.5825 ug/L	96
17) Carbon Dislf	4.25	76	135861	4.5736 ug/L	99
18) allylchloride	4.47	41	104969	4.9554 ug/L	99
19) methylacetate	4.52	74	10399	2.8855 ug/L	95
20) Methylchlorid	4.63	84	33719	2.3387 ug/L	95
21) tbutylalcohol	4.83	59	185845	121.7787 ug/L	100
22) Acrylonitrile	4.93	53	71810	13.1764 ug/L	98
23) t12dichlorte	5.00	96	29603	2.4046 ug/L	97
24) MtBE	5.04	73	88426	2.4097 ug/L	97
25) Hexane	5.40	57	64481	3.9167 ug/L	98
26) 11dichlorota	5.53	63	59662	2.4303 ug/L	99
27) Vinylacetate	5.62	43	717369	24.3818 ug/L	96
28) chloroprene	5.65	53	95818	4.6619 ug/L	99
29) Diisopether	5.67	45	111953	2.6420 ug/L	97
30) ETBE	6.13	59	89913	2.3503 ug/L	99
31) 22dichloropr	6.26	77	41047	2.4345 ug/L	96
32) c12dichlorte	6.26	96	34198	2.5139 ug/L	98
33) 2Butanone	6.28	72	45234	28.2235 ug/L	97
34) propionitrile	6.31	54	58153	26.7549 ug/L	99
35) Ethylacetate	6.38	88	7581	13.3180 ug/L #	90
36) methacrylonitrile	6.52	67	28780	5.4505 ug/L	95
37) Bromochlorma	6.55	128	15347	2.4496 ug/L	94
38) Tetrahydofur	6.63	42	129756	21.6016 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL3.D Vial: 6
Acq On : 29 Oct 2021 11:35 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:34 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	55066	2.3746	ug/L		100
40)	111trichlota	6.89	97	40214	2.3689	ug/L		95
42)	Cyclohexane	6.98	56	43111	2.1879	ug/L		98
43)	Carbtetraclo	7.11	119	31224	2.3353	ug/L		95
44)	11dicloprope	7.11	110	13371	2.6690	ug/L	#	87
46)	Benzene	7.35	78	127872	2.3529	ug/L		99
47)	12dichlorota	7.35	62	43784	2.3185	ug/L		94
48)	TAME	7.52	73	81212	2.3158	ug/L		95
49)	trichloroete	8.15	95	29725	2.3308	ug/L		99
50)	methylcyclohexane	8.42	83	44641	2.1832	ug/L		98
51)	12dicloropra	8.42	63	34365	2.3557	ug/L		91
52)	23Dicl1propene	8.48	75	48351	2.6102	ug/L		98
53)	Dibromometha	8.55	93	19733	2.7693	ug/L		94
54)	methylmethacrylate	8.59	69	25692	2.6787	ug/L		93
55)	14dioxane	8.60	88	23122	146.5035	ug/L		97
56)	Bromodiclrma	8.76	83	36446	2.3740	ug/L		96
57)	2Nitropropane	9.02	43	89697	24.5246	ug/L		98
58)	2CLEVE	9.15	63	68306	14.0168	ug/L		96
59)	c13dicloproe	9.34	75	47193	2.5201	ug/L		98
60)	4Meth2Pentan	9.54	43	370225	24.2335	ug/L		96
62)	Toluene	9.78	92	83261	2.4819	ug/L		99
63)	t13Dicloprop	10.04	75	39293	2.3774	ug/L		99
64)	ethylmethacrylate	10.19	69	89567	5.2384	ug/L		98
65)	112Triclotha	10.27	83	22550	2.6198	ug/L		95
66)	Tetrachlorte	10.52	166	28904	2.1980	ug/L		98
67)	13Diclorpropa	10.51	76	53260	2.4998	ug/L		100
69)	2Hexanone	10.62	43	260480	27.9481	ug/L		98
70)	Clorodibrmta	10.80	129	26497	2.4442	ug/L		97
71)	12Dibrometha	10.95	107	26619	2.3395	ug/L		94
72)	Chlorobenzen	11.65	112	88134	2.3984	ug/L		90
73)	1Clhexane	11.63	91	38272	2.0732	ug/L	#	77
74)	1112Tetclota	11.76	131	26116	2.6642	ug/L		93
75)	Ethylbenzene	11.81	91	147895	2.4389	ug/L		93
76)	m p-Xylene	11.97	106	109559	4.9734	ug/L		95
77)	o-Xylene	12.52	106	51878	2.3938	ug/L		93
78)	Styrene	12.53	104	87915	2.4618	ug/L		97
79)	Bromoform	12.76	173	15084	2.7565	ug/L		92
80)	Isopropylben	13.05	105	129797	2.4114	ug/L		99
81)	cyclohexanone	13.12	55	40659	56.5465	ug/L		98
84)	Bromobenzene	13.46	156	35306	2.3960	ug/L		98
85)	1122Tetrclta	13.42	83	39489	2.6028	ug/L		98
86)	123Triclproa	13.48	75	45783	2.5830	ug/L		93
87)	14dichloro2butene	13.51	53	10053	2.6044	ug/L		92
88)	n-Propylbenz	13.63	91	158192	2.4556	ug/L		96
89)	2chlorotolue	13.75	91	102339	2.5744	ug/L		94
90)	4chlorotolue	13.89	91	115314	2.4318	ug/L		99
91)	135Trimebenz	13.89	105	110230	2.3410	ug/L		95
92)	tbutylbenzen	14.35	119	91765	2.3555	ug/L		96
93)	124Trimetben	14.42	105	106885	2.3712	ug/L		99
94)	sbutylbenzen	14.68	105	127366	2.3381	ug/L		98
95)	13Diclorbenz	14.82	146	65323	2.4481	ug/L		99
96)	pIsopropylto	14.89	119	113901	2.4339	ug/L		99
97)	14dichlorobe	14.94	146	75472	2.0509	ug/L		92
98)	12dichlorobe	15.48	146	76351	2.0136	ug/L		95
99)	nButylbenzen	15.49	91	100321	2.3702	ug/L		97
100)	12dibromo3cl	16.57	157	7687	2.9549	ug/L		91
101)	135Trichlorobenzene	16.91	180	42670	2.3443	ug/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL3.D Vial: 6
Acq On : 29 Oct 2021 11:35 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:06:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:34 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	38783	2.3645	ug/L	97
103)	Hexachlorobu	17.96	225	13586	2.0569	ug/L	95
104)	Naphthalene	18.02	128	89293	2.2992	ug/L	99
105)	123Trichlben	18.33	180	32962	2.4080	ug/L	95

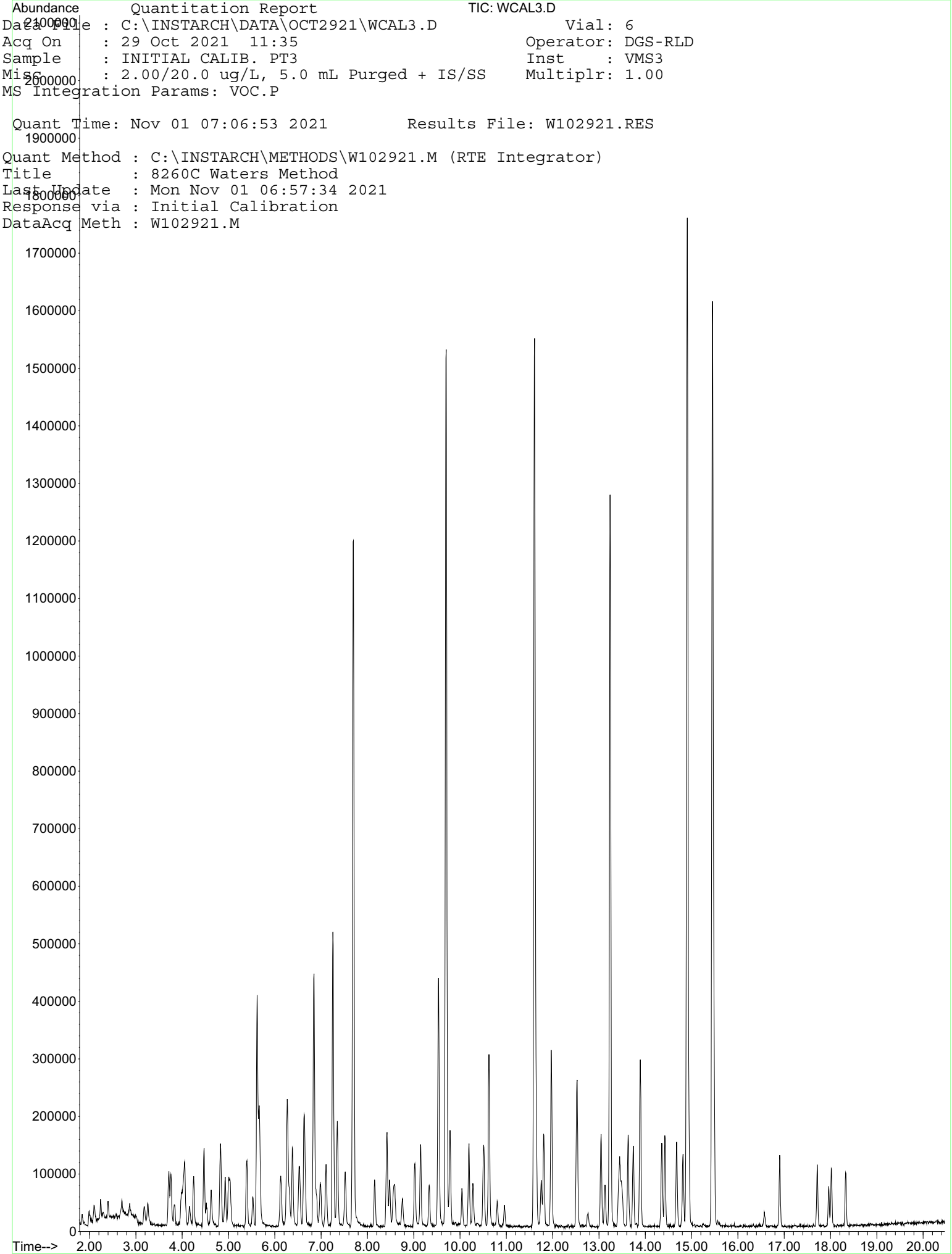
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL3.D Vial: 6
Acq On : 29 Oct 2021 11:35 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

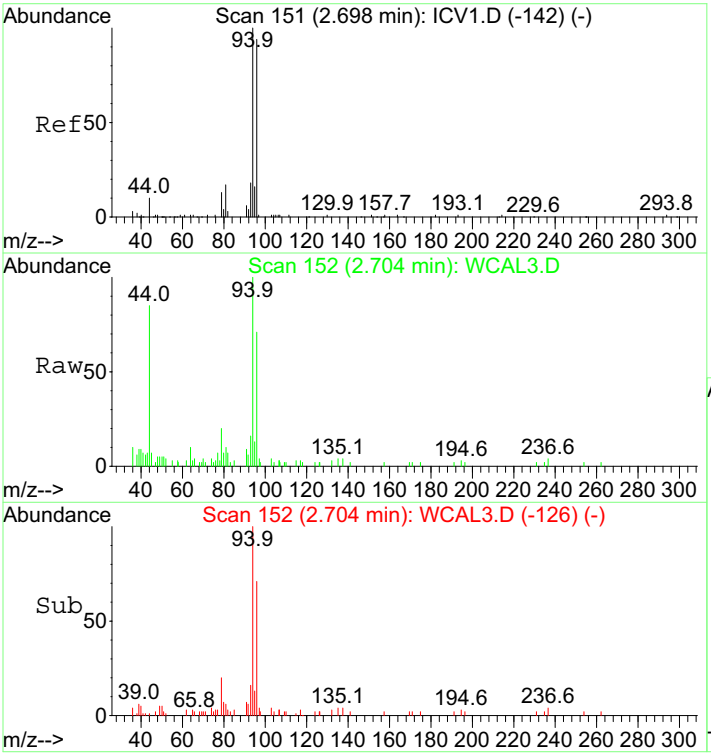
Quant Time: Nov 01 07:06:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:34 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



After Manual Integration

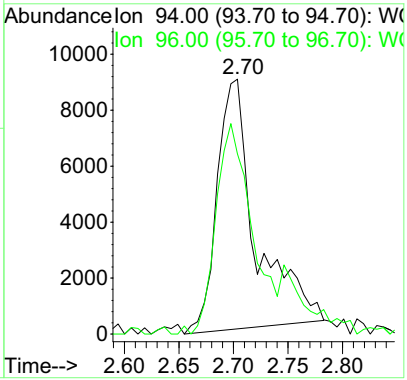
DGS 11/02/2021

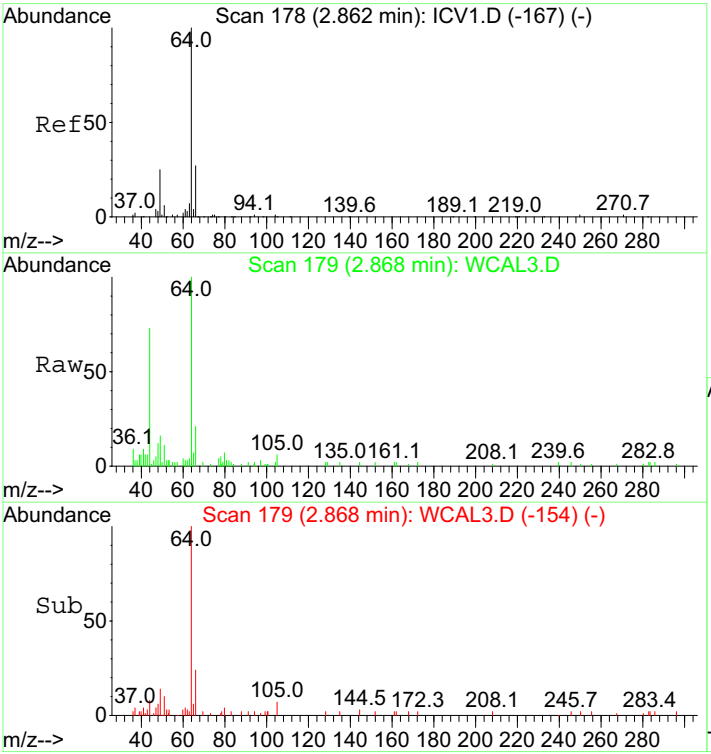


#5
Bromomethane
Concen: 2.58 ug/L m
RT: 2.70 min Scan# 152
Delta R.T. 0.01 min
Lab File: WCAL3.D
Acq: 29 Oct 2021 11:35

Tgt Ion: 94 Resp: 22208

Ion	Ratio	Lower	Upper
94	100		
96	96.5	71.8	111.8

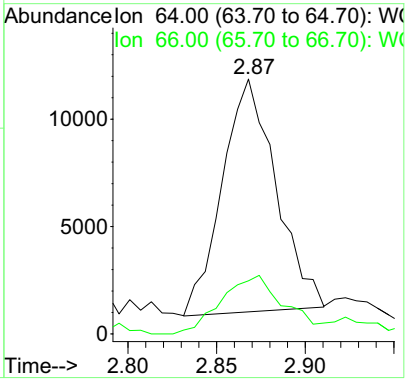




#6
Chloroethane
Concen: 1.97 ug/L m
RT: 2.87 min Scan# 179
Delta R.T. 0.00 min
Lab File: WCAL3.D
Acq: 29 Oct 2021 11:35

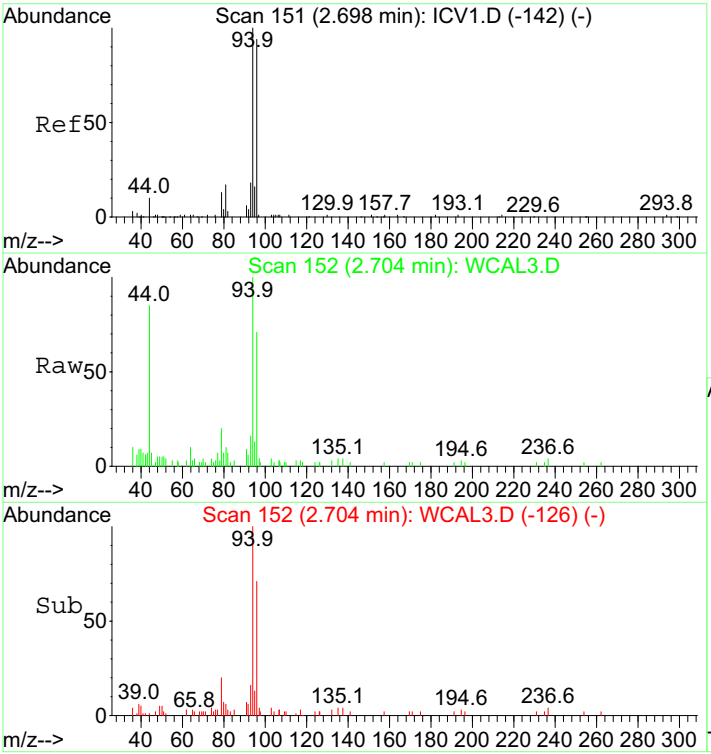
Tgt Ion: 64 Resp: 22961

Ion	Ratio	Lower	Upper
64	100		
66	36.1	13.5	53.5



RJ 11/02/2021

Before Manual Integration

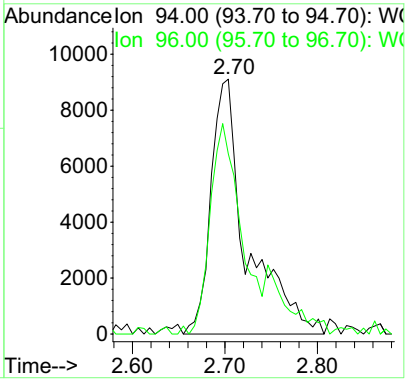


#5
Bromomethane
Concen: 2.43 ug/L
RT: 2.70 min Scan# 152
Delta R.T. 0.01 min
Lab File: WCAL3.D
Acq: 29 Oct 2021 11:35

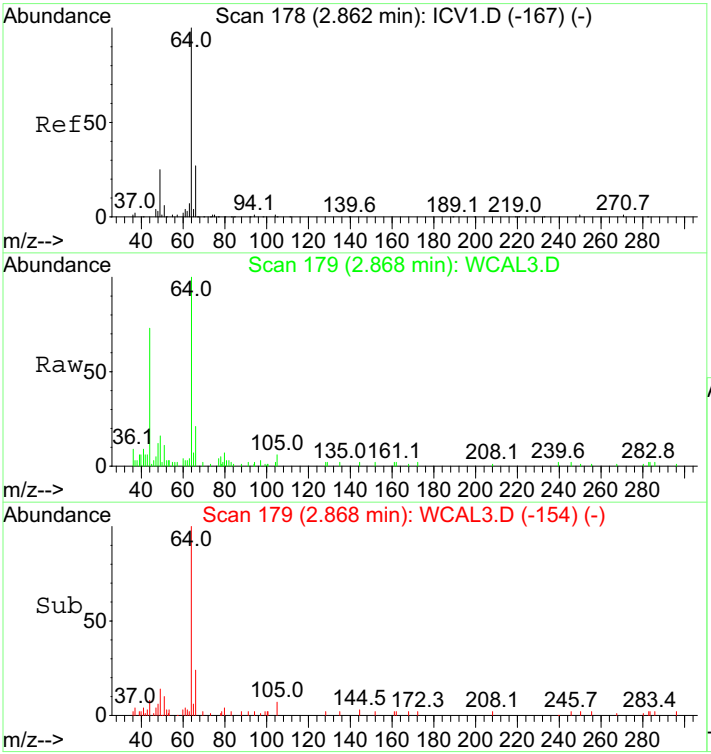
DGS 11/02/2021

Tgt Ion: 94 Resp: 24525

Ion	Ratio	Lower	Upper
94	100		
96	87.4	71.8	111.8



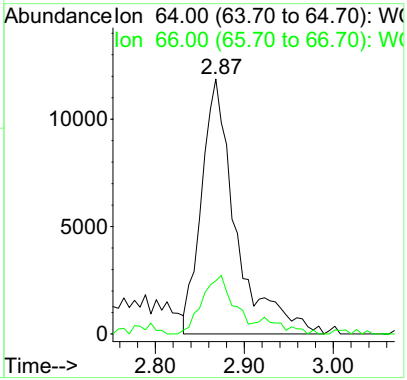
REASON # 2



#6
Chloroethane
Concen: 2.86 ug/L
RT: 2.87 min Scan# 179
Delta R.T. 0.00 min
Lab File: WCAL3.D
Acq: 29 Oct 2021 11:35

Tgt Ion: 64 Resp: 32050

Ion	Ratio	Lower	Upper
64	100		
66	25.9	13.5	53.5



REASON # 2

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL4.D Vial: 7
Acq On : 29 Oct 2021 12:03 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:57:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:49 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1230015	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1035397	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	571121	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	314307	20.031	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	83956	19.841	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1264429	19.946	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	546589	20.211	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	70126	6.2400	ug/L	97
3) Chloromethan	2.10	50	98864	5.1737	ug/L	97
4) VinylChlorid	2.24	62	95080	6.0600	ug/L	97
5) Bromomethane	2.70	94	53266	5.3029	ug/L	99
6) Chloroethane	2.87	64	63675	4.7506	ug/L	99
7) Dichloroflmethane	3.18	67	118971	5.9399	ug/L	99
8) Trichlorofma	3.26	101	114079	6.6723	ug/L	97
9) Ethylether	3.71	59	68488	5.4404	ug/L	92
10) dichlorotfluoroethan	3.72	67	114214	5.9067	ug/L	98
11) propyleneoxide	3.76	58	174634	60.0959	ug/L	99
12) Acrolein	3.84	56	90562	30.2162	ug/L	99
13) 11dichlorthe	3.98	96	66057	6.2381	ug/L	96
14) Trichlorotfluoroeth	4.03	101	134927	13.1620	ug/L	97
15) Acetone	4.05	43	323346	51.6584	ug/L	99
16) Iodomethane	4.16	142	153772	15.4774	ug/L	99
17) Carbon Dislf	4.25	76	376502	11.9770	ug/L	99
18) allylchloride	4.47	41	272184	11.8688	ug/L	99
19) methylacetate	4.53	74	28478	6.7402	ug/L	96
20) Methylchlorid	4.63	84	84690	5.5162	ug/L	93
21) tbutylalcohol	4.83	59	466726	283.9050	ug/L	99
22) Acrylonitrile	4.92	53	179854	29.2105	ug/L	97
23) t12dichlorte	5.00	96	76463	5.7868	ug/L	99
24) MtBE	5.03	73	216654	5.4975	ug/L	98
25) Hexane	5.40	57	224768	13.4339	ug/L	99
26) 11dichlorota	5.53	63	144837	5.4803	ug/L	99
27) Vinylacetate	5.62	43	1740216	54.8887	ug/L	97
28) chloroprene	5.66	53	282081	12.9003	ug/L	98
29) Diisopether	5.68	45	282132	6.0331	ug/L	99
30) ETBE	6.13	59	232462	5.6985	ug/L	100
31) 22dichloropr	6.26	77	105791	5.8253	ug/L	97
32) c12dichlorte	6.26	96	85501	5.7810	ug/L	97
33) 2Butanone	6.27	72	114452	61.4754	ug/L	99
34) propionitrile	6.32	54	151736	61.4190	ug/L	99
35) Ethylacetate	6.39	88	17784	27.5359	ug/L #	86
36) methacrylonitrile	6.52	67	78698	13.0157	ug/L	96
37) Bromochlorma	6.54	128	39101	5.7840	ug/L	98
38) Tetrahydofur	6.63	42	319364	51.0213	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL4.D Vial: 7
Acq On : 29 Oct 2021 12:03 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:57:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:49 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	138416	5.5813 ug/L	96
40)	111trichlota	6.90	97	114527	6.3127 ug/L	95
42)	Cyclohexane	6.98	56	137477	6.6726 ug/L	100
43)	Carbtetraclo	7.11	119	87706	6.1626 ug/L	94
44)	11dicloprope	7.11	110	35491	6.2389 ug/L	97
46)	Benzene	7.35	78	332371	5.7334 ug/L	100
47)	12dichlorota	7.35	62	114051	5.6853 ug/L	99
48)	TAME	7.52	73	215022	5.7739 ug/L	99
49)	trichloroete	8.16	95	83312	6.1406 ug/L	95
50)	methylcyclohexane	8.42	83	148811	6.9644 ug/L	99
51)	12dicloropra	8.42	63	90109	5.7888 ug/L	92
52)	23Dicl1propene	8.48	75	128777	6.1767 ug/L	99
53)	Dibromometha	8.56	93	48822	5.9445 ug/L	96
54)	methylmethacrylate	8.58	69	65545	6.0095 ug/L	99
55)	14dioxane	8.60	88	57549	309.0220 ug/L	98
56)	Bromodiclrma	8.76	83	97912	5.9639 ug/L	100
57)	2Nitropropane	9.03	43	245047	62.0720 ug/L	100
58)	2CLEVE	9.15	63	173040	30.6534 ug/L	100
59)	c13dicloproe	9.33	75	123619	6.0672 ug/L	99
60)	4Meth2Pentan	9.54	43	908008	55.2537 ug/L	98
62)	Toluene	9.78	92	206288	5.6771 ug/L	98
63)	t13Dicloprop	10.05	75	105136	5.9461 ug/L	97
64)	ethylmethacrylate	10.19	69	235961	12.2448 ug/L	98
65)	112Triclotha	10.28	83	60678	6.2543 ug/L	97
66)	Tetrachlorte	10.52	166	88496	6.4282 ug/L	95
67)	13Diclorpropa	10.50	76	134120	5.7996 ug/L	96
69)	2Hexanone	10.62	43	658187	61.2106 ug/L	98
70)	Clorodibrmta	10.81	129	66827	5.7326 ug/L	99
71)	12Dibrometha	10.97	107	72999	6.0412 ug/L	100
72)	Chlorobenzen	11.65	112	224589	5.7146 ug/L	97
73)	1Clhexane	11.63	91	109042	5.7454 ug/L	92
74)	1112Tetclota	11.76	131	70269	6.3351 ug/L	98
75)	Ethylbenzene	11.81	91	378457	5.8075 ug/L	97
76)	m p-Xylene	11.98	106	286217	12.0221 ug/L	95
77)	o-Xylene	12.52	106	141735	6.1184 ug/L	100
78)	Styrene	12.53	104	225100	5.8496 ug/L	97
79)	Bromoform	12.76	173	41554	6.6192 ug/L	94
80)	Isopropylben	13.05	105	353802	6.1365 ug/L	100
81)	cyclohexanone	13.13	55	100809	120.9413 ug/L	97
84)	Bromobenzene	13.45	156	89766	5.7508 ug/L	96
85)	1122Tetrclta	13.43	83	100153	6.0818 ug/L	98
86)	123Triclproa	13.48	75	123667	6.3002 ug/L	98
87)	14dichloro2butene	13.51	53	26230	6.1163 ug/L	97
88)	n-Propylbenz	13.63	91	420090	6.1125 ug/L	98
89)	2chlorotolue	13.74	91	252748	5.8771 ug/L	98
90)	4chlorotolue	13.89	91	292624	5.8006 ug/L	98
91)	135Trimebenz	13.89	105	295490	5.9631 ug/L	99
92)	tbutylbenzen	14.36	119	257465	6.2691 ug/L	100
93)	124Trimetben	14.43	105	285528	5.9973 ug/L	99
94)	sbutylbenzen	14.68	105	361328	6.3052 ug/L	98
95)	13Diclorbenz	14.82	146	165522	5.8198 ug/L	99
96)	pIsopropylto	14.90	119	303184	6.0883 ug/L	99
97)	14dichlorobe	14.94	146	178196	4.7671 ug/L	96
98)	12dichlorobe	15.48	146	172384	4.4965 ug/L	99
99)	nButylbenzen	15.49	91	276551	6.1869 ug/L	98
100)	12dibromo3cl	16.57	157	17505	5.7513 ug/L	98
101)	135Trichlorobenzene	16.90	180	111193	5.8026 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL4.D Vial: 7
Acq On : 29 Oct 2021 12:03 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:57:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:49 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	92830	5.3628	ug/L	94
103)	Hexachlorobu	17.96	225	39601	5.8981	ug/L	98
104)	Naphthalene	18.02	128	224261	5.5146	ug/L	98
105)	123Trichlben	18.33	180	85364	5.8785	ug/L	99

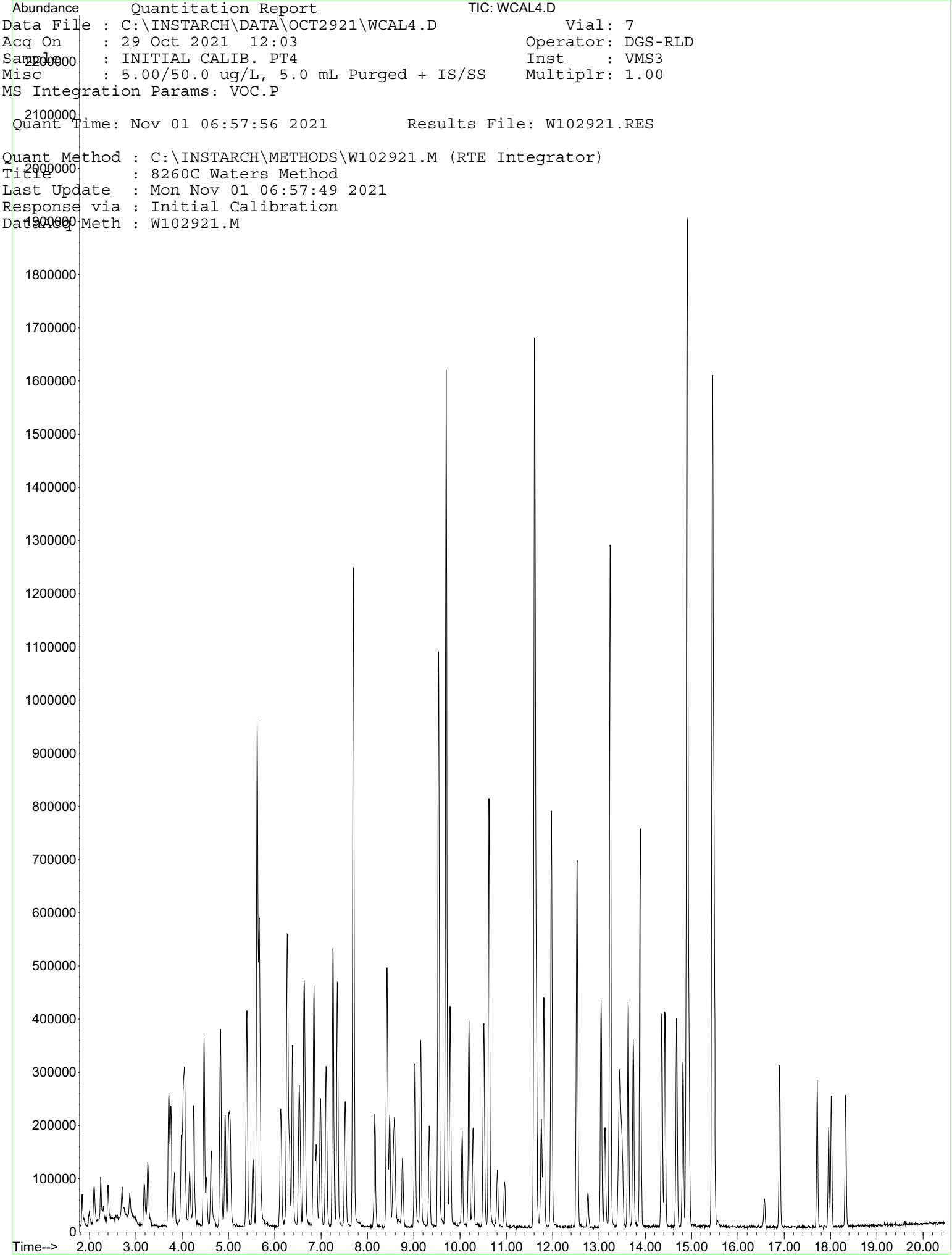
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL4.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL4.D Vial: 7
Acq On : 29 Oct 2021 12:03 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:57:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:57:49 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL5.D Vial: 8
Acq On : 29 Oct 2021 12:32 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:16 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:03 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1211415	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1025017	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	566655	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	313459	20.278	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %			
45) SURR12DCAd4	7.25	102	85363	20.516	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %			
61) SURRd8Tolule	9.70	98	1262496	20.232	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.24	95	533708	19.849	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	144878	12.4710	ug/L	100
3) Chloromethan	2.10	50	179246	9.4585	ug/L	100
4) VinylChlorid	2.24	62	186779	11.5957	ug/L	100
5) Bromomethane	2.70	94	91857	9.1467	ug/L	100
6) Chloroethane	2.87	64	117551	9.0172	ug/L	100
7) Dichloroflmethane	3.18	67	220396	10.7678	ug/L	100
8) Trichlorofma	3.26	101	222558	12.3882	ug/L	100
9) Ethylether	3.71	59	136397	10.8108	ug/L	100
10) dichlorotfluoroethan	3.71	67	229969	11.6531	ug/L	100
11) propyleneoxide	3.76	58	331702	110.3301	ug/L	100
12) Acrolein	3.83	56	169396	54.5421	ug/L	99
13) 11dichlorthe	3.98	96	134375	12.2766	ug/L	100
14) Trichlorotfluoroeth	4.02	101	288278	26.8548	ug/L	100
15) Acetone	4.05	43	587488	94.6714	ug/L	100
16) Iodomethane	4.16	142	317452	28.5351	ug/L	100
17) Carbon Dislf	4.25	76	728206	22.6262	ug/L	100
18) allylchloride	4.47	41	512666	21.8806	ug/L	100
19) methylacetate	4.52	74	52113	11.5210	ug/L	100
20) Methylchlorid	4.63	84	143178	9.2774	ug/L	100
21) tbutylalcohol	4.83	59	827755	497.7456	ug/L	100
22) Acrylonitrile	4.92	53	342735	54.2355	ug/L	100
23) t12dichlorte	5.00	96	142290	10.6004	ug/L	100
24) MtBE	5.03	73	404782	10.2254	ug/L	100
25) Hexane	5.40	57	465523	26.4351	ug/L	100
26) 11dichlorota	5.53	63	274768	10.3572	ug/L	100
27) Vinylacetate	5.62	43	3027823	95.1080	ug/L	100
28) chloroprene	5.66	53	539372	23.6725	ug/L	100
29) Diisopether	5.68	45	515886	10.7566	ug/L	100
30) ETBE	6.13	59	427696	10.3561	ug/L	100
31) 22dichloropr	6.26	77	200986	10.8780	ug/L	100
32) c12dichlorte	6.26	96	164495	10.9506	ug/L	100
33) 2Butanone	6.27	72	219151	113.0340	ug/L	100
34) propionitrile	6.32	54	278164	108.1480	ug/L	100
35) Ethylacetate	6.38	88	36005	55.2045	ug/L	100
36) methacrylonitrile	6.52	67	139507	21.7847	ug/L	100
37) Bromochlorma	6.54	128	72325	10.5327	ug/L	100
38) Tetrahydofur	6.63	42	581145	93.8851	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL5.D Vial: 8
Acq On : 29 Oct 2021 12:32 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:16 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:03 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	257373	10.2979 ug/L	100
40)	111trichlota	6.90	97	220177	11.7077 ug/L	100
42)	Cyclohexane	6.99	56	288343	13.3189 ug/L	100
43)	Carbtetraclo	7.11	119	177664	12.1118 ug/L	100
44)	11dicloprope	7.10	110	71630	12.0393 ug/L	100
46)	Benzene	7.35	78	602107	10.2453 ug/L	100
47)	12dichlorota	7.35	62	213267	10.5063 ug/L	100
48)	TAME	7.52	73	393746	10.4131 ug/L	100
49)	trichloroete	8.16	95	155213	11.1090 ug/L	100
50)	methylcyclohexane	8.42	83	307714	13.5569 ug/L	100
51)	12dicloropra	8.42	63	167669	10.6023 ug/L	100
52)	23Dicl1propene	8.48	75	238798	10.9834 ug/L	100
53)	Dibromometha	8.56	93	90304	10.6607 ug/L	100
54)	methylmethacrylate	8.58	69	119026	10.5480 ug/L	100
55)	14dioxane	8.60	88	106210	546.8012 ug/L	100
56)	Bromodiclrma	8.76	83	181365	10.8004 ug/L	100
57)	2Nitropropane	9.02	43	496112	121.7202 ug/L	100
58)	2CLEVE	9.15	63	338172	57.5710 ug/L	100
59)	c13dicloproe	9.33	75	237342	11.3433 ug/L	100
60)	4Meth2Pentan	9.54	43	1602304	96.9621 ug/L	100
62)	Toluene	9.78	92	379547	10.3260 ug/L	100
63)	t13Dicloprop	10.05	75	203362	11.2522 ug/L	100
64)	ethylmethacrylate	10.19	69	445605	22.2314 ug/L	100
65)	112Triclotha	10.28	83	113724	11.1995 ug/L	100
66)	Tetrachlorte	10.51	166	163633	11.4163 ug/L	100
67)	13Diclorpropa	10.50	76	245033	10.4249 ug/L	100
69)	2Hexanone	10.62	43	1182100	105.1530 ug/L	100
70)	Clorodibrmta	10.81	129	129633	10.9131 ug/L	100
71)	12Dibrometha	10.96	107	132258	10.6142 ug/L	100
72)	Chlorobenzen	11.65	112	408445	10.2063 ug/L	100
73)	1Clhexane	11.63	91	226785	11.7208 ug/L	100
74)	1112Tetclota	11.75	131	131901	11.2602 ug/L	100
75)	Ethylbenzene	11.81	91	698699	10.4913 ug/L	100
76)	m p-Xylene	11.98	106	539802	22.0129 ug/L	100
77)	o-Xylene	12.52	106	261829	10.9281 ug/L	100
78)	Styrene	12.53	104	434181	11.0225 ug/L	100
79)	Bromoform	12.76	173	77344	11.5130 ug/L	100
80)	Isopropylben	13.05	105	678076	11.3633 ug/L	100
81)	cyclohexanone	13.13	55	186715	215.0150 ug/L	100
84)	Bromobenzene	13.45	156	168454	10.5598 ug/L	100
85)	1122Tetrclta	13.42	83	187339	10.9902 ug/L	100
86)	123Triclproa	13.49	75	237092	11.4307 ug/L	100
87)	14dichloro2butene	13.51	53	54864	12.2123 ug/L	100
88)	n-Propylbenz	13.63	91	790995	11.1058 ug/L	100
89)	2chlorotolue	13.74	91	463277	10.4894 ug/L	100
90)	4chlorotolue	13.89	91	543403	10.5198 ug/L	100
91)	135Trimebenz	13.89	105	552969	10.8299 ug/L	100
92)	tbutylbenzen	14.35	119	501550	11.7140 ug/L	100
93)	124Trimetben	14.42	105	543680	11.0681 ug/L	100
94)	sbutylbenzen	14.68	105	695440	11.6242 ug/L	100
95)	13Diclorbenz	14.82	146	310670	10.6598 ug/L	100
96)	pIsopropylto	14.90	119	601367	11.6636 ug/L	100
97)	14dichlorobe	14.94	146	324667	8.8362 ug/L	100
98)	12dichlorobe	15.48	146	304982	8.1827 ug/L	100
99)	nButylbenzen	15.49	91	539793	11.6196 ug/L	100
100)	12dibromo3cl	16.58	157	35071	11.1930 ug/L	100
101)	135Trichlorobenzene	16.91	180	221691	11.2975 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL5.D Vial: 8
Acq On : 29 Oct 2021 12:32 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:16 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:03 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	185989	10.6744	ug/L	100
103) Hexachlorobu	17.96	225	80080	11.6041	ug/L	100
104) Naphthalene	18.02	128	427331	10.3774	ug/L	100
105) 123Trichlben	18.33	180	169561	11.3691	ug/L	100

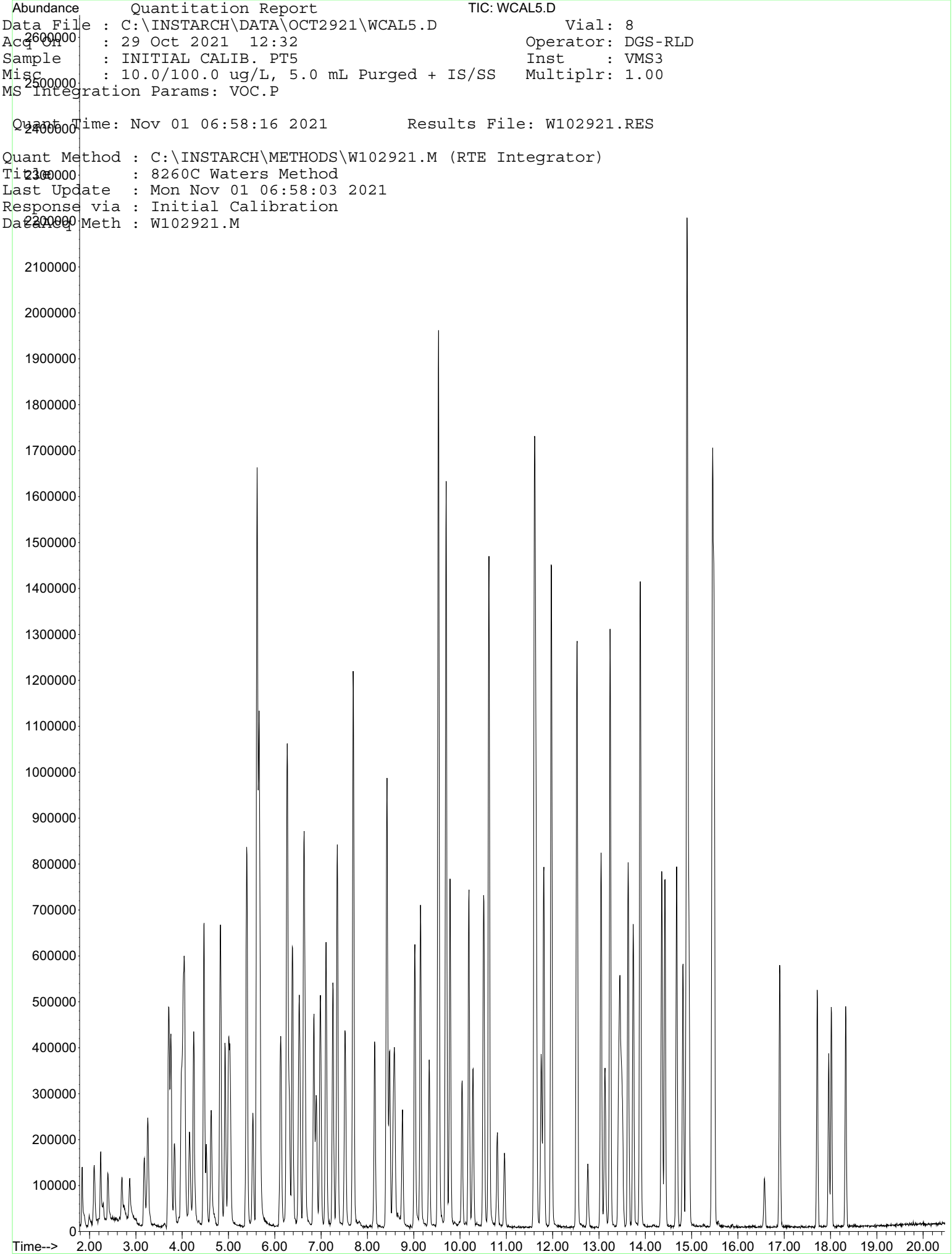
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL5.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL5.D Vial: 8
Acq On : 29 Oct 2021 12:32 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:16 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:03 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL6.D Vial: 9
Acq On : 29 Oct 2021 13:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:33 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:25 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1257037	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1034155	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	589874	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	328659	20.442	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	88635	20.441	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.70	98	1295304	19.966	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	558826	19.990	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	292372	23.2945	ug/L	100
3) Chloromethan	2.10	50	371537	19.0659	ug/L	99
4) VinylChlorid	2.24	62	376564	21.9458	ug/L	95
5) Bromomethane	2.70	94	190307	18.5792	ug/L	97
6) Chloroethane	2.87	64	237761	17.9288	ug/L	99
7) Dichloroflmethane	3.18	67	450307	20.9342	ug/L	98
8) Trichlorofma	3.26	101	451318	23.2831	ug/L	100
9) Ethylether	3.71	59	287338	21.6551	ug/L	98
10) dichlorotfluoroethan	3.72	67	467033	22.1953	ug/L	99
11) propyleneoxide	3.76	58	744237	233.7334	ug/L	98
12) Acrolein	3.84	56	377749	115.1217	ug/L	99
13) 11dichlorthe	3.98	96	271122	22.9984	ug/L	98
14) Trichlorotfluoroeth	4.02	101	576790	48.9832	ug/L	97
15) Acetone	4.05	43	1228797	192.5391	ug/L	99
16) Iodomethane	4.16	142	714849	57.0546	ug/L	99
17) Carbon Dislf	4.26	76	1488893	43.6278	ug/L	97
18) allylchloride	4.47	41	1057622	42.8299	ug/L	98
19) methylacetate	4.53	74	115773	23.9377	ug/L	99
20) Methylchlorid	4.63	84	323741	20.4622	ug/L	92
21) tbutylalcohol	4.83	59	1824337	1057.9913	ug/L	99
22) Acrylonitrile	4.93	53	744653	111.6678	ug/L	100
23) t12dichlorte	5.00	96	309110	21.9726	ug/L	99
24) MtBE	5.03	73	864334	20.9632	ug/L	99
25) Hexane	5.40	57	947947	49.2359	ug/L	99
26) 11dichlorota	5.53	63	582467	21.0336	ug/L	99
27) Vinylacetate	5.62	43	5497237	167.7766	ug/L	95
28) chloroprene	5.66	53	1108275	45.4837	ug/L	97
29) Diisopether	5.68	45	1105090	21.9291	ug/L	98
30) ETBE	6.13	59	906692	21.0327	ug/L	99
31) 22dichloropr	6.27	77	430933	22.1528	ug/L	99
32) c12dichlorte	6.26	96	343659	21.7036	ug/L	99
33) 2Butanone	6.27	72	485004	234.9524	ug/L	100
34) propionitrile	6.32	54	613713	226.2599	ug/L	98
35) Ethylacetate	6.38	88	83102	120.2873	ug/L #	91
36) methacrylonitrile	6.52	67	322779	47.7225	ug/L	95
37) Bromochlorma	6.55	128	157562	21.9184	ug/L	97
38) Tetrahydofur	6.63	42	1234255	194.1381	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL6.D Vial: 9
Acq On : 29 Oct 2021 13:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:33 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:25 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	555947	21.3311	ug/L	99
40)	111trichlota	6.90	97	463888	23.1137	ug/L	99
42)	Cyclohexane	6.99	56	593442	25.0322	ug/L	100
43)	Carbtetraclo	7.11	119	389820	24.7398	ug/L	94
44)	11dicloprope	7.10	110	153628	23.9089	ug/L	98
46)	Benzene	7.35	78	1237972	20.2178	ug/L	99
47)	12dichlorota	7.35	62	460154	21.6634	ug/L	99
48)	TAME	7.52	73	843535	21.3517	ug/L	97
49)	trichloroete	8.16	95	325479	22.0425	ug/L	99
50)	methylcyclohexane	8.43	83	626335	25.1046	ug/L	96
51)	12dicloropra	8.42	63	360403	21.7442	ug/L	99
52)	23Dicl1propene	8.48	75	514322	22.3577	ug/L	99
53)	Dibromometha	8.56	93	198592	22.2989	ug/L	99
54)	methylmethacrylate	8.59	69	277078	23.4068	ug/L	98
55)	14dioxane	8.60	88	243398	1185.4164	ug/L	99
56)	Bromodiclrma	8.76	83	407666	23.0876	ug/L	99
57)	2Nitropropane	9.02	43	1151347	262.7184	ug/L	100
58)	2CLEVE	9.15	63	766368	122.0370	ug/L	99
59)	c13dicloproe	9.34	75	525511	23.6743	ug/L	98
60)	4Meth2Pentan	9.54	43	3193523	187.1873	ug/L	95
62)	Toluene	9.79	92	792230	20.6589	ug/L	99
63)	t13Dicloprop	10.05	75	458976	23.9735	ug/L	99
64)	ethylmethacrylate	10.19	69	977763	45.9845	ug/L	99
65)	112Triclotha	10.28	83	248682	23.0483	ug/L	99
66)	Tetrachlorte	10.52	166	356215	23.3981	ug/L	99
67)	13Diclorpropa	10.51	76	523711	21.3216	ug/L	100
69)	2Hexanone	10.62	43	2428361	211.9206	ug/L	96
70)	Clorodibrmta	10.81	129	300894	24.7305	ug/L	100
71)	12Dibrometha	10.97	107	297035	23.3881	ug/L	99
72)	Chlorobenzen	11.65	112	856324	21.1362	ug/L	98
73)	1Clhexane	11.63	91	464917	23.1517	ug/L	99
74)	1112Tetclota	11.76	131	299259	24.6991	ug/L	98
75)	Ethylbenzene	11.81	91	1439349	21.2476	ug/L	99
76)	m p-Xylene	11.98	106	1114605	44.3083	ug/L	97
77)	o-Xylene	12.52	106	562998	22.9358	ug/L	96
78)	Styrene	12.53	104	914220	22.6187	ug/L	96
79)	Bromoform	12.76	173	191930	27.4854	ug/L	97
80)	Isopropylben	13.05	105	1387265	22.5307	ug/L	98
81)	cyclohexanone	13.13	55	427393	480.6069	ug/L	100
84)	Bromobenzene	13.45	156	361459	21.5655	ug/L	98
85)	1122Tetrclta	13.42	83	414829	22.9984	ug/L	97
86)	123Triclproa	13.48	75	539878	24.3085	ug/L	99
87)	14dichloro2butene	13.51	53	128170	26.2455	ug/L	94
88)	n-Propylbenz	13.63	91	1601959	21.2156	ug/L	97
89)	2chlorotolue	13.74	91	1000426	21.5837	ug/L	99
90)	4chlorotolue	13.90	91	1150854	21.2187	ug/L	100
91)	135Trimebenz	13.89	105	1158105	21.4915	ug/L	96
92)	tbutylbenzen	14.36	119	1037994	22.6419	ug/L	98
93)	124Trimetben	14.43	105	1132353	21.7574	ug/L	97
94)	sbutylbenzen	14.68	105	1440785	22.5248	ug/L	97
95)	13Diclorbenz	14.82	146	665157	21.6862	ug/L	99
96)	pIsopropylto	14.89	119	1264837	22.9303	ug/L	97
97)	14dichlorobe	14.94	146	686806	18.3117	ug/L	99
98)	12dichlorobe	15.48	146	638828	16.9795	ug/L	99
99)	nButylbenzen	15.49	91	1130457	22.7619	ug/L	98
100)	12dibromo3cl	16.57	157	79678	23.8592	ug/L	100
101)	135Trichlorobenzene	16.90	180	476057	22.8118	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL6.D Vial: 9
Acq On : 29 Oct 2021 13:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:33 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:25 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	399982	21.8073	ug/L	97
103) Hexachlorobu	17.96	225	175083	23.7374	ug/L	95
104) Naphthalene	18.02	128	948064	21.9785	ug/L	99
105) 123Trichlben	18.33	180	368644	23.2151	ug/L	98

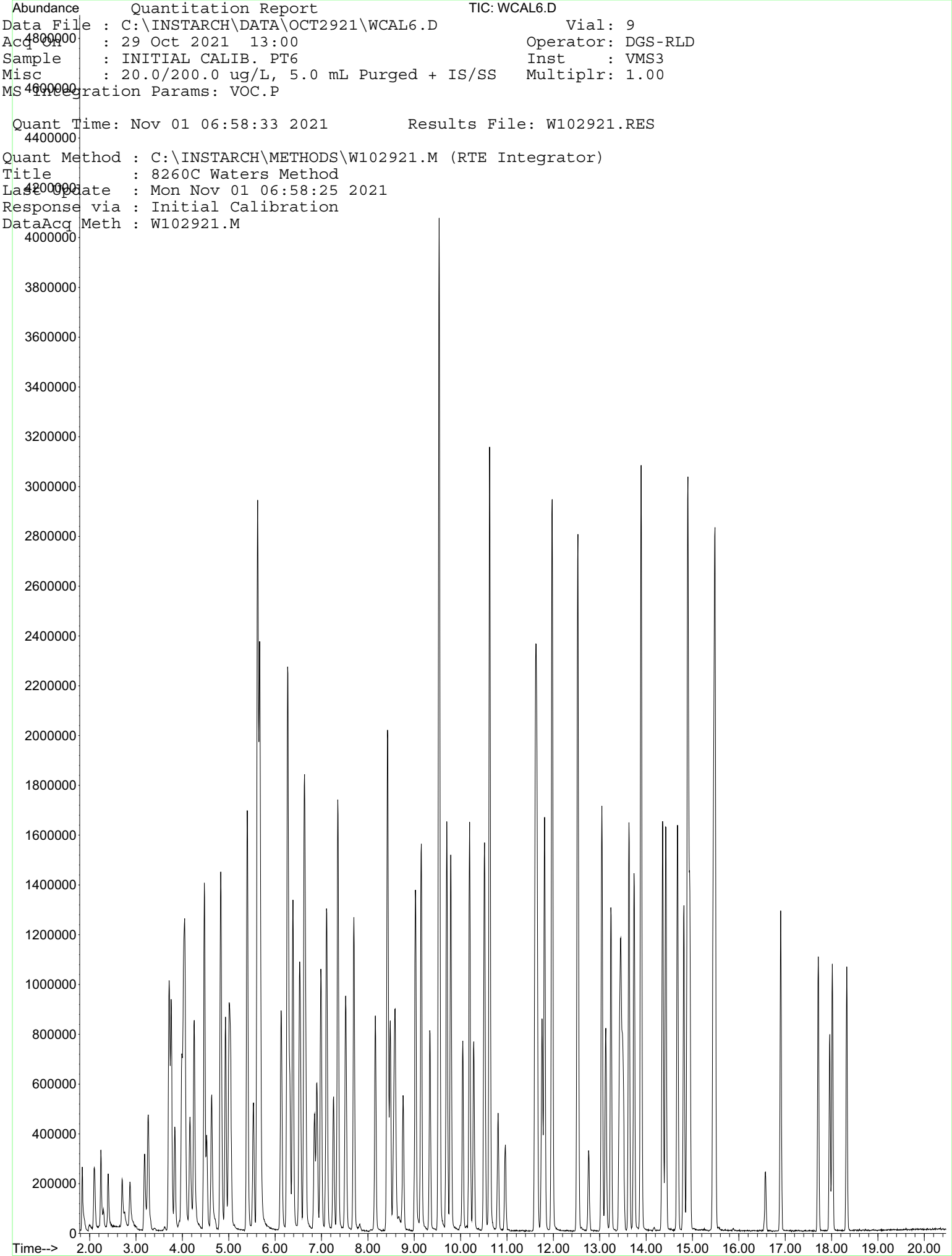
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL6.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL6.D Vial: 9
Acq On : 29 Oct 2021 13:00 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:58:33 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:25 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL7.D Vial: 10
Acq On : 29 Oct 2021 13:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:55 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1281801	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1062109	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	596019	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	333014	20.277	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %			
45) SURR12DCAd4	7.25	102	90559	20.479	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1328270	20.117	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.24	95	562301	19.889	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	445758	31.8277	ug/L	99
3) Chloromethan	2.10	50	550508	25.6676	ug/L	100
4) VinylChlorid	2.24	62	559494	29.3701	ug/L	97
5) Bromomethane	2.70	94	268784	23.5498	ug/L	96
6) Chloroethane	2.86	64	348816	23.7236	ug/L	99
7) Dichloroflmethane	3.18	67	673290	28.2687	ug/L	99
8) Trichlorofma	3.26	101	685171	31.6645	ug/L	99
9) Ethylether	3.71	59	425869	28.8287	ug/L	96
10) dichlorotfluoroethan	3.72	67	706751	30.2065	ug/L	97
11) propyleneoxide	3.76	58	1051026	287.5965	ug/L	99
12) Acrolein	3.84	56	536246	142.7758	ug/L	98
13) 11dichlorthe	3.98	96	416791	31.7192	ug/L	99
14) Trichlorotfluoroeth	4.02	101	870226	65.9916	ug/L	96
15) Acetone	4.05	43	1608927	228.7374	ug/L	95
16) Iodomethane	4.16	142	1089727	73.9238	ug/L	98
17) Carbon Dislf	4.25	76	2147796	56.6478	ug/L	97
18) allylchloride	4.47	41	1527212	55.7105	ug/L	96
19) methylacetate	4.52	74	165229	29.7130	ug/L	97
20) Methylchlorid	4.63	84	466020	26.4460	ug/L	96
21) tbutylalcohol	4.83	59	2410321	1253.8203	ug/L	100
22) Acrylonitrile	4.93	53	1057131	139.2210	ug/L	100
23) t12dichlorte	5.00	96	460582	29.3045	ug/L	97
24) MtBE	5.03	73	1268010	27.6745	ug/L	98
25) Hexane	5.39	57	1395934	64.6036	ug/L	98
26) 11dichlorota	5.53	63	848727	27.5879	ug/L	97
27) Vinylacetate	5.62	43	7081999	199.9876	ug/L	89
28) chloroprene	5.66	53	1648115	60.6432	ug/L	96
29) Diisopether	5.67	45	1637401	29.1207	ug/L	96
30) ETBE	6.13	59	1343748	28.0582	ug/L	97
31) 22dichloropr	6.26	77	670636	30.8685	ug/L	99
32) c12dichlorte	6.26	96	517695	29.3879	ug/L	99
33) 2Butanone	6.27	72	676657	285.7979	ug/L	100
34) propionitrile	6.31	54	853969	275.7107	ug/L	98
35) Ethylacetate	6.38	88	115959	145.3563	ug/L	97
36) methacrylonitrile	6.52	67	465457	59.6392	ug/L	93
37) Bromochlorma	6.54	128	240914	29.9967	ug/L	98
38) Tetrahydofur	6.63	42	1674410	238.5457	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL7.D Vial: 10
Acq On : 29 Oct 2021 13:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:55 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	813852	28.0339 ug/L	98
40)	111trichlota	6.90	97	703116	31.2974 ug/L	99
42)	Cyclohexane	6.99	56	889224	33.3362 ug/L	98
43)	Carbtetraclo	7.11	119	600088	33.6880 ug/L	95
44)	11dicloprope	7.10	110	239672	32.5607 ug/L	92
46)	Benzene	7.35	78	1790499	26.4677 ug/L	97
47)	12dichlorota	7.35	62	695032	29.3395 ug/L	100
48)	TAME	7.52	73	1269668	28.8731 ug/L	98
49)	trichloroete	8.15	95	488008	29.6588 ug/L	98
50)	methylcyclohexane	8.42	83	954096	34.0147 ug/L	97
51)	12dicloropra	8.42	63	541540	29.2957 ug/L	92
52)	23Dicl1propene	8.48	75	778751	29.7430 ug/L	98
53)	Dibromometha	8.56	93	293008	28.8652 ug/L	98
54)	methylmethacrylate	8.58	69	401443	29.4385 ug/L	99
55)	14dioxane	8.60	88	335633	1418.9606 ug/L	99
56)	Bromodiclrma	8.76	83	620541	31.2298 ug/L	100
57)	2Nitropropane	9.02	43	1660510	331.4601 ug/L	99
58)	2CLEVE	9.15	63	1108942	152.9406 ug/L	98
59)	c13dicloproe	9.33	75	790372	31.6053 ug/L	99
60)	4Meth2Pentan	9.53	43	4127352	220.7431 ug/L	91
62)	Toluene	9.78	92	1173117	27.6100 ug/L	95
63)	t13Dicloprop	10.05	75	702468	32.4776 ug/L	100
64)	ethylmethacrylate	10.19	69	1399159	57.5562 ug/L	98
65)	112Triclotha	10.28	83	364824	29.5772 ug/L	98
66)	Tetrachlorte	10.51	166	527448	30.8302 ug/L	98
67)	13Diclorpropa	10.50	76	776187	28.3943 ug/L	98
69)	2Hexanone	10.62	43	3193150	244.9095 ug/L	93
70)	Clorodibrmta	10.81	129	456627	32.7293 ug/L	100
71)	12Dibrometha	10.96	107	440214	30.4778 ug/L	99
72)	Chlorobenzen	11.65	112	1278114	28.1449 ug/L	99
73)	1Clhexane	11.63	91	716328	31.6331 ug/L	96
74)	1112Tetclota	11.75	131	457797	32.3521 ug/L	99
75)	Ethylbenzene	11.81	91	2064206	27.2113 ug/L	96
76)	m p-Xylene	11.98	106	1645855	58.2063 ug/L	91
77)	o-Xylene	12.52	106	832421	29.9779 ug/L	94
78)	Styrene	12.53	104	1366409	29.9739 ug/L	96
79)	Bromoform	12.76	173	295165	35.3852 ug/L	98
80)	Isopropylben	13.05	105	2011834	29.0498 ug/L	95
81)	cyclohexanone	13.12	55	514949	497.0298 ug/L	99
84)	Bromobenzene	13.45	156	541176	29.2496 ug/L	99
85)	1122Tetrclta	13.42	83	614064	30.5879 ug/L	97
86)	123Triclproa	13.48	75	794408	31.2746 ug/L	100
87)	14dichloro2butene	13.51	53	191225	33.8323 ug/L	92
88)	n-Propylbenz	13.63	91	2307642	27.8540 ug/L	95
89)	2chlorotolue	13.74	91	1458326	28.4855 ug/L	98
90)	4chlorotolue	13.89	91	1678037	28.0945 ug/L	97
91)	135Trimebenz	13.89	105	1706234	28.7483 ug/L	95
92)	tbutylbenzen	14.35	119	1518774	29.9775 ug/L	95
93)	124Trimetben	14.43	105	1668378	29.0957 ug/L	96
94)	sbutylbenzen	14.68	105	2094776	29.6441 ug/L	95
95)	13Diclorbenz	14.82	146	987404	29.1544 ug/L	99
96)	pIsopropylto	14.89	119	1836536	30.0521 ug/L	95
97)	14dichlorobe	14.94	146	1017706	24.9234 ug/L	98
98)	12dichlorobe	15.48	146	941242	23.1148 ug/L	98
99)	nButylbenzen	15.49	91	1648728	29.9948 ug/L	96
100)	12dibromo3cl	16.57	157	117988	30.9651 ug/L	97
101)	135Trichlorobenzene	16.90	180	718110	31.0188 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL7.D Vial: 10
Acq On : 29 Oct 2021 13:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:55 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	606354	29.9142	ug/L	99
103) Hexachlorobu	17.96	225	265947	32.3351	ug/L	99
104) Naphthalene	18.02	128	1347888	28.1860	ug/L	99
105) 123Trichlben	18.33	180	546756	30.9563	ug/L	98

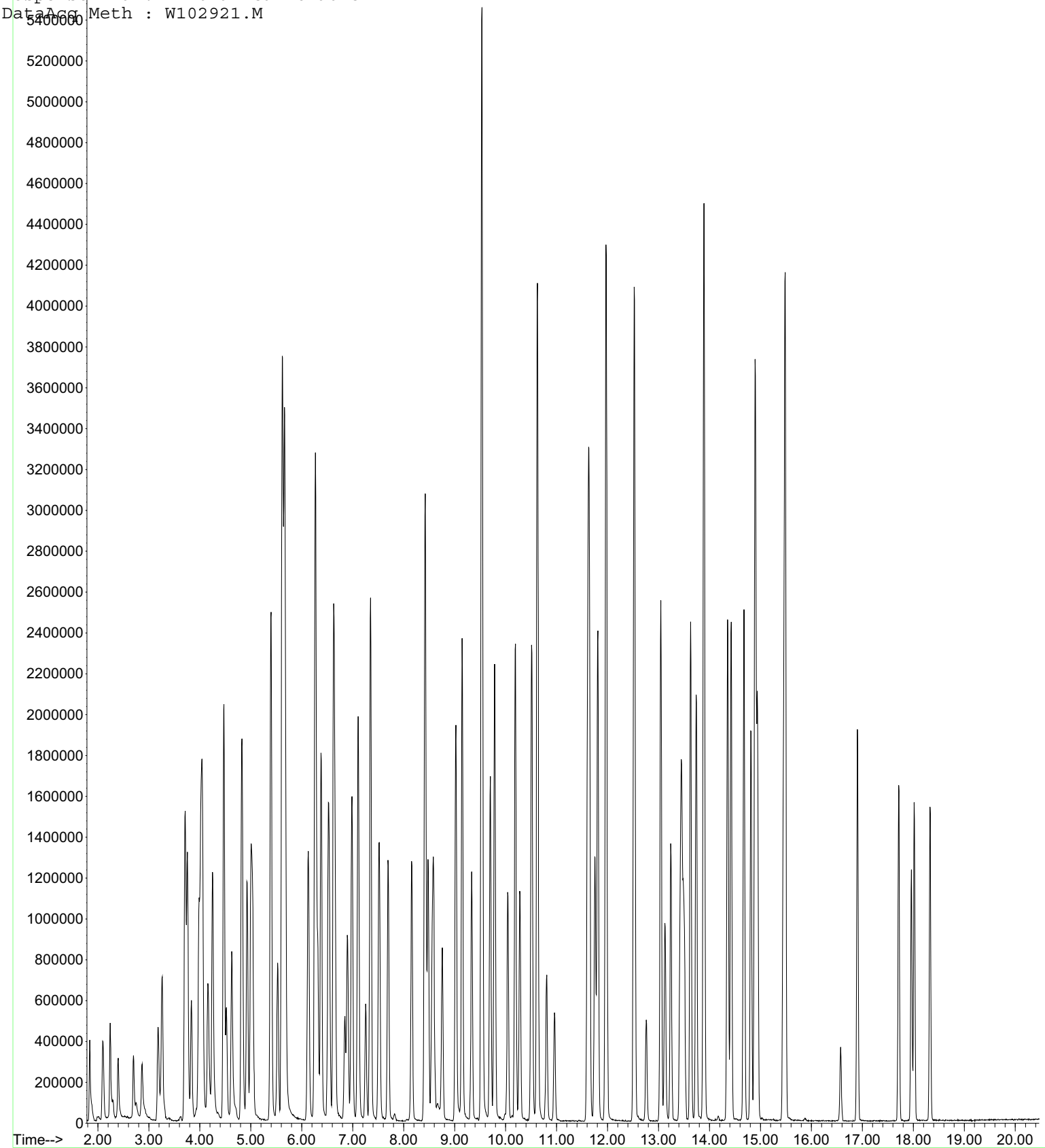
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL7.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL7.D Vial: 10
Acq On : 29 Oct 2021 13:30 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:58:55 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL8.D Vial: 11
Acq On : 29 Oct 2021 13:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:13 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1310107	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1077985	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	611671	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	344813	20.501	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.26	102	91397	20.153	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1347205	19.946	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	586103	20.216	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	595878	41.2680	ug/L	98
3) Chloromethan	2.10	50	735050	34.2378	ug/L	99
4) VinylChlorid	2.24	62	762316	39.2703	ug/L	98
5) Bromomethane	2.70	94	357526	31.7873	ug/L	98
6) Chloroethane	2.87	64	475624	32.7926	ug/L	99
7) Dichloroflmethane	3.18	67	927244	38.4067	ug/L	100
8) Trichlorofma	3.26	101	915207	41.0562	ug/L	99
9) Ethylether	3.71	59	580829	38.6848	ug/L	98
10) dichlorotfluoroethan	3.71	67	942741	39.3834	ug/L	98
11) propyleneoxide	3.76	58	1509902	407.0388	ug/L	99
12) Acrolein	3.84	56	767124	201.4513	ug/L	99
13) 11dichlorthe	3.98	96	566624	41.8478	ug/L	98
14) Trichlorotfluoroeth	4.02	101	1164210	85.1628	ug/L	96
15) Acetone	4.05	43	2330701	335.5790	ug/L	94
16) Iodomethane	4.16	142	1484172	94.8384	ug/L	97
17) Carbon Dislf	4.25	76	2872054	74.7096	ug/L	95
18) allylchloride	4.47	41	2039005	73.5238	ug/L	96
19) methylacetate	4.52	74	240806	42.4360	ug/L	97
20) Methylchlorid	4.63	84	638558	36.0647	ug/L	94
21) tbutylalcohol	4.83	59	3510754	1829.6930	ug/L	99
22) Acrylonitrile	4.93	53	1469563	191.6509	ug/L	99
23) t12dichlorte	5.00	96	625066	39.0398	ug/L	97
24) MtBE	5.03	73	1718112	37.0987	ug/L	97
25) Hexane	5.40	57	1831573	82.0343	ug/L	97
26) 11dichlorota	5.53	63	1155894	37.1877	ug/L	96
27) Vinylacetate	5.62	43	8472967	245.8037	ug/L	84
28) chloroprene	5.66	53	2159709	77.6317	ug/L	94
29) Diisopether	5.68	45	2167451	37.8732	ug/L	94
30) ETBE	6.13	59	1819819	37.5248	ug/L	97
31) 22dichloropr	6.27	77	899060	40.3217	ug/L	98
32) c12dichlorte	6.26	96	692537	38.5762	ug/L	97
33) 2Butanone	6.27	72	979782	408.1069	ug/L	100
34) propionitrile	6.32	54	1222865	391.5652	ug/L	98
35) Ethylacetate	6.38	88	166254	204.9566	ug/L	98
36) methacrylonitrile	6.52	67	673862	84.5615	ug/L	90
37) Bromochlorma	6.55	128	327965	39.9539	ug/L	95
38) Tetrahydofur	6.63	42	2360111	338.8870	ug/L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL8.D Vial: 11
Acq On : 29 Oct 2021 13:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:13 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	1112532	37.8486 ug/L	99
40)	111trichlota	6.90	97	953268	41.2606 ug/L	100
42)	Cyclohexane	6.99	56	1192229	43.0460 ug/L	98
43)	Carbtetraclo	7.11	119	817918	44.1492 ug/L	96
44)	11dicloprope	7.11	110	322250	42.2327 ug/L	93
46)	Benzene	7.35	78	2361346	34.7362 ug/L	95
47)	12dichlorota	7.35	62	929666	38.5174 ug/L	97
48)	TAME	7.52	73	1704893	38.1374 ug/L	96
49)	trichloroete	8.16	95	665639	39.6447 ug/L	99
50)	methylcyclohexane	8.43	83	1287580	44.0695 ug/L	97
51)	12dicloropra	8.42	63	728999	38.7145 ug/L	98
52)	23Dicl1propene	8.48	75	1057796	39.5843 ug/L	97
53)	Dibromometha	8.56	93	406377	39.4172 ug/L	99
54)	methylmethacrylate	8.58	69	576166	41.4678 ug/L	99
55)	14dioxane	8.60	88	507464	2118.1320 ug/L	98
56)	Bromodiclrma	8.76	83	846663	41.4464 ug/L	99
57)	2Nitropropane	9.02	43	2335687	449.4282 ug/L	99
58)	2CLEVE	9.15	63	1602477	215.5276 ug/L	96
59)	c13dicloproe	9.33	75	1059726	41.1460 ug/L	96
60)	4Meth2Pentan	9.54	43	5368111	291.9168 ug/L	85
62)	Toluene	9.78	92	1574696	36.6781 ug/L	92
63)	t13Dicloprop	10.05	75	962854	43.0465 ug/L	99
64)	ethylmethacrylate	10.19	69	1942262	78.7055 ug/L	98
65)	112Triclotha	10.28	83	516762	41.0865 ug/L	98
66)	Tetrachlorte	10.52	166	724172	41.2514 ug/L	99
67)	13Diclorpropa	10.51	76	1068992	38.5556 ug/L	98
69)	2Hexanone	10.62	43	4289561	334.3914 ug/L	88
70)	Clorodibrmta	10.81	129	640970	44.6849 ug/L	100
71)	12Dibrometha	10.97	107	615899	41.9178 ug/L	100
72)	Chlorobenzen	11.65	112	1697012	37.1471 ug/L	98
73)	1Clhexane	11.63	91	958663	41.3892 ug/L	96
74)	1112Tetclota	11.76	131	632284	43.4570 ug/L	98
75)	Ethylbenzene	11.81	91	2709952	35.6714 ug/L	94
76)	m p-Xylene	11.98	106	2165490	75.7791 ug/L	88
77)	o-Xylene	12.52	106	1142549	40.5448 ug/L	89
78)	Styrene	12.53	104	1838373	39.7381 ug/L	94
79)	Bromoform	12.76	173	420759	48.2552 ug/L	98
80)	Isopropylben	13.05	105	2657127	37.9743 ug/L	93
81)	cyclohexanone	13.13	55	928330	908.8247 ug/L	99
84)	Bromobenzene	13.45	156	743267	39.2847 ug/L	99
85)	1122Tetrclta	13.42	83	859648	41.6088 ug/L	97
86)	123Triclproa	13.49	75	1134254	43.2053 ug/L	99
87)	14dichloro2butene	13.51	53	287223	48.4841 ug/L	90
88)	n-Propylbenz	13.63	91	3003913	35.6951 ug/L	91
89)	2chlorotolue	13.74	91	1939164	37.1766 ug/L	95
90)	4chlorotolue	13.89	91	2232771	36.7591 ug/L	94
91)	135Trimebenz	13.89	105	2271237	37.5124 ug/L	93
92)	tbutylbenzen	14.35	119	2071590	39.8469 ug/L	96
93)	124Trimetben	14.43	105	2220345	37.8940 ug/L	93
94)	sbutylbenzen	14.68	105	2776981	38.3577 ug/L	93
95)	13Diclorbenz	14.82	146	1337316	38.6312 ug/L	97
96)	pIsopropylto	14.89	119	2457928	39.1813 ug/L	93
97)	14dichlorobe	14.94	146	1368569	33.4674 ug/L	96
98)	12dichlorobe	15.48	146	1289482	31.9025 ug/L	99
99)	nButylbenzen	15.49	91	2196339	38.9358 ug/L	93
100)	12dibromo3cl	16.57	157	179130	45.5641 ug/L	96
101)	135Trichlorobenzene	16.90	180	986421	41.3178 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL8.D Vial: 11
Acq On : 29 Oct 2021 13:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:13 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	825389	39.6945	ug/L	96
103) Hexachlorobu	17.96	225	383149	44.8938	ug/L	97
104) Naphthalene	18.02	128	1946423	40.0062	ug/L	97
105) 123Trichlben	18.33	180	770007	42.2882	ug/L	97

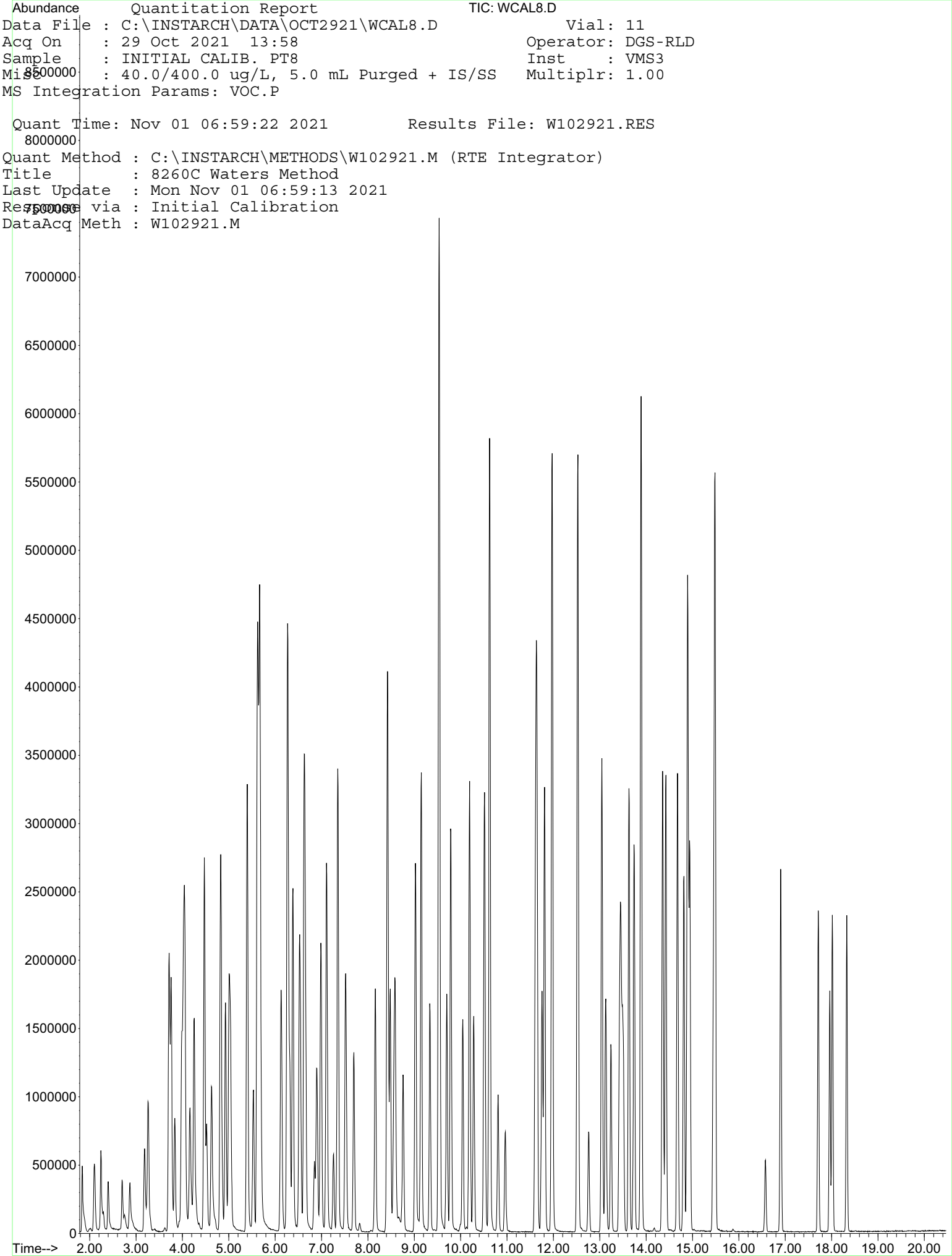
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: WCAL8.D

Data File : C:\INSTARCH\DATA\OCT2921\WCAL8.D Vial: 11
Acq On : 29 Oct 2021 13:58 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:13 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL9.D Vial: 12
Acq On : 29 Oct 2021 14:27 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:41 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:32 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1383312	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1142273	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	641738	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	359426	20.176	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.25	102	95734	19.973	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1418788	19.901	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.24	95	597890	19.630	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	1179063	77.0304	ug/L	96
3) Chloromethan	2.10	50	1397265	62.7691	ug/L	99
4) VinylChlorid	2.24	62	1447621	70.7884	ug/L	95
5) Bromomethane	2.70	94	563207	48.8574	ug/L	98
6) Chloroethane	2.86	64	897225	60.1348	ug/L	99
7) Dichloroflmethane	3.18	67	1772025	69.8614	ug/L	97
8) Trichlorofma	3.26	101	1774404	75.1393	ug/L	99
9) Ethylether	3.70	59	1123675	71.1719	ug/L	98
10) dichlorotfluoroethan	3.71	67	1808267	71.6816	ug/L	96
11) propyleneoxide	3.76	58	2720855	692.9289	ug/L	99
12) Acrolein	3.83	56	1413231	351.1189	ug/L	99
13) 11dichlorthe	3.98	96	1125367	78.2632	ug/L	95
14) Trichlorotfluoroeth	4.02	101	2274695	156.3288	ug/L	93
15) Acetone	4.05	43	3867230	538.1794	ug/L	89
16) Iodomethane	4.16	142	2870988	169.2623	ug/L	94
17) Carbon Dislf	4.25	76	5234920	130.0425	ug/L	91
18) allylchloride	4.47	41	3621068	124.9252	ug/L	92
19) methylacetate	4.52	74	478098	79.1059	ug/L	97
20) Methylchlorid	4.63	84	1241193	67.2174	ug/L	94
21) tbutylalcohol	4.83	59	5486804	2737.3567	ug/L	94
22) Acrylonitrile	4.93	53	2639132	327.9201	ug/L	98
23) t12dichlorte	5.00	96	1227175	72.8082	ug/L	95
24) MtBE	5.03	73	3186474	65.7597	ug/L	93
25) Hexane	5.39	57	3450596	145.9062	ug/L #	91
26) 11dichlorota	5.53	63	2182133	67.0784	ug/L	94
27) Vinylacetate	5.62	43	11740047	338.8890	ug/L	70
28) chloroprene	5.65	53	3919303	133.9211	ug/L	89
29) Diisopether	5.67	45	3964775	66.0517	ug/L	90
30) ETBE	6.13	59	3328166	65.5020	ug/L	91
31) 22dichloropr	6.26	77	1795392	76.1832	ug/L	98
32) c12dichlorte	6.26	96	1361516	72.1477	ug/L	97
33) 2Butanone	6.27	72	1800141	708.0795	ug/L	97
34) propionitrile	6.32	54	2205449	670.8408	ug/L	96
35) Ethylacetate	6.38	88	331141	385.2605	ug/L	92
36) methacrylonitrile	6.52	67	1251174	147.4969	ug/L	90
37) Bromochlorma	6.55	128	647133	74.6748	ug/L	93
38) Tetrahydofur	6.62	42	3935433	545.6019	ug/L	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL9.D Vial: 12
Acq On : 29 Oct 2021 14:27 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:41 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:32 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.65	83	2104338	68.2605	ug/L		97
40)	111trichlota	6.90	97	1860575	75.9708	ug/L		97
42)	Cyclohexane	6.99	56	2335132	79.0964	ug/L		97
43)	Carbtetraclo	7.11	119	1666919	84.1238	ug/L		93
44)	11dicloprope	7.11	110	663113	81.6546	ug/L	#	88
46)	Benzene	7.35	78	4141588	58.6651	ug/L		90
47)	12dichlorota	7.35	62	1776605	70.0365	ug/L		96
48)	TAME	7.52	73	3172149	67.5973	ug/L		93
49)	trichloroete	8.15	95	1306845	73.7972	ug/L		98
50)	methylcyclohexane	8.42	83	2511162	80.3780	ug/L		96
51)	12dicloropra	8.42	63	1431761	72.3023	ug/L		96
52)	23Dicl1propene	8.48	75	2063563	73.2437	ug/L		95
53)	Dibromometha	8.56	93	812473	74.7923	ug/L		98
54)	methylmethacrylate	8.58	69	1107601	75.1039	ug/L		98
55)	14dioxane	8.59	88	928120	3638.2232	ug/L		98
56)	Bromodiclrma	8.76	83	1642856	75.8236	ug/L		98
57)	2Nitropropane	9.02	43	4089719	733.9539	ug/L		97
58)	2CLEVE	9.15	63	2936628	369.9613	ug/L		91
59)	c13dicloproe	9.33	75	2043374	74.8715	ug/L		93
60)	4Meth2Pentan	9.54	43	7614692	405.8811	ug/L		71
62)	Toluene	9.79	92	2883468	64.2752	ug/L		87
63)	t13Dicloprop	10.05	75	1854982	77.8016	ug/L		96
64)	ethylmethacrylate	10.19	69	3384530	130.1929	ug/L		94
65)	112Triclotha	10.28	83	995149	74.6451	ug/L		99
66)	Tetrachlorte	10.52	166	1460610	78.4916	ug/L		98
67)	13Diclorpropa	10.50	76	2006706	68.8569	ug/L		95
69)	2Hexanone	10.62	43	6294816	474.2043	ug/L		79
70)	Clorodibrmta	10.81	129	1287647	83.4931	ug/L		99
71)	12Dibrometha	10.96	107	1189129	75.9217	ug/L		100
72)	Chlorobenzen	11.65	112	3085759	64.3183	ug/L		94
73)	1Clhexane	11.63	91	1881985	76.3482	ug/L		96
74)	1112Tetclota	11.76	131	1277204	81.8317	ug/L		99
75)	Ethylbenzene	11.81	91	4594170	57.8526	ug/L		86
76)	m p-Xylene	11.98	106	3935596	130.8339	ug/L	#	74
77)	o-Xylene	12.52	106	2183310	72.9927	ug/L	#	80
78)	Styrene	12.53	104	3322690	67.8362	ug/L		89
79)	Bromoform	12.76	173	870171	91.4827	ug/L		99
80)	Isopropylben	13.05	105	4554592	61.8198	ug/L		85
81)	cyclohexanone	13.13	55	1495932	1355.7316	ug/L		95
84)	Bromobenzene	13.45	156	1452159	73.3203	ug/L		98
85)	1122Tetrclta	13.42	83	1609104	73.8636	ug/L		96
86)	123Triclproa	13.49	75	2202179	79.0489	ug/L		99
87)	14dichloro2butene	13.51	53	589081	91.9923	ug/L		87
88)	n-Propylbenz	13.63	91	4982170	57.1982	ug/L		81
89)	2chlorotolue	13.75	91	3464316	63.8677	ug/L		89
90)	4chlorotolue	13.90	91	3919419	62.1332	ug/L		88
91)	135Trimebenz	13.89	105	4024372	63.8498	ug/L		88
92)	tbutylbenzen	14.36	119	3707197	67.9994	ug/L		92
93)	124Trimetben	14.43	105	3921627	64.2161	ug/L		88
94)	sbutylbenzen	14.68	105	4694203	62.1206	ug/L		85
95)	13Diclorbenz	14.82	146	2504456	69.2531	ug/L		94
96)	pIsopropylto	14.89	119	4262899	64.9363	ug/L		87
97)	14dichlorobe	14.94	146	2559427	60.8998	ug/L		94
98)	12dichlorobe	15.48	146	2391631	57.8622	ug/L		97
99)	nButylbenzen	15.49	91	3867564	65.5683	ug/L		87
100)	12dibromo3cl	16.57	157	353830	84.1131	ug/L		96
101)	135Trichlorobenzene	16.90	180	1888453	75.0855	ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\OCT2921\WCAL9.D Vial: 12
Acq On : 29 Oct 2021 14:27 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:41 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:32 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

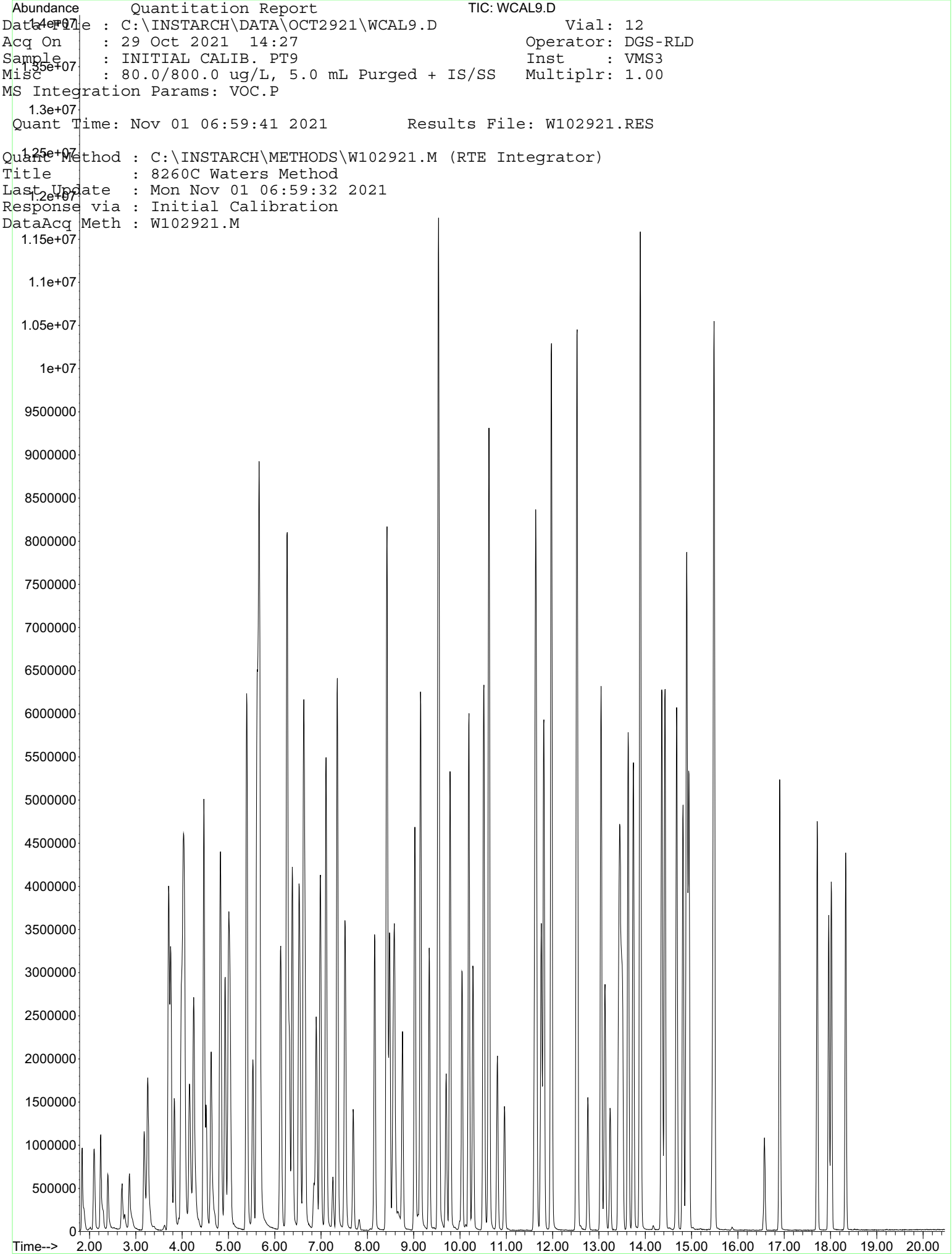
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	1615419	74.1193	ug/L	96
103) Hexachlorobu	17.96	225	776448	85.4083	ug/L	99
104) Naphthalene	18.02	128	3311417	64.8717	ug/L	94
105) 123Trichlben	18.33	180	1472299	76.5221	ug/L	97

(#) = qualifier out of range (m) = manual integration

Data File : C:\INSTARCH\DATA\OCT2921\WCAL9.D Vial: 12
Acq On : 29 Oct 2021 14:27 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 06:59:41 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 06:59:32 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 01 07:09:22 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	110	0.00
2	PT	Dichlorodi	0.2204	0.2304	-4.54	106	0.00
3	PT	Chloromethan	0.3141	0.2933	6.62	109	0.00
4	PT	VinylChlorid	0.2919	0.2865	1.85	102	0.00
5	PT	Bromomethane	0.1499	0.1480	1.27	108	0.00
6	PT	Chloroethane	0.1864	0.1853	0.59	105	0.00
7	T	Dichloroflmethane	0.3616	0.3447	4.67	104	0.00
8	PT	Trichlorofma	0.3391	0.3429	-1.12	103	0.00
9	T	Ethylether	0.2255	0.2132	5.45	104	0.00
10	T	dichlorotfluoroethan	0.3605	0.3537	1.89	103	0.00
11	T	propyleneoxide	0.0558	0.0507	9.14	102	0.00
12	T	Acrolein	0.0573	0.0522	8.90	103	0.00
13	PT	11dichlorthe	0.2074	0.2037	1.78	101	0.00
14	PT	Trichlorotfluoroeth	0.2098	0.2157	-2.81	100	0.00
15	PT	Acetone	0.0973	0.0865#	11.10	98	0.00
16	T	Iodomethane	0.2434	0.2275	6.53	96	0.00
17	PT	Carbon Dislf	0.5699	0.5748	-0.86	105	0.00
18	T	allylchloride	0.4089	0.4013	1.86	104	0.00
19	PT	methylacetate	0.0873	0.0767#	12.14	98	0.00
20	PT	Methylchlorid	0.2622	0.2369	9.65	110	0.00
21	T	tbutylalcohol	0.0280	0.0256#	8.57	103	0.00
22	T	Acrylonitrile	0.1137	0.1052	7.48	102	0.00
23	PT	t12dichlorte	0.2413	0.2358	2.28	111	0.00
24	PT	MtBE	0.6867	0.6576	4.24	108	0.00
25	T	Hexane	0.3386	0.3431	-1.33	98	0.00
26	PT	11dichlorota	0.4619	0.4296	6.99	104	0.00
27	T	Vinylacetate	0.5009	0.4499	10.18	99	0.00
28	T	chloroprene	0.4155	0.4206	-1.23	104	0.00
29	T	Diisopether	0.8510	0.8455	0.65	109	0.00
30	T	ETBE	0.7198	0.7075	1.71	110	0.00
31	T	22dichloropr	0.3389	0.3005	11.33	100	0.00
32	PT	c12dichlorte	0.2699	0.2538	5.97	103	0.00
33	PT	2Butanone	0.0362	0.0335#	7.46	102	0.00
34	T	propionitrile	0.0466	0.0421	9.66	101	0.00
35	T	Ethylacetate	0.0124	0.0113#	8.87	105	0.00
36	T	methacrylonitrile	0.1214	0.1120	7.74	107	0.00
37	T	Bromochlorma	0.1244	0.1143	8.12	105	0.00
38	T	Tetrahydofur	0.1039	0.0877	15.59	101	0.00
39	PT	Chloroform	0.4384	0.4184	4.56	108	0.00
40	PT	111trichlota	0.3521	0.3450	2.02	105	0.00
41	S	SURRDibrflma	0.2578	0.2584	-0.23	110	0.00
42	PT	Cyclohexane	0.4263	0.4430	-3.92	103	0.00
43	PT	Carbtetraclo	0.2881	0.2831	1.74	106	0.00
44	T	11dicloprope	0.1177	0.1168	0.76	109	0.00
45	S	SURR12DCAd4	0.0693	0.0697	-0.58	109	0.00
46	PT	Benzene	0.9905	0.9486	4.23	105	0.00
47	PT	12dichlorota	0.3617	0.3403	5.92	106	0.00
48	T	TAME	0.6668	0.6381	4.30	108	0.00

49	PT	trichloroete	0.2538	0.2421	4.61	104	0.00
50	PT	methylcyclohexane	0.4519	0.4622	-2.28	100	0.00
51	PT	12dicloropra	0.2832	0.2694	4.87	107	0.00
52	T	23Dicl1propene	0.4030	0.3833	4.89	107	0.00
53	T	Dibromometha	0.1558	0.1454	6.68	107	0.00
54	T	methylmethacrylate	0.2116	0.1890	10.68	106	0.00
55	T	14dioxane	0.0036	0.0033#	8.33	102	0.00
56	PT	Bromodiclrma	0.3114	0.3029	2.73	111	0.00
57	T	2Nitropropane	0.0798	0.0768	3.76	103	0.00
58	T	2CLEVE	0.1137	0.1099	3.34	108	0.00
59	PT	c13dicloproe	0.3918	0.3815	2.63	107	0.00
60	PT	4Meth2Pentan	0.2680	0.2464	8.06	103	0.00
61	S	SURRd8Tolule	1.0302	1.0129	1.68	107	0.00
62	PT	Toluene	0.6344	0.6157	2.95	108	0.00
63	PT	t13Dicloprop	0.3437	0.3418	0.55	112	0.00
64	T	ethylmethacrylate	0.3671	0.3545	3.43	106	0.00
65	PT	112Triclotha	0.1911	0.1774	7.17	104	0.00
66	PT	Tetrachlorte	0.2685	0.2633	1.94	107	0.00
67	T	13Diclorpropa	0.4148	0.3865	6.82	105	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	105	0.00
69	PT	2Hexanone	0.2324	0.2254	3.01	102	0.00
70	PT	Clorodibrmta	0.2713	0.2612	3.72	108	0.00
71	PT	12Dibrometha	0.2727	0.2747	-0.73	112	0.00
72	PT	Chlorobenzen	0.8217	0.8158	0.72	107	0.00
73	T	1Clhexane	0.4294	0.4421	-2.96	105	0.00
74	T	1112Tetclota	0.2741	0.2653	3.21	108	0.00
75	PT	Ethylbenzene	1.3476	1.3935	-3.41	107	0.00
76	PT	m p-Xylene	0.5160	0.5365	-3.97	107	0.00
77	PT	o-Xylene	0.5186	0.5288	-1.97	108	0.00
78	PT	Styrene	0.8431	0.8420	0.13	104	0.00
79	PT	Bromoform	0.1695	0.1637	3.42	114	0.00
80	PT	Isopropylben	1.2574	1.3501	-7.37	107	0.00
81	T	cyclohexanone	0.0190	0.0166#	12.63	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	105	0.00
83	S	SURR4BrFBenz	0.9473	0.9446	0.29	105	0.00
84	T	Bromobenzene	0.6115	0.6214	-1.62	109	0.00
85	PT	1122Tetrclta	0.6731	0.6628	1.53	105	0.00
86	T	123Triclproa	0.8669	0.8525	1.66	107	0.00
87	T	14dichloro2butene	0.2033	0.1913	5.90	103	0.00
88	T	n-Propylbenz	2.6286	2.8605	-8.82	107	0.00
89	T	2chlorotolue	1.6526	1.7327	-4.85	111	0.00
90	T	4chlorotolue	1.9172	1.9519	-1.81	106	0.00
91	T	135Trimebenz	1.9203	2.0212	-5.25	108	0.00
92	T	tbutylbenzen	1.6708	1.7955	-7.46	106	0.00
93	T	124Trimetben	1.8615	1.9722	-5.95	108	0.00
94	T	sbutylbenzen	2.2966	2.5160	-9.55	107	0.00
95	PT	13Diclorbenz	1.1102	1.1497	-3.56	110	0.00
96	T	pIsopropylto	2.0031	2.2037	-10.01	109	0.00
97	PT	14dichlorobe	1.2645	1.1818	6.54	108	0.00
98	PT	12dichlorobe	1.2486	1.1102	11.08	108	0.00
99	T	nButylbenzen	1.8014	1.9353	-7.43	106	0.00
100	PT	12dibromo3cl	0.1319	0.1146	13.12	97	0.00
101	T	135Trichlorobenzene	0.7785	0.8010	-2.89	107	0.00
102	PT	124Trichlobe	0.6737	0.6909	-2.55	110	0.00
103	T	Hexachlorobu	0.2855	0.3040	-6.48	113	0.00
104	T	Naphthalene	1.5574	1.5860	-1.84	110	0.00
105	T	123Trichlben	0.5967	0.6286	-5.35	110	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W102921.M Tue Nov 02 07:51:22 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 01 07:09:22 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	110	0.00
2	PT	Dichlorodi	10.0000	10.4545	-4.54	106	0.00
3	PT	Chloromethan	10.0000	9.3374	6.63	109	0.00
4	PT	VinylChlorid	10.0000	9.8172	1.83	102	0.00
5	PT	Bromomethane	10.0000	9.2619	7.38	108	0.00
6	PT	Chloroethane	10.0000	9.9424	0.58	105	0.00
7	T	Dichloroflmethane	10.0000	9.5345	4.66	104	0.00
8	PT	Trichlorofma	10.0000	10.1107	-1.11	103	0.00
9	T	Ethylether	10.0000	9.4563	5.44	104	0.00
10	T	dichlorotfluoroethan	10.0000	9.8105	1.90	103	0.00
11	T	propyleneoxide	100.0000	90.7606	9.24	102	0.00
12	T	Acrolein	50.0000	45.5600	8.88	103	0.00
13	PT	11dichlorthe	10.0000	9.8198	1.80	101	0.00
14	PT	Trichlorotfluoroeth	20.0000	20.5586	-2.79	100	0.00
15	PT	Acetone	100.0000	88.9448	11.06	98	0.00
16	T	Iodomethane	20.0000	16.6343	16.83	96	0.00
17	PT	Carbon Dislf	20.0000	20.1713	-0.86	105	0.00
18	T	allylchloride	20.0000	19.6279	1.86	104	0.00
19	PT	methylacetate	10.0000	8.7916	12.08	98	0.00
20	PT	Methylchlorid	10.0000	9.0335	9.66	110	0.00
21	T	tbutylalcohol	500.0000	458.2603	8.35	103	0.00
22	T	Acrylonitrile	50.0000	46.2664	7.47	102	0.00
23	PT	t12dichlorte	10.0000	9.7742	2.26	111	0.00
24	PT	MtBE	10.0000	9.5761	4.24	108	0.00
25	T	Hexane	20.0000	20.2648	-1.32	98	0.00
26	PT	11dichlorota	10.0000	9.3010	6.99	104	0.00
27	T	Vinylacetate	100.0000	89.6665	10.33	99	0.00
28	T	chloroprene	20.0000	20.2479	-1.24	104	0.00
29	T	Diisopether	10.0000	9.9355	0.65	109	0.00
30	T	ETBE	10.0000	9.8292	1.71	110	0.00
31	T	22dichloropr	10.0000	8.8672	11.33	100	0.00
32	PT	c12dichlorte	10.0000	9.4064	5.94	103	0.00
33	PT	2Butanone	100.0000	92.4591	7.54	102	0.00
34	T	propionitrile	100.0000	90.3764	9.62	101	0.00
35	T	Ethylacetate	50.0000	45.8727	8.25	105	0.00
36	T	methacrylonitrile	20.0000	18.4393	7.80	107	0.00
37	T	Bromochlorma	10.0000	9.1876	8.12	105	0.00
38	T	Tetrahydofur	100.0000	84.4026	15.60	101	0.00
39	PT	Chloroform	10.0000	9.5417	4.58	108	0.00
40	PT	111trichlota	10.0000	9.7974	2.03	105	0.00
41	S	SURRDibrflma	20.0000	20.0455	-0.23	110	0.00
42	PT	Cyclohexane	10.0000	10.3925	-3.93	103	0.00
43	PT	Carbtetraclo	10.0000	9.8251	1.75	106	0.00
44	T	11dicloprope	10.0000	9.9260	0.74	109	0.00
45	S	SURR12DCAd4	20.0000	20.1286	-0.64	109	0.00
46	PT	Benzene	10.0000	9.5772	4.23	105	0.00
47	PT	12dichlorota	10.0000	9.4081	5.92	106	0.00
48	T	TAME	10.0000	9.5696	4.30	108	0.00

49	PT	trichloroete	10.0000	9.5399	4.60	104	0.00
50	PT	methylcyclohexane	10.0000	10.2281	-2.28	100	0.00
51	PT	12dicloropra	10.0000	9.5127	4.87	107	0.00
52	T	23Dicl1propene	10.0000	9.5091	4.91	107	0.00
53	T	Dibromometha	10.0000	9.3337	6.66	107	0.00
54	T	methylmethacrylate	10.0000	8.9319	10.68	106	0.00
55	T	14dioxane	500.0000	445.6912	10.86	102	0.00
56	PT	Bromodiclrma	10.0000	9.7248	2.75	111	0.00
57	T	2Nitropropane	100.0000	96.2161	3.78	103	0.00
58	T	2CLEVE	50.0000	48.3480	3.30	108	0.00
59	PT	c13dicloproe	10.0000	9.7366	2.63	107	0.00
60	PT	4Meth2Pentan	100.0000	91.3516	8.65	103	0.00
61	S	SURRd8Tolule	20.0000	19.6651	1.67	107	0.00
62	PT	Toluene	10.0000	9.7044	2.96	108	0.00
63	PT	t13Dicloprop	10.0000	9.9454	0.55	112	0.00
64	T	ethylmethacrylate	20.0000	19.3147	3.43	106	0.00
65	PT	112Triclotha	10.0000	9.2813	7.19	104	0.00
66	PT	Tetrachlorte	10.0000	9.8088	1.91	107	0.00
67	T	13Diclorpropa	10.0000	9.3164	6.84	105	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	105	0.00
69	PT	2Hexanone	100.0000	96.9857	3.01	102	0.00
70	PT	Clorodibrmta	10.0000	9.6258	3.74	108	0.00
71	PT	12Dibrometha	10.0000	10.0737	-0.74	112	0.00
72	PT	Chlorobenzen	10.0000	9.9283	0.72	107	0.00
73	T	1Clhexane	10.0000	10.2959	-2.96	105	0.00
74	T	1112Tetclota	10.0000	9.6808	3.19	108	0.00
75	PT	Ethylbenzene	10.0000	10.3403	-3.40	107	0.00
76	PT	m p-Xylene	20.0000	20.7955	-3.98	107	0.00
77	PT	o-Xylene	10.0000	10.1956	-1.96	108	0.00
78	PT	Styrene	10.0000	9.9865	0.14	104	0.00
79	PT	Bromoform	10.0000	9.6573	3.43	114	0.00
80	PT	Isopropylben	10.0000	10.7376	-7.38	107	0.00
81	T	cyclohexanone	200.0000	175.0278	12.49	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	105	0.00
83	S	SURR4BrFBenz	20.0000	19.9432	0.28	105	0.00
84	T	Bromobenzene	10.0000	10.1608	-1.61	109	0.00
85	PT	1122Tetrclta	10.0000	9.8464	1.54	105	0.00
86	T	123Triclproa	10.0000	9.8340	1.66	107	0.00
87	T	14dichloro2butene	10.0000	9.4092	5.91	103	0.00
88	T	n-Propylbenz	10.0000	10.8822	-8.82	107	0.00
89	T	2chlorotolue	10.0000	10.4846	-4.85	111	0.00
90	T	4chlorotolue	10.0000	10.1811	-1.81	106	0.00
91	T	135Trimebenz	10.0000	10.5257	-5.26	108	0.00
92	T	tbutylbenzen	10.0000	10.7467	-7.47	106	0.00
93	T	124Trimetben	10.0000	10.5946	-5.95	108	0.00
94	T	sbutylbenzen	10.0000	10.9555	-9.56	107	0.00
95	PT	13Diclorbenz	10.0000	10.3559	-3.56	110	0.00
96	T	pIsopropylto	10.0000	11.0015	-10.02	109	0.00
97	PT	14dichlorobe	10.0000	9.8098	1.90	108	0.00
98	PT	12dichlorobe	10.0000	9.7816	2.18	108	0.00
99	T	nButylbenzen	10.0000	10.7430	-7.43	106	0.00
100	PT	12dibromo3cl	10.0000	8.6852	13.15	97	0.00
101	T	135Trichlorobenzene	10.0000	10.2896	-2.90	107	0.00
102	PT	124Trichlobe	10.0000	10.2559	-2.56	110	0.00
103	T	Hexachlorobu	10.0000	10.6508	-6.51	113	0.00
104	T	Naphthalene	10.0000	10.1833	-1.83	110	0.00
105	T	123Trichlben	10.0000	10.5349	-5.35	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 07:51:50 2021

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:09:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:08:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1334845	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1074527	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	592857	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	344925	20.045	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	93085	20.129	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1352112	19.665	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.24	95	560005	19.943	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	153778	10.4545	ug/L	98
3) Chloromethan	2.10	50	195771	9.3374	ug/L	99
4) VinylChlorid	2.24	62	191248	9.8172	ug/L	97
5) Bromomethane	2.70	94	98772	9.2619	ug/L	95
6) Chloroethane	2.86	64	123703	9.9424	ug/L	97
7) Dichloroflmethane	3.18	67	230082	9.5345	ug/L #	94
8) Trichlorofma	3.26	101	228841	10.1107	ug/L #	94
9) Ethylether	3.70	59	142300	9.4563	ug/L	96
10) dichlorotfluoroethan	3.71	67	236054	9.8105	ug/L	99
11) propyleneoxide	3.76	58	338141	90.7606	ug/L	98
12) Acrolein	3.84	56	174248	45.5600	ug/L	97
13) 11dichlorthe	3.98	96	135926	9.8198	ug/L	99
14) Trichlorotfluoroeth	4.02	101	287925	20.5586	ug/L	97
15) Acetone	4.05	43	577352	88.9448	ug/L	98
16) Iodomethane	4.16	142	303672	16.6343	ug/L	99
17) Carbon Dislf	4.25	76	767253	20.1713	ug/L	99
18) allylchloride	4.47	41	535626	19.6279	ug/L	99
19) methylacetate	4.52	74	51201	8.7916	ug/L #	38
20) Methylchlorid	4.63	84	158104	9.0335	ug/L	96
21) tbutylalcohol	4.83	59	855274	458.2603	ug/L	98
22) Acrylonitrile	4.92	53	351217	46.2664	ug/L	97
23) t12dichlorte	5.00	96	157383	9.7742	ug/L	96
24) MtBE	5.03	73	438907	9.5761	ug/L	99
25) Hexane	5.39	57	457932	20.2648	ug/L	99
26) 11dichlorota	5.53	63	286730	9.3010	ug/L	99
27) Vinylacetate	5.62	43	3002763	89.6665	ug/L	99
28) chloroprene	5.65	53	561452	20.2479	ug/L	99
29) Diisopether	5.67	45	564339	9.9355	ug/L	100
30) ETBE	6.12	59	472222	9.8292	ug/L	99
31) 22dichloropr	6.27	77	200580	8.8672	ug/L	99
32) c12dichlorte	6.26	96	169422	9.4064	ug/L	97
33) 2Butanone	6.27	72	223564	92.4591	ug/L	100
34) propionitrile	6.31	54	280924	90.3764	ug/L	99
35) Ethylacetate	6.38	88	37872	45.8727	ug/L	97
36) methacrylonitrile	6.52	67	149461	18.4393	ug/L	94
37) Bromochlorma	6.54	128	76262	9.1876	ug/L	98
38) Tetrahydofur	6.63	42	585391	84.4026	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:09:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:08:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.65	83	279218	9.5417	ug/L		98
40)	111trichlota	6.90	97	230242	9.7974	ug/L		99
42)	Cyclohexane	6.99	56	295691	10.3925	ug/L		99
43)	Carbtetraclo	7.11	119	188940	9.8251	ug/L		96
44)	11dicloprope	7.11	110	77985	9.9260	ug/L		91
46)	Benzene	7.35	78	633100	9.5772	ug/L		99
47)	12dichlorota	7.35	62	227104	9.4081	ug/L	#	93
48)	TAME	7.52	73	425876	9.5696	ug/L		98
49)	trichloroete	8.15	95	161614	9.5399	ug/L		97
50)	methylcyclohexane	8.42	83	308512	10.2281	ug/L		99
51)	12dicloropra	8.42	63	179831	9.5127	ug/L	#	94
52)	23Dicl1propene	8.48	75	255794	9.5091	ug/L		99
53)	Dibromometha	8.56	93	97044	9.3337	ug/L		99
54)	methylmethacrylate	8.58	69	126136	8.9319	ug/L		98
55)	14dioxane	8.59	88	108473	445.6912	ug/L		98
56)	Bromodiclrma	8.76	83	202143	9.7248	ug/L	#	95
57)	2Nitropropane	9.02	43	512603	96.2161	ug/L		98
58)	2CLEVE	9.15	63	366848	48.3480	ug/L		99
59)	c13dicloproe	9.33	75	254592	9.7366	ug/L		99
60)	4Meth2Pentan	9.54	43	1644478	91.3516	ug/L		99
62)	Toluene	9.78	92	410923	9.7044	ug/L		98
63)	t13Dicloprop	10.04	75	228116	9.9454	ug/L		96
64)	ethylmethacrylate	10.19	69	473236	19.3147	ug/L		98
65)	112Triclotha	10.28	83	118401	9.2813	ug/L		97
66)	Tetrachlorte	10.52	166	175763	9.8088	ug/L		99
67)	13Diclorpropa	10.50	76	257940	9.3164	ug/L		98
69)	2Hexanone	10.62	43	1211080	96.9857	ug/L		99
70)	Clorodibrmta	10.80	129	140324	9.6258	ug/L		98
71)	12Dibrometha	10.96	107	147582	10.0737	ug/L		97
72)	Chlorobenzen	11.65	112	438316	9.9283	ug/L		99
73)	1Clhexane	11.63	91	237531	10.2959	ug/L		99
74)	1112Tetclota	11.75	131	142541	9.6808	ug/L		96
75)	Ethylbenzene	11.80	91	748683	10.3403	ug/L		98
76)	m p-Xylene	11.98	106	576529	20.7955	ug/L		99
77)	o-Xylene	12.52	106	284084	10.1956	ug/L		99
78)	Styrene	12.53	104	452366	9.9865	ug/L		97
79)	Bromoform	12.77	173	87961	9.6573	ug/L		97
80)	Isopropylben	13.05	105	725385	10.7376	ug/L		98
81)	cyclohexanone	13.13	55	178207	175.0278	ug/L	#	93
84)	Bromobenzene	13.45	156	184188	10.1608	ug/L		99
85)	1122Tetrclta	13.42	83	196474	9.8464	ug/L		98
86)	123Triclproa	13.49	75	252716	9.8340	ug/L		100
87)	14dichloro2butene	13.51	53	56706	9.4092	ug/L	#	70
88)	n-Propylbenz	13.63	91	847944	10.8822	ug/L		99
89)	2chlorotolue	13.74	91	513614	10.4846	ug/L		99
90)	4chlorotolue	13.90	91	578594	10.1811	ug/L		99
91)	135Trimebenz	13.89	105	599142	10.5257	ug/L		99
92)	tbutylbenzen	14.36	119	532240	10.7467	ug/L		98
93)	124Trimetben	14.43	105	584620	10.5946	ug/L		99
94)	sbutylbenzen	14.68	105	745813	10.9555	ug/L		98
95)	13Diclorbenz	14.82	146	340818	10.3559	ug/L		99
96)	pIsopropylto	14.90	119	653249	11.0015	ug/L	#	99
97)	14dichlorobe	14.94	146	350319	9.8098	ug/L		97
98)	12dichlorobe	15.48	146	329091	9.7816	ug/L		100
99)	nButylbenzen	15.49	91	573675	10.7430	ug/L		99
100)	12dibromo3cl	16.58	157	33969	8.6852	ug/L		93
101)	135Trichlorobenzene	16.90	180	237447	10.2896	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:09:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:08:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	204813	10.2559	ug/L	98
103) Hexachlorobu	17.97	225	90123	10.6508	ug/L	96
104) Naphthalene	18.02	128	470129	10.1833	ug/L	99
105) 123Trichlben	18.33	180	186349	10.5349	ug/L	98

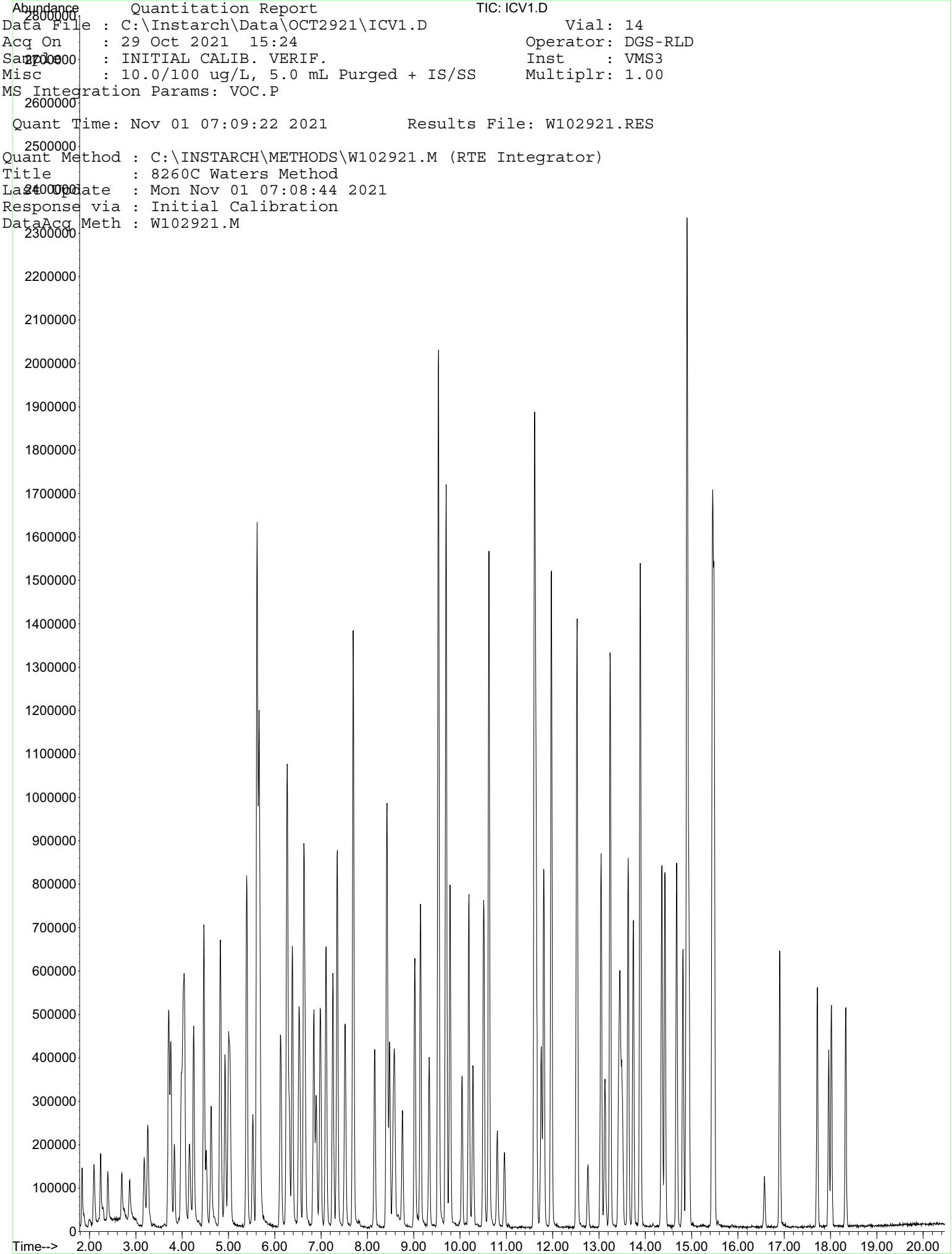
(#) = qualifier out of range (m) = manual integration

Quantitation Report TIC: ICV1.D

Data File : C:\Instarch\Data\OCT2921\ICV1.D Vial: 14
Acq On : 29 Oct 2021 15:24 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:09:22 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:08:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\OCT2921\ICV2.D Vial: 15
Acq On : 29 Oct 2021 15:53 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 01 07:10:56 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	107	0.00
2	PT	Dichlorodi	30.0000	30.7211	-2.40	104	0.00
3	PT	Chloromethan	30.0000	25.7997	14.00	101	0.00
4	PT	VinylChlorid	30.0000	29.6374	1.21	106	0.00
5	PT	Bromomethane	30.0000	27.3946	8.68	101	0.00
6	PT	Chloroethane	30.0000	27.6203	7.93	101	0.00
7	T	Dichloroflmethane	30.0000	28.0213	6.60	103	0.00
8	PT	Trichlorofma	30.0000	30.1103	-0.37	102	0.00
9	T	Ethylether	30.0000	28.8579	3.81	105	0.00
10	T	dichlorotfluoroethan	30.0000	28.9953	3.35	102	0.00
11	T	propyleneoxide	300.0000	298.3504	0.55	109	0.00
12	T	Acrolein	150.0000	149.3466	0.44	110	0.00
13	PT	11dichlorthe	30.0000	29.9439	0.19	102	0.00
14	PT	Trichlorotfluoroeth	60.0000	61.6792	-2.80	102	0.00
15	PT	Acetone	300.0000	273.9454	8.68	114	0.00
16	T	Iodomethane	60.0000	57.4982	4.17	103	0.00
17	PT	Carbon Dislf	60.0000	57.8974	3.50	106	0.00
18	T	allylchloride	60.0000	55.5890	7.35	102	0.00
19	PT	methylacetate	30.0000	29.5621	1.46	107	0.00
20	PT	Methylchlorid	30.0000	26.6736	11.09	103	0.00
21	T	tbutylalcohol	1500.0000	1427.4388	4.84	114	0.00
22	T	Acrylonitrile	150.0000	144.5237	3.65	107	0.00
23	PT	t12dichlorte	30.0000	29.0143	3.29	104	0.00
24	PT	MtBE	30.0000	28.4506	5.16	106	0.00
25	T	Hexane	60.0000	59.3018	1.16	99	0.00
26	PT	11dichlorota	30.0000	27.8368	7.21	104	0.00
27	T	Vinylacetate	300.0000	268.4011	10.53	103	0.00
28	T	chloroprene	60.0000	58.7751	2.04	102	0.00
29	T	Diisopether	30.0000	28.7188	4.27	103	0.00
30	T	ETBE	30.0000	28.4590	5.14	105	0.00
31	T	22dichloropr	30.0000	28.2377	5.87	98	0.00
32	PT	c12dichlorte	30.0000	28.5175	4.94	102	0.00
33	PT	2Butanone	300.0000	301.4164	-0.47	111	0.00
34	T	propionitrile	300.0000	295.5070	1.50	111	0.00
35	T	Ethylacetate	150.0000	156.6882	-4.46	115	0.00
36	T	methacrylonitrile	60.0000	60.7898	-1.32	109	0.00
37	T	Bromochlorma	30.0000	29.1037	2.99	103	0.00
38	T	Tetrahydofur	300.0000	258.7235	13.76	110	0.00
39	PT	Chloroform	30.0000	27.9932	6.69	104	0.00
40	PT	111trichlota	30.0000	30.2108	-0.70	104	0.00
41	S	SURRDibrflma	20.0000	20.5119	-2.56	109	0.00
42	PT	Cyclohexane	30.0000	31.7190	-5.73	104	0.00
43	PT	Carbtetraclo	30.0000	31.2184	-4.06	103	0.00
44	T	11dicloprope	30.0000	30.4777	-1.59	103	0.00
45	S	SURR12DCAd4	20.0000	21.0645	-5.32	111	0.00
46	PT	Benzene	30.0000	26.8458	10.51	102	0.00
47	PT	12dichlorota	30.0000	28.5989	4.67	102	0.00
48	T	TAME	30.0000	28.5952	4.68	103	0.00

49	PT	trichloroete	30.0000	28.8163	3.95	103	0.00
50	PT	methylcyclohexane	30.0000	31.5647	-5.22	103	0.00
51	PT	12dicloropra	30.0000	28.4412	5.20	102	0.00
52	T	23Dicl1propene	30.0000	29.3538	2.15	104	0.00
53	T	Dibromometha	30.0000	28.7193	4.27	105	0.00
54	T	methylmethacrylate	30.0000	29.9596	0.13	108	0.00
55	T	14dioxane	1500.0000	1505.4398	-0.36	112	0.00
56	PT	Bromodiclrma	30.0000	29.9041	0.32	103	0.00
57	T	2Nitropropane	300.0000	328.4275	-9.48	108	0.00
58	T	2CLEVE	150.0000	157.3744	-4.92	111	0.00
59	PT	c13dicloproe	30.0000	30.0872	-0.29	102	0.00
60	PT	4Meth2Pentan	300.0000	286.8552	4.38	108	0.00
61	S	SURRd8Tolule	20.0000	19.7670	1.17	105	0.00
62	PT	Toluene	30.0000	27.9582	6.81	104	0.00
63	PT	t13Dicloprop	30.0000	30.2419	-0.81	102	0.00
64	T	ethylmethacrylate	60.0000	59.3125	1.15	107	0.00
65	PT	112Triclotha	30.0000	29.6718	1.09	107	0.00
66	PT	Tetrachlorte	30.0000	29.9957	0.01	105	0.00
67	T	13Diclorpropa	30.0000	28.0104	6.63	103	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	104	0.00
69	PT	2Hexanone	300.0000	270.5405	9.82	109	0.00
70	PT	Clorodibrmta	30.0000	31.7656	-5.89	104	0.00
71	PT	12Dibrometha	30.0000	30.8535	-2.85	106	0.00
72	PT	Chlorobenzen	30.0000	28.5729	4.76	102	0.00
73	T	1Clhexane	30.0000	31.2012	-4.00	104	0.00
74	T	1112Tetclota	30.0000	31.0959	-3.65	103	0.00
75	PT	Ethylbenzene	30.0000	28.3352	5.55	102	0.00
76	PT	m p-Xylene	60.0000	59.7295	0.45	104	0.00
77	PT	o-Xylene	30.0000	30.0947	-0.32	104	0.00
78	PT	Styrene	30.0000	30.0872	-0.29	103	0.00
79	PT	Bromoform	30.0000	33.2509	-10.84	106	0.00
80	PT	Isopropylben	30.0000	29.8009	0.66	103	0.00
81	T	cyclohexanone	600.0000	637.8248	-6.30	130	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00
83	S	SURR4BrFBenz	20.0000	20.1175	-0.59	103	0.00
84	T	Bromobenzene	30.0000	29.9749	0.08	103	0.00
85	PT	1122Tetrclta	30.0000	31.6576	-5.53	105	0.00
86	T	123Triclproa	30.0000	32.7643	-9.21	108	0.00
87	T	14dichloro2butene	30.0000	34.0621	-13.54	110	0.00
88	T	n-Propylbenz	30.0000	29.8564	0.48	103	0.00
89	T	2chlorotolue	30.0000	29.6797	1.07	102	0.00
90	T	4chlorotolue	30.0000	29.4560	1.81	102	0.00
91	T	135Trimebenz	30.0000	30.1009	-0.34	103	0.00
92	T	tbutylbenzen	30.0000	31.3903	-4.63	105	0.00
93	T	124Trimetben	30.0000	30.1626	-0.54	102	0.00
94	T	sbutylbenzen	30.0000	30.9148	-3.05	103	0.00
95	PT	13Diclorbenz	30.0000	29.9392	0.20	102	0.00
96	T	pIsopropylto	30.0000	31.1513	-3.84	103	0.00
97	PT	14dichlorobe	30.0000	30.2171	-0.72	102	0.00
98	PT	12dichlorobe	30.0000	30.2746	-0.92	104	0.00
99	T	nButylbenzen	30.0000	30.8144	-2.71	102	0.00
100	PT	12dibromo3cl	30.0000	32.4679	-8.23	110	0.00
101	T	135Trichlorobenzene	30.0000	31.4222	-4.74	103	0.00
102	PT	124Trichlobe	30.0000	30.9558	-3.19	104	0.00
103	T	Hexachlorobu	30.0000	33.3343	-11.11	108	0.00
104	T	Naphthalene	30.0000	30.9694	-3.23	108	0.00
105	T	123Trichlben	30.0000	31.9336	-6.45	106	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 07:53:42 2021

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV2.D Vial: 15
Acq On : 29 Oct 2021 15:53 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:10:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1373746	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1106835	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	606074	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	363237	20.512	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.26	102	100252	21.065	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105	%		
61) SURRd8Tolule	9.70	98	1398727	19.767	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99	%		
83) SURR4BrFBenz	13.24	95	577493	20.117	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	465054	30.7211	ug/L	99
3) Chloromethan	2.10	50	556690	25.7997	ug/L	99
4) VinylChlorid	2.24	62	594192	29.6374	ug/L	98
5) Bromomethane	2.70	94	272116	27.3946	ug/L	94
6) Chloroethane	2.87	64	353666	27.6203	ug/L	98
7) Dichloroflmethane	3.18	67	695902	28.0213	ug/L	99
8) Trichlorofma	3.26	101	701366	30.1103	ug/L	99
9) Ethylether	3.71	59	446916	28.8579	ug/L	97
10) dichlorotfluoroethan	3.72	67	717996	28.9953	ug/L	98
11) propyleneoxide	3.76	58	1143938	298.3504	ug/L	98
12) Acrolein	3.84	56	587835	149.3466	ug/L	99
13) 11dichlorthe	3.99	96	426562	29.9439	ug/L	99
14) Trichlorotfluoroeth	4.02	101	888998	61.6792	ug/L	96
15) Acetone	4.05	43	1830037	273.9454	ug/L	95
16) Iodomethane	4.16	142	1124008	57.4982	ug/L	98
17) Carbon Dislf	4.26	76	2266416	57.8974	ug/L	96
18) allylchloride	4.47	41	1561178	55.5890	ug/L	96
19) methylacetate	4.52	74	177183	29.5621	ug/L	95
20) Methylchlorid	4.63	84	480447	26.6736	ug/L	95
21) tbutylalcohol	4.83	59	2741739	1427.4388	ug/L	100
22) Acrylonitrile	4.93	53	1129078	144.5237	ug/L	100
23) t12dichlorte	5.01	96	480801	29.0143	ug/L	97
24) MtBE	5.03	73	1342001	28.4506	ug/L	98
25) Hexane	5.40	57	1379122	59.3018	ug/L	97
26) 11dichlorota	5.53	63	883160	27.8368	ug/L	97
27) Vinylacetate	5.62	43	7265453	268.4011	ug/L	89
28) chloroprene	5.66	53	1677266	58.7751	ug/L	95
29) Diisopether	5.68	45	1678768	28.7188	ug/L	96
30) ETBE	6.13	59	1407092	28.4590	ug/L	97
31) 22dichloropr	6.27	77	657367	28.2377	ug/L	98
32) c12dichlorte	6.26	96	528611	28.5175	ug/L	98
33) 2Butanone	6.28	72	750058	301.4164	ug/L	99
34) propionitrile	6.32	54	945317	295.5070	ug/L	98
35) Ethylacetate	6.38	88	133130	156.6882	ug/L	93
36) methacrylonitrile	6.52	67	507094	60.7898	ug/L	91
37) Bromochlorma	6.55	128	248616	29.1037	ug/L	94
38) Tetrahydofur	6.63	42	1846723	258.7235	ug/L	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV2.D Vial: 15
Acq On : 29 Oct 2021 15:53 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:10:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	843036	27.9932	ug/L		100
40)	111trichlota	6.90	97	730654	30.2108	ug/L		98
42)	Cyclohexane	6.99	56	928784	31.7190	ug/L		98
43)	Carbtetraclo	7.12	119	617836	31.2184	ug/L		96
44)	11dicloprope	7.11	110	246432	30.4777	ug/L		92
46)	Benzene	7.36	78	1826360	26.8458	ug/L		97
47)	12dichlorota	7.35	62	710477	28.5989	ug/L		98
48)	TAME	7.52	73	1309658	28.5952	ug/L		97
49)	trichloroete	8.16	95	502401	28.8163	ug/L		98
50)	methylcyclohexane	8.43	83	979837	31.5647	ug/L		98
51)	12dicloropra	8.42	63	553330	28.4412	ug/L	#	92
52)	23Dicl1propene	8.48	75	812623	29.3538	ug/L		98
53)	Dibromometha	8.56	93	307301	28.7193	ug/L		97
54)	methylmethacrylate	8.59	69	435420	29.9596	ug/L		98
55)	14dioxane	8.60	88	377074	1505.4398	ug/L		98
56)	Bromodiclrma	8.76	83	639715	29.9041	ug/L		100
57)	2Nitropropane	9.02	43	1800729	328.4275	ug/L		99
58)	2CLEVE	9.15	63	1228901	157.3744	ug/L		98
59)	c13dicloproe	9.34	75	809645	30.0872	ug/L		97
60)	4Meth2Pentan	9.54	43	4452913	286.8552	ug/L		89
62)	Toluene	9.79	92	1218363	27.9582	ug/L		94
63)	t13Dicloprop	10.05	75	713868	30.2419	ug/L		99
64)	ethylmethacrylate	10.19	69	1495584	59.3125	ug/L		98
65)	112Triclotha	10.28	83	389554	29.6718	ug/L		99
66)	Tetrachlorte	10.52	166	553154	29.9957	ug/L		99
67)	13Diclorpropa	10.51	76	798119	28.0104	ug/L		98
69)	2Hexanone	10.62	43	3479869	270.5405	ug/L		91
70)	Clorodibrmta	10.81	129	476999	31.7656	ug/L		99
71)	12Dibrometha	10.97	107	465600	30.8535	ug/L		99
72)	Chlorobenzen	11.65	112	1299367	28.5729	ug/L		98
73)	1Clhexane	11.63	91	741470	31.2012	ug/L		98
74)	1112Tetclota	11.76	131	471624	31.0959	ug/L		98
75)	Ethylbenzene	11.81	91	2113268	28.3352	ug/L		96
76)	m p-Xylene	11.98	106	1705710	59.7295	ug/L		89
77)	o-Xylene	12.52	106	863758	30.0947	ug/L		93
78)	Styrene	12.53	104	1403857	30.0872	ug/L		95
79)	Bromoform	12.76	173	311964	33.2509	ug/L		98
80)	Isopropylben	13.05	105	2073753	29.8009	ug/L		96
81)	cyclohexanone	13.13	55	668936	637.8248	ug/L		100
84)	Bromobenzene	13.45	156	555478	29.9749	ug/L		98
85)	1122Tetrclta	13.42	83	645776	31.6576	ug/L		98
86)	123Triclproa	13.49	75	860755	32.7643	ug/L		99
87)	14dichloro2butene	13.51	53	209858	34.0621	ug/L		88
88)	n-Propylbenz	13.63	91	2378289	29.8564	ug/L		94
89)	2chlorotolue	13.75	91	1486355	29.6797	ug/L		97
90)	4chlorotolue	13.89	91	1711300	29.4560	ug/L		96
91)	135Trimebenz	13.89	105	1751592	30.1009	ug/L		95
92)	tbutylbenzen	14.35	119	1589297	31.3903	ug/L		97
93)	124Trimetben	14.42	105	1701500	30.1626	ug/L		95
94)	sbutylbenzen	14.68	105	2151491	30.9148	ug/L		94
95)	13Diclorbenz	14.82	146	1007282	29.9392	ug/L		97
96)	pIsopropylto	14.89	119	1890946	31.1513	ug/L		95
97)	14dichlorobe	14.94	146	1042847	30.2171	ug/L		97
98)	12dichlorobe	15.48	146	975828	30.2746	ug/L		98
99)	nButylbenzen	15.49	91	1682175	30.8144	ug/L		95
100)	12dibromo3cl	16.57	157	129818	32.4679	ug/L		100
101)	135Trichlorobenzene	16.90	180	741277	31.4222	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICV2.D Vial: 15
Acq On : 29 Oct 2021 15:53 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:10:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	631978	30.9558	ug/L	99
103) Hexachlorobu	17.96	225	288351	33.3343	ug/L	98
104) Naphthalene	18.02	128	1461629	30.9694	ug/L	98
105) 123Trichlben	18.33	180	577461	31.9336	ug/L	98

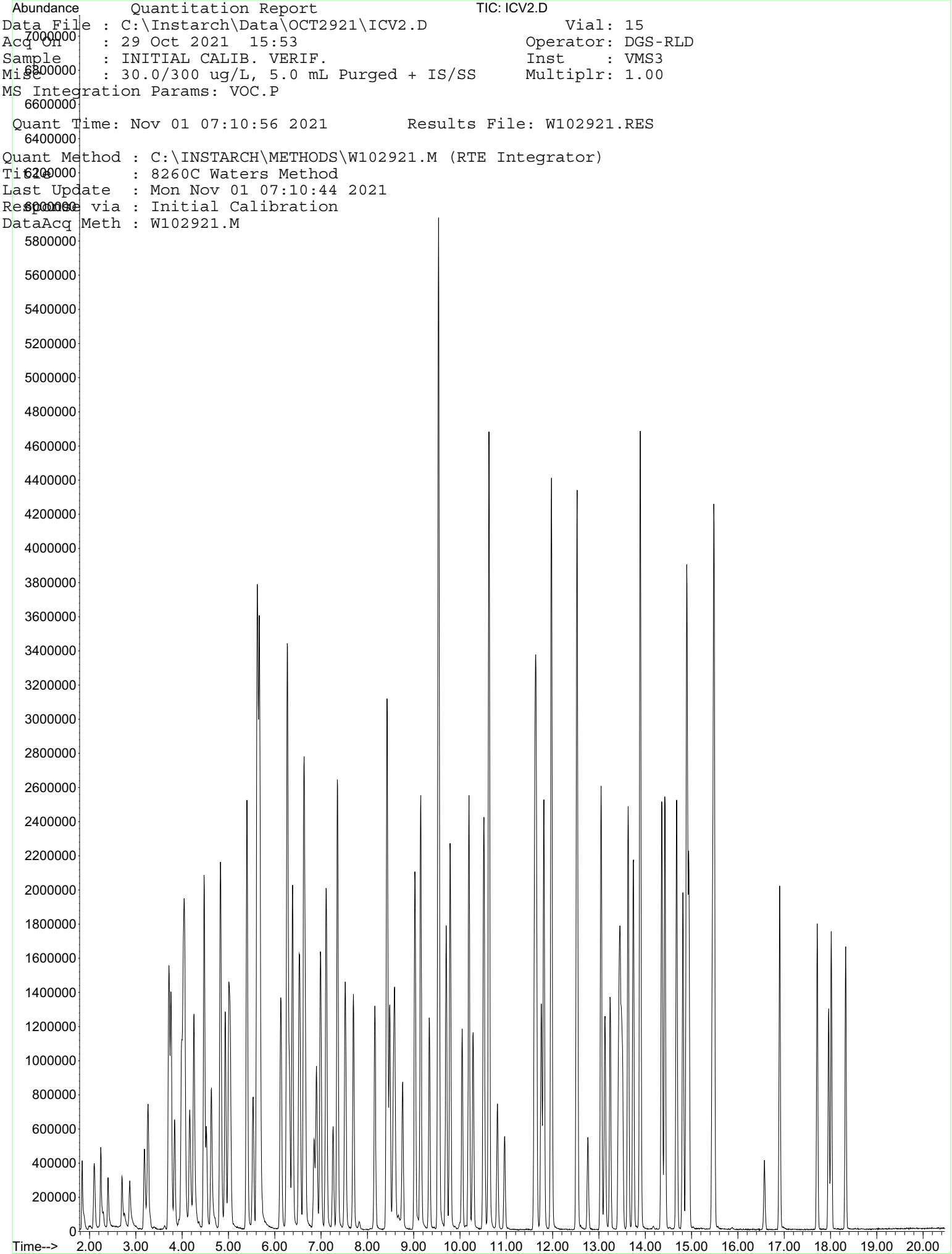
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: ICV2.D

Data File : C:\Instarch\Data\OCT2921\ICV2.D Vial: 15
Acq On : 29 Oct 2021 15:53 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 01 07:10:56 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICB1.D Vial: 18
Acq On : 29 Oct 2021 17:19 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:34:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1286483	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	998281	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	525100	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	324794	19.585	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	90954	20.407	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.70	98	1269325	19.155	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.24	95	507606	20.410	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			
Target Compounds						Qvalue
2) Dichlorodi	0.00	85	0	N.D.		
3) Chloromethan	2.10	50	3169	N.D.		
4) VinylChlorid	0.00	62	0	N.D.		
5) Bromomethane	0.00	94	0	N.D.		
6) Chloroethane	2.83	64	4072	N.D.		
7) Dichloroflmethane	0.00	67	0	N.D.		
8) Trichlorofma	0.00	101	0	N.D.		
9) Ethylether	0.00	59	0	N.D.		
10) dichlorotfluoroethan	0.00	67	0	N.D.		
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) 11dichlorthe	0.00	96	0	N.D.		
14) Trichlorotfluoroeth	0.00	101	0	N.D.		
15) Acetone	4.06	43	12999	N.D.		
16) Iodomethane	0.00	142	0	N.D.		
17) Carbon Dislf	4.25	76	4625	N.D.		
18) allylchloride	0.00	41	0	N.D.		
19) methylacetate	0.00	74	0	N.D.		
20) Methylchlorid	4.63	84	10174	0.6032	ug/L	97
21) tbutylalcohol	4.83	59	8789	N.D.		
22) Acrylonitrile	0.00	53	0	N.D.		
23) t12dichlorte	0.00	96	0	N.D.		
24) MtBE	0.00	73	0	N.D.		
25) Hexane	0.00	57	0	N.D.		
26) 11dichlorota	0.00	63	0	N.D.		
27) Vinylacetate	0.00	43	0	N.D.		
28) chloroprene	0.00	53	0	N.D.		
29) Diisopether	0.00	45	0	N.D.		
30) ETBE	0.00	59	0	N.D.		
31) 22dichloropr	0.00	77	0	N.D.		
32) c12dichlorte	0.00	96	0	N.D.		
33) 2Butanone	0.00	72	0	N.D.		
34) propionitrile	0.00	54	0	N.D.		
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	0.00	67	0	N.D.		
37) Bromochlorma	0.00	128	0	N.D.		
38) Tetrahydofur	6.64	42	9697	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICB1.D Vial: 18
Acq On : 29 Oct 2021 17:19 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:34:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	9.02	43	3949	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	9.54	43	10331	Below	Cal	95
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	10.62	43	13789	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	4249	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	11.80	91	5240	N.D.		
76)	m p-Xylene	11.97	106	3202	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	13.05	105	6798	N.D.		
81)	cyclohexanone	13.13	55	5686	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	13.64	91	8548	N.D.		
89)	2chlorotolue	13.75	91	2949	N.D.		
90)	4chlorotolue	13.89	91	4079	N.D.		
91)	135Trimebenz	13.89	105	5041	N.D.		
92)	tbutylbenzen	14.35	119	6542	N.D.		
93)	124Trimetben	14.42	105	4980	N.D.		
94)	sbutylbenzen	14.68	105	9961	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	14.89	119	8989	N.D.		
97)	14dichlorobe	14.94	146	2987	Below	Cal #	1
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.49	91	11947	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\OCT2921\ICB1.D Vial: 18
Acq On : 29 Oct 2021 17:19 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:34:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
102) 124Trichlobe	17.71	180	2980	N.D.			
103) Hexachlorobu	0.00	225	0	N.D.			
104) Naphthalene	18.02	128	12319	0.3013	ug/L	#	72
105) 123Trichlben	18.34	180	3883	0.2478	ug/L	#	75

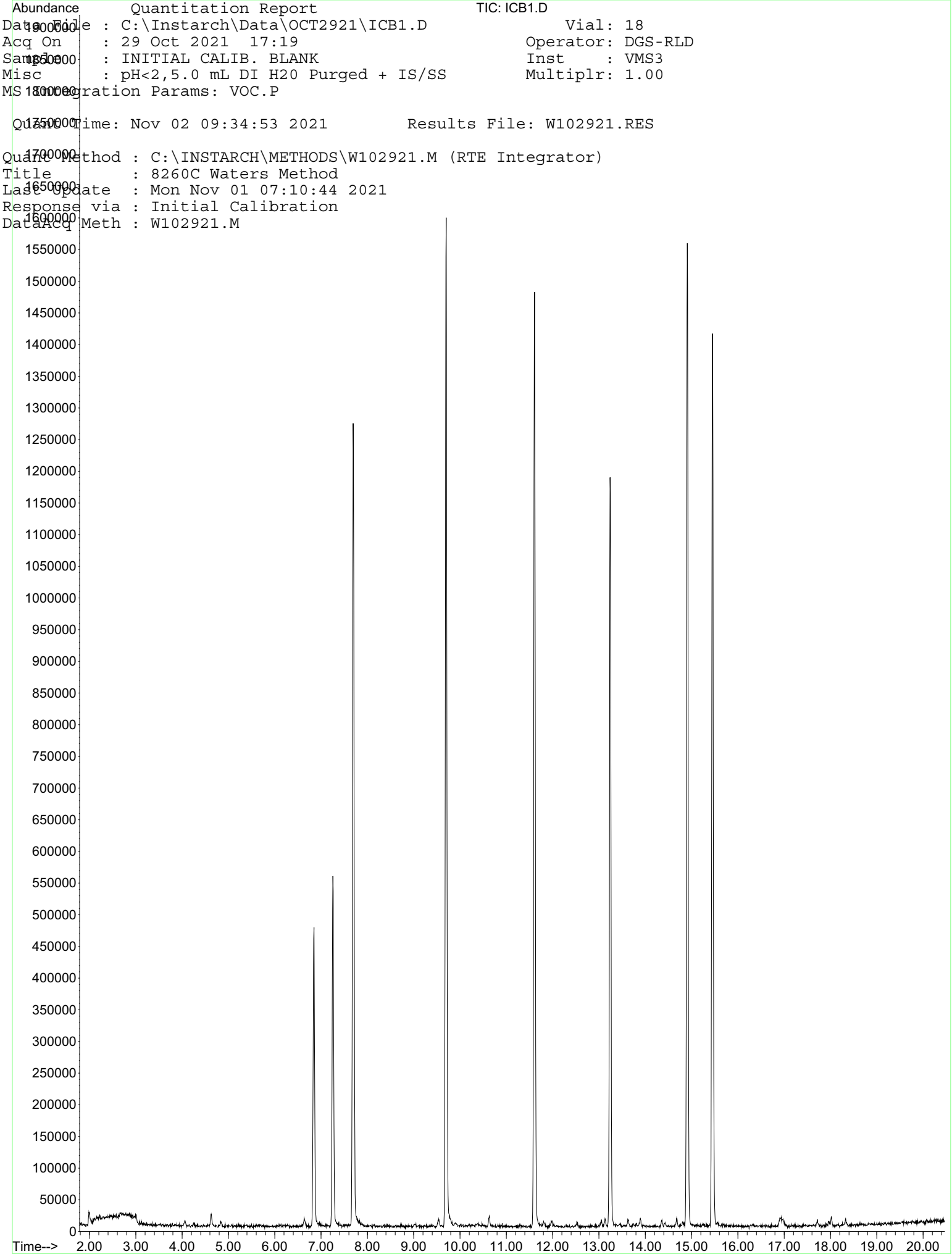
(#) = qualifier out of range (m) = manual integration

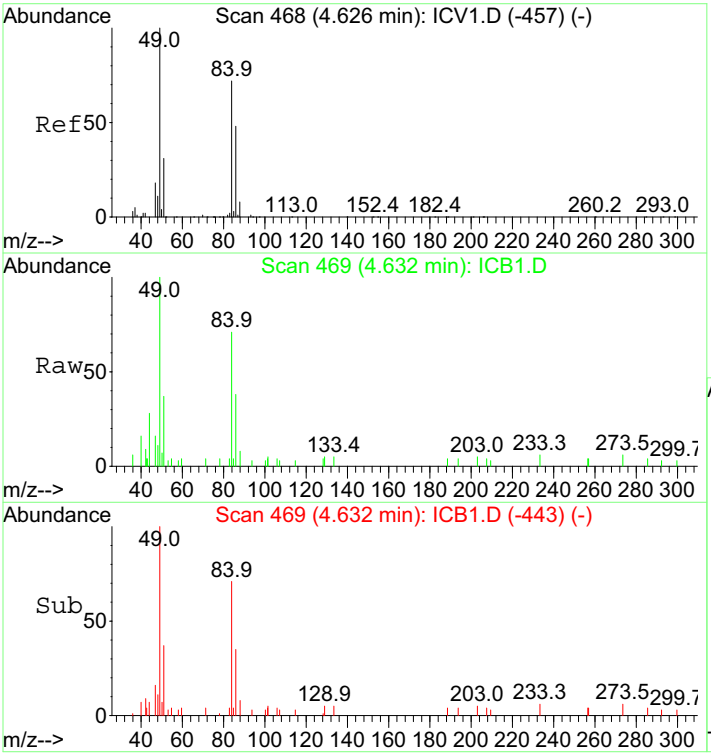
Abundance Quantitation Report TIC: ICB1.D

Data File : C:\Instarch\Data\OCT2921\ICB1.D Vial: 18
Acq On : 29 Oct 2021 17:19 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:34:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

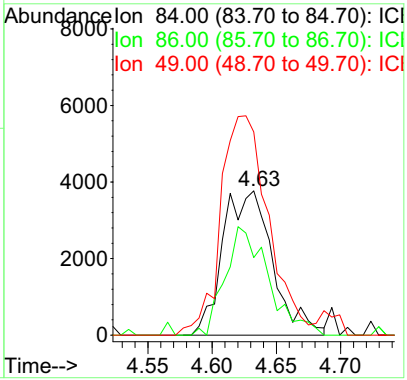


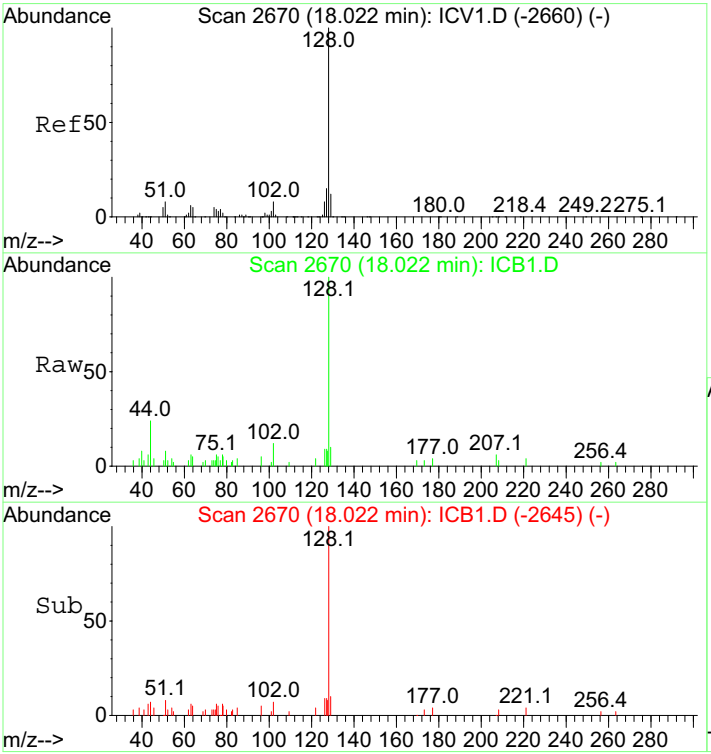


#20
Methylchlorid
Concen: 0.60 ug/L
RT: 4.63 min Scan# 469
Delta R.T. 0.01 min
Lab File: ICB1.D
Acq: 29 Oct 2021 17:19

Tgt Ion: 84 Resp: 10174

Ion	Ratio	Lower	Upper
84	100		
86	65.5	48.7	88.7
49	146.3	122.4	162.4

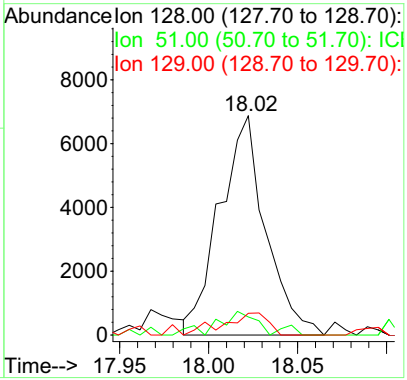


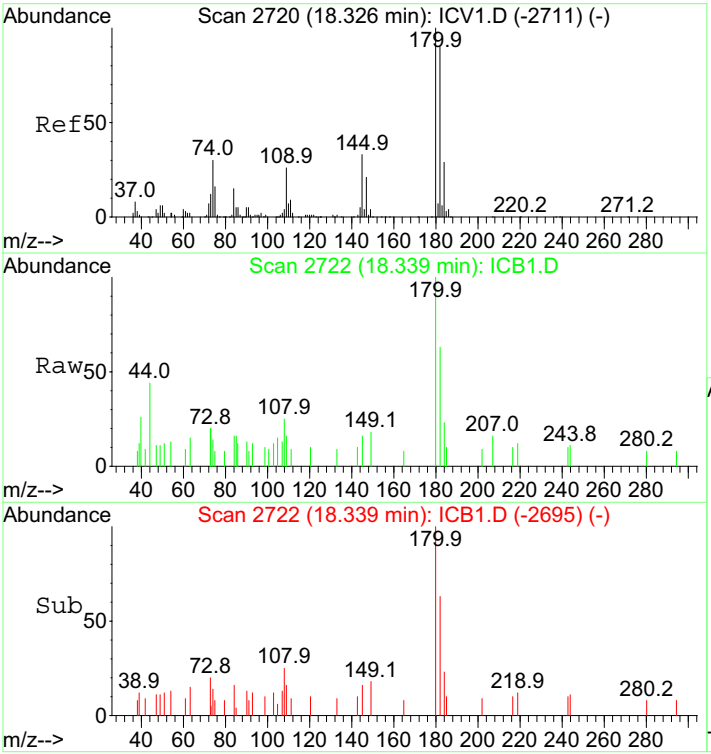


#104
Naphthalene
Concen: 0.30 ug/L
RT: 18.02 min Scan# 2670
Delta R.T. 0.00 min
Lab File: ICB1.D
Acq: 29 Oct 2021 17:19

Tgt Ion:128 Resp: 12319

Ion	Ratio	Lower	Upper
128	100		
51	0.0	0.0	28.6
129	0.0	0.0	31.7

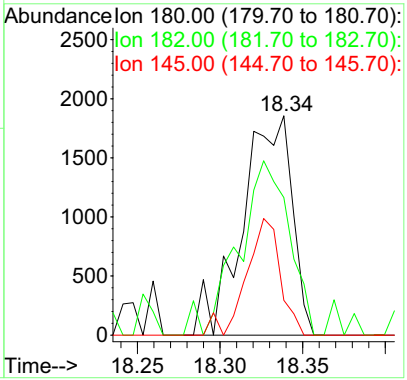




#105
123Trichlben
Concen: 0.25 ug/L
RT: 18.34 min Scan# 2722
Delta R.T. 0.01 min
Lab File: ICB1.D
Acq: 29 Oct 2021 17:19

Tgt Ion:180 Resp: 3883

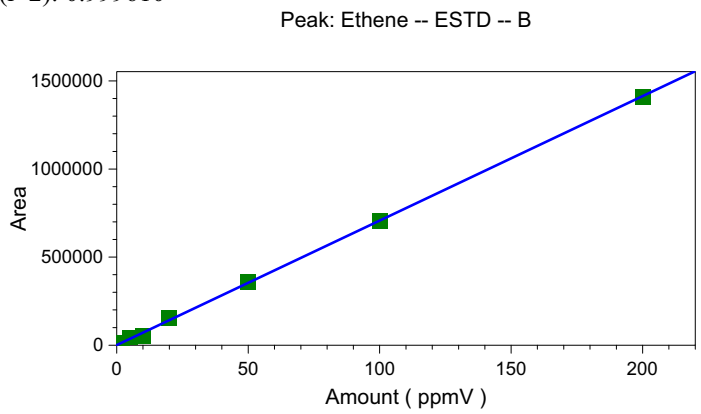
Ion	Ratio	Lower	Upper
180	100		
182	81.5	76.0	116.0
145	0.0	10.3	50.3#



Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:01
User: KMT
Instrument: PVOC4

Ethene (B)
Average RF: 6995.06 RF StDev: 840.320 RF %RSD: 12.0131
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7067.11x + 680.644
Goodness of fit (r^2): 0.999610



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14156	37706	52014	156179	359851
RF	7078	7541.2	5201.4	7808.95	7197.02
Last Area					
Residual	0.0932302	-0.239107	2.7363	-2.0031	-0.822788
Rep StDev					
Rep %RSD					
Rep 1 Area	14156	37706	52014	156179	359851
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	707940	1411891
RF	7079.4	7059.455

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:01
User: KMT
Instrument: PVOC4

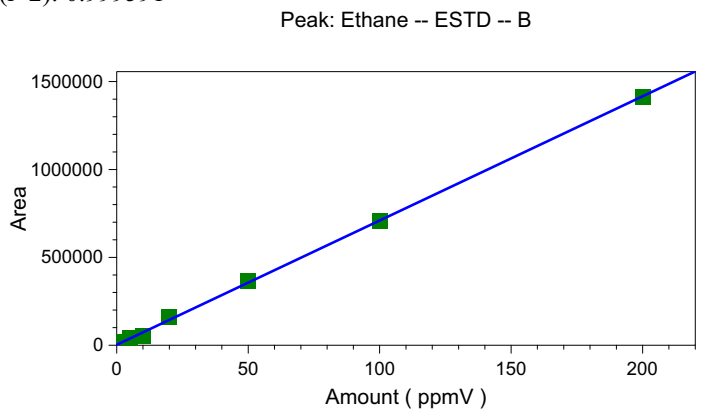
Last Area		
Residual	-0.0775589	0.313016
Rep StDev		
Rep %RSD		
Rep 1 Area	707940	1411891
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:53
User: KMT
Instrument: PVOC4

Ethane (B)
Average RF: 7151.52 RF StDev: 875.473 RF %RSD: 12.2418
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7073.40x + 2261.66
Goodness of fit (r^2): 0.999591



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14561	40290	53831	158690	362395
RF	7280.5	8058	5383.1	7934.5	7247.9
Last Area					
Residual	0.261184	-0.376247	2.7094	-2.11502	-0.913761
Rep StDev					
Rep %RSD					
Rep 1 Area	14561	40290	53831	158690	362395
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	707859	1415611
RF	7078.59	7078.055

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:53
User: KMT
Instrument: PVOC4

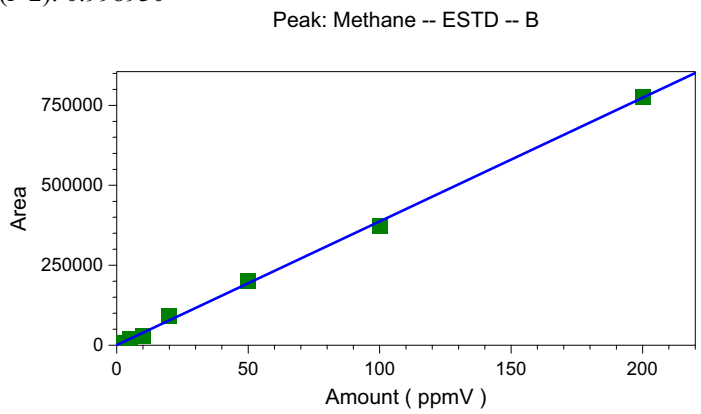
Last Area		
Residual	0.246352	0.18809
Rep StDev		
Rep %RSD		
Rep 1 Area	707859	1415611
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:14:11
User: KMT
Instrument: PVOC4

Methane (B)
Average RF: 3810.66 RF StDev: 470.853 RF %RSD: 12.3562
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3864.77x + 603.445
Goodness of fit (r^2): 0.998930



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	7052	19674	30219	91189	200412
RF	3526	3934.8	3021.9	4559.45	4008.24
Last Area					
Residual	0.331453	0.0655425	2.33705	-3.43878	-1.69996
Rep StDev					
Rep %RSD					
Rep 1 Area	7052	19674	30219	91189	200412
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	373495	777850
RF	3734.95	3889.25

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:14:11
User: KMT
Instrument: PVOC4

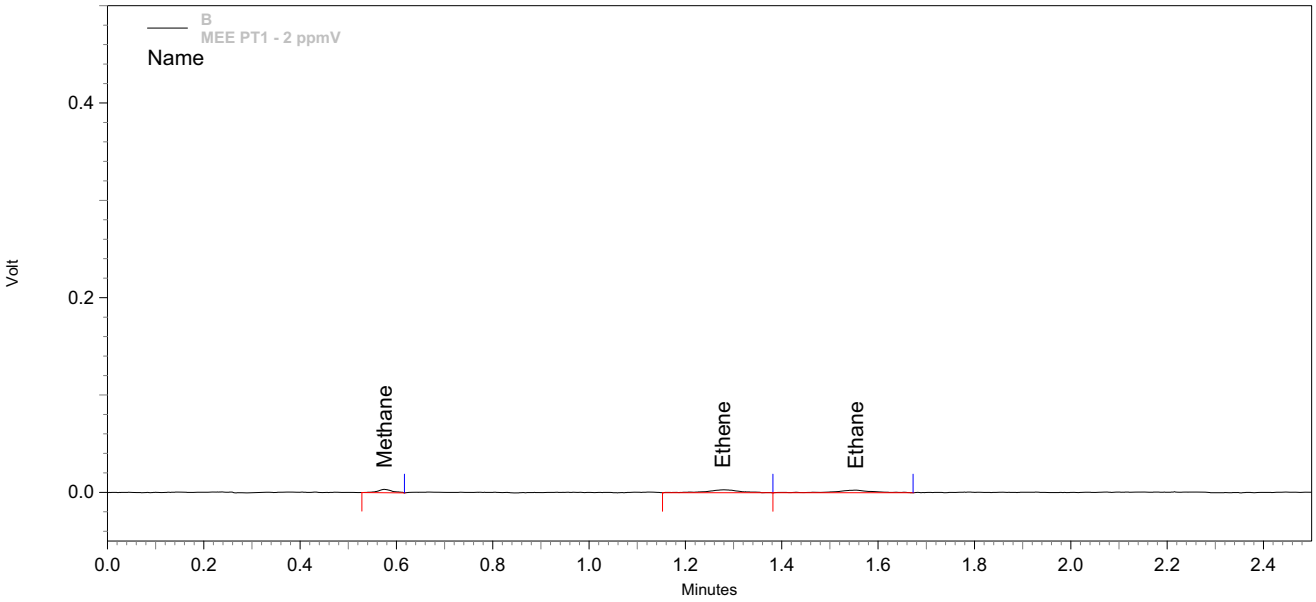
Last Area		
Residual	3.51526	-1.11057
Rep StDev		
Rep %RSD		
Rep 1 Area	373495	777850
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\001.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT1 - 2 ppmV
Acquired: Jul 01, 2021 09:09:22
File Desc. 0.01 mL injection (Methane, Ethene, Ethane)



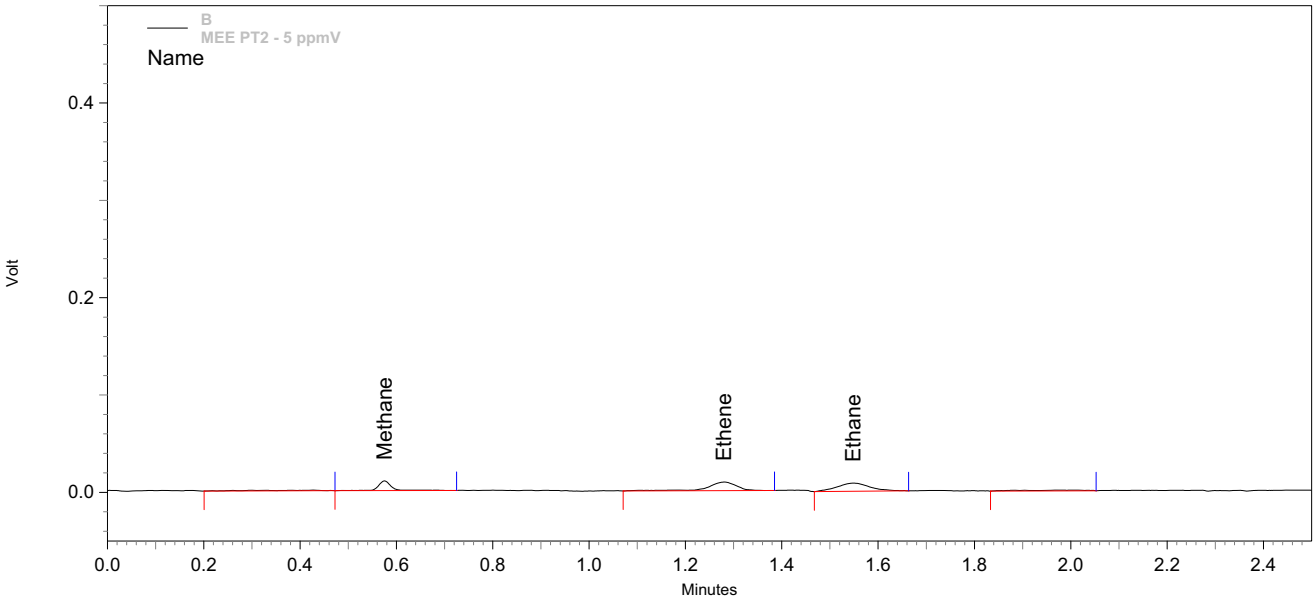
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.575	0.580	7052	2.000 CAL	ppmV
2	Ethene	1.278	1.300	14156	2.000 CAL	ppmV
3	Ethane	1.554	1.600	14561	2.000 CAL	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT2 - 5 ppmV
Acquired: Jul 01, 2021 09:19:07
File Desc. 0.025 mL injection (Methane, Ethene, Ethane)



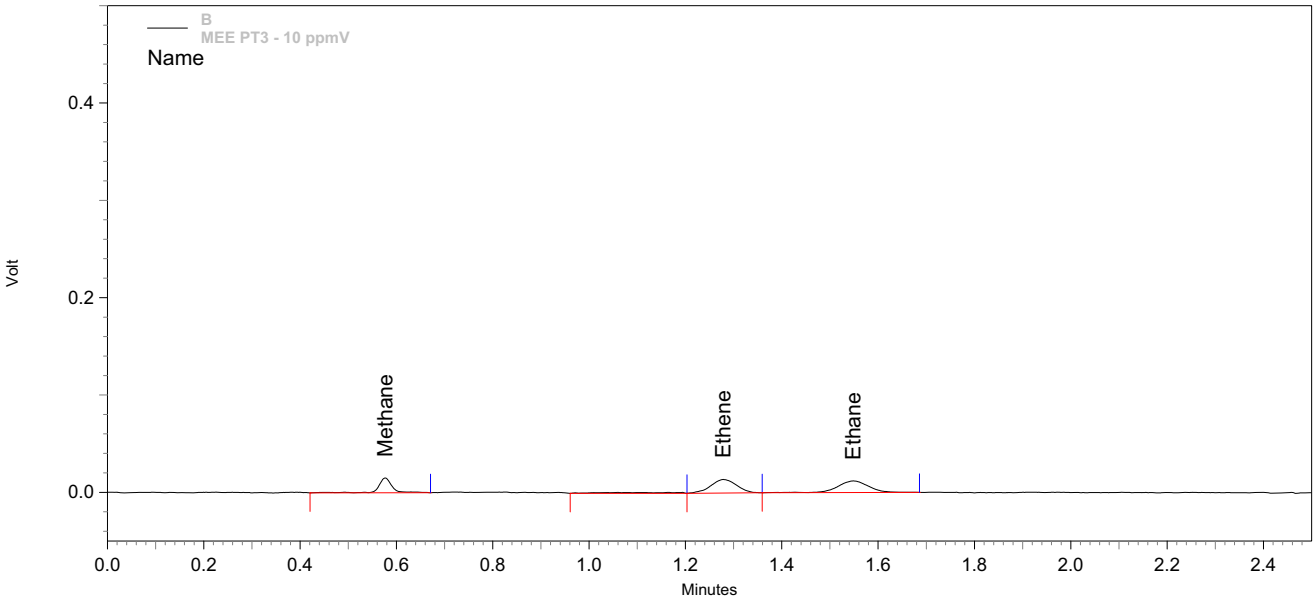
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		0.303	0.000	6196	0.000	
2	Methane	0.575	0.580	19674	5.000 CAL	ppmV
3	Ethene	1.280	1.300	37706	5.000 CAL	ppmV
4	Ethane	1.548	1.600	40290	5.000 CAL	ppmV
5		1.976	0.000	6841	0.000	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT3 - 10 ppmV
Acquired: Jul 01, 2021 09:24:05
File Desc. 0.05 mL injection (Methane, Ethene, Ethane)



B Results

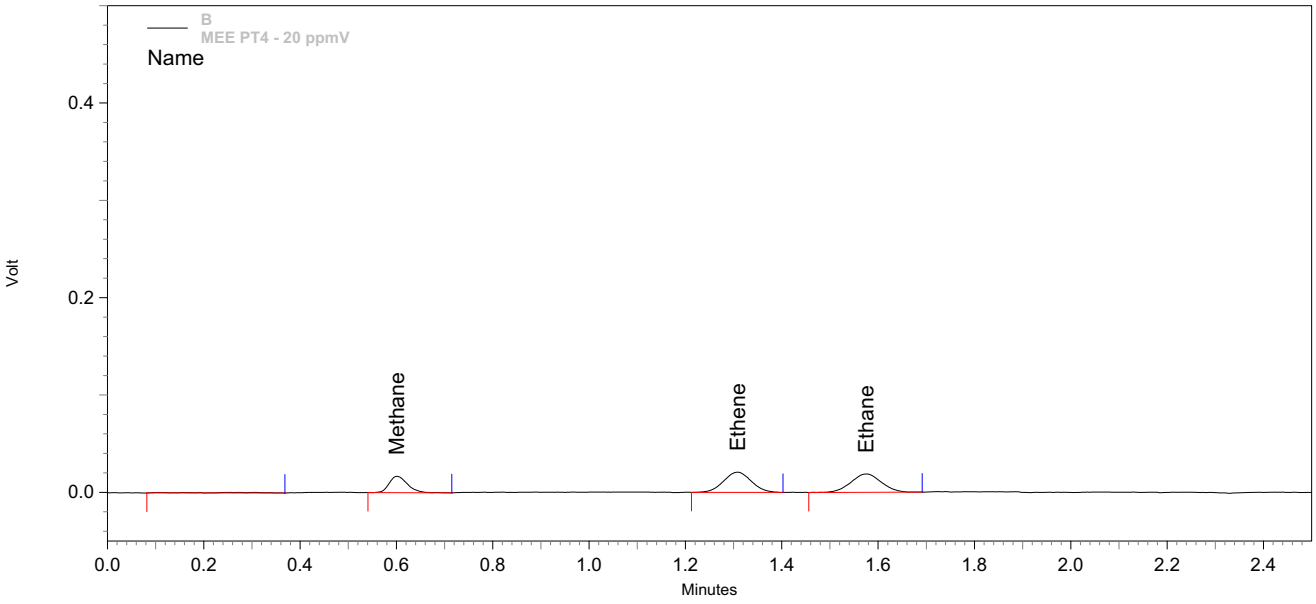
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.577	0.580	30219	10.000 CAL	ppmV
2		1.060	0.000	9781	0.000	
3	Ethene	1.278	1.300	52014	10.000 CAL	ppmV
4	Ethane	1.548	1.600	53831	10.000 CAL	ppmV

Dissolved Gases External Standard Report

NOT USED

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jul 01, 2021 09:38:00
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



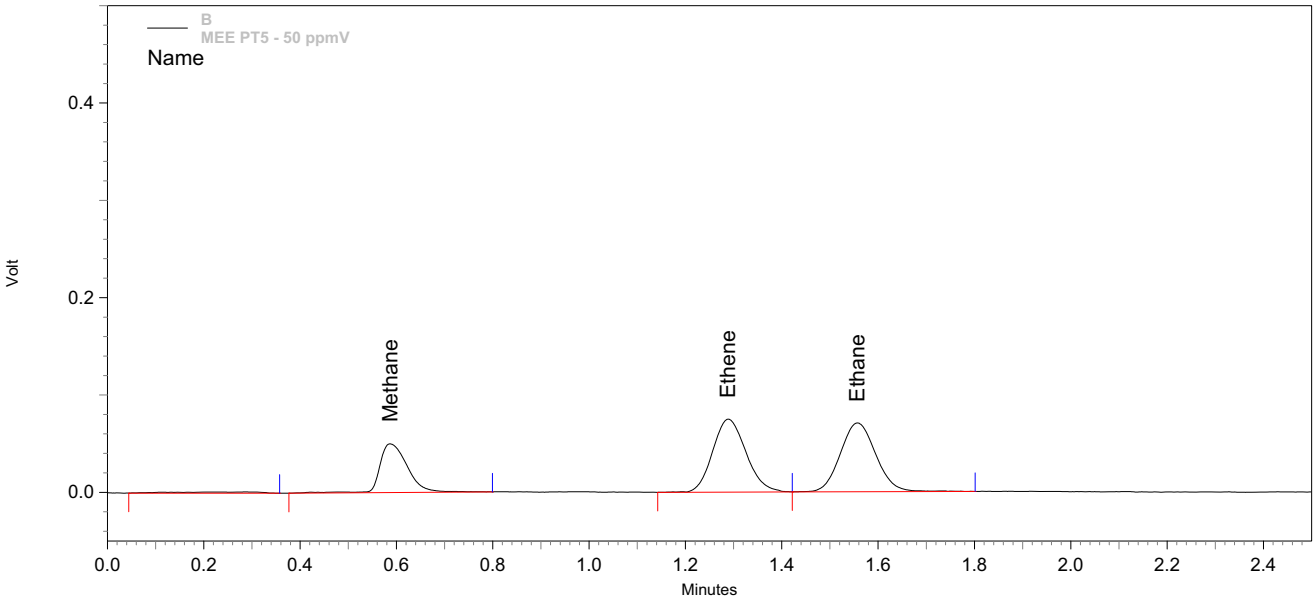
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		0.253	0.000	7117	0.000	
2	Methane	0.601	0.580	44488	20.000 CAL	ppmV
3	Ethene	1.308	1.300	83515	20.000 CAL	ppmV
4	Ethane	1.575	1.600	82881	20.000 CAL	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT5 - 50 ppmV
Acquired: Jul 01, 2021 09:41:21
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



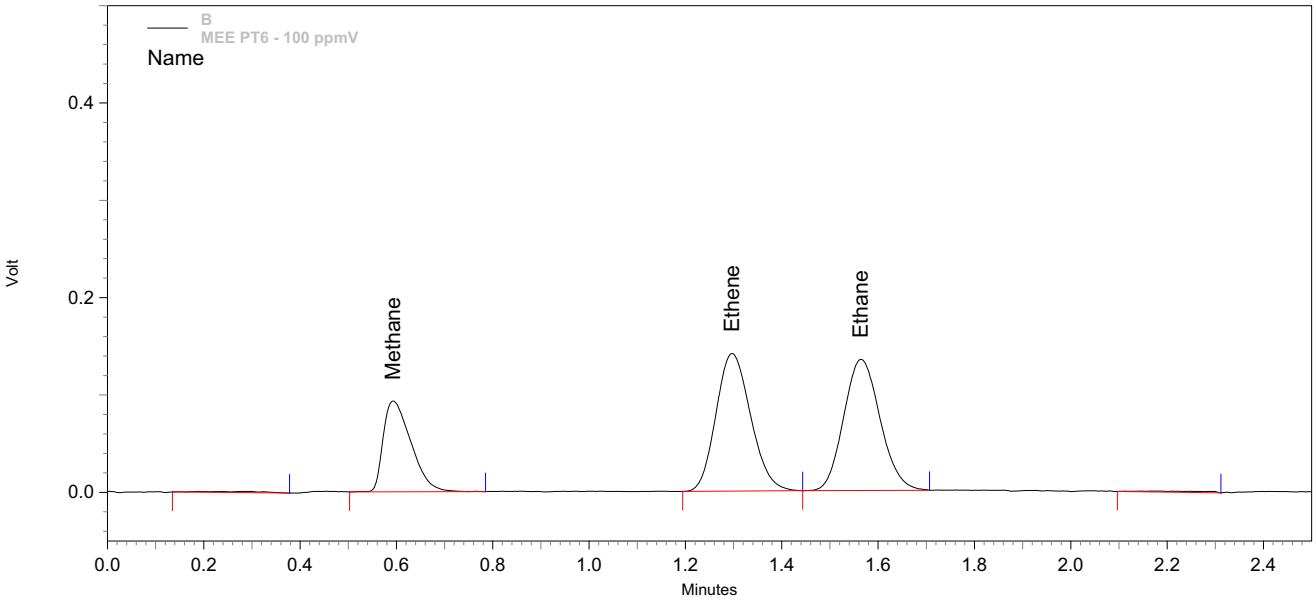
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		0.218	0.000	16192	0.000	
2	Methane	0.587	0.580	200412	50.000 CAL	ppmV
3	Ethene	1.288	1.300	359851	50.000 CAL	ppmV
4	Ethane	1.557	1.600	362395	50.000 CAL	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT6 - 100 ppmV
Acquired: Jul 01, 2021 09:45:28
File Desc. 0.5 mL injection (Methane, Ethene, Ethane)



B Results

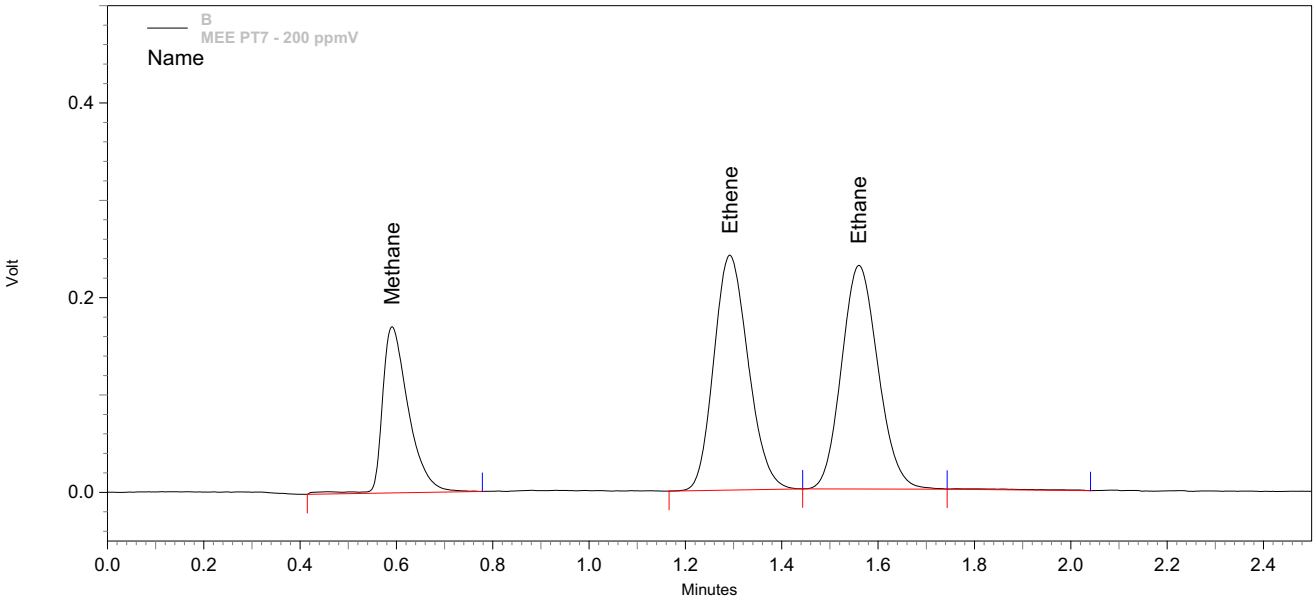
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		0.298	0.000	9802	0.000	
2	Methane	0.592	0.580	373495	100.000 CAL	ppmV
3	Ethene	1.297	1.300	707940	100.000 CAL	ppmV
4	Ethane	1.563	1.600	707859	100.000 CAL	ppmV
5		2.175	0.000	10216	0.000	

Dissolved Gases External Standard Report

PVOC4

NOT USED

Data File: C:\Instarch\PVOC4\Data\070121icdg\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT7 - 200 ppmV
Acquired: Jul 01, 2021 09:48:59
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



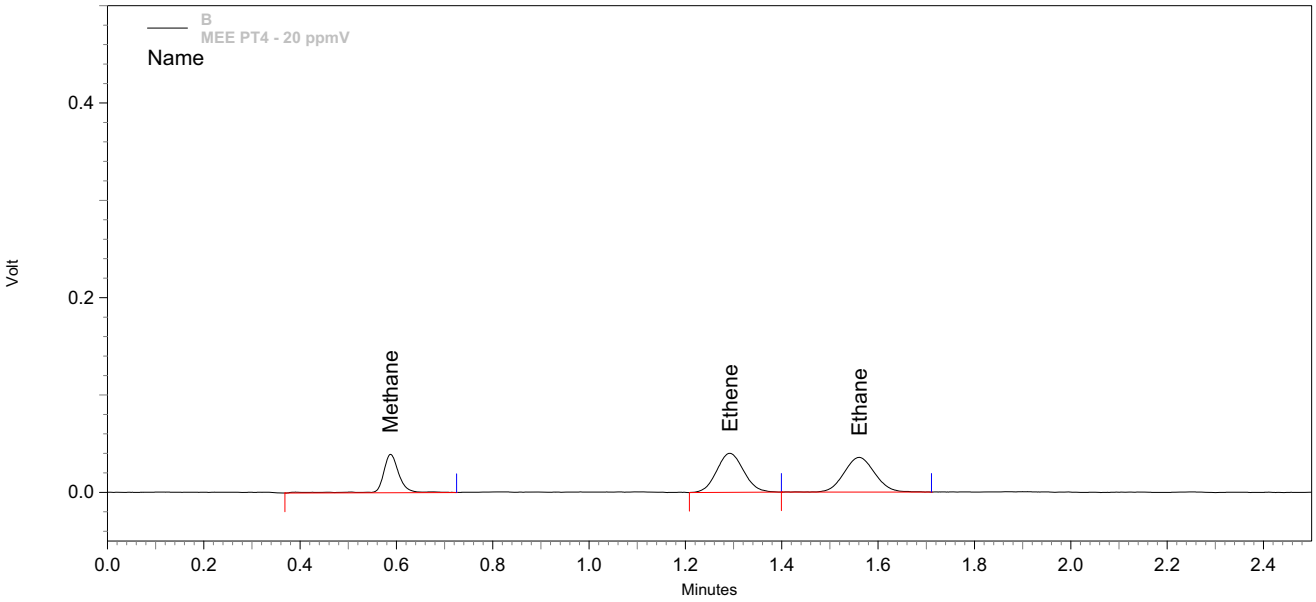
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.591	0.580	641532	200.000 CAL	ppmV
2	Ethene	1.293	1.300	1198307	200.000 CAL	ppmV
3	Ethane	1.560	1.600	1209201	200.000 CAL	ppmV
4		1.764	0.000	8808	0.000	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jul 01, 2021 09:59:16
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



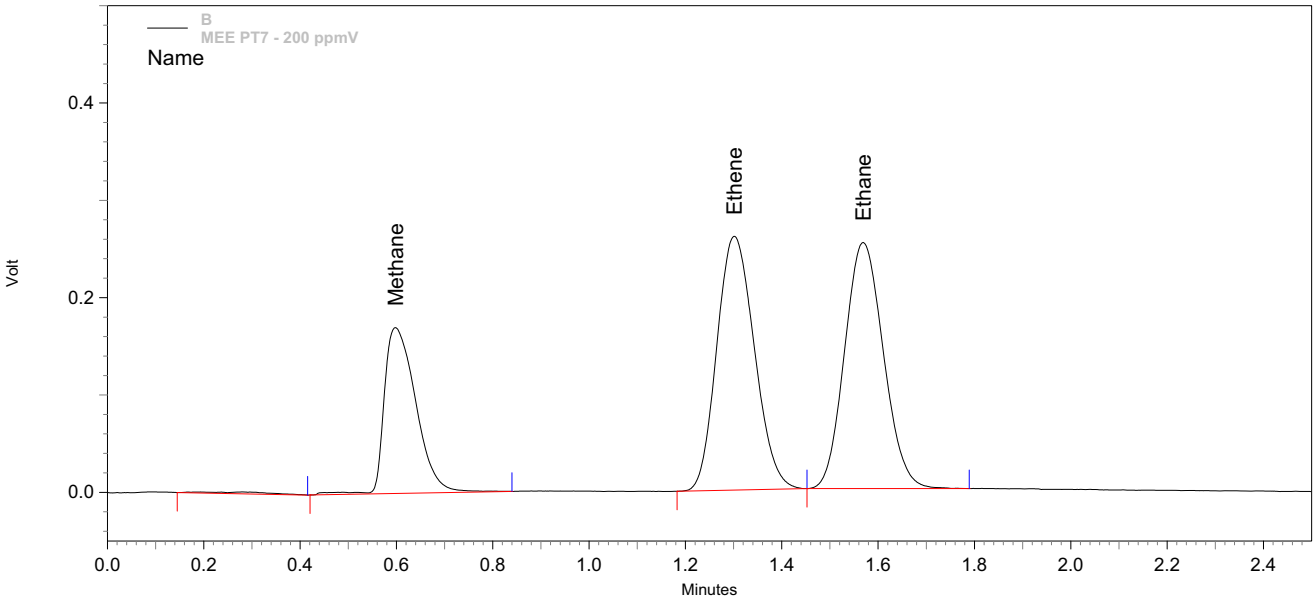
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.588	0.580	91189	20.000 CAL	ppmV
2	Ethene	1.293	1.300	156179	20.000 CAL	ppmV
3	Ethane	1.561	1.600	158690	20.000 CAL	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT7 - 200 ppmV
Acquired: Jul 01, 2021 10:04:41
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		0.281	0.000	16527	0.000	
2	Methane	0.598	0.580	777850	200.000 CAL	ppmV
3	Ethene	1.302	1.300	1411891	200.000 CAL	ppmV
4	Ethane	1.569	1.600	1415611	200.000 CAL	ppmV

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\070121 - MEE ICAL.seq
User : RLD
Printed : Jul 08, 2021 10:58:25

File	Sample ID	Acquired
C:\Instarch\PVOC4\Data\070121icdg\010.dat	ICV - 50 ppmV	Jul 08, 2021 10:58:25

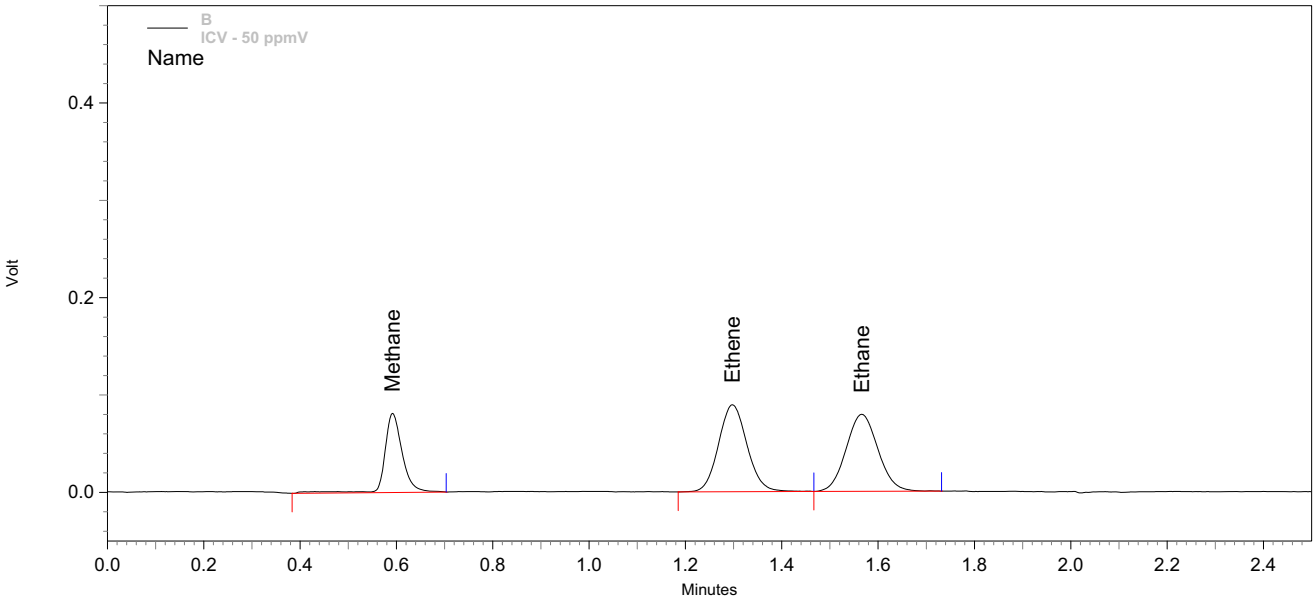
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	53.365	6.731	15.000	**Passed**
Ethene	50.000	51.970	3.941	15.000	**Passed**
Ethane	50.000	51.025	2.051	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICV - 50 ppmV
Acquired: Jul 01, 2021 10:24:08
File Desc. INITIAL CALIB. VERIF. - 0.25 mL injection (Methane, Ethene, Ethane)



B Results

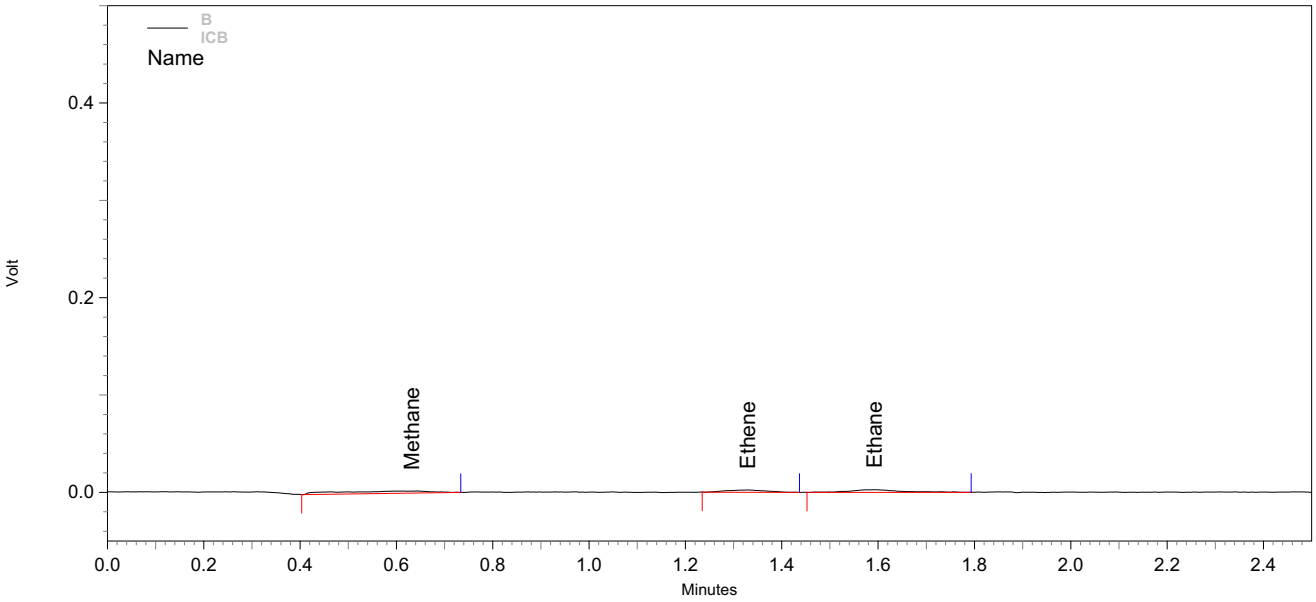
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.592	0.580	206848	53.365	ppmV
2	Ethene	1.297	1.300	367962	51.970	ppmV
3	Ethane	1.566	1.600	363184	51.025	ppmV

Dissolved Gases External Standard Report

NOT USED

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICB
Acquired: Jul 01, 2021 10:29:15
File Desc. INITIAL CALIB. BLANK - 1.0 mL injection (Methane, Ethene, Ethane)



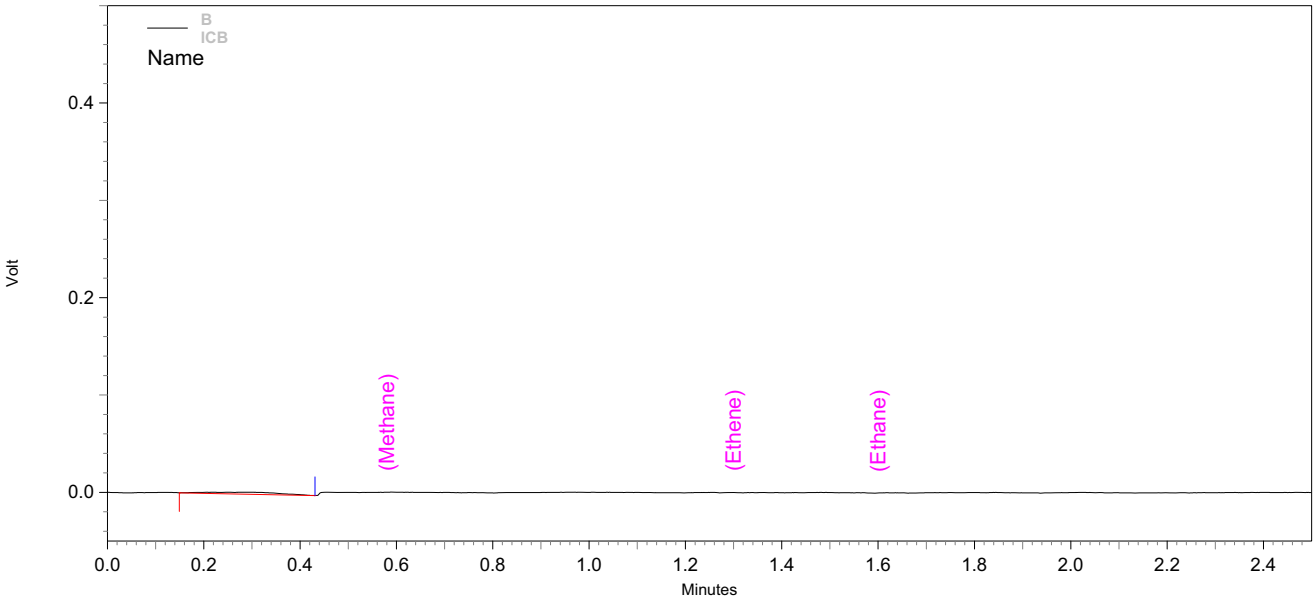
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.632	0.580	32868	8.348	ppmV
2	Ethene	1.329	1.300	13422	1.803	ppmV
3	Ethane	1.593	1.600	19513	2.439	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICB
Acquired: Jul 01, 2021 11:06:20
File Desc. INITIAL CALIB. BLANK - 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.217**	**0.000**	**19676**	**0.000**	
	Methane		**0.580**		**0.000 BDL**	**ppmV**
	Ethene		**1.300**		**0.000 BDL**	**ppmV**
	Ethane		**1.600**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

BFB

Data File : C:\Instarch\Data\NOV0121\BFB1.D Vial: 1
Acq On : 1 Nov 2021 8:48 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.644 to 4.650 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.9	9998	PASS
75	95	30	60	53.1	23192	PASS
95	95	100	100	100.0	43708	PASS
96	95	5	9	6.4	2800	PASS
173	174	0.00	2	0.5	154	PASS
174	95	50	100	74.5	32584	PASS
175	174	5	9	6.9	2255	PASS
176	174	95	101	97.0	31608	PASS
177	176	5	9	7.9	2509	PASS

W102921.M Tue Nov 02 13:20:57 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:53 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	116	0.00
2	PT	Dichlorodi	0.2204	0.2233	-1.32	108	0.00
3	PT	Chloromethan	0.3141	0.2952	6.02	115	0.00
4	PT	VinylChlorid	0.2919	0.2928	-0.31	110	0.00
5	PT	Bromomethane	0.1499	0.1452	3.14	111	0.00
6	PT	Chloroethane	0.1864	0.1751	6.06	104	0.00
7	T	Dichloroflmethane	0.3616	0.3455	4.45	110	0.00
8	PT	Trichlorofma	0.3391	0.3562	-5.04	112	0.00
9	T	Ethylether	0.2255	0.2047	9.22	105	0.00
10	T	dichlorotfluoroethan	0.3605	0.3684	-2.19	112	0.00
11	T	propyleneoxide	0.0558	0.0513	8.06	108	0.00
12	T	Acrolein	0.0573	0.0506	11.69	104	0.00
13	PT	11dichlorthe	0.2074	0.2120	-2.22	110	0.00
14	PT	Trichlorotfluoroeth	0.2098	0.2267	-8.06	110	0.00
15	PT	Acetone	0.0973	0.0828#	14.90	99	0.00
16	T	Iodomethane	0.2434	0.2286	6.08	101	0.00
17	PT	Carbon Dislf	0.5699	0.6117	-7.33	118	0.00
18	T	allylchloride	0.4089	0.4070	0.46	111	0.00
19	PT	methylacetate	0.0873	0.0725#	16.95	97	0.00
20	PT	Methylchlorid	0.2622	0.2389	8.89	117	0.00
21	T	tbutylalcohol	0.0280	0.0230#	17.86	97	0.00
22	T	Acrylonitrile	0.1137	0.0998	12.23	102	0.00
23	PT	t12dichlorte	0.2413	0.2326	3.61	114	0.00
24	PT	MtBE	0.6867	0.6443	6.17	111	0.00
25	T	Hexane	0.3386	0.4032	-19.08	121	0.00
26	PT	11dichlorota	0.4619	0.4215	8.75	107	0.00
27	T	Vinylacetate	0.5009	0.4724	5.69	109	0.00
28	T	chloroprene	0.4155	0.4306	-3.63	112	0.00
29	T	Diisopether	0.8510	0.8054	5.36	109	0.00
30	T	ETBE	0.7198	0.6835	5.04	112	0.00
31	T	22dichloropr	0.3389	0.3732	-10.12	130	0.00
32	PT	c12dichlorte	0.2699	0.2492	7.67	106	0.00
33	PT	2Butanone	0.0362	0.0315#	12.98	100	0.00
34	T	propionitrile	0.0466	0.0384	17.60	96	0.00
35	T	Ethylacetate	0.0124	0.0099#	20.16#	97	0.00
36	T	methacrylonitrile	0.1214	0.1086	10.54	109	0.00
37	T	Bromochlorma	0.1244	0.1161	6.67	112	0.00
38	T	Tetrahydofur	0.1039	0.0817	21.37#	98	0.00
39	PT	Chloroform	0.4384	0.4036	7.94	110	0.00
40	PT	111trichlota	0.3521	0.3492	0.82	111	0.00
41	S	SURRDibrflma	0.2578	0.2558	0.78	114	0.00
42	PT	Cyclohexane	0.4263	0.4664	-9.41	113	0.00
43	PT	Carbtetraclo	0.2881	0.3031	-5.21	119	0.00
44	T	11dicloprope	0.1177	0.1208	-2.63	118	0.00
45	S	SURR12DCAd4	0.0693	0.0691	0.29	113	0.00
46	PT	Benzene	0.9905	0.9346	5.64	109	0.00
47	PT	12dichlorota	0.3617	0.3390	6.28	111	0.00
48	T	TAME	0.6668	0.6474	2.91	115	0.00

49	PT	trichloroete	0.2538	0.2349	7.45	106	0.00
50	PT	methylcyclohexane	0.4519	0.5038	-11.48	115	0.00
51	PT	12dicloropra	0.2832	0.2583	8.79	108	0.00
52	T	23Dicl1propene	0.4030	0.3849	4.49	113	0.00
53	T	Dibromometha	0.1558	0.1424	8.60	110	0.00
54	T	methylmethacrylate	0.2116	0.1790	15.41	105	0.00
55	T	14dioxane	0.0036	0.0024#	33.33#	79	0.00
56	PT	Bromodiclrma	0.3114	0.3033	2.60	117	0.00
57	T	2Nitropropane	0.0798	0.0775	2.88	109	0.00
58	T	2CLEVE	0.1137	0.1262	-10.99	131	0.00
59	PT	c13dicloproe	0.3918	0.3957	-1.00	117	0.00
60	PT	4Meth2Pentan	0.2680	0.2311	13.77	101	0.00
61	S	SURRd8Tolule	1.0302	0.9948	3.44	110	0.00
62	PT	Toluene	0.6344	0.6083	4.11	112	0.00
63	PT	t13Dicloprop	0.3437	0.3475	-1.11	120	0.00
64	T	ethylmethacrylate	0.3671	0.3458	5.80	109	0.00
65	PT	112Triclotha	0.1911	0.1788	6.44	110	0.00
66	PT	Tetrachlorte	0.2685	0.2619	2.46	112	0.00
67	T	13Diclorpropa	0.4148	0.3878	6.51	111	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	106	0.00
69	PT	2Hexanone	0.2324	0.2197	5.46	101	0.00
70	PT	Clorodibrmta	0.2713	0.2810	-3.58	118	0.00
71	PT	12Dibrometha	0.2727	0.2736	-0.33	112	0.00
72	PT	Chlorobenzen	0.8217	0.8419	-2.46	112	0.00
73	T	1Clhexane	0.4294	0.4879	-13.62	117	0.00
74	T	1112Tetclota	0.2741	0.2863	-4.45	118	0.00
75	PT	Ethylbenzene	1.3476	1.4493	-7.55	113	0.00
76	PT	m p-Xylene	0.5160	0.5495	-6.49	111	0.00
77	PT	o-Xylene	0.5186	0.5343	-3.03	111	0.00
78	PT	Styrene	0.8431	0.8892	-5.47	111	0.00
79	PT	Bromoform	0.1695	0.1742	-2.77	122	0.00
80	PT	Isopropylben	1.2574	1.4042	-11.67	112	0.00
81	T	cyclohexanone	0.0190	0.0167#	12.11	97	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	101	0.00
83	S	SURR4BrFBenz	0.9473	0.9848	-3.96	105	0.00
84	T	Bromobenzene	0.6115	0.6493	-6.18	110	0.00
85	PT	1122Tetrclta	0.6731	0.7194	-6.88	110	0.00
86	T	123Triclproa	0.8669	0.9086	-4.81	109	0.00
87	T	14dichloro2butene	0.2033	0.2083	-2.46	108	0.00
88	T	n-Propylbenz	2.6286	3.1124	-18.41	112	0.00
89	T	2chlorotolue	1.6526	1.8639	-12.79	115	0.00
90	T	4chlorotolue	1.9172	2.1355	-11.39	112	0.00
91	T	135Trimebenz	1.9203	2.1871	-13.89	113	0.00
92	T	tbutylbenzen	1.6708	1.9583	-17.21	112	0.00
93	T	124Trimetben	1.8615	2.1729	-16.73	114	0.00
94	T	sbutylbenzen	2.2966	2.7806	-21.07#	114	0.00
95	PT	13Diclorbenz	1.1102	1.2249	-10.33	113	0.00
96	T	pIsopropylto	2.0031	2.3931	-19.47	114	0.00
97	PT	14dichlorobe	1.2645	1.2687	-0.33	112	0.00
98	PT	12dichlorobe	1.2486	1.1529	7.66	108	0.00
99	T	nButylbenzen	1.8014	2.1428	-18.95	113	0.00
100	PT	12dibromo3cl	0.1319	0.1343	-1.82	109	0.00
101	T	135Trichlorobenzene	0.7785	0.8683	-11.54	112	0.00
102	PT	124Trichlobe	0.6737	0.7244	-7.53	111	0.00
103	T	Hexachlorobu	0.2855	0.3351	-17.37	120	0.00
104	T	Naphthalene	1.5574	1.7508	-12.42	117	0.00
105	T	123Trichlben	0.5967	0.6556	-9.87	110	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W102921.M Tue Nov 02 11:57:18 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:53 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	116	0.00
2	PT	Dichlorodi	10.0000	10.1329	-1.33	108	0.00
3	PT	Chloromethan	10.0000	9.3982	6.02	115	0.00
4	PT	VinylChlorid	10.0000	10.0307	-0.31	110	0.00
5	PT	Bromomethane	10.0000	9.0776	9.22	111	0.00
6	PT	Chloroethane	10.0000	9.3914	6.09	104	0.00
7	T	Dichloroflmethane	10.0000	9.5560	4.44	110	0.00
8	PT	Trichlorofma	10.0000	10.5047	-5.05	112	0.00
9	T	Ethylether	10.0000	9.0768	9.23	105	0.00
10	T	dichlorotfluoroethan	10.0000	10.2180	-2.18	112	0.00
11	T	propyleneoxide	100.0000	91.8193	8.18	108	0.00
12	T	Acrolein	50.0000	44.1203	11.76	104	0.00
13	PT	11dichlorthe	10.0000	10.2242	-2.24	110	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.6024	-8.01	110	0.00
15	PT	Acetone	100.0000	85.1525	14.85	99	0.00
16	T	Iodomethane	20.0000	16.7078	16.46	101	0.00
17	PT	Carbon Dislf	20.0000	21.4657	-7.33	118	0.00
18	T	allylchloride	20.0000	19.9064	0.47	111	0.00
19	PT	methylacetate	10.0000	8.3059	16.94	97	0.00
20	PT	Methylchlorid	10.0000	9.1100	8.90	117	0.00
21	T	tbutylalcohol	500.0000	411.0996	17.78	97	0.00
22	T	Acrylonitrile	50.0000	43.8638	12.27	102	0.00
23	PT	t12dichlorte	10.0000	9.6397	3.60	114	0.00
24	PT	MtBE	10.0000	9.3818	6.18	111	0.00
25	T	Hexane	20.0000	23.8195	-19.10	121	0.00
26	PT	11dichlorota	10.0000	9.1263	8.74	107	0.00
27	T	Vinylacetate	100.0000	94.8307	5.17	109	0.00
28	T	chloroprene	20.0000	20.7271	-3.64	112	0.00
29	T	Diisopether	10.0000	9.4638	5.36	109	0.00
30	T	ETBE	10.0000	9.4960	5.04	112	0.00
31	T	22dichloropr	10.0000	11.0099	-10.10	130	0.00
32	PT	c12dichlorte	10.0000	9.2338	7.66	106	0.00
33	PT	2Butanone	100.0000	86.8111	13.19	100	0.00
34	T	propionitrile	100.0000	82.3581	17.64	96	0.00
35	T	Ethylacetate	50.0000	40.1885	19.62	97	0.00
36	T	methacrylonitrile	20.0000	17.8867	10.57	109	0.00
37	T	Bromochlorma	10.0000	9.3380	6.62	112	0.00
38	T	Tetrahydofur	100.0000	78.6143	21.39#	98	0.00
39	PT	Chloroform	10.0000	9.2059	7.94	110	0.00
40	PT	111trichlota	10.0000	9.9185	0.82	111	0.00
41	S	SURRDibrflma	20.0000	19.8441	0.78	114	0.00
42	PT	Cyclohexane	10.0000	10.9409	-9.41	113	0.00
43	PT	Carbtetraclo	10.0000	10.5211	-5.21	119	0.00
44	T	11dicloprope	10.0000	10.2638	-2.64	118	0.00
45	S	SURR12DCAd4	20.0000	19.9508	0.25	113	0.00
46	PT	Benzene	10.0000	9.4363	5.64	109	0.00
47	PT	12dichlorota	10.0000	9.3719	6.28	111	0.00
48	T	TAME	10.0000	9.7086	2.91	115	0.00

49	PT	trichloroete	10.0000	9.2560	7.44	106	0.00
50	PT	methylcyclohexane	10.0000	11.1484	-11.48	115	0.00
51	PT	12dicloropra	10.0000	9.1199	8.80	108	0.00
52	T	23Dicl1propene	10.0000	9.5498	4.50	113	0.00
53	T	Dibromometha	10.0000	9.1425	8.57	110	0.00
54	T	methylmethacrylate	10.0000	8.4582	15.42	105	0.00
55	T	14dioxane	500.0000	327.4507	34.51#	79	0.00
56	PT	Bromodiclrma	10.0000	9.7380	2.62	117	0.00
57	T	2Nitropropane	100.0000	97.1445	2.86	109	0.00
58	T	2CLEVE	50.0000	55.4985	-11.00	131	0.00
59	PT	c13dicloproe	10.0000	10.1014	-1.01	117	0.00
60	PT	4Meth2Pentan	100.0000	85.1594	14.84	101	0.00
61	S	SURRd8Tolule	20.0000	19.3135	3.43	110	0.00
62	PT	Toluene	10.0000	9.5877	4.12	112	0.00
63	PT	t13Dicloprop	10.0000	10.1127	-1.13	120	0.00
64	T	ethylmethacrylate	20.0000	18.8393	5.80	109	0.00
65	PT	112Triclotha	10.0000	9.3548	6.45	110	0.00
66	PT	Tetrachlorte	10.0000	9.7546	2.45	112	0.00
67	T	13Diclorpropa	10.0000	9.3473	6.53	111	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	106	0.00
69	PT	2Hexanone	100.0000	94.5231	5.48	101	0.00
70	PT	Clorodibrmta	10.0000	10.3546	-3.55	118	0.00
71	PT	12Dibrometha	10.0000	10.0337	-0.34	112	0.00
72	PT	Chlorobenzen	10.0000	10.2462	-2.46	112	0.00
73	T	1Clhexane	10.0000	11.3622	-13.62	117	0.00
74	T	1112Tetclota	10.0000	10.4461	-4.46	118	0.00
75	PT	Ethylbenzene	10.0000	10.7546	-7.55	113	0.00
76	PT	m p-Xylene	20.0000	21.2985	-6.49	111	0.00
77	PT	o-Xylene	10.0000	10.3016	-3.02	111	0.00
78	PT	Styrene	10.0000	10.5464	-5.46	111	0.00
79	PT	Bromoform	10.0000	10.2767	-2.77	122	0.00
80	PT	Isopropylben	10.0000	11.1671	-11.67	112	0.00
81	T	cyclohexanone	200.0000	175.8750	12.06	97	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	101	0.00
83	S	SURR4BrFBenz	20.0000	20.7926	-3.96	105	0.00
84	T	Bromobenzene	10.0000	10.6177	-6.18	110	0.00
85	PT	1122Tetrclta	10.0000	10.6866	-6.87	110	0.00
86	T	123Triclproa	10.0000	10.4807	-4.81	109	0.00
87	T	14dichloro2butene	10.0000	10.2462	-2.46	108	0.00
88	T	n-Propylbenz	10.0000	11.8402	-18.40	112	0.00
89	T	2chlorotolue	10.0000	11.2788	-12.79	115	0.00
90	T	4chlorotolue	10.0000	11.1389	-11.39	112	0.00
91	T	135Trimebenz	10.0000	11.3899	-13.90	113	0.00
92	T	tbutylbenzen	10.0000	11.7213	-17.21	112	0.00
93	T	124Trimetben	10.0000	11.6726	-16.73	114	0.00
94	T	sbutylbenzen	10.0000	12.1076	-21.08#	114	0.00
95	PT	13Diclorbenz	10.0000	11.0326	-10.33	113	0.00
96	T	pIsopropylto	10.0000	11.9471	-19.47	114	0.00
97	PT	14dichlorobe	10.0000	10.5581	-5.58	112	0.00
98	PT	12dichlorobe	10.0000	10.1776	-1.78	108	0.00
99	T	nButylbenzen	10.0000	11.8949	-18.95	113	0.00
100	PT	12dibromo3cl	10.0000	10.1804	-1.80	109	0.00
101	T	135Trichlorobenzene	10.0000	11.1535	-11.53	112	0.00
102	PT	124Trichlobe	10.0000	10.7531	-7.53	111	0.00
103	T	Hexachlorobu	10.0000	11.7384	-17.38	120	0.00
104	T	Naphthalene	10.0000	11.2413	-12.41	117	0.00
105	T	123Trichlben	10.0000	10.9866	-9.87	110	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 11:57:39 2021

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1399490	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1085541	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	571295	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	357997	19.844	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99	%		
45) SURR12DCAd4	7.26	102	96731	19.951	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.70	98	1392251	19.314	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 97	%		
83) SURR4BrFBenz	13.24	95	562622	20.793	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 104	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	156266	10.1329	ug/L	100
3) Chloromethan	2.10	50	206589	9.3982	ug/L	99
4) VinylChlorid	2.24	62	204872	10.0307	ug/L	96
5) Bromomethane	2.70	94	101599	9.0776	ug/L	98
6) Chloroethane	2.87	64	122507	9.3914	ug/L	99
7) Dichloroflmethane	3.18	67	241769	9.5560	ug/L	99
8) Trichlorofma	3.26	101	249274	10.5047	ug/L	97
9) Ethylether	3.70	59	143205	9.0768	ug/L	97
10) dichlorotfluoroethan	3.71	67	257766	10.2180	ug/L	97
11) propyleneoxide	3.76	58	358652	91.8193	ug/L	98
12) Acrolein	3.83	56	176914	44.1203	ug/L	96
13) 11dichlorthe	3.98	96	148377	10.2242	ug/L	99
14) Trichlorotfluoroeth	4.02	101	317196	21.6024	ug/L	98
15) Acetone	4.05	43	579504	85.1525	ug/L	97
16) Iodomethane	4.16	142	319929	16.7078	ug/L	99
17) Carbon Dislf	4.25	76	856032	21.4657	ug/L	98
18) allylchloride	4.47	41	569535	19.9064	ug/L	99
19) methylacetate	4.52	74	50715	8.3059	ug/L	99
20) Methylchlorid	4.63	84	167166	9.1100	ug/L	94
21) tbutylalcohol	4.82	59	804413	411.0996	ug/L	93
22) Acrylonitrile	4.92	53	349104	43.8638	ug/L	98
23) t12dichlorte	5.00	96	162734	9.6397	ug/L	97
24) MtBE	5.03	73	450827	9.3818	ug/L	99
25) Hexane	5.39	57	564327	23.8195	ug/L	99
26) 11dichlorota	5.53	63	294970	9.1263	ug/L	98
27) Vinylacetate	5.62	43	3305275	94.8307	ug/L	99
28) chloroprene	5.65	53	602573	20.7271	ug/L	99
29) Diisopether	5.67	45	563577	9.4638	ug/L	97
30) ETBE	6.12	59	478308	9.4960	ug/L	100
31) 22dichloropr	6.26	77	261111	11.0099	ug/L	99
32) c12dichlorte	6.26	96	174368	9.2338	ug/L	95
33) 2Butanone	6.27	72	220073	86.8111	ug/L	100
34) propionitrile	6.31	54	268398	82.3581	ug/L	99
35) Ethylacetate	6.38	88	34786	40.1885	ug/L #	90
36) methacrylonitrile	6.52	67	152003	17.8867	ug/L	91
37) Bromochlorma	6.54	128	81264	9.3380	ug/L	99
38) Tetrahydofur	6.63	42	571651	78.6143	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	282439	9.2059	ug/L	99
40)	111trichlota	6.90	97	244376	9.9185	ug/L	99
42)	Cyclohexane	6.98	56	326372	10.9409	ug/L	98
43)	Carbtetraclo	7.11	119	212122	10.5211	ug/L	97
44)	11dicloprope	7.10	110	84545	10.2638	ug/L	91
46)	Benzene	7.35	78	653996	9.4363	ug/L	100
47)	12dichlorota	7.35	62	237188	9.3719	ug/L	99
48)	TAME	7.52	73	452985	9.7086	ug/L	99
49)	trichloroete	8.16	95	164399	9.2560	ug/L	94
50)	methylcyclohexane	8.42	83	352557	11.1484	ug/L	98
51)	12dicloropra	8.42	63	180754	9.1199	ug/L	99
52)	23Dicl1propene	8.48	75	269328	9.5498	ug/L	99
53)	Dibromometha	8.56	93	99660	9.1425	ug/L	98
54)	methylmethacrylate	8.58	69	125232	8.4582	ug/L	99
55)	14dioxane	8.60	88	83555	327.4507	ug/L	99
56)	Bromodiclrma	8.76	83	212222	9.7380	ug/L	98
57)	2Nitropropane	9.02	43	542613	97.1445	ug/L	98
58)	2CLEVE	9.15	63	441497	55.4985	ug/L	98
59)	c13dicloproe	9.33	75	276922	10.1014	ug/L	100
60)	4Meth2Pentan	9.53	43	1617237	85.1594	ug/L	99
62)	Toluene	9.78	92	425641	9.5877	ug/L	100
63)	t13Dicloprop	10.04	75	243186	10.1127	ug/L	98
64)	ethylmethacrylate	10.19	69	483942	18.8393	ug/L	99
65)	112Triclotha	10.28	83	125119	9.3548	ug/L	99
66)	Tetrachlorte	10.52	166	183257	9.7546	ug/L	99
67)	13Diclorpropa	10.50	76	271331	9.3473	ug/L	99
69)	2Hexanone	10.62	43	1192427	94.5231	ug/L	99
70)	Clorodibrmta	10.80	129	152496	10.3546	ug/L	98
71)	12Dibrometha	10.97	107	148502	10.0337	ug/L	99
72)	Chlorobenzen	11.65	112	456985	10.2462	ug/L	99
73)	1Clhexane	11.63	91	264818	11.3622	ug/L	100
74)	1112Tetclota	11.76	131	155386	10.4461	ug/L	98
75)	Ethylbenzene	11.80	91	786657	10.7546	ug/L	98
76)	m p-Xylene	11.97	106	596525	21.2985	ug/L	99
77)	o-Xylene	12.52	106	289981	10.3016	ug/L	99
78)	Styrene	12.53	104	482625	10.5464	ug/L	98
79)	Bromoform	12.76	173	94562	10.2767	ug/L	97
80)	Isopropylben	13.05	105	762135	11.1671	ug/L	99
81)	cyclohexanone	13.13	55	180905	175.8750	ug/L	97
84)	Bromobenzene	13.45	156	185470	10.6177	ug/L	98
85)	1122Tetrclta	13.42	83	205484	10.6866	ug/L	99
86)	123Triclproa	13.49	75	259539	10.4807	ug/L	98
87)	14dichloro2butene	13.51	53	59505	10.2462	ug/L	94
88)	n-Propylbenz	13.63	91	889044	11.8402	ug/L	100
89)	2chlorotolue	13.75	91	532427	11.2788	ug/L	98
90)	4chlorotolue	13.89	91	610000	11.1389	ug/L	99
91)	135Trimebenz	13.89	105	624753	11.3899	ug/L	99
92)	tbutylbenzen	14.36	119	559395	11.7213	ug/L	98
93)	124Trimetben	14.42	105	620677	11.6726	ug/L	100
94)	sbutylbenzen	14.68	105	794269	12.1076	ug/L	100
95)	13Diclorbenz	14.81	146	349882	11.0326	ug/L	100
96)	pIsopropylto	14.89	119	683595	11.9471	ug/L	99
97)	14dichlorobe	14.94	146	362413	10.5581	ug/L	98
98)	12dichlorobe	15.48	146	329337	10.1776	ug/L	99
99)	nButylbenzen	15.49	91	612087	11.8949	ug/L	99
100)	12dibromo3cl	16.57	157	38369	10.1804	ug/L	97
101)	135Trichlorobenzene	16.90	180	248021	11.1535	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

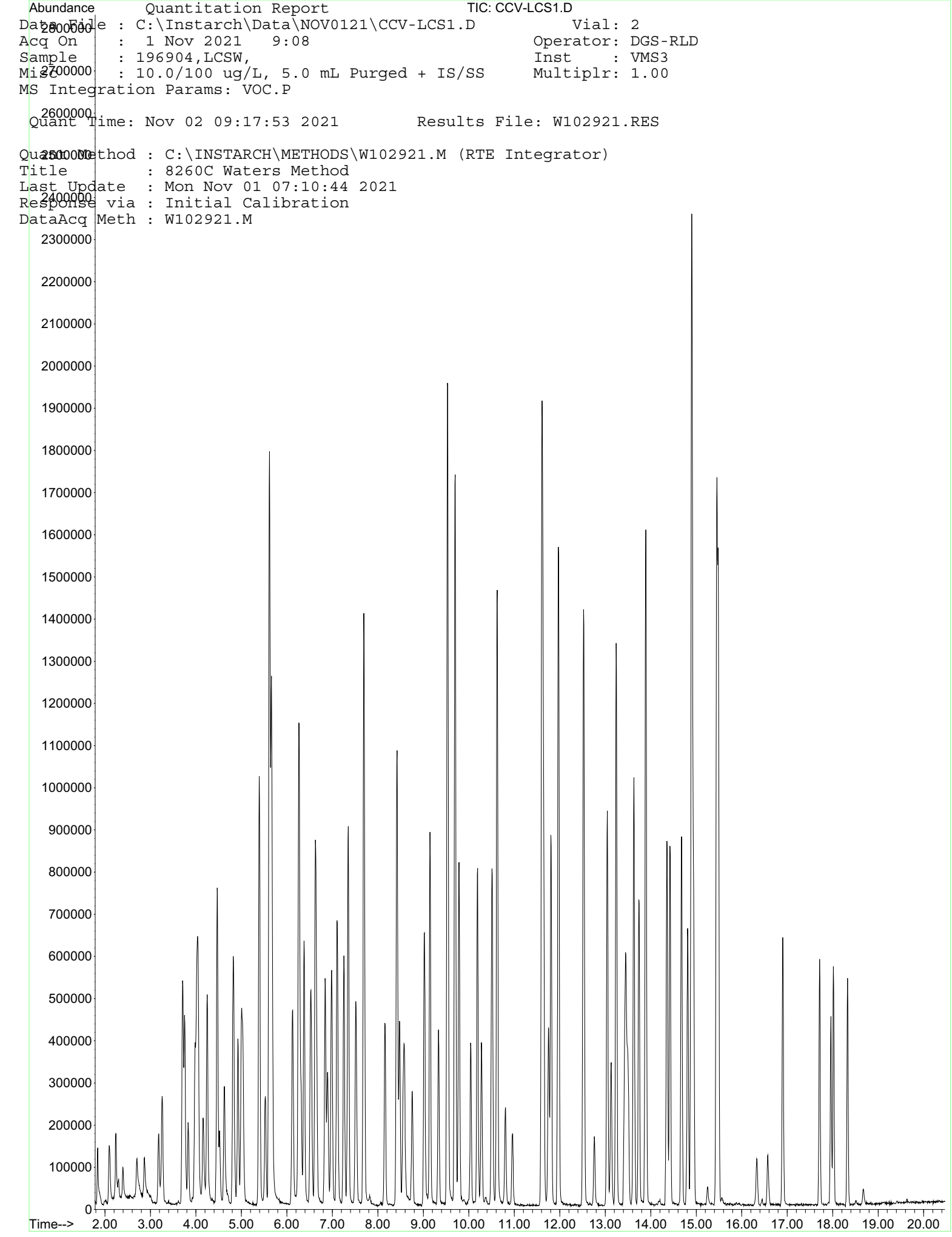
Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	206932	10.7531	ug/L	98
103)	Hexachlorobu	17.96	225	95714	11.7384	ug/L	97
104)	Naphthalene	18.02	128	500099	11.2413	ug/L	99
105)	123Trichlben	18.33	180	187272	10.9866	ug/L	98

(#) = qualifier out of range (m) = manual integration


Abundance
Quantitation Report
TIC: CCV-LCS1.D
Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D
Vial: 2
Acq On : 1 Nov 2021 9:08
Operator: DGS-RLD
Sample : 196904,LCSW,
Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS
Multiplr: 1.00
MS Integration Params: VOC.P
Quant Time: Nov 02 09:17:53 2021
Results File: W102921.RES
Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
Time-->

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D Vial: 25
Acq On : 1 Nov 2021 20:07 Operator: DGS-RLD
Sample : 196904,LCSDW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:40 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	108	0.00
2	PT	Dichlorodi	0.2204	0.2267	-2.86	102	0.00
3	PT	Chloromethan	0.3141	0.2883	8.21	105	0.00
4	PT	VinylChlorid	0.2919	0.2913	0.21	102	0.00
5	PT	Bromomethane	0.1499	0.1406	6.20	100	0.00
6	PT	Chloroethane	0.1864	0.1770	5.04	98	0.00
7	T	Dichloroflmethane	0.3616	0.3406	5.81	101	0.00
8	PT	Trichlorofma	0.3391	0.3665	-8.08	107	0.00
9	T	Ethylether	0.2255	0.2059	8.69	98	0.00
10	T	dichlorotfluoroethan	0.3605	0.3762	-4.36	107	0.00
11	T	propyleneoxide	0.0558	0.0508	8.96	100	0.00
12	T	Acrolein	0.0573	0.0517	9.77	99	0.00
13	PT	11dichlorthe	0.2074	0.2150	-3.66	104	0.00
14	PT	Trichlorotfluoroeth	0.2098	0.2266	-8.01	102	0.00
15	PT	Acetone	0.0973	0.0903#	7.19	100	0.00
16	T	Iodomethane	0.2434	0.2344	3.70	96	0.00
17	PT	Carbon Dislf	0.5699	0.5774	-1.32	103	0.00
18	T	allylchloride	0.4089	0.3848	5.89	98	0.00
19	PT	methylacetate	0.0873	0.0776#	11.11	97	0.00
20	PT	Methylchlorid	0.2622	0.2447	6.67	111	0.00
21	T	tbutylalcohol	0.0280	0.0254#	9.29	100	0.00
22	T	Acrylonitrile	0.1137	0.1073	5.63	102	0.00
23	PT	t12dichlorte	0.2413	0.2342	2.94	107	0.00
24	PT	MtBE	0.6867	0.6234	9.22	100	0.00
25	T	Hexane	0.3386	0.3527	-4.16	99	0.00
26	PT	11dichlorota	0.4619	0.4293	7.06	102	0.00
27	T	Vinylacetate	0.5009	0.4296	14.23	92	0.00
28	T	chloroprene	0.4155	0.4350	-4.69	105	0.00
29	T	Diisopether	0.8510	0.8176	3.92	103	0.00
30	T	ETBE	0.7198	0.6625	7.96	101	0.00
31	T	22dichloropr	0.3389	0.2859	15.64	93	0.00
32	PT	c12dichlorte	0.2699	0.2494	7.60	99	0.00
33	PT	2Butanone	0.0362	0.0342#	5.52	102	0.00
34	T	propionitrile	0.0466	0.0429	7.94	100	0.00
35	T	Ethylacetate	0.0124	0.0109#	12.10	98	0.00
36	T	methacrylonitrile	0.1214	0.1126	7.25	105	0.01
37	T	Bromochlorma	0.1244	0.1170	5.95	105	0.00
38	T	Tetrahydofur	0.1039	0.0899	13.47	101	0.00
39	PT	Chloroform	0.4384	0.4102	6.43	104	0.00
40	PT	111trichlota	0.3521	0.3545	-0.68	105	0.00
41	S	SURRDibrflma	0.2578	0.2640	-2.40	110	0.00
42	PT	Cyclohexane	0.4263	0.4533	-6.33	102	0.00
43	PT	Carbtetraclo	0.2881	0.2920	-1.35	107	0.00
44	T	11dicloprope	0.1177	0.1173	0.34	107	0.00
45	S	SURR12DCAd4	0.0693	0.0743	-7.22	113	0.00
46	PT	Benzene	0.9905	0.9516	3.93	103	0.00
47	PT	12dichlorota	0.3617	0.3488	3.57	106	0.00
48	T	TAME	0.6668	0.6242	6.39	103	0.00

49	PT	trichloroete	0.2538	0.2470	2.68	104	0.00
50	PT	methylcyclohexane	0.4519	0.4877	-7.92	103	0.00
51	PT	12dicloropra	0.2832	0.2651	6.39	103	0.00
52	T	23Dicl1propene	0.4030	0.3837	4.79	105	0.00
53	T	Dibromometha	0.1558	0.1429	8.28	103	0.00
54	T	methylmethacrylate	0.2116	0.1883	11.01	103	0.00
55	T	14dioxane	0.0036	0.0034#	5.56	104	0.00
56	PT	Bromodiclrma	0.3114	0.2877	7.61	103	0.00
57	T	2Nitropropane	0.0798	0.0719	9.90	94	0.00
58	T	2CLEVE	0.1137	0.1068	6.07	103	0.00
59	PT	c13dicloproe	0.3918	0.3638	7.15	100	0.00
60	PT	4Meth2Pentan	0.2680	0.2466	7.99	100	0.00
61	S	SURRd8Tolule	1.0302	1.0077	2.18	104	0.00
62	PT	Toluene	0.6344	0.6052	4.60	104	0.00
63	PT	t13Dicloprop	0.3437	0.3153	8.26	101	0.00
64	T	ethylmethacrylate	0.3671	0.3444	6.18	101	0.00
65	PT	112Triclotha	0.1911	0.1792	6.23	103	0.00
66	PT	Tetrachlorte	0.2685	0.2703	-0.67	108	0.00
67	T	13Diclorpropa	0.4148	0.3872	6.65	103	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	100	0.00
69	PT	2Hexanone	0.2324	0.2329	-0.22	101	0.00
70	PT	Clorodibrmta	0.2713	0.2622	3.35	103	0.00
71	PT	12Dibrometha	0.2727	0.2747	-0.73	106	0.00
72	PT	Chlorobenzen	0.8217	0.8418	-2.45	105	0.00
73	T	1Clhexane	0.4294	0.4570	-6.43	103	0.00
74	T	1112Tetclota	0.2741	0.2681	2.19	104	0.00
75	PT	Ethylbenzene	1.3476	1.4404	-6.89	105	0.00
76	PT	m p-Xylene	0.5160	0.5486	-6.32	104	0.00
77	PT	o-Xylene	0.5186	0.5261	-1.45	103	0.00
78	PT	Styrene	0.8431	0.8729	-3.53	103	0.00
79	PT	Bromoform	0.1695	0.1573	7.20	104	0.00
80	PT	Isopropylben	1.2574	1.3597	-8.14	102	0.00
81	T	cyclohexanone	0.0190	0.0167#	12.11	91	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	95	0.00
83	S	SURR4BrFBenz	0.9473	0.9386	0.92	95	0.00
84	T	Bromobenzene	0.6115	0.6447	-5.43	104	0.00
85	PT	1122Tetrclta	0.6731	0.7146	-6.17	103	0.00
86	T	123Triclproa	0.8669	0.8897	-2.63	101	0.00
87	T	14dichloro2butene	0.2033	0.1944	4.38	96	0.00
88	T	n-Propylbenz	2.6286	3.0416	-15.71	104	0.00
89	T	2chlorotolue	1.6526	1.7912	-8.39	105	0.00
90	T	4chlorotolue	1.9172	2.0728	-8.12	103	0.00
91	T	135Trimebenz	1.9203	2.1483	-11.87	105	0.00
92	T	tbutylbenzen	1.6708	1.9062	-14.09	103	0.00
93	T	124Trimetben	1.8615	2.0633	-10.84	103	0.00
94	T	sbutylbenzen	2.2966	2.6756	-16.50	104	0.00
95	PT	13Diclorbenz	1.1102	1.2119	-9.16	106	0.00
96	T	pIsopropylto	2.0031	2.3156	-15.60	104	0.00
97	PT	14dichlorobe	1.2645	1.2233	3.26	102	0.00
98	PT	12dichlorobe	1.2486	1.1313	9.39	100	0.00
99	T	nButylbenzen	1.8014	2.0733	-15.09	104	0.00
100	PT	12dibromo3cl	0.1319	0.1338	-1.44	103	0.00
101	T	135Trichlorobenzene	0.7785	0.8319	-6.86	101	0.00
102	PT	124Trichlobe	0.6737	0.6765	-0.42	98	0.00
103	T	Hexachlorobu	0.2855	0.3214	-12.57	109	0.00
104	T	Naphthalene	1.5574	1.6475	-5.79	104	0.00
105	T	123Trichlben	0.5967	0.6495	-8.85	104	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W102921.M Tue Nov 02 12:00:11 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D Vial: 25
Acq On : 1 Nov 2021 20:07 Operator: DGS-RLD
Sample : 196904,LCSDW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:40 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	108	0.00
2	PT	Dichlorodi	10.0000	10.2869	-2.87	102	0.00
3	PT	Chloromethan	10.0000	9.1771	8.23	105	0.00
4	PT	VinylChlorid	10.0000	9.9808	0.19	102	0.00
5	PT	Bromomethane	10.0000	8.7756	12.24	100	0.00
6	PT	Chloroethane	10.0000	9.4950	5.05	98	0.00
7	T	Dichloroflmethane	10.0000	9.4209	5.79	101	0.00
8	PT	Trichlorofma	10.0000	10.8068	-8.07	107	0.00
9	T	Ethylether	10.0000	9.1304	8.70	98	0.00
10	T	dichlorotfluoroethan	10.0000	10.4353	-4.35	107	0.00
11	T	propyleneoxide	100.0000	90.9376	9.06	100	0.00
12	T	Acrolein	50.0000	45.0685	9.86	99	0.00
13	PT	11dichlorthe	10.0000	10.3686	-3.69	104	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.6006	-8.00	102	0.00
15	PT	Acetone	100.0000	92.8949	7.11	100	0.00
16	T	Iodomethane	20.0000	17.0927	14.54	96	0.00
17	PT	Carbon Dislf	20.0000	20.2640	-1.32	103	0.00
18	T	allylchloride	20.0000	18.8221	5.89	98	0.00
19	PT	methylacetate	10.0000	8.8982	11.02	97	0.00
20	PT	Methylchlorid	10.0000	9.3302	6.70	111	0.00
21	T	tbutylalcohol	500.0000	454.5671	9.09	100	0.00
22	T	Acrylonitrile	50.0000	47.1770	5.65	102	0.00
23	PT	t12dichlorte	10.0000	9.7091	2.91	107	0.00
24	PT	MtBE	10.0000	9.0785	9.21	100	0.00
25	T	Hexane	20.0000	20.8323	-4.16	99	0.00
26	PT	11dichlorota	10.0000	9.2953	7.05	102	0.00
27	T	Vinylacetate	100.0000	85.0452	14.95	92	0.00
28	T	chloroprene	20.0000	20.9384	-4.69	105	0.00
29	T	Diisopether	10.0000	9.6070	3.93	103	0.00
30	T	ETBE	10.0000	9.2043	7.96	101	0.00
31	T	22dichloropr	10.0000	8.4365	15.63	93	0.00
32	PT	c12dichlorte	10.0000	9.2427	7.57	99	0.00
33	PT	2Butanone	100.0000	94.4970	5.50	102	0.00
34	T	propionitrile	100.0000	92.0541	7.95	100	0.00
35	T	Ethylacetate	50.0000	43.9282	12.14	98	0.00
36	T	methacrylonitrile	20.0000	18.5441	7.28	105	0.01
37	T	Bromochlorma	10.0000	9.4081	5.92	105	0.00
38	T	Tetrahydofur	100.0000	86.4865	13.51	101	0.00
39	PT	Chloroform	10.0000	9.3566	6.43	104	0.00
40	PT	111trichlota	10.0000	10.0671	-0.67	105	0.00
41	S	SURRDibrflma	20.0000	20.4795	-2.40	110	0.00
42	PT	Cyclohexane	10.0000	10.6342	-6.34	102	0.00
43	PT	Carbtetraclo	10.0000	10.1354	-1.35	107	0.00
44	T	11dicloprope	10.0000	9.9688	0.31	107	0.00
45	S	SURR12DCAd4	20.0000	21.4473	-7.24	113	0.00
46	PT	Benzene	10.0000	9.6075	3.93	103	0.00
47	PT	12dichlorota	10.0000	9.6429	3.57	106	0.00
48	T	TAME	10.0000	9.3610	6.39	103	0.00

49	PT	trichloroete	10.0000	9.7319	2.68	104	0.00
50	PT	methylcyclohexane	10.0000	10.7904	-7.90	103	0.00
51	PT	12dicloropra	10.0000	9.3591	6.41	103	0.00
52	T	23Dicl1propene	10.0000	9.5213	4.79	105	0.00
53	T	Dibromometha	10.0000	9.1753	8.25	103	0.00
54	T	methylmethacrylate	10.0000	8.8977	11.02	103	0.00
55	T	14dioxane	500.0000	464.3128	7.14	104	0.00
56	PT	Bromodiclrma	10.0000	9.2370	7.63	103	0.00
57	T	2Nitropropane	100.0000	90.1334	9.87	94	0.00
58	T	2CLEVE	50.0000	46.9735	6.05	103	0.00
59	PT	c13dicloproe	10.0000	9.2857	7.14	100	0.00
60	PT	4Meth2Pentan	100.0000	91.4520	8.55	100	0.00
61	S	SURRd8Tolule	20.0000	19.5631	2.18	104	0.00
62	PT	Toluene	10.0000	9.5397	4.60	104	0.00
63	PT	t13Dicloprop	10.0000	9.1754	8.25	101	0.00
64	T	ethylmethacrylate	20.0000	18.7632	6.18	101	0.00
65	PT	112Triclotha	10.0000	9.3762	6.24	103	0.00
66	PT	Tetrachlorte	10.0000	10.0686	-0.69	108	0.00
67	T	13Diclorpropa	10.0000	9.3339	6.66	103	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
69	PT	2Hexanone	100.0000	100.2160	-0.22	101	0.00
70	PT	Clorodibrmta	10.0000	9.6645	3.35	103	0.00
71	PT	12Dibrometha	10.0000	10.0732	-0.73	106	0.00
72	PT	Chlorobenzen	10.0000	10.2441	-2.44	105	0.00
73	T	1Clhexane	10.0000	10.6418	-6.42	103	0.00
74	T	1112Tetclota	10.0000	9.7819	2.18	104	0.00
75	PT	Ethylbenzene	10.0000	10.6882	-6.88	105	0.00
76	PT	m p-Xylene	20.0000	21.2613	-6.31	104	0.00
77	PT	o-Xylene	10.0000	10.1450	-1.45	103	0.00
78	PT	Styrene	10.0000	10.3529	-3.53	103	0.00
79	PT	Bromoform	10.0000	9.2791	7.21	104	0.00
80	PT	Isopropylben	10.0000	10.8137	-8.14	102	0.00
81	T	cyclohexanone	200.0000	175.9636	12.02	91	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	95	0.00
83	S	SURR4BrFBenz	20.0000	19.8173	0.91	95	0.00
84	T	Bromobenzene	10.0000	10.5433	-5.43	104	0.00
85	PT	1122Tetrclta	10.0000	10.6161	-6.16	103	0.00
86	T	123Triclproa	10.0000	10.2622	-2.62	101	0.00
87	T	14dichloro2butene	10.0000	9.5613	4.39	96	0.00
88	T	n-Propylbenz	10.0000	11.5711	-15.71	104	0.00
89	T	2chlorotolue	10.0000	10.8386	-8.39	105	0.00
90	T	4chlorotolue	10.0000	10.8119	-8.12	103	0.00
91	T	135Trimebenz	10.0000	11.1876	-11.88	105	0.00
92	T	tbutylbenzen	10.0000	11.4090	-14.09	103	0.00
93	T	124Trimetben	10.0000	11.0840	-10.84	103	0.00
94	T	sbutylbenzen	10.0000	11.6504	-16.50	104	0.00
95	PT	13Diclorbenz	10.0000	10.9153	-9.15	106	0.00
96	T	pIsopropylto	10.0000	11.5598	-15.60	104	0.00
97	PT	14dichlorobe	10.0000	10.1664	-1.66	102	0.00
98	PT	12dichlorobe	10.0000	9.9771	0.23	100	0.00
99	T	nButylbenzen	10.0000	11.5091	-15.09	104	0.00
100	PT	12dibromo3cl	10.0000	10.1413	-1.41	103	0.00
101	T	135Trichlorobenzene	10.0000	10.6861	-6.86	101	0.00
102	PT	124Trichlobe	10.0000	10.0423	-0.42	98	0.00
103	T	Hexachlorobu	10.0000	11.2577	-12.58	109	0.00
104	T	Naphthalene	10.0000	10.5784	-5.78	104	0.00
105	T	123Trichlben	10.0000	10.8835	-8.83	104	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 13:22:31 2021

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D Vial: 25
Acq On : 1 Nov 2021 20:07 Operator: DGS-RLD
Sample : 196904,LCSDW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:40 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1302395	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1021126	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	540943	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	343827	20.480	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	96772	21.447	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 107	%		
61) SURRd8Tolule	9.70	98	1312405	19.563	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.24	95	507743	19.817	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	147634	10.2869	ug/L	100
3) Chloromethan	2.10	50	187734	9.1771	ug/L	95
4) VinylChlorid	2.24	62	189709	9.9808	ug/L	99
5) Bromomethane	2.70	94	91560	8.7756	ug/L	100
6) Chloroethane	2.87	64	115265	9.4950	ug/L	97
7) Dichloroflmethane	3.18	67	221815	9.4209	ug/L	98
8) Trichlorofma	3.26	101	238652	10.8068	ug/L	96
9) Ethylether	3.71	59	134056	9.1304	ug/L	96
10) dichlorotfluoroethan	3.72	67	244982	10.4353	ug/L	97
11) propyleneoxide	3.76	58	330564	90.9376	ug/L	98
12) Acrolein	3.84	56	168178	45.0685	ug/L	96
13) 11dichlorthe	3.99	96	140033	10.3686	ug/L	97
14) Trichlorotfluoroeth	4.03	101	295165	21.6006	ug/L	97
15) Acetone	4.05	43	588334	92.8949	ug/L	100
16) Iodomethane	4.16	142	305286	17.0927	ug/L	100
17) Carbon Dislf	4.26	76	752044	20.2640	ug/L	99
18) allylchloride	4.47	41	501151	18.8221	ug/L	98
19) methylacetate	4.53	74	50562	8.8982	ug/L	96
20) Methylchlorid	4.63	84	159327	9.3302	ug/L	97
21) tbutylalcohol	4.83	59	827757	454.5671	ug/L	99
22) Acrylonitrile	4.93	53	349423	47.1770	ug/L	97
23) t12dichlorte	5.00	96	152534	9.7091	ug/L	98
24) MtBE	5.04	73	405987	9.0785	ug/L	100
25) Hexane	5.40	57	459312	20.8323	ug/L	99
26) 11dichlorota	5.53	63	279588	9.2953	ug/L	99
27) Vinylacetate	5.62	43	2797338	85.0452	ug/L	99
28) chloroprene	5.66	53	566486	20.9384	ug/L	99
29) Diisopether	5.68	45	532414	9.6070	ug/L	93
30) ETBE	6.13	59	431448	9.2043	ug/L	99
31) 22dichloropr	6.26	77	186199	8.4365	ug/L	97
32) c12dichlorte	6.26	96	162427	9.2427	ug/L	96
33) 2Butanone	6.28	72	222937	94.4970	ug/L	97
34) propionitrile	6.32	54	279183	92.0541	ug/L	99
35) Ethylacetate	6.38	88	35385	43.9282	ug/L	94
36) methacrylonitrile	6.53	67	146656	18.5441	ug/L	94
37) Bromochlorma	6.55	128	76194	9.4081	ug/L	99
38) Tetrahydofur	6.63	42	585262	86.4865	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D Vial: 25
Acq On : 1 Nov 2021 20:07 Operator: DGS-RLD
Sample : 196904,LCSDW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:40 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	267144	9.3566	ug/L	99
40)	111trichlota	6.90	97	230829	10.0671	ug/L	99
42)	Cyclohexane	6.99	56	295215	10.6342	ug/L	96
43)	Carbtetraclo	7.12	119	190169	10.1354	ug/L	96
44)	11dicloprope	7.11	110	76418	9.9688	ug/L	96
46)	Benzene	7.35	78	619665	9.6075	ug/L	99
47)	12dichlorota	7.35	62	227115	9.6429	ug/L	100
48)	TAME	7.52	73	406465	9.3610	ug/L	98
49)	trichloroete	8.16	95	160859	9.7319	ug/L	98
50)	methylcyclohexane	8.43	83	317559	10.7904	ug/L	98
51)	12dicloropra	8.42	63	172626	9.3591	ug/L	99
52)	23Dicl1propene	8.48	75	249896	9.5213	ug/L	99
53)	Dibromometha	8.56	93	93078	9.1753	ug/L	98
54)	methylmethacrylate	8.58	69	122599	8.8977	ug/L	98
55)	14dioxane	8.60	88	110258	464.3128	ug/L	98
56)	Bromodiclrma	8.76	83	187337	9.2370	ug/L	100
57)	2Nitropropane	9.02	43	468523	90.1334	ug/L	98
58)	2CLEVE	9.15	63	347754	46.9735	ug/L	99
59)	c13dicloproe	9.33	75	236900	9.2857	ug/L	99
60)	4Meth2Pentan	9.54	43	1606104	91.4520	ug/L	99
62)	Toluene	9.79	92	394128	9.5397	ug/L	99
63)	t13Dicloprop	10.04	75	205339	9.1754	ug/L	98
64)	ethylmethacrylate	10.19	69	448547	18.7632	ug/L	99
65)	112Triclotha	10.28	83	116704	9.3762	ug/L	100
66)	Tetrachlorte	10.52	166	176032	10.0686	ug/L	98
67)	13Diclorpropa	10.50	76	252143	9.3339	ug/L	99
69)	2Hexanone	10.62	43	1189225	100.2160	ug/L	100
70)	Clorodibrmta	10.81	129	133886	9.6645	ug/L	100
71)	12Dibrometha	10.96	107	140241	10.0732	ug/L	96
72)	Chlorobenzen	11.65	112	429782	10.2441	ug/L	100
73)	1Clhexane	11.63	91	233310	10.6418	ug/L	98
74)	1112Tetclota	11.76	131	136871	9.7819	ug/L	97
75)	Ethylbenzene	11.81	91	735407	10.6882	ug/L	99
76)	m p-Xylene	11.98	106	560148	21.2613	ug/L	100
77)	o-Xylene	12.52	106	268628	10.1450	ug/L	99
78)	Styrene	12.53	104	445657	10.3529	ug/L	99
79)	Bromoform	12.76	173	80316	9.2791	ug/L	96
80)	Isopropylben	13.05	105	694220	10.8137	ug/L	100
81)	cyclohexanone	13.12	55	170256	175.9636	ug/L	99
84)	Bromobenzene	13.45	156	174386	10.5433	ug/L	100
85)	1122Tetrclta	13.42	83	193284	10.6161	ug/L	99
86)	123Triclproa	13.49	75	240628	10.2622	ug/L	99
87)	14dichloro2butene	13.51	53	52577	9.5613	ug/L	94
88)	n-Propylbenz	13.63	91	822674	11.5711	ug/L	100
89)	2chlorotolue	13.74	91	484463	10.8386	ug/L	99
90)	4chlorotolue	13.89	91	560634	10.8119	ug/L	99
91)	135Trimebenz	13.89	105	581054	11.1876	ug/L	99
92)	tbutylbenzen	14.35	119	515562	11.4090	ug/L	99
93)	124Trimetben	14.42	105	558068	11.0840	ug/L	99
94)	sbutylbenzen	14.68	105	723671	11.6504	ug/L	99
95)	13Diclorbenz	14.81	146	327773	10.9153	ug/L	98
96)	pIsopropylto	14.89	119	626292	11.5598	ug/L	99
97)	14dichlorobe	14.94	146	330859	10.1664	ug/L	99
98)	12dichlorobe	15.48	146	305987	9.9771	ug/L	99
99)	nButylbenzen	15.49	91	560770	11.5091	ug/L	99
100)	12dibromo3cl	16.57	157	36191	10.1413	ug/L	91
101)	135Trichlorobenzene	16.90	180	225004	10.6861	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

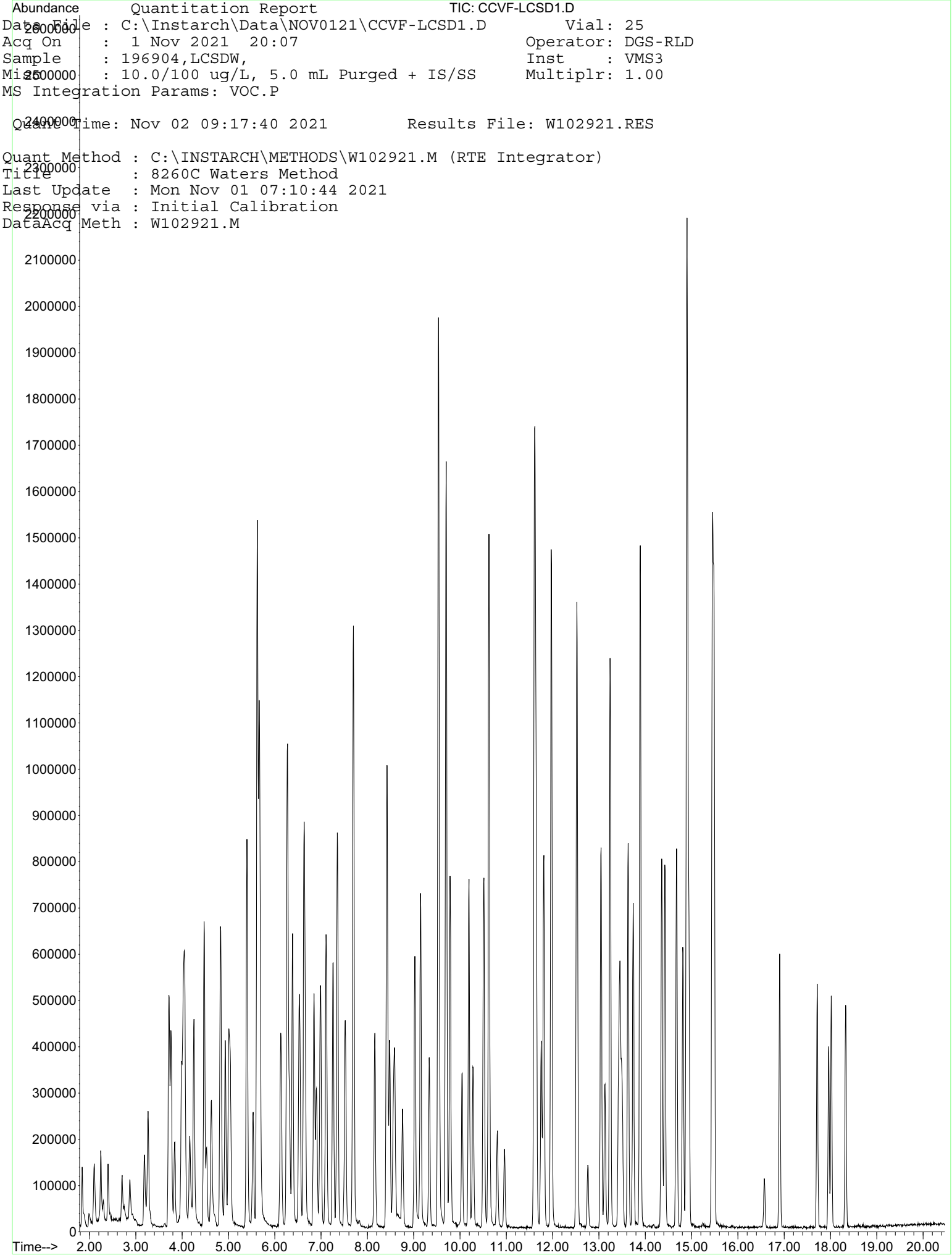
Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D Vial: 25
Acq On : 1 Nov 2021 20:07 Operator: DGS-RLD
Sample : 196904,LCSDW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:40 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	182987	10.0423	ug/L	95
103) Hexachlorobu	17.96	225	86917	11.2577	ug/L	94
104) Naphthalene	18.02	128	445606	10.5784	ug/L	99
105) 123Trichlben	18.33	180	175658	10.8835	ug/L	98

(#) = qualifier out of range (m) = manual integration


Abundance
Quantitation Report
TIC: CCVF-LCSD1.D
Data File : C:\Instarch\Data\NOV0121\CCVF-LCSD1.D
Vial: 25
Acq On : 1 Nov 2021 20:07
Operator: DGS-RLD
Sample : 196904,LCSDW,
Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS
Multiplr: 1.00
MS Integration Params: VOC.P
Quant Time: Nov 02 09:17:40 2021
Results File: W102921.RES
Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
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BFB

Data File : C:\Instarch\Data\NOV0121\BFB2.D Vial: 26
Acq On : 2 Nov 2021 7:21 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.657 to 4.663 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.9	21947	PASS
75	95	30	60	53.5	53539	PASS
95	95	100	100	100.0	100000	PASS
96	95	5	9	6.5	6501	PASS
173	174	0.00	2	0.7	562	PASS
174	95	50	100	81.5	81492	PASS
175	174	5	9	8.1	6573	PASS
176	174	95	101	95.8	78085	PASS
177	176	5	9	7.3	5698	PASS

W102921.M Tue Nov 02 13:21:36 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:27 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	109	0.00
2	PT	Dichlorodi	0.2204	0.2215	-0.50	101	0.00
3	PT	Chloromethan	0.3141	0.2746	12.58	101	0.00
4	PT	VinylChlorid	0.2919	0.2959	-1.37	104	0.00
5	PT	Bromomethane	0.1499	0.1305	12.94	94	0.00
6	PT	Chloroethane	0.1864	0.1785	4.24	100	0.00
7	T	Dichloroflmethane	0.3616	0.3404	5.86	102	0.00
8	PT	Trichlorofma	0.3391	0.3577	-5.49	106	0.00
9	T	Ethylether	0.2255	0.2060	8.65	100	0.00
10	T	dichlorotfluoroethan	0.3605	0.3678	-2.02	105	0.00
11	T	propyleneoxide	0.0558	0.0512	8.24	102	0.00
12	T	Acrolein	0.0573	0.0524	8.55	102	0.00
13	PT	11dichlorthe	0.2074	0.2081	-0.34	102	0.00
14	PT	Trichlorotfluoroeth	0.2098	0.2256	-7.53	103	0.00
15	PT	Acetone	0.0973	0.0925#	4.93	104	0.00
16	T	Iodomethane	0.2434	0.2314	4.93	96	0.00
17	PT	Carbon Dislf	0.5699	0.5782	-1.46	105	0.00
18	T	allylchloride	0.4089	0.3895	4.74	100	0.00
19	PT	methylacetate	0.0873	0.0778#	10.88	98	0.00
20	PT	Methylchlorid	0.2622	0.2267	13.54	104	0.00
21	T	tbutylalcohol	0.0280	0.0239#	14.64	95	0.00
22	T	Acrylonitrile	0.1137	0.1040	8.53	100	0.00
23	PT	t12dichlorte	0.2413	0.2229	7.63	103	0.00
24	PT	MtBE	0.6867	0.6154	10.38	100	0.00
25	T	Hexane	0.3386	0.3735	-10.31	106	0.00
26	PT	11dichlorota	0.4619	0.4218	8.68	101	0.00
27	T	Vinylacetate	0.5009	0.4658	7.01	101	0.00
28	T	chloroprene	0.4155	0.4256	-2.43	104	0.00
29	T	Diisopether	0.8510	0.8086	4.98	103	0.00
30	T	ETBE	0.7198	0.6503	9.66	100	0.00
31	T	22dichloropr	0.3389	0.3363	0.77	110	0.00
32	PT	c12dichlorte	0.2699	0.2431	9.93	97	0.00
33	PT	2Butanone	0.0362	0.0329#	9.12	99	0.00
34	T	propionitrile	0.0466	0.0421	9.66	100	0.00
35	T	Ethylacetate	0.0124	0.0105#	15.32	96	0.00
36	T	methacrylonitrile	0.1214	0.1089	10.30	103	0.00
37	T	Bromochlorma	0.1244	0.1134	8.84	103	0.00
38	T	Tetrahydofur	0.1039	0.0882	15.11	100	0.00
39	PT	Chloroform	0.4384	0.4048	7.66	104	0.00
40	PT	111trichlota	0.3521	0.3490	0.88	104	0.00
41	S	SURRDibrflma	0.2578	0.2587	-0.35	109	0.00
42	PT	Cyclohexane	0.4263	0.4530	-6.26	104	0.00
43	PT	Carbtetraclo	0.2881	0.2858	0.80	106	0.00
44	T	11dicloprope	0.1177	0.1152	2.12	106	0.00
45	S	SURR12DCAd4	0.0693	0.0702	-1.30	108	0.00
46	PT	Benzene	0.9905	0.9316	5.95	102	0.00
47	PT	12dichlorota	0.3617	0.3406	5.83	105	0.00
48	T	TAME	0.6668	0.6104	8.46	102	0.00

49	PT	trichloroete	0.2538	0.2317	8.71	98	0.00
50	PT	methylcyclohexane	0.4519	0.4943	-9.38	106	0.00
51	PT	12dicloropra	0.2832	0.2595	8.37	102	0.00
52	T	23Dicl1propene	0.4030	0.3664	9.08	101	0.00
53	T	Dibromometha	0.1558	0.1414	9.24	103	0.00
54	T	methylmethacrylate	0.2116	0.1854	12.38	103	0.00
55	T	14dioxane	0.0036	0.0031#	13.89	97	0.00
56	PT	Bromodiclrma	0.3114	0.2939	5.62	107	0.00
57	T	2Nitropropane	0.0798	0.0706	11.53	94	0.00
58	T	2CLEVE	0.1137	0.0996	12.40	97	0.00
59	PT	c13dicloproe	0.3918	0.3683	6.00	102	0.00
60	PT	4Meth2Pentan	0.2680	0.2386	10.97	98	0.00
61	S	SURRd8Tolule	1.0302	0.9973	3.19	104	0.00
62	PT	Toluene	0.6344	0.6019	5.12	105	0.00
63	PT	t13Dicloprop	0.3437	0.3183	7.39	103	0.00
64	T	ethylmethacrylate	0.3671	0.3382	7.87	100	0.00
65	PT	112Triclotha	0.1911	0.1790	6.33	104	0.00
66	PT	Tetrachlorte	0.2685	0.2673	0.45	108	0.00
67	T	13Diclorpropa	0.4148	0.3829	7.69	103	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	98	0.00
69	PT	2Hexanone	0.2324	0.2291	1.42	97	0.00
70	PT	Clorodibrmta	0.2713	0.2755	-1.55	107	0.00
71	PT	12Dibrometha	0.2727	0.2810	-3.04	107	0.00
72	PT	Chlorobenzen	0.8217	0.8313	-1.17	102	0.00
73	T	1Clhexane	0.4294	0.4720	-9.92	104	0.00
74	T	1112Tetclota	0.2741	0.2771	-1.09	105	0.00
75	PT	Ethylbenzene	1.3476	1.4482	-7.47	104	0.00
76	PT	m p-Xylene	0.5160	0.5486	-6.32	102	0.00
77	PT	o-Xylene	0.5186	0.5392	-3.97	103	0.00
78	PT	Styrene	0.8431	0.8773	-4.06	101	0.00
79	PT	Bromoform	0.1695	0.1671	1.42	108	0.00
80	PT	Isopropylben	1.2574	1.4030	-11.58	104	0.00
81	T	cyclohexanone	0.0190	0.0186#	2.11	100	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	95	0.00
83	S	SURR4BrFBenz	0.9473	0.9517	-0.46	96	0.00
84	T	Bromobenzene	0.6115	0.6290	-2.86	101	0.00
85	PT	1122Tetrclta	0.6731	0.7157	-6.33	103	0.00
86	T	123Triclproa	0.8669	0.8964	-3.40	102	0.00
87	T	14dichloro2butene	0.2033	0.2023	0.49	100	0.00
88	T	n-Propylbenz	2.6286	2.9969	-14.01	102	0.00
89	T	2chlorotolue	1.6526	1.7731	-7.29	103	0.00
90	T	4chlorotolue	1.9172	2.0659	-7.76	103	0.00
91	T	135Trimebenz	1.9203	2.1130	-10.03	103	0.00
92	T	tbutylbenzen	1.6708	1.8834	-12.72	101	0.00
93	T	124Trimetben	1.8615	2.0656	-10.96	103	0.00
94	T	sbutylbenzen	2.2966	2.6948	-17.34	105	0.00
95	PT	13Diclorbenz	1.1102	1.1771	-6.03	102	0.00
96	T	pIsopropylto	2.0031	2.2839	-14.02	103	0.00
97	PT	14dichlorobe	1.2645	1.2202	3.50	102	0.00
98	PT	12dichlorobe	1.2486	1.1291	9.57	100	0.00
99	T	nButylbenzen	1.8014	2.0735	-15.10	104	0.00
100	PT	12dibromo3cl	0.1319	0.1259	4.55	97	-0.01
101	T	135Trichlorobenzene	0.7785	0.8376	-7.59	102	0.00
102	PT	124Trichlobe	0.6737	0.6694	0.64	97	0.00
103	T	Hexachlorobu	0.2855	0.3100	-8.58	105	0.00
104	T	Naphthalene	1.5574	1.5275	1.92	97	0.00
105	T	123Trichlben	0.5967	0.6270	-5.08	100	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W102921.M Tue Nov 02 11:58:42 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 09:17:27 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	109	0.00
2	PT	Dichlorodi	10.0000	10.0491	-0.49	101	0.00
3	PT	Chloromethan	10.0000	8.7428	12.57	101	0.00
4	PT	VinylChlorid	10.0000	10.1381	-1.38	104	0.00
5	PT	Bromomethane	10.0000	8.1149	18.85	94	0.00
6	PT	Chloroethane	10.0000	9.5742	4.26	100	0.00
7	T	Dichloroflmethane	10.0000	9.4158	5.84	102	0.00
8	PT	Trichlorofma	10.0000	10.5491	-5.49	106	0.00
9	T	Ethylether	10.0000	9.1348	8.65	100	0.00
10	T	dichlorotfluoroethan	10.0000	10.2026	-2.03	105	0.00
11	T	propyleneoxide	100.0000	91.6555	8.34	102	0.00
12	T	Acrolein	50.0000	45.7499	8.50	102	0.00
13	PT	11dichlorthe	10.0000	10.0327	-0.33	102	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.5000	-7.50	103	0.00
15	PT	Acetone	100.0000	95.0729	4.93	104	0.00
16	T	Iodomethane	20.0000	16.8966	15.52	96	0.00
17	PT	Carbon Dislf	20.0000	20.2922	-1.46	105	0.00
18	T	allylchloride	20.0000	19.0542	4.73	100	0.00
19	PT	methylacetate	10.0000	8.9132	10.87	98	0.00
20	PT	Methylchlorid	10.0000	8.6469	13.53	104	0.00
21	T	tbutylalcohol	500.0000	428.0080	14.40	95	0.00
22	T	Acrylonitrile	50.0000	45.7405	8.52	100	0.00
23	PT	t12dichlorte	10.0000	9.2397	7.60	103	0.00
24	PT	MtBE	10.0000	8.9619	10.38	100	0.00
25	T	Hexane	20.0000	22.0602	-10.30	106	0.00
26	PT	11dichlorota	10.0000	9.1322	8.68	101	0.00
27	T	Vinylacetate	100.0000	93.3139	6.69	101	0.00
28	T	chloroprene	20.0000	20.4891	-2.45	104	0.00
29	T	Diisopether	10.0000	9.5011	4.99	103	0.00
30	T	ETBE	10.0000	9.0338	9.66	100	0.00
31	T	22dichloropr	10.0000	9.9222	0.78	110	0.00
32	PT	c12dichlorte	10.0000	9.0080	9.92	97	0.00
33	PT	2Butanone	100.0000	90.9260	9.07	99	0.00
34	T	propionitrile	100.0000	90.3012	9.70	100	0.00
35	T	Ethylacetate	50.0000	42.5546	14.89	96	0.00
36	T	methacrylonitrile	20.0000	17.9421	10.29	103	0.00
37	T	Bromochlorma	10.0000	9.1206	8.79	103	0.00
38	T	Tetrahydofur	100.0000	84.8774	15.12	100	0.00
39	PT	Chloroform	10.0000	9.2335	7.67	104	0.00
40	PT	111trichlota	10.0000	9.9115	0.88	104	0.00
41	S	SURRDibrflma	20.0000	20.0668	-0.33	109	0.00
42	PT	Cyclohexane	10.0000	10.6251	-6.25	104	0.00
43	PT	Carbtetraclo	10.0000	9.9186	0.81	106	0.00
44	T	11dicloprope	10.0000	9.7835	2.16	106	0.00
45	S	SURR12DCAd4	20.0000	20.2529	-1.26	108	0.00
46	PT	Benzene	10.0000	9.4061	5.94	102	0.00
47	PT	12dichlorota	10.0000	9.4163	5.84	105	0.00
48	T	TAME	10.0000	9.1540	8.46	102	0.00

49	PT	trichloroete	10.0000	9.1265	8.73	98	0.00
50	PT	methylcyclohexane	10.0000	10.9383	-9.38	106	0.00
51	PT	12dicloropra	10.0000	9.1609	8.39	102	0.00
52	T	23Dicl1propene	10.0000	9.0911	9.09	101	0.00
53	T	Dibromometha	10.0000	9.0769	9.23	103	0.00
54	T	methylmethacrylate	10.0000	8.7609	12.39	103	0.00
55	T	14dioxane	500.0000	430.2597	13.95	97	0.00
56	PT	Bromodiclrma	10.0000	9.4366	5.63	107	0.00
57	T	2Nitropropane	100.0000	88.4019	11.60	94	0.00
58	T	2CLEVE	50.0000	43.8138	12.37	97	0.00
59	PT	c13dicloproe	10.0000	9.4009	5.99	102	0.00
60	PT	4Meth2Pentan	100.0000	88.1699	11.83	98	0.00
61	S	SURRd8Tolule	20.0000	19.3614	3.19	104	0.00
62	PT	Toluene	10.0000	9.4878	5.12	105	0.00
63	PT	t13Dicloprop	10.0000	9.2622	7.38	103	0.00
64	T	ethylmethacrylate	20.0000	18.4279	7.86	100	0.00
65	PT	112Triclotha	10.0000	9.3641	6.36	104	0.00
66	PT	Tetrachlorte	10.0000	9.9558	0.44	108	0.00
67	T	13Diclorpropa	10.0000	9.2307	7.69	103	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	98	0.00
69	PT	2Hexanone	100.0000	98.5796	1.42	97	0.00
70	PT	Clorodibrmta	10.0000	10.1524	-1.52	107	0.00
71	PT	12Dibrometha	10.0000	10.3048	-3.05	107	0.00
72	PT	Chlorobenzen	10.0000	10.1164	-1.16	102	0.00
73	T	1Clhexane	10.0000	10.9920	-9.92	104	0.00
74	T	1112Tetclota	10.0000	10.1114	-1.11	105	0.00
75	PT	Ethylbenzene	10.0000	10.7462	-7.46	104	0.00
76	PT	m p-Xylene	20.0000	21.2626	-6.31	102	0.00
77	PT	o-Xylene	10.0000	10.3970	-3.97	103	0.00
78	PT	Styrene	10.0000	10.4052	-4.05	101	0.00
79	PT	Bromoform	10.0000	9.8580	1.42	108	0.00
80	PT	Isopropylben	10.0000	11.1582	-11.58	104	0.00
81	T	cyclohexanone	200.0000	196.2006	1.90	100	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	95	0.00
83	S	SURR4BrFBenz	20.0000	20.0931	-0.47	96	0.00
84	T	Bromobenzene	10.0000	10.2862	-2.86	101	0.00
85	PT	1122Tetrclta	10.0000	10.6322	-6.32	103	0.00
86	T	123Triclproa	10.0000	10.3401	-3.40	102	0.00
87	T	14dichloro2butene	10.0000	9.9523	0.48	100	0.00
88	T	n-Propylbenz	10.0000	11.4011	-14.01	102	0.00
89	T	2chlorotolue	10.0000	10.7290	-7.29	103	0.00
90	T	4chlorotolue	10.0000	10.7758	-7.76	103	0.00
91	T	135Trimebenz	10.0000	11.0035	-10.04	103	0.00
92	T	tbutylbenzen	10.0000	11.2727	-12.73	101	0.00
93	T	124Trimetben	10.0000	11.0962	-10.96	103	0.00
94	T	sbutylbenzen	10.0000	11.7343	-17.34	105	0.00
95	PT	13Diclorbenz	10.0000	10.6024	-6.02	102	0.00
96	T	pIsopropylto	10.0000	11.4020	-14.02	103	0.00
97	PT	14dichlorobe	10.0000	10.1403	-1.40	102	0.00
98	PT	12dichlorobe	10.0000	9.9568	0.43	100	0.00
99	T	nButylbenzen	10.0000	11.5100	-15.10	104	0.00
100	PT	12dibromo3cl	10.0000	9.5413	4.59	97	-0.01
101	T	135Trichlorobenzene	10.0000	10.7599	-7.60	102	0.00
102	PT	124Trichlobe	10.0000	9.9355	0.65	97	0.00
103	T	Hexachlorobu	10.0000	10.8591	-8.59	105	0.00
104	T	Naphthalene	10.0000	9.8075	1.93	97	0.00
105	T	123Trichlben	10.0000	10.5071	-5.07	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 11:59:05 2021

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1317990	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1003878	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	540485	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	340932	20.067	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.25	102	92477	20.253	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1314427	19.361	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 97	%		
83) SURR4BrFBenz	13.24	95	514373	20.093	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.83	85	145949	10.0491	ug/L	99
3) Chloromethan	2.10	50	180991	8.7428	ug/L	99
4) VinylChlorid	2.24	62	195007	10.1381	ug/L	96
5) Bromomethane	2.69	94	86001	8.1149	ug/L	96
6) Chloroethane	2.86	64	117618	9.5742	ug/L	99
7) Dichloroflmethane	3.18	67	224348	9.4158	ug/L	98
8) Trichlorofma	3.26	101	235749	10.5491	ug/L	98
9) Ethylether	3.71	59	135727	9.1348	ug/L	98
10) dichlorotfluoroethan	3.71	67	242389	10.2026	ug/L	98
11) propyleneoxide	3.76	58	337163	91.6555	ug/L	96
12) Acrolein	3.83	56	172765	45.7499	ug/L	99
13) 11dichlorthe	3.98	96	137119	10.0327	ug/L	98
14) Trichlorotfluoroeth	4.02	101	297308	21.5000	ug/L	96
15) Acetone	4.05	43	609338	95.0729	ug/L	99
16) Iodomethane	4.16	142	305048	16.8966	ug/L	99
17) Carbon Dislf	4.25	76	762106	20.2922	ug/L	99
18) allylchloride	4.47	41	513404	19.0542	ug/L	98
19) methylacetate	4.52	74	51254	8.9132	ug/L	94
20) Methylchlorid	4.63	84	149427	8.6469	ug/L	98
21) tbutylalcohol	4.83	59	788726	428.0080	ug/L	100
22) Acrylonitrile	4.92	53	342840	45.7405	ug/L	99
23) t12dichlorte	5.00	96	146898	9.2397	ug/L	99
24) MtBE	5.03	73	405571	8.9619	ug/L	99
25) Hexane	5.39	57	492210	22.0602	ug/L	99
26) 11dichlorota	5.53	63	277972	9.1322	ug/L	98
27) Vinylacetate	5.62	43	3069536	93.3139	ug/L	100
28) chloroprene	5.65	53	560967	20.4891	ug/L	99
29) Diisopether	5.67	45	532850	9.5011	ug/L	100
30) ETBE	6.13	59	428529	9.0338	ug/L	98
31) 22dichloropr	6.26	77	221612	9.9222	ug/L	98
32) c12dichlorte	6.26	96	160199	9.0080	ug/L	96
33) 2Butanone	6.27	72	217081	90.9260	ug/L	99
34) propionitrile	6.31	54	277146	90.3012	ug/L	98
35) Ethylacetate	6.38	88	34689	42.5546	ug/L	94
36) methacrylonitrile	6.52	67	143594	17.9421	ug/L	98
37) Bromochlorma	6.54	128	74750	9.1206	ug/L	99
38) Tetrahydofur	6.63	42	581251	84.8774	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	266787	9.2335	ug/L	99
40)	111trichlota	6.90	97	229983	9.9115	ug/L	100
42)	Cyclohexane	6.98	56	298492	10.6251	ug/L	98
43)	Carbtetraclo	7.11	119	188329	9.9186	ug/L	96
44)	11dicloprope	7.11	110	75895	9.7835	ug/L	96
46)	Benzene	7.35	78	613938	9.4061	ug/L	99
47)	12dichlorota	7.35	62	224434	9.4163	ug/L	98
48)	TAME	7.52	73	402235	9.1540	ug/L	97
49)	trichloroete	8.15	95	152659	9.1265	ug/L	97
50)	methylcyclohexane	8.42	83	325767	10.9383	ug/L	99
51)	12dicloropra	8.42	63	170994	9.1609	ug/L	100
52)	23Dicl1propene	8.48	75	241460	9.0911	ug/L	99
53)	Dibromometha	8.56	93	93182	9.0769	ug/L	99
54)	methylmethacrylate	8.58	69	122159	8.7609	ug/L	98
55)	14dioxane	8.59	88	103395	430.2597	ug/L	98
56)	Bromodiclrma	8.76	83	193676	9.4366	ug/L	99
57)	2Nitropropane	9.02	43	465025	88.4019	ug/L	99
58)	2CLEVE	9.15	63	328246	43.8138	ug/L	99
59)	c13dicloproe	9.33	75	242711	9.4009	ug/L	99
60)	4Meth2Pentan	9.53	43	1572121	88.1699	ug/L	99
62)	Toluene	9.79	92	396677	9.4878	ug/L	98
63)	t13Dicloprop	10.04	75	209764	9.2622	ug/L	100
64)	ethylmethacrylate	10.19	69	445805	18.4279	ug/L	99
65)	112Triclotha	10.28	83	117949	9.3641	ug/L	99
66)	Tetrachlorte	10.52	166	176144	9.9558	ug/L	98
67)	13Diclorpropa	10.51	76	252342	9.2307	ug/L	97
69)	2Hexanone	10.62	43	1150047	98.5796	ug/L	100
70)	Clorodibrmta	10.80	129	138270	10.1524	ug/L	98
71)	12Dibrometha	10.96	107	141042	10.3048	ug/L	99
72)	Chlorobenzen	11.65	112	417253	10.1164	ug/L	100
73)	1Clhexane	11.63	91	236917	10.9920	ug/L	98
74)	1112Tetclota	11.76	131	139092	10.1114	ug/L	99
75)	Ethylbenzene	11.81	91	726911	10.7462	ug/L	98
76)	m p-Xylene	11.97	106	550720	21.2626	ug/L	99
77)	o-Xylene	12.52	106	270649	10.3970	ug/L	98
78)	Styrene	12.53	104	440344	10.4052	ug/L	97
79)	Bromoform	12.76	173	83886	9.8580	ug/L	97
80)	Isopropylben	13.05	105	704240	11.1582	ug/L	100
81)	cyclohexanone	13.13	55	186630	196.2006	ug/L	100
84)	Bromobenzene	13.45	156	169989	10.2862	ug/L	99
85)	1122Tetrclta	13.42	83	193413	10.6322	ug/L	98
86)	123Triclproa	13.48	75	242249	10.3401	ug/L	99
87)	14dichloro2butene	13.51	53	54681	9.9523	ug/L	99
88)	n-Propylbenz	13.63	91	809903	11.4011	ug/L	100
89)	2chlorotolue	13.74	91	479160	10.7290	ug/L	100
90)	4chlorotolue	13.89	91	558291	10.7758	ug/L	100
91)	135Trimebenz	13.89	105	571011	11.0035	ug/L	99
92)	tbutylbenzen	14.36	119	508974	11.2727	ug/L	98
93)	124Trimetben	14.42	105	558209	11.0962	ug/L	99
94)	sbutylbenzen	14.68	105	728261	11.7343	ug/L	98
95)	13Diclorbenz	14.82	146	318108	10.6024	ug/L	99
96)	pIsopropylto	14.89	119	617220	11.4020	ug/L	99
97)	14dichlorobe	14.94	146	329760	10.1403	ug/L	98
98)	12dichlorobe	15.48	146	305135	9.9568	ug/L	100
99)	nButylbenzen	15.49	91	560337	11.5100	ug/L	99
100)	12dibromo3cl	16.57	157	34021	9.5413	ug/L	100
101)	135Trichlorobenzene	16.90	180	226366	10.7599	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	180888	9.9355	ug/L	97
103) Hexachlorobu	17.96	225	83769	10.8591	ug/L	99
104) Naphthalene	18.02	128	412783	9.8075	ug/L	99
105) 123Trichlben	18.33	180	169439	10.5071	ug/L	97

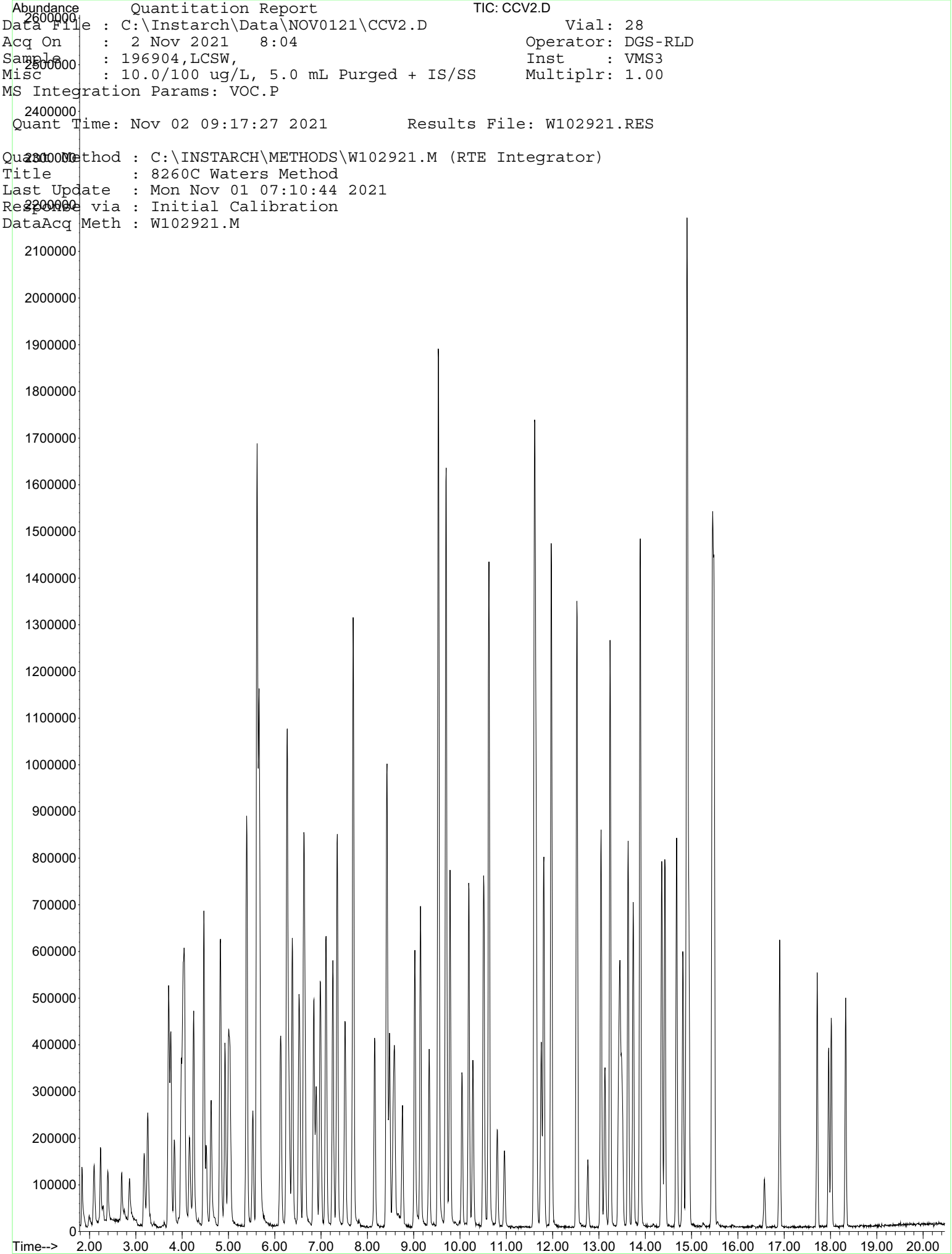
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCV2.D

Data File : C:\Instarch\Data\NOV0121\CCV2.D Vial: 28
Acq On : 2 Nov 2021 8:04 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:27 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\CCB1.D Vial: 32
Acq On : 2 Nov 2021 9:59 Operator: DGS-RLD
Sample : 196904,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 10:19:35 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1258537	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	969532	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	503256	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	321234	19.801 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %		
45) SURR12DCAd4	7.26	102	92701	21.261 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 106 %		
61) SURRd8Tolule	9.70	98	1242576	19.168 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %		
83) SURR4BrFBenz	13.24	95	483557	20.287 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.84	64	2636	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	8514	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3689	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.84	59	4943	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	8623	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\CCB1.D Vial: 32
Acq On : 2 Nov 2021 9:59 Operator: DGS-RLD
Sample : 196904,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 10:19:35 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.53	43	4086	Below Cal #	41
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.63	43	4089	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	3133	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.68	105	2656	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.89	119	2938	N.D.	
97)	14dichlorobe	14.95	146	2740	Below Cal #	1
98)	12dichlorobe	15.47	146	4776	Below Cal #	14
99)	nButylbenzen	15.50	91	5839	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\CCB1.D Vial: 32
Acq On : 2 Nov 2021 9:59 Operator: DGS-RLD
Sample : 196904,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 10:19:35 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	3792	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

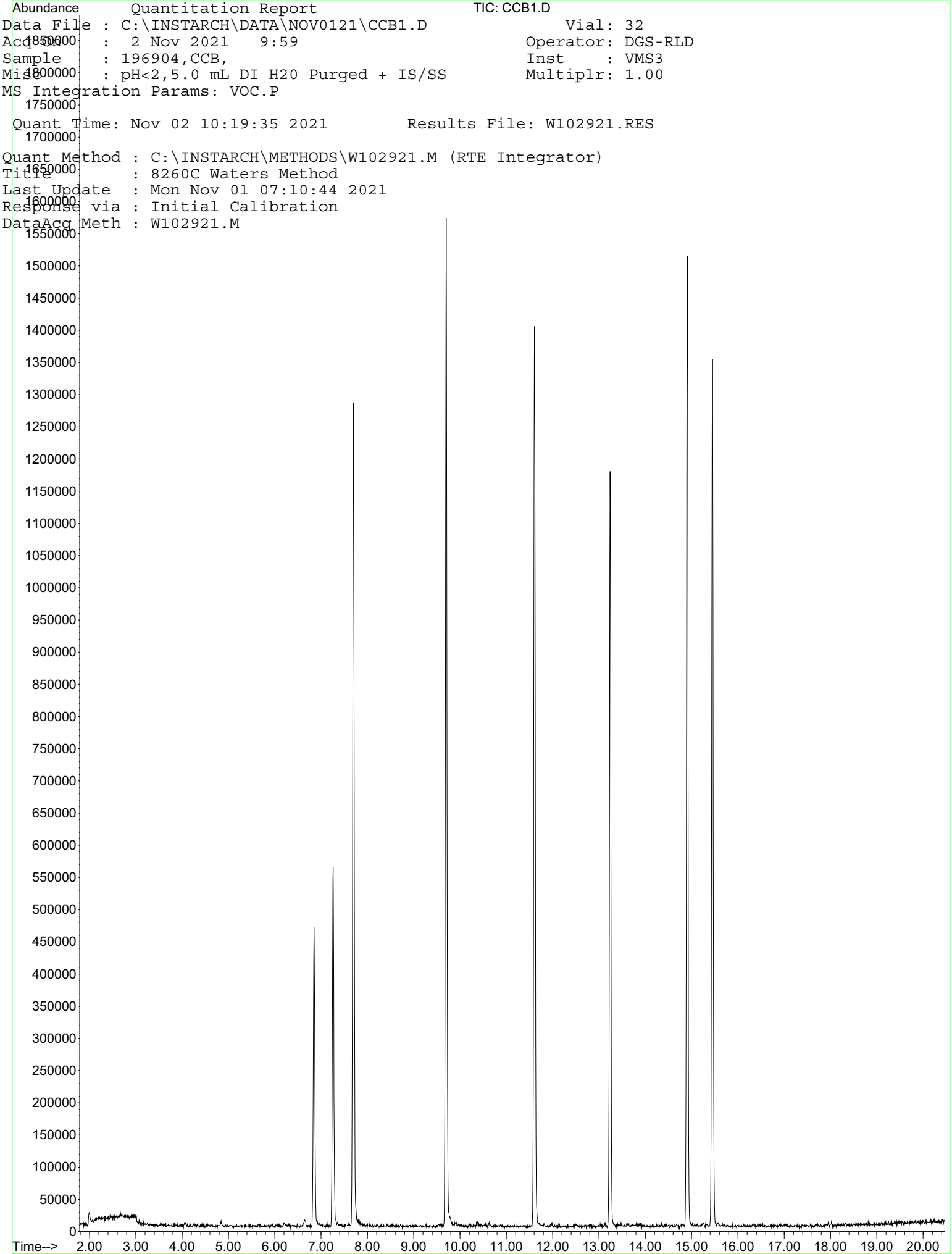
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCB1.D

Data File : C:\INSTARCH\DATA\NOV0121\CCB1.D Vial: 32
Acq On : 2 Nov 2021 9:59 Operator: DGS-RLD
Sample : 196904,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 10:19:35 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 12:13:04 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	110	0.00
2	PT	Dichlorodi	0.2204	0.2181	1.04	100	0.00
3	PT	Chloromethan	0.3141	0.2760	12.13	102	0.00
4	PT	VinylChlorid	0.2919	0.2888	1.06	103	0.00
5	PT	Bromomethane	0.1499	0.1457	2.80	105	0.00
6	PT	Chloroethane	0.1864	0.1705	8.53	96	0.00
7	T	Dichloroflmethane	0.3616	0.3474	3.93	105	0.00
8	PT	Trichlorofma	0.3391	0.3617	-6.66	108	0.00
9	T	Ethylether	0.2255	0.2068	8.29	101	0.00
10	T	dichlorotfluoroethan	0.3605	0.3698	-2.58	107	0.00
11	T	propyleneoxide	0.0558	0.0536	3.94	107	0.00
12	T	Acrolein	0.0573	0.0558	2.62	109	0.00
13	PT	11dichlorthe	0.2074	0.2108	-1.64	104	0.00
14	PT	Trichlorotfluoroeth	0.2098	0.2262	-7.82	104	0.00
15	PT	Acetone	0.0973	0.1007	-3.49	114	0.00
16	T	Iodomethane	0.2434	0.2424	0.41	101	0.00
17	PT	Carbon Dislf	0.5699	0.5549	2.63	101	0.00
18	T	allylchloride	0.4089	0.3904	4.52	101	0.00
19	PT	methylacetate	0.0873	0.0794#	9.05	101	0.00
20	PT	Methylchlorid	0.2622	0.2308	11.98	107	0.00
21	T	tbutylalcohol	0.0280	0.0280#	0.00	112	0.00
22	T	Acrylonitrile	0.1137	0.1096	3.61	106	0.00
23	PT	t12dichlorte	0.2413	0.2228	7.67	104	0.00
24	PT	MtBE	0.6867	0.6275	8.62	103	0.00
25	T	Hexane	0.3386	0.3686	-8.86	105	0.00
26	PT	11dichlorota	0.4619	0.4291	7.10	104	0.00
27	T	Vinylacetate	0.5009	0.4554	9.08	100	0.00
28	T	chloroprene	0.4155	0.4261	-2.55	105	0.00
29	T	Diisopether	0.8510	0.7751	8.92	100	0.00
30	T	ETBE	0.7198	0.6678	7.22	104	0.00
31	T	22dichloropr	0.3389	0.3065	9.56	101	0.00
32	PT	c12dichlorte	0.2699	0.2434	9.82	98	0.00
33	PT	2Butanone	0.0362	0.0364#	-0.55	110	0.00
34	T	propionitrile	0.0466	0.0447	4.08	107	0.00
35	T	Ethylacetate	0.0124	0.0119#	4.03	110	0.00
36	T	methacrylonitrile	0.1214	0.1134	6.59	108	0.00
37	T	Bromochlorma	0.1244	0.1127	9.41	103	0.00
38	T	Tetrahydofur	0.1039	0.0934	10.11	107	0.00
39	PT	Chloroform	0.4384	0.4101	6.46	106	0.00
40	PT	111trichlota	0.3521	0.3410	3.15	103	0.00
41	S	SURRDibrflma	0.2578	0.2561	0.66	108	0.00
42	PT	Cyclohexane	0.4263	0.4580	-7.44	105	0.00
43	PT	Carbtetraclo	0.2881	0.2850	1.08	106	0.00
44	T	11dicloprope	0.1177	0.1199	-1.87	111	0.00
45	S	SURR12DCAd4	0.0693	0.0700	-1.01	109	0.00
46	PT	Benzene	0.9905	0.9350	5.60	103	0.00
47	PT	12dichlorota	0.3617	0.3420	5.45	106	0.00
48	T	TAME	0.6668	0.6110	8.37	103	0.00

49	PT	trichloroete	0.2538	0.2428	4.33	104	0.00
50	PT	methylcyclohexane	0.4519	0.4909	-8.63	106	0.00
51	PT	12dicloropra	0.2832	0.2608	7.91	103	0.00
52	T	23Dicl1propene	0.4030	0.3768	6.50	105	0.00
53	T	Dibromometha	0.1558	0.1433	8.02	105	0.00
54	T	methylmethacrylate	0.2116	0.1939	8.36	108	0.00
55	T	14dioxane	0.0036	0.0036#	0.00	111	0.00
56	PT	Bromodiclrma	0.3114	0.2996	3.79	110	0.00
57	T	2Nitropropane	0.0798	0.0743	6.89	99	0.00
58	T	2CLEVE	0.1137	0.1107	2.64	109	0.00
59	PT	c13dicloproe	0.3918	0.3738	4.59	104	0.00
60	PT	4Meth2Pentan	0.2680	0.2601	2.95	108	0.00
61	S	SURRd8Tolule	1.0302	0.9907	3.83	104	0.00
62	PT	Toluene	0.6344	0.5982	5.71	105	0.00
63	PT	t13Dicloprop	0.3437	0.3119	9.25	102	0.00
64	T	ethylmethacrylate	0.3671	0.3503	4.58	104	0.00
65	PT	112Triclotha	0.1911	0.1788	6.44	104	0.00
66	PT	Tetrachlorte	0.2685	0.2689	-0.15	109	0.00
67	T	13Diclorpropa	0.4148	0.3887	6.29	105	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	99	0.00
69	PT	2Hexanone	0.2324	0.2530	-8.86	109	0.00
70	PT	Clorodibrmta	0.2713	0.2677	1.33	105	0.00
71	PT	12Dibrometha	0.2727	0.2801	-2.71	108	0.00
72	PT	Chlorobenzen	0.8217	0.8419	-2.46	105	0.00
73	T	1Clhexane	0.4294	0.4629	-7.80	104	0.00
74	T	1112Tetclota	0.2741	0.2797	-2.04	108	0.00
75	PT	Ethylbenzene	1.3476	1.4363	-6.58	105	0.00
76	PT	m p-Xylene	0.5160	0.5454	-5.70	103	0.00
77	PT	o-Xylene	0.5186	0.5402	-4.17	105	0.00
78	PT	Styrene	0.8431	0.8829	-4.72	104	0.00
79	PT	Bromoform	0.1695	0.1676	1.12	110	0.00
80	PT	Isopropylben	1.2574	1.3913	-10.65	105	0.00
81	T	cyclohexanone	0.0190	0.0223#	-17.37	122	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	95	0.00
83	S	SURR4BrFBenz	0.9473	0.9868	-4.17	99	0.00
84	T	Bromobenzene	0.6115	0.6517	-6.57	104	0.00
85	PT	1122Tetrclta	0.6731	0.7621	-13.22	109	0.00
86	T	123Triclproa	0.8669	0.9236	-6.54	105	0.00
87	T	14dichloro2butene	0.2033	0.2113	-3.94	103	0.00
88	T	n-Propylbenz	2.6286	3.0618	-16.48	104	0.00
89	T	2chlorotolue	1.6526	1.8625	-12.70	108	0.00
90	T	4chlorotolue	1.9172	2.1443	-11.85	106	0.00
91	T	135Trimebenz	1.9203	2.1729	-13.15	105	0.00
92	T	tbutylbenzen	1.6708	1.9497	-16.69	104	0.00
93	T	124Trimetben	1.8615	2.0830	-11.90	103	0.00
94	T	sbutylbenzen	2.2966	2.7724	-20.72	107	0.00
95	PT	13Diclorbenz	1.1102	1.2075	-8.76	104	0.00
96	T	pIsopropylto	2.0031	2.3642	-18.03	106	0.00
97	PT	14dichlorobe	1.2645	1.2471	1.38	103	0.00
98	PT	12dichlorobe	1.2486	1.1580	7.26	102	0.00
99	T	nButylbenzen	1.8014	2.0951	-16.30	104	0.00
100	PT	12dibromo3cl	0.1319	0.1388	-5.23	106	0.00
101	T	135Trichlorobenzene	0.7785	0.8534	-9.62	103	0.00
102	PT	124Trichlobe	0.6737	0.7155	-6.20	103	0.00
103	T	Hexachlorobu	0.2855	0.3181	-11.42	107	0.00
104	T	Naphthalene	1.5574	1.7642	-13.28	111	0.00
105	T	123Trichlben	0.5967	0.6654	-11.51	105	0.00

(#) = Out of Range SPCC's out = 2 CCC's out = 0

W102921.M Tue Nov 02 13:23:53 2021

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Nov 02 12:13:04 2021

Quant Method : C:\INSTARCH\METHODS\W102921.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W102921.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	110	0.00
2	PT	Dichlorodi	10.0000	9.8939	1.06	100	0.00
3	PT	Chloromethan	10.0000	8.7844	12.16	102	0.00
4	PT	VinylChlorid	10.0000	9.8928	1.07	103	0.00
5	PT	Bromomethane	10.0000	9.1107	8.89	105	0.00
6	PT	Chloroethane	10.0000	9.1475	8.52	96	0.00
7	T	Dichloroflmethane	10.0000	9.6091	3.91	105	0.00
8	PT	Trichlorofma	10.0000	10.6646	-6.65	108	0.00
9	T	Ethylether	10.0000	9.1736	8.26	101	0.00
10	T	dichlorotfluoroethan	10.0000	10.2578	-2.58	107	0.00
11	T	propyleneoxide	100.0000	96.0698	3.93	107	0.00
12	T	Acrolein	50.0000	48.7049	2.59	109	0.00
13	PT	11dichlorthe	10.0000	10.1625	-1.62	104	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.5635	-7.82	104	0.00
15	PT	Acetone	100.0000	103.5661	-3.57	114	0.00
16	T	Iodomethane	20.0000	17.6252	11.87	101	0.00
17	PT	Carbon Dislf	20.0000	19.4730	2.64	101	0.00
18	T	allylchloride	20.0000	19.0944	4.53	101	0.00
19	PT	methylacetate	10.0000	9.1021	8.98	101	0.00
20	PT	Methylchlorid	10.0000	8.7994	12.01	107	0.00
21	T	tbutylalcohol	500.0000	500.3094	-0.06	112	0.00
22	T	Acrylonitrile	50.0000	48.1987	3.60	106	0.00
23	PT	t12dichlorte	10.0000	9.2352	7.65	104	0.00
24	PT	MtBE	10.0000	9.1370	8.63	103	0.00
25	T	Hexane	20.0000	21.7726	-8.86	105	0.00
26	PT	11dichlorota	10.0000	9.2890	7.11	104	0.00
27	T	Vinylacetate	100.0000	90.9220	9.08	100	0.00
28	T	chloroprene	20.0000	20.5120	-2.56	105	0.00
29	T	Diisopether	10.0000	9.1073	8.93	100	0.00
30	T	ETBE	10.0000	9.2766	7.23	104	0.00
31	T	22dichloropr	10.0000	9.0427	9.57	101	0.00
32	PT	c12dichlorte	10.0000	9.0178	9.82	98	0.00
33	PT	2Butanone	100.0000	100.4078	-0.41	110	0.00
34	T	propionitrile	100.0000	95.8928	4.11	107	0.00
35	T	Ethylacetate	50.0000	48.1572	3.69	110	0.00
36	T	methacrylonitrile	20.0000	18.6684	6.66	108	0.00
37	T	Bromochlorma	10.0000	9.0580	9.42	103	0.00
38	T	Tetrahydofur	100.0000	89.9170	10.08	107	0.00
39	PT	Chloroform	10.0000	9.3542	6.46	106	0.00
40	PT	111trichlota	10.0000	9.6852	3.15	103	0.00
41	S	SURRDibrflma	20.0000	19.8657	0.67	108	0.00
42	PT	Cyclohexane	10.0000	10.7441	-7.44	105	0.00
43	PT	Carbtetraclo	10.0000	9.8901	1.10	106	0.00
44	T	11dicloprope	10.0000	10.1829	-1.83	111	0.00
45	S	SURR12DCAd4	20.0000	20.2062	-1.03	109	0.00
46	PT	Benzene	10.0000	9.4403	5.60	103	0.00
47	PT	12dichlorota	10.0000	9.4549	5.45	106	0.00
48	T	TAME	10.0000	9.1627	8.37	103	0.00

49	PT	trichloroete	10.0000	9.5651	4.35	104	0.00
50	PT	methylcyclohexane	10.0000	10.8611	-8.61	106	0.00
51	PT	12dicloropra	10.0000	9.2094	7.91	103	0.00
52	T	23Dicl1propene	10.0000	9.3487	6.51	105	0.00
53	T	Dibromometha	10.0000	9.2002	8.00	105	0.00
54	T	methylmethacrylate	10.0000	9.1629	8.37	108	0.00
55	T	14dioxane	500.0000	489.2688	2.15	111	0.00
56	PT	Bromodiclrma	10.0000	9.6185	3.82	110	0.00
57	T	2Nitropropane	100.0000	93.0834	6.92	99	0.00
58	T	2CLEVE	50.0000	48.6756	2.65	109	0.00
59	PT	c13dicloproe	10.0000	9.5401	4.60	104	0.00
60	PT	4Meth2Pentan	100.0000	96.9809	3.02	108	0.00
61	S	SURRd8Tolule	20.0000	19.2328	3.84	104	0.00
62	PT	Toluene	10.0000	9.4293	5.71	105	0.00
63	PT	t13Dicloprop	10.0000	9.0764	9.24	102	0.00
64	T	ethylmethacrylate	20.0000	19.0847	4.58	104	0.00
65	PT	112Triclotha	10.0000	9.3565	6.43	104	0.00
66	PT	Tetrachlorte	10.0000	10.0164	-0.16	109	0.00
67	T	13Diclorpropa	10.0000	9.3713	6.29	105	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	99	0.00
69	PT	2Hexanone	100.0000	108.8370	-8.84	109	0.00
70	PT	Clorodibrmta	10.0000	9.8661	1.34	105	0.00
71	PT	12Dibrometha	10.0000	10.2715	-2.71	108	0.00
72	PT	Chlorobenzen	10.0000	10.2454	-2.45	105	0.00
73	T	1Clhexane	10.0000	10.7799	-7.80	104	0.00
74	T	1112Tetclota	10.0000	10.2054	-2.05	108	0.00
75	PT	Ethylbenzene	10.0000	10.6579	-6.58	105	0.00
76	PT	m p-Xylene	20.0000	21.1377	-5.69	103	0.00
77	PT	o-Xylene	10.0000	10.4157	-4.16	105	0.00
78	PT	Styrene	10.0000	10.4723	-4.72	104	0.00
79	PT	Bromoform	10.0000	9.8859	1.14	110	0.00
80	PT	Isopropylben	10.0000	11.0646	-10.65	105	0.00
81	T	cyclohexanone	200.0000	235.0154	-17.51	122	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	95	0.00
83	S	SURR4BrFBenz	20.0000	20.8338	-4.17	99	0.00
84	T	Bromobenzene	10.0000	10.6562	-6.56	104	0.00
85	PT	1122Tetrclta	10.0000	11.3218	-13.22	109	0.00
86	T	123Triclproa	10.0000	10.6532	-6.53	105	0.00
87	T	14dichloro2butene	10.0000	10.3922	-3.92	103	0.00
88	T	n-Propylbenz	10.0000	11.6480	-16.48	104	0.00
89	T	2chlorotolue	10.0000	11.2699	-12.70	108	0.00
90	T	4chlorotolue	10.0000	11.1849	-11.85	106	0.00
91	T	135Trimebenz	10.0000	11.3156	-13.16	105	0.00
92	T	tbutylbenzen	10.0000	11.6696	-16.70	104	0.00
93	T	124Trimetben	10.0000	11.1900	-11.90	103	0.00
94	T	sbutylbenzen	10.0000	12.0718	-20.72	107	0.00
95	PT	13Diclorbenz	10.0000	10.8759	-8.76	104	0.00
96	T	pIsopropylto	10.0000	11.8025	-18.03	106	0.00
97	PT	14dichlorobe	10.0000	10.3714	-3.71	103	0.00
98	PT	12dichlorobe	10.0000	10.2240	-2.24	102	0.00
99	T	nButylbenzen	10.0000	11.6298	-16.30	104	0.00
100	PT	12dibromo3cl	10.0000	10.5230	-5.23	106	0.00
101	T	135Trichlorobenzene	10.0000	10.9628	-9.63	103	0.00
102	PT	124Trichlobe	10.0000	10.6199	-6.20	103	0.00
103	T	Hexachlorobu	10.0000	11.1422	-11.42	107	0.00
104	T	Naphthalene	10.0000	11.3277	-13.28	111	0.00
105	T	123Trichlben	10.0000	11.1506	-11.51	105	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W102921.M Tue Nov 02 13:24:21 2021

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 12:13:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1326819	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1019494	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	536891	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	339776	19.866	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99	%		
45) SURR12DCAd4	7.25	102	92882	20.206	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1314441	19.233	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96	%		
83) SURR4BrFBenz	13.24	95	529788	20.834	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 104	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	144657	9.8939	ug/L	99
3) Chloromethan	2.10	50	183070	8.7844	ug/L	95
4) VinylChlorid	2.24	62	191562	9.8928	ug/L	96
5) Bromomethane	2.70	94	96657	9.1107	ug/L	99
6) Chloroethane	2.87	64	113129	9.1475	ug/L	99
7) Dichloroflmethane	3.18	67	230488	9.6091	ug/L	100
8) Trichlorofma	3.26	101	239927	10.6646	ug/L	97
9) Ethylether	3.71	59	137216	9.1736	ug/L	98
10) dichlorotfluoroethan	3.72	67	245331	10.2578	ug/L	98
11) propyleneoxide	3.76	58	355769	96.0698	ug/L	97
12) Acrolein	3.84	56	185156	48.7049	ug/L	98
13) 11dichlorthe	3.98	96	139823	10.1625	ug/L	99
14) Trichlorotfluoroeth	4.02	101	300183	21.5635	ug/L	97
15) Acetone	4.05	43	668219	103.5661	ug/L	97
16) Iodomethane	4.16	142	321646	17.6252	ug/L	100
17) Carbon Dislf	4.25	76	736239	19.4730	ug/L	99
18) allylchloride	4.47	41	517934	19.0944	ug/L	99
19) methylacetate	4.52	74	52691	9.1021	ug/L	98
20) Methylchlorid	4.63	84	153082	8.7994	ug/L	94
21) tbutylalcohol	4.83	59	928138	500.3094	ug/L	99
22) Acrylonitrile	4.93	53	363685	48.1987	ug/L	99
23) t12dichlorte	5.00	96	147811	9.2352	ug/L	98
24) MtBE	5.03	73	416266	9.1370	ug/L	100
25) Hexane	5.40	57	489046	21.7726	ug/L	99
26) 11dichlorota	5.53	63	284639	9.2890	ug/L	99
27) Vinylacetate	5.62	43	3021094	90.9220	ug/L	100
28) chloroprene	5.66	53	565357	20.5120	ug/L	99
29) Diisopether	5.68	45	514185	9.1073	ug/L	97
30) ETBE	6.13	59	442994	9.2766	ug/L	98
31) 22dichloropr	6.27	77	203320	9.0427	ug/L	99
32) c12dichlorte	6.26	96	161447	9.0178	ug/L	94
33) 2Butanone	6.27	72	241324	100.4078	ug/L	95
34) propionitrile	6.31	54	296279	95.8928	ug/L	99
35) Ethylacetate	6.38	88	39519	48.1572	ug/L #	94
36) methacrylonitrile	6.52	67	150408	18.6684	ug/L	97
37) Bromochlorma	6.54	128	74734	9.0580	ug/L	99
38) Tetrahydofur	6.63	42	619888	89.9170	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 12:13:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	272084	9.3542	ug/L	98
40)	111trichlota	6.90	97	226238	9.6852	ug/L	99
42)	Cyclohexane	6.99	56	303857	10.7441	ug/L	99
43)	Carbtetraclo	7.12	119	189047	9.8901	ug/L	94
44)	11dicloprope	7.11	110	79523	10.1829	ug/L	91
46)	Benzene	7.35	78	620298	9.4403	ug/L	100
47)	12dichlorota	7.35	62	226862	9.4549	ug/L	99
48)	TAME	7.52	73	405315	9.1627	ug/L	96
49)	trichloroete	8.16	95	161068	9.5651	ug/L	98
50)	methylcyclohexane	8.43	83	325635	10.8611	ug/L	97
51)	12dicloropra	8.42	63	173050	9.2094	ug/L	91
52)	23Dicl1propene	8.48	75	249966	9.3487	ug/L	99
53)	Dibromometha	8.56	93	95081	9.2002	ug/L	98
54)	methylmethacrylate	8.59	69	128621	9.1629	ug/L	97
55)	14dioxane	8.59	88	118363	489.2688	ug/L	100
56)	Bromodiclrma	8.76	83	198731	9.6185	ug/L	96
57)	2Nitropropane	9.02	43	492931	93.0834	ug/L	99
58)	2CLEVE	9.15	63	367113	48.6756	ug/L	99
59)	c13dicloproe	9.33	75	247953	9.5401	ug/L	98
60)	4Meth2Pentan	9.54	43	1725809	96.9809	ug/L	99
62)	Toluene	9.79	92	396874	9.4293	ug/L	98
63)	t13Dicloprop	10.04	75	206933	9.0764	ug/L	99
64)	ethylmethacrylate	10.19	69	464789	19.0847	ug/L	99
65)	112Triclotha	10.28	83	118643	9.3565	ug/L	97
66)	Tetrachlorte	10.52	166	178403	10.0164	ug/L	99
67)	13Diclorpropa	10.50	76	257900	9.3713	ug/L	99
69)	2Hexanone	10.62	43	1289463	108.8370	ug/L	99
70)	Clorodibrmta	10.81	129	136461	9.8661	ug/L	99
71)	12Dibrometha	10.96	107	142772	10.2715	ug/L	99
72)	Chlorobenzen	11.65	112	429149	10.2454	ug/L	100
73)	1Clhexane	11.63	91	235961	10.7799	ug/L	98
74)	1112Tetclota	11.76	131	142569	10.2054	ug/L	97
75)	Ethylbenzene	11.81	91	732156	10.6579	ug/L	99
76)	m p-Xylene	11.98	106	556002	21.1377	ug/L	99
77)	o-Xylene	12.52	106	275355	10.4157	ug/L	99
78)	Styrene	12.53	104	450074	10.4723	ug/L	98
79)	Bromoform	12.76	173	85432	9.8859	ug/L	97
80)	Isopropylben	13.05	105	709195	11.0646	ug/L	100
81)	cyclohexanone	13.13	55	227029	235.0154	ug/L	99
84)	Bromobenzene	13.45	156	174933	10.6562	ug/L	99
85)	1122Tetrclta	13.42	83	204588	11.3218	ug/L	97
86)	123Triclproa	13.49	75	247924	10.6532	ug/L	98
87)	14dichloro2butene	13.51	53	56718	10.3922	ug/L	98
88)	n-Propylbenz	13.63	91	821936	11.6480	ug/L	100
89)	2chlorotolue	13.74	91	499969	11.2699	ug/L	97
90)	4chlorotolue	13.89	91	575635	11.1849	ug/L	98
91)	135Trimebenz	13.89	105	583300	11.3156	ug/L	100
92)	tbutylbenzen	14.36	119	523391	11.6696	ug/L	98
93)	124Trimetben	14.42	105	559185	11.1900	ug/L	98
94)	sbutylbenzen	14.68	105	744230	12.0718	ug/L	100
95)	13Diclorbenz	14.81	146	324144	10.8759	ug/L	99
96)	pIsopropylto	14.89	119	634655	11.8025	ug/L	100
97)	14dichlorobe	14.94	146	334772	10.3714	ug/L	98
98)	12dichlorobe	15.47	146	310848	10.2240	ug/L	99
99)	nButylbenzen	15.49	91	562409	11.6298	ug/L	98
100)	12dibromo3cl	16.58	157	37272	10.5230	ug/L	99
101)	135Trichlorobenzene	16.90	180	229101	10.9628	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 12:13:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102)	124Trichlobe	17.71	180	192061	10.6199	ug/L	97
103)	Hexachlorobu	17.96	225	85381	11.1422	ug/L	98
104)	Naphthalene	18.02	128	473594	11.3277	ug/L	99
105)	123Trichlben	18.33	180	178622	11.1506	ug/L	99

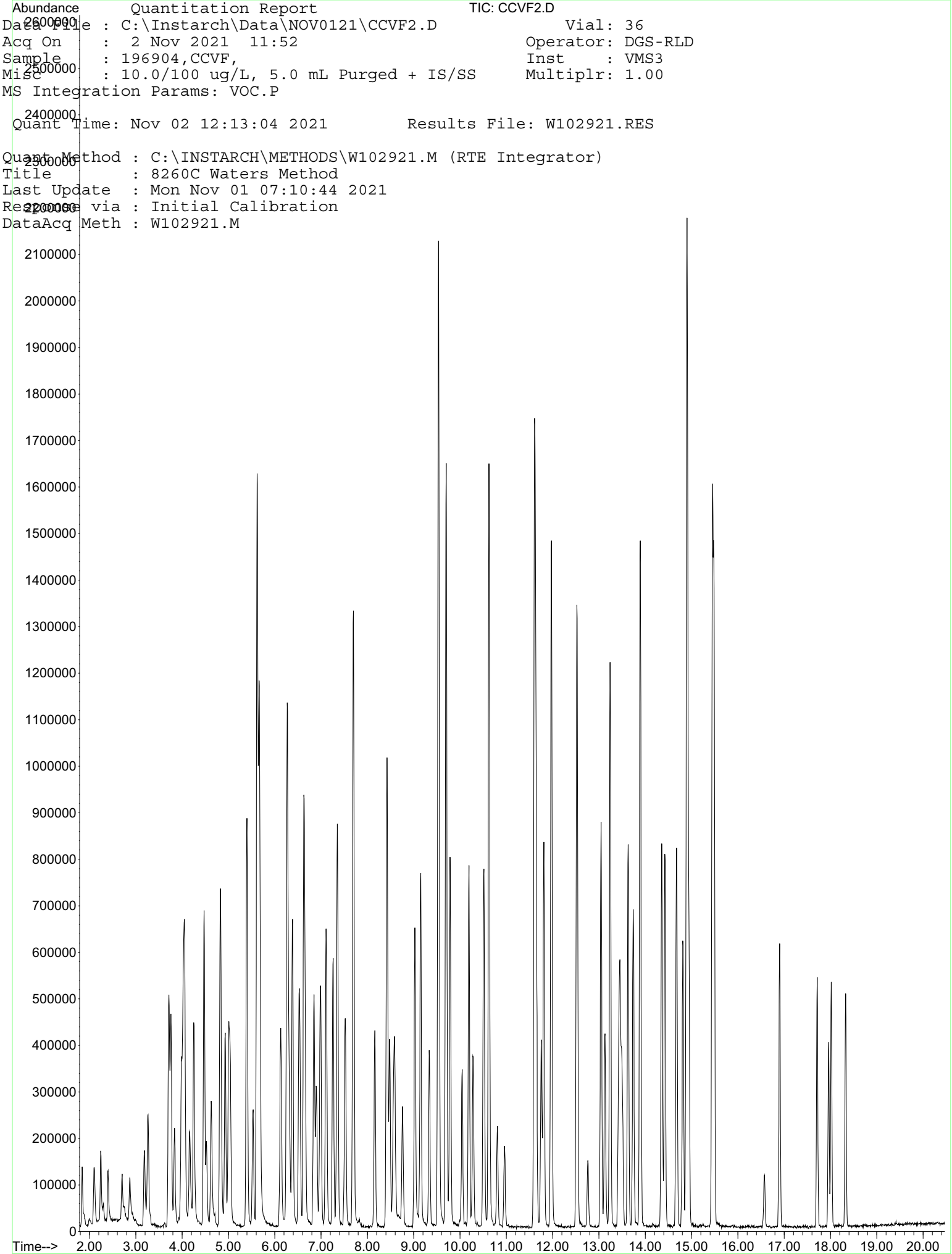
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: CCVF2.D

Data File : C:\Instarch\Data\NOV0121\CCVF2.D Vial: 36
Acq On : 2 Nov 2021 11:52 Operator: DGS-RLD
Sample : 196904,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 12:13:04 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\110121 - 196980.seq
User : RLD
Printed : Nov 01, 2021 16:08:17

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\110121 -\002.dat	196980,CCV,	Nov 01, 2021 16:08:17

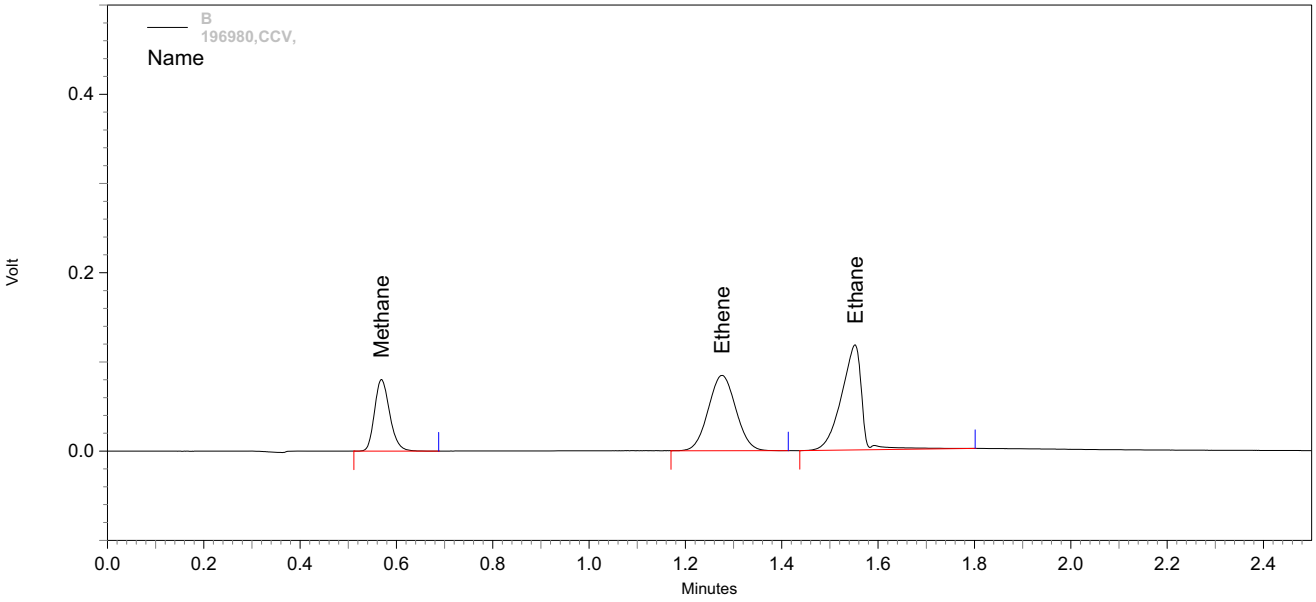
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	45.137	9.727	15.000	Passed
Ethene	50.000	47.259	5.482	15.000	Passed
Ethane	50.000	48.686	2.628	15.000	Passed

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,CCV,
Acquired: Nov 01, 2021 14:38:02
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.569	0.576	175046	45.137	ppmV
2	Ethene	1.276	1.290	334666	47.259	ppmV
3	Ethane	1.553	1.563	346636	48.686	ppmV

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\110121 - 196980.seq
User : RLD
Printed : Nov 01, 2021 16:09:14

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\110121 -\017.dat	196980,CCV,	Nov 01, 2021 16:09:13

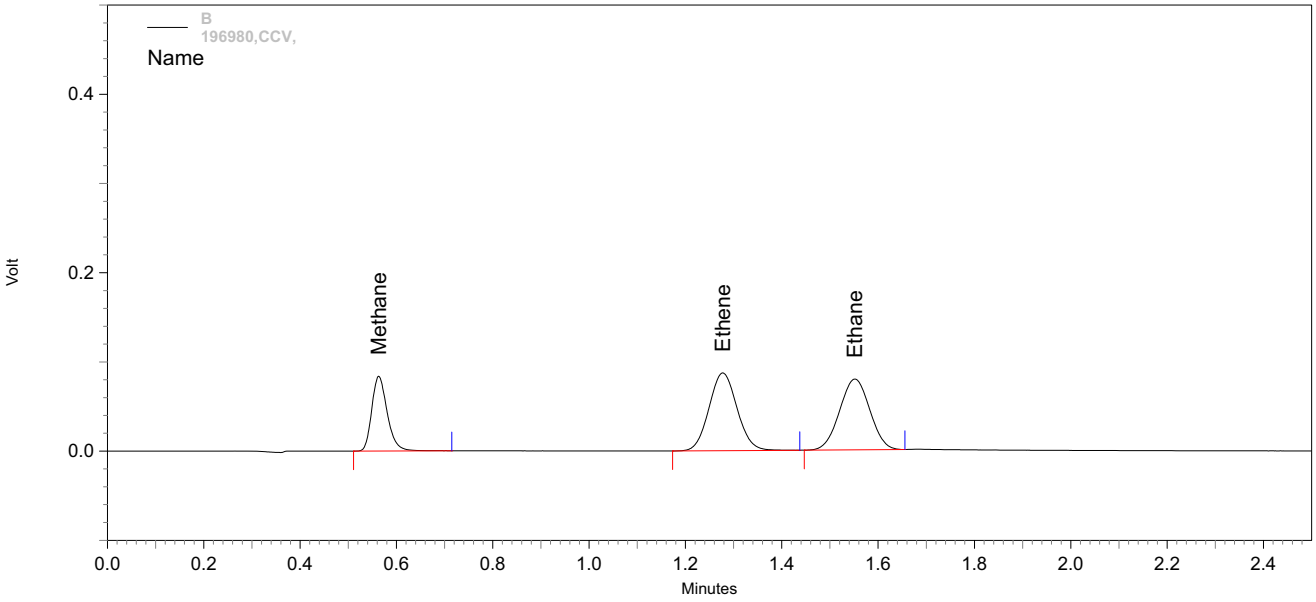
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	48.210	3.580	15.000	Passed
Ethene	50.000	49.699	0.602	15.000	Passed
Ethane	50.000	48.459	3.083	15.000	Passed

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\017.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,CCV,
Acquired: Nov 01, 2021 15:49:56
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



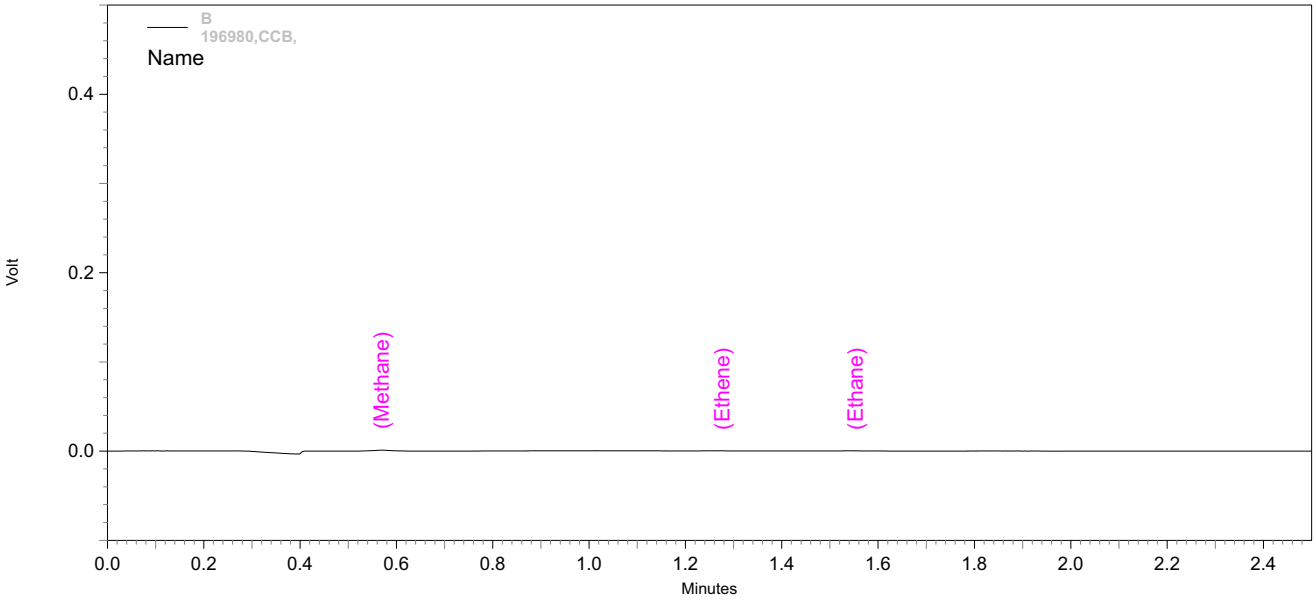
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.563	0.569	186924	48.210	ppmV
2	Ethene	1.278	1.276	351909	49.699	ppmV
3	Ethane	1.552	1.553	345029	48.459	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\018.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,CCB,
Acquired: Nov 01, 2021 15:53:29
File Desc. MEE Continuing Calibration Blank
1.0 mL injection Helium



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.569**		**0.000 BDL**	**ppmV**
	Ethene		**1.276**		**0.000 BDL**	**ppmV**
	Ethane		**1.553**		**0.000 BDL**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\110121 - 196980.seq
User : RLD
Printed : Nov 01, 2021 16:09:32

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\110121 -\021.dat	196980,CCV,	Nov 01, 2021 16:09:32

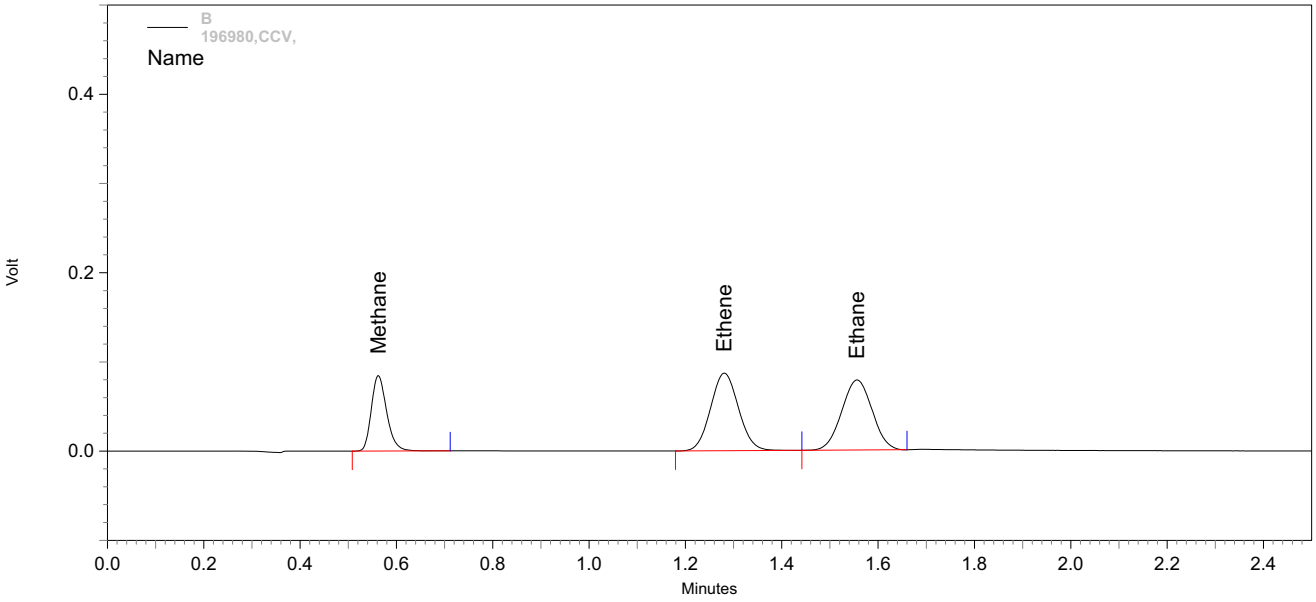
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	48.296	3.408	15.000	**Passed**
Ethene	50.000	49.425	1.149	15.000	**Passed**
Ethane	50.000	48.341	3.319	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\021.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,CCV,
Acquired: Nov 01, 2021 16:04:26
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.563	0.569	187257	48.296	ppmV
2	Ethene	1.281	1.276	349976	49.425	ppmV
3	Ethane	1.556	1.553	344195	48.341	ppmV

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1399490	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.60	117	1085541	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	571295	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	357997	19.844	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 99 %			
45) SURR12DCAd4	7.26	102	96731	19.951	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100 %			
61) SURRd8Tolule	9.70	98	1392251	19.314	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 97 %			
83) SURR4BrFBenz	13.24	95	562622	20.793	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 104 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	156266	10.1329	ug/L	100
3) Chloromethan	2.10	50	206589	9.3982	ug/L	99
4) VinylChlorid	2.24	62	204872	10.0307	ug/L	96
5) Bromomethane	2.70	94	101599	9.0776	ug/L	98
6) Chloroethane	2.87	64	122507	9.3914	ug/L	99
7) Dichloroflmethane	3.18	67	241769	9.5560	ug/L	99
8) Trichlorofma	3.26	101	249274	10.5047	ug/L	97
9) Ethylether	3.70	59	143205	9.0768	ug/L	97
10) dichlorotfluoroethan	3.71	67	257766	10.2180	ug/L	97
11) propyleneoxide	3.76	58	358652	91.8193	ug/L	98
12) Acrolein	3.83	56	176914	44.1203	ug/L	96
13) 11dichlorthe	3.98	96	148377	10.2242	ug/L	99
14) Trichlorotfluoroeth	4.02	101	317196	21.6024	ug/L	98
15) Acetone	4.05	43	579504	85.1525	ug/L	97
16) Iodomethane	4.16	142	319929	16.7078	ug/L	99
17) Carbon Dislf	4.25	76	856032	21.4657	ug/L	98
18) allylchloride	4.47	41	569535	19.9064	ug/L	99
19) methylacetate	4.52	74	50715	8.3059	ug/L	99
20) Methylchlorid	4.63	84	167166	9.1100	ug/L	94
21) tbutylalcohol	4.82	59	804413	411.0996	ug/L	93
22) Acrylonitrile	4.92	53	349104	43.8638	ug/L	98
23) t12dichlorte	5.00	96	162734	9.6397	ug/L	97
24) MtBE	5.03	73	450827	9.3818	ug/L	99
25) Hexane	5.39	57	564327	23.8195	ug/L	99
26) 11dichlorota	5.53	63	294970	9.1263	ug/L	98
27) Vinylacetate	5.62	43	3305275	94.8307	ug/L	99
28) chloroprene	5.65	53	602573	20.7271	ug/L	99
29) Diisopether	5.67	45	563577	9.4638	ug/L	97
30) ETBE	6.12	59	478308	9.4960	ug/L	100
31) 22dichloropr	6.26	77	261111	11.0099	ug/L	99
32) c12dichlorte	6.26	96	174368	9.2338	ug/L	95
33) 2Butanone	6.27	72	220073	86.8111	ug/L	100
34) propionitrile	6.31	54	268398	82.3581	ug/L	99
35) Ethylacetate	6.38	88	34786	40.1885	ug/L #	90
36) methacrylonitrile	6.52	67	152003	17.8867	ug/L	91
37) Bromochlorma	6.54	128	81264	9.3380	ug/L	99
38) Tetrahydofur	6.63	42	571651	78.6143	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	282439	9.2059	ug/L	99
40)	111trichlota	6.90	97	244376	9.9185	ug/L	99
42)	Cyclohexane	6.98	56	326372	10.9409	ug/L	98
43)	Carbtetraclo	7.11	119	212122	10.5211	ug/L	97
44)	11dicloprope	7.10	110	84545	10.2638	ug/L	91
46)	Benzene	7.35	78	653996	9.4363	ug/L	100
47)	12dichlorota	7.35	62	237188	9.3719	ug/L	99
48)	TAME	7.52	73	452985	9.7086	ug/L	99
49)	trichloroete	8.16	95	164399	9.2560	ug/L	94
50)	methylcyclohexane	8.42	83	352557	11.1484	ug/L	98
51)	12dicloropra	8.42	63	180754	9.1199	ug/L	99
52)	23Dicl1propene	8.48	75	269328	9.5498	ug/L	99
53)	Dibromometha	8.56	93	99660	9.1425	ug/L	98
54)	methylmethacrylate	8.58	69	125232	8.4582	ug/L	99
55)	14dioxane	8.60	88	83555	327.4507	ug/L	99
56)	Bromodiclrma	8.76	83	212222	9.7380	ug/L	98
57)	2Nitropropane	9.02	43	542613	97.1445	ug/L	98
58)	2CLEVE	9.15	63	441497	55.4985	ug/L	98
59)	c13dicloproe	9.33	75	276922	10.1014	ug/L	100
60)	4Meth2Pentan	9.53	43	1617237	85.1594	ug/L	99
62)	Toluene	9.78	92	425641	9.5877	ug/L	100
63)	t13Dicloprop	10.04	75	243186	10.1127	ug/L	98
64)	ethylmethacrylate	10.19	69	483942	18.8393	ug/L	99
65)	112Triclotha	10.28	83	125119	9.3548	ug/L	99
66)	Tetrachlorte	10.52	166	183257	9.7546	ug/L	99
67)	13Diclorpropa	10.50	76	271331	9.3473	ug/L	99
69)	2Hexanone	10.62	43	1192427	94.5231	ug/L	99
70)	Clorodibrmta	10.80	129	152496	10.3546	ug/L	98
71)	12Dibrometha	10.97	107	148502	10.0337	ug/L	99
72)	Chlorobenzen	11.65	112	456985	10.2462	ug/L	99
73)	1Clhexane	11.63	91	264818	11.3622	ug/L	100
74)	1112Tetclota	11.76	131	155386	10.4461	ug/L	98
75)	Ethylbenzene	11.80	91	786657	10.7546	ug/L	98
76)	m p-Xylene	11.97	106	596525	21.2985	ug/L	99
77)	o-Xylene	12.52	106	289981	10.3016	ug/L	99
78)	Styrene	12.53	104	482625	10.5464	ug/L	98
79)	Bromoform	12.76	173	94562	10.2767	ug/L	97
80)	Isopropylben	13.05	105	762135	11.1671	ug/L	99
81)	cyclohexanone	13.13	55	180905	175.8750	ug/L	97
84)	Bromobenzene	13.45	156	185470	10.6177	ug/L	98
85)	1122Tetrclta	13.42	83	205484	10.6866	ug/L	99
86)	123Triclproa	13.49	75	259539	10.4807	ug/L	98
87)	14dichloro2butene	13.51	53	59505	10.2462	ug/L	94
88)	n-Propylbenz	13.63	91	889044	11.8402	ug/L	100
89)	2chlorotolue	13.75	91	532427	11.2788	ug/L	98
90)	4chlorotolue	13.89	91	610000	11.1389	ug/L	99
91)	135Trimebenz	13.89	105	624753	11.3899	ug/L	99
92)	tbutylbenzen	14.36	119	559395	11.7213	ug/L	98
93)	124Trimetben	14.42	105	620677	11.6726	ug/L	100
94)	sbutylbenzen	14.68	105	794269	12.1076	ug/L	100
95)	13Diclorbenz	14.81	146	349882	11.0326	ug/L	100
96)	pIsopropylto	14.89	119	683595	11.9471	ug/L	99
97)	14dichlorobe	14.94	146	362413	10.5581	ug/L	98
98)	12dichlorobe	15.48	146	329337	10.1776	ug/L	99
99)	nButylbenzen	15.49	91	612087	11.8949	ug/L	99
100)	12dibromo3cl	16.57	157	38369	10.1804	ug/L	97
101)	135Trichlorobenzene	16.90	180	248021	11.1535	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

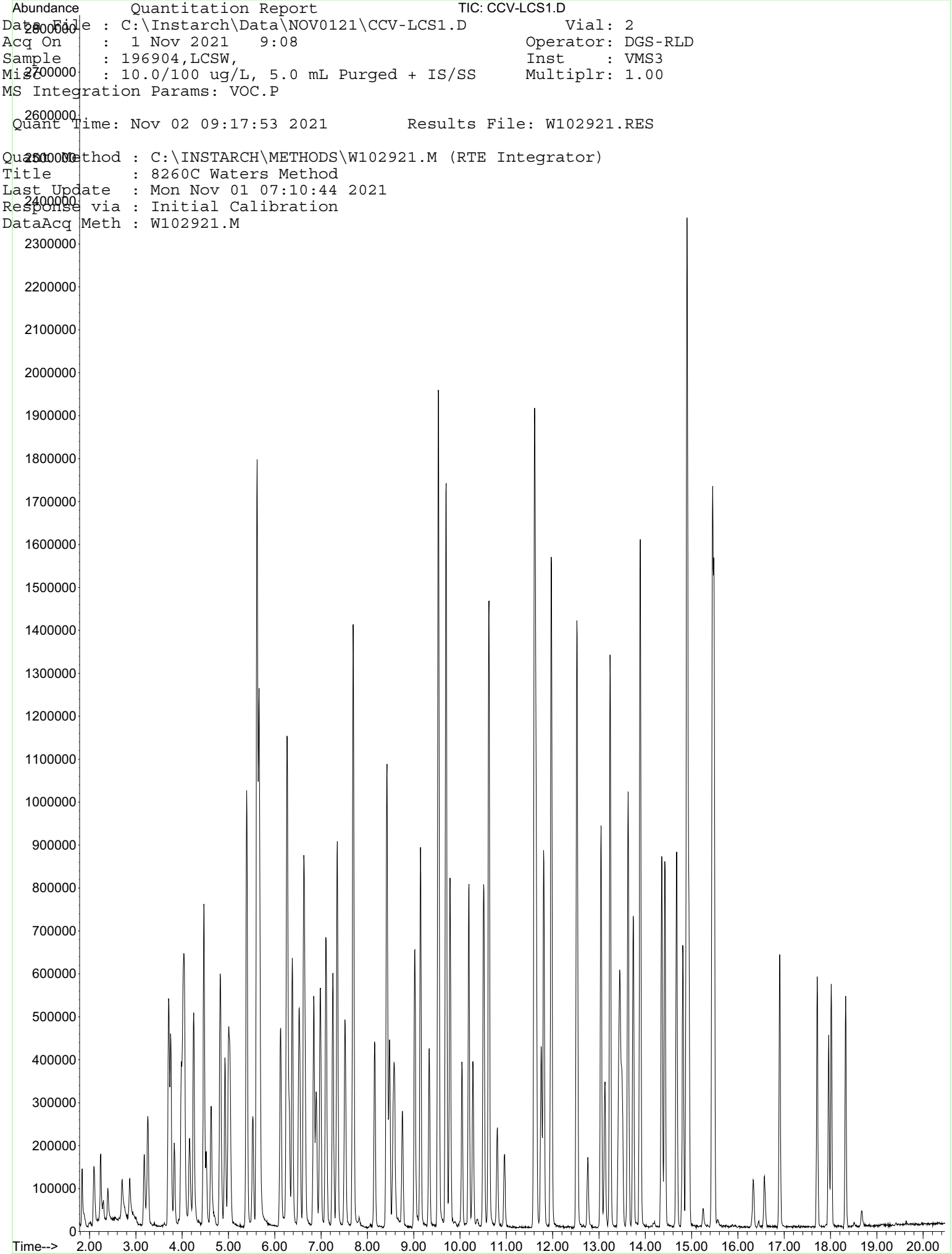
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	206932	10.7531	ug/L	98
103) Hexachlorobu	17.96	225	95714	11.7384	ug/L	97
104) Naphthalene	18.02	128	500099	11.2413	ug/L	99
105) 123Trichlben	18.33	180	187272	10.9866	ug/L	98

(#) = qualifier out of range (m) = manual integration

Data File : C:\Instarch\Data\NOV0121\CCV-LCS1.D Vial: 2
Acq On : 1 Nov 2021 9:08 Operator: DGS-RLD
Sample : 196904,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:17:53 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\MB1.D Vial: 4
Acq On : 1 Nov 2021 10:06 Operator: DGS-RLD
Sample : 196904,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:18:30 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1333649	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1032585	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	540220	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	338523	19.691 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %		
45) SURR12DCAd4	7.25	102	94217	20.392 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.70	98	1310998	19.084 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 95 %		
83) SURR4BrFBenz	13.24	95	524989	20.518 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 103 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	2.10	50	3660	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	2.76	64	12140	0.9766 ug/L #	41
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	11542	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.24	76	5330	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.64	84	4337	N.D.	
21) tbutylalcohol	4.85	59	5559	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	8822	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\MB1.D Vial: 4
Acq On : 1 Nov 2021 10:06 Operator: DGS-RLD
Sample : 196904,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:18:30 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.68	105	2645	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	2991	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.49	91	4328	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\MB1.D Vial: 4
Acq On : 1 Nov 2021 10:06 Operator: DGS-RLD
Sample : 196904,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:18:30 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	3231	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

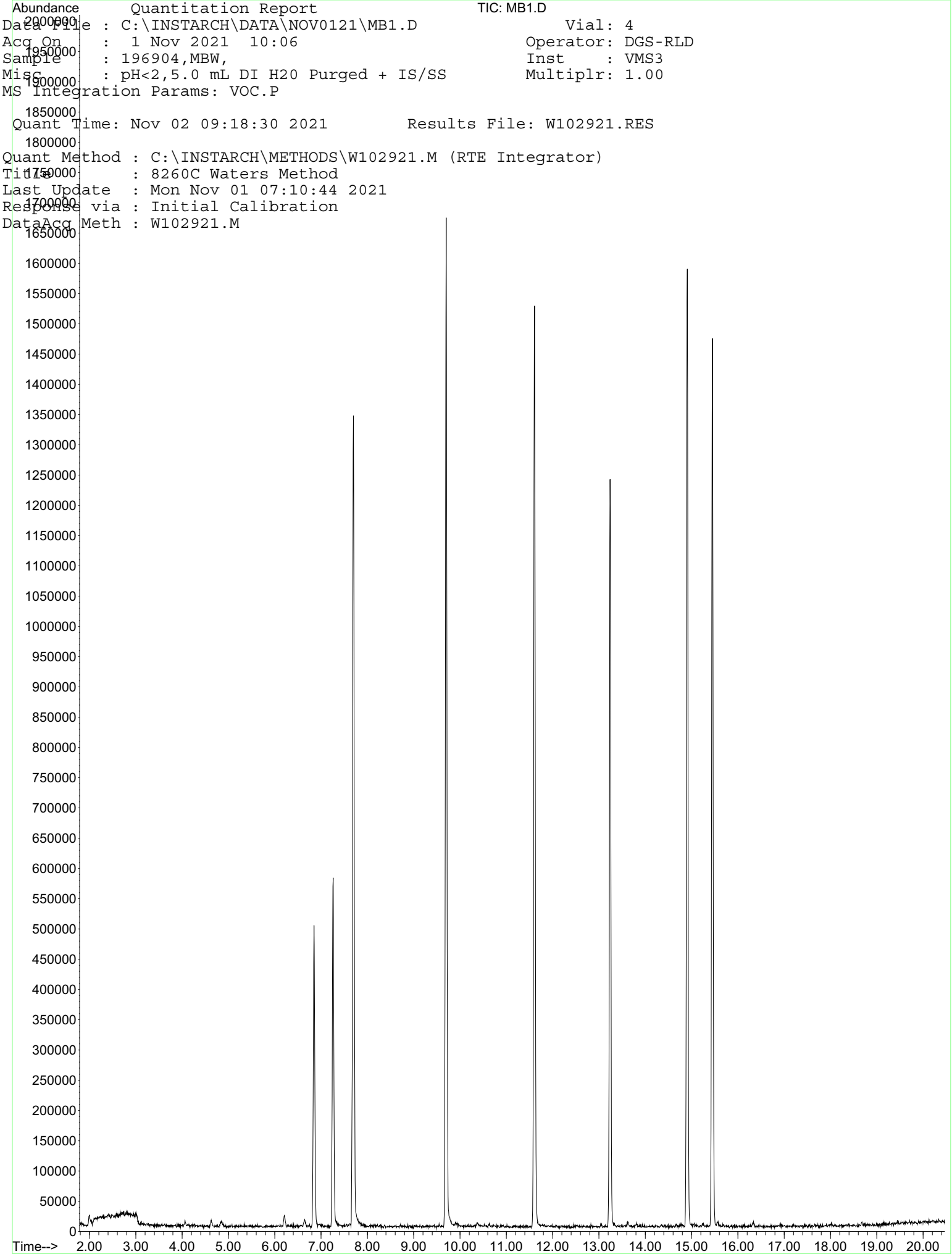
(#) = qualifier out of range (m) = manual integration

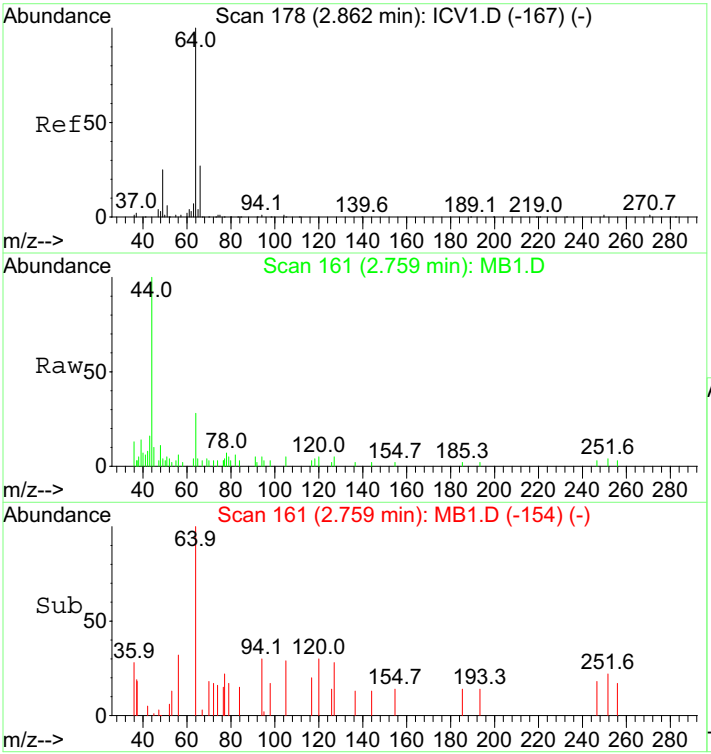
Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\MB1.D Vial: 4
Acq On : 1 Nov 2021 10:06 Operator: DGS-RLD
Sample : 196904,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:18:30 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

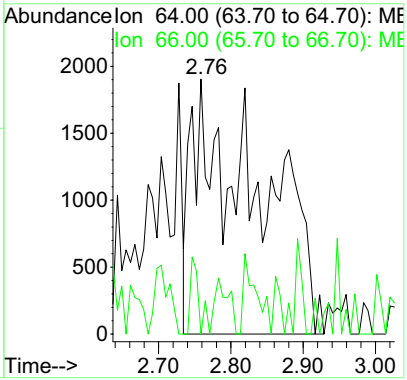




#6
Chloroethane
Concen: 0.98 ug/L
RT: 2.76 min Scan# 161
Delta R.T. -0.11 min
Lab File: MB1.D
Acq: 1 Nov 2021 10:06

Tgt Ion: 64 Resp: 12140

Ion	Ratio	Lower	Upper
64	100		
66	0.0	13.5	53.5#



Negative Library Identification

[redacted]

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469MS.D Vial: 23
Acq On : 1 Nov 2021 19:08 Operator: DGS-RLD
Sample : 196904,MSW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.69	96	1260792	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	975938	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	519022	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.84	113	328171	20.192	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.25	102	86783	19.868	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1269502	19.548	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 98	%		
83) SURR4BrFBenz	13.24	95	501341	20.394	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	118432	8.5244	ug/L	100
3) Chloromethan	2.10	50	167439	8.4551	ug/L	99
4) VinylChlorid	2.24	62	182293	9.9071	ug/L	89
5) Bromomethane	2.70	94	89525	8.8683	ug/L	98
6) Chloroethane	2.87	64	120623	10.2643	ug/L	92
7) Dichloroflmethane	3.18	67	220039	9.6539	ug/L	99
8) Trichlorofma	3.26	101	222175	10.3927	ug/L	99
9) Ethylether	3.70	59	112774	7.9343	ug/L	87
10) dichlorotfluoroethan	3.71	67	227121	9.9937	ug/L	98
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.83	56	140831	38.9853	ug/L	99
13) 11dichlorthe	3.98	96	129283	9.8885	ug/L	97
14) Trichlorotfluoroeth	4.02	101	262937	19.8771	ug/L	98
15) Acetone	4.05	43	542246	88.4430	ug/L	100
16) Iodomethane	4.16	142	262379	15.3497	ug/L	99
17) Carbon Dislf	4.25	76	715814	19.9243	ug/L	99
18) allylchloride	4.47	41	480332	18.6355	ug/L	98
19) methylacetate	4.52	74	44629	8.1132	ug/L	99
20) Methylchlorid	4.63	84	139330	8.4284	ug/L	99
21) tbutylalcohol	4.82	59	801370	454.5979	ug/L	98
22) Acrylonitrile	4.92	53	335462	46.7866	ug/L	98
23) t12dichlorte	5.00	96	143803	9.4554	ug/L	97
24) MtBE	5.03	73	389255	8.9916	ug/L	99
25) Hexane	5.39	57	418176	19.5924	ug/L	99
26) 11dichlorota	5.53	63	263216	9.0397	ug/L	100
27) Vinylacetate	5.62	43	2833614	89.5735	ug/L	99
28) chloroprene	5.65	53	528890	20.1939	ug/L	99
29) Diisopether	5.67	45	498870	9.2988	ug/L	97
30) ETBE	6.13	59	408556	9.0035	ug/L	100
31) 22dichloropr	6.26	77	187228	8.7631	ug/L	98
32) c12dichlorte	6.26	96	154806	9.0997	ug/L	96
33) 2Butanone	6.27	72	215377	94.3049	ug/L	99
34) propionitrile	6.31	54	267023	90.9499	ug/L	99
35) Ethylacetate	6.38	88	33872	43.4374	ug/L	99
36) methacrylonitrile	6.52	67	136669	17.8515	ug/L	96
37) Bromochlorma	6.54	128	72198	9.2089	ug/L	96
38) Tetrahydofur	6.63	42	567870	86.6854	ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469MS.D Vial: 23
Acq On : 1 Nov 2021 19:08 Operator: DGS-RLD
Sample : 196904,MSW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.65	83	272546	9.8607 ug/L	97
40)	111trichlota	6.90	97	214398	9.6590 ug/L	98
42)	Cyclohexane	6.98	56	272138	10.1264 ug/L	98
43)	Carbtetraclo	7.11	119	276888	15.2442 ug/L	96
44)	11dicloprope	7.10	110	72627	9.7869 ug/L	95
46)	Benzene	7.35	78	584007	9.3534 ug/L	99
47)	12dichlorota	7.35	62	206405	9.0528 ug/L	99
48)	TAME	7.52	73	367832	8.7508 ug/L	97
49)	trichloroete	8.15	95	162706	10.1684 ug/L	97
50)	methylcyclohexane	8.42	83	279975	9.8272 ug/L	99
51)	12dicloropra	8.42	63	161349	9.0363 ug/L	98
52)	23Dicl1propene	8.48	75	233778	9.2011 ug/L	99
53)	Dibromometha	8.56	93	87873	8.9480 ug/L	97
54)	methylmethacrylate	8.58	69	117240	8.7896 ug/L	96
55)	14dioxane	8.59	88	104483	454.5121 ug/L	99
56)	Bromodiclrma	8.76	83	172121	8.7668 ug/L	99
57)	2Nitropropane	9.02	43	435108	86.4672 ug/L	100
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	9.33	75	219955	8.9060 ug/L	99
60)	4Meth2Pentan	9.54	43	1557605	91.6334 ug/L	99
62)	Toluene	9.79	92	370638	9.2671 ug/L	98
63)	t13Dicloprop	10.05	75	187929	8.6746 ug/L	98
64)	ethylmethacrylate	10.19	69	423493	18.2997 ug/L	100
65)	112Triclotha	10.28	83	109592	9.0953 ug/L	100
66)	Tetrachlorte	10.52	166	167769	9.9126 ug/L	100
67)	13Diclorpropa	10.50	76	228305	8.7303 ug/L	97
69)	2Hexanone	10.62	43	1139567	100.4778 ug/L	100
70)	Clorodibrmta	10.81	129	122671	9.2649 ug/L	100
71)	12Dibrometha	10.96	107	129690	9.7467 ug/L	100
72)	Chlorobenzen	11.65	112	396314	9.8838 ug/L	99
73)	1Clhexane	11.63	91	225684	10.7706 ug/L	100
74)	1112Tetclota	11.76	131	128179	9.5848 ug/L	99
75)	Ethylbenzene	11.81	91	683220	10.3895 ug/L	97
76)	m p-Xylene	11.97	106	523010	20.7708 ug/L	100
77)	o-Xylene	12.52	106	250901	9.9143 ug/L	97
78)	Styrene	12.53	104	405798	9.8635 ug/L	98
79)	Bromoform	12.76	173	74569	9.0140 ug/L	97
80)	Isopropylben	13.05	105	656371	10.6975 ug/L	98
81)	cyclohexanone	13.13	55	109175	118.0594 ug/L	98
84)	Bromobenzene	13.45	156	163938	10.3302 ug/L	99
85)	1122Tetrclta	13.42	83	184093	10.5384 ug/L	100
86)	123Triclproa	13.48	75	220974	9.8221 ug/L	97
87)	14dichloro2butene	13.51	53	47713	9.0432 ug/L	98
88)	n-Propylbenz	13.63	91	776134	11.3776 ug/L	100
89)	2chlorotolue	13.74	91	455944	10.6314 ug/L	99
90)	4chlorotolue	13.89	91	527713	10.6068 ug/L	99
91)	135Trimebenz	13.89	105	529725	10.6301 ug/L	98
92)	tbutylbenzen	14.35	119	477578	11.0148 ug/L	97
93)	124Trimetben	14.42	105	521928	10.8041 ug/L	99
94)	sbutylbenzen	14.68	105	682332	11.4489 ug/L	99
95)	13Diclorbenz	14.81	146	295236	10.2470 ug/L	98
96)	pIsopropylto	14.89	119	586261	11.2779 ug/L	99
97)	14dichlorobe	14.94	146	299847	9.5834 ug/L	97
98)	12dichlorobe	15.48	146	279554	9.4770 ug/L	97
99)	nButylbenzen	15.49	91	526534	11.2629 ug/L	100
100)	12dibromo3cl	16.58	157	31711	9.2612 ug/L	100
101)	135Trichlorobenzene	16.90	180	210613	10.4251 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469MS.D Vial: 23
Acq On : 1 Nov 2021 19:08 Operator: DGS-RLD
Sample : 196904,MSW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	171220	9.7934	ug/L	98
103) Hexachlorobu	17.96	225	76918	10.3834	ug/L	97
104) Naphthalene	18.02	128	412599	10.2086	ug/L	98
105) 123Trichlben	18.33	180	160419	10.3591	ug/L	97

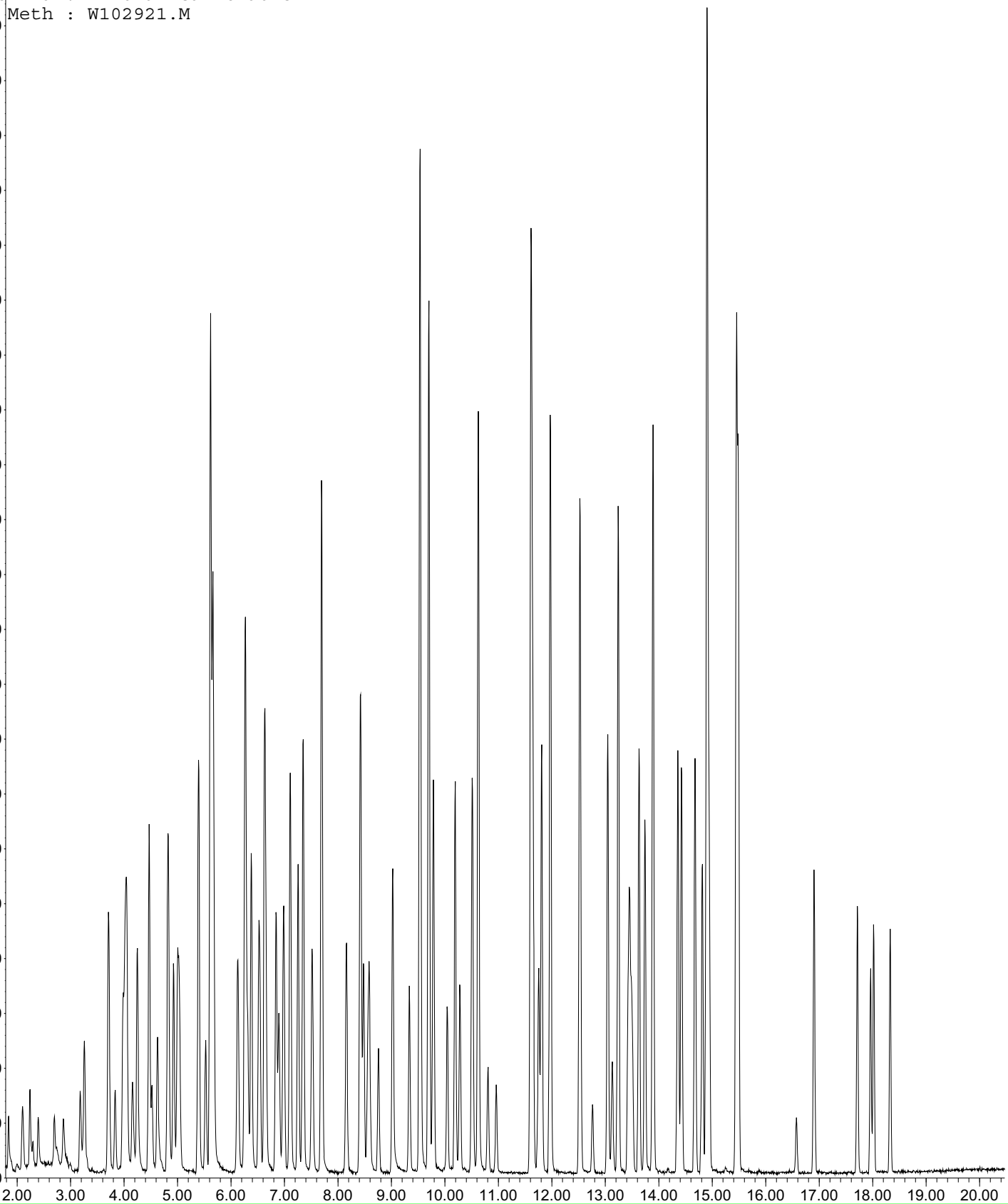
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 1066469MS.D

Data File : C:\INSTARCH\DATA\NOV0121\1066469MS.D Vial: 23
Acq On : 1 Nov 2021 19:08 Operator: DGS-RLD
Sample : 196904,MSW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:44 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M



Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469SD.D Vial: 24
Acq On : 1 Nov 2021 19:37 Operator: DGS-RLD
Sample : 196904,MSDW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1291699	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	990055	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	531198	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	335597	20.155	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %			
45) SURR12DCAd4	7.26	102	90247	20.167	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %			
61) SURRd8Tolule	9.70	98	1274881	19.161	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 96 %			
83) SURR4BrFBenz	13.25	95	505603	20.096	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	131385	9.2305	ug/L	99
3) Chloromethan	2.10	50	186689	9.2016	ug/L	99
4) VinylChlorid	2.24	62	196916	10.4457	ug/L	94
5) Bromomethane	2.70	94	88995	8.5915	ug/L	97
6) Chloroethane	2.87	64	131136	10.8919	ug/L	94
7) Dichloroflmethane	3.18	67	241030	10.3218	ug/L	99
8) Trichlorofma	3.26	101	245880	11.2264	ug/L	98
9) Ethylether	3.71	59	121840	8.3671	ug/L	87
10) dichlorotfluoroethan	3.72	67	251121	10.7853	ug/L	97
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	153991	41.6083	ug/L	100
13) 11dichlorthe	3.98	96	140381	10.4804	ug/L	95
14) Trichlorotfluoroeth	4.02	101	288635	21.2977	ug/L	99
15) Acetone	4.05	43	589026	93.7743	ug/L	99
16) Iodomethane	4.16	142	309295	17.4278	ug/L	99
17) Carbon Dislf	4.25	76	789688	21.4546	ug/L	99
18) allylchloride	4.47	41	526769	19.9481	ug/L	99
19) methylacetate	4.53	74	44901	7.9673	ug/L	93
20) Methylchlorid	4.63	84	154693	9.1338	ug/L	96
21) tbutylalcohol	4.83	59	900481	498.5986	ug/L	98
22) Acrylonitrile	4.93	53	356789	48.5704	ug/L	97
23) t12dichlorte	5.00	96	152793	9.8061	ug/L	98
24) MtBE	5.03	73	419962	9.4688	ug/L	99
25) Hexane	5.40	57	474774	21.7119	ug/L	98
26) 11dichlorota	5.53	63	291004	9.7549	ug/L	98
27) Vinylacetate	5.62	43	3010540	93.3937	ug/L	100
28) chloroprene	5.66	53	586981	21.8756	ug/L	99
29) Diisopether	5.68	45	545171	9.9187	ug/L	100
30) ETBE	6.13	59	440496	9.4751	ug/L	99
31) 22dichloropr	6.27	77	205911	9.4069	ug/L	99
32) c12dichlorte	6.26	96	170470	9.7807	ug/L	98
33) 2Butanone	6.27	72	229882	98.2476	ug/L	98
34) propionitrile	6.32	54	291718	96.9837	ug/L	100
35) Ethylacetate	6.39	88	35261	44.1367	ug/L	96
36) methacrylonitrile	6.52	67	148137	18.8865	ug/L	95
37) Bromochlorma	6.54	128	77645	9.6667	ug/L	95
38) Tetrahydofur	6.63	42	621791	92.6453	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469SD.D Vial: 24
Acq On : 1 Nov 2021 19:37 Operator: DGS-RLD
Sample : 196904,MSDW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	292139	10.3167	ug/L	98
40)	111trichlota	6.90	97	237881	10.4606	ug/L	98
42)	Cyclohexane	6.99	56	305583	11.0989	ug/L	99
43)	Carbtetraclo	7.12	119	296873	15.9534	ug/L	98
44)	11dicloprope	7.11	110	79605	10.4706	ug/L	98
46)	Benzene	7.35	78	634608	9.9207	ug/L	100
47)	12dichlorota	7.35	62	225847	9.6685	ug/L	98
48)	TAME	7.52	73	404059	9.3827	ug/L	98
49)	trichloroete	8.16	95	176718	10.7799	ug/L	98
50)	methylcyclohexane	8.43	83	315402	10.8058	ug/L	99
51)	12dicloropra	8.42	63	173565	9.4879	ug/L	90
52)	23Dicl1propene	8.48	75	247935	9.5249	ug/L	99
53)	Dibromometha	8.56	93	93769	9.3200	ug/L	97
54)	methylmethacrylate	8.59	69	126728	9.2735	ug/L	99
55)	14dioxane	8.60	88	114079	484.3816	ug/L	97
56)	Bromodiclrma	8.76	83	191804	9.5356	ug/L	99
57)	2Nitropropane	9.02	43	488665	94.7867	ug/L	99
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	240845	9.5185	ug/L	100
60)	4Meth2Pentan	9.54	43	1675648	96.6956	ug/L	99
62)	Toluene	9.79	92	405208	9.8891	ug/L	98
63)	t13Dicloprop	10.05	75	208776	9.4062	ug/L	98
64)	ethylmethacrylate	10.19	69	461887	19.4812	ug/L	100
65)	112Triclotha	10.28	83	115140	9.3271	ug/L	97
66)	Tetrachlorte	10.52	166	180463	10.4075	ug/L	98
67)	13Diclorpropa	10.51	76	253536	9.4632	ug/L	99
69)	2Hexanone	10.62	43	1261720	109.6620	ug/L	99
70)	Clorodibrmta	10.81	129	135317	10.0743	ug/L	98
71)	12Dibrometha	10.97	107	140244	10.3896	ug/L	100
72)	Chlorobenzen	11.65	112	428469	10.5333	ug/L	99
73)	1Clhexane	11.63	91	248680	11.6988	ug/L	99
74)	1112Tetclota	11.76	131	139192	10.2599	ug/L	99
75)	Ethylbenzene	11.81	91	744940	11.1665	ug/L	100
76)	m p-Xylene	11.98	106	573444	22.4491	ug/L	100
77)	o-Xylene	12.52	106	280654	10.9318	ug/L	98
78)	Styrene	12.53	104	451170	10.8099	ug/L	97
79)	Bromoform	12.76	173	81497	9.7110	ug/L	99
80)	Isopropylben	13.05	105	718491	11.5429	ug/L	99
81)	cyclohexanone	13.13	55	128518	136.9949	ug/L	98
84)	Bromobenzene	13.45	156	177292	10.9156	ug/L	99
85)	1122Tetrclta	13.42	83	203063	11.3578	ug/L	99
86)	123Triclproa	13.49	75	240762	10.4563	ug/L	99
87)	14dichloro2butene	13.51	53	53233	9.8582	ug/L	98
88)	n-Propylbenz	13.63	91	852816	12.2151	ug/L	97
89)	2chlorotolue	13.74	91	498625	11.3601	ug/L	99
90)	4chlorotolue	13.90	91	586796	11.5240	ug/L	98
91)	135Trimebenz	13.89	105	597211	11.7096	ug/L	99
92)	tbutylbenzen	14.36	119	534333	12.0413	ug/L	98
93)	124Trimetben	14.43	105	570508	11.5390	ug/L	98
94)	sbutylbenzen	14.68	105	761543	12.4851	ug/L	99
95)	13Diclorbenz	14.81	146	327504	11.1064	ug/L	100
96)	pIsopropylto	14.89	119	641695	12.0613	ug/L	99
97)	14dichlorobe	14.94	146	335155	10.4990	ug/L	98
98)	12dichlorobe	15.48	146	304621	10.1217	ug/L	99
99)	nButylbenzen	15.49	91	576981	12.0590	ug/L	98
100)	12dibromo3cl	16.57	157	36061	10.2903	ug/L	99
101)	135Trichlorobenzene	16.90	180	236219	11.4246	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\NOV0121\1066469SD.D Vial: 24
Acq On : 1 Nov 2021 19:37 Operator: DGS-RLD
Sample : 196904,MSDW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	193534	10.8160	ug/L	99
103) Hexachlorobu	17.96	225	89995	11.8702	ug/L	98
104) Naphthalene	18.02	128	467911	11.3117	ug/L	99
105) 123Trichlben	18.33	180	181762	11.4683	ug/L	98

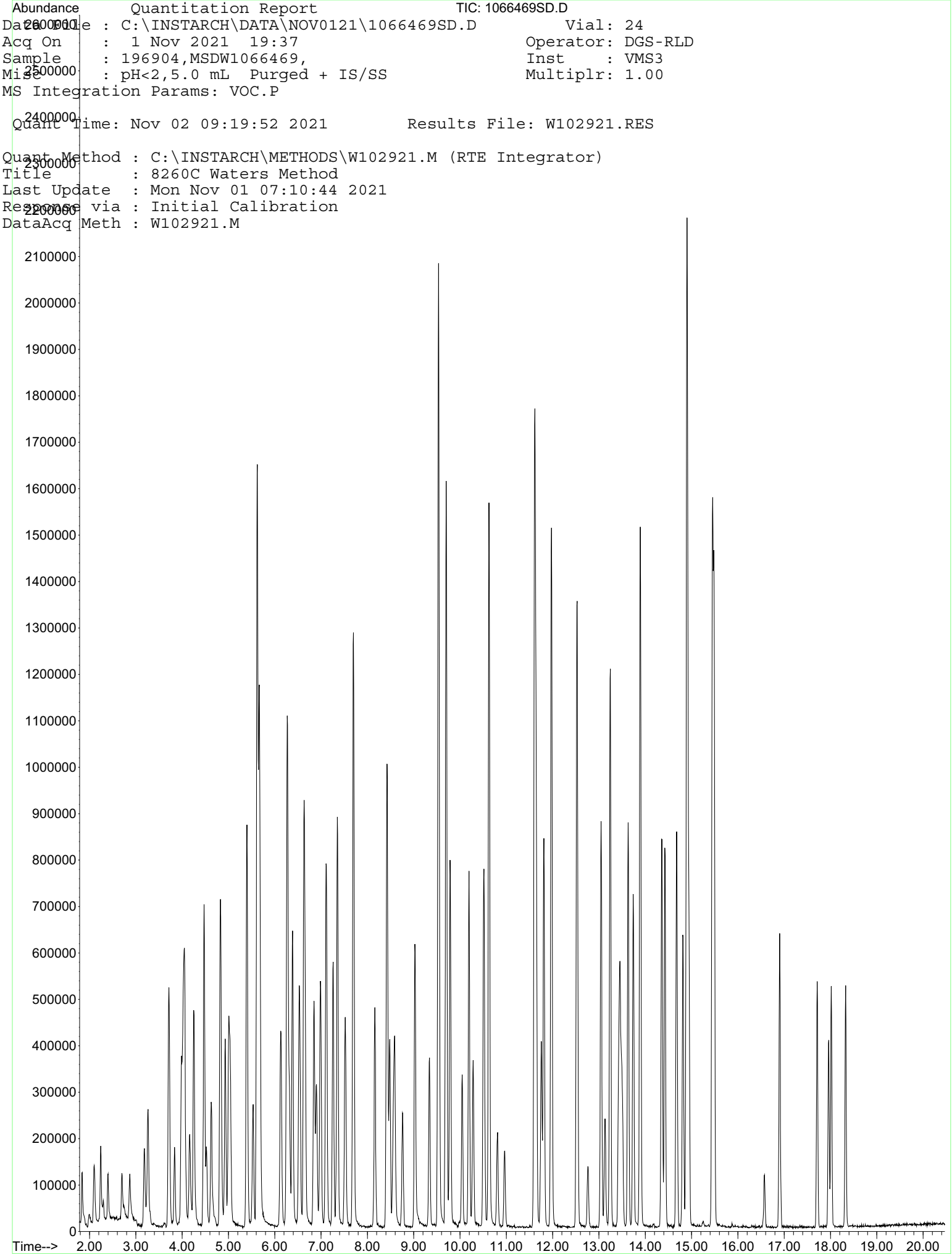
(#) = qualifier out of range (m) = manual integration

Abundance Quantitation Report TIC: 1066469SD.D

Data File : C:\INSTARCH\DATA\NOV0121\1066469SD.D Vial: 24
Acq On : 1 Nov 2021 19:37 Operator: DGS-RLD
Sample : 196904,MSDW1066469, Inst : VMS3
Misc : pH<2,5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Nov 02 09:19:52 2021 Results File: W102921.RES

Quant Method : C:\INSTARCH\METHODS\W102921.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Mon Nov 01 07:10:44 2021
Response via : Initial Calibration
DataAcq Meth : W102921.M

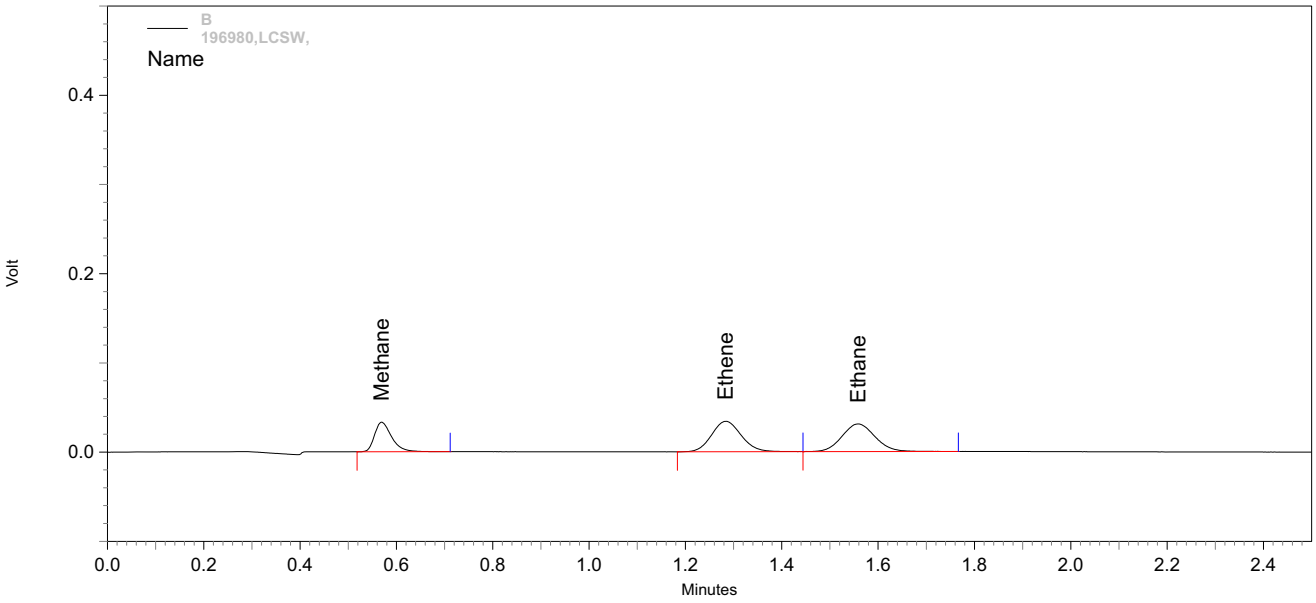


Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,LCSW,
Acquired: Nov 01, 2021 14:42:07
File Desc. Laboratory Control Sample - 25 ppmV -

500 uL of the 200 ppmV MEE Std. into 4 mL of headspace. 1.0 mL injection (Methane, Ethene, Ethane,)



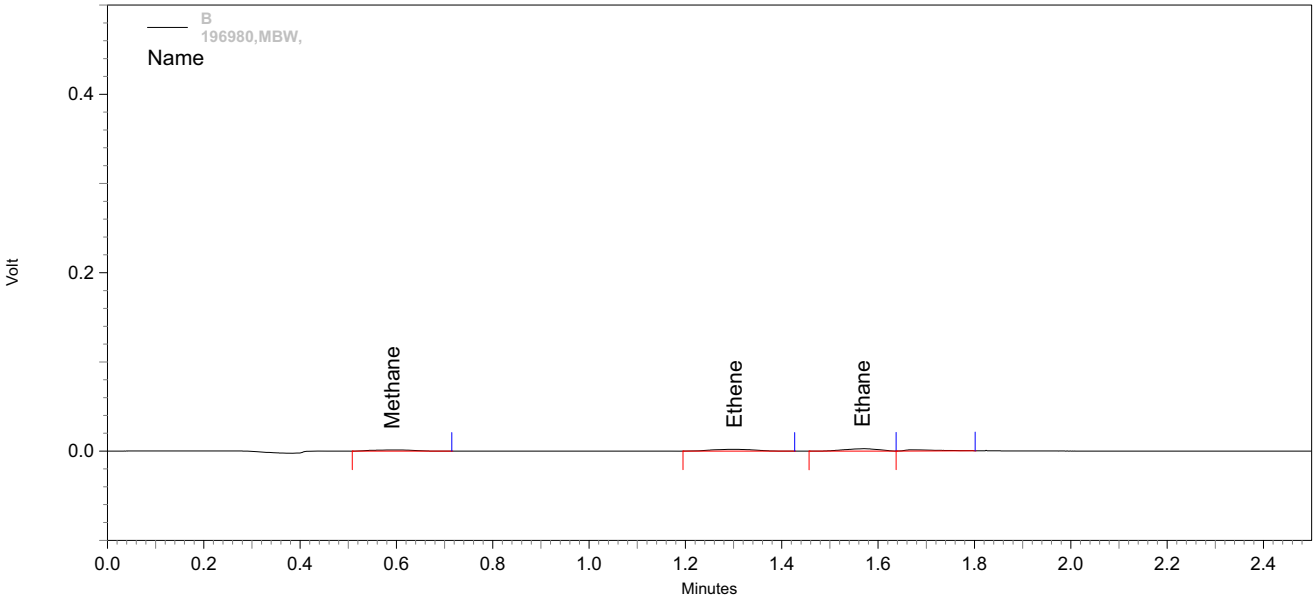
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.569	0.569	81277	20.874	ppmV
2	Ethene	1.283	1.276	145416	20.480	ppmV
3	Ethane	1.558	1.553	146543	20.398	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,MBW,
Acquired: Nov 01, 2021 14:47:17
File Desc. Method Blank
1.0 mL injection (Methane, Ethene, Ethane)



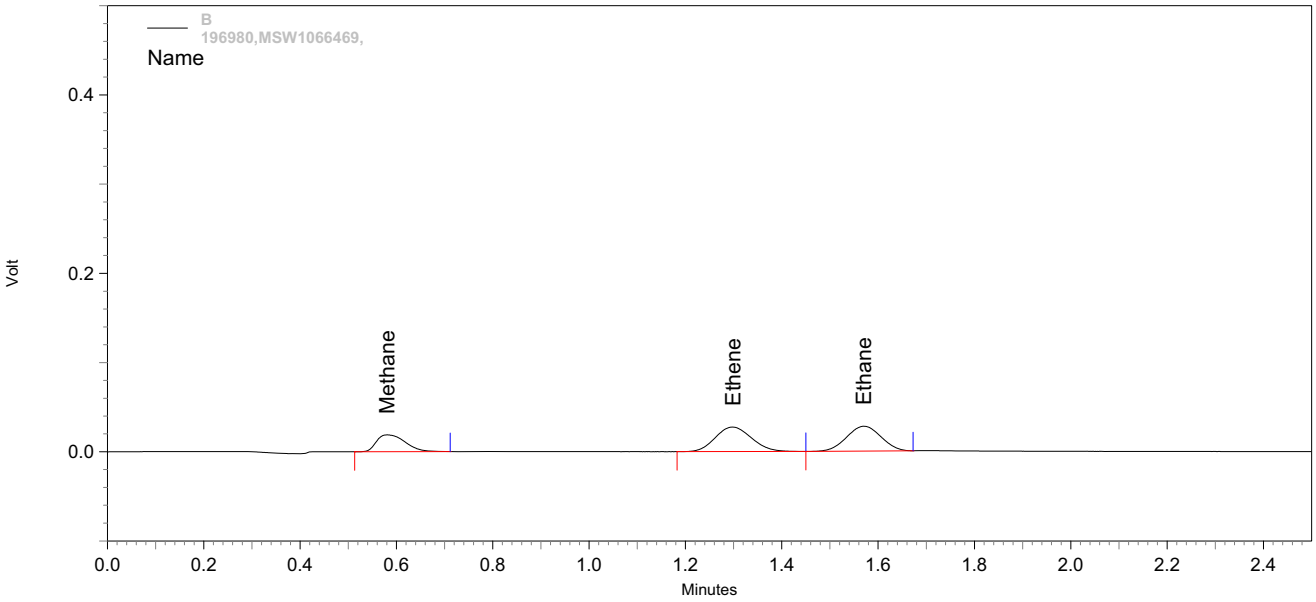
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.591**	**0.569**	**8135**	**1.949**	**ppmV**
2	**Ethene**	**1.302**	**1.276**	**13032**	**1.748**	**ppmV**
3	**Ethane**	**1.568**	**1.553**	**13003**	**1.519**	**ppmV**
4		**1.673**	**0.000**	**5478**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,MSW1066469,
Acquired: Nov 01, 2021 15:07:58
File Desc. MATRIX SPIKE 1mL injection (Methane, Ethene, Ethane)



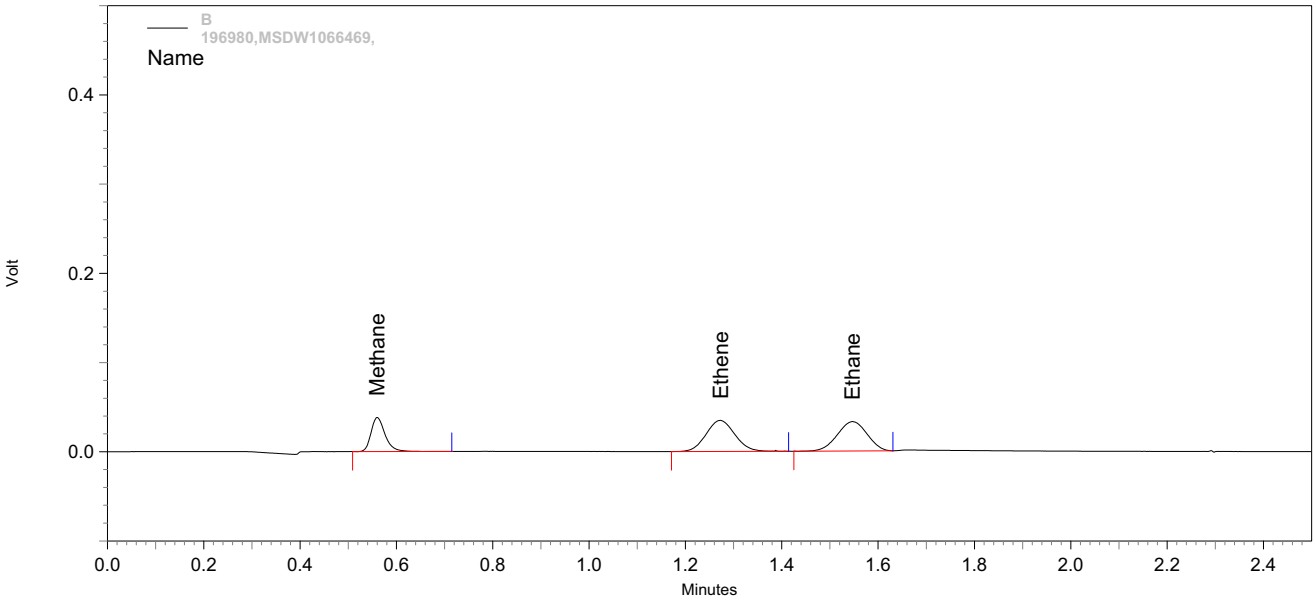
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.581**	**0.569**	**77764**	**19.965**	**ppmV**
2	**Ethene**	**1.299**	**1.276**	**143125**	**20.156**	**ppmV**
3	**Ethane**	**1.571**	**1.553**	**137960**	**19.184**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\110121 -\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 196980,MSDW1066469,
Acquired: Nov 01, 2021 15:12:00
File Desc. MATRIX SPIKE DUPLICATE 1mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.560	0.569	77683	19.944	ppmV
2	Ethene	1.273	1.276	144054	20.287	ppmV
3	Ethane	1.547	1.553	141151	19.635	ppmV

VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

VOC 8260 QSM WATER 5.0 Analytical Run
196904 on 11/3/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1069409							VOC 8260 QSM WATER 5.0				
					BFB				0			
	1068745							VOC 8260 QSM WATER 5.0				
					LCSW				0			
	1068746							VOC 8260 QSM WATER 5.0				
					CCV				0			
	1069142							VOC 8260 QSM WATER 5.0				
					MBW				0			
165461	1066466		10/26/2021	10:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		TB-1										
165524	1067785		10/27/2021	00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		M	4	
		TB-2										
165461	1066467		10/26/2021	10:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW4										
165461	1066468		10/26/2021	10:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13TW4										
165461	1066469		10/26/2021	11:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW3			Designated MS/MSD							
165461	1066470		10/26/2021	12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW04										
165461	1066471		10/26/2021	13:38		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		13MW2										
165524	1067786		10/27/2021	15:08		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW1										
165524	1067787		10/28/2021	08:29		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW01										
165524	1067788		10/28/2021	09:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		50MW02										
165524	1067789		10/28/2021	11:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW2										
165524	1067790		10/28/2021	12:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
RERUN		48MW3										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Volatiles C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp868A.tmp Page 1 of 1

VOC 8260 QSM WATER 5.0 Analytical Run
196904 on 11/3/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067791		10/28/2021	14:57			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		49MW02											
165524	1067792		10/28/2021	16:22			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW6											
	1069093		10/26/2021	11:26					VOC 8260 QSM 5.0				
		13MW3			MSW	1066469				0			
	1069094		10/26/2021	11:26					VOC 8260 QSM 5.0				
		13MW3			MSDW	1069093				0			
	1069095								VOC 8260 QSM WATER 5.0				
					CCVF					0			
	1069410								VOC 8260 QSM WATER 5.0				
					BFB					0			
	1069149								VOC 8260 QSM WATER 5.0				
					CCV					0			
	1069168								VOC 8260 QSM WATER 5.0				
					CCB					0			
165524	1067790		10/28/2021	12:59			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	VOC 8260 QSM 5.0		GW	4	
		48MW3											
	1069400								VOC 8260 QSM WATER 5.0				
					CCVF					0			

26 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\NOV0121\BFB1.D
Injection Date : 1 Nov 2021 Log Time Period (hrs) : ALL
Injection Time : 08:48 Total files within period : 35
Sample Directory : C:\INSTARCH\DATA\NOV0121\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	196904,LCSW, 10.0/100 ug/L, 5.0 m	1 Nov 2021	09:08
MB1	1.00	1.00	1.00	196904,MBW, pH<2,5.0 mL DI H20 P	1 Nov 2021	10:06
1066466	1.00	1.00	1.00	196904,1066466, pH<2,5.0 mL Purged	1 Nov 2021	10:34
1067785	1.00	1.00	1.00	196904,1067785, pH<2,5.0 mL Purged	1 Nov 2021	11:02
1066467	1.00	1.00	1.00	196904,1066467, pH<2,5.0 mL Purged	1 Nov 2021	11:59
1066468	1.00	1.00	1.00	196904,1066468, pH<2,5.0 mL Purged	1 Nov 2021	12:29
1066469	1.00	1.00	1.00	196904,1066469, pH<2,5.0 mL Purged	1 Nov 2021	12:57
1066470	1.00	1.00	1.00	196904,1066470, pH<2,5.0 mL Purged	1 Nov 2021	13:25
1066471	1.00	1.00	1.00	196904,1066471, pH<2,5.0 mL Purged	1 Nov 2021	13:55
1067786	1.00	1.00	1.00	196904,1067786, pH<2,5.0 mL Purged	1 Nov 2021	14:23
1067787	1.00	1.00	1.00	196904,1067787, pH<2,5.0 mL Purged	1 Nov 2021	14:51
1067788	1.00	1.00	1.00	196904,1067788, pH<2,5.0 mL Purged	1 Nov 2021	15:20
1067789	1.00	1.00	1.00	196904,1067789, pH<2,5.0 mL Purged	1 Nov 2021	15:47
1067790	1.00	1.00	1.00	196904,1067790,5 pH<2,5.0 mL Purged	1 Nov 2021	16:17
1067791	1.00	1.00	1.00	196904,1067791, pH<2,5.0 mL Purged	1 Nov 2021	16:45
1067792	1.00	1.00	1.00	196904,1067792, pH<2,5.0 mL Purged	1 Nov 2021	17:14

1066469MS	1.00	1.00	1.00	196904,MSW1066469, pH<2,5.0 mL Purged	1 Nov 2021 19:08
1066469SD	1.00	1.00	1.00	196904,MSDW1066469, pH<2,5.0 mL Purged	1 Nov 2021 19:37
CCVF-LCSD1	1.00	1.00	1.00	196904,LCSDW, 10.0/100 ug/L, 5.0 m	1 Nov 2021 20:07
BFB2	1.00	1.00	1.00	BFB DIRECT INJ. 50 ng Inj.	2 Nov 2021 07:21
CCV2	1.00	1.00	1.00	196904,LCSW, 10.0/100 ug/L, 5.0 m	2 Nov 2021 08:04
CCB1	1.00	1.00	1.00	196904,CCB, pH<2,5.0 mL DI H20 P	2 Nov 2021 09:59
1067790R	1.00	1.00	1.00	196904,1067790, pH<2,5.0 mL Purged	2 Nov 2021 10:55
CCVF2	1.00	1.00	1.00	196904,CCVF, 10.0/100 ug/L, 5.0 m	2 Nov 2021 11:52

Over-range

Report

8260 ISTD/SSTD 20ug/ml VOC0894
8260 BFB STD. 50ug/ml VOC0893
8260 ICV STD. 100ug/ml VOC0895
8260 CCV/CALIB. 100ug/ml VOC0896

Injection Log Summary Report

Method : Y:\VMS3\INSTARCH\METHODS\W102921.M
Title : 8260C Waters Method
Start (Tune) File ID : Y:\VMS3\INSTARCH\DATA\OCT2921\BFB1.D
Injection Date : 29 Oct 2021 Log Time Period (hrs) : ALL
Injection Time : 09:25 Total files within period : 17
Sample Directory : Y:\VMS3\INSTARCH\DATA\OCT2921\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	29 Oct 2021	10:37
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	29 Oct 2021	11:05
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	29 Oct 2021	11:35
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	29 Oct 2021	12:03
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	29 Oct 2021	12:32
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	29 Oct 2021	13:00
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	29 Oct 2021	13:30
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	29 Oct 2021	13:58
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	29 Oct 2021	14:27
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	29 Oct 2021	15:24
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	29 Oct 2021	15:53
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK pH<2,5.0 mL DI H20 P	29 Oct 2021	17:19

8260 ISTD/SSTD 20ug/ml VOC0894
8260 BFB STD. 50ug/ml VOC0893
8260 ICV STD. 100ug/ml VOC0895
8260 CCV/CALIB. 100ug/ml VOC0896

FVO4-01 Data Review Checklist

FORM #: FVO4-01
Rev. #: 2.2
Effective Date: 08/05/19

INDEPENDENT DATA REVIEW CHECKLIST			Method: GCMS (EPA SW-846 8260C)					
Analysis Date	**LIMS Run #(s):**	**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved?**			**Instrument**
					Yes	No		
11/01/2021	196957 196954 196904	DGS	RLD	11/03/2021	Yes			VMS3

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	
I. BFB Tune Check						
Was a BFB tune check analyzed with acceptable results?	Relative abundance criteria met?	Yes		Yes		
II. Initial Calibration Verification (ICV)						
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?	Lowest standard at or below RL?	Yes		Yes		
Were the Average Relative Response Factors (ARRF) acceptable?	ARRF<or= specified limits (<15%D.)see SOP)	Yes		Yes		
Was a second-source ICV(s) analyzed (for Quadratic Curve)?	Required before sample analyses.	Yes		Yes		
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
Was Initial Calibration Blank (ICB) analyzed?	Required before sample analyses.	Yes		Yes		
Were the ICB results for all target analytes less than the limit of detection (LOD).	<LOD or < project/program specific limits		No		No	
III. Continuing Calibration Verification (CCV)						
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?	Relative abundance criteria met?	Yes		Yes		
Was a CCV analyzed after every 12 hour tune check?	Required before sample analyses.	Yes		Yes		
Was a second CCV (CCV2) for compounds calibrated using quadratic curves analyzed after every 12 hour tune check?	Required before analyses of WI samples (above the inflection point of the curve).					
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific		No		No	Affected compounds were Z flagged
If necessary, were the results for outlying compounds qualified?		Yes		Yes		

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						
V. Laboratory Control Spike (LCS)						
Was a LCS (and LCSD if needed) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the LCS (LCSD) recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?						
Is the relative percent difference (RPD) for each analyte between the LCS and LSCD (if applicable) acceptable?	Default 20%, or see internally generated limits, or client specific limits.	Yes		Yes		
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	Default 20%, or see internally generated limits, or client specific limits.	Yes		Yes		
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.	Yes		Yes		
If possible, were the affected samples reanalyzed?						
**Were reported sample results with failing surrogate recoveries qualified?						
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.					
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)	Yes		Yes		
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.	Yes		Yes		

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		
Were all data, calculations, and values verified in LIMS (including removal of non-detections) upon completion of data capture?		Yes		Yes		
Were manual integrations performed correctly?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms.	Yes		Yes		
Was the rational for the manual integration verified?		Yes		Yes		
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

ᵏNon-Applicable Yes/No Cells Are Left Blank*

Comments:

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0908	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0998, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	11/13/2021	11/20/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0909	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	11/13/2021	11/20/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0904	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	11/04/2021	11/11/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0905	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	11/04/2021	11/11/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0893	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0984 into 2925uL of MeOH.	MeOH / B&J / DZ644-U	50 ug/mL	1028/2021	11/28/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0894	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0978 into 25mL of MeOH.	MeOH / B&J / DZ644-U	20 ug/mL	10/28/2021	11/28/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0895	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	10/28/2021	11/04/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0896	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	10/28/2021	11/04/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0888	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	10/15/2021	10/22/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0889	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	10/15/2021	10/22/2021	RLD

Standard Log #:	VOC0887	Standard/Reagent:	Bromoform Decomp. Std.
Analyst:	RLD	Final Concentration:	100 ug/ml
Prep Date:	10/13/2021	Expiration Date:	04/13/2022
Prep:	0.30 ml of 1000 ug/ml Bromoform Standard (VO998) into 2700 ml of MeOH (B&J, Lot # DZ644-US).		

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0885	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / Dz644-US	100 ug/mL	10/06/2021	10/13/2021	DGS

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0886	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ644-US	100 ug/mL	10/06/2021	10/13/2021	DGS

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0881	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0984 into 2925uL of MeOH.	MeOH / B&J / DZ644-U	50 ug/mL	09/27/2021	10/27/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0882	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0949 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0978 into 25mL of MeOH.	MeOH / B&J / DZ644-U	20 ug/mL	09/27/2021	10/27/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0883	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1000 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	09/27/2021	10/04/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0884	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1001 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	09/27/2021	10/04/2021	RLD

1

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0879	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V0988, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0996, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0992 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	09/13/2021	09/20/2021	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0880	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V0987, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V0997, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V0993 into 2250uL of MeOH.	MeOH / B&J / DZ644-U	100 ug/mL	09/13/2021	09/20/2021	RLD

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1002	4-Bromofluorobenzene	Agilent	STS-110N	0006629793
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	09/30/2028	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 BFB Std. and PVOC/GRO SSTD. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1003	8260 VOC Mix	Agilent	DWM-588-1	0006602588
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	05/31/2024	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard Log #:	VOC0878	Standard/Reagent:	Bromoform Decomp. Std.
Analyst:	RLD	Final Concentration:	100 ug/ml
Prep Date:	08/31/2021	Expiration Date:	09/31/2021
Prep:	0.30 ml of 1000 ug/ml Bromoform Standard (VO998) into 2700 ml of MeOH (B&J, Lot # DZ644-US).		

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1000	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP210914002
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	03/13/2022	09/24/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1001	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP210908004
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	03/07/2022	09/24/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0998	Bromoform	SPEX/Antylia	S-555	CP201023020
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
1000 ug/ml	Methanol	10/23/2023	08/25/2021	RLD
# of Ampules/Units:	1	Comments:	Used for preparation of the Bromoform Decomposition Std.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0996	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	CP210810016
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/08/2021	08/18/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0997	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	AA210810018
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	11/08/2021	08/18/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0991	8260 ISTD/SSTD Mix	Agilent	STM-540	0006595713
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,500 ug/mL	MeOH	04/30/2024	05/24/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 IS/SS standard mix preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0992	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	CP210513005
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/09/2021	05/28/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0993	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	AA210513017
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	11/09/2021	05/28/2021	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0988	8260 VOC Mix	AccuStandard	M-502-10X-PAK	220121048
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	12/08/2023	04/28/2021	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spiking Std. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0987	8260 VOC Mix	Agilent	DWM-588-1	0006585945
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	03/31/2024	04/16/2021	RLD
# of Ampules/Units:	4	Comments:	Used to prepare 8260 CCV/Calib. Standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0982	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	AA210309012
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/07/2021	03/17/2021	RLD
# of Ampules/Units:	2	Comments:	Used to prepare 8260 ICV standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0983	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	CP210309007
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/07/2021	03/17/2021	RLD
# of Ampules/Units:	2	Comments:	Used to prepare 8260 CCV standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0984	4-Bromofluorobenzene	Agilent	STS-110N	0006476760
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	07/31/2022	03/18/2021	RLD
# of Ampules/Units:	4	Comments:	Used to prepare 8260 tuning standard and 8021 surrogate standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0978	1,2-Dichlorobenzene-$_{d4}$	Agilent	STS-210-1	0006552847
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	09/30/2024	01/14/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8015/8260 SSTD preparation.	

V METH, ETH, ETHENE QSM 5.0 Analytical Run # 196980 on 11/2/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1069073								V METH, ETH, ETHENE QSM 5.0				
					CCV					0			
	1068810								METH,ETH,ETHE QSM 5.0				
					LCSW					83207			
	1068809								METH,ETH,ETHE QSM 5.0				
					MBW					83207			
165461	1066467		10/26/2021	10:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW4								83207			
165461	1066468		10/26/2021	10:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13TW4								83207			
165461	1066469		10/26/2021	11:26			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW3			Designated MS/MSD					83207			
	1068807		10/26/2021	11:26					METH,ETH,ETHE QSM 5.0				
		13MW3			MSW	1066469				83207			
	1068808		10/26/2021	11:26					METH,ETH,ETHE QSM 5.0				
		13MW3			MSDW	1068807				83207			
165461	1066470		10/26/2021	12:30			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW04								83207			
165461	1066471		10/26/2021	13:38			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW2								83207			
165524	1067786		10/27/2021	15:08			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW1								83207			
165524	1067787		10/28/2021	08:29			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW01								83207			
165524	1067788		10/28/2021	09:52			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		50MW02								83207			
165524	1067789		10/28/2021	11:15			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW2								83207			
165524	1067790		10/28/2021	12:59			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW3								83207			
	1069074								V METH, ETH, ETHENE QSM 5.0				
					CCV					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpBFCC.tmp Page 1 of 1

V METH, ETH, ETHENE QSM 5.0 Analytical Run # 196980 on 11/2/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067791		10/28/2021 14:57		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		49MW02						83207			
165524	1067792		10/28/2021 16:22		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	METH,ETH,ETHE QSM 5.0		GW	**4**	
		48MW6						83207			
	1069075						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			

19 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 11/2/2021

Prep Batch **83,207** Date Prepped: 11/1/2021 Prepped By:: KMT

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	1068809	MBW		METH,ETH,ETHE QSM 5.0	LIQUID	25.3				
	1068810	LCSW		METH,ETH,ETHE QSM 5.0	LIQUID	25.3				
165461	1066467			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1066468			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1066469	sample designated for QC		METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1066470			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1066471			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
165524	1067786			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067787			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067788			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067789			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067790			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067791			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1067792			METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3			4	
	1068807	MSW	1066469	METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3				
	1068808	MSDW	1068807	METH,ETH,ETHE QSM 5.0	GROUND WATER	25.3				

Notes:_____

PREP WORKSHEET 2
on 11/2/2021

Prep Batch: **83207**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1068809	MBW		METH,ETH,ETHE QSM 5.0			LIQUID			
	1068810	LCSW		METH,ETH,ETHE QSM 5.0			LIQUID			
165461	1066467			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	13MW4	GROUND WATER	10/26/21 10:10	11/8/21	4
	1066468			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	13TW4	GROUND WATER	10/26/21 10:10	11/8/21	4
	1066469	*		METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	13MW3	GROUND WATER	10/26/21 11:26	11/8/21	4
	1066470			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	49MW04	GROUND WATER	10/26/21 12:30	11/8/21	4
	1066471			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	13MW2	GROUND WATER	10/26/21 13:38	11/8/21	4
165524	1067786			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	48MW1	GROUND WATER	10/27/21 15:08	11/10/21	4
	1067787			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	49MW01	GROUND WATER	10/28/21 08:29	11/10/21	4
	1067788			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	50MW02	GROUND WATER	10/28/21 09:52	11/10/21	4
	1067789			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	48MW2	GROUND WATER	10/28/21 11:15	11/10/21	4
	1067790			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	48MW3	GROUND WATER	10/28/21 12:59	11/10/21	4
	1067791			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	49MW02	GROUND WATER	10/28/21 14:57	11/10/21	4
	1067792			METH,ETH,ETHE QSM 5.0	WESTON SOLUTIONS, INC.	48MW6	GROUND WATER	10/28/21 16:22	11/10/21	4
	1068807	MSW	1066469	METH,ETH,ETHE QSM 5.0		13MW3	GROUND WATER	10/26/21 11:26		
	1068808	MSDW	1068807	METH,ETH,ETHE QSM 5.0		13MW3	GROUND WATER	10/26/21 11:26		

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6668.tmp

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 11/1/2021 **Instrument:** PVOC4

Calibration Date: 7/1/2021 **Analyst:** KMT

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	0.25	43	①	
2	CCV	0.25	43		
3	LCSW	1	43	25.3	①
4	MBW	1	43	25.3	
5	1066467	1	43	25.3	<2
6	1066468	1	43	25.3	<2
7	1066469	1	43	25.3	<2
8	MSW1066469	1	43	25.3	<2
9	MSDW1066469	1	43	25.3	<2
10	1066470	1	43	25.3	<2
11	1066471	1	43	25.3	<2
12	1067786	1	43	25.3	<2
13	1067787	1	43	25.3	<2
14	1067788	1	43	25.3	<2
15	1067789	1	43	25.3	<2
16	1067790	1	43	25.3	<2
17	CCV	0.25	43	①	
18	CCB	1	43		
19	1067791	1	43	25.3	<2
20	1067792	1	43	25.3	<2
21	CCV	0.25	43		①
22			43		
23		①	43		
24			43		
25			43		

Calibration Standard Ref. #: VOC 0845

Second Source Ref. #: VOC 0846

ONIA KMT 11/1/21

Page 1

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\110121 - 196980.seq
Instrument: PVOC4
Processing Date: Nov 01, 2021 16:04:26

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
2	196980,CCV,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 14:38:02
3	196980,LCSW,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 14:42:07
4	196980,MBW,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 14:47:17
5	196980,1066467,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 14:55:42
6	196980,1066468,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 14:59:27
7	196980,1066469,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:03:14
8	196980,MSW1066469,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:07:58
9	196980,MSDW1066469,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:12:00
10	196980,1066470,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:16:40
11	196980,1066471,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:24:28
12	196980,1067786,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:30:58
13	196980,1067787,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:35:07
14	196980,1067788,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:38:53
15	196980,1067789,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:42:50
16	196980,1067790,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:46:39
17	196980,CCV,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:49:56
18	196980,CCB,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:53:29
19	196980,1067791,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 15:57:01
20	196980,1067792,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 16:00:59
21	196980,CCV,	C:\InStarch\PVOC4\Data\110121 ...	C:\Instarch\PVOC4\Methods\P4...	Nov 01, 2021 16:04:26

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\070121 - MEE ICAL.seq
Instrument: PVOC4
Processing Date: Jul 01, 2021 11:06:20

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
1	MEE PT1 - 2 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:09:22
2	MEE PT2 - 5 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:19:07
3	MEE PT3 - 10 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:24:05
4	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:38:00
5	MEE PT5 - 50 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:41:21
6	MEE PT6 - 100 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:45:28
7	MEE PT7 - 200 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\INSTARCH\PVOC4\Method...	Jul 01, 2021 09:48:59
8	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:59:16
9	MEE PT7 - 200 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:04:41
10	ICV - 50 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:24:08
11	ICB	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:29:15
12	ICB	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 11:06:20

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 7/1/2021 **Instrument:** PVOC4

Calibration Date: 7/1/2021 **Analyst:** KMT

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PT 1	0.01	43		
2	PT 2	0.025	43		
3	PT 3	0.05	43		
4	PT 4	0.1	43		
5	PT 5	0.25	43		
6	PT 6	0.5	43		
7	PT 7	1.0	43		
8	PT 4	0.1	43		
9	PT 7	1.0	43		
10	ICV	0.25	43		
11	ICB	1.0	43	20.1	
12	ICB	1.0	43	20.1	
13			43	~~20.1~~ KMT 7/1/21	
14			43		
15			43		
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

N/A KMT 7/1/21

Calibration Standard Ref. #: VOC 0845

Second Source Ref. #: VOC 0846

① N/A KMT 7/1/21

Page 1

FVO1-01 Data Review Checklist

	FVO1-01 Method: Dissolved Gases (EPA SW-846 8015 / RSK 175 Modified)					
LIMS Run #(s)	**Analysis Date (s)**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**	**Instrument**
196980	11/01/2021	KMT	RLD	11/02/2021	Yes	PVOC4

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
1. INITIAL CALIBRATION (ICAL)		**Yes**	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
a. Was the initial calibration performed using a minimum of five concentration levels?	Lowest standard at or below RL	Yes		Yes		
b. For each analyte/component is the variation between calibration response factors for all concentration levels <20% RSD or is $r^2 \geq .99$ or $r \geq .995$ for the regression line?	RSD <20% or $r^2 \geq .99$ or $r \geq .995$ or program/project specific	Yes		Yes		
c. Are the identification and date of the ICAL listed on the printout (or PDF) of the analytical run and in the method file?	ID# and date of ICAL listed	Yes		Yes		
d. Was an Initial Calibration Verification (ICV) analyzed after the ICAL?	Analyzed prior to sample analyses	Yes		Yes		
e. Were the recoveries for each analyte in the ICV within required limits?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
f. Was an Initial Calibration Blank (ICB) analyzed?		Yes		Yes		
g. Were the ICB results for all target analytes/components less than the reporting limit (RL)?	<RL or < program/project specific	Yes		Yes		
2. CONTINUING CALIBRATION VERIFICATION (CCV)						
a . Was a CCV analyzed at the beginning and end of a sequential analysis run, as well as after ever 10 samples?		Yes		Yes		
b. Were the recoveries for each analyte/component in the CCV within acceptance criteria?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
3. METHOD BLANKS (MB)						
a. Was a method blank (MB) analyzed?	1 / 20 or program/project specific	Yes		Yes		
b. Were the MB results for all analytes/components less than reporting limit?	All target analytes/components <RL or within program/project specific limits (DoD-QSM: <1/2 the RL)	Yes		Yes		
4. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at the required frequency?	1 / 20 or program/project specific	Yes		Yes		
b. Were LCS recoveries for all analytes within the acceptance criteria?	Default = 70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
c. If LCS recoveries exceed acceptance criteria, was the LCS reanalyzed in an effort to eliminate the possibility of a preparation error?		Yes		Yes		

5. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATES (MSD) and DUPLICATE						
a. Was a MS, MSD, and/or Duplicate (if valid) Vial analyzed with each batch of 20 samples (or program-specified frequency)?	1 / 20 or program/project specific frequency (QSM samples, duplicate only valid if sample result ≥ 5x the LOQ)	Yes		Yes		
b. Were MS/MSD recoveries for all analytes within acceptance criteria?	Default =70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
6. PRECISION						
a. Is the relative percent difference (RPD) for each analyte between duplicate QC samples (i.e. parent sample / Duplicate vial), or for each MS/MSD within the acceptance criteria?	Default = 20 % RPD, or within In-house generated or program/project specific limits	Yes		Yes		
7. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed or reanalyzed using a smaller sample aliquot? Affected analyte detects should remain above the limit of quantitation (LOQ) after reanalysis.		Yes		Yes		
c. Was the correct ambient temperature recorded on sample spreadsheets?		Yes		Yes		
d. Were all samples adequately preserved and analyzed within holding time?	CO_2 samples received unpreserved (analyze within 7 days or program/project specific) Methane, Ethene, Ethane samples received preserved to <2 (analyze within 14 days or program/project specific)	Yes		Yes		
8. RECORDS AND REPORTING						
a. Is a sequence run file present in the raw data file?		Yes		Yes		
b. Is the data initialed and dated by analyst?	Analysis Run sheet is initialed & dated by the analyst processing the raw data.	Yes		Yes		
c. Do all values, units, etc. listed match the raw data and associated calculations and records?		Yes		Yes		
e. Has the data been electronically transferred to the LIMS and were the applicable qualifiers assigned?		Yes		Yes		
f. Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		
g. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

* Non-Applicable Yes/No Cells Are Left Blank*

Comments:

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 64
Page is Locked
Author: rdigmann on: 5/25/2018 7:47:52 AM
Witness: akurth on: 7/31/2018 9:54:19 AM
Project: Unassigned
Page Title: 05/24/18

Standard Log #:	VO886	Standard/Reagent:	Methane Ethene Ethane STI
Analyst:	AGK	Final Concentration:	200.0 PPM
Prep Date:	05/24/18	Expiration Date:	05/17/21
Prep:	Airgas Methane, Ethene, Ethane Standard Received 05/24/18 LOT# 54-401204472-1 REF# 54-401204472-1 Cylinder # P180959		

Standard Log #:	VOC0845	Standard/Reagent:	MEE GAS STANDARD
Analyst:	KMT	Final Concentration:	200 ppmV
Prep Date:	05/19/2021	Expiration Date:	04/14/2024
Prep:	AIRGAS PART: X04HE99C353Q80 LOT: 54-402075924-1		

Standard Log #:	VOC0846	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	KMT	Final Concentration:	N/A
Prep Date:	05/19/2021	Expiration Date:	05/19/2022
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 4 consecutive CCV's with acceptable recoveries.		

Airgas
an Air Liquide company

Recert VOC0846 5/19/2022 EXP: 5/19/2022 KMT

Expires 5/17/21 V0886 AGK 5/24/18

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-401204472-1
Cylinder Number:	P180959	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	May 17, 2018	Valve Outlet:	350
Lot Number:	54-401204472-1		

Expiration Date: May 17, 2021

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	198.9 PPM	+/- 2%
ETHYLENE	200.0 PPM	198.3 PPM	+/- 2%
METHANE	200.0 PPM	198.3 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

VOC0845 Expires: 7/17/2024
KMT
5/19/2021

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-402075924-1
Cylinder Number:	N698768	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	Apr 14, 2021	Valve Outlet:	350
Lot Number:	54-402075924-1		

Expiration Date: Apr 14, 2024

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	199.8 PPM	+/- 2%
ETHYLENE	200.0 PPM	207.3 PPM	+/- 2%
METHANE	200.0 PPM	200.2 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 6010C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196999	Analysis Date/Time	11/03/2021 02:51
Analytical Prep Batch #:	83194	Prep. Date/Time:	11/01/2021 10:11
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	3660	Y	29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	124		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-47-3	Total Chromium	10.3		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.4	J	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	12.8	J	5.2	20	40	40
7439-89-6	Total Iron	4990	Y	11	40	80	80
7439-95-4	Total Magnesium	36700		10	25	40	40
7439-96-5	Total Manganese	234		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	7.9		1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	3300		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-23-5	Total Sodium	35500		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	5.7		1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	60.3		4.5	10	20	20

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 7470A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197150	Analysis Date/Time	11/05/2021 11:14
Analytical Prep Batch #:	83168	Prep. Date/Time:	11/03/2021 14:45
ICAL Calibration #:	11052021	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 6010C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196999	Analysis Date/Time	11/18/2021 14:20
Analytical Prep Batch #:	83194	Prep. Date/Time:	11/01/2021 10:11
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Total Calcium	59400		17	50	100	100
7439-92-1	Total Lead	9.0		1.4	2.0	4.0	4.0
7440-22-4	Total Silver	2.5	U M	1.1	2.5	5.0	5.0

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1071663

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/5/21 09:20	3.0	3.08	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071158

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/2/21	14:59	12000	10900	91	90	110
Antimony	11/2/21	14:59	500.0	490.0	98	90	110
Arsenic	11/2/21	14:59	2000	1930	96	90	110
Barium	11/2/21	14:59	2000	2000	100	90	110
Beryllium	11/2/21	14:59	50.0	47.10	94	90	110
Cadmium	11/2/21	14:59	50.0	47.80	96	90	110
Calcium	11/2/21	14:59	10000	10100	101	90	110
Chromium	11/2/21	14:59	200.0	193.0	96	90	110
Cobalt	11/2/21	14:59	500.0	495.0	99	90	110
Copper	11/2/21	14:59	250.0	237.0	95	90	110
Iron	11/2/21	14:59	5000	5130	103	90	110
Lead	11/2/21	14:59	500.0	506.0	101	90	110
Magnesium	11/2/21	14:59	10000	9450	94	90	110
Manganese	11/2/21	14:59	500.0	463.0	93	90	110
Nickel	11/2/21	14:59	500.0	495.0	99	90	110
Selenium	11/2/21	14:59	2000	1980	99	90	110
Silver	11/2/21	14:59	50.0	49.90	100	90	110
Thallium	11/2/21	14:59	2000	1910	96	90	110
Vanadium	11/2/21	14:59	500.0	473.0	95	90	110
Zinc	11/2/21	14:59	500.0	519.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071159

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/2/21	15:14	1200	1330	111	80	120
Antimony	11/2/21	15:14	60.0	57.30	96	80	120
Arsenic	11/2/21	15:14	60.0	59.60	99	80	120
Barium	11/2/21	15:14	30.0	28.60	95	80	120
Beryllium	11/2/21	15:14	12.00	11.60	97	80	120
Cadmium	11/2/21	15:14	15.00	14.50	97	80	120
Calcium	11/2/21	15:14	1500	1410	94	80	120
Chromium	11/2/21	15:14	30.0	29.50	98	80	120
Cobalt	11/2/21	15:14	30.0	29.60	99	80	120
Copper	11/2/21	15:14	30.0	31.90	106	80	120
Iron	11/2/21	15:14	900.0	925.0	103	80	120
Lead	11/2/21	15:14	30.0	31.30	104	80	120
Magnesium	11/2/21	15:14	1500	1500	100	80	120
Manganese	11/2/21	15:14	30.0	28.30	94	80	120
Nickel	11/2/21	15:14	30.0	29.50	98	80	120
Selenium	11/2/21	15:14	60.0	62.10	104	80	120
Thallium	11/2/21	15:14	60.0	55.30	92	80	120
Vanadium	11/2/21	15:14	30.0	29.10	97	80	120
Zinc	11/2/21	15:14	30.0	31.30	104	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1071163

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/2/21 16:07	10.0	9.96	100	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000

Lab Sample ID: 1071175

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/2/21	14:59	5000	5410	108	90	110
Sodium	11/2/21	14:59	5000	4830	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071176

ICAL Calibration #: Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/2/21	15:14	15000	14600	97	80	120
Sodium	11/2/21	15:14	3000	2880	96	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076519

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	11:21	12000	11900	99	90	110
Antimony	11/18/21	11:21	500.0	507.0	101	90	110
Arsenic	11/18/21	11:21	2000	2080	104	90	110
Barium	11/18/21	11:21	2000	2120	106	90	110
Beryllium	11/18/21	11:21	50.0	50.70	101	90	110
Cadmium	11/18/21	11:21	50.0	51.10	102	90	110
Calcium	11/18/21	11:21	10000	10800	108	90	110
Chromium	11/18/21	11:21	200.0	201.0	100	90	110
Cobalt	11/18/21	11:21	500.0	516.0	103	90	110
Copper	11/18/21	11:21	250.0	256.0	102	90	110
Iron	11/18/21	11:21	5000	4760	95	90	110
Lead	11/18/21	11:21	500.0	525.0	105	90	110
Magnesium	11/18/21	11:21	10000	9970	100	90	110
Manganese	11/18/21	11:21	500.0	497.0	99	90	110
Nickel	11/18/21	11:21	500.0	514.0	103	90	110
Selenium	11/18/21	11:21	2000	2150	108	90	110
Silver	11/18/21	11:21	50.0	50.70	101	90	110
Vanadium	11/18/21	11:21	500.0	523.0	105	90	110
Zinc	11/18/21	11:21	500.0	534.0	107	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1076520

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	11:28	1200	1250	104	80	120
Antimony	11/18/21	11:28	60.0	68.00	113	80	120
Arsenic	11/18/21	11:28	60.0	60.10	100	80	120
Barium	11/18/21	11:28	30.0	31.40	105	80	120
Beryllium	11/18/21	11:28	12.00	12.90	108	80	120
Cadmium	11/18/21	11:28	15.00	16.00	107	80	120
Calcium	11/18/21	11:28	1500	1700	113	80	120
Chromium	11/18/21	11:28	30.0	31.10	104	80	120
Cobalt	11/18/21	11:28	30.0	31.50	105	80	120
Iron	11/18/21	11:28	900.0	987.0	110	80	120
Lead	11/18/21	11:28	30.0	30.30	101	80	120
Magnesium	11/18/21	11:28	1500	1720	115	80	120
Manganese	11/18/21	11:28	30.0	31.50	105	80	120
Nickel	11/18/21	11:28	30.0	31.30	104	80	120
Selenium	11/18/21	11:28	60.0	64.90	108	80	120
Thallium	11/18/21	11:28	60.0	56.90	95	80	120
Vanadium	11/18/21	11:28	30.0	33.50	112	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1076524

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/18/21 12:22	10.0	10.60	106	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071181

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	01:35	100000	96700	97	90	110
Sodium	11/3/21	01:35	100000	92300	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071182

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	01:42	10000	10000	100	90	110
Sodium	11/3/21	01:42	10000	9430	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000

Lab Sample ID: 1071185

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	03:14	100000	98300	98	90	110
Sodium	11/3/21	03:14	100000	93400	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071186

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	03:21	10000	10200	102	90	110
Sodium	11/3/21	03:21	10000	9420	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000

Lab Sample ID: 1071189

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	04:52	100000	96200	96	90	110
Sodium	11/3/21	04:52	100000	91600	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000

Lab Sample ID: 1071190

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	11/3/21	04:59	10000	10100	101	90	110
Sodium	11/3/21	04:59	10000	9390	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071164

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	01:35	5000	4640	93	90	110
Antimony	11/3/21	01:35	5000	4640	93	90	110
Arsenic	11/3/21	01:35	5000	4600	92	90	110
Barium	11/3/21	01:35	5000	5470	109	90	110
Beryllium	11/3/21	01:35	500.0	462.0	92	90	110
Cadmium	11/3/21	01:35	500.0	514.0	103	90	110
Calcium	11/3/21	01:35	5000	4820	96	90	110
Chromium	11/3/21	01:35	5000	4680	94	90	110
Cobalt	11/3/21	01:35	5000	4630	93	90	110
Copper	11/3/21	01:35	5000	4540	91	90	110
Iron	11/3/21	01:35	5000	4840	97	90	110
Lead	11/3/21	01:35	5000	5240	105	90	110
Magnesium	11/3/21	01:35	5000	4890	98	90	110
Manganese	11/3/21	01:35	5000	4600	92	90	110
Nickel	11/3/21	01:35	5000	4560	91	90	110
Selenium	11/3/21	01:35	5000	4650	93	90	110
Silver	11/3/21	01:35	500.0	483.0	97	90	110
Thallium	11/3/21	01:35	5000	4750	95	90	110
Vanadium	11/3/21	01:35	5000	4620	92	90	110
Zinc	11/3/21	01:35	5000	4560	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1071165

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	01:42	500.0	488.0	98	90	110
Antimony	11/3/21	01:42	500.0	488.0	98	90	110
Arsenic	11/3/21	01:42	500.0	476.0	95	90	110
Barium	11/3/21	01:42	500.0	468.0	94	90	110
Beryllium	11/3/21	01:42	50.0	45.40	91	90	110
Cadmium	11/3/21	01:42	50.0	45.70	91	90	110
Calcium	11/3/21	01:42	500.0	512.0	102	90	110
Chromium	11/3/21	01:42	500.0	468.0	94	90	110
Cobalt	11/3/21	01:42	500.0	488.0	98	90	110
Copper	11/3/21	01:42	500.0	502.0	100	90	110
Iron	11/3/21	01:42	500.0	517.0	103	90	110
Lead	11/3/21	01:42	500.0	497.0	99	90	110
Magnesium	11/3/21	01:42	500.0	535.0	107	90	110
Manganese	11/3/21	01:42	500.0	480.0	96	90	110
Nickel	11/3/21	01:42	500.0	487.0	97	90	110
Selenium	11/3/21	01:42	500.0	495.0	99	90	110
Silver	11/3/21	01:42	50.0	48.40	97	90	110
Thallium	11/3/21	01:42	500.0	480.0	96	90	110
Vanadium	11/3/21	01:42	500.0	478.0	96	90	110
Zinc	11/3/21	01:42	500.0	510.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071168

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	03:14	5000	4680	94	90	110
Antimony	11/3/21	03:14	5000	4650	93	90	110
Arsenic	11/3/21	03:14	5000	4620	92	90	110
Barium	11/3/21	03:14	5000	5510	110	90	110
Beryllium	11/3/21	03:14	500.0	459.0	92	90	110
Cadmium	11/3/21	03:14	500.0	516.0	103	90	110
Calcium	11/3/21	03:14	5000	4820	96	90	110
Chromium	11/3/21	03:14	5000	4660	93	90	110
Cobalt	11/3/21	03:14	5000	4620	92	90	110
Copper	11/3/21	03:14	5000	4540	91	90	110
Iron	11/3/21	03:14	5000	4830	97	90	110
Lead	11/3/21	03:14	5000	5330	107	90	110
Magnesium	11/3/21	03:14	5000	4910	98	90	110
Manganese	11/3/21	03:14	5000	4600	92	90	110
Nickel	11/3/21	03:14	5000	4550	91	90	110
Selenium	11/3/21	03:14	5000	4630	93	90	110
Silver	11/3/21	03:14	500.0	483.0	97	90	110
Thallium	11/3/21	03:14	5000	4790	96	90	110
Vanadium	11/3/21	03:14	5000	4610	92	90	110
Zinc	11/3/21	03:14	5000	4530	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1071169

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	03:21	500.0	486.0	97	90	110
Antimony	11/3/21	03:21	500.0	487.0	97	90	110
Arsenic	11/3/21	03:21	500.0	470.0	94	90	110
Barium	11/3/21	03:21	500.0	467.0	93	90	110
Beryllium	11/3/21	03:21	50.0	45.30	91	90	110
Cadmium	11/3/21	03:21	50.0	45.50	91	90	110
Calcium	11/3/21	03:21	500.0	506.0	101	90	110
Chromium	11/3/21	03:21	500.0	466.0	93	90	110
Cobalt	11/3/21	03:21	500.0	487.0	97	90	110
Copper	11/3/21	03:21	500.0	500.0	100	90	110
Iron	11/3/21	03:21	500.0	516.0	103	90	110
Lead	11/3/21	03:21	500.0	496.0	99	90	110
Magnesium	11/3/21	03:21	500.0	529.0	106	90	110
Manganese	11/3/21	03:21	500.0	475.0	95	90	110
Nickel	11/3/21	03:21	500.0	485.0	97	90	110
Selenium	11/3/21	03:21	500.0	492.0	98	90	110
Silver	11/3/21	03:21	50.0	48.00	96	90	110
Thallium	11/3/21	03:21	500.0	477.0	95	90	110
Vanadium	11/3/21	03:21	500.0	475.0	95	90	110
Zinc	11/3/21	03:21	500.0	508.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071172

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	04:52	5000	4660	93	90	110
Antimony	11/3/21	04:52	5000	4660	93	90	110
Arsenic	11/3/21	04:52	5000	4620	92	90	110
Barium	11/3/21	04:52	5000	5520	110	90	110
Beryllium	11/3/21	04:52	500.0	461.0	92	90	110
Cadmium	11/3/21	04:52	500.0	449.0	90	90	110
Calcium	11/3/21	04:52	5000	4850	97	90	110
Chromium	11/3/21	04:52	5000	4670	93	90	110
Cobalt	11/3/21	04:52	5000	4650	93	90	110
Copper	11/3/21	04:52	5000	4550	91	90	110
Iron	11/3/21	04:52	5000	4830	97	90	110
Lead	11/3/21	04:52	5000	4520	90	90	110
Magnesium	11/3/21	04:52	5000	4980	100	90	110
Manganese	11/3/21	04:52	5000	4640	93	90	110
Nickel	11/3/21	04:52	5000	4560	91	90	110
Selenium	11/3/21	04:52	5000	4640	93	90	110
Silver	11/3/21	04:52	500.0	486.0	97	90	110
Thallium	11/3/21	04:52	5000	4800	96	90	110
Vanadium	11/3/21	04:52	5000	4630	93	90	110
Zinc	11/3/21	04:52	5000	4560	91	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071173

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/3/21	04:59	500.0	498.0	100	90	110
Antimony	11/3/21	04:59	500.0	500.0	100	90	110
Arsenic	11/3/21	04:59	500.0	480.0	96	90	110
Barium	11/3/21	04:59	500.0	470.0	94	90	110
Beryllium	11/3/21	04:59	50.0	45.80	92	90	110
Cadmium	11/3/21	04:59	50.0	45.90	92	90	110
Calcium	11/3/21	04:59	500.0	522.0	104	90	110
Chromium	11/3/21	04:59	500.0	475.0	95	90	110
Cobalt	11/3/21	04:59	500.0	497.0	99	90	110
Copper	11/3/21	04:59	500.0	514.0	103	90	110
Iron	11/3/21	04:59	500.0	522.0	104	90	110
Lead	11/3/21	04:59	500.0	504.0	101	90	110
Magnesium	11/3/21	04:59	500.0	544.0	109	90	110
Manganese	11/3/21	04:59	500.0	488.0	98	90	110
Nickel	11/3/21	04:59	500.0	492.0	98	90	110
Selenium	11/3/21	04:59	500.0	502.0	100	90	110
Silver	11/3/21	04:59	50.0	49.20	98	90	110
Thallium	11/3/21	04:59	500.0	484.0	97	90	110
Vanadium	11/3/21	04:59	500.0	485.0	97	90	110
Zinc	11/3/21	04:59	500.0	521.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150

Lab Sample ID: 1071665

ICAL Calibration #: 11052021

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/5/21	10:42	3.0	2.95	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150

Lab Sample ID: 1071667

ICAL Calibration #: 11052021

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/5/21	11:24	3.0	2.95	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150

Lab Sample ID: 1071669

ICAL Calibration #: 11052021

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/5/21	12:05	3.0	3.05	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076525

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	13:42	5000	4820	96	90	110
Antimony	11/18/21	13:42	5000	5020	100	90	110
Arsenic	11/18/21	13:42	5000	5030	101	90	110
Barium	11/18/21	13:42	5000	4950	99	90	110
Beryllium	11/18/21	13:42	500.0	478.0	96	90	110
Cadmium	11/18/21	13:42	500.0	483.0	97	90	110
Calcium	11/18/21	13:42	5000	5270	105	90	110
Chromium	11/18/21	13:42	5000	4630	93	90	110
Cobalt	11/18/21	13:42	5000	4760	95	90	110
Copper	11/18/21	13:42	5000	4730	95	90	110
Iron	11/18/21	13:42	5000	4700	94	90	110
Lead	11/18/21	13:42	5000	5140	103	90	110
Magnesium	11/18/21	13:42	5000	5130	103	90	110
Manganese	11/18/21	13:42	5000	4780	96	90	110
Nickel	11/18/21	13:42	5000	4830	97	90	110
Selenium	11/18/21	13:42	5000	4980	100	90	110
Vanadium	11/18/21	13:42	5000	5100	102	90	110
Zinc	11/18/21	13:42	5000	4770	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1076526

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	13:49	500.0	532.0	106	90	110
Antimony	11/18/21	13:49	500.0	490.0	98	90	110
Arsenic	11/18/21	13:49	500.0	510.0	102	90	110
Barium	11/18/21	13:49	500.0	493.0	99	90	110
Beryllium	11/18/21	13:49	50.0	48.30	97	90	110
Cadmium	11/18/21	13:49	50.0	48.60	97	90	110
Calcium	11/18/21	13:49	500.0	530.0	106	90	110
Chromium	11/18/21	13:49	500.0	482.0	96	90	110
Cobalt	11/18/21	13:49	500.0	492.0	98	90	110
Copper	11/18/21	13:49	500.0	518.0	104	90	110
Iron	11/18/21	13:49	500.0	550.0	110	90	110
Lead	11/18/21	13:49	500.0	502.0	100	90	110
Magnesium	11/18/21	13:49	500.0	549.0	110	90	110
Manganese	11/18/21	13:49	500.0	486.0	97	90	110
Nickel	11/18/21	13:49	500.0	483.0	97	90	110
Selenium	11/18/21	13:49	500.0	514.0	103	90	110
Silver	11/18/21	13:49	50.0	49.20	98	90	110
Thallium	11/18/21	13:49	500.0	518.0	104	90	110
Vanadium	11/18/21	13:49	500.0	519.0	104	90	110
Zinc	11/18/21	13:49	500.0	486.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999

Lab Sample ID: 1076528

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	15:23	5000	4810	96	90	110
Antimony	11/18/21	15:23	5000	5110	102	90	110
Arsenic	11/18/21	15:23	5000	5110	102	90	110
Barium	11/18/21	15:23	5000	4910	98	90	110
Cadmium	11/18/21	15:23	500.0	483.0	97	90	110
Calcium	11/18/21	15:23	5000	5250	105	90	110
Chromium	11/18/21	15:23	5000	4690	94	90	110
Cobalt	11/18/21	15:23	5000	4760	95	90	110
Copper	11/18/21	15:23	5000	4710	94	90	110
Iron	11/18/21	15:23	5000	5270	105	90	110
Lead	11/18/21	15:23	5000	5300	106	90	110
Magnesium	11/18/21	15:23	5000	5160	103	90	110
Manganese	11/18/21	15:23	5000	4810	96	90	110
Nickel	11/18/21	15:23	5000	4840	97	90	110
Selenium	11/18/21	15:23	5000	4990	100	90	110
Silver	11/18/21	15:23	500.0	451.0	90	90	110
Vanadium	11/18/21	15:23	5000	5220	104	90	110
Zinc	11/18/21	15:23	5000	4800	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076529

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/21	15:30	500.0	542.0	108	90	110
Antimony	11/18/21	15:30	500.0	488.0	98	90	110
Arsenic	11/18/21	15:30	500.0	512.0	102	90	110
Barium	11/18/21	15:30	500.0	493.0	99	90	110
Beryllium	11/18/21	15:30	50.0	48.50	97	90	110
Cadmium	11/18/21	15:30	50.0	48.70	97	90	110
Calcium	11/18/21	15:30	500.0	533.0	107	90	110
Chromium	11/18/21	15:30	500.0	486.0	97	90	110
Cobalt	11/18/21	15:30	500.0	492.0	98	90	110
Copper	11/18/21	15:30	500.0	521.0	104	90	110
Iron	11/18/21	15:30	500.0	540.0	108	90	110
Lead	11/18/21	15:30	500.0	501.0	100	90	110
Manganese	11/18/21	15:30	500.0	489.0	98	90	110
Nickel	11/18/21	15:30	500.0	480.0	96	90	110
Selenium	11/18/21	15:30	500.0	514.0	103	90	110
Silver	11/18/21	15:30	50.0	49.60	99	90	110
Thallium	11/18/21	15:30	500.0	522.0	104	90	110
Vanadium	11/18/21	15:30	500.0	525.0	105	90	110
Zinc	11/18/21	15:30	500.0	485.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1071664

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/05/2021 09:26	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071160

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/02/2021 15:29	0.197	U	29	60
Antimony	11/02/2021 15:29	-0.209	U	4.4	10
Arsenic	11/02/2021 15:29	-1.59	U	7.7	20
Barium	11/02/2021 15:29	0.067	U	0.71	2.0
Beryllium	11/02/2021 15:29	0.014	U	0.95	4.0
Cadmium	11/02/2021 15:29	-0.093	U	0.41	1.0
Calcium	11/02/2021 15:29	-0.811	U	17	50
Chromium	11/02/2021 15:29	0.015	U	1.1	2.5
Cobalt	11/02/2021 15:29	0.162	U	0.55	2.5
Copper	11/02/2021 15:29	1.01	U	5.2	20
Iron	11/02/2021 15:29	-1.46	U	11	40
Lead	11/02/2021 15:29	2.47		1.4	4
Magnesium	11/02/2021 15:29	0.026	U	10	20
Manganese	11/02/2021 15:29	-0.005	U	1.4	2.5
Nickel	11/02/2021 15:29	-0.307	U	1.5	2.5
Selenium	11/02/2021 15:29	-0.21	U	10	20
Silver	11/02/2021 15:29	-0.368	U	1.1	2.5
Thallium	11/02/2021 15:29	-0.229	U	6.8	20
Vanadium	11/02/2021 15:29	0.01	U	1.3	2.5
Zinc	11/02/2021 15:29	-0.08	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071177

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/02/2021 15:29	64.00	U	120	250
Sodium	11/02/2021 15:29	-41.0	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076521

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/18/2021 11:43	-1.02	U	29	60
Antimony	11/18/2021 11:43	4.08	U	4.4	10
Arsenic	11/18/2021 11:43	1.24	U	7.7	20
Barium	11/18/2021 11:43	-0.343	U	0.71	2.0
Beryllium	11/18/2021 11:43	0.017	U	0.95	4.0
Cadmium	11/18/2021 11:43	-0.001	U	0.41	1.0
Calcium	11/18/2021 11:43	0.955	U	17	50
Chromium	11/18/2021 11:43	0.295	U	1.1	2.5
Cobalt	11/18/2021 11:43	-0.14	U	0.55	2.5
Copper	11/18/2021 11:43	0.796	U	5.2	20
Iron	11/18/2021 11:43	1.19	U	11	40
Lead	11/18/2021 11:43	-1.01	U	1.4	2.0
Magnesium	11/18/2021 11:43	0.716	U	10	20
Manganese	11/18/2021 11:43	-0.039	U	1.4	2.5
Nickel	11/18/2021 11:43	-0.01	U	1.5	2.5
Selenium	11/18/2021 11:43	-2.16	U	10	20
Silver	11/18/2021 11:43	0.461	U	1.1	2.5
Thallium	11/18/2021 11:43	2.97	U	6.8	20
Vanadium	11/18/2021 11:43	0.305	U	1.3	2.5
Zinc	11/18/2021 11:43	8.33		4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1071666

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/05/2021 10:49	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1071668

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/05/2021 11:30	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1071670

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/05/2021 12:11	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071166

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/03/2021 01:49	0.096	U	29	60
Antimony	11/03/2021 01:49	0.22	U	4.4	10
Arsenic	11/03/2021 01:49	-0.043	U	7.7	20
Barium	11/03/2021 01:49	0.088	U	0.71	2.0
Beryllium	11/03/2021 01:49	-0.02	U	0.95	4.0
Cadmium	11/03/2021 01:49	-0.118	U	0.41	1.0
Calcium	11/03/2021 01:49	-0.418	U	17	50
Chromium	11/03/2021 01:49	-0.043	U	1.1	2.5
Cobalt	11/03/2021 01:49	0.294	U	0.55	2.5
Copper	11/03/2021 01:49	0.712	U	5.2	20
Iron	11/03/2021 01:49	-0.73	U	11	40
Lead	11/03/2021 01:49	0.746	U	1.4	2.0
Magnesium	11/03/2021 01:49	0.214	U	10	20
Manganese	11/03/2021 01:49	0.108	U	1.4	2.5
Nickel	11/03/2021 01:49	-0.182	U	1.5	2.5
Selenium	11/03/2021 01:49	2.47	U	10	20
Silver	11/03/2021 01:49	-0.736	U	1.1	2.5
Thallium	11/03/2021 01:49	-0.067	U	6.8	20
Vanadium	11/03/2021 01:49	0.057	U	1.3	2.5
Zinc	11/03/2021 01:49	-0.001	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071170

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/03/2021 03:28	-0.509	U	29	60
Antimony	11/03/2021 03:28	-0.154	U	4.4	10
Arsenic	11/03/2021 03:28	-2.0	U	7.7	20
Barium	11/03/2021 03:28	0.018	U	0.71	2.0
Beryllium	11/03/2021 03:28	-0.005	U	0.95	4.0
Cadmium	11/03/2021 03:28	-0.076	U	0.41	1.0
Calcium	11/03/2021 03:28	-0.173	U	17	50
Chromium	11/03/2021 03:28	-0.013	U	1.1	2.5
Cobalt	11/03/2021 03:28	0.088	U	0.55	2.5
Copper	11/03/2021 03:28	2.13	U	5.2	20
Iron	11/03/2021 03:28	-2.11	U	11	40
Lead	11/03/2021 03:28	1.28	U	1.4	2.0
Magnesium	11/03/2021 03:28	0.266	U	10	20
Manganese	11/03/2021 03:28	0.205	U	1.4	2.5
Nickel	11/03/2021 03:28	-0.417	U	1.5	2.5
Selenium	11/03/2021 03:28	0.632	U	10	20
Silver	11/03/2021 03:28	-0.774	U	1.1	2.5
Thallium	11/03/2021 03:28	-2.44	U	6.8	20
Vanadium	11/03/2021 03:28	-0.045	U	1.3	2.5
Zinc	11/03/2021 03:28	-0.186	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1071174

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/03/2021 05:06	-0.475	U	29	60
Antimony	11/03/2021 05:06	-0.355	U	4.4	10
Arsenic	11/03/2021 05:06	1.28	U	7.7	20
Barium	11/03/2021 05:06	0.122	U	0.71	2.0
Beryllium	11/03/2021 05:06	-0.019	U	0.95	4.0
Cadmium	11/03/2021 05:06	-0.112	U	0.41	1.0
Calcium	11/03/2021 05:06	0.631	U	17	50
Chromium	11/03/2021 05:06	-0.061	U	1.1	2.5
Cobalt	11/03/2021 05:06	0.123	U	0.55	2.5
Copper	11/03/2021 05:06	0.233	U	5.2	20
Iron	11/03/2021 05:06	-0.772	U	11	40
Lead	11/03/2021 05:06	0.943	U	1.4	2.0
Magnesium	11/03/2021 05:06	0.61	U	10	20
Manganese	11/03/2021 05:06	0.024	U	1.4	2.5
Nickel	11/03/2021 05:06	-0.006	U	1.5	2.5
Selenium	11/03/2021 05:06	1.08	U	10	20
Silver	11/03/2021 05:06	-0.676	U	1.1	2.5
Thallium	11/03/2021 05:06	-0.188	U	6.8	20
Vanadium	11/03/2021 05:06	0.019	U	1.3	2.5
Zinc	11/03/2021 05:06	0.065	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071183

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/03/2021 01:49	-88.0	U	120	250
Sodium	11/03/2021 01:49	-173	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071187

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/03/2021 03:28	19.00	U	120	250
Sodium	11/03/2021 03:28	-156	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1071191

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/03/2021 05:06	-48.0	U	120	250
Sodium	11/03/2021 05:06	-169	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076527

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/18/2021 13:57	-0.63	U	29	60
Antimony	11/18/2021 13:57	4.69		4.4	10
Arsenic	11/18/2021 13:57	1.82	U	7.7	20
Barium	11/18/2021 13:57	-0.366	U	0.71	2.0
Beryllium	11/18/2021 13:57	0.125	U	0.95	4.0
Cadmium	11/18/2021 13:57	0.045	U	0.41	1.0
Calcium	11/18/2021 13:57	0.456	U	17	50
Chromium	11/18/2021 13:57	0.019	U	1.1	2.5
Cobalt	11/18/2021 13:57	-0.214	U	0.55	2.5
Copper	11/18/2021 13:57	0.757	U	5.2	20
Iron	11/18/2021 13:57	1.04	U	11	40
Lead	11/18/2021 13:57	-3.33	U	1.4	4
Magnesium	11/18/2021 13:57	0.166	U	10	20
Manganese	11/18/2021 13:57	-0.018	U	1.4	2.5
Nickel	11/18/2021 13:57	-0.395	U	1.5	2.5
Selenium	11/18/2021 13:57	1.17	U	10	20
Silver	11/18/2021 13:57	0.65	U	1.1	2.5
Thallium	11/18/2021 13:57	2.87	U	6.8	20
Vanadium	11/18/2021 13:57	0.547	U	1.3	2.5
Zinc	11/18/2021 13:57	1.72	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1076530

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/18/2021 15:37	-0.773	U	29	60
Antimony	11/18/2021 15:37	3.77	U	4.4	10
Arsenic	11/18/2021 15:37	-1.68	U	7.7	20
Barium	11/18/2021 15:37	-0.41	U	0.71	2.0
Beryllium	11/18/2021 15:37	0.107	U	0.95	4.0
Cadmium	11/18/2021 15:37	0.081	U	0.41	1.0
Calcium	11/18/2021 15:37	0.023	U	17	50
Chromium	11/18/2021 15:37	0.143	U	1.1	2.5
Cobalt	11/18/2021 15:37	-0.203	U	0.55	2.5
Copper	11/18/2021 15:37	0.766	U	5.2	20
Iron	11/18/2021 15:37	1.38	U	11	40
Lead	11/18/2021 15:37	-0.461	U	1.4	4
Magnesium	11/18/2021 15:37	0.257	U	10	20
Manganese	11/18/2021 15:37	0.054	U	1.4	2.5
Nickel	11/18/2021 15:37	-0.582	U	1.5	2.5
Selenium	11/18/2021 15:37	-0.809	U	10	20
Silver	11/18/2021 15:37	0.702	U	1.1	2.5
Thallium	11/18/2021 15:37	-0.19	U	6.8	20
Vanadium	11/18/2021 15:37	0.157	U	1.3	2.5
Zinc	11/18/2021 15:37	0.588	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197150 Lab Sample ID: 1067769

Analytical Prep Batch # 83168 Preparation Date/Time: 11/03/2021 14:45

ICAL Calibration #: 11052021 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	11/05/2021 10:58	0.00100	U	0.020	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1068619

Analytical Prep Batch # 83193 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Potassium	11/03/2021 02:43	58.00	U	120	250
Total Sodium	11/03/2021 02:43	-149	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197000 Lab Sample ID: 1068619

Analytical Prep Batch # 83193 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Potassium	11/03/2021 02:43	58.00	U	120	250
Total Sodium	11/03/2021 02:43	-149	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1068626

Analytical Prep Batch # 83194 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Calcium	11/18/2021 14:12	5.22	U	19	50
Total Silver	11/18/2021 14:12	0.380	U	1.1	2.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196999 Lab Sample ID: 1068626

Analytical Prep Batch # 83194 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Total Aluminum	11/03/2021 02:43	3.59	U	29	60	
Total Antimony	11/03/2021 02:43	-0.627	U	4.4	10	
Total Arsenic	11/03/2021 02:43	0.896	U	7.7	20	
Total Barium	11/03/2021 02:43	0.00900	U	0.71	2.0	
Total Beryllium	11/03/2021 02:43	-0.0220	U	0.95	4.0	
Total Cadmium	11/03/2021 02:43	-0.0840	U	0.41	1.0	
Total Chromium	11/03/2021 02:43	0.0310	U	1.1	2.5	
Total Cobalt	11/03/2021 02:43	0.113	U	0.55	2.5	
Total Copper	11/03/2021 02:43	2.39	U	5.2	20	
Total Iron	11/03/2021 02:43	4.69	U	11	40	
Total Lead	11/03/2021 02:43	-0.141	U	1.4	2.0	
Total Magnesium	11/03/2021 02:43	17.30		10	20	FAIL
Total Manganese	11/03/2021 02:43	0.0590	U	1.4	2.5	
Total Nickel	11/03/2021 02:43	-0.320	U	1.5	2.5	
Total Selenium	11/03/2021 02:43	2.33	U	10	20	
Total Thallium	11/03/2021 02:43	-0.979	U	6.8	20	
Total Vanadium	11/03/2021 02:43	-0.0800	U	1.3	2.5	
Total Zinc	11/03/2021 02:43	0.158	U	4.5	10	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX

Analytical Run #: 196999
Lab Sample ID: 1071161
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/02/2021 15:44	500000	487000	97	80	120
Antimony	11/02/2021 15:44	0	0.227	0	-10	10
Arsenic	11/02/2021 15:44	0	-0.05	0	-20	20
Barium	11/02/2021 15:44	0	0.153	0	-1.7	1.7
Beryllium	11/02/2021 15:44	0	0.027	0	-.7	.7
Cadmium	11/02/2021 15:44	0	0	0	-1.3	1.3
Calcium	11/02/2021 15:44	500000	484000	97	80	120
Chromium	11/02/2021 15:44	0	-0.617	0	-13	13
Cobalt	11/02/2021 15:44	0	-0.115	0	-2	2
Copper	11/02/2021 15:44	0	5.95	0	-7	7
Iron	11/02/2021 15:44	500000	432000	86	80	120
Lead	11/02/2021 15:44	0	0.387	0	-4.7	4.7
Magnesium	11/02/2021 15:44	500000	432000	86	80	120
Manganese	11/02/2021 15:44	0	2.21	0	-7.3	7.3
Nickel	11/02/2021 15:44	0	-1.41	0	-7	7
Selenium	11/02/2021 15:44	0	-9.30	0	-13	13
Silver	11/02/2021 15:44	0	0	0	-7.3	7.3
Thallium	11/02/2021 15:44	0	-0.005	0	-7.3	7.3
Vanadium	11/02/2021 15:44	10000	8910	0	8000	12000
Zinc	11/02/2021 15:44	0	5.78	0	-20	20

CT LABORATORIES
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Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX

Analytical Run #: 197000
Lab Sample ID: 1071178
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/02/2021 15:44	500000	487000	97	80	120
Calcium	11/02/2021 15:44	500000	484000	97	80	120
Iron	11/02/2021 15:44	500000	432000	86	80	120
Magnesium	11/02/2021 15:44	500000	432000	86	80	120
Potassium	11/02/2021 15:44	0	-162	0	-170	170
Sodium	11/02/2021 15:44	0	3.00	0	-140	140

CT LABORATORIES
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Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX

Analytical Run #: 196999
Lab Sample ID: 1076522
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/2021 11:59	500000	542000	108	80	120
Antimony	11/18/2021 11:59	0	-0.002	0	-10	10
Arsenic	11/18/2021 11:59	0	-0.198	0	-20	20
Barium	11/18/2021 11:59	0	0	0	-1.7	1.7
Beryllium	11/18/2021 11:59	0	0.62	0	-.7	.7
Cadmium	11/18/2021 11:59	0	0.001	0	-1.3	1.3
Calcium	11/18/2021 11:59	500000	530000	106	80	120
Chromium	11/18/2021 11:59	0	5.69	0	-13	13
Cobalt	11/18/2021 11:59	0	0.934	0	-2	2
Copper	11/18/2021 11:59	0	4.73	0	-7	7
Iron	11/18/2021 11:59	500000	456000	91	80	120
Lead	11/18/2021 11:59	0	0.001	0	-4.7	4.7
Magnesium	11/18/2021 11:59	500000	508000	102	80	120
Manganese	11/18/2021 11:59	0	2.01	0	-7.3	7.3
Nickel	11/18/2021 11:59	0	-1.61	0	-7	7
Selenium	11/18/2021 11:59	0	6.62	0	-13	13
Silver	11/18/2021 11:59	0	2.72	0	-7.3	7.3
Thallium	11/18/2021 11:59	0	-4.45	0	-7.3	7.3
Vanadium	11/18/2021 11:59	10000	10500	0	8000	12000
Zinc	11/18/2021 11:59	0	0.002	0	-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX, Ultra

Analytical Run #: 196999
Lab Sample ID: 1071162
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/02/2021 15:52	500000	520000	104	80	120
Antimony	11/02/2021 15:52	500.0	492.0	98	80	120
Arsenic	11/02/2021 15:52	500.0	457.0	91	80	120
Barium	11/02/2021 15:52	500.0	471.0	94	80	120
Beryllium	11/02/2021 15:52	500.0	479.0	96	80	120
Cadmium	11/02/2021 15:52	500.0	496.0	99	80	120
Calcium	11/02/2021 15:52	500000	506000	101	80	120
Chromium	11/02/2021 15:52	500.0	462.0	92	80	120
Cobalt	11/02/2021 15:52	500.0	462.0	92	80	120
Copper	11/02/2021 15:52	500.0	498.0	100	80	120
Iron	11/02/2021 15:52	500000	445000	89	80	120
Lead	11/02/2021 15:52	500.0	444.0	89	80	120
Magnesium	11/02/2021 15:52	500000	454000	91	80	120
Manganese	11/02/2021 15:52	500.0	451.0	90	80	120
Nickel	11/02/2021 15:52	500.0	456.0	91	80	120
Selenium	11/02/2021 15:52	500.0	484.0	97	80	120
Silver	11/02/2021 15:52	500.0	494.0	99	80	120
Thallium	11/02/2021 15:52	500.0	440.0	88	80	120
Vanadium	11/02/2021 15:52	500.0	465.0	93	80	120
Zinc	11/02/2021 15:52	500.0	525.0	105	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX, Ultra

Analytical Run #: 197000
Lab Sample ID: 1071179
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/02/2021 15:52	500000	520000	104	80	120
Calcium	11/02/2021 15:52	500000	506000	101	80	120
Iron	11/02/2021 15:52	500000	445000	89	80	120
Magnesium	11/02/2021 15:52	500000	454000	91	80	120
Potassium	11/02/2021 15:52	50000	47600	95	80	120
Sodium	11/02/2021 15:52	50000	59000	118	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX, Ultra

Analytical Run #: 197000
Lab Sample ID: 1071179
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/02/2021 15:52	500000	520000	104	80	120
Calcium	11/02/2021 15:52	500000	506000	101	80	120
Iron	11/02/2021 15:52	500000	445000	89	80	120
Magnesium	11/02/2021 15:52	500000	454000	91	80	120
Potassium	11/02/2021 15:52	50000	47600	95	80	120
Sodium	11/02/2021 15:52	50000	59000	118	80	120

CT LABORATORIES
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Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
ICP ID Number: TJA 6000
SDG No.: 165461
ICS Source: SPEX, Ultra

Analytical Run #: 196999
Lab Sample ID: 1076523
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/18/2021 12:07	500000	548000	110	80	120
Antimony	11/18/2021 12:07	500.0	499.0	100	80	120
Arsenic	11/18/2021 12:07	500.0	463.0	93	80	120
Barium	11/18/2021 12:07	500.0	508.0	102	80	120
Beryllium	11/18/2021 12:07	500.0	485.0	97	80	120
Cadmium	11/18/2021 12:07	500.0	486.0	97	80	120
Calcium	11/18/2021 12:07	500000	513000	103	80	120
Chromium	11/18/2021 12:07	500.0	487.0	97	80	120
Cobalt	11/18/2021 12:07	500.0	512.0	102	80	120
Copper	11/18/2021 12:07	500.0	515.0	103	80	120
Iron	11/18/2021 12:07	500000	452000	90	80	120
Lead	11/18/2021 12:07	500.0	519.0	104	80	120
Magnesium	11/18/2021 12:07	500000	504000	101	80	120
Manganese	11/18/2021 12:07	500.0	489.0	98	80	120
Nickel	11/18/2021 12:07	500.0	499.0	100	80	120
Selenium	11/18/2021 12:07	500.0	521.0	104	80	120
Silver	11/18/2021 12:07	500.0	557.0	111	80	120
Thallium	11/18/2021 12:07	500.0	525.0	105	80	120
Vanadium	11/18/2021 12:07	500.0	522.0	104	80	120
Zinc	11/18/2021 12:07	500.0	506.0	101	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1068622	Parent Sample No.:	1067793
Analytical Prep Batch #	83193	Analytical Preparation Date/Time:	11/01/2021 10:11
Analytical Run #:	197000	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	11/03/2021	Analysis Time: --------	03:36

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	109000		3300		100000	106		P
Total Sodium	87-115	129000		35500		100000	94		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **49-IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1068625	Parent Sample No.:	1067793
Analytical Prep Batch #	83194	Analytical Preparation Date/Time:	11/01/2021 10:11
Analytical Run #:	196999	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 11/03/2021 Analysis Time: -------- 03:36

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	4950		3660		800	161		P	*FAIL*
Total Antimony	88-113	206		BDL	U	200	103		P	
Total Arsenic	87-113	824		BDL	U	800	103		P	
Total Barium	88-113	867		124		800	93		P	
Total Beryllium	89-112	19.9		BDL	U	20.0	100		P	
Total Cadmium	88-113	18.4		BDL	U	20.0	92		P	
Total Calcium	87-113	225000		59400		200000	83		P	*FAIL*
Total Chromium	90-113	85.9		10.3		80.0	94		P	
Total Cobalt	89-114	198		2.4	J	200	98		P	
Total Copper	86-114	122		12.8	J	100	109		P	
Total Iron	87-115	4660		4990		400	0		P	*FAIL*
Total Lead	86-113	205		9.0		200	98		P	
Total Magnesium	85-113	132000		36700		100000	95		P	
Total Manganese	90-114	388		234		200	77		P	*FAIL*
Total Nickel	88-113	199		7.9		200	96		P	
Total Selenium	83-114	834		BDL	U	800	104		P	
Total Silver	84-115	14.1		BDL	U	20.0	70		P	*FAIL*
Total Thallium	85-114	644		BDL	U	800	80		P	*FAIL*
Total Vanadium	90-111	205		5.7		200	100		P	
Total Zinc	87-115	284		60.3		200	112		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49-IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1071171	Parent Sample No.:	1067793
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196999	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 11/03/2021 Analysis Time: -------- 03:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Aluminum	80-120	7950		3660		4000	107		P	
Antimony	80-120	1080		BDL	U	1000	108		P	
Arsenic	80-120	4250		BDL	U	4000	106		P	
Barium	80-120	5810		124		4000	142		P	*FAIL*
Beryllium	80-120	101		BDL	U	100	101		P	
Cadmium	80-120	92.7		BDL	U	100	93		P	
Calcium	80-120	360000				400000	90		P	
Chromium	80-120	398		10.3		400	97		P	
Cobalt	80-120	992		2.4	J	1000	99		P	
Copper	80-120	533		12.8	J	500	104		P	
Iron	80-120	6580		4990		2000	80		P	
Lead	80-120	981		10.1		1000	97		P	
Magnesium	80-120	224000		36700		200000	94		P	
Manganese	80-120	1190		234		1000	96		P	
Nickel	80-120	972		7.9		1000	96		P	
Selenium	80-120	4240		BDL	U	4000	106		P	
Silver	80-120	70.7		BDL	U	100	71		P	*FAIL*
Thallium	80-120	3500		BDL	U	4000	88		P	
Vanadium	80-120	1020		5.7		1000	101		P	
Zinc	80-120	1020		60.3		1000	96		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49-IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1073239
Parent Sample No.: 1067793
Analytical Prep Batch #:
Analytical Preparation Date/Time:
Analytical Run #: 197000
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 11/03/2021 Analysis Time: -------- 03:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	80-120.	109000		3300		100000	106		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1073240	Parent Sample No.:	1067793
Analytical Prep Batch #		Analytical Preparation Date/Time:	
Analytical Run #:	197000	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	11/03/2021	Analysis Time: --------	03:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sodium	80-120.	237000		35500		200000	101		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1068623	Parent Sample No.:	1068622
Analytical Prep Batch #	83193	Analytical Preparation Date/Time:	11/01/2021 10:11
Analytical Run #:	197000	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 11/03/2021 Analysis Time: -------- 03:43

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	106000		3300		100000	103		P
Total Sodium	87-115	128000		35500		100000	92		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49-IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1068628	Parent Sample No.:	1068625
Analytical Prep Batch #	83194	Analytical Preparation Date/Time:	11/01/2021 10:11
Analytical Run #:	196999	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 11/03/2021 Analysis Time: -------- 03:43

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	4960		3660		800	162		P	*FAIL*
Total Antimony	88-113	208		BDL	U	200	104		P	
Total Arsenic	87-113	817		BDL	U	800	102		P	
Total Barium	88-113	855		124		800	91		P	
Total Beryllium	89-112	19.7		BDL	U	20.0	98		P	
Total Cadmium	88-113	17.9		BDL	U	20.0	90		P	
Total Calcium	87-113	222000		59400		200000	81		P	*FAIL*
Total Chromium	90-113	85.0		10.3		80.0	93		P	
Total Cobalt	89-114	196		2.4	J	200	97		P	
Total Copper	86-114	119		12.8	J	100	106		P	
Total Iron	87-115	4640		4990		400	0		P	*FAIL*
Total Lead	86-113	202		9.0		200	96		P	
Total Magnesium	85-113	132000		36700		100000	95		P	
Total Manganese	90-114	388		234		200	77		P	*FAIL*
Total Nickel	88-113	196		7.9		200	94		P	
Total Selenium	83-114	832		BDL	U	800	104		P	
Total Silver	84-115	14.1		BDL	U	20.0	70		P	*FAIL*
Total Thallium	85-114	647		BDL	U	800	81		P	*FAIL*
Total Vanadium	90-111	203		5.7		200	99		P	
Total Zinc	87-115	278		60.3		200	109		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49-IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch # 1
Analytical Preparation Date/Time 83193
Analytical Run #: 197000
ICAL Calibration #:
Sample #: 1068621
Parent Sample #: 1067793

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	11/03/2021	03:06	20	3300		2880		14		P
Total Sodium	11/03/2021	03:06	20	35500		33600		5		P

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49-IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID

SDG No.: 165461

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch #: 1

Analytical Preparation Date/Time: 83194

Analytical Run #: 196999

ICAL Calibration #:

Sample #: 1068624

Parent Sample #: 1067793

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	11/03/2021	03:06	20	3660		2970		21		P	*FAIL*
Total Antimony	11/03/2021	03:06	20	4.4	U	4.4	U	0		P	
Total Arsenic	11/03/2021	03:06	20	7.7	U	7.7	U	0		P	
Total Barium	11/03/2021	03:06	20	124		114		8		P	
Total Beryllium	11/03/2021	03:06	20	0.95	U	0.95	U	0		P	
Total Cadmium	11/03/2021	03:06	20	0.41	U	0.41	U	0		P	
Total Calcium	11/03/2021	03:06	20	59400		17	U	200		P	*FAIL*
Total Chromium	11/03/2021	03:06	20	10.3		9.0		13		P	
Total Cobalt	11/03/2021	03:06	20	2.4	J	2.0	J	18		P	
Total Copper	11/03/2021	03:06	20	12.8	J	10.9	J	16		P	
Total Iron	11/03/2021	03:06	20	4990		4050		21		P	*FAIL*
Total Lead	11/03/2021	03:06	20	9.0		9.4		4		P	
Total Magnesium	11/03/2021	03:06	20	36700		35100		4		P	
Total Manganese	11/03/2021	03:06	20	234		200		16		P	
Total Nickel	11/03/2021	03:06	20	7.9		6.3		23		P	*FAIL*
Total Selenium	11/03/2021	03:06	20	10	U	10	U	0		P	
Total Silver	11/03/2021	03:06	20	1.1	U	1.1	U	0		P	
Total Thallium	11/03/2021	03:06	20	6.8	U	6.8	U	0		P	
Total Vanadium	11/03/2021	03:06	20	5.7		4.8	J	17		P	
Total Zinc	11/03/2021	03:06	20	60.3		56.0		7		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49-IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 83193
Analytical Preparation Date/Time: 11/01/2021 10:11
Analytical Run #: 197000
ICAL Calibration #:
Sample #: 1068623
Parent Sample #: 1068622

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	11/03/2021	03:43	20	109000		106000		3		P
Total Sodium	11/03/2021	03:43	20	129000		128000		1		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49-IDW**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID | SDG No.: 165461

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 83194 | Analytical Preparation Date/Time: 11/01/2021 10:11

Analytical Run #: 196999 | ICAL Calibration #:

Sample #: 1068628 | Parent Sample #: 1068625

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	11/03/2021	03:43	20	4950		4960		0		P
Total Antimony	11/03/2021	03:43	20	206		208		1		P
Total Arsenic	11/03/2021	03:43	20	824		817		1		P
Total Barium	11/03/2021	03:43	20	867		855		1		P
Total Beryllium	11/03/2021	03:43	20	19.9		19.7		1		P
Total Cadmium	11/03/2021	03:43	20	18.4		17.9		3		P
Total Calcium	11/03/2021	03:43	20	225000		222000		1		P
Total Chromium	11/03/2021	03:43	20	85.9		85.0		1		P
Total Cobalt	11/03/2021	03:43	20	198		196		1		P
Total Copper	11/03/2021	03:43	20	122		119		2		P
Total Iron	11/03/2021	03:43	20	4660		4640		0		P
Total Lead	11/03/2021	03:43	20	205		202		1		P
Total Magnesium	11/03/2021	03:43	20	132000		132000		0		P
Total Manganese	11/03/2021	03:43	20	388		388		0		P
Total Nickel	11/03/2021	03:43	20	199		196		2		P
Total Selenium	11/03/2021	03:43	20	834		832		0		P
Total Silver	11/03/2021	03:43	20	14.1		14.1		0		P
Total Thallium	11/03/2021	03:43	20	644		647		0		P
Total Vanadium	11/03/2021	03:43	20	205		203		1		P
Total Zinc	11/03/2021	03:43	20	284		278		2		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: ug/L

Analytical Run #: 197150 Sample No.:#: 1067770

Analytical Prep Batch #: 83168 Preparation Date/Time: 11/03/2021 14:45

ICAL Calibration #: 11052021

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	11/05/2021 10:52	82-119	1.94		2.00	97		CV

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: ug/L

Analytical Run #: 197000 Sample No.:#: 1068620

Analytical Prep Batch #: 83193 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Potassium	11/03/2021 02:35	86-114	96000		100000	96		P
Total Sodium	11/03/2021 02:35	87-115	89700		100000	90		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: ug/L

Analytical Run #: 196999 Sample No.:#: 1068627

Analytical Prep Batch #: 83194 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	11/03/2021 02:35	86-115	756.0		800.0	94		P
Total Antimony	11/03/2021 02:35	88-113	203.0		200.0	102		P
Total Arsenic	11/03/2021 02:35	87-113	803.0		800.0	100		P
Total Barium	11/03/2021 02:35	88-113	746.0		800.0	93		P
Total Beryllium	11/03/2021 02:35	89-112	19.60		20.0	98		P
Total Cadmium	11/03/2021 02:35	88-113	18.50		20.0	92		P
Total Chromium	11/03/2021 02:35	90-113	78.00		80.0	98		P
Total Cobalt	11/03/2021 02:35	89-114	195.0		200.0	98		P
Total Copper	11/03/2021 02:35	86-114	110.0		100.0	110		P
Total Iron	11/03/2021 02:35	87-115	402.0		400.0	100		P
Total Lead	11/03/2021 02:35	86-113	196.0		200.0	98		P
Total Magnesium	11/03/2021 02:35	85-113	93900		100000	94		P
Total Manganese	11/03/2021 02:35	90-114	189.0		200.0	94		P
Total Nickel	11/03/2021 02:35	88-113	192.0		200.0	96		P
Total Selenium	11/03/2021 02:35	83-114	816.0		800.0	102		P
Total Thallium	11/03/2021 02:35	85-114	715.0		800.0	89		P
Total Vanadium	11/03/2021 02:35	90-111	196.0		200.0	98		P
Total Zinc	11/03/2021 02:35	87-115	220.0		200.0	110		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: ug/L

Analytical Run #: 196999 Sample No.:#: 1068627

Analytical Prep Batch #: 83194 Preparation Date/Time: 11/01/2021 10:11

ICAL Calibration #:

ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Calcium	11/18/2021 14:04	87-113	182000		200000	91		P
Total Silver	11/18/2021 14:04	84-115	20.40		20.0	102		P

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49-IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID SDG No.: 165461

Concentration Units: ug/L

Sample No.: 1071167 Parent Sample No.: 1067793

LIMS Run #: 196999 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Aluminum	11/03/2021 02:58	3660		3540		3		P	
Antimony	11/03/2021 02:58	BDL	U	22	U	0		P	*INVALID*
Arsenic	11/03/2021 02:58	BDL	U	38.5	U	0		P	*INVALID*
Barium	11/03/2021 02:58	124		128		3		P	
Beryllium	11/03/2021 02:58	BDL	U	4.75	U	0		P	*INVALID*
Cadmium	11/03/2021 02:58	BDL	U	2.05	U	0		P	*INVALID*
Calcium	11/03/2021 02:58	59400		75000		26		P	*FAIL*
Chromium	11/03/2021 02:58	10.3	J	10.6	J	3		P	*INVALID*
Cobalt	11/03/2021 02:58	2.44	U	2.75	U	100		P	*INVALID*
Copper	11/03/2021 02:58	12.8	U	26	U	100		P	*INVALID*
Iron	11/03/2021 02:58	4990		5300		6		P	*INVALID*
Lead	11/03/2021 02:58	8.97	J	16.95	J	89		P	*INVALID*
Magnesium	11/03/2021 02:58	36700		36700		0		P	
Manganese	11/03/2021 02:58	234		250		7		P	
Nickel	11/03/2021 02:58	7.92	J	8.25	J	4		P	*INVALID*
Selenium	11/03/2021 02:58	BDL	U	50	U	0		P	*INVALID*
Silver	11/03/2021 02:58	BDL	U	5.5	U	0		P	*INVALID*
Thallium	11/03/2021 02:58	BDL	U	34	U	0		P	*INVALID*
Vanadium	11/03/2021 02:58	5.71	U	6.5	U	100		P	*INVALID*
Zinc	11/03/2021 02:58	60.3	J	71.5	J	19		P	*INVALID*

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49-IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID SDG No.: 165461

Concentration Units: mg/L

Sample No.: 1073237 Parent Sample No.: 1067793

LIMS Run #: 197000 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Potassium	11/03/2021 02:51	3.30	U	600	U	100		P	*INVALID*

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49-IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID SDG No.: 165461

Concentration Units: mg/L

Sample No.: 1073238 Parent Sample No.: 1067793

LIMS Run #: 197000 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Sodium	11/03/2021 02:51	35.5	U	1000	U	100		P	*INVALID*

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

ICP ID Number: TA SDG No.: 165461

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 7470A

SDG No.: 165461

Preparation Batch #: 83168

Preparation Date/Time: 11/03/2021 / 14:45

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1066849	Normal Sample	54-IDW	GROUND WATER	
1067769	Method Blank		LIQUID	
1067770	Lab Control Spike		LIQUID	
1067771	Lab Duplicate	54-IDW	GROUND WATER	
1067772	Matrix Spike	54-IDW	GROUND WATER	
1067773	Matrix Spike Duplicate	54-IDW	GROUND WATER	
1067793	Normal Sample	49-IDW	GROUND WATER	

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 3010A

SDG No.: 165461

Preparation Batch #: 83193

Preparation Date/Time: 11/01/2021 / 10:11

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1067793	Normal Sample	49-IDW	GROUND WATER	
1068619	Method Blank		LIQUID	
1068620	Lab Control Spike		LIQUID	
1068621	Lab Duplicate	49-IDW	GROUND WATER	
1068622	Matrix Spike	49-IDW	GROUND WATER	
1068623	Matrix Spike Duplicate	49-IDW	GROUND WATER	

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Method: EPA 3010A

SDG No.: 165461

Preparation Batch #: 83194

Preparation Date/Time: 11/01/2021 / 10:11

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1067793	Normal Sample	49-IDW	GROUND WATER	50.0
1068624	Lab Duplicate	49-IDW	GROUND WATER	
1068625	Matrix Spike	49-IDW	GROUND WATER	
1068626	Method Blank		LIQUID	50.0
1068627	Lab Control Spike		LIQUID	
1068628	Matrix Spike Duplicate	49-IDW	GROUND WATER	

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 165461

Instrument ID Number: CETAC

Method Number: CV

Start & End Date: 11/05/2021 to 11/05/2021

Analytical Run #: 197150

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1071663	ICV	1	11/05 09:20																X													
1071664	ICB	1	11/05 09:26																X													
1071665	CCV	1	11/05 10:42																X													
1071666	CCB	1	11/05 10:49																X													
1067770	LCSW	1	11/05 10:52																X													
1067769	MBW	1	11/05 10:58																X													
1066849	Initial	1	11/05 11:08																X													
1067771	DUP	1	11/05 11:11																X													
1067793	Initial	1	11/05 11:14																X													
1071667	CCV	1	11/05 11:24																X													
1071668	CCB	1	11/05 11:30																X													
1067772	MSW	1	11/05 11:39																X													
1067773	MSDW	1	11/05 11:43																X													
1071669	CCV	1	11/05 12:05																X													
1071670	CCB	1	11/05 12:11																X													

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 165461

Instrument ID Number: TJA

Method Number: P

Start & End Date: 11/02/2021 to 11/18/2021

Analytical Run #: 196999

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1071158	ICV	1	11/02 14:59	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071159	ICVLL	1	11/02 15:14	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
1071160	ICB	1	11/02 15:29	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071161	ICSA	1	11/02 15:44	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071162	ICSAB	1	11/02 15:52	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071163	ICVLL	1	11/02 16:07																							X							
1071164	CCV1	1	11/03 01:35	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071165	CCV2	1	11/03 01:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071166	CCB	1	11/03 01:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1068627	LCSW	1	11/03 02:35	X	X	X	X	X		X		X	X	X	X	X	X	X				X		X					X			X	X
1068626	MBW	1	11/03 02:43	X	X	X	X	X		X		X	X	X	X	X	X	X				X		X					X			X	X
1067793	Initial	1	11/03 02:51	X	X	X	X	X		X		X	X	X	X		X	X				X		X					X			X	X
1071167	L	5	11/03 02:58	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1068624	DUP	1	11/03 03:06	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071168	CCV1	1	11/03 03:14	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071169	CCV2	1	11/03 03:21	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071170	CCB	1	11/03 03:28	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1068625	MSW	1	11/03 03:36	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1068628	MSDW	1	11/03 03:43	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071171	PDSW	1	11/03 03:51	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071172	CCV1	1	11/03 04:52	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071173	CCV2	1	11/03 04:59	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1071174	CCB	1	11/03 05:06	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1076519	ICV	1	11/18 11:21	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X						X	X
1076520	ICVLL	1	11/18 11:28	X	X	X	X	X		X	X	X	X		X	X	X	X				X		X					X			X	
1076521	ICB	1	11/18 11:43	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1076522	ICSA	1	11/18 11:59	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 165461

Instrument ID Number: TJA

Method Number: P

Start & End Date: 11/02/2021 to 11/18/2021

Analytical Run #: 196999

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1076523	ICSAB	1	11/18 12:07	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1076524	ICVLL	1	11/18 12:22																							X							
1076525	CCV1	1	11/18 13:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X								X	X
1076526	CCV2	1	11/18 13:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1076527	CCB	1	11/18 13:57	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1068627	LCSW	1	11/18 14:04								X															X							
1068626	MBW	1	11/18 14:12								X															X							
1067793	Re-Analysis	1	11/18 14:20								X					X										X							
1076528	CCV1	1	11/18 15:23	X	X	X	X			X	X	X	X	X	X	X	X	X				X		X		X						X	X
1076529	CCV2	1	11/18 15:30	X	X	X	X	X		X	X	X	X	X	X	X		X				X		X		X			X			X	X
1076530	CCB	1	11/18 15:37	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Lab Code: CTL

SDG No.: 165461

Instrument ID Number: TJA

Method Number: P

Start & End Date: 11/02/2021 to 11/03/2021

Analytical Run #: 197000

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1071175	ICV	1	11/02 14:59																				X				X						
1071176	ICVLL	1	11/02 15:14																				X				X						
1071177	ICB	1	11/02 15:29																				X				X						
1071178	ICSA	1	11/02 15:44	X							X				X		X						X				X						
1071179	ICSAB	1	11/02 15:52	X							X				X		X						X				X						
1071181	CCV1	1	11/03 01:35																				X				X						
1071182	CCV2	1	11/03 01:42																				X				X						
1071183	CCB	1	11/03 01:49																				X				X						
1068620	LCSW	1	11/03 02:35																				X				X						
1068619	MBW	1	11/03 02:43																				X				X						
1067793	Initial	1	11/03 02:51																				X				X						
1073237	L	5	11/03 02:51																				X										
1073238	L	5	11/03 02:51																								X						
1068621	DUP	1	11/03 03:06																				X				X						
1071185	CCV1	1	11/03 03:14																				X				X						
1071186	CCV2	1	11/03 03:21																				X				X						
1071187	CCB	1	11/03 03:28																				X				X						
1068622	MSW	1	11/03 03:36																				X				X						
1068623	MSDW	1	11/03 03:43																				X				X						
1073239	PDSW	1	11/03 03:51																				X										
1073240	PDSW	1	11/03 03:51																								X						
1071189	CCV1	1	11/03 04:52																				X				X						
1071190	CCV2	1	11/03 04:59																				X				X						
1071191	CCB	1	11/03 05:06																				X				X						

METALS
RAW DATA
DOCUMENTS

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	11/03/2021 12:51:59	11/02/2021 13:53:29	Linear	1/Conc	-26.953308	4.423928	0.000000	1.000000	0.999615	0.131542	0.434549	1.448495
Ag 338.289 {100}	11/03/2021 12:51:59	11/02/2021 14:52:12	Linear	1/Var	2.134265	0.051254	0.000000	1.000000	0.999356	1.123764	28.957830	96.526099
Al 167.079 {501}	11/03/2021 12:51:59	11/02/2021 14:00:31	Linear	1/Conc	0.000006	0.000002	0.000000	1.000000	0.998676	0.000000	0.678120	2.260401
Al 308.215 {109}	11/03/2021 12:51:59	11/02/2021 14:28:01	Linear	1/Conc	0.000401	0.000000	0.000000	1.000000	0.999590	0.000002	185.81847	619.39493
Al 396.152 { 85}	11/03/2021 12:51:59	11/02/2021 14:44:09	Full Fit	None	-0.000939	0.000003	0.000000	1.000000	0.999999	0.002452	23.914882	79.716275
As 193.759 {474}	11/03/2021 12:51:59	11/02/2021 14:00:32	Linear	1/Conc	0.000004	0.000001	0.000000	1.000000	0.999818	0.000000	4.106239	13.687462
As 197.262 {471}	11/03/2021 12:51:59	11/02/2021 14:11:56	Linear	1/Var	-0.000004	0.000000	0.000000	1.000000	0.999992	0.000001	5.619193	18.730645
Ba 233.527 {445}	11/03/2021 12:51:59	11/02/2021 14:00:32	Linear	1/Conc	0.000001	0.000011	0.000000	1.000000	0.999824	0.000000	0.254536	0.848455
Ba 455.403 { 74}	11/03/2021 12:51:59	11/02/2021 14:11:56	Linear	1/Conc	0.001427	0.000137	0.000000	1.000000	0.999910	0.000007	0.457251	1.524171
Ba 493.409 { 68}	11/03/2021 12:51:59	11/02/2021 14:52:12	Linear	1/Var	0.057434	0.000151	0.000000	1.000000	0.999840	0.001036	1.553813	5.179378
Be 313.042 {108}	11/03/2021 12:51:59	11/02/2021 14:00:32	Linear	1/Conc	0.000021	0.000060	0.000000	1.000000	0.999828	0.000001	0.014351	0.047838
Be 313.107 {108}	11/03/2021 12:51:59	11/02/2021 14:00:33	Linear	1/Conc	0.000038	0.000065	0.000000	1.000000	0.999908	0.000001	0.309719	1.032397
Be 234.861 {144}	11/03/2021 12:51:59	11/02/2021 14:00:33	Linear	1/Var	0.000019	0.000003	0.000000	1.000000	0.999895	0.000019	2.749919	9.166396
Ca 184.006 {483}	11/03/2021 12:51:59	11/02/2021 14:44:09	Linear	1/Var	-0.000019	0.000002	0.000000	1.000000	0.989881	0.000053	1.587925	5.293083
Ca 315.887 {107}	11/03/2021 12:51:59	11/02/2021 14:44:09	Linear	1/Var	0.671704	0.020181	0.000000	1.000000	0.998897	4.365437	30.611185	102.03728
Ca 317.933 {106}	11/03/2021 12:51:59	11/02/2021 14:44:10	Linear	1/Conc	0.000277	0.000000	0.000000	1.000000	0.998207	0.000023	66.205018	220.68339
Ca 393.366 { 86}	11/03/2021 12:51:59	11/02/2021 14:00:33	Linear	1/Conc	39.616281	28.325346	0.000000	1.000000	0.994372	32.372455	0.081756	0.272519
Ca 396.847 { 85}	11/03/2021 12:51:59	11/02/2021 14:11:57	Curvili	1/Conc	0.000282	0.000274	-0.000000	1.000000	0.999965	0.000146	0.164394	0.547979
Cd 226.502 {449}	11/03/2021 12:51:59	11/02/2021 14:00:34	Linear	1/Conc	-0.000001	0.000030	0.000000	1.000000	0.999968	0.000000	0.140498	0.468326
Cd 228.802 {447}	11/03/2021 12:51:59	11/02/2021 14:00:34	Linear	1/Conc	0.000033	0.000040	0.000000	1.000000	0.999900	0.000000	0.139495	0.464985
Co 228.616 {447}	11/03/2021 12:51:59	11/02/2021 14:11:57	Linear	1/Conc	-0.000004	0.000021	0.000000	1.000000	0.999933	0.000001	0.237619	0.792063
Co 238.892 {141}	11/03/2021 12:51:59	11/02/2021 14:11:57	Linear	1/Var	-0.000000	0.000001	0.000000	1.000000	0.999982	0.000002	0.392954	1.309845
Cr 205.560 {464}	11/03/2021 12:51:59	11/02/2021 14:20:02	Linear	1/Var	0.000003	0.000008	0.000000	1.000000	0.998070	0.000023	0.357040	1.190135
Cr 267.716 {126}	11/03/2021 12:51:59	11/02/2021 14:11:58	Linear	1/Conc	-0.000001	0.000002	0.000000	1.000000	0.999980	0.000000	0.402496	1.341654
Cu 223.008 {451}	11/03/2021 12:51:59	11/02/2021 14:11:58	Linear	1/Conc	-0.000004	0.000005	0.000000	1.000000	0.999800	0.000001	0.970628	3.235428
Cu 224.700 {450}	11/03/2021 12:51:59	11/02/2021 14:20:02	Linear	None	-0.000363	0.000007	0.000000	1.000000	0.999999	0.000428	0.317742	1.059140
Cu 324.754 {104}	11/03/2021 12:51:59	11/02/2021 14:20:02	Linear	1/Var	0.000435	0.000004	0.000000	1.000000	0.999938	0.000018	6.657614	22.192046
Cu 327.396 {103}	11/03/2021 12:51:59	11/02/2021 14:20:02	Linear	1/Var	-0.000022	0.000003	0.000000	1.000000	0.999975	0.000018	14.372691	47.908969
Fe 234.349 {144}	11/03/2021 12:51:59	11/02/2021 14:28:02	Curvili	1/Conc	0.000017	0.000000	0.000000	1.000000	0.999995	0.000001	0.826771	2.755905
Fe 239.562 {140}	11/03/2021 12:51:59	11/02/2021 14:44:10	Curvili	1/Var	-0.000005	0.000000	0.000000	1.000000	0.999675	0.000149	29.507509	98.358364
Fe 259.940 {129}	11/03/2021 12:51:59	11/02/2021 14:44:10	Curvili	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999706	0.000049	12.622629	42.075429
Mg 202.582 {466}	11/03/2021 12:51:59	11/02/2021 14:44:10	Linear	1/Conc	-0.000001	0.000000	0.000000	1.000000	0.998919	0.000010	2.688809	8.962697
Mg 279.079 {121}	11/03/2021 12:51:59	11/02/2021 14:44:10	Linear	1/Conc	1.601516	0.003101	0.000000	1.000000	0.998562	0.258708	116.98083	389.93610
Mg 280.270 {120}	11/03/2021 12:51:59	11/02/2021 14:11:59	Linear	1/Conc	0.000081	0.000026	0.000000	1.000000	0.999931	0.000006	0.018558	0.061859
Mn 257.610 {131}	11/03/2021 12:51:59	11/02/2021 14:11:59	Curvili	1/Conc	0.000000	0.000013	-0.000000	1.000000	0.999985	0.000001	0.035109	0.117030
Mn 259.373 {130}	11/03/2021 12:51:59	11/02/2021 14:20:03	Curvili	1/Var	0.000008	0.000005	0.000000	1.000000	0.999989	0.000023	2.576989	8.589963
Mo 202.030 {466}	11/03/2021 12:51:59	11/02/2021 14:12:00	Linear	1/Conc	0.000012	0.000006	0.000000	1.000000	0.999929	0.000001	0.492982	1.643274
Mo 204.598 {464}	11/03/2021 12:51:59	11/02/2021 14:12:00	Linear	1/Var	0.000003	0.000004	0.000000	1.000000	0.999719	0.000007	0.789789	2.632629
Mo 202.030 {467}	11/03/2021 12:51:59	11/02/2021 14:12:00	Linear	1/Conc	0.000011	0.000008	0.000000	1.000000	0.999937	0.000001	0.378365	1.261215
Ni 221.647 {452}	11/03/2021 12:51:59	11/02/2021 14:12:00	Linear	1/Var	0.000005	0.000013	0.000000	1.000000	0.999814	0.000031	0.451205	1.504018
Ni 231.604 {445}	11/03/2021 12:51:59	11/02/2021 14:12:00	Linear	1/Conc	-0.000007	0.000012	0.000000	1.000000	0.999900	0.000001	0.427166	1.423886
Pb 216.999 {455}	11/03/2021 12:51:59	11/02/2021 14:20:03	Linear	None	-0.000025	0.000001	0.000000	1.000000	0.999998	0.000086	4.248663	14.162211
Pb 220.353 {453}	11/03/2021 12:51:59	11/02/2021 14:12:01	Linear	1/Conc	0.000005	0.000002	0.000000	1.000000	0.999760	0.000000	2.400047	8.000156
Pb 216.999 {456}	11/03/2021 12:51:59	11/02/2021 14:20:03	Linear	1/Var	0.000000	0.000000	0.000000	1.000000	0.999908	0.000002	13.397615	44.658718

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {456}	OK.	1.000000	0.000000	1	0

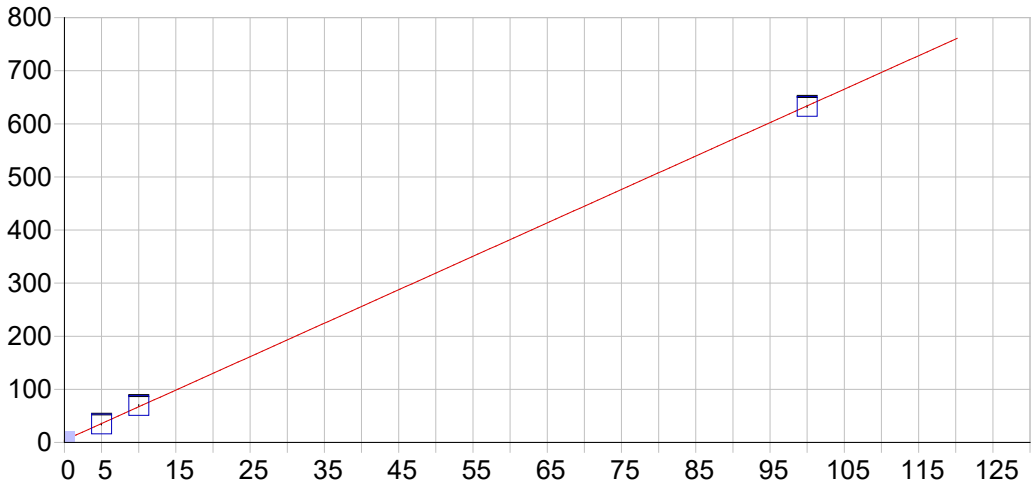
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Pb 220.353 {153}	11/03/2021 12:51:59	11/02/2021 14:12:01	Linear	1/Var	-0.000003	0.000000	0.000000	1.000000	0.999951	0.000002	41.562629	138.54209
	Sb 206.833 {463}	11/03/2021 12:51:59	11/02/2021 14:12:01	Linear	1/Var	-0.000004	0.000002	0.000000	1.000000	0.999957	0.000004	2.122675	7.075583
	Sb 217.581 {455}	11/03/2021 12:51:59	11/02/2021 14:12:01	Linear	1/Conc	-0.000000	0.000001	0.000000	1.000000	0.999960	0.000000	2.952062	9.840206
	Se 196.090 {472}	11/03/2021 12:51:59	11/02/2021 14:12:01	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999797	0.000000	3.408316	11.361053
	Se 203.985 {465}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Var	0.000006	0.000001	0.000000	1.000000	0.999950	0.000004	8.034453	26.781511
	Se 206.279 {463}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Conc	0.000003	0.000000	0.000000	1.000000	0.999923	0.000000	17.182939	57.276462
	Tl 190.856 {476}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Conc	0.000002	0.000002	0.000000	1.000000	0.999954	0.000000	1.842005	6.140017
	Tl 190.856 {477}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Var	0.000002	0.000000	0.000000	1.000000	0.999244	0.000005	5.303723	17.679078
	V 290.882 {116}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Var	0.000029	0.000001	0.000000	1.000000	0.999925	0.000015	14.226962	47.423206
	V 292.402 {115}	11/03/2021 12:51:59	11/02/2021 14:12:02	Linear	1/Conc	0.000008	0.000006	0.000000	1.000000	0.999984	0.000000	0.252624	0.842079
	Zn 206.200 {463}	11/03/2021 12:51:59	11/02/2021 14:20:03	Linear	1/Var	0.000002	0.000015	0.000000	1.000000	0.999518	0.000021	0.237046	0.790154
	Zn 213.856 {457}	11/03/2021 12:51:59	11/02/2021 14:12:03	Linear	1/Conc	0.000020	0.000038	0.000000	1.000000	0.999784	0.000011	0.113093	0.376976
	Y 224.306 {450}*	11/03/2021 12:51:59	11/02/2021 13:00:02	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	11/03/2021 12:51:59	11/02/2021 13:00:02	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	11/03/2021 12:51:59	11/02/2021 13:00:02	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	11/03/2021 12:51:59	11/02/2021 14:44:10	Linear	1/Var	-0.000080	0.000019	0.000000	1.000000	0.997582	0.000295	1.659401	5.531336
	Na 588.995 { 57}	11/03/2021 12:51:59	11/02/2021 14:44:11	Linear	1/Var	-0.013427	0.075254	0.000000	1.000000	0.264280	0.994279	163.13357	543.77857
	Na 589.592 { 57}	11/03/2021 12:51:59	11/02/2021 14:44:11	Linear	1/Conc	40.189861	1213.5293	0.000000	1.000000	0.995839	172.53063	0.006320	0.021066
	Si 212.412 {458}	11/03/2021 12:51:59	11/02/2021 14:44:11	Curvili	1/Var	0.000033	0.000004	-0.000000	1.000000	0.999998	0.000011	1.021155	3.403851
	Si 251.611 {134}	11/03/2021 12:51:59	11/02/2021 14:44:11	Curvili	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999999	0.000000	29.993452	99.978172
	Ti 323.452 {104}	11/03/2021 12:51:59	11/02/2021 14:12:03	Linear	1/Conc	0.000332	0.000008	0.000000	1.000000	0.999681	0.000002	4.331951	14.439836
	Ti 334.941 {101}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	1/Conc	-0.000008	0.000008	0.000000	1.000000	0.999945	0.000001	2.861644	9.538813
	Sr 407.771 { 83}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	1/Conc	0.000207	0.000292	0.000000	1.000000	0.999947	0.000012	0.204987	0.683290
	Sr 421.552 { 80}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	1/Conc	-0.000215	0.000231	0.000000	1.000000	0.999971	0.000007	0.235870	0.786233
	Sn 189.989 {477}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	1/Var	0.000002	0.000004	0.000000	1.000000	0.999605	0.000005	0.747111	2.490370
	B 249.678 {135}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	None	0.000003	0.000001	0.000000	1.000000	0.999999	0.000008	0.593072	1.976906
	B 249.773 {135}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	None	-0.000005	0.000004	0.000000	1.000000	1.000000	0.000011	0.234159	0.780529
	Li 670.784 { 50}	11/03/2021 12:51:59	11/02/2021 14:12:04	Linear	1/Conc	-0.000228	0.000258	0.000000	1.000000	0.999960	0.000031	0.615454	2.051515
	K 766.490 { 44}	11/03/2021 12:51:59	11/02/2021 14:44:11	Linear	1/Conc	-16.871218	263.47844	0.000000	1.000000	0.997287	30.845590	0.029488	0.098294
	K 769.896 { 44}	11/03/2021 12:51:59	11/02/2021 14:44:11	Linear	1/Var	57.440197	176.25237	0.000000	1.000000	0.998514	68.275895	0.047510	0.158368
	P 177.495 {489}	11/03/2021 12:51:59	11/02/2021 14:44:11	Linear	1/Conc	-0.000290	0.000000	0.000000	1.000000	0.947845	0.000166	8.819265	29.397551
	P 213.618 {457}	11/03/2021 12:51:59	11/02/2021 14:44:12	Linear	1/Conc	-0.000006	0.000001	0.000000	1.000000	0.998947	0.000050	5.990197	19.967324
	S 182.034 {485}	11/03/2021 12:51:59	11/02/2021 14:44:12	Linear	1/Var	0.000009	0.000001	0.000000	1.000000	0.997835	0.000049	4.335483	14.451609
	Hg 184.950 {482}	11/03/2021 12:51:59	11/02/2021 14:00:41	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999997	0.000000	0.846981	2.823269
	Hg 194.227 {473}	11/03/2021 12:51:59	11/02/2021 14:00:41	Linear	1/Conc	-0.000001	0.000003	0.000000	1.000000	0.999988	0.000000	0.881789	2.939296
	Ce 404.076 { 83}	11/03/2021 12:51:59	11/02/2021 14:00:41	Linear	1/Conc	0.000129	0.000001	0.000000	1.000000	1.000000	0.000000	39.593161	131.97720

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	Warnin	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Hg 194.227 {473}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	1	Ce	-0.002000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000238	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	4	Al	0.001620	0.000000	No
			Mn	-0.000003	0.000000	No
			Ni	-0.000722	0.000000	No
			Cr	0.000734	0.000000	No
As 197.262 {471}	☒	2	Al	0.000023	0.000000	No
			Fe	0.000023	0.000000	No
Ba 233.527 {445}	☒	1	Fe	0.000019	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000009	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000003	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000001	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000013	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Ce	0.001430	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000124	0.000000	No
Cd 228.802 {447}	☒	1	Fe	-0.000005	0.000000	No
Co 228.616 {447}	☒	4	Fe	0.000002	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
			Ce	-0.000069	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	2	Fe	-0.000025	0.000000	No
			Mo	0.004000	0.000000	No
Cu 224.700 {450}	☒	2	Fe	0.003134	0.000000	No
			Ni	-0.007040	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000081	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	3	Al	-0.000002	0.000000	No
			K	0.000100	0.000000	No
			Ce	-0.000166	0.000000	No
Mn 259.373 {130}	☒	1	Fe	0.000400	0.000000	No
Mo 202.030 {466}	☒	2	Fe	-0.000013	0.000000	No
			Ti	0.000527	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000052	0.000000	No
Mo 202.030 {467}	☒	1	Fe	-0.000009	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	6	Fe	-0.000003	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Al	0.000003	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {453}	☒	5	Al	-0.000032	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	-0.001644	0.000000	No
			Cu	-0.000444	0.000000	No
			Co	0.002100	0.000000	No
Pb 216.999 {456}	☒	1	Al	0.003022	0.000000	No
Pb 220.353 {153}	☒	1	Fe	-0.000011	0.000000	No
Sb 206.833 {463}	☒	3	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
			Ce	0.005500	0.000000	No
Sb 217.581 {455}	☒	2	Fe	0.000029	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000046	0.000000	No
Se 203.985 {465}	☒	1	Fe	-0.000160	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	8	Fe	-0.000090	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000000	0.000000	No
			Mn	0.000000	0.000000	No
			Ni	0.000000	0.000000	No
			Co	0.002495	0.000000	No
			Cr	0.000220	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.001535	0.000000	No
Tl 190.856 {477}	☒	3	Fe	-0.000089	0.000000	No
			Cr	0.000000	0.000000	No
			Ce	0.000980	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000163	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	None				
Na 588.995 { 57}	☒	1	Fe	-0.000000	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000000	0.000000	No
Si 212.412 {458}	☒	None				
Si 251.611 {134}	☒	1	Fe	-0.000014	0.000000	No
Ti 323.452 {104}	☒	2	Fe	0.000029	0.000000	No
			Ce	0.000123	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000106	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000049	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000017	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000027	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000529	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000016	0.000000	No
K 766.490 { 44}	☒	2	Fe	0.000000	0.000000	No
			Cu	0.000000	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
P 213.618 {457}	☒	1	Fe	-0.000069	0.000000	No
S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
			Fe	-0.000035	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Hg 194.227 {473}	☒	None				
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

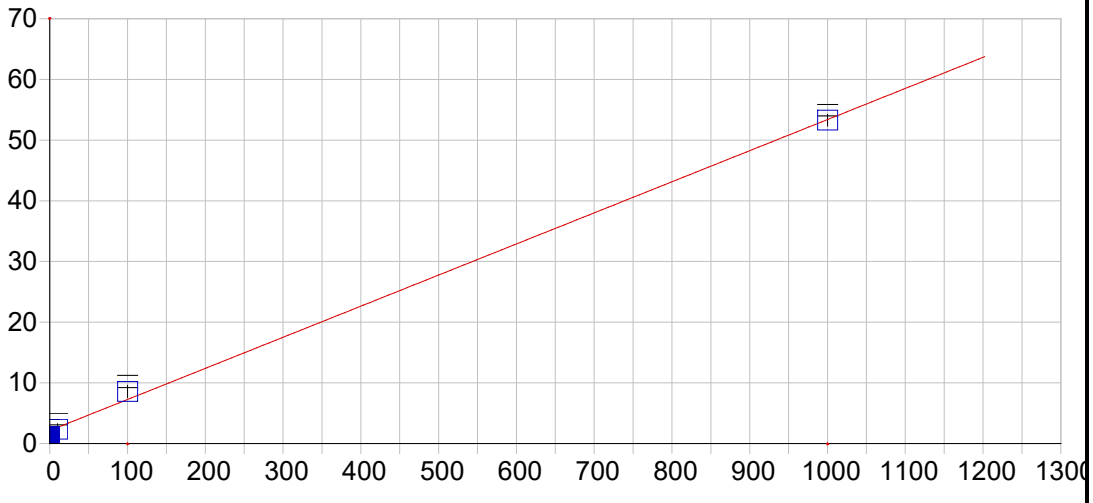


Ag 328.068 {103}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	4.094479	Re-Slope:	1.000000
A1 (Gain):	6.297175	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	2.603292		
Predicted MDL:	0.341986		
Predicted MQL:	1.139955		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.30777	-.308	.000	2.1564	.164	0
CalStd8=100	100.00	99.818	-.182	-.182	632.67	1.85	1
CalStd4=5	5.0000	4.8362	-.164	-3.28	34.549	1.40	1
CalStd5=10	10.000	10.346	.346	3.46	69.244	1.74	1

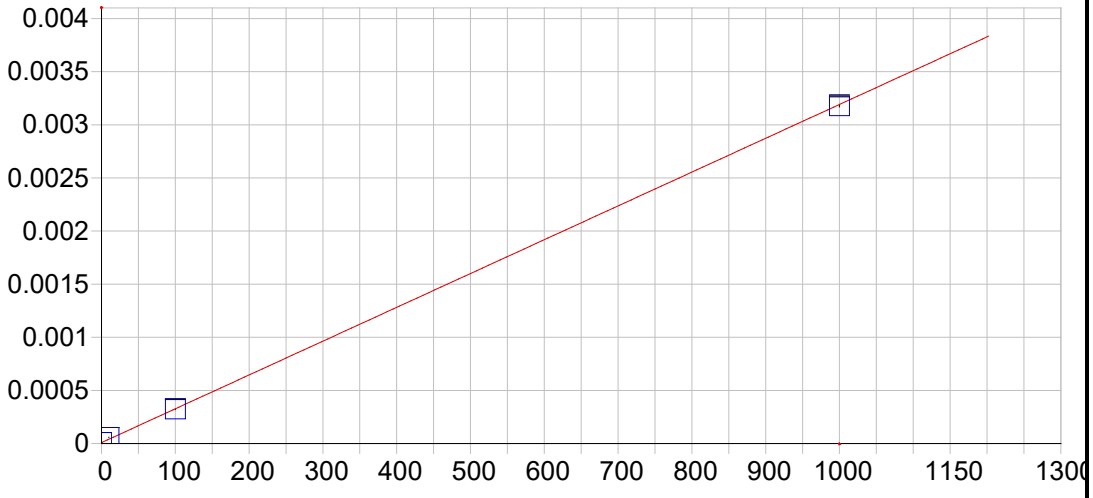


Ag 338.289 {100}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	2.134265	Re-Slope:	1.000000
A1 (Gain):	0.051254	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999356	Status:	OK.
Std Error of Est:	1.123764		
Predicted MDL:	28.957830		
Predicted MQL:	96.526099		

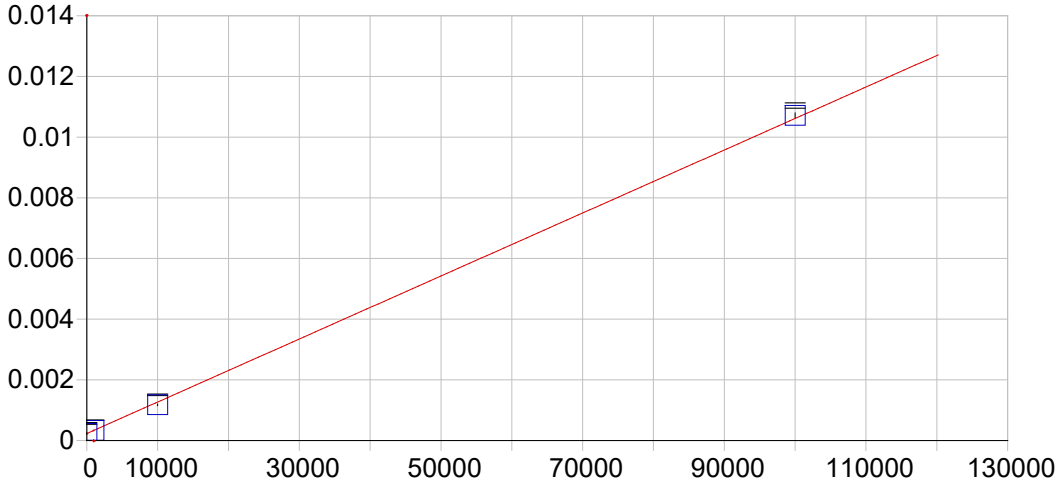
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-19.268	-19.3	.000	1.1467	1.13	1
CalStd8=100	100.00	125.53	25.5	25.5	8.5684	1.02	1
Ag Ba 1000,	1000.0	997.84	-2.16	-.216	53.277	.950	1
CalStd5=10	10.000	3.8970	-6.10	-61.0	2.3340	.923	1



Al 167.079 {501}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000009		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998671		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.676629				
Predicted MQL:	2.255429				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00525	-.005	.000	.00001	.000	1
CalStd9=100	1000.0	995.77	-4.23	-.423	.00318	.000	1
CalStd5=10	10.000	15.405	5.40	54.0	.00006	.000	1
CalStd8=100	100.00	98.830	-1.17	-1.17	.00032	.000	1

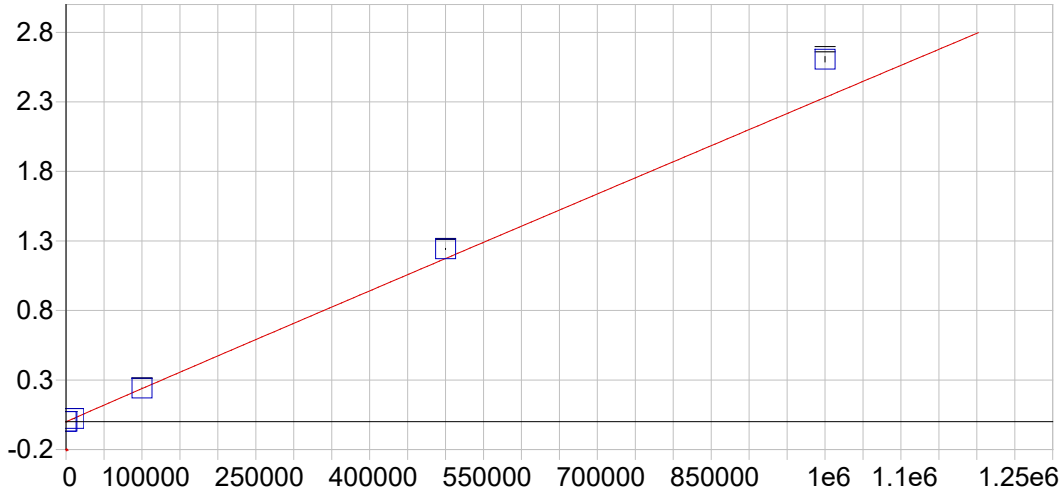


Al 308.215 {109}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000232	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999591	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	182.841648		
Predicted MQL:	609.472158		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.11186	.112	.000	.00023	.000	1
CalStd10=10	10000.	9098.9	-901.	-9.01	.00118	.000	1
CalStd9=100	1000.0	968.94	-31.1	-3.11	.00033	.000	1
CalStd13=10	100000.	100930.	932.	.932	.01071	.000	1

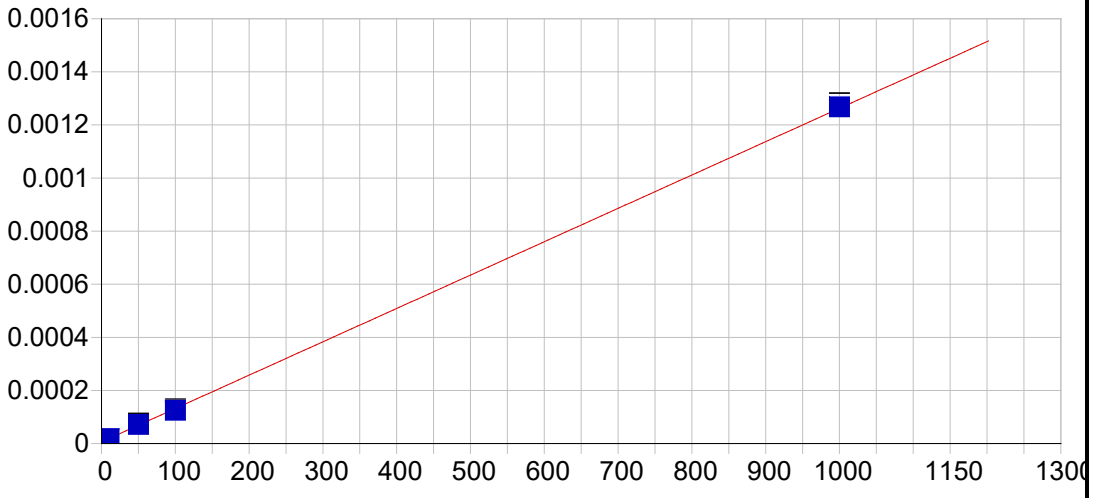


Al 396.152 { 85}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Full Fit	Weighting:	None

A0 (Offset):	-0.000735	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	0.990000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.001570		
Predicted MDL:	12.669070		
Predicted MQL:	42.230235		

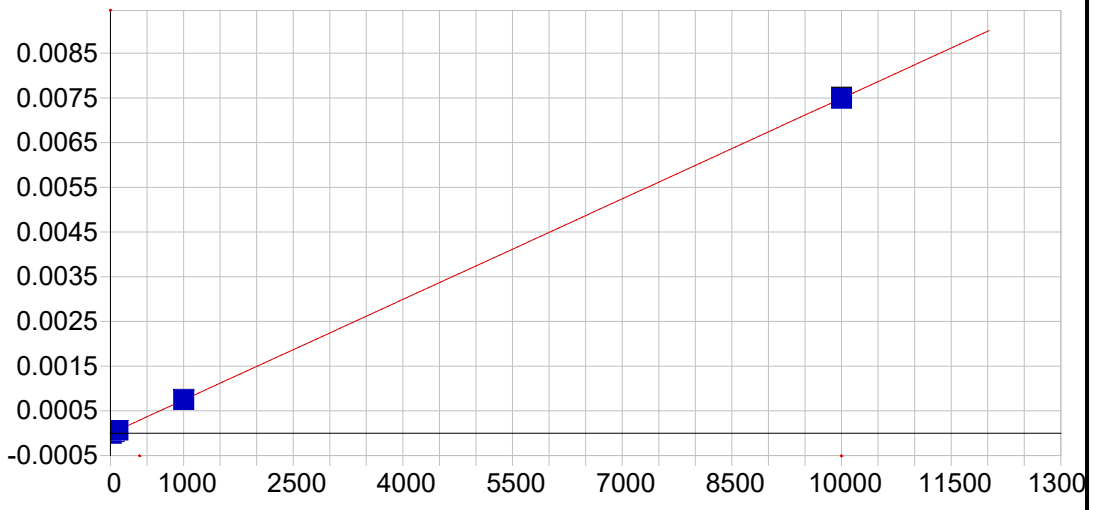
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	265.38	265.	.000	-.00006	.000	1
CalStd14=50	500000.	529830.	29800.	5.97	1.2428	.003	1
CalStd13=10	100000.	101570.	1570.	1.57	.24163	.000	1
CalStd10=10	10000.	9245.6	-754.	-7.54	.02186	.000	1
CalStd9=100	1000.0	1213.2	213.	21.3	.00229	.000	1
CalibStd15=	1000000.	1119000.	119000.	11.9	2.6060	.019	1



As 193.759 {474}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999815		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.097034				
Predicted MQL:	13.656780				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00056	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1004.0	3.95	.395	.00127	.000	1
CalStd7=50	50.000	52.059	2.06	4.12	.00007	.000	1
CalStd5=10	10.000	9.5392	-.461	-4.61	.00002	.000	1
CalStd8=100	100.00	94.452	-5.55	-5.55	.00013	.000	1

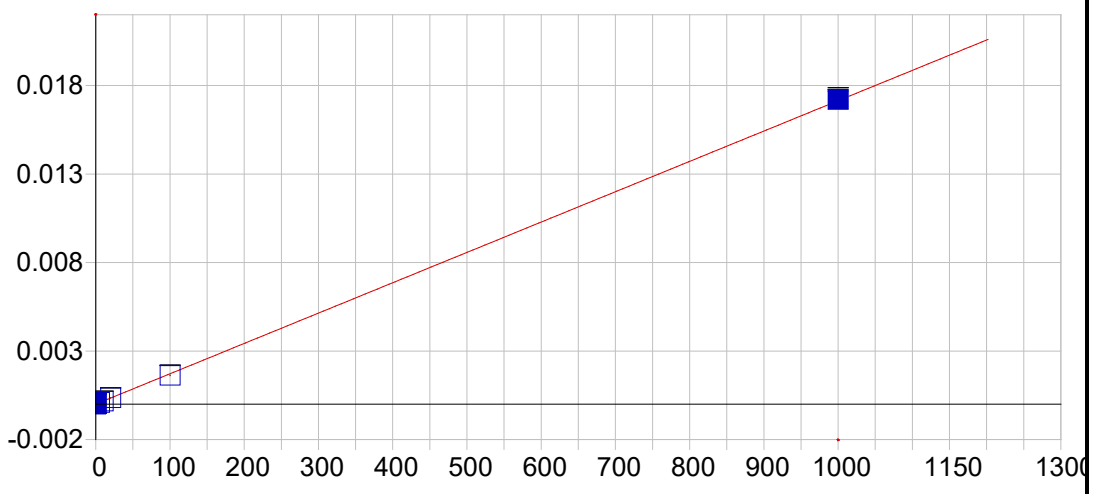


As 197.262 {471}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	5.602841		
Predicted MQL:	18.676136		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.6615	2.66	.000	-.00000	.000	1
CalStd9=100	1000.0	1003.5	3.47	.347	.00075	.000	1
CalStd7=50	50.000	50.094	.094	.189	.00003	.000	1
CalStd5=10	10.000	4.6925	-5.31	-53.1	-.00000	.000	1
CalStd8=100	100.00	97.666	-2.33	-2.33	.00007	.000	1
CalStd10=10	10000.	9998.1	-1.93	-.019	.00749	.000	1

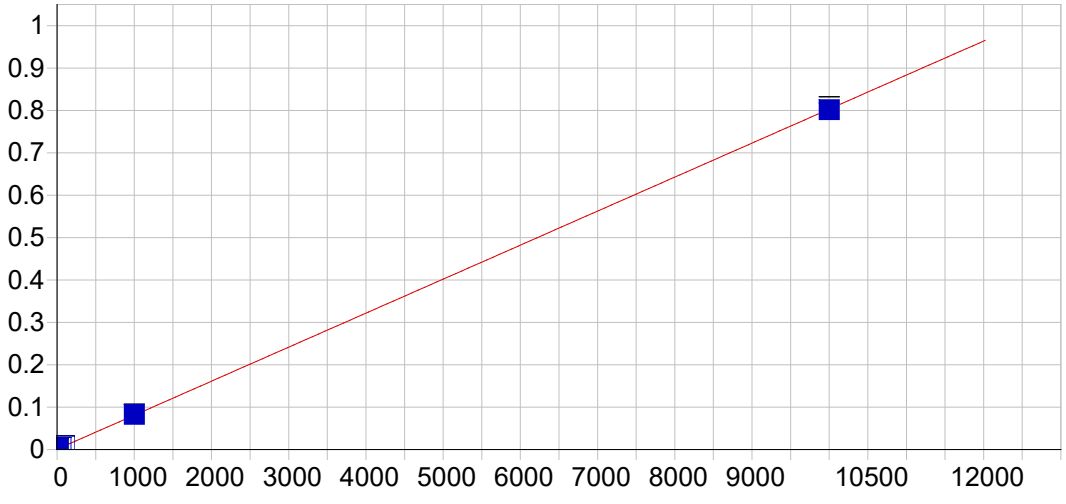


Ba 233.527 {445}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000017	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.253978		
Predicted MQL:	0.846593		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00031	-.000	.000	.00000	.000	1
CalStd5=10	10.000	9.8881	-.112	-1.12	.00017	.000	1
CalStd6=20	20.000	20.695	.695	3.47	.00036	.000	1
CalStd8=100	100.00	94.949	-5.05	-5.05	.00163	.000	1
CalStd4=5	5.0000	5.0445	.045	.890	.00009	.000	1
CalStd9=100	1000.0	1004.1	4.10	.410	.01721	.000	1
CalStd3=1	1.0000	1.3242	.324	32.4	.00002	.000	1

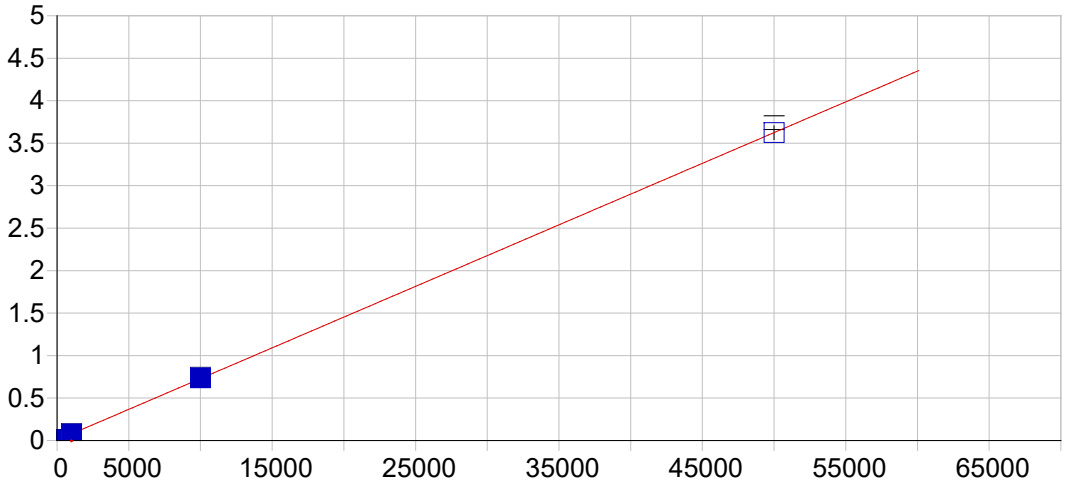


Ba 455.403 { 74}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000824	Re-Slope:	1.000000
A1 (Gain):	0.000080	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.452336		
Predicted MQL:	1.507787		

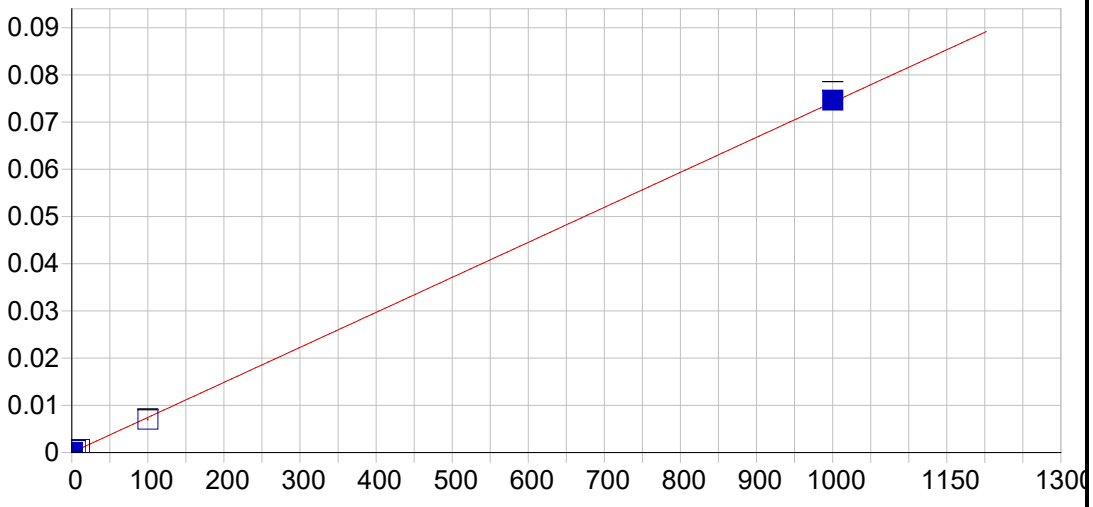
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00142	-.001	.000	.00082	.000	1
CalStd7=50	50.000	51.492	1.49	2.98	.00496	.000	1
CalStd5=10	10.000	10.672	.672	6.72	.00168	.000	1
CalStd6=20	20.000	21.124	1.12	5.62	.00252	.000	1
CalStd8=100	100.00	96.174	-3.83	-3.83	.00854	.000	1
CalStd4=5	5.0000	6.0689	1.07	21.4	.00131	.000	1
CalStd9=100	1000.0	1021.8	21.8	2.18	.08282	.001	1
CalStd3=1	1.0000	2.0689	1.07	107.	.00099	.000	1
CalStd10=10	10000.	9976.6	-23.4	-.234	.80138	.007	1



Ba 493.409 { 68}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	None
A0 (Offset):	0.005134		Re-Slope:	1.000000	
A1 (Gain):	0.000072		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999996		Status:	OK.	
Std Error of Est:	0.005351				
Predicted MDL:	1.554360				
Predicted MQL:	5.181201				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-41.045	-41.0	.000	.00216	.000	1
CalStd9=100	1000.0	996.34	-3.66	-.366	.07726	.001	1
CalStd8=100	100.00	55.932	-44.1	-44.1	.00918	.000	1
Ag Ba 1000,	50000.	49978.	-22.0	-.044	3.6229	.081	1
CalStd10=10	10000.	10111.	111.	1.11	.73704	.006	1

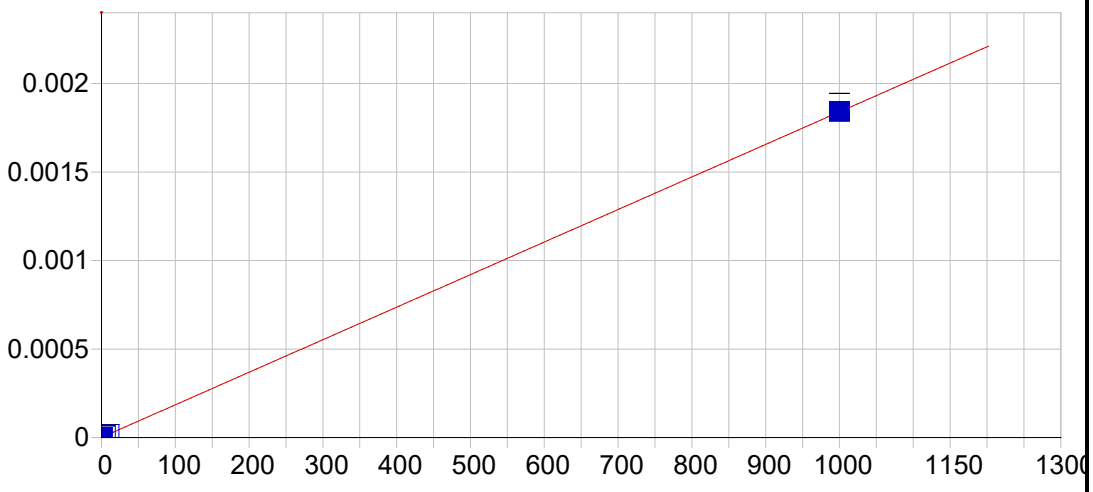


Be 313.042 {108}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000026	Re-Slope:	1.000000
A1 (Gain):	0.000074	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999829	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.014483		
Predicted MQL:	0.048276		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00012	.000	.000	.00003	.000	1
CalStd5=10	10.000	9.7760	-.224	-2.24	.00075	.000	1
CalStd8=100	100.00	94.331	-5.67	-5.67	.00702	.000	1
CalStd2=0.5	.50000	.40426	-.096	-19.1	.00006	.000	1
CalStd4=5	5.0000	5.0793	.079	1.59	.00040	.000	1
CalStd9=100	1000.0	1005.9	5.89	.589	.07463	.002	1
CalStd3=1	1.0000	1.0152	.015	1.52	.00010	.000	1

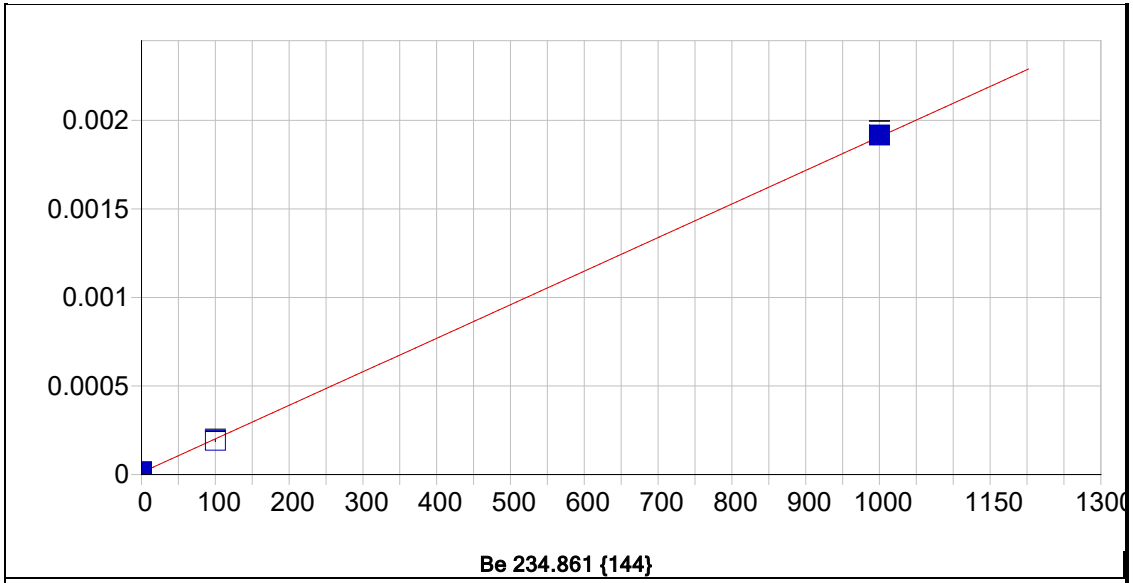


Be 313.107 {108}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999918	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.320303		
Predicted MQL:	1.067676		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00026	.000	.000	.00000	.000	1
CalStd5=10	10.000	9.5357	-.464	-4.64	.00002	.000	1
CalStd2=0.5	.50000	.47009	-.030	-5.98	.00000	.000	1
CalStd4=5	5.0000	4.6584	-.342	-6.83	.00001	.000	1
CalStd9=100	1000.0	1001.2	1.18	.118	.00184	.000	1
CalStd3=1	1.0000	.65657	-.343	-34.3	.00000	.000	1

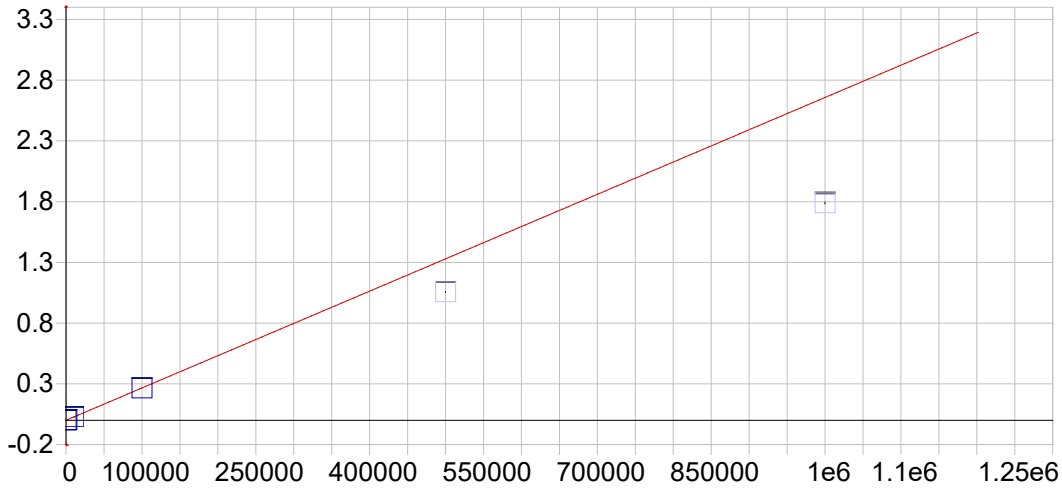


Be 234.861 {144}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999822	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	2.729832		
Predicted MQL:	9.099440		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.9104	1.91	.000	.00002	.000	1
CalStd9=100	1000.0	1005.3	5.34	.534	.00192	.000	1
CalStd8=100	100.00	95.615	-4.38	-4.38	.00019	.000	1

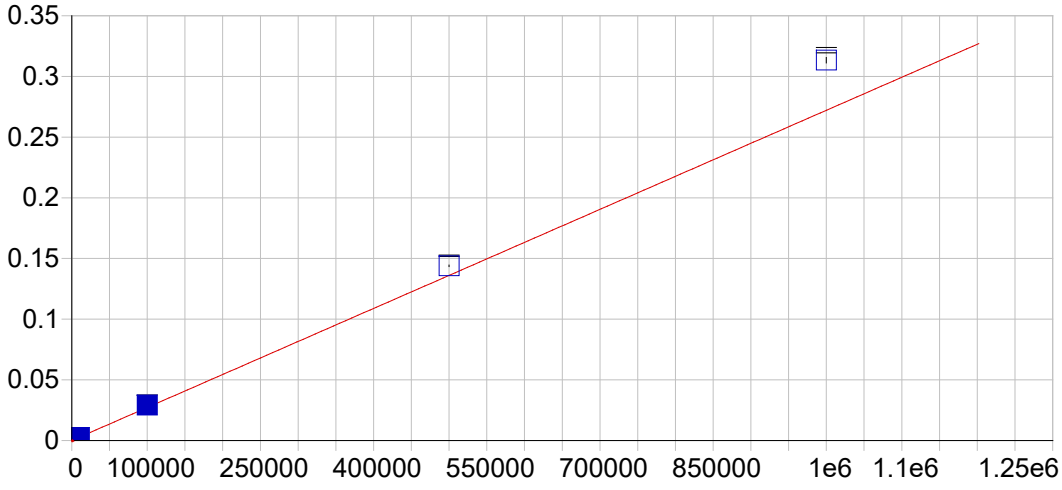


Ca 184.006 {483}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000027	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	1.492737		
Predicted MQL:	4.975790		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10844	-.108	.000	-.00003	.000	1
CalStd10=10	10000.	10206.	206.	2.06	.02710	.000	1
CalStd13=10	100000.	99703.	-297.	-.297	.26494	.001	1
CalStd14=50	500000.	397820.	-102000.	-20.4	1.0572	.003	0
CalStd9=100	1000.0	1090.8	90.8	9.08	.00287	.000	1
CalibStd15=	1000000.	673020.	-327000.	-32.7	1.7885	.007	0

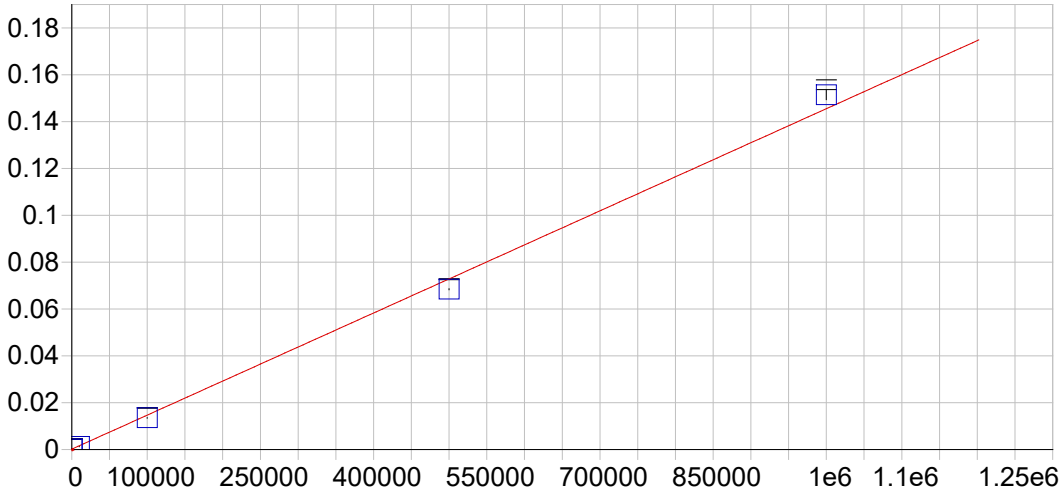


Ca 315.887 {107}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	27.006168		
Predicted MQL:	90.020559		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.10583	.106	.000	.00001	.000	1
CalStd10=10	10000.	9219.3	-781.	-7.81	.00252	.000	1
CalStd13=10	100000.	106910.	6910.	6.91	.02910	.000	1
CalStd14=50	500000.	529010.	29000.	5.80	.14395	.001	1
CalStd9=100	1000.0	932.25	-67.7	-6.77	.00026	.000	1
CalibStd15=	1000000.	1151700.	152000.	15.2	.31339	.002	1

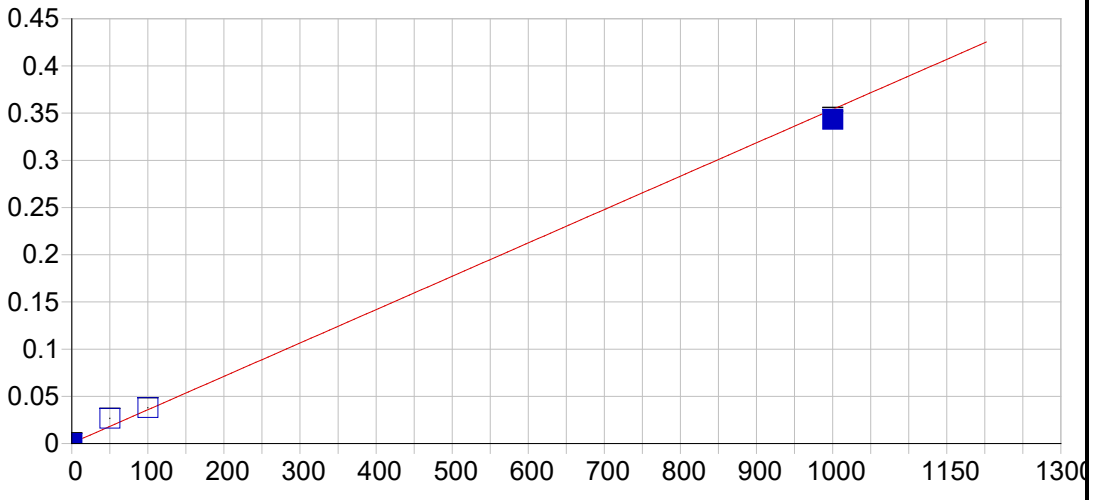


Ca 317.933 {106}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000160	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998531	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	65.721276		
Predicted MQL:	219.070920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.52221	.522	.000	.00016	.000	1
CalStd10=10	10000.	7669.0	-2330.	-23.3	.00127	.000	1
CalStd13=10	100000.	91889.	-8110.	-8.11	.01352	.000	1
CalStd14=50	500000.	469720.	-30300.	-6.06	.06844	.000	1
CalStd9=100	1000.0	811.65	-188.	-18.8	.00028	.000	1
CalibStd15=	1000000.	1040900.	40900.	4.09	.15146	.002	1

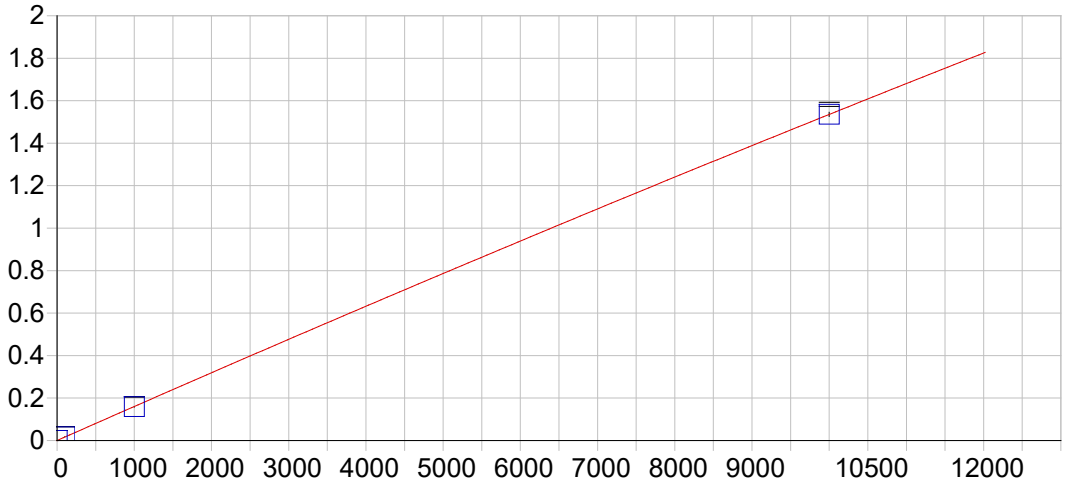


Ca 393.366 { 86}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000474	Re-Slope:	1.000000
A1 (Gain):	0.000353	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994389	Status:	OK.
Std Error of Est:	0.000403		
Predicted MDL:	0.077933		
Predicted MQL:	0.259778		

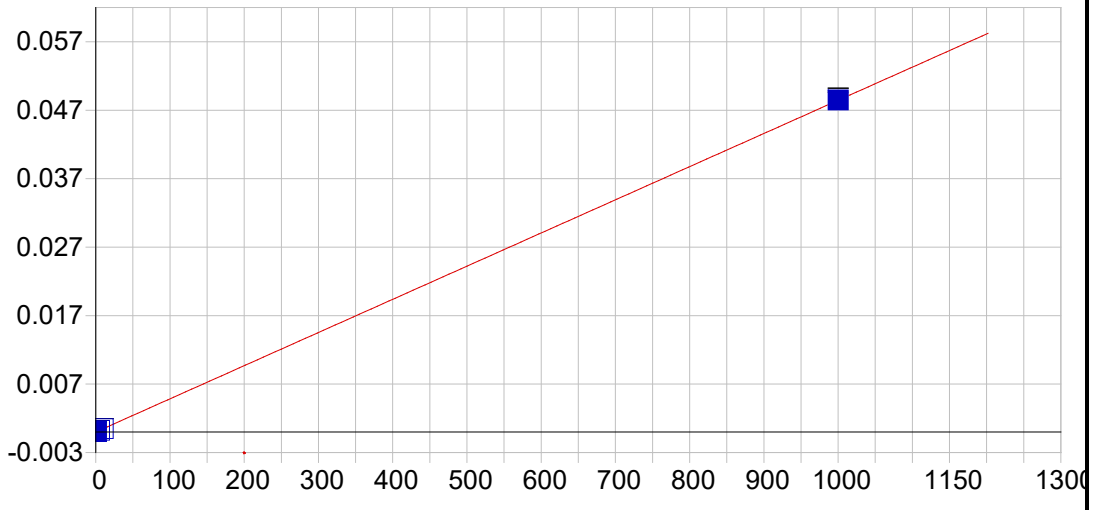
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02574	-.026	.000	.00046	.000	1
CalStd9=100	1000.0	969.79	-30.2	-3.02	.34375	.002	1
CalStd8=100	100.00	106.00	6.00	6.00	.03794	.000	1
CalStd7=50	50.000	74.245	24.2	48.5	.02672	.000	1



Ca 396.847 { 85}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000163		Re-Slope:	1.000000	
A1 (Gain):	0.000161		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999962		Status:	OK.	
Std Error of Est:	0.000090				
Predicted MDL:	0.162644				
Predicted MQL:	0.542147				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00744	-.007	.000	.00016	.000	1
CalStd10=10	10000.	10001.	.920	.009	1.5356	.010	1
CalStd8=100	100.00	108.35	8.35	8.35	.01760	.000	1
CalStd9=100	1000.0	990.73	-9.27	-.927	.15894	.001	1

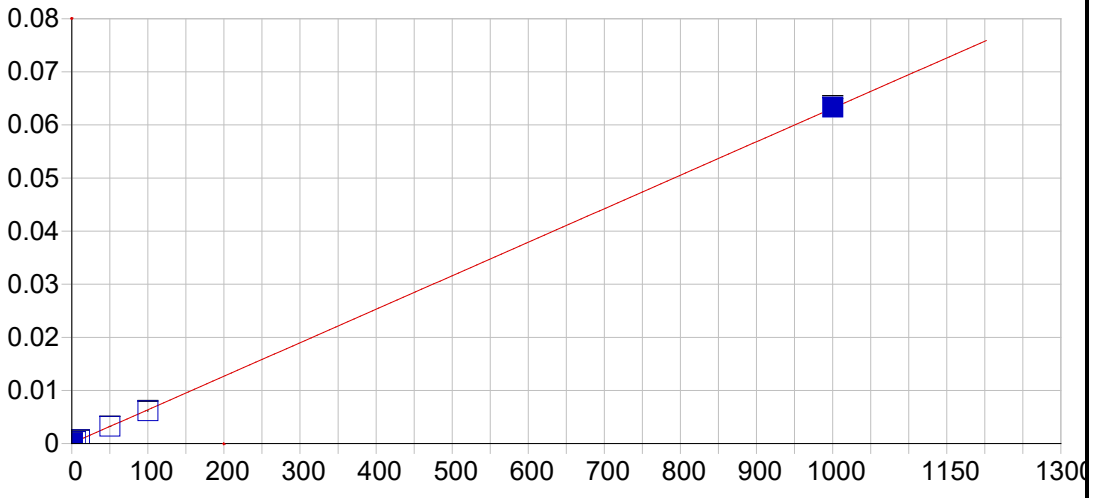


Cd 226.502 {449}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000048	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.140185		
Predicted MQL:	0.467283		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	-.00000	.000	1
CalStd3=1	1.0000	.83125	-.169	-16.9	.00004	.000	1
CalStd2=0.5	.50000	.37336	-.127	-25.3	.00002	.000	1
CalStd4=5	5.0000	4.9804	-.020	-.391	.00024	.000	1
CalStd5=10	10.000	9.8213	-.179	-1.79	.00047	.000	1
CalStd9=100	1000.0	1000.5	.494	.049	.04848	.000	1

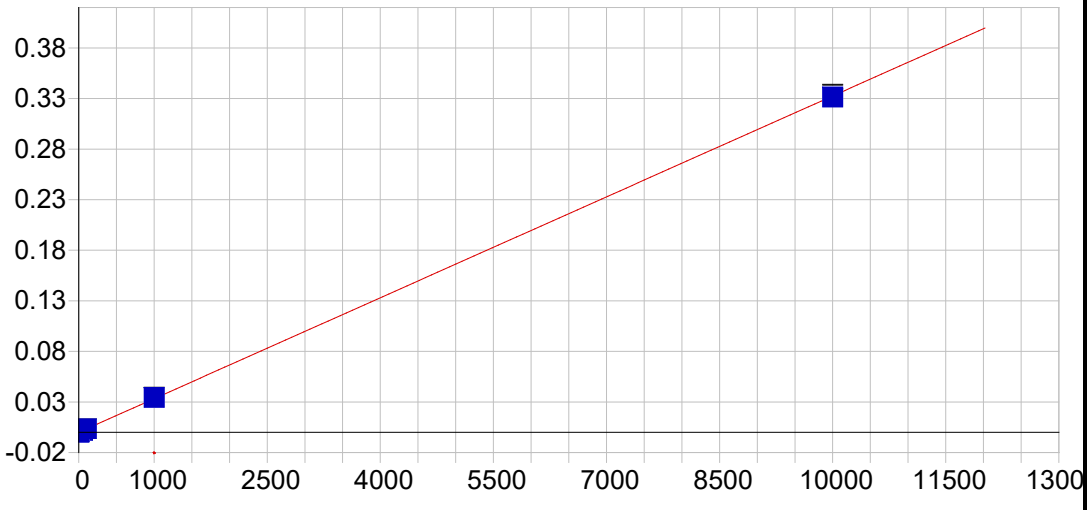


Cd 228.802 {447}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000053	Re-Slope:	1.000000
A1 (Gain):	0.000063	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.139185		
Predicted MQL:	0.463950		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00028	.000	.000	.00005	.000	1
CalStd7=50	50.000	50.568	.568	1.14	.00324	.000	1
CalStd3=1	1.0000	.90585	-.094	-9.42	.00011	.000	1
CalStd2=0.5	.50000	.27864	-.221	-44.3	.00007	.000	1
CalStd4=5	5.0000	5.0532	.053	1.06	.00037	.000	1
CalStd8=100	100.00	96.666	-3.33	-3.33	.00615	.000	1
CalStd5=10	10.000	9.9152	-.085	-.848	.00068	.000	1
CalStd9=100	1000.0	1003.1	3.11	.311	.06335	.000	1

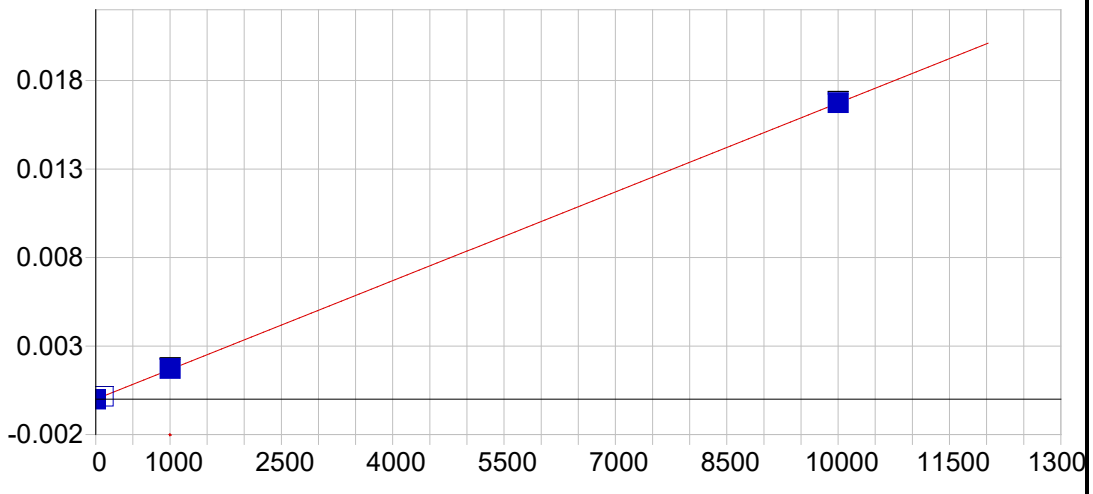


Co 228.616 {447}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000033	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999936	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.236932		
Predicted MQL:	0.789773		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00023	-.000	.000	-.00001	.000	1
CalStd7=50	50.000	51.998	2.00	4.00	.00173	.000	1
CalStd5=10	10.000	10.342	.342	3.42	.00034	.000	1
CalStd4=5	5.0000	4.9196	-.080	-1.61	.00016	.000	1
CalStd8=100	100.00	98.582	-1.42	-1.42	.00327	.000	1
CalStd9=100	1000.0	1034.4	34.4	3.44	.03442	.000	1
CalStd3=1	1.0000	1.1575	.158	15.8	.00003	.000	1
CalStd10=10	10000.	9964.6	-35.4	-.354	.33209	.002	1

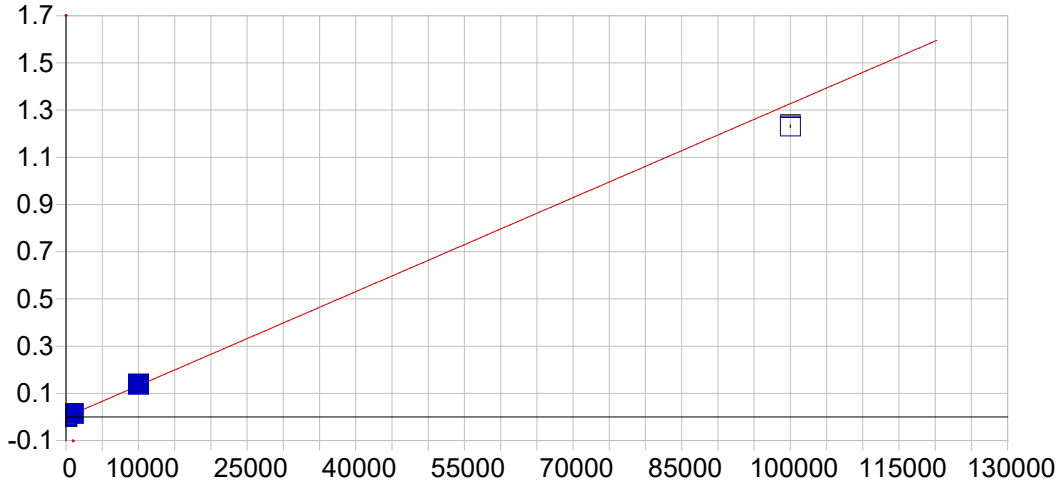


Co 238.892 {141}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.395165		
Predicted MQL:	1.317217		

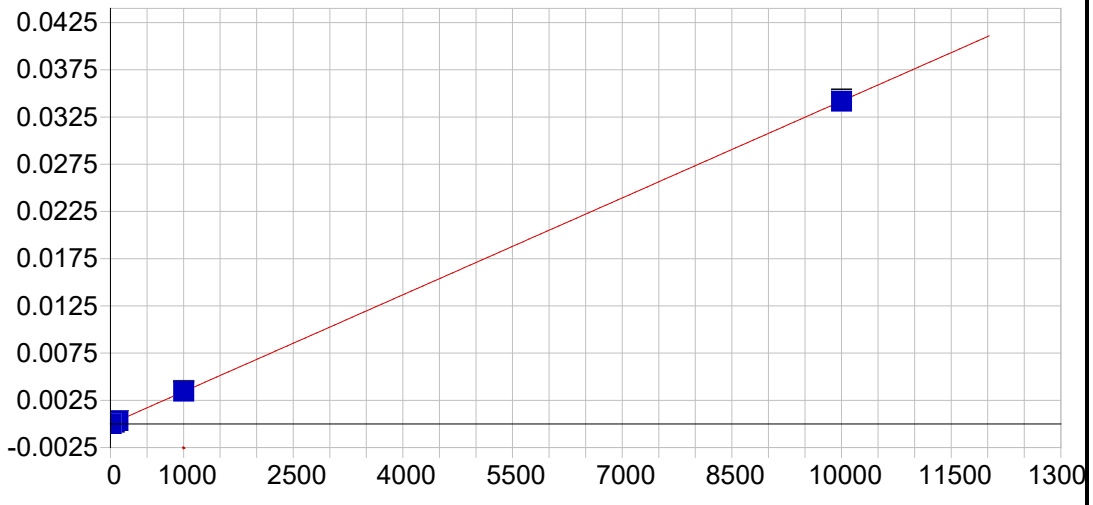
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.17886	.179	.000	-.00000	.000	1
CalStd9=100	1000.0	1030.9	30.9	3.09	.00172	.000	1
CalStd10=10	10000.	10009.	9.34	.093	.01675	.000	1
CalStd8=100	100.00	98.310	-1.69	-1.69	.00016	.000	1



Cr 205.560 {464}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000013		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998106		Status:	OK.	
Std Error of Est:	0.000036				
Predicted MDL:	0.355905				
Predicted MQL:	1.186350				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.93128	-.931	.000	-.00001	.000	1
CalStd5=10	10.000	10.020	.020	.202	.00014	.000	1
CalStd7=50	50.000	52.709	2.71	5.42	.00071	.000	1
CalStd9=100	1000.0	1078.1	78.1	7.81	.01432	.000	1
CalStd8=100	100.00	100.81	.814	.814	.00134	.000	1
CalStd4=5	5.0000	4.5963	-.404	-8.07	.00007	.000	1
CalStd3=1	1.0000	.70605	-.294	-29.4	.00002	.000	1
CalStd10=10	10000.	10349.	349.	3.49	.13737	.001	1
CalStd12=10	100000.	92815.	-7180.	-7.18	1.2320	.005	1

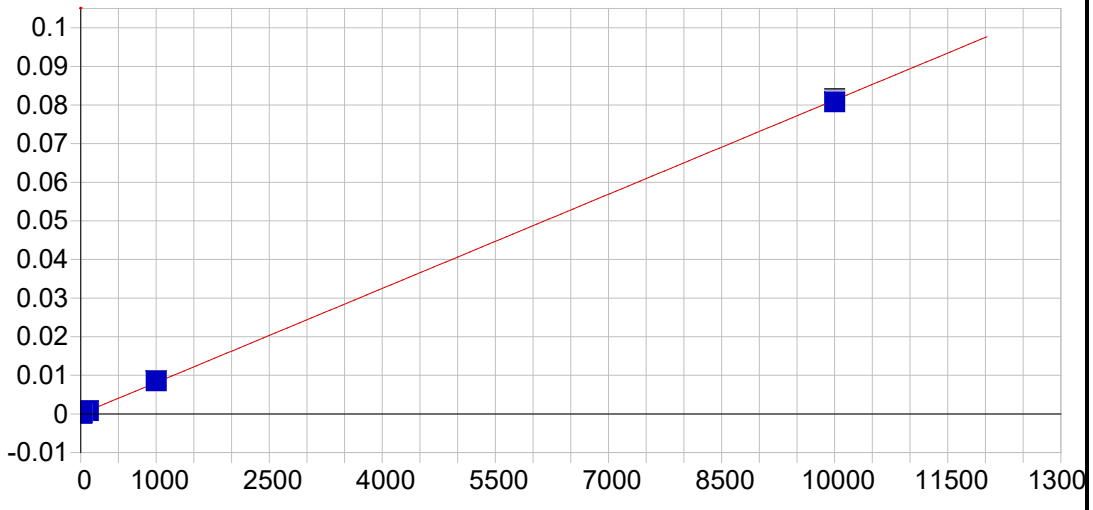


Cr 267.716 {126}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.304060		
Predicted MQL:	1.013535		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00006	-.000	.000	-.00000	.000	1
CalStd5=10	10.000	10.024	.024	.244	.00003	.000	1
CalStd7=50	50.000	49.792	-.208	-.416	.00017	.000	1
CalStd9=100	1000.0	1012.9	12.9	1.29	.00346	.000	1
CalStd8=100	100.00	95.496	-4.50	-4.50	.00032	.000	1
CalStd4=5	5.0000	5.2377	.238	4.75	.00001	.000	1
CalStd10=10	10000.	9991.6	-8.41	-.084	.03417	.000	1

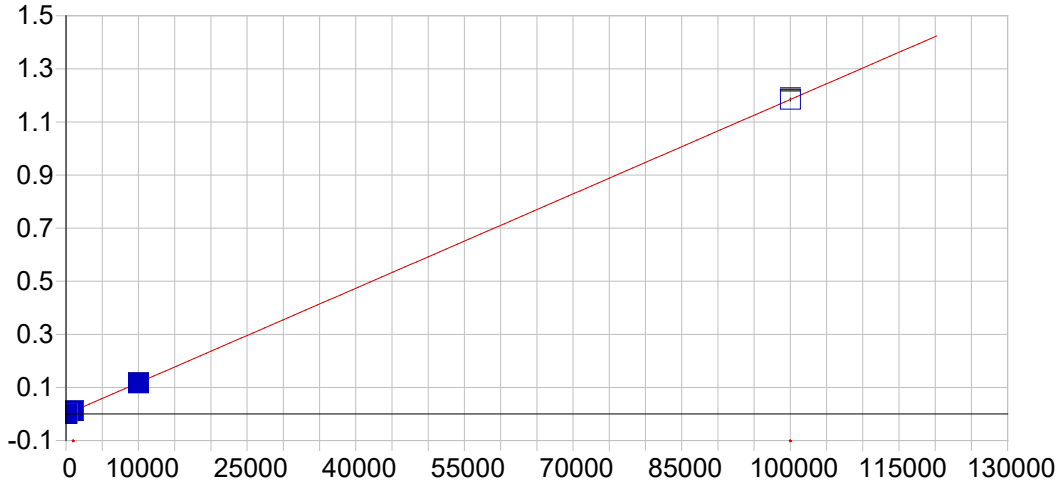


Cu 223.008 {451}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999804	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.967824		
Predicted MQL:	3.226080		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00550	-.005	.000	-.00001	.000	1
CalStd9=100	1000.0	1049.2	49.2	4.92	.00855	.000	1
CalStd8=100	100.00	102.48	2.48	2.48	.00083	.000	1
CalStd6=20	20.000	23.790	3.79	19.0	.00019	.000	1
CalStd5=10	10.000	12.919	2.92	29.2	.00010	.000	1
CalStd10=10	10000.	9941.6	-58.4	-.584	.08111	.000	1

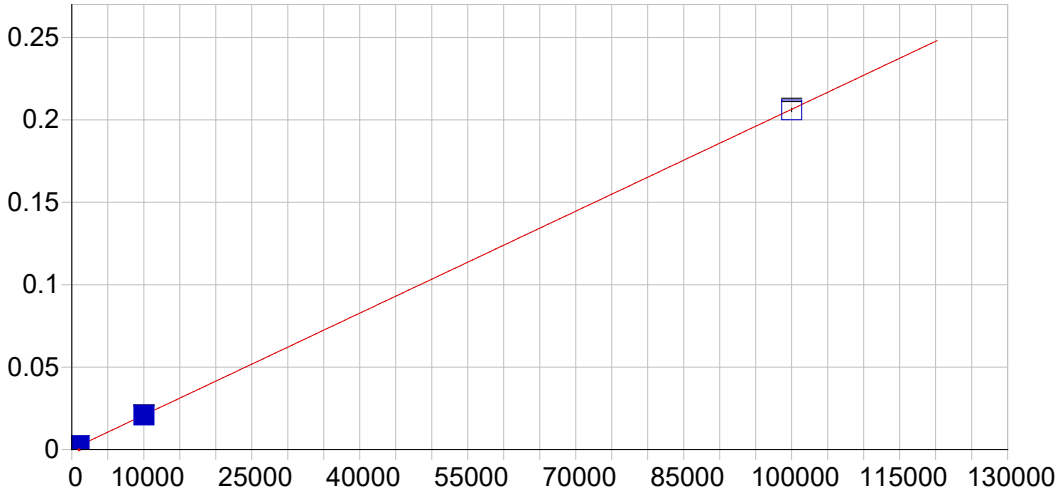


Cu 224.700 {450}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000567	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000653		
Predicted MDL:	0.317005		
Predicted MQL:	1.056685		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	47.537	47.5	.000	-.00000	.000	1
CalStd9=100	1000.0	1019.0	19.0	1.90	.01146	.000	1
CalStd7=50	50.000	58.595	8.59	17.2	.00013	.000	1
CalStd8=100	100.00	88.349	-11.7	-11.7	.00047	.000	1
CalStd6=20	20.000	52.013	32.0	160.	.00005	.000	1
CalStd12=10	100000.	100010.	10.4	.010	1.1847	.006	1
CalStd10=10	10000.	9894.1	-106.	-1.06	.11623	.001	1

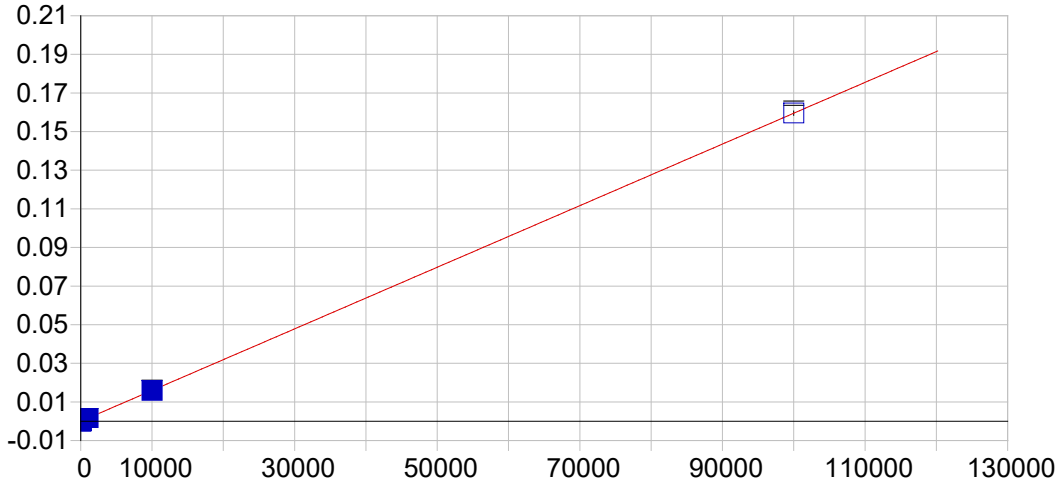


Cu 324.754 {104}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000257	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	6.601027		
Predicted MQL:	22.003423		

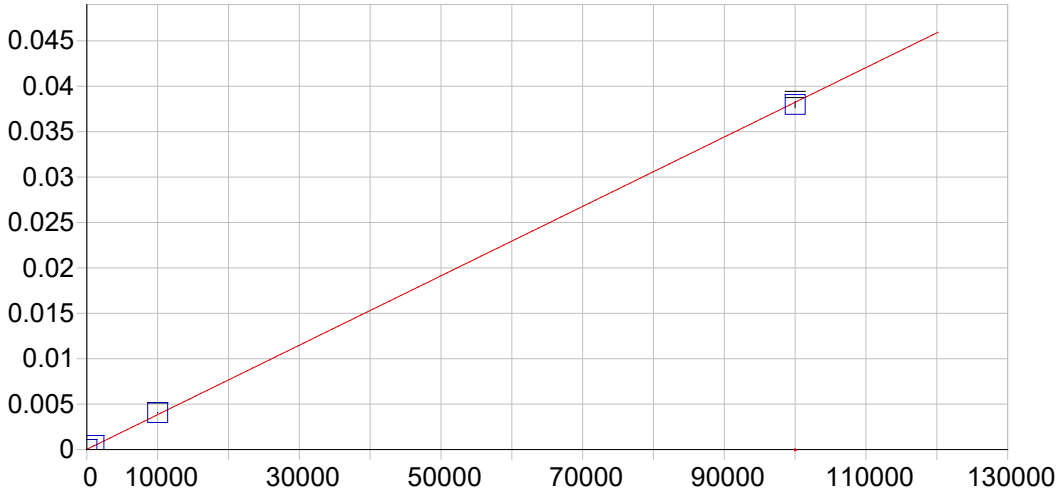
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.8616	2.86	.000	.00026	.000	1
CalStd9=100	1000.0	1002.2	2.18	.218	.00232	.000	1
CalStd8=100	100.00	94.011	-5.99	-5.99	.00045	.000	1
CalStd10=10	10000.	10003.	3.42	.034	.02088	.000	1
CalStd12=10	100000.	99801.	-199.	-.199	.20604	.001	1
CalStd5=10	10.000	7.6381	-2.36	-23.6	.00027	.000	1
CalStd6=20	20.000	13.862	-6.14	-30.7	.00029	.000	1
CalStd7=50	50.000	52.594	2.59	5.19	.00037	.000	1



Cu 327.396 {103}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000012		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999973		Status:	OK.	
Std Error of Est:	0.000010				
Predicted MDL:	14.281262				
Predicted MQL:	47.604208				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.4815	-4.48	.000	-.00002	.000	1
CalStd6=20	20.000	20.558	.558	2.79	.00002	.000	1
CalStd7=50	50.000	57.178	7.18	14.4	.00008	.000	1
CalStd8=100	100.00	93.290	-6.71	-6.71	.00014	.000	1
CalStd9=100	1000.0	1013.0	13.0	1.30	.00160	.000	1
CalStd10=10	10000.	9972.4	-27.6	-.276	.01589	.000	1
CalStd4=5	5.0000	5.3518	.352	7.04	-.00000	.000	1
CalStd5=10	10.000	7.4647	-2.54	-25.4	-.00000	.000	1
CalStd12=10	100000.	100030.	31.1	.031	.15957	.001	1

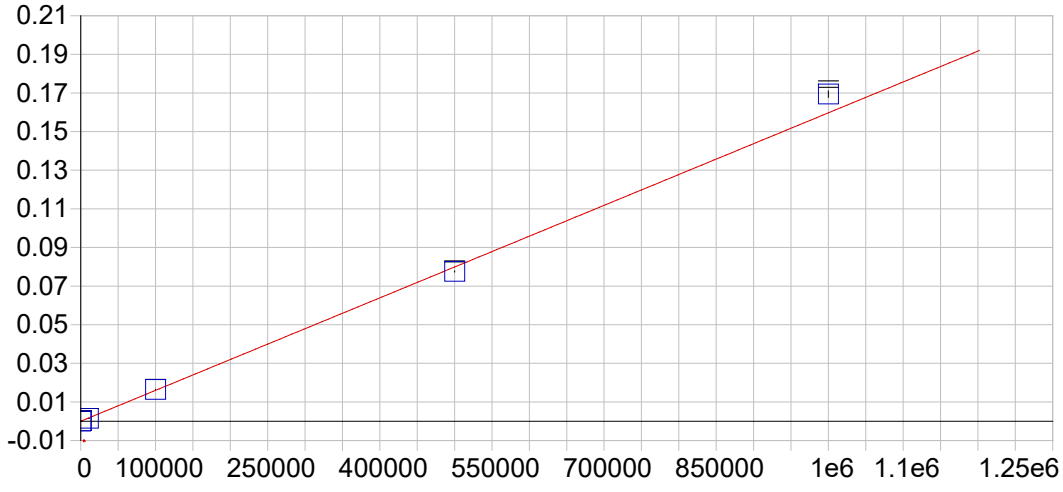


Fe 234.349 {144}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999807	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.885375		
Predicted MQL:	2.951249		

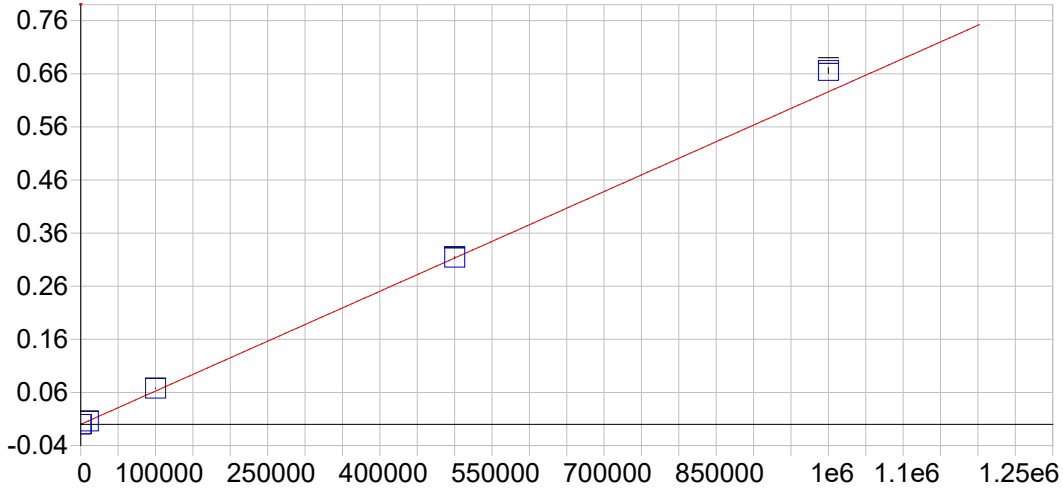
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.13960	-.140	.000	.00002	.000	1
CalStd10=10	10000.	10551.	551.	5.51	.00405	.000	1
CalStd13=10	100000.	99358.	-642.	-.642	.03799	.000	1
CalStd9=100	1000.0	1090.9	90.9	9.09	.00044	.000	1



Fe 239.562 {140}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	-0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999336		Status:	OK.	
Std Error of Est:	0.000079				
Predicted MDL:	29.858167				
Predicted MQL:	99.527223				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	72.652	72.7	.000	.00001	.000	1
CalStd10=10	10000.	9140.2	-860.	-8.60	.00146	.000	1
CalStd13=10	100000.	102990.	2990.	2.99	.01645	.000	1
CalStd14=50	500000.	485460.	-14500.	-2.91	.07754	.000	1
CalStd9=100	1000.0	1009.6	9.59	.959	.00016	.000	1
CalibStd15=	1000000.	1060300.	60300.	6.03	.16936	.002	1

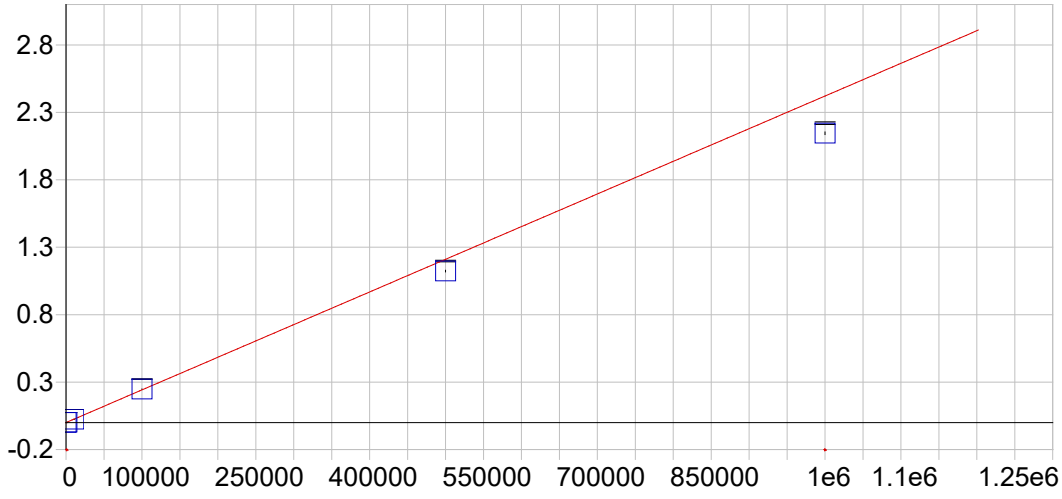


Fe 259.940 {129}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999743	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	12.333426		
Predicted MQL:	41.111420		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01148	.011	.000	.00000	.000	1
CalStd10=10	10000.	9585.0	-415.	-4.15	.00600	.000	1
CalStd13=10	100000.	107990.	7990.	7.99	.06761	.000	1
CalStd14=50	500000.	502130.	2130.	.426	.31438	.001	1
CalStd9=100	1000.0	976.03	-24.0	-2.40	.00061	.000	1
CalibStd15=	1000000.	1063800.	63800.	6.38	.66602	.005	1

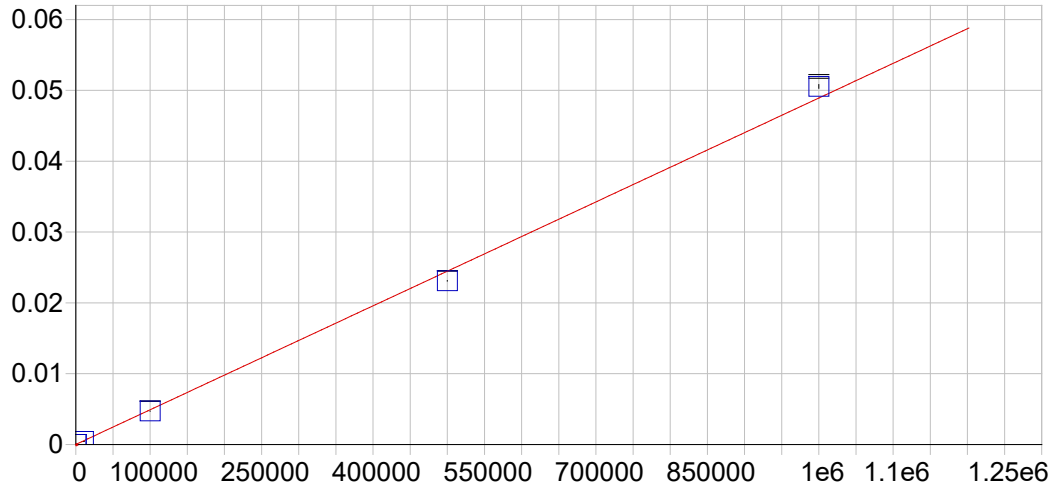


Mg 202.582 {466}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999911	Status:	OK.
Std Error of Est:	0.000053		
Predicted MDL:	2.420581		
Predicted MQL:	8.068603		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.15141	-.151	.000	-.00002	.000	1
CalStd13=10	100000.	102290.	2290.	2.29	.24767	.001	1
CalStd10=10	10000.	10187.	187.	1.87	.02465	.000	1
CalStd14=50	500000.	463880.	-36100.	-7.22	1.1232	.006	1
CalStd9=100	1000.0	1107.5	107.	10.7	.00267	.000	1
CalibStd15=	1000000.	885940.	-114000.	-11.4	2.1452	.010	1

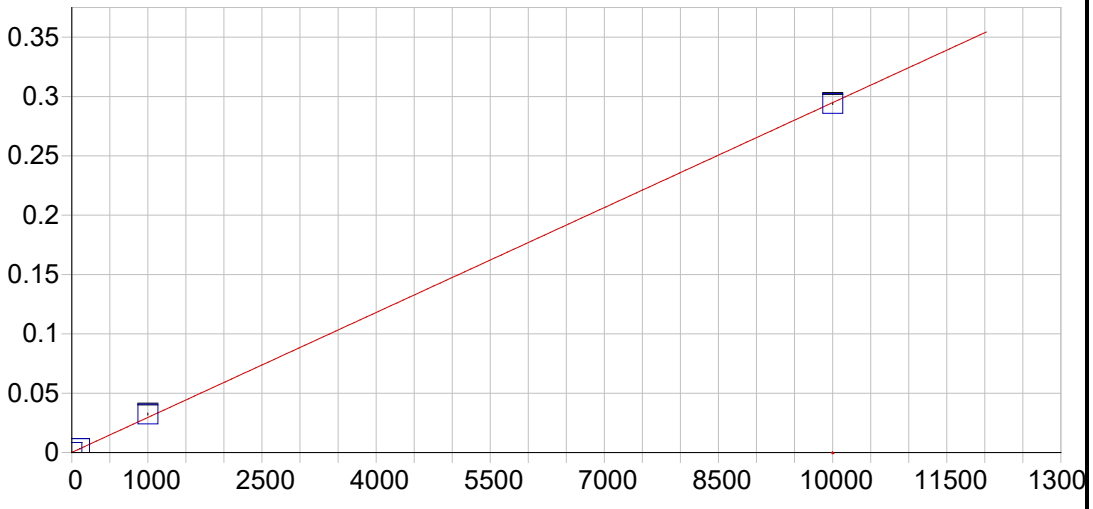


Mg 279.079 {121}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000019	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999038	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	88.236497		
Predicted MQL:	294.121655		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.41107	.411	.000	.00002	.000	1
CalStd13=10	100000.	96144.	-3860.	-3.86	.00472	.000	1
CalStd10=10	10000.	8390.2	-1610.	-16.1	.00043	.000	1
CalStd14=50	500000.	472230.	-27800.	-5.55	.02311	.000	1
CalStd9=100	1000.0	810.59	-189.	-18.9	.00006	.000	1
CalibStd15=	1000000.	1033400.	33400.	3.34	.05056	.000	1

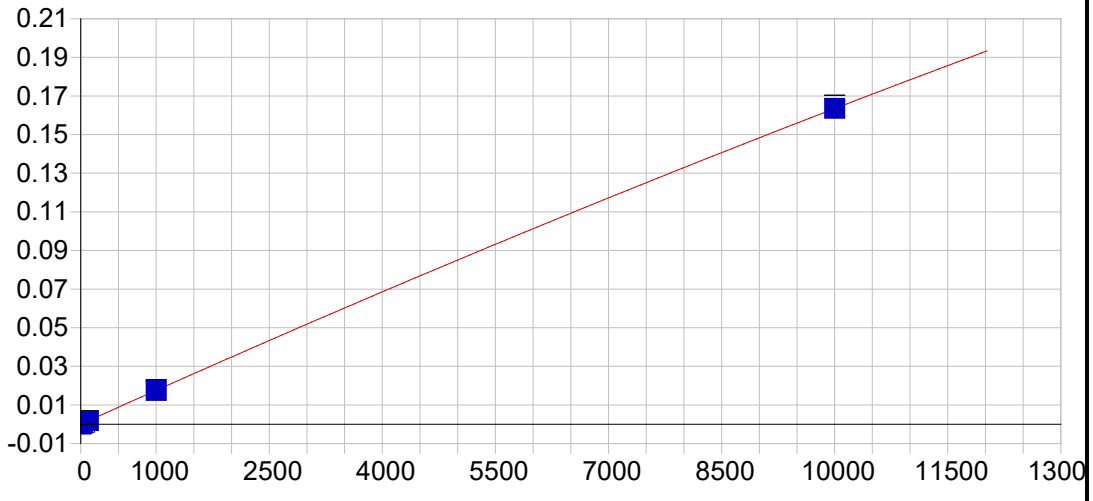


Mg 280.270 {120}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000101	Re-Slope:	1.000000
A1 (Gain):	0.000029	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999912	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.020461		
Predicted MQL:	0.068203		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00330	-.003	.000	.00010	.000	1
CalStd9=100	1000.0	1096.5	96.5	9.65	.03242	.001	1
CalStd10=10	10000.	9974.3	-25.7	-.257	.29408	.001	1
CalStd8=100	100.00	105.22	5.22	5.22	.00320	.000	1

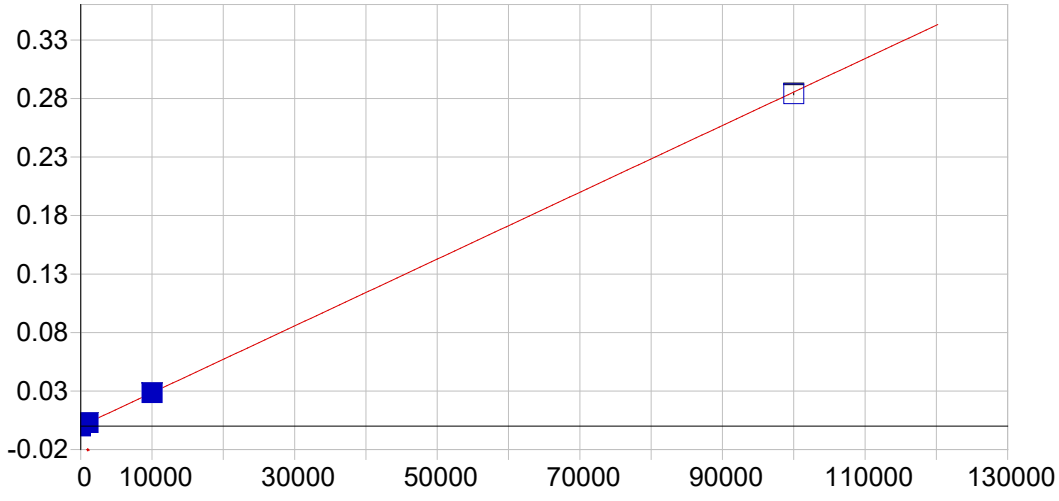


Mn 257.610 {131}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999830	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.039905		
Predicted MQL:	0.133015		

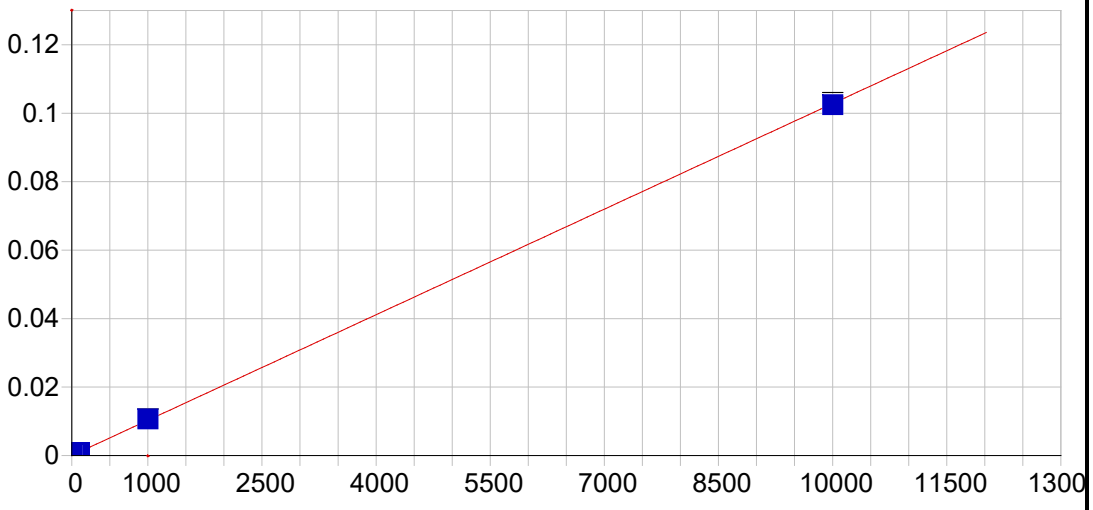
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01465	-.015	.000	-.00000	.000	1
CalStd5=10	10.000	10.003	.003	.028	.00018	.000	1
CalStd7=50	50.000	49.821	-.179	-.358	.00088	.000	1
CalStd6=20	20.000	20.324	.324	1.62	.00036	.000	1
CalStd8=100	100.00	93.806	-6.19	-6.19	.00166	.000	1
CalStd4=5	5.0000	5.0988	.099	1.98	.00009	.000	1
CalStd9=100	1000.0	991.23	-8.77	-.877	.01738	.000	1
CalStd10=10	10000.	10005.	4.87	.049	.16357	.002	1



Mn 259.373 {130}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999998		Status:	OK.	
Std Error of Est:	0.000012				
Predicted MDL:	2.562507				
Predicted MQL:	8.541689				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.29545	-.295	.000	.00000	.000	1
CalStd10=10	10000.	9950.7	-49.3	-.493	.02843	.000	1
CalStd9=100	1000.0	1009.1	9.07	.907	.00289	.000	1
CalStd12=10	100000.	99449.	-551.	-.551	.28397	.001	1

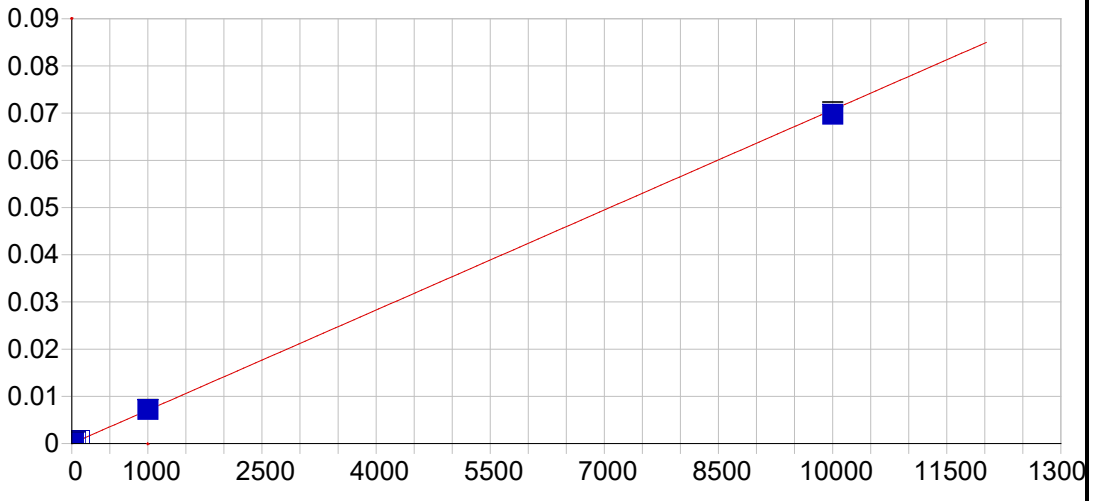


Mo 202.030 {466}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000019	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.491557		
Predicted MQL:	1.638523		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00080	-.001	.000	.00002	.000	1
CalStd7=50	50.000	50.872	.872	1.74	.00054	.000	1
CalStd6=20	20.000	21.045	1.04	5.22	.00024	.000	1
CalStd5=10	10.000	10.514	.514	5.14	.00013	.000	1
CalStd8=100	100.00	96.637	-3.36	-3.36	.00101	.000	1
CalStd4=5	5.0000	5.2054	.205	4.11	.00007	.000	1
CalStd9=100	1000.0	1034.9	34.9	3.49	.01066	.000	1
CalStd10=10	10000.	9965.9	-34.1	-.341	.10252	.001	1

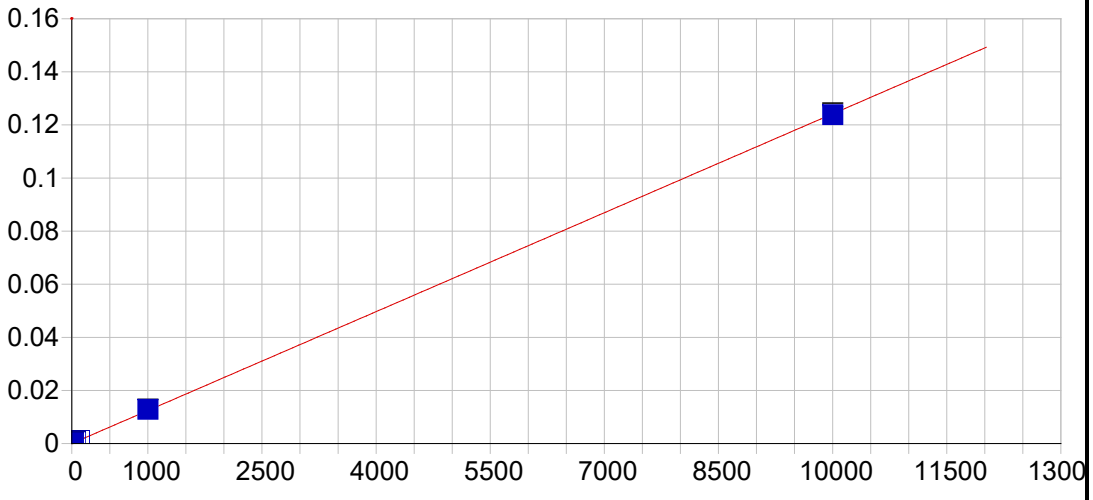


Mo 204.598 {464}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999721	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.788306		
Predicted MQL:	2.627687		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.34947	.349	.000	.00001	.000	1
CalStd7=50	50.000	49.983	-.017	-.034	.00036	.000	1
CalStd6=20	20.000	20.647	.647	3.23	.00015	.000	1
CalStd5=10	10.000	10.023	.023	.226	.00008	.000	1
CalStd8=100	100.00	94.065	-5.94	-5.94	.00067	.000	1
CalStd4=5	5.0000	5.4139	.414	8.28	.00004	.000	1
CalStd9=100	1000.0	1016.2	16.2	1.62	.00719	.000	1
CalStd10=10	10000.	9864.5	-135.	-1.35	.06974	.000	1

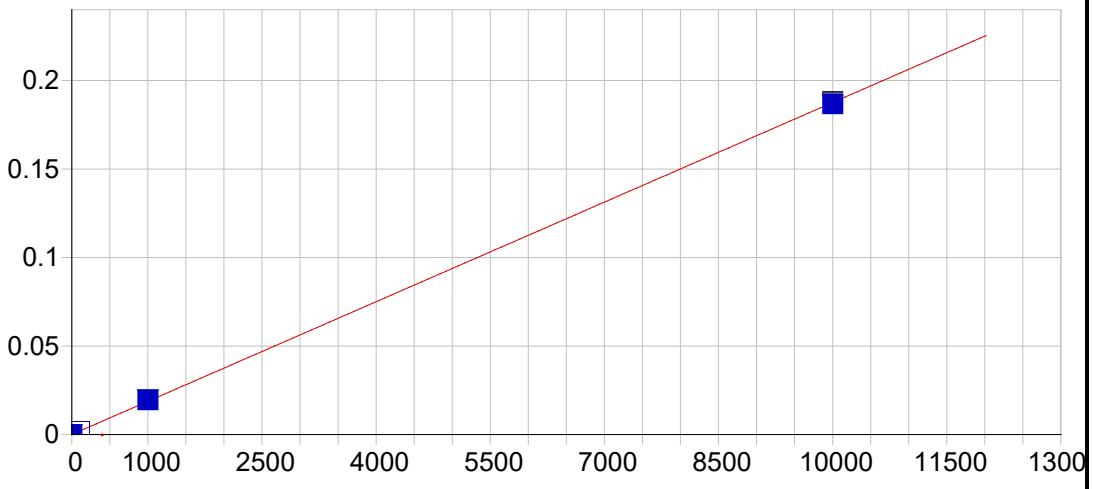


Mo 202.030 {467}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.377271		
Predicted MQL:	1.257568		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00098	-.001	.000	.00002	.000	1
CalStd7=50	50.000	51.298	1.30	2.60	.00065	.000	1
CalStd6=20	20.000	21.217	1.22	6.09	.00028	.000	1
CalStd5=10	10.000	10.517	.517	5.17	.00015	.000	1
CalStd8=100	100.00	96.750	-3.25	-3.25	.00122	.000	1
CalStd4=5	5.0000	5.3085	.308	6.17	.00008	.000	1
CalStd9=100	1000.0	1031.7	31.7	3.17	.01283	.000	1
CalStd10=10	10000.	9968.2	-31.8	-.318	.12378	.001	1

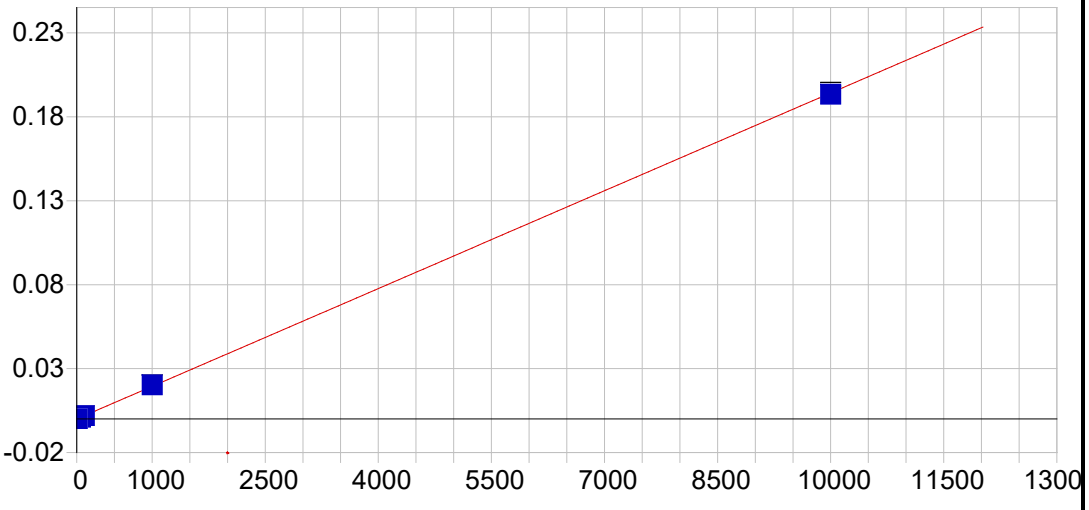


Ni 221.647 {452}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000019	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999913	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.453599		
Predicted MQL:	1.511998		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00252	-.003	.000	.00001	.000	1
CalStd10=10	10000.	9959.4	-40.6	-.406	.18681	.001	1
CalStd8=100	100.00	98.740	-1.26	-1.26	.00186	.000	1
CalStd9=100	1000.0	1041.8	41.8	4.18	.01955	.000	1

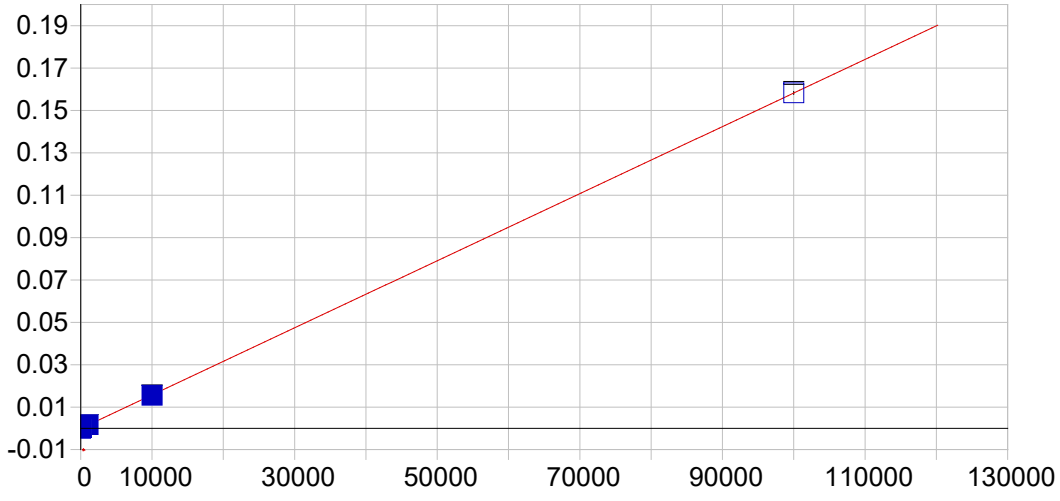


Ni 231.604 {445}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000019	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999903	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.425931		
Predicted MQL:	1.419769		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00010	.000	.000	-.00001	.000	1
CalStd7=50	50.000	52.343	2.34	4.69	.00101	.000	1
CalStd5=10	10.000	10.111	.111	1.11	.00018	.000	1
CalStd8=100	100.00	99.404	-.596	-.596	.00192	.000	1
CalStd4=5	5.0000	4.8448	-.155	-3.10	.00008	.000	1
CalStd9=100	1000.0	1042.7	42.7	4.27	.02022	.000	1
CalStd3=1	1.0000	.83619	-.164	-16.4	.00000	.000	1
CalStd10=10	10000.	9955.8	-44.2	-.442	.19350	.001	1

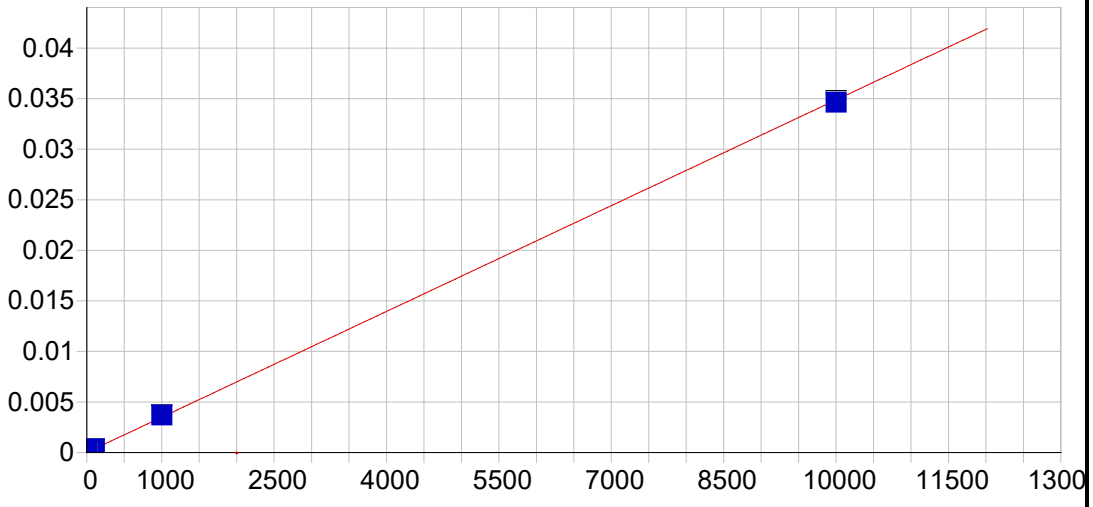


Pb 216.999 {455}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000038	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000133		
Predicted MDL:	4.238819		
Predicted MQL:	14.129398		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	24.249	24.2	.000	-.00000	.000	1
CalStd9=100	1000.0	1062.7	62.7	6.27	.00165	.000	1
CalStd10=10	10000.	9850.3	-150.	-1.50	.01560	.000	1
CalStd8=100	100.00	122.49	22.5	22.5	.00016	.000	1
CalStd5=10	10.000	35.905	25.9	259.	.00002	.000	1
CalStd12=10	100000.	100010.	14.4	.014	.15827	.001	1

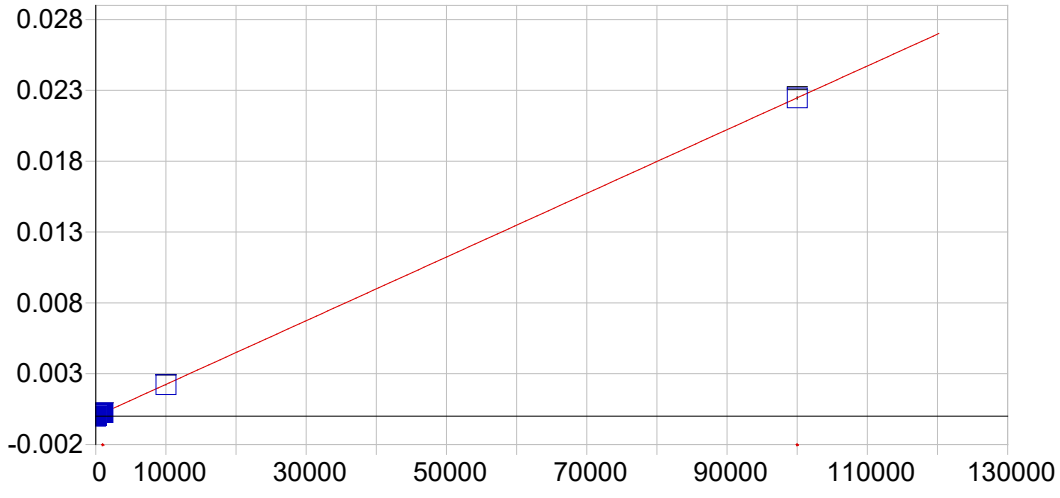


Pb 220.353 {453}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999765	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.393109		
Predicted MQL:	7.977030		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00286	-.003	.000	.00001	.000	1
CalStd5=10	10.000	12.844	2.84	28.4	.00005	.000	1
CalStd8=100	100.00	103.30	3.30	3.30	.00037	.000	1
CalStd4=5	5.0000	6.0006	1.00	20.0	.00003	.000	1
CalStd9=100	1000.0	1060.4	60.4	6.04	.00371	.000	1
CalStd10=10	10000.	9932.5	-67.5	-.675	.03465	.000	1

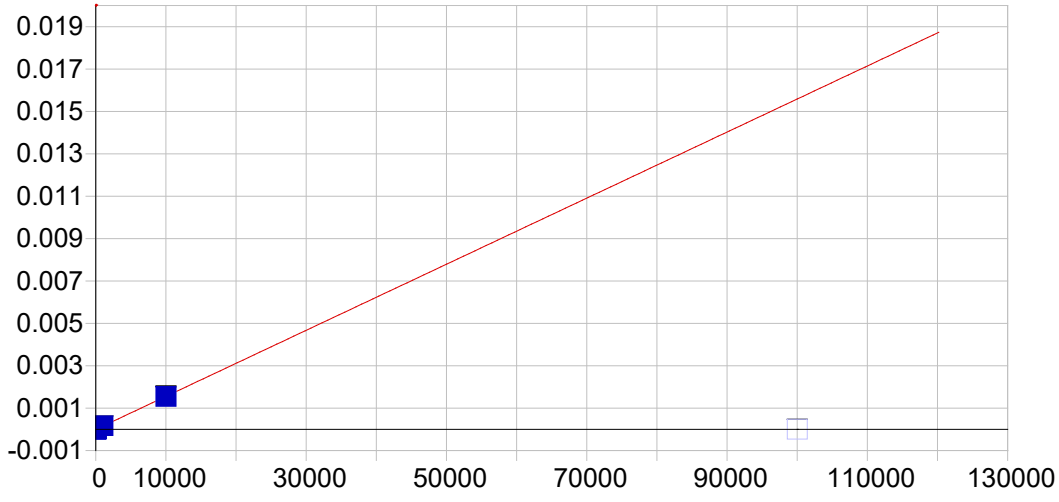


Pb 216.999 {456}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	14.758546		
Predicted MQL:	49.195153		

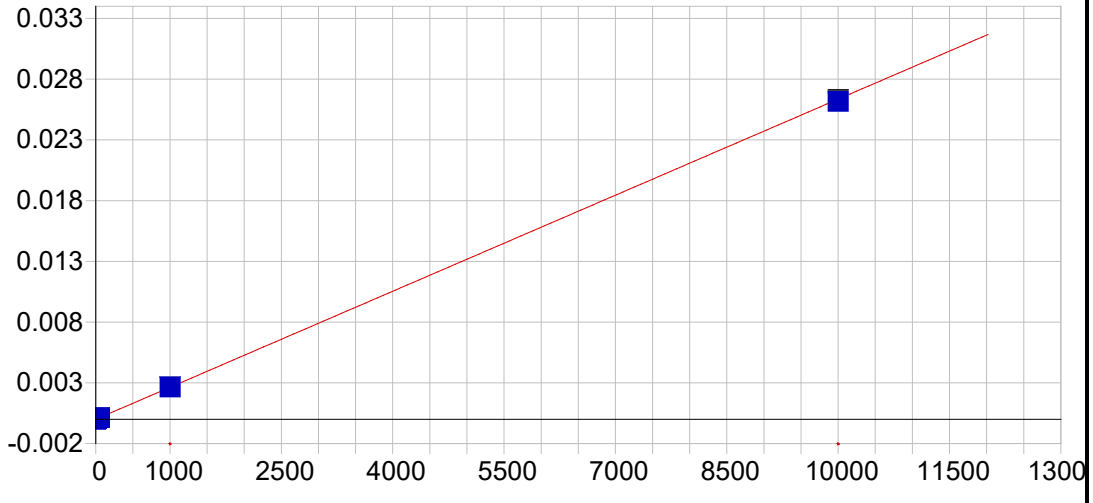
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.9242	1.92	.000	-.00000	.000	1
CalStd9=100	1000.0	1048.4	48.4	4.84	.00023	.000	1
CalStd10=10	10000.	9900.1	-99.9	-.999	.00222	.000	1
CalStd8=100	100.00	91.146	-8.85	-8.85	.00002	.000	1
CalStd5=10	10.000	14.123	4.12	41.2	.00000	.000	1
CalStd12=10	100000.	99937.	-62.7	-.063	.02246	.000	1



Pb 220.353 {153}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999954		Status:	OK.	
Std Error of Est:	0.000003				
Predicted MDL:	41.443505				
Predicted MQL:	138.145017				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.7326	-7.73	.000	-.00001	.000	1
CalStd9=100	1000.0	1024.1	24.1	2.41	.00016	.000	1
CalStd10=10	10000.	9973.2	-26.8	-.268	.00155	.000	1
CalStd8=100	100.00	92.975	-7.03	-7.03	.00001	.000	1
CalStd12=10	100000.	-----	-----	-----	.00000	-----	0

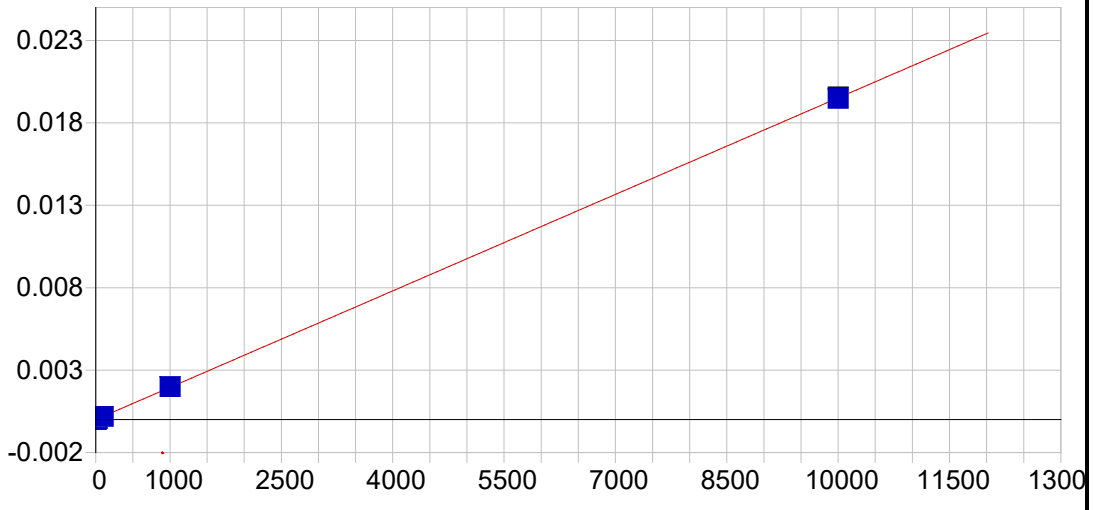


Sb 206.833 {463}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	2.118023		
Predicted MQL:	7.060076		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.1368	-2.14	.000	-.00001	.000	1
CalStd9=100	1000.0	1008.0	7.96	.796	.00266	.000	1
CalStd5=10	10.000	9.6626	-.337	-3.37	.00002	.000	1
CalStd7=50	50.000	50.411	.411	.823	.00013	.000	1
CalStd10=10	10000.	9926.6	-73.4	-.734	.02616	.000	1

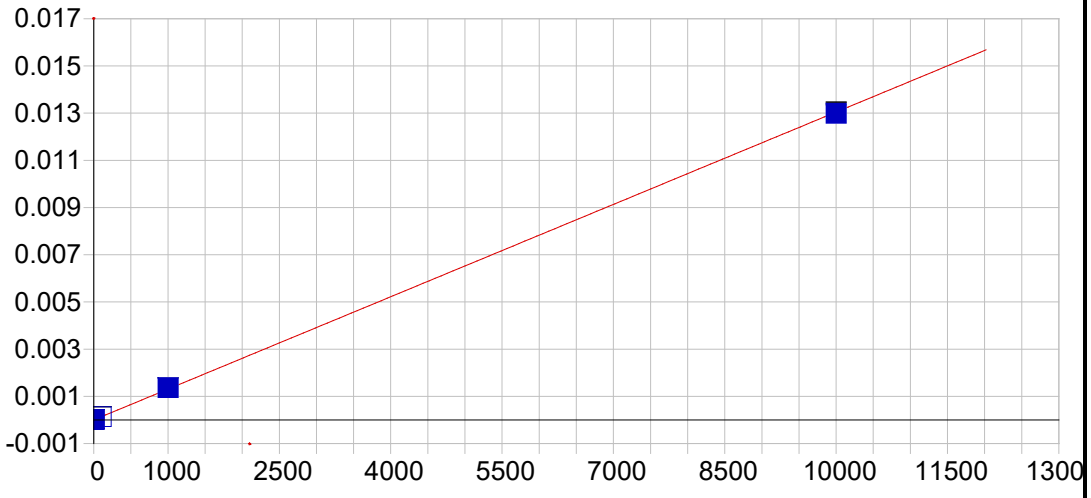


Sb 217.581 {455}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.943523		
Predicted MQL:	9.811743		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00119	-.001	.000	-.00000	.000	1
CalStd9=100	1000.0	1020.3	20.3	2.03	.00199	.000	1
CalStd6=20	20.000	20.742	.742	3.71	.00004	.000	1
CalStd5=10	10.000	10.201	.201	2.01	.00002	.000	1
CalStd8=100	100.00	95.729	-4.27	-4.27	.00019	.000	1
CalStd4=5	5.0000	6.0202	1.02	20.4	.00001	.000	1
CalStd10=10	10000.	9982.0	-18.0	-.180	.01948	.000	1

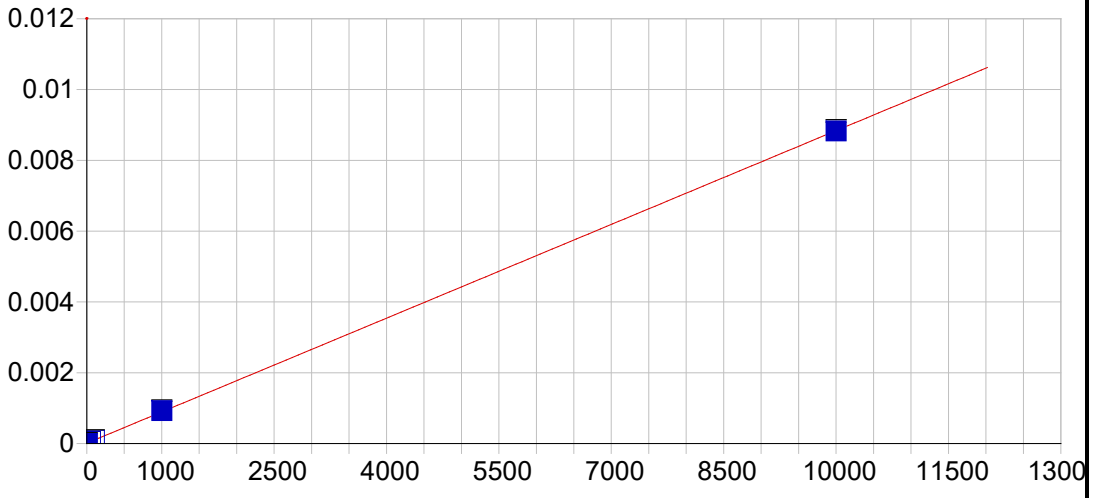


Se 196.090 {472}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.398459		
Predicted MQL:	11.328197		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00532	-.005	.000	.00000	.000	1
CalStd9=100	1000.0	1041.7	41.7	4.17	.00136	.000	1
CalStd5=10	10.000	14.991	4.99	49.9	.00002	.000	1
CalStd8=100	100.00	99.560	-.440	-.440	.00013	.000	1
CalStd10=10	10000.	9953.8	-46.2	-.462	.01299	.000	1

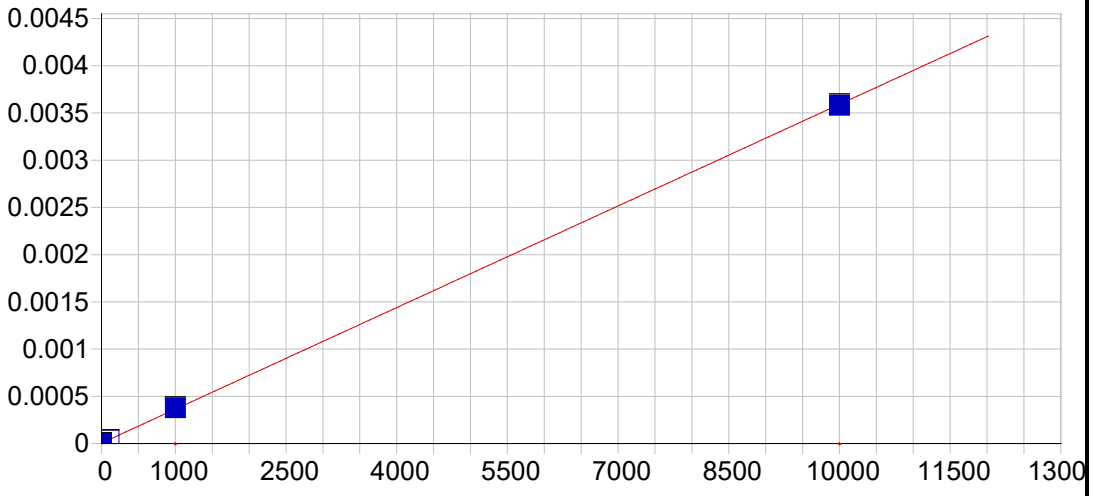


Se 203.985 {465}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	8.012049		
Predicted MQL:	26.706829		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	3.4822	3.48	.000	.00001	.000	1
CalStd7=50	50.000	52.813	2.81	5.63	.00006	.000	1
CalStd9=100	1000.0	1036.7	36.7	3.67	.00092	.000	1
CalStd5=10	10.000	5.8930	-4.11	-41.1	.00001	.000	1
CalStd8=100	100.00	102.13	2.13	2.13	.00010	.000	1
CalStd10=10	10000.	9986.4	-13.6	-.136	.00883	.000	1

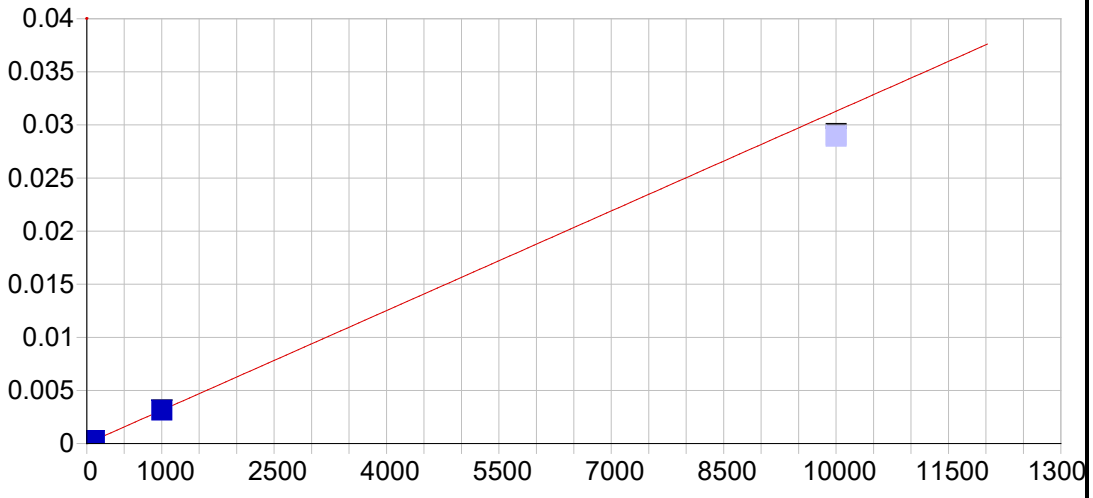


Se 206.279 {463}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	17.133181		
Predicted MQL:	57.110603		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00074	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1037.2	37.2	3.72	.00038	.000	1
CalStd10=10	10000.	9966.9	-33.1	-.331	.00358	.000	1
CalStd8=100	100.00	95.869	-4.13	-4.13	.00004	.000	1

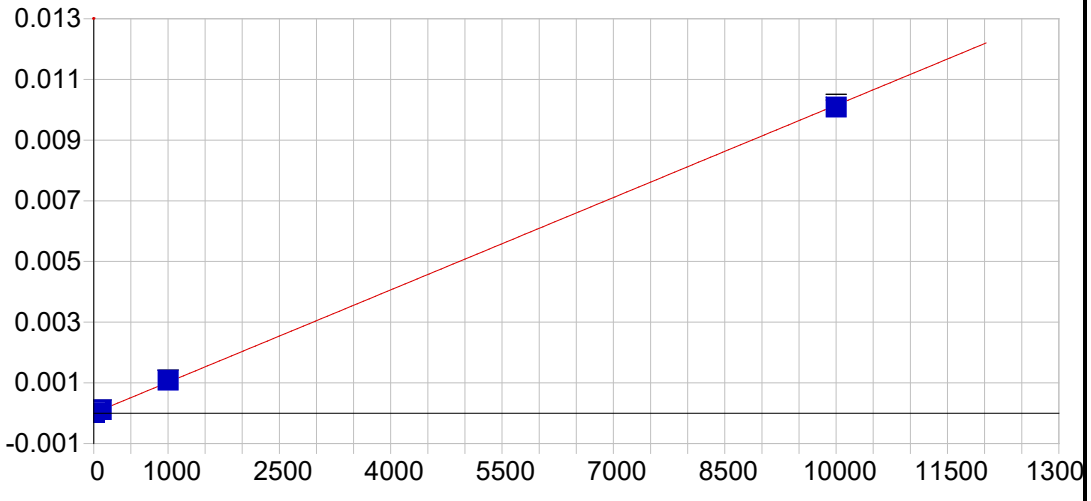


Tl 190.856 {476}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999927	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.792417		
Predicted MQL:	5.974724		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00008	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1003.5	3.54	.354	.00316	.000	1
CalStd8=100	100.00	96.197	-3.80	-3.80	.00031	.000	1
CalStd5=10	10.000	10.266	.266	2.66	.00004	.000	1
CalStd10=10	10000.	9237.8	-762.	-7.62	.02903	.000	0

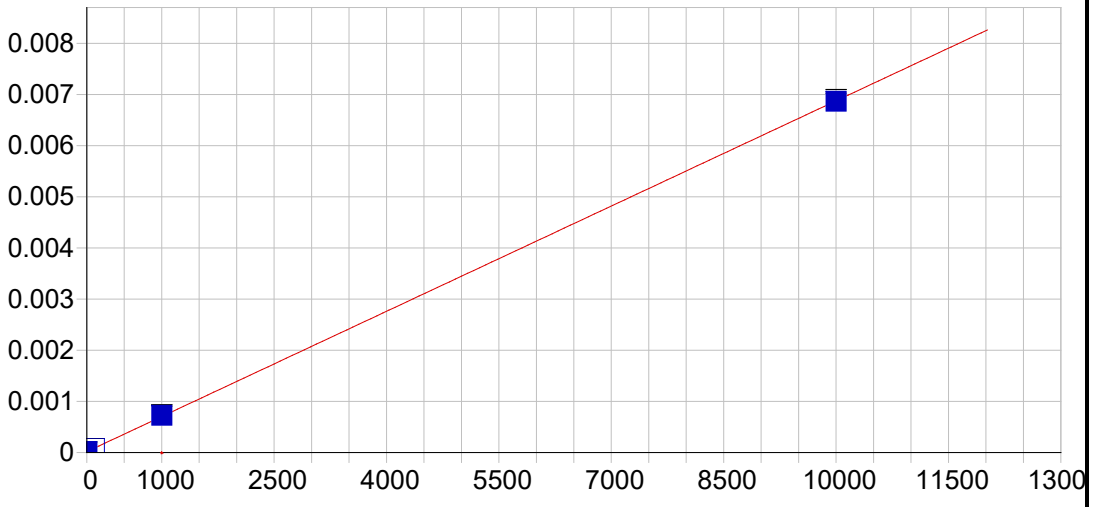


Tl 190.856 {477}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999779	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.153126		
Predicted MQL:	13.843754		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00019	-.000	.000	.00001	.000	1
CalStd9=100	1000.0	1066.7	66.7	6.67	.00109	.000	1
CalStd8=100	100.00	99.195	-.805	-.805	.00011	.000	1
CalStd5=10	10.000	9.6653	-.335	-3.35	.00001	.000	1
CalStd10=10	10000.	9934.3	-65.7	-.657	.01008	.000	1

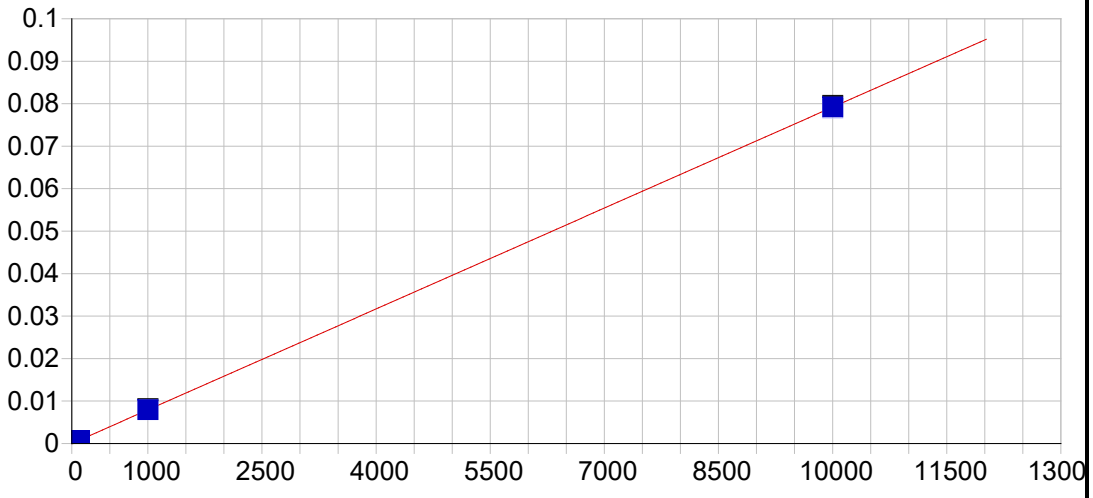


V 290.882 {116}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	14.097804		
Predicted MQL:	46.992681		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.9574	2.96	.000	.00002	.000	1
CalStd9=100	1000.0	1033.8	33.8	3.38	.00073	.000	1
CalStd10=10	10000.	9982.3	-17.7	-.177	.00687	.000	1
CalStd8=100	100.00	96.666	-3.33	-3.33	.00008	.000	1

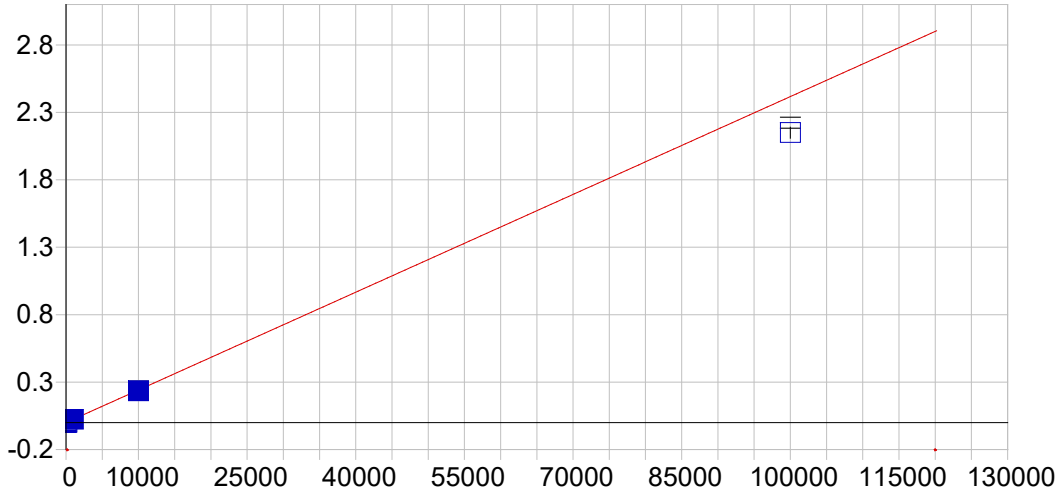


V 292.402 {115}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.253943		
Predicted MQL:	0.846477		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00074	.001	.000	.00001	.000	1
CalStd7=50	50.000	49.516	-.484	-.969	.00040	.000	1
CalStd9=100	1000.0	1001.7	1.67	.167	.00791	.000	1
CalStd6=20	20.000	20.122	.122	.610	.00017	.000	1
CalStd5=10	10.000	9.8636	-.136	-1.36	.00009	.000	1
CalStd8=100	100.00	94.084	-5.92	-5.92	.00075	.000	1
CalStd10=10	10000.	10005.	4.75	.047	.07892	.000	1

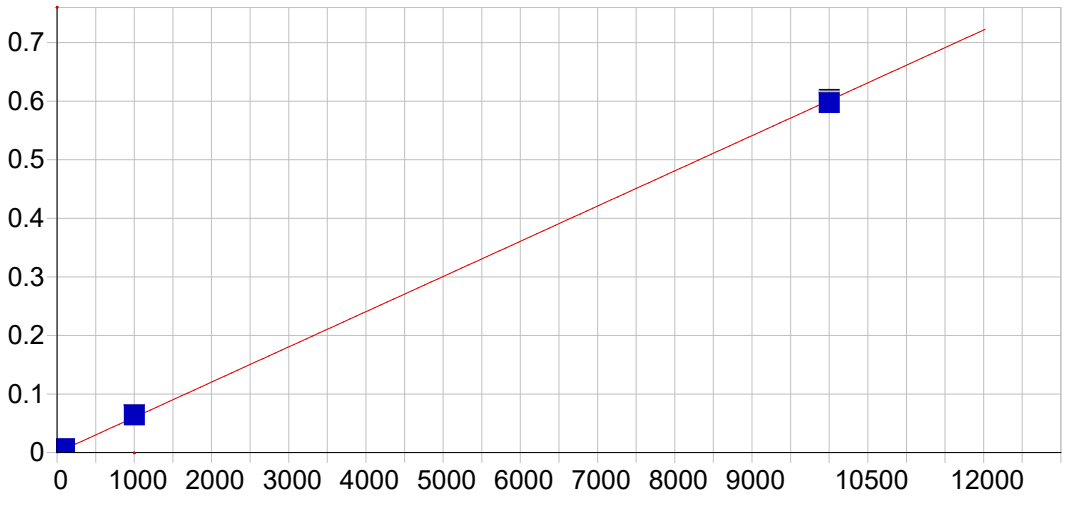


Zn 206.200 {463}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999518	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.236643		
Predicted MQL:	0.788811		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9717.3	-283.	-2.83	.23489	.001	1
Blank	.00000	-.21522	-.215	.000	-.00000	.000	1
CalStd9=100	1000.0	1022.2	22.2	2.22	.02471	.000	1
CalStd12=10	100000.	88932.	-11100.	-11.1	2.1496	.041	1
CalStd5=10	10.000	10.239	.239	2.39	.00025	.000	1
CalStd8=100	100.00	97.666	-2.33	-2.33	.00236	.000	1

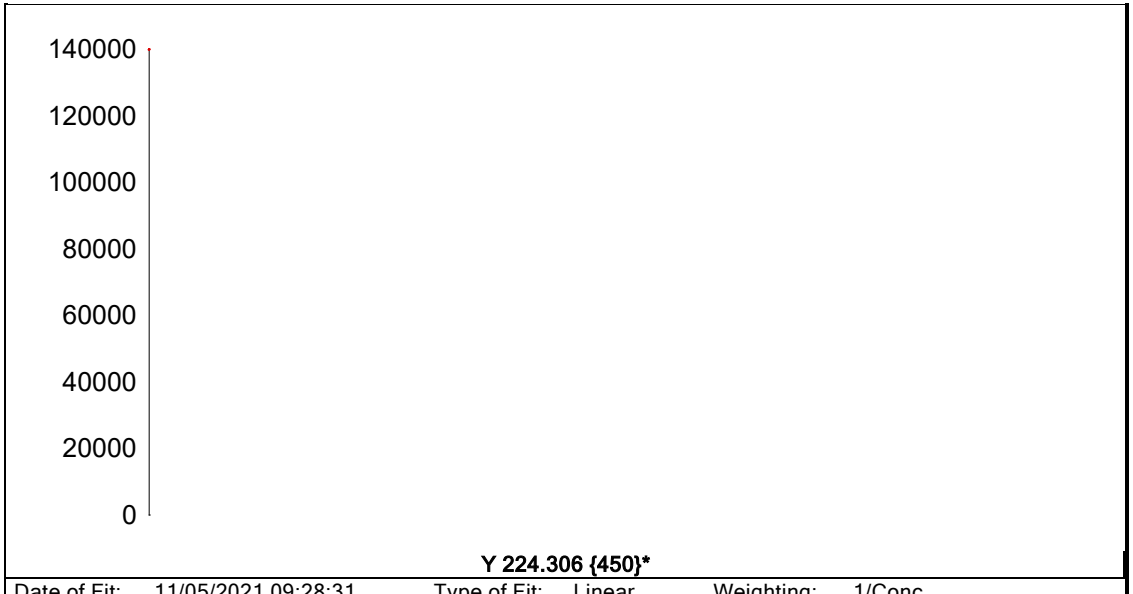


Zn 213.856 {457}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

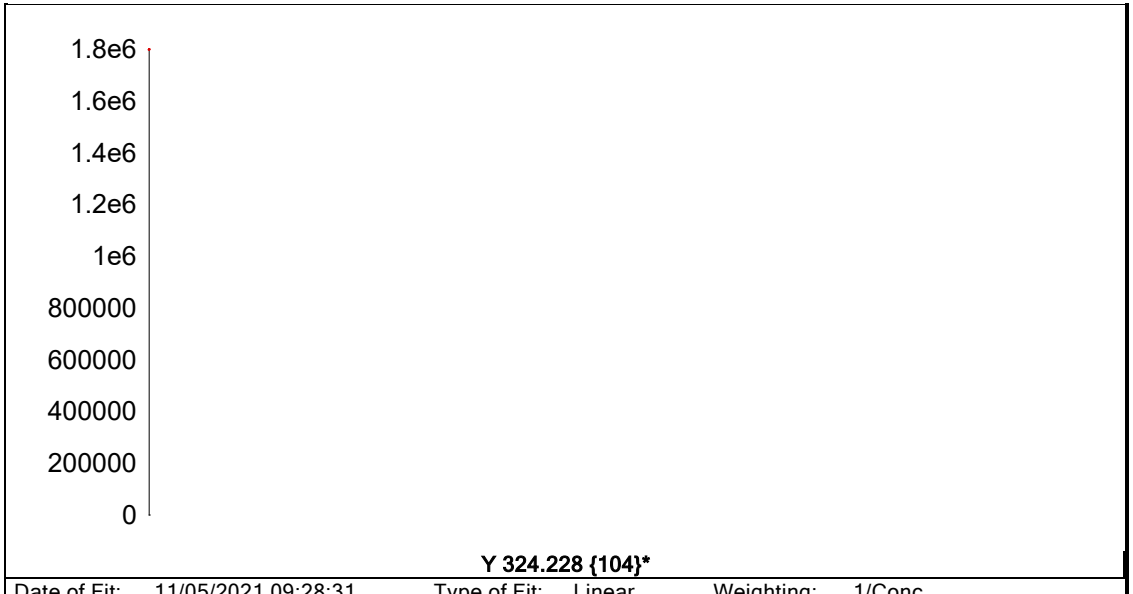
A0 (Offset):	0.000032	Re-Slope:	1.000000
A1 (Gain):	0.000060	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999789	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.112766		
Predicted MQL:	0.375887		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00197	-.002	.000	.00003	.000	1
CalStd9=100	1000.0	1063.7	63.7	6.37	.06426	.000	1
CalStd5=10	10.000	11.103	1.10	11.0	.00070	.000	1
CalStd8=100	100.00	102.97	2.97	2.97	.00625	.000	1
CalStd10=10	10000.	9932.2	-67.8	-.678	.59992	.003	1



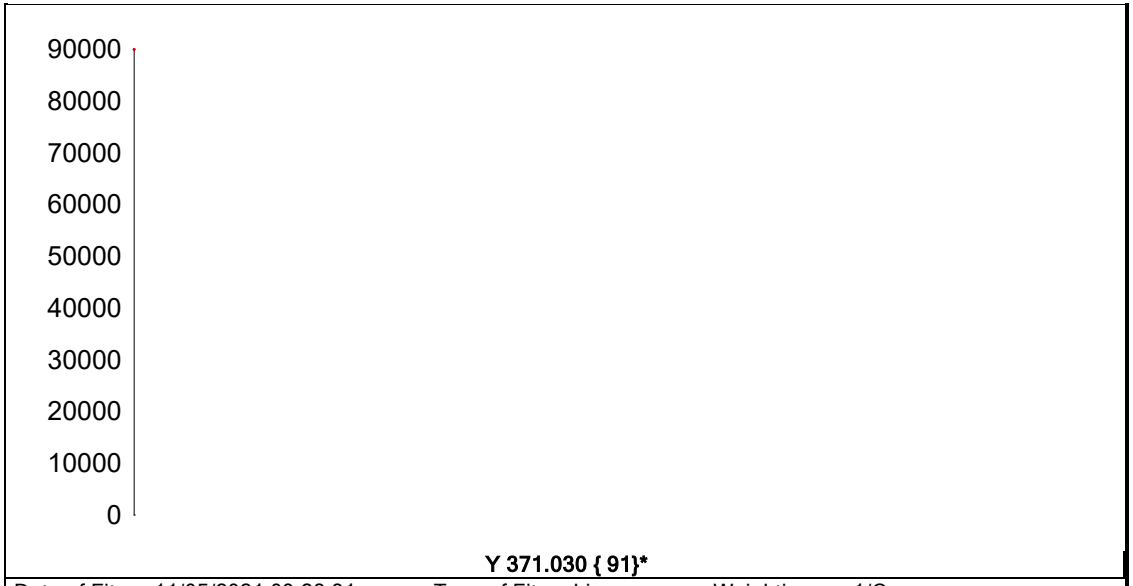
Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	126210.	128.	1



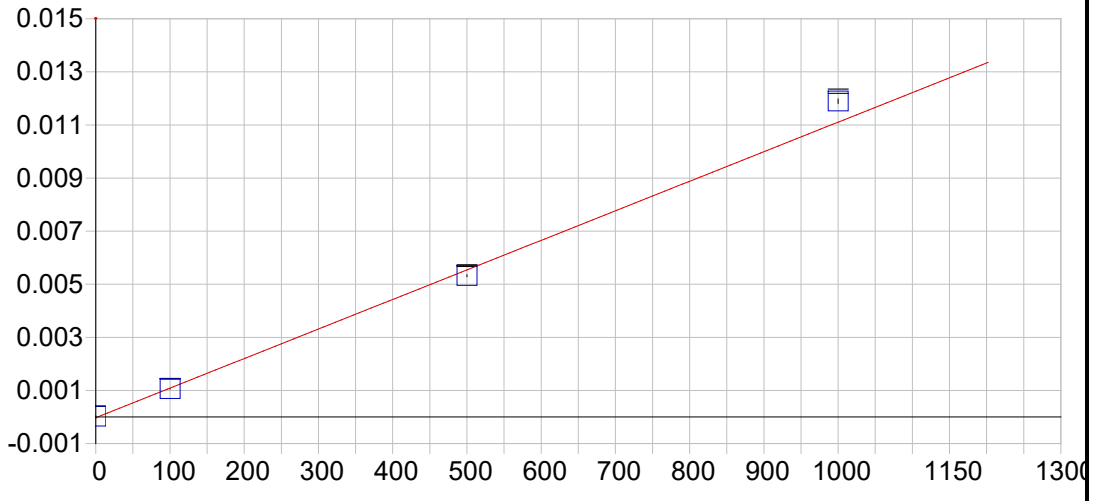
Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1665800.	8930.	1



Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	83540.	462.	1

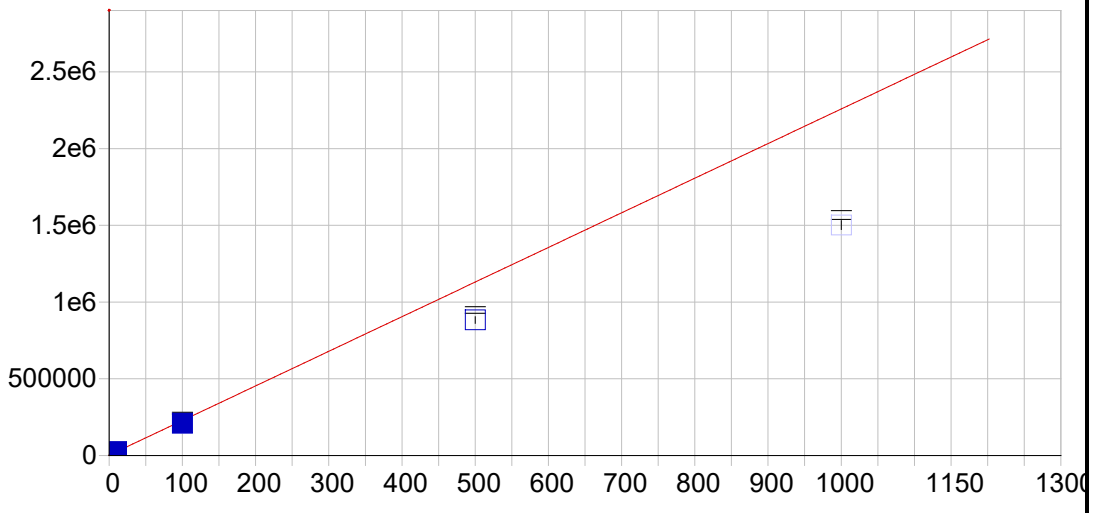


Na 330.237 {102}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998079	Status:	OK.
Std Error of Est:	0.000169		
Predicted MDL:	1.674961		
Predicted MQL:	5.583205		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	4.4162	4.42	.000	.00002	.000	1
CalStd13=10	100.00	97.834	-2.17	-2.17	.00106	.000	1
CalibStd15=	1000.0	1071.0	71.0	7.10	.01190	.000	1
CalStd14=50	500.00	480.50	-19.5	-3.90	.00532	.000	1

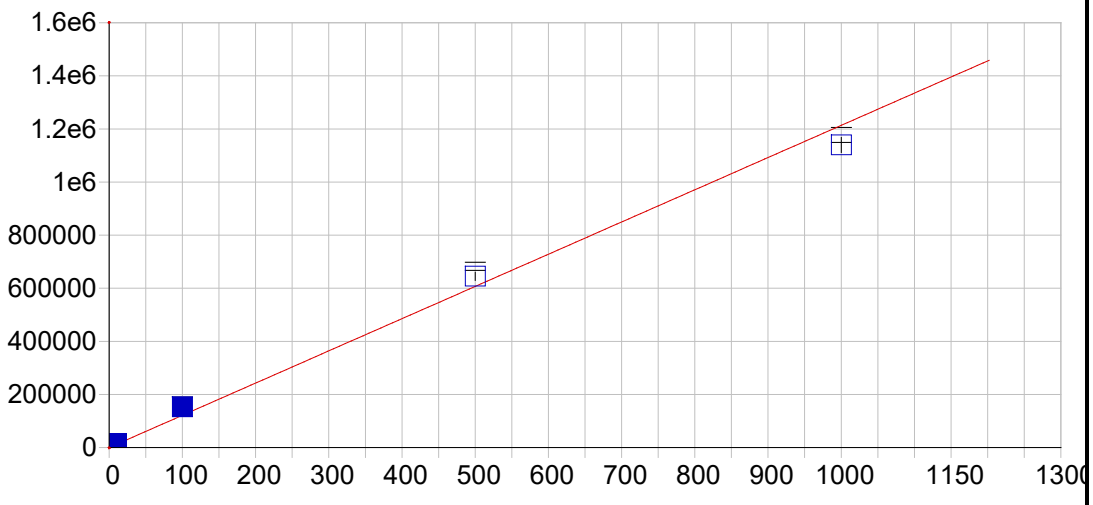


Na 588.995 { 57}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	2519.152738	Re-Slope:	1.000000
A1 (Gain):	2255.957321	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999343	Status:	OK.
Std Error of Est:	90.911224		
Predicted MDL:	0.005131		
Predicted MQL:	0.017102		

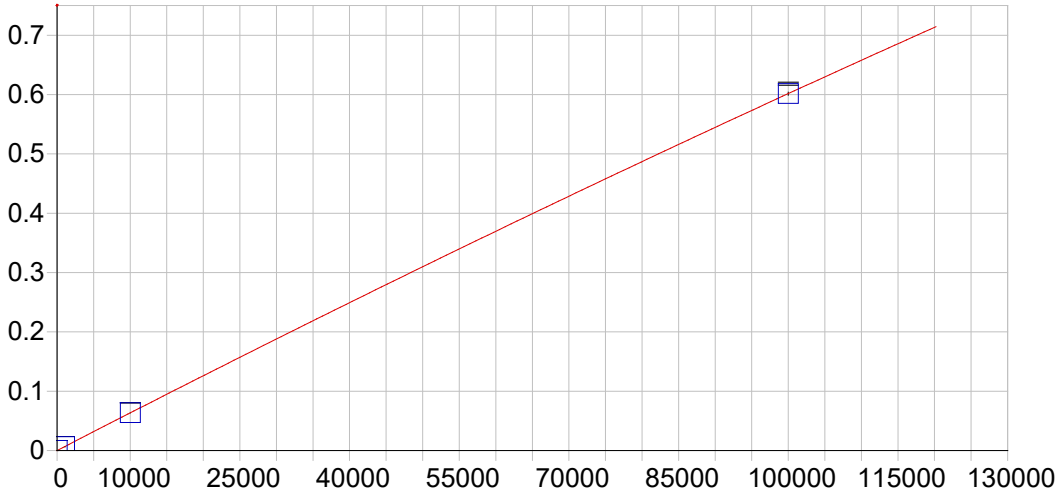
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00134	-.001	.000	2516.1	5.91	1
CalStd9=100	1.0000	1.0226	.023	2.26	4826.1	28.8	1
CalStd10=10	10.000	10.055	.055	.554	25203.	69.6	1
CalStd13=10	100.00	92.058	-7.94	-7.94	210200.	6080.	1
CalibStd15=	1000.0	664.60	-335.	-33.5	1501800.	28700.	0
CalStd14=50	500.00	390.47	-110.	-21.9	883410.	21400.	1



Na 589.592 { 57}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	40.189861		Re-Slope:	1.000000	
A1 (Gain):	1213.529316		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.995839		Status:	OK.	
Std Error of Est:	172.530635				
Predicted MDL:	0.006320				
Predicted MQL:	0.021066				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00087	-.001	.000	39.132	3.15	1
CalStd9=100	1.0000	1.3098	.310	31.0	1630.0	25.5	1
CalStd10=10	10.000	12.988	2.99	29.9	15805.	91.0	1
CalibStd15=	1000.0	939.13	-60.9	-6.09	1139700.	28500.	1
CalStd13=10	100.00	126.11	26.1	26.1	153100.	1070.	1
CalStd14=50	500.00	531.46	31.5	6.29	644980.	15400.	1

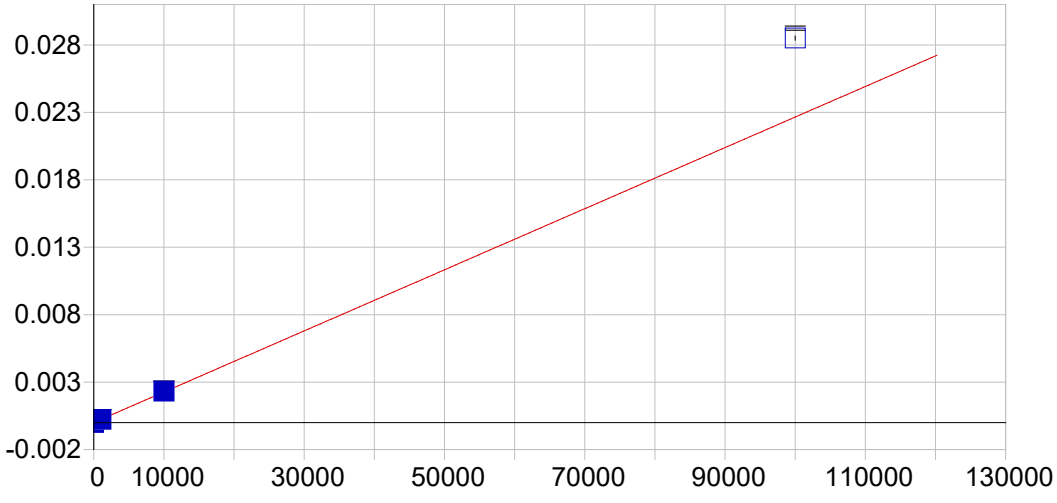


Si 212.412 {458}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000053	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	1.018181		
Predicted MQL:	3.393936		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.34310	.343	.000	.00006	.000	1
CalStd9=100	1000.0	995.51	-4.49	-.449	.00639	.000	1
CalibStd15=	100000.	99984.	-16.1	-.016	.60154	.003	1
CalStd10=10	10000.	10016.	15.8	.158	.06353	.000	1

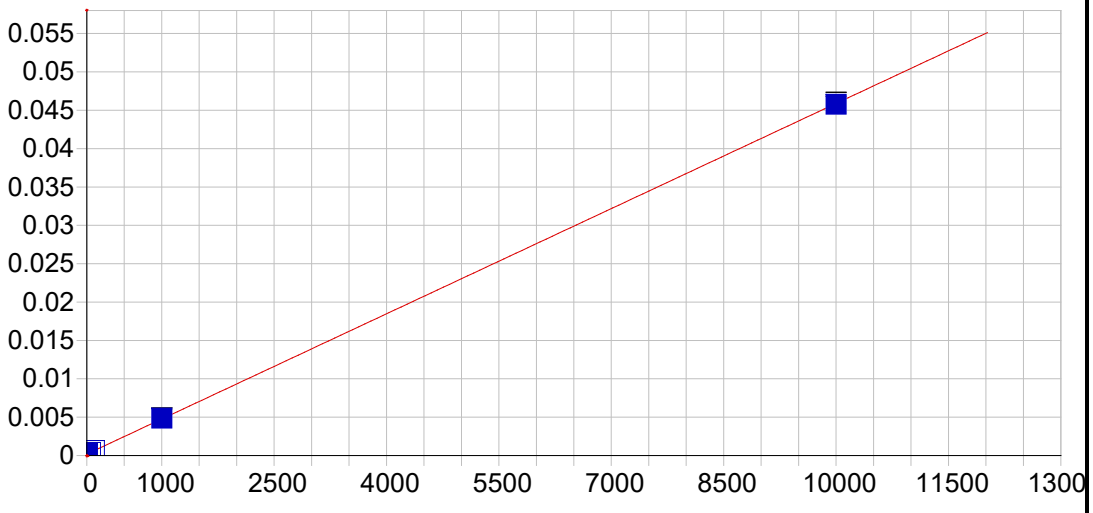


Si 251.611 {134}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	29.645376		
Predicted MQL:	98.817918		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01396	-.014	.000	.00000	.000	1
CalStd9=100	1000.0	1018.3	18.3	1.83	.00023	.000	1
CalibStd15=	100000.	125810.	25800.	25.8	.02850	.000	1
CalStd10=10	10000.	10241.	241.	2.41	.00232	.000	1

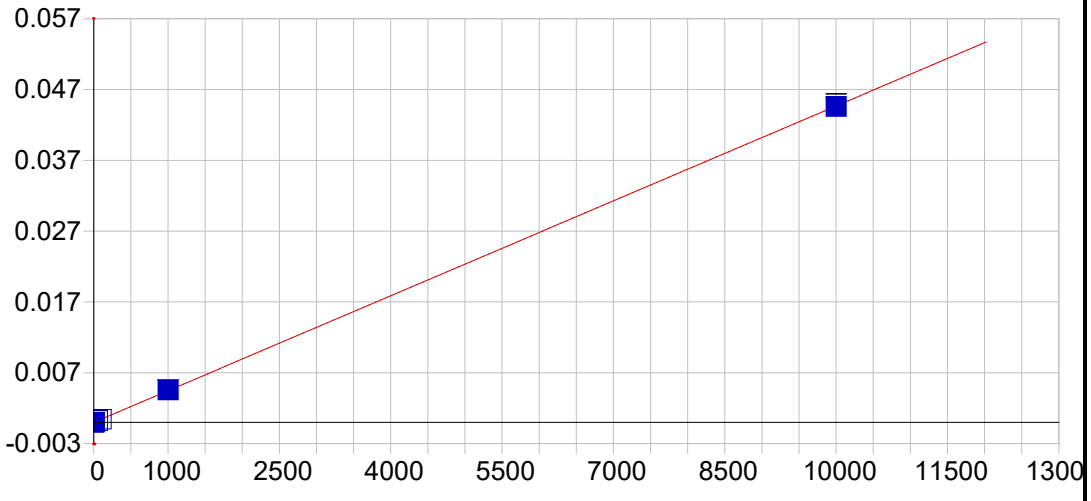


Ti 323.452 {104}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000191	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999651	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.284466		
Predicted MQL:	14.281552		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00632	-.006	.000	.00019	.000	1
CalStd5=10	10.000	11.944	1.94	19.4	.00025	.000	1
CalStd8=100	100.00	100.27	.271	.271	.00065	.000	1
CalStd9=100	1000.0	1021.0	21.0	2.10	.00486	.000	1
CalStd10=10	10000.	9975.6	-24.4	-.244	.04578	.000	1
CalStd7=50	50.000	45.445	-4.56	-9.11	.00040	.000	1
CalStd4=5	5.0000	10.700	5.70	114.	.00024	.000	1

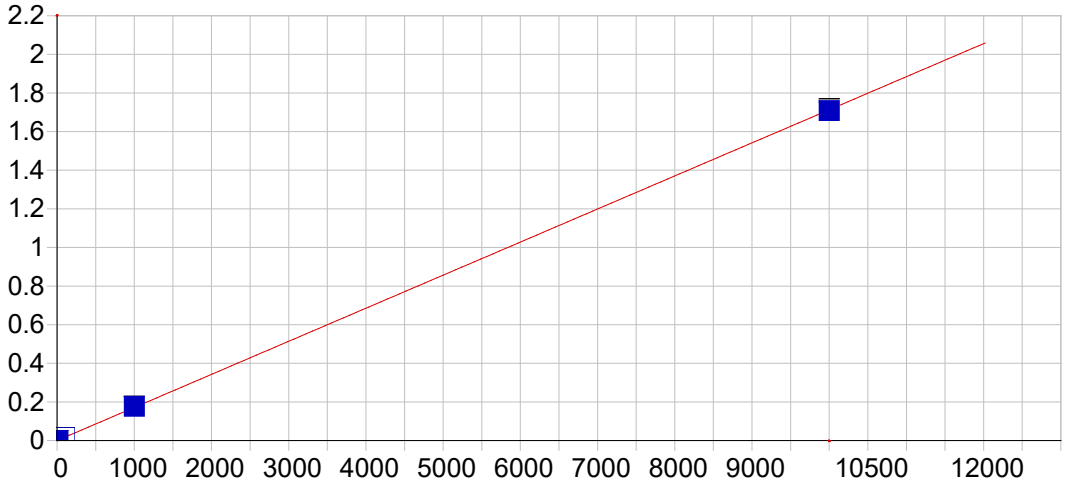


Ti 334.941 {101}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.831281		
Predicted MQL:	9.437602		

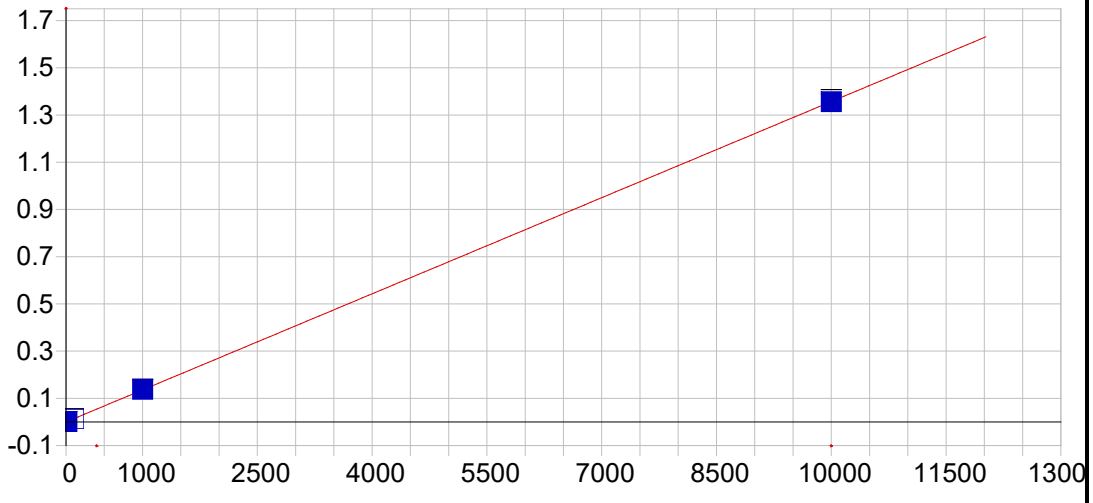
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00173	.002	.000	-.00000	.000	1
CalStd5=10	10.000	8.7641	-1.24	-12.4	.00003	.000	1
CalStd8=100	100.00	97.782	-2.22	-2.22	.00043	.000	1
CalStd9=100	1000.0	1024.0	24.0	2.40	.00457	.000	1
CalStd10=10	10000.	9979.3	-20.7	-.207	.04460	.000	1
CalStd7=50	50.000	51.464	1.46	2.93	.00023	.000	1
CalStd4=5	5.0000	3.7388	-1.26	-25.2	.00001	.000	1



Sr 407.771 { 83}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000120		Re-Slope:	1.000000	
A1 (Gain):	0.000171		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999950		Status:	OK.	
Std Error of Est:	0.000007				
Predicted MDL:	0.202804				
Predicted MQL:	0.676014				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00009	-.000	.000	.00012	.000	1
CalStd3=1	1.0000	1.0657	.066	6.57	.00030	.000	1
CalStd4=5	5.0000	5.1078	.108	2.16	.00099	.000	1
CalStd5=10	10.000	10.187	.187	1.87	.00186	.000	1
CalStd8=100	100.00	96.144	-3.86	-3.86	.01659	.000	1
CalStd9=100	1000.0	1029.7	29.7	2.97	.17651	.001	1
CalStd10=10	10000.	9973.8	-26.2	-.262	1.7086	.009	1

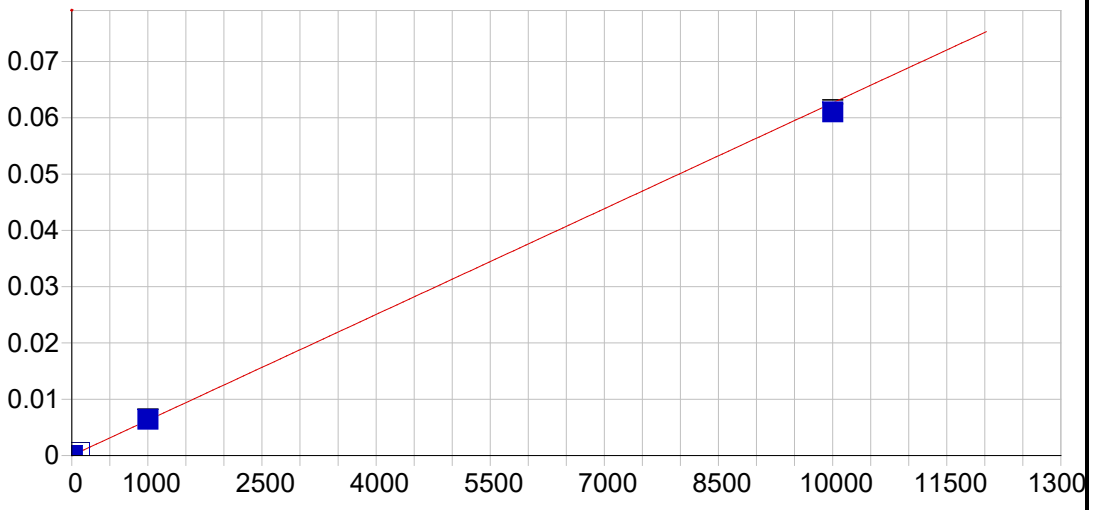


Sr 421.552 { 80}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000124	Re-Slope:	1.000000
A1 (Gain):	0.000136	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.233362		
Predicted MQL:	0.777874		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00002	.000	.000	-.00012	.000	1
CalStd3=1	1.0000	1.0702	.070	7.02	.00002	.000	1
CalStd4=5	5.0000	4.9044	-.096	-1.91	.00054	.000	1
CalStd5=10	10.000	9.7317	-.268	-2.68	.00120	.000	1
CalStd8=100	100.00	94.267	-5.73	-5.73	.01267	.000	1
CalStd9=100	1000.0	1015.1	15.1	1.51	.13764	.001	1
CalStd10=10	10000.	9990.9	-9.08	-.091	1.3558	.009	1

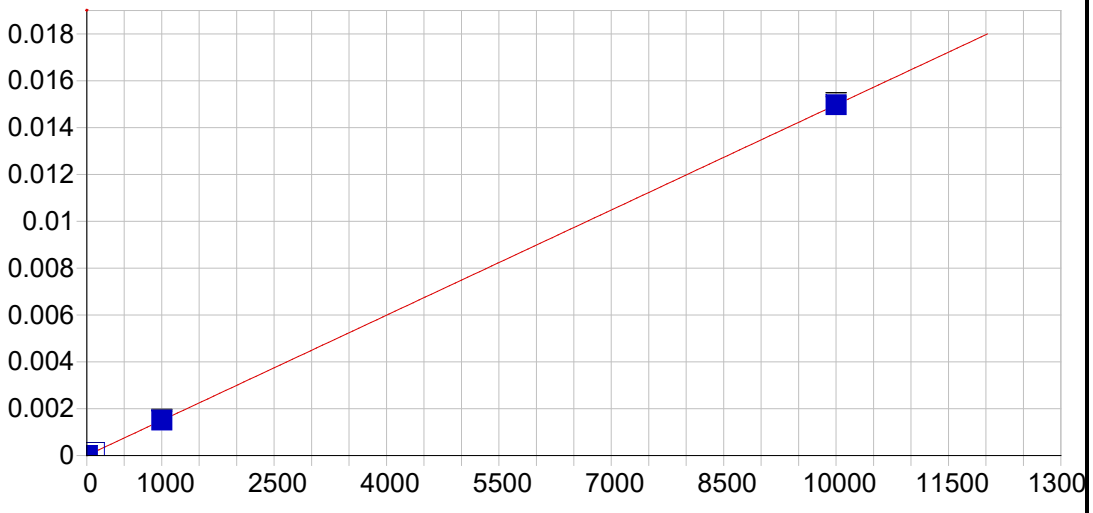


Sn 189.989 {477}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999612	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.745810		
Predicted MQL:	2.486033		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.08924	-.089	.000	.00000	.000	1
CalStd10=10	10000.	9742.9	-257.	-2.57	.06104	.000	1
CalStd9=100	1000.0	1027.4	27.4	2.74	.00644	.000	1
CalStd8=100	100.00	96.822	-3.18	-3.18	.00061	.000	1
CalStd5=10	10.000	10.708	.708	7.08	.00007	.000	1

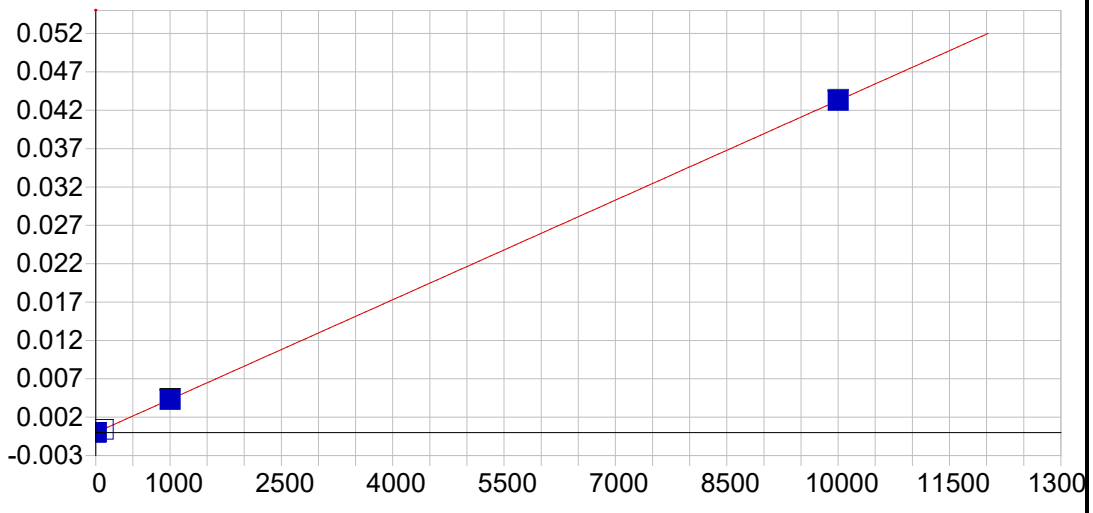


B 249.678 {135}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.595840		
Predicted MQL:	1.986135		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.70600	.706	.000	.00000	.000	1
CalStd8=100	100.00	94.684	-5.32	-5.32	.00014	.000	1
CalStd5=10	10.000	9.5334	-.467	-4.67	.00002	.000	1
CalStd9=100	1000.0	1005.6	5.58	.558	.00151	.000	1
CalStd10=10	10000.	9999.5	-.504	-.005	.01497	.000	1

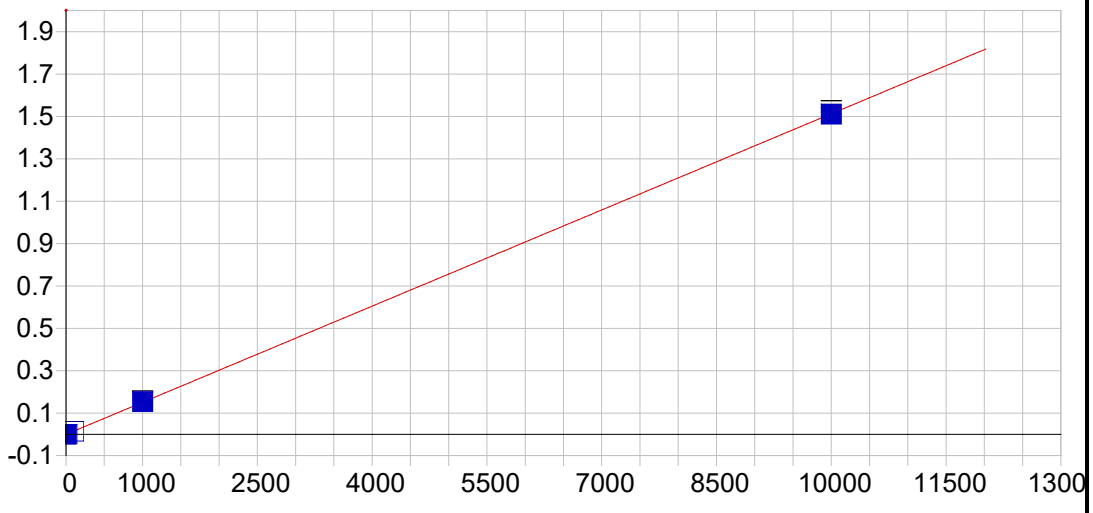


B 249.773 {135}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.235253		
Predicted MQL:	0.784176		

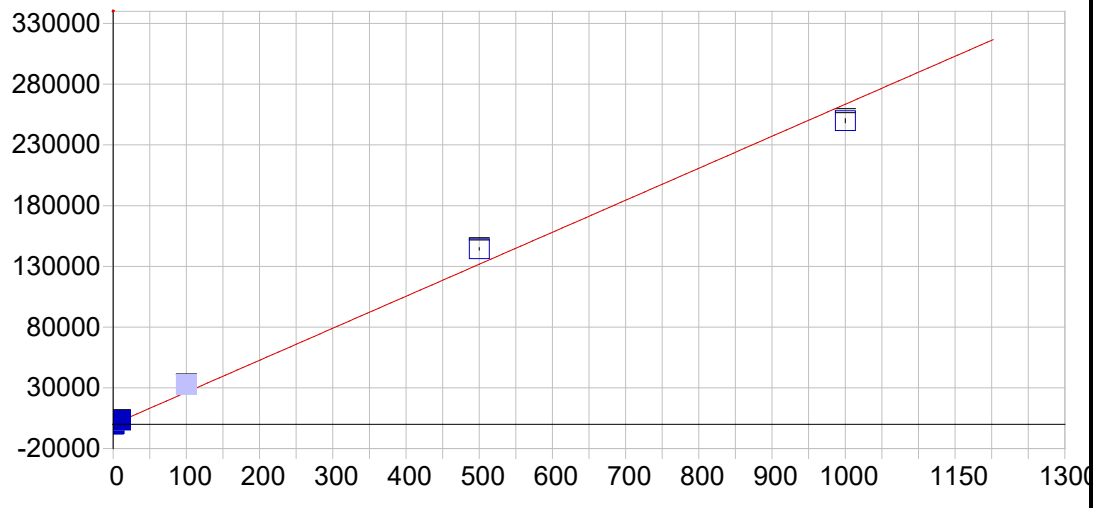
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	3.9067	3.91	.000	.00001	.000	1
CalStd8=100	100.00	97.571	-2.43	-2.43	.00041	.000	1
CalStd5=10	10.000	13.554	3.55	35.5	.00005	.000	1
CalStd9=100	1000.0	994.39	-5.61	-.561	.00430	.000	1
CalStd10=10	10000.	10001.	.582	.006	.04330	.000	1



Li 670.784 { 50}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000132		Re-Slope:	1.000000	
A1 (Gain):	0.000151		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999963		Status:	OK.	
Std Error of Est:	0.000018				
Predicted MDL:	0.608909				
Predicted MQL:	2.029696				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00060	.001	.000	-.00013	.000	1
CalStd5=10	10.000	9.8496	-.150	-1.50	.00136	.000	1
CalStd8=100	100.00	93.672	-6.33	-6.33	.01404	.000	1
CalStd9=100	1000.0	1020.1	20.1	2.01	.15420	.003	1
CalStd10=10	10000.	9986.4	-13.6	-.136	1.5107	.016	1

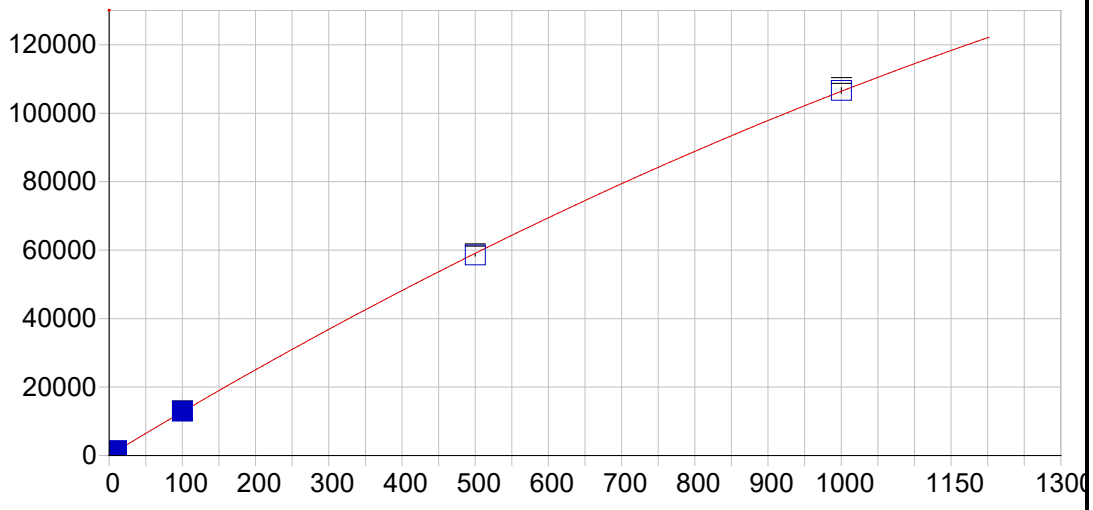


K 766.490 { 44}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-16.871218	Re-Slope:	1.000000
A1 (Gain):	263.478448	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997287	Status:	OK.
Std Error of Est:	30.845590		
Predicted MDL:	0.029488		
Predicted MQL:	0.098294		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00067	-.001	.000	-17.048	2.08	1
CalStd9=100	1.0000	1.3343	.334	33.4	334.69	3.27	1
CalStd10=10	10.000	12.923	2.92	29.2	3388.2	36.7	1
CalibStd15=	1000.0	948.64	-51.4	-5.14	249930.	1680.	1
CalStd13=10	100.00	124.15	24.2	24.2	32694.	251.	0
CalStd14=50	500.00	548.10	48.1	9.62	144400.	889.	1

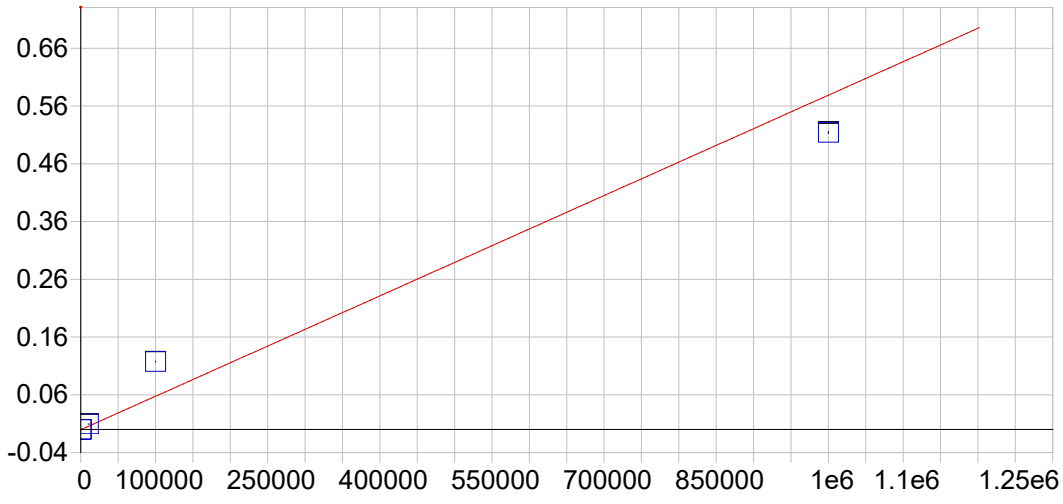


K 769.896 { 44}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	45.006039	Re-Slope:	1.000000
A1 (Gain):	129.722239	Y-int:	0.000000
A2 (Curvature):	-0.023372		
n (Exponent):	1.000000		
Correlation:	0.999944	Status:	OK.
Std Error of Est:	2.126381		
Predicted MDL:	0.048114		
Predicted MQL:	0.160380		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00030	-.000	.000	44.966	3.80	1
CalStd9=100	1.0000	1.2515	.251	25.1	207.41	4.88	1
CalStd10=10	10.000	10.461	.461	4.61	1400.5	13.3	1
CalibStd15=	1000.0	1002.8	2.77	.277	106620.	828.	1
CalStd13=10	100.00	101.39	1.39	1.39	12966.	95.2	1
CalStd14=50	500.00	495.35	-4.65	-.930	58568.	298.	1

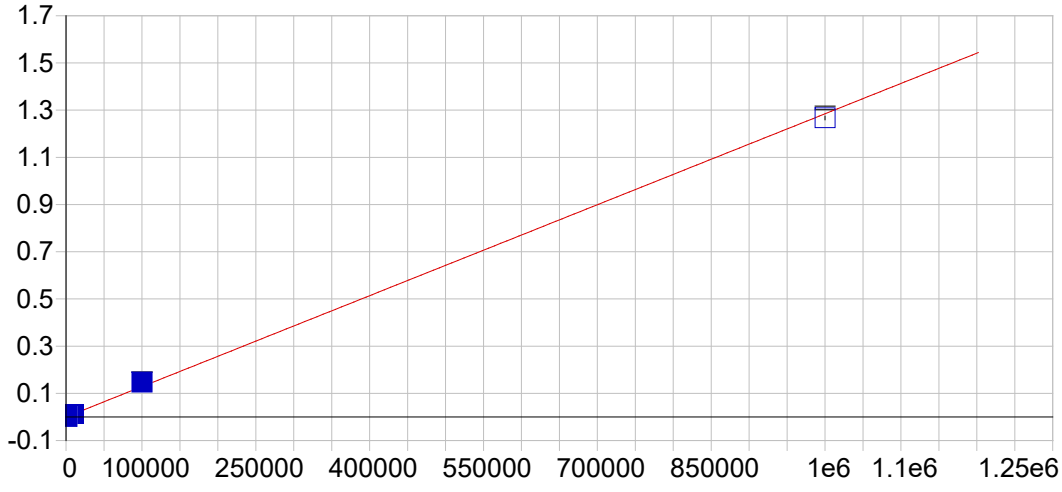


P 177.495 {489}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000461	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.947873	Status:	OK.
Std Error of Est:	0.000265		
Predicted MDL:	8.791276		
Predicted MQL:	29.304253		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.2727	-2.27	.000	-.00046	.000	1
CalStd10=10	10000.	16902.	6900.	69.0	.00933	.000	1
CalStd9=100	1000.0	1655.1	655.	65.5	.00050	.000	1
CalibStd15=	1000000.	888550.	-111000.	-11.1	.51427	.002	1
CalStd13=10	100000.	203890.	104000.	104.	.11765	.000	1

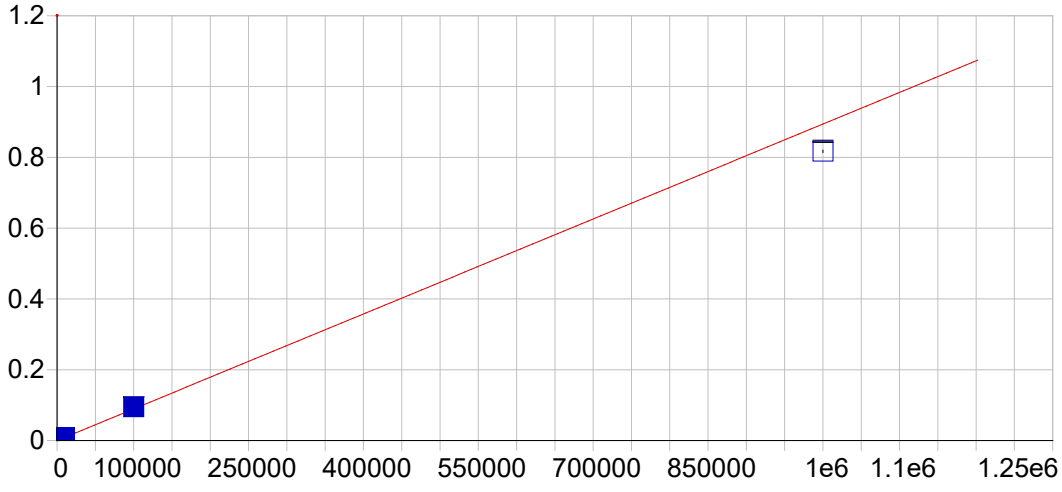


P 213.618 {457}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998949	Status:	OK.
Std Error of Est:	0.000080		
Predicted MDL:	5.971077		
Predicted MQL:	19.903589		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02460	.025	.000	-.00001	.000	1
CalStd10=10	10000.	9257.2	-743.	-7.43	.01188	.000	1
CalStd9=100	1000.0	918.71	-81.3	-8.13	.00117	.000	1
CalibStd15=	1000000.	986360.	-13600.	-1.36	1.2670	.008	1
CalStd13=10	100000.	114460.	14500.	14.5	.14701	.001	1

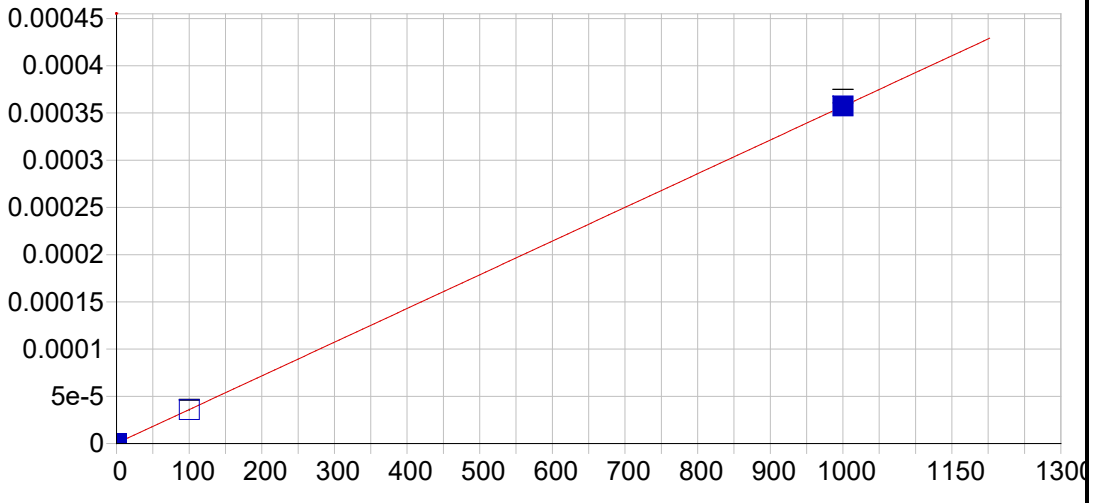


S 182.034 {485}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997768	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	4.340173		
Predicted MQL:	14.467243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.4412	-6.44	.000	.00001	.000	1
CalStd9=100	1000.0	1050.8	50.8	5.08	.00096	.000	1
CalStd10=10	10000.	10167.	167.	1.67	.00912	.000	1
CalibStd15=	1000000.	913910.	-86100.	-8.61	.81709	.003	1
CalStd13=10	100000.	106460.	6460.	6.46	.09519	.000	1

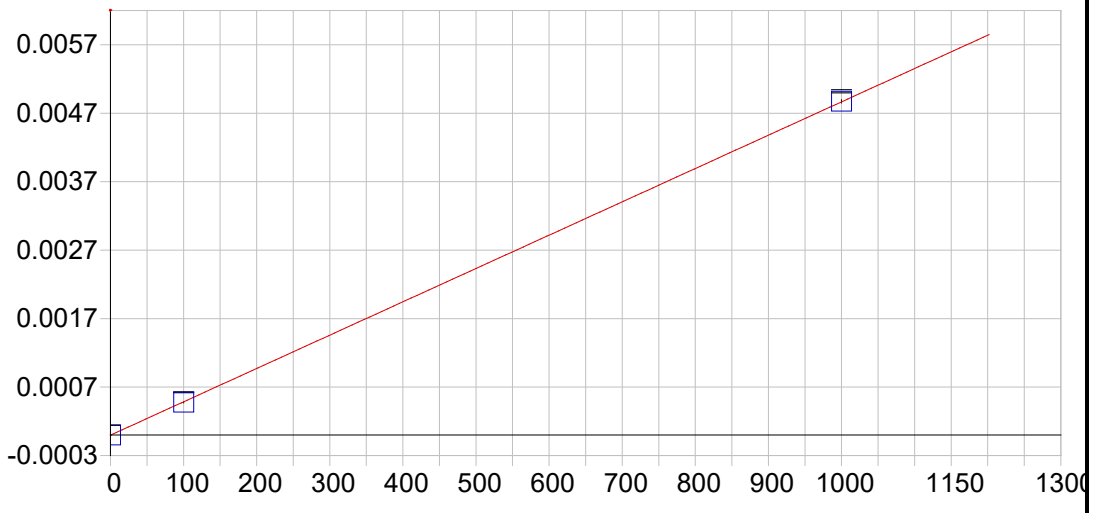


Hg 184.950 {482}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.854724		
Predicted MQL:	2.849079		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00061	.001	.000	.00000	.000	1
CalStd8=100	100.00	99.323	-.677	-.677	.00004	.000	1
CalStd9=100	1000.0	1000.7	.677	.068	.00036	.000	1

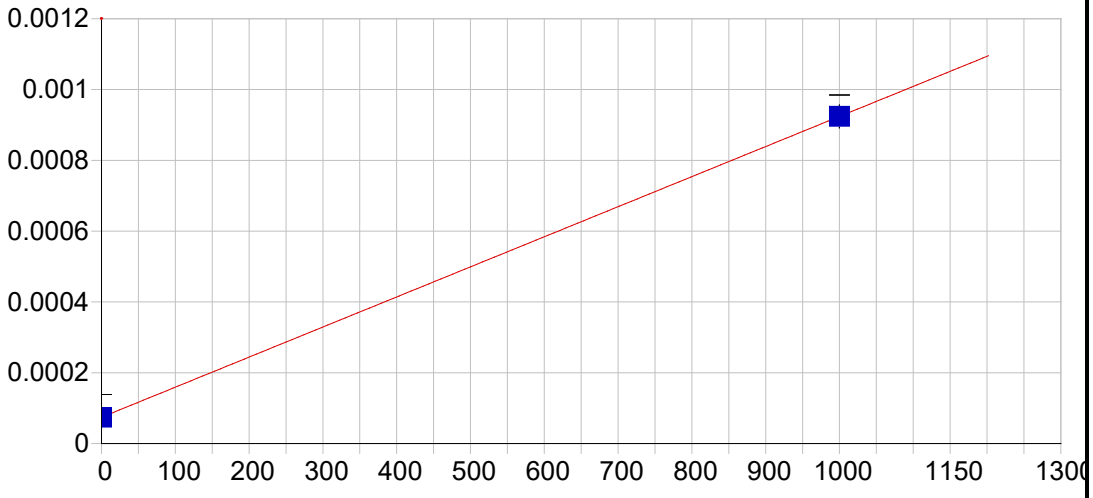


Hg 194.227 {473}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.879859		
Predicted MQL:	2.932862		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00141	.001	.000	-.00000	.000	1
CalStd8=100	100.00	98.435	-1.57	-1.57	.00048	.000	1
CalStd9=100	1000.0	1001.6	1.57	.157	.00487	.000	1



Ce 404.076 { 83}

Date of Fit:	11/05/2021 09:28:31	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000074	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	39.132635		
Predicted MQL:	130.442115		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00007	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00092	.000	1

Sample Name: Blank Acquired: 11/02/2021 12:52:20 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca1840	Ca3968	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.16**	**1.15**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.002**	**.000**	**-.000**	**.000**	**-.000**
Stddev	.16	1.13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	7.61	98.6	18.2	60.9	52.6	61.6	214.	3.45	2.66	2.81	54.6	458.

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu2247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**-.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	28.8	483.	88.6	30.5	28.5	65.3	2.15	71.2	48.6	1.05	239.	23.4

Elem	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	53.1	65.7	46.2	5370.	33.3	209.	37.9	7270.	121.	81.1	68.7	17.2

Elem	Zn2062	Zn2138	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**2520.**	**39.1**	**-17.0**	**45.0**
Stddev	.000	.000	6.	3.1	2.1	3.8
%RSD	353.	20.7	.235	8.05	12.2	8.46

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**126210.**	**1665800.**	**83540.**
Stddev	128.	8930.	462.
%RSD	.10166	.53608	.55309

Sample Name: CalStd2=0.5 Acquired: 11/02/2021 13:00:07 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2265
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	2.40	74.6

Int. Std.	Y_2243	Y_3242
Units	Cts/S	Cts/S
Avg	**124830.**	**1665600.**
Stddev	693.	8198.
%RSD	.55484	.49217

Sample Name: CalStd3=1 Acquired: 11/02/2021 13:07:52 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	5.10	1.65	14.2	32.7	11.6	144.

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**123460.**	**1630900.**	**80251.**
Stddev	733.	20973.	225.
%RSD	.59339	1.2860	.28001

Sample Name: CalStd4=5 Acquired: 11/02/2021 13:15:32 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**34.5**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	1.4	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.04	2.45	.515	2.46	3.36	5.39	6.66	1.25	6.85	12.8	8.03	4.06

Elem	Sb2175
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	58.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124770.**	**1642700.**	**80638.**
Stddev	430.	6321.	132.
%RSD	.34450	.38482	.16356

Sample Name: CalStd5=10 Acquired: 11/02/2021 13:23:15 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	As1972	Ba2335	Be3130	Cd2265	Co2286	Cr2055	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**69.2**	**2.33**	**.000**	**.000**	**-.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	1.7	.92	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.51	39.6	3.63	11.9	131.	2.69	.291	.224	1.63	3.45	.284	6.07

Elem	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.438	1.70	3.04	2.78	24.6	12.5	123.	19.9	18.0	13.3	5.83	.530

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.000**	**.001**
Stddev	.000	.000
%RSD	1.39	.543

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**125590.**	**1669900.**	**81339.**
Stddev	416.	4365.	588.
%RSD	.33152	.26140	.72349

Sample Name: CalStd6=20 Acquired: 11/02/2021 13:30:59 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2230	Cu2247	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.703	1.60	2.58	.704	2.45	3.48	12.6	.838

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124860.**	**1674000.**	**81195.**
Stddev	378.	12120.	282.
%RSD	.30299	.72402	.34710

Sample Name: CalStd7=50 Acquired: 11/02/2021 13:38:37 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Co2286	Cr2055	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.002**	**.001**	**.000**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.45	4.89	.209	.638	1.02	6.65	.786	.657	1.48	.266	1.82	.564

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124350.**	**1642000.**	**79874.**
Stddev	378.	7391.	253.
%RSD	.30384	.45012	.31690

Sample Name: CalStd8=100 Acquired: 11/02/2021 13:46:13 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3968	Co2286	Co2388	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**633.**	**8.57**	**.000**	**.000**	**.000**	**.002**	**.009**	**.007**	**.018**	**.003**	**.000**	**.001**
Stddev	2.	1.02	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.293	11.9	1.15	3.58	7.88	1.28	.785	1.31	.715	1.32	1.32	.708

Elem	Cr2677	Cu2230	Cu2247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.000**	**.003**	**.002**	**.001**	**.001**	**.002**	**.002**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.66	1.74	8.33	1.35	1.36	1.60	1.37	1.28	1.08	3.10	.392	6.21

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.006**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	3.87	2.34	6.82	2.04	1.30	.865	1.27

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**125040.**	**1656900.**	**81524.**
Stddev	707.	17660.	622.
%RSD	.56575	1.0658	.76244

Sample Name: CalStd9=1000 Acquired: 11/02/2021 13:53:40 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca1840	Ca3968	Cd2265	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.002**	**.001**	**.001**	**.017**	**.077**	**.075**	**.003**	**.159**	**.048**	**.034**	**.002**
Stddev	.000	.000	.000	.000	.000	.001	.002	.000	.001	.000	.000	.000
%RSD	.283	.740	1.06	1.14	.568	.692	2.42	.569	.767	.597	.465	2.35

Elem	Cr2055	Cr2677	Cu2230	Cu2247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.014**	**.003**	**.009**	**.011**	**.000**	**.000**	**.003**	**.032**	**.017**	**.011**	**.007**	**.020**
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000
%RSD	.606	2.47	.483	.514	2.45	3.13	.528	2.36	2.27	.365	.508	.447

Elem	Ni2316	Pb2169	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.020**	**.002**	**.004**	**.000**	**.003**	**.002**	**.001**	**.000**	**.003**	**.008**	**.025**	**.064**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.549	.264	.713	1.39	.509	.776	.890	2.66	.712	2.40	.368	.457

Elem	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4830.**	**1630.**	**335.**	**207.**
Stddev	29.	26.	3.	5.
%RSD	.596	1.56	.977	2.35

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**125750.**	**1659200.**	**80026.**
Stddev	743.	37322.	422.
%RSD	.59091	2.2495	.52762

Sample Name: CalStd10=10000 Acquired: 11/02/2021 14:00:45 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ba4934	Ca1840	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Cu2247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.022**	**.007**	**.737**	**.027**	**1.54**	**.332**	**.017**	**.137**	**.034**	**.081**	**.116**
Stddev	.000	.000	.006	.000	.01	.002	.000	.001	.000	.000	.001
%RSD	.746	.300	.751	.554	.641	.601	.436	.554	.656	.612	.463

Elem	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.004**	**.001**	**.025**	**.294**	**.164**	**.103**	**.070**	**.187**	**.194**	**.016**	**.035**
Stddev	.000	.000	.000	.001	.002	.001	.000	.001	.001	.000	.000
%RSD	.345	1.28	.570	.258	.970	.634	.704	.573	.555	.474	.461

Elem	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Na5889	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.026**	**.019**	**.013**	**.004**	**.029**	**.079**	**.235**	**.600**	**25200.**	**15800.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.001	.003	70.	91.
%RSD	.802	.476	.400	.464	.358	.567	.483	.557	.533	.276	.576

Elem	K_7664	K_7698
Units	Cts/S	Cts/S
Avg	**3390.**	**1400.**
Stddev	37.	13.
%RSD	1.08	.946

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**120920.**	**1569300.**	**78592.**
Stddev	177.	3532.	277.
%RSD	.14626	.22509	.35256

Sample Name: CalStd12=100K Acquired: 11/02/2021 14:12:09 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cr2055	Cu2247	Pb2169	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.23**	**1.18**	**.158**	**.022**	**2.15**
Stddev	.01	.01	.001	.000	.04
%RSD	.446	.467	.446	.397	1.89

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**123510.**	**80482.**
Stddev	157.	187.
%RSD	.12674	.23191

Sample Name: CalStd13=100000 Acquired: 11/02/2021 14:20:07 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Fe2343	Fe2395	Mg2025	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.242**	**.265**	**.038**	**.016**	**.248**	**210000.**	**153000.**	**32700.**	**13000.**
Stddev	.000	.001	.000	.000	.001	6080.	1070.	251.	95.
%RSD	.187	.384	.899	.422	.347	2.89	.702	.767	.734

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**117260.**	**1553700.**	**73004.**
Stddev	174.	13764.	423.
%RSD	.14796	.88588	.57965

Sample Name: CalStd14=500000 Acquired: 11/02/2021 14:28:08 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Fe2395	Mg2025	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.24**	**1.06**	**.078**	**1.12**	**883000.**	**645000.**	**144000.**	**58600.**
Stddev	.00	.00	.000	.01	21400.	15400.	889.	298.
%RSD	.280	.256	.347	.547	2.42	2.38	.616	.508

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**106100.**	**71198.**
Stddev	486.	67.
%RSD	.45780	.09425

Sample Name: CalibStd15=1000k Acquired: 11/02/2021 14:36:18 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Fe2395	Mg2025	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.61**	**1.79**	**.169**	**2.15**	**1500000.**	**1140000.**	**250000.**	**107000.**
Stddev	.02	.01	.002	.01	28700.	28500.	1680.	828.
%RSD	.726	.372	.974	.461	1.91	2.50	.672	.776

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**94957.**	**58850.**
Stddev	242.	95.
%RSD	.25535	.16196

Sample Name: Ag Ba 1000, 50000 Acquired: 11/02/2021 14:44:16 Type: Cal
Method: DOD Calibration Updated 060614(v4607) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3382	Ba4934
Units	Cts/S	Cts/S
Avg	**53.3**	**3.62**
Stddev	.9	.08
%RSD	1.78	2.23

Int. Std.	Y_3710
Units	Cts/S
Avg	**80067.**
Stddev	531.
%RSD	.66349

Sample Name: icv Acquired: 11/02/2021 14:59:58 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca1840	Ca3158	Ca3968	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**49.9**	**10900.**	**1930.**	**1930.**	**2000.**	**47.1**	**10400.**	**9180.**	**10100.**	**47.8**	**495.**	**193.**
Stddev	.4	46.	14.	12.	7.	.6	31.	67.	22.	.5	2.	3.
%RSD	.842	.422	.699	.636	.367	1.24	.301	.733	.214	1.08	.366	1.66
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Cu2230	Fe2343	Mg2025	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**237.**	**5130.**	**10600.**	**9450.**	**463.**	**491.**	**498.**	**495.**	**506.**	**506.**	**490.**	**1980.**
Stddev	2.	67.	45.	142.	6.	2.	2.	2.	3.	3.	1.	6.
%RSD	.646	1.31	.427	1.50	1.20	.369	.401	.321	.619	.684	.298	.314
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Na5889	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**1980.**	**1910.**	**473.**	**497.**	**519.**	**4.83**	**5.41**
Stddev	13.	4.	6.	2.	2.	.02	.04
%RSD	.648	.215	1.29	.386	.320	.441	.832
Check ?	None	None	None	None	None	None	None
Value							
Range							

Sample Name: icv Acquired: 11/02/2021 14:59:58 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124490.**	**1644700.**	**75349.**
Stddev	400.	21585.	278.
%RSD	.32152	1.3124	.36890

Sample Name: ICVLL Acquired: 11/02/2021 15:14:27 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca1840	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.6**	**1330.**	**59.6**	**28.6**	**11.6**	**1560.**	**1410.**	**14.5**	**29.6**	**29.5**	**31.9**	**925.**
Stddev	.3	15.	1.5	.0	.1	3.	4.	.1	.2	.2	1.1	4.
%RSD	.621	1.10	2.47	.126	.562	.222	.260	.932	.636	.650	3.37	.386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2025	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**1560.**	**1500.**	**28.3**	**31.8**	**29.5**	**31.3**	**57.3**	**62.1**	**55.3**	**29.1**	**31.3**	**2.88**
Stddev	11.	20.	.1	.2	.4	2.1	1.4	1.7	2.0	.2	.1	.02
%RSD	.705	1.35	.515	.739	1.51	6.78	2.49	2.77	3.61	.522	.294	.758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5895	K_7698
Units	mg/L	mg/L
Avg	**3.72**	**14.6**
Stddev	.04	.1
%RSD	.938	.696
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ICVLL Acquired: 11/02/2021 15:14:27 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124250.**	**1656600.**	**78172.**
Stddev	520.	10697.	237.
%RSD	.41845	.64574	.30281

Sample Name: icb Acquired: 11/02/2021 15:29:34 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.368**	**.197**	**-1.59**	**.067**	**.014**	**-.811**	**-.093**	**.162**	**.015**	**1.01**	**-1.46**	**.026**
Stddev	.130	.575	4.46	.118	.009	.073	.150	.252	.306	.72	.43	.049
%RSD	35.3	292.	281.	176.	61.5	8.99	160.	155.	2000.	71.1	29.3	188.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.005**	**.033**	**-.307**	**2.47**	**-.209**	**-.210**	**-.229**	**.010**	**-.080**	**-.041**	**.079**	**.064**
Stddev	.026	.221	.260	1.37	2.59	.531	.795	.187	.095	.006	.013	.043
%RSD	513.	668.	84.7	55.5	1240.	253.	347.	1880.	118.	14.5	16.0	66.9
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**126730.**	**1681100.**	**79385.**
Stddev	332.	20432.	218.
%RSD	.26191	1.2154	.27428

Sample Name: MRL/LLOQ Acquired: 11/02/2021 15:37:14 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **12.9**	**396.**	**20.5**	**9.83**	**4.06**	**474.**	**5.03**	**10.1**	**10.2**	**11.8**	**325.**	**520.**
Stddev	.3	2.	1.7	.16	.05	1.	.12	.2	.2	.8	5.	6.
%RSD	2.36	.533	8.14	1.65	1.22	.234	2.37	1.96	2.18	6.43	1.61	1.24
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0											
Range	-30.0%											

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**9.81**	**11.1**	**9.86**	**12.1**	**19.4**	**24.1**	**17.6**	**9.96**	**11.3**	**.985**	**1.29**	**6.31**
Stddev	.09	.3	.11	1.4	.8	2.9	1.1	.19	.2	.013	.01	.10
%RSD	.925	2.32	1.10	11.6	4.22	12.1	6.37	1.92	1.53	1.27	.957	1.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	K_7698
Units	mg/L
Avg	**5.19**
Stddev	.06
%RSD	1.06
Check ?	Chk Pass
Value	
Range	

Sample Name: MRL/LLOQ Acquired: 11/02/2021 15:37:14 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124350.**	**1638700.**	**77544.**
Stddev	466.	16232.	206.
%RSD	.37460	.99058	.26537

Sample Name: ICSA Acquired: 11/02/2021 15:44:50 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.000**	**487000.**	**-.050**	**.153**	**.027**	**484000.**	**-.000**	**-.115**	**-.617**	**5.95**	**432000.**
Stddev	.689	2380.	9.01	.159	.042	1300.	.495	.404	.405	1.92	1290.
%RSD	62e15	.489	18200.	104.	153.	.268	278000.	352.	65.6	32.2	.298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Mg2025	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**432000.**	**2.21**	**2.85**	**-1.41**	**.387**	**.227**	**-9.30**	**-.005**	**8910.**	**5.78**	**.077**
Stddev	1260.	.14	1.09	1.07	3.63	5.42	6.57	2.16	47.	.58	.003
%RSD	.290	6.10	38.1	76.0	937.	2390.	70.7	43900.	.527	10.0	3.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Na5895	K_7664	K_7698
Units	mg/L	mg/L	mg/L
Avg	**.003**	**.120**	**-.162**
Stddev	.005	.012	.038
%RSD	172.	10.0	23.2
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: ICSA Acquired: 11/02/2021 15:44:50 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**109040.**	**1468800.**	**67803.**
Stddev	432.	7268.	187.
%RSD	.39621	.49483	.27595

Sample Name: ICSAB Acquired: 11/02/2021 15:52:36 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Be3130	Ca3158	Cd2288	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**494.**	**520000.**	**504.**	**457.**	**471.**	**479.**	**506000.**	**496.**	**462.**	**462.**	**498.**
Stddev	1.	3690.	24.	18.	1.	4.	1810.	3.	3.	3.	4.
%RSD	.244	.709	4.75	3.96	.286	.932	.358	.598	.590	.739	.729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Mg2025	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**445000.**	**454000.**	**451.**	**490.**	**468.**	**456.**	**444.**	**492.**	**484.**	**440.**	**465.**
Stddev	698.	2540.	4.	2.	2.	2.	7.	6.	5.	6.	5.
%RSD	.157	.558	.921	.421	.370	.540	1.59	1.12	1.07	1.35	1.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Zn2062	Zn2138	Na5889	Na5895	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**444.**	**525.**	**45.0**	**59.0**	**59.4**	**47.6**
Stddev	2.	3.	.7	.9	.8	.7
%RSD	.376	.516	1.47	1.51	1.32	1.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB Acquired: 11/02/2021 15:52:36 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**107610.**	**1434900.**	**65145.**
Stddev	521.	10193.	182.
%RSD	.48441	.71037	.27985

Sample Name: ICVLL ag1 Acquired: 11/02/2021 16:07:30 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.96**	**3.56**	**1.67**	**-.119**	**.026**	**2.68**	**-.176**	**-.056**	**.131**	**2.00**	**24.6**	**1.49**
Stddev	.23	.65	2.03	.230	.019	.23	.130	.098	.110	.38	3.9	.01
%RSD	2.34	18.3	121.	193.	74.5	8.38	73.8	174.	83.4	19.1	15.7	.336

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.117**	**.177**	**-.423**	**.612**	**-.577**	**1.40**	**-1.93**	**.060**	**.179**	**-.036**	**.079**	**.224**
Stddev	.014	.180	.106	1.31	1.27	4.15	.82	.116	.102	.003	.021	.040
%RSD	12.3	102.	25.1	214.	221.	297.	42.3	193.	57.0	9.56	27.1	18.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**124950.**	**1665300.**	**76055.**
Stddev	408.	10120.	107.
%RSD	.32682	.60771	.14049

Sample Name: ccv1 Acquired: 11/03/2021 01:35:45 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca1840	Ca3968	Cd2288	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**483.**	**4640.**	**4630.**	**4600.**	**5470.**	**462.**	**4590.**	**4820.**	**514.**	**4630.**	**4680.**	**4650.**
Stddev	1.	42.	12.	14.	18.	3.	6.	20.	2.	30.	14.	12.
%RSD	.254	.895	.247	.313	.325	.590	.125	.417	.305	.654	.296	.248
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2247	Fe2343	Mg2025	Mg2802	Mn2576	Mo2045	Ni2216	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4540.**	**4840.**	**4560.**	**4890.**	**4600.**	**4670.**	**4560.**	**5240.**	**4640.**	**4650.**	**4750.**	**4620.**
Stddev	12.	35.	17.	61.	30.	11.	8.	61.	13.	16.	21.	26.
%RSD	.263	.714	.376	1.24	.652	.240	.165	1.16	.277	.333	.447	.562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2062	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**4560.**	**92.3**	**96.7**
Stddev	4.	.6	.5
%RSD	.090	.609	.503
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv1 Acquired: 11/03/2021 01:35:45 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**123150.**	**1611100.**	**47040.**
Stddev	262.	7927.	207.
%RSD	.21258	.49201	.43947

Sample Name: ccv2 Acquired: 11/03/2021 01:42:25 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.4**	**488.**	**476.**	**476.**	**468.**	**45.4**	**512.**	**45.7**	**488.**	**468.**	**502.**	**517.**
Stddev	.3	3.	6.	7.	2.	.2	2.	.2	3.	2.	5.	3.
%RSD	.598	.679	1.22	1.54	.502	.384	.356	.334	.654	.441	.931	.559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**535.**	**480.**	**501.**	**488.**	**487.**	**502.**	**497.**	**488.**	**495.**	**480.**	**478.**	**480.**
Stddev	3.	2.	6.	2.	3.	4.	5.	5.	2.	5.	2.	2.
%RSD	.555	.428	1.18	.447	.584	.831	1.01	1.09	.501	1.04	.428	.333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**510.**	**9.43**	**10.0**
Stddev	4.	.06	.1
%RSD	.724	.604	.525
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 11/03/2021 01:42:25 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**127750.**	**1696900.**	**46776.**
Stddev	645.	9086.	153.
%RSD	.50521	.53544	.32750

Sample Name: ccb Acquired: 11/03/2021 01:49:27 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.736**	**.096**	**-.043**	**.088**	**-.020**	**-.418**	**-.118**	**.294**	**-.043**	**.712**	**-.730**	**.214**
Stddev	.389	.722	2.49	.186	.012	.206	.072	.161	.178	.564	1.23	.032
%RSD	52.9	755.	5830.	212.	58.2	49.2	60.8	54.8	409.	79.3	168.	14.9
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.108**	**.271**	**-.182**	**.746**	**.220**	**2.47**	**-.067**	**.057**	**-.001**	**-.173**	**.039**	**-.088**
Stddev	.015	.215	.426	1.48	2.59	1.49	1.44	.163	.115	.001	.012	.034
%RSD	13.7	79.2	234.	198.	1180.	60.4	2130.	287.	14100.	.738	30.2	38.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**130220.**	**1719200.**	**48522.**
Stddev	337.	8207.	215.
%RSD	.25889	.47734	.44220

Sample Name: LCSW83193 Acquired: 11/03/2021 02:35:41 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca1840	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**16.0**	**756.**	**811.**	**803.**	**746.**	**19.6**	**173000.**	**18.5**	**195.**	**78.0**	**110.**
Stddev	.2	5.	5.	6.	2.	.1	830.	.2	1.	.4	2.
%RSD	1.41	.618	.617	.703	.323	.579	.480	1.00	.494	.519	1.68

Elem	Fe2343	Mg2025	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**402.**	**93900.**	**189.**	**2180.**	**192.**	**196.**	**203.**	**816.**	**715.**	**196.**	**197.**
Stddev	4.	651.	2.	14.	1.	1.	2.	6.	5.	1.	1.
%RSD	.968	.693	.907	.659	.514	.644	1.02	.688	.683	.750	.441

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**220.**	**89.7**	**96.0**
Stddev	1.	1.1	.9
%RSD	.623	1.21	.920

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**117480.**	**1571200.**	**46569.**
Stddev	387.	9117.	111.
%RSD	.32958	.58021	.23739

Sample Name: MBW83193 Acquired: 11/03/2021 02:43:22 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.732**	**3.59**	**.896**	**.009**	**-.022**	**34.5**	**-.084**	**.113**	**.031**	**2.39**	**4.69**	**17.3**
Stddev	.516	.72	2.88	.210	.010	2.8	.074	.233	.120	.82	.62	.3
%RSD	70.5	20.0	321.	2250.	44.9	8.04	87.9	207.	380.	34.1	13.3	1.59

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.059**	**1.66**	**-.320**	**-.141**	**-.627**	**2.33**	**-.979**	**-.080**	**.158**	**-.149**	**.086**	**.058**
Stddev	.021	.64	.215	1.54	2.08	3.20	2.25	.387	.094	.007	.025	.044
%RSD	36.0	38.7	67.4	1090.	332.	138.	230.	487.	59.3	4.60	29.3	75.7

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**128560.**	**1694900.**	**46332.**
Stddev	151.	13215.	222.
%RSD	.11738	.77969	.47914

Sample Name: 1067793 Acquired: 11/03/2021 02:51:04 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca1840	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.218**	**3660.**	**2.75**	**124.**	**.050**	**63200.**	**.000**	**-.260**	**2.44**	**10.3**	**12.8**	**4990.**
Stddev	.328	17.	2.11	.	.013	136.	.000	.148	.10	.1	.4	18.
%RSD	150.	.454	76.8	.296	25.6	.215	.000	56.8	4.24	.738	3.16	.352

Elem	Mg2025	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**36700.**	**234.**	**2.54**	**7.92**	**10.1**	**.813**	**.246**	**-1.70**	**5.71**	**60.3**	**26.3**	**35.5**
Stddev	135.	1.	.58	.38	1.5	3.18	1.44	3.28	.08	.1	.2	.3
%RSD	.368	.327	22.9	4.84	15.3	391.	584.	193.	1.43	.148	.731	.780

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**3.30**	**2.57**
Stddev	.03	.01
%RSD	1.04	.256

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**120120.**	**1618200.**	**43532.**
Stddev	560.	3924.	262.
%RSD	.46605	.24250	.60215

Sample Name: L1067793 Acquired: 11/03/2021 02:58:59 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca1840	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.864**	**708.**	**2.39**	**25.6**	**-.004**	**13900.**	**15000.**	**-.193**	**.425**	**2.12**	**3.28**	**1060.**
Stddev	.400	3.	2.83	.1	.021	24.	124.	.132	.341	.21	.55	2.
%RSD	46.3	.359	118.	.542	492.	.173	.824	68.5	80.4	9.87	16.7	.168

Elem	Mg2025	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**7890.**	**7340.**	**50.0**	**.630**	**1.65**	**3.39**	**-.260**	**-.336**	**.084**	**1.21**	**14.3**	**5.03**
Stddev	38.	187.	.1	.722	.41	2.25	1.60	2.11	2.53	.14	.1	.06
%RSD	.482	2.55	.230	115.	24.9	66.4	615.	628.	3030.	11.4	.734	1.10

Elem	Na5895	K_7664	K_7698
Units	mg/L	mg/L	mg/L
Avg	**6.80**	**.690**	**.440**
Stddev	.07	.016	.042
%RSD	.978	2.37	9.45

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**126900.**	**1686000.**	**46639.**
Stddev	451.	6214.	167.
%RSD	.35554	.36853	.35892

Sample Name: DUP1067793 Acquired: 11/03/2021 03:06:40 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca1840	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.624**	**2970.**	**2.74**	**114.**	**.046**	**62500.**	**.000**	**-.087**	**2.02**	**9.00**	**10.9**	**4050.**
Stddev	.355	52.	.67	1.	.008	211.	.000	.053	.05	.10	1.2	12.
%RSD	57.0	1.76	24.4	.680	18.0	.338	.000	61.1	2.32	1.09	11.4	.301

Elem	Mg2025	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**35100.**	**200.**	**1.84**	**6.30**	**9.37**	**.459**	**4.17**	**-.398**	**4.78**	**56.0**	**25.0**	**33.6**
Stddev	217.	1.	.23	.17	2.67	2.01	1.42	1.56	.30	.3	.3	.4
%RSD	.619	.263	12.5	2.63	28.5	438.	34.1	391.	6.28	.447	1.10	1.15

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**2.88**	**2.27**
Stddev	.03	.02
%RSD	.896	.894

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**120400.**	**1617300.**	**43510.**
Stddev	743.	5647.	488.
%RSD	.61726	.34918	1.1213

Sample Name: ccv1 Acquired: 11/03/2021 03:14:34 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca1840	Ca3968	Cd2288	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**483.**	**4680.**	**4650.**	**4620.**	**5510.**	**459.**	**4580.**	**4820.**	**516.**	**4620.**	**4660.**	**4670.**
Stddev	1.	41.	18.	15.	29.	2.	13.	12.	1.	18.	11.	15.
%RSD	.109	.879	.397	.333	.524	.347	.283	.240	.202	.384	.236	.316
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2247	Fe2343	Mg2025	Mg2802	Mn2576	Mo2045	Ni2216	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4540.**	**4830.**	**4590.**	**4910.**	**4600.**	**4680.**	**4550.**	**5330.**	**4650.**	**4630.**	**4790.**	**4610.**
Stddev	7.	17.	8.	30.	19.	10.	10.	79.	22.	24.	11.	16.
%RSD	.154	.351	.163	.604	.416	.205	.228	1.49	.464	.523	.220	.346
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2062	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**4530.**	**93.4**	**98.3**
Stddev	8.	1.3	1.2
%RSD	.176	1.35	1.25
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv1 Acquired: 11/03/2021 03:14:34 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**122800.**	**1615100.**	**46785.**
Stddev	165.	3492.	204.
%RSD	.13407	.21619	.43549

Sample Name: ccv2 Acquired: 11/03/2021 03:21:17 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.0**	**486.**	**474.**	**470.**	**467.**	**45.3**	**506.**	**45.5**	**487.**	**466.**	**500.**	**516.**
Stddev	.3	3.	6.	7.	1.	.6	1.	.3	.	7.	2.	7.
%RSD	.540	.593	1.19	1.50	.218	1.22	.133	.550	.039	1.41	.402	1.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**529.**	**475.**	**499.**	**488.**	**485.**	**503.**	**496.**	**487.**	**492.**	**477.**	**475.**	**479.**
Stddev	6.	5.	1.	1.	1.	3.	1.	4.	2.	2.	6.	1.
%RSD	1.19	1.14	.128	.237	.196	.567	.106	.723	.493	.509	1.32	.133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**508.**	**9.42**	**10.2**
Stddev	2.	.11	.1
%RSD	.299	1.15	1.37
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 11/03/2021 03:21:17 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**127670.**	**1690200.**	**46997.**
Stddev	264.	22899.	312.
%RSD	.20640	1.3548	.66424

Sample Name: ccb Acquired: 11/03/2021 03:28:20 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.774**	**-.509**	**-2.00**	**.018**	**-.005**	**-.173**	**-.076**	**.088**	**-.013**	**2.13**	**-2.11**	**.266**
Stddev	.214	.381	2.37	.006	.005	.046	.034	.015	.112	.75	.10	.053
%RSD	27.6	74.8	118.	34.6	100.	26.3	45.3	17.1	854.	35.3	4.73	20.1
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**.205**	**.017**	**-.417**	**1.28**	**-.154**	**.632**	**-2.44**	**-.045**	**-.186**	**-.156**	**.019**
Stddev	.035	.082	.123	.11	1.75	2.39	.84	.004	.042	.004	.015
%RSD	16.9	487.	29.6	8.45	1140.	378.	34.4	9.68	22.7	2.43	79.8
Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**257610.**	**1749000.**	**48154.**
Stddev	1837.	355.	40.
%RSD	.71307	.02030	.08364

Sample Name: MSW1067793 Acquired: 11/03/2021 03:36:09 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca1840	Ca3968	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**14.1**	**4950.**	**836.**	**824.**	**867.**	**1120.**	**19.9**	**225000.**	**.000**	**18.4**	**198.**
Stddev	.3	51.	5.	14.	4.	5.	.0	1520.	.000	.3	1.
%RSD	2.39	1.03	.564	1.75	.462	.417	.144	.674	.000	1.49	.383

Elem	Cr2677	Cu2230	Fe2343	Mg2025	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**85.9**	**122.**	**4660.**	**132000.**	**388.**	**2200.**	**199.**	**205.**	**206.**	**834.**	**644.**
Stddev	.7	2.	10.	683.	1.	10.	1.	2.	4.	6.	3.
%RSD	.786	1.50	.205	.519	.227	.434	.617	1.17	1.86	.717	.398

Elem	V_2924	Zn2062	Zn2138	Na5889	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**205.**	**245.**	**284.**	**90.8**	**129.**	**107.**	**87.2**
Stddev	1.	2.	1.	2.8	2.	1.	1.0
%RSD	.444	.688	.254	3.14	1.18	1.27	1.16

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**112350.**	**1528700.**	**44380.**
Stddev	540.	3109.	291.
%RSD	.48030	.20339	.65599

Sample Name: MSDW1067793 Acquired: 11/03/2021 03:43:47 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Ca1840	Ca3968	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**14.1**	**4960.**	**830.**	**817.**	**855.**	**1110.**	**19.7**	**222000.**	**.000**	**17.9**	**196.**
Stddev	.1	61.	6.	9.	1.	7.	.1	568.	.000	.2	.
%RSD	.459	1.22	.775	1.06	.173	.607	.655	.255	.000	1.07	.104

Elem	Cr2677	Cu2230	Fe2343	Mg2025	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**85.0**	**119.**	**4640.**	**132000.**	**388.**	**2210.**	**196.**	**202.**	**208.**	**832.**	**647.**
Stddev	.4	2.	33.	132.	2.	5.	.	2.	1.	6.	1.
%RSD	.468	1.33	.699	.100	.637	.214	.118	.896	.593	.751	.122

Elem	V_2924	Zn2062	Zn2138	Na5889	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**203.**	**238.**	**278.**	**94.5**	**128.**	**106.**	**86.5**
Stddev	2.	.	.	2.1	1.	1.	.5
%RSD	.810	.173	.109	2.25	.855	.570	.525

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**112050.**	**1533000.**	**43863.**
Stddev	217.	8446.	524.
%RSD	.19383	.55094	1.1946

Sample Name: PDSW1067793 Acquired: 11/03/2021 03:51:25 Type: Unk
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ag3382	Al3961	As1937	As1972	Ba4934	Be3130	Ca1840	Ca3968	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**70.7**	**125.**	**7950.**	**4270.**	**4250.**	**5810.**	**101.**	**360000.**	**.000**	**92.7**	**992.**
Stddev	.6	12.	249.	9.	16.	330.	1.	839.	.000	.4	3.
%RSD	.873	9.40	3.13	.220	.368	5.68	.755	.233	.000	.383	.316

Elem	Cr2677	Cu2230	Fe2343	Mg2025	Mn2576	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**398.**	**533.**	**6580.**	**224000.**	**1190.**	**1910.**	**986.**	**972.**	**1050.**	**981.**	**1020.**
Stddev	1.	1.	38.	212.	5.	3.	2.	2.	2.	4.	17.
%RSD	.352	.214	.572	.095	.451	.165	.245	.165	.214	.376	1.65

Elem	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na5889	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**1080.**	**4240.**	**3500.**	**1020.**	**1020.**	**163.**	**237.**	**109.**	**89.0**
Stddev	2.	19.	10.	5.	3.	6.	10.	4.	3.4
%RSD	.153	.458	.280	.474	.292	3.56	4.19	3.81	3.86

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**110720.**	**1490900.**	**44404.**
Stddev	131.	6064.	129.
%RSD	.11788	.40672	.29073

Sample Name: ccv1 Acquired: 11/03/2021 04:52:57 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1972	Ba4934	Be3130	Ca1840	Ca3968	Cd2265	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**486.**	**4660.**	**4630.**	**4620.**	F **5520.**	**461.**	**4590.**	**4850.**	**449.**	**4650.**	**4670.**	**4680.**
Stddev	2.	29.	13.	9.	6.	4.	9.	4.	1.	39.	3.	9.
%RSD	.503	.624	.278	.202	.114	.877	.198	.088	.120	.844	.071	.198
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					5000.							
Range					10.4%							

Elem	Cu2247	Fe2343	Mg2025	Mg2802	Mn2576	Mo2045	Ni2216	Pb2203	Sb2068	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4550.**	**4830.**	**4580.**	**4980.**	**4640.**	**4700.**	**4560.**	**4520.**	**4660.**	**4640.**	**4800.**	**4630.**
Stddev	12.	46.	20.	7.	42.	4.	8.	14.	.	2.	4.	33.
%RSD	.267	.947	.427	.135	.900	.092	.186	.300	.010	.032	.079	.704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2062	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**4560.**	**91.6**	**96.2**
Stddev	9.	.3	.3
%RSD	.196	.303	.314
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv1 Acquired: 11/03/2021 04:52:57 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**123480.**	**1624400.**	**46365.**
Stddev	113.	4147.	143.
%RSD	.09127	.25529	.30857

Sample Name: ccv2 Acquired: 11/03/2021 04:59:40 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**49.2**	**498.**	**485.**	**480.**	**470.**	**45.8**	**522.**	**45.9**	**497.**	**475.**	**514.**	**522.**
Stddev	.4	1.	3.	4.	.	.1	17.	.2	1.	2.	2.	2.
%RSD	.715	.242	.670	.906	.100	.266	3.26	.534	.145	.427	.360	.402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**544.**	**488.**	**514.**	**493.**	**492.**	**509.**	**504.**	**500.**	**502.**	**484.**	**485.**	**485.**
Stddev	2.	1.	2.	1.	1.	5.	3.	2.	4.	3.	2.	2.
%RSD	.306	.260	.343	.121	.211	.995	.554	.364	.882	.550	.416	.309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2138	Na5895	K_7664
Units	ug/L	mg/L	mg/L
Avg	**521.**	**9.39**	**10.1**
Stddev	1.	.07	.1
%RSD	.180	.721	1.12
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 11/03/2021 04:59:40 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**127270.**	**1698800.**	**46448.**
Stddev	283.	6050.	116.
%RSD	.22229	.35612	.25042

Sample Name: ccb Acquired: 11/03/2021 05:06:44 Type: QC
Method: DOD Calibration Updated 060614(v4607) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.676**	**-.475**	**1.28**	**.122**	**-.019**	**.631**	**-.112**	**.123**	**-.061**	**.233**	**-.772**	**.610**
Stddev	.259	.381	3.67	.168	.009	.205	.110	.244	.356	.657	1.60	.023
%RSD	38.3	80.2	288.	138.	47.4	32.5	99.1	199.	580.	281.	207.	3.72
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.024**	**.878**	**-.006**	**.943**	**-.355**	**1.08**	**-.188**	**.019**	**.065**	**-.169**	**.062**	**-.048**
Stddev	.032	.410	.386	1.64	3.30	4.59	1.42	.220	.062	.003	.011	.024
%RSD	133.	46.6	5970.	174.	929.	424.	753.	1160.	95.7	2.02	18.1	50.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**130680.**	**1710300.**	**47780.**
Stddev	377.	6658.	172.
%RSD	.28819	.38931	.35985

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	11/19/2021 12:07:15	11/18/2021 10:09:12	Linear	1/Conc	0.000005	0.000002	0.000000	1.000000	0.999512	0.000000	0.609195	2.030650
Ag 338.289 {100}	11/19/2021 12:07:15	11/18/2021 11:05:31	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.995813	0.000000	8.743987	29.146624
Al 167.079 {501}	11/19/2021 12:07:15	11/18/2021 10:16:16	Linear	1/Var	0.000007	0.000002	0.000000	1.000000	0.999919	0.000005	0.854507	2.848357
Al 308.215 {109}	11/19/2021 12:07:15	11/18/2021 10:40:31	Linear	1/Var	0.000157	0.000000	0.000000	1.000000	0.998324	0.000035	35.271163	117.57054
Al 396.152 { 85}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Var	-0.000089	0.000002	0.000000	1.000000	0.999774	0.000076	9.568382	31.894607
As 193.759 {474}	11/19/2021 12:07:15	11/18/2021 10:16:17	Linear	1/Conc	0.000009	0.000001	0.000000	1.000000	0.999254	0.000000	4.512778	15.042593
As 197.262 {471}	11/19/2021 12:07:15	11/18/2021 10:24:08	Linear	1/Var	-0.000008	0.000001	0.000000	1.000000	0.999978	0.000004	5.717350	19.057834
Ba 233.527 {445}	11/19/2021 12:07:15	11/18/2021 10:16:17	Linear	1/Conc	0.000005	0.000008	0.000000	1.000000	0.999879	0.000000	0.461875	1.539583
Ba 455.403 { 74}	11/19/2021 12:07:15	11/18/2021 10:24:08	Linear	1/Conc	0.000306	0.000037	0.000000	1.000000	0.999830	0.000003	0.418222	1.394073
Ba 493.409 { 68}	11/19/2021 12:07:15	11/18/2021 11:05:31	Linear	1/Var	0.016571	0.000040	0.000000	1.000000	0.999844	0.000769	1.375594	4.585313
Be 313.042 {108}	11/19/2021 12:07:15	11/18/2021 10:16:18	Linear	1/Conc	0.000049	0.000055	0.000000	1.000000	0.999973	0.000000	0.019270	0.064235
Be 313.107 {108}	11/19/2021 12:07:15	11/18/2021 10:16:18	Linear	1/Conc	0.000007	0.000044	0.000000	1.000000	0.999955	0.000000	0.160178	0.533928
Be 234.861 {144}	11/19/2021 12:07:15	11/18/2021 10:16:18	Linear	1/Var	-0.000002	0.000008	0.000000	1.000000	0.999936	0.000008	0.417814	1.392714
Ca 184.006 {483}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Var	-0.000039	0.000002	0.000000	1.000000	0.999849	0.000027	2.075389	6.917963
Ca 315.887 {107}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Conc	0.000004	0.000000	0.000000	1.000000	0.999951	0.000005	16.846767	56.155889
Ca 317.933 {106}	11/19/2021 12:07:15	11/18/2021 10:57:24	Linear	1/Conc	0.000075	0.000000	0.000000	1.000000	0.999702	0.000005	41.969677	139.89892
Ca 393.366 { 86}	11/19/2021 12:07:15	11/18/2021 10:16:19	Linear	None	0.002159	0.000219	0.000000	1.000000	0.999715	0.003059	0.060947	0.203157
Ca 396.847 { 85}	11/19/2021 12:07:15	11/18/2021 10:24:08	Linear	1/Conc	0.000093	0.000078	0.000000	1.000000	0.999855	0.000062	0.153541	0.511805
Cd 226.502 {449}	11/19/2021 12:07:15	11/18/2021 10:16:19	Linear	1/Conc	-0.000003	0.000024	0.000000	1.000000	0.999971	0.000000	0.231377	0.771255
Cd 228.802 {447}	11/19/2021 12:07:15	11/18/2021 10:16:19	Linear	1/Conc	0.000020	0.000046	0.000000	1.000000	0.999851	0.000001	0.172691	0.575637
Co 228.616 {447}	11/19/2021 12:07:15	11/18/2021 10:24:09	Linear	1/Conc	0.000004	0.000024	0.000000	1.000000	0.999806	0.000001	0.297765	0.992549
Co 238.892 {141}	11/19/2021 12:07:15	11/18/2021 10:24:09	Linear	1/Var	-0.000002	0.000002	0.000000	1.000000	0.999938	0.000003	0.395660	1.318867
Cr 205.560 {464}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	1/Var	0.000011	0.000009	0.000000	1.000000	0.999283	0.000022	0.493134	1.643779
Cr 267.716 {126}	11/19/2021 12:07:15	11/18/2021 10:24:09	Linear	1/Conc	-0.000003	0.000003	0.000000	1.000000	0.999916	0.000000	0.401875	1.339585
Cu 223.008 {451}	11/19/2021 12:07:15	11/18/2021 10:24:09	Linear	1/Conc	0.000011	0.000006	0.000000	1.000000	0.999798	0.000002	1.185949	3.953163
Cu 224.700 {450}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	None	-0.001009	0.000009	0.000000	1.000000	0.999988	0.001827	0.465478	1.551592
Cu 324.754 {104}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	1/Var	0.000911	0.000002	0.000000	1.000000	0.999407	0.000014	3.662145	12.207149
Cu 327.396 {103}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	1/Var	0.000086	0.000002	0.000000	1.000000	0.999303	0.000024	8.051764	26.839214
Fe 234.349 {144}	11/19/2021 12:07:15	11/18/2021 10:40:31	Curvili	1/Conc	0.000013	0.000000	0.000000	1.000000	0.999983	0.000001	1.149547	3.831824
Fe 239.562 {140}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Var	0.000003	0.000000	0.000000	1.000000	0.999932	0.000012	9.083517	30.278389
Fe 259.940 {129}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.999955	0.000026	3.500247	11.667489
Mg 202.582 {466}	11/19/2021 12:07:15	11/18/2021 10:57:24	Curvili	1/Var	-0.000001	0.000000	0.000000	1.000000	0.999872	0.000004	2.725238	9.084126
Mg 279.079 {121}	11/19/2021 12:07:15	11/18/2021 10:57:25	Curvili	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999955	0.000001	43.981483	146.60494
Mg 280.270 {120}	11/19/2021 12:07:15	11/18/2021 10:24:11	Linear	1/Conc	0.000108	0.000028	0.000000	1.000000	0.999196	0.000053	0.022741	0.075805
Mn 257.610 {131}	11/19/2021 12:07:15	11/18/2021 10:24:11	Curvili	1/Conc	-0.000000	0.000008	-0.000000	1.000000	0.999992	0.000000	0.065064	0.216881
Mn 259.373 {130}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	1/Var	-0.000003	0.000006	0.000000	1.000000	0.999939	0.000015	0.856740	2.855801
Mo 202.030 {466}	11/19/2021 12:07:15	11/18/2021 10:24:11	Linear	1/Conc	0.000010	0.000009	0.000000	1.000000	0.999943	0.000000	0.509886	1.699622
Mo 204.598 {464}	11/19/2021 12:07:15	11/18/2021 10:24:11	Linear	1/Var	0.000005	0.000005	0.000000	1.000000	0.999856	0.000013	1.008766	3.362553
Mo 202.030 {467}	11/19/2021 12:07:15	11/18/2021 10:24:11	Linear	1/Conc	0.000020	0.000008	0.000000	1.000000	0.999908	0.000001	0.528019	1.760065
Ni 221.647 {452}	11/19/2021 12:07:15	11/18/2021 10:24:12	Linear	1/Var	0.000008	0.000013	0.000000	1.000000	0.999836	0.000055	0.606621	2.022071
Ni 231.604 {445}	11/19/2021 12:07:15	11/18/2021 10:24:12	Linear	1/Conc	-0.000008	0.000014	0.000000	1.000000	0.999719	0.000000	0.577493	1.924975
Pb 216.999 {455}	11/19/2021 12:07:15	11/18/2021 10:32:24	Linear	None	-0.000162	0.000001	0.000000	1.000000	0.999969	0.000312	6.756296	22.520987
Pb 220.353 {453}	11/19/2021 12:07:15	11/18/2021 10:24:12	Linear	1/Conc	0.000020	0.000003	0.000000	1.000000	0.999094	0.000000	2.702777	9.009256
Pb 216.999 {456}	11/19/2021 12:07:15	11/18/2021 10:32:25	Curvili	1/Conc	-0.000002	0.000000	0.000000	1.000000	0.999930	0.000000	21.514603	71.715343

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {456}	OK.	1.000000	0.000000	1	0

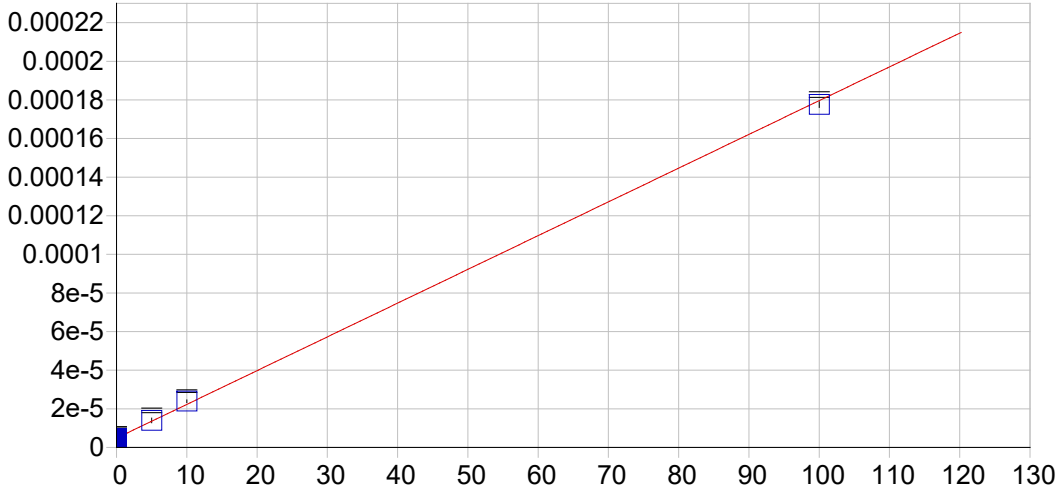
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Pb 220.353 {153}	11/19/2021 12:07:15	11/18/2021 10:32:25	Linear	1/Var	0.000007	0.000001	0.000000	1.000000	0.999912	0.000021	4.017215	13.390717
	Sb 206.833 {463}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Var	-0.000003	0.000002	0.000000	1.000000	0.999962	0.000006	2.582606	8.608686
	Sb 217.581 {455}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.998324	0.000000	2.923730	9.745766
	Se 196.090 {472}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.999875	0.000000	3.435552	11.451841
	Se 203.985 {465}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Var	0.000006	0.000001	0.000000	1.000000	0.999982	0.000004	9.442415	31.474715
	Se 206.279 {463}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Conc	-0.000003	0.000000	0.000000	1.000000	0.999826	0.000000	18.345561	61.151870
	Tl 190.856 {476}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Conc	-0.000002	0.000002	0.000000	1.000000	0.999098	0.000000	3.127516	10.425052
	Tl 190.856 {477}	11/19/2021 12:07:15	11/18/2021 10:24:13	Linear	1/Var	0.000000	0.000001	0.000000	1.000000	0.999972	0.000003	3.733344	12.444479
	V 290.882 {116}	11/19/2021 12:07:15	11/18/2021 10:24:14	Linear	1/Var	0.000040	0.000001	0.000000	1.000000	0.999835	0.000010	5.434184	18.113946
	V 292.402 {115}	11/19/2021 12:07:15	11/18/2021 10:24:14	Linear	1/Conc	0.000007	0.000005	0.000000	1.000000	0.999902	0.000001	0.428045	1.426817
	Zn 206.200 {463}	11/19/2021 12:07:15	11/18/2021 10:32:25	Curvili	1/Var	0.000013	0.000018	-0.000000	1.000000	0.999812	0.000059	0.289670	0.965565
	Zn 213.856 {457}	11/19/2021 12:07:15	11/18/2021 10:24:14	Linear	1/Conc	0.000048	0.000050	0.000000	1.000000	0.999856	0.000004	0.120912	0.403040
	Y 224.306 {450}*	11/19/2021 12:07:15	11/18/2021 09:14:44	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	11/19/2021 12:07:15	11/18/2021 09:14:44	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	11/19/2021 12:07:15	11/18/2021 09:14:44	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 588.995 { 57}	11/19/2021 12:07:15	11/18/2021 10:57:25	Full Fit	1/Conc	0.021213	0.018516	-0.000003	0.980000	0.999947	0.000333	0.003499	0.011664
	Na 589.592 { 57}	11/19/2021 12:07:15	11/18/2021 10:57:25	Full Fit	1/Var	-0.000083	0.004966	-0.000001	1.040000	0.999715	0.000109	0.006278	0.020928
	Si 212.412 {458}	11/19/2021 12:07:15	11/18/2021 10:57:25	Curvili	1/Var	0.000025	0.000004	0.000000	1.000000	0.999934	0.000008	1.308256	4.360853
	Si 251.611 {134}	11/19/2021 12:07:15	11/18/2021 10:57:25	Linear	1/Var	-0.000001	0.000000	0.000000	1.000000	0.998080	0.000045	21.040350	70.134499
	Ti 323.452 {104}	11/19/2021 12:07:15	11/18/2021 10:24:15	Linear	1/Conc	0.000143	0.000007	0.000000	1.000000	0.999865	0.000001	1.632725	5.442417
	Ti 334.941 {101}	11/19/2021 12:07:15	11/18/2021 10:24:15	Linear	1/Conc	-0.000003	0.000002	0.000000	1.000000	0.999761	0.000000	3.449274	11.497580
	Sr 407.771 { 83}	11/19/2021 12:07:15	11/18/2021 10:24:15	Linear	1/Conc	0.000035	0.000113	0.000000	1.000000	0.999854	0.000008	0.122074	0.406915
	Sr 421.552 { 80}	11/19/2021 12:07:15	11/18/2021 10:24:15	Linear	1/Conc	0.000081	0.000108	0.000000	1.000000	0.999941	0.000005	0.153159	0.510531
	Sn 189.989 {477}	11/19/2021 12:07:15	11/18/2021 10:24:15	Linear	1/Var	0.000013	0.000004	0.000000	1.000000	0.999865	0.000018	1.014092	3.380306
	B 249.678 {135}	11/19/2021 12:07:15	11/18/2021 10:24:16	Linear	None	0.000012	0.000001	0.000000	1.000000	0.999994	0.000021	0.753227	2.510755
	B 249.773 {135}	11/19/2021 12:07:15	11/18/2021 10:24:16	Linear	None	0.000039	0.000003	0.000000	1.000000	0.999993	0.000058	0.309534	1.031781
	Li 670.784 { 50}	11/19/2021 12:07:15	11/18/2021 10:24:16	Linear	1/Conc	-7.298847	11.749327	0.000000	1.000000	0.999877	2.509788	0.774155	2.580518
	K 766.490 { 44}	11/19/2021 12:07:15	11/18/2021 10:57:25	Linear	1/Var	-0.000112	0.001917	0.000000	1.000000	0.999724	0.000128	0.017754	0.059181
	K 769.896 { 44}	11/19/2021 12:07:15	11/18/2021 10:57:25	Full Fit	1/Conc	0.000357	0.000593	-0.000000	1.070000	0.999995	0.000005	0.046476	0.154920
	P 177.495 {489}	11/19/2021 12:07:15	11/18/2021 10:57:26	Linear	1/Conc	-0.000796	0.000000	0.000000	1.000000	0.941618	0.000219	12.295516	40.985054
	P 213.618 {457}	11/19/2021 12:07:15	11/18/2021 10:57:26	Linear	1/Conc	-0.000004	0.000002	0.000000	1.000000	0.998827	0.000116	3.904623	13.015409
	S 182.034 {485}	11/19/2021 12:07:15	11/18/2021 10:57:26	Linear	1/Conc	0.000021	0.000001	0.000000	1.000000	0.999845	0.000006	4.636645	15.455483
	Hg 184.950 {482}	11/19/2021 12:07:15	11/18/2021 10:16:29	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999936	0.000000	1.027887	3.426291
	Hg 194.227 {473}	11/19/2021 12:07:15	11/18/2021 10:16:30	Linear	1/Conc	-0.000003	0.000004	0.000000	1.000000	0.999958	0.000001	0.863381	2.877936
	Ce 404.076 { 83}	11/19/2021 12:07:15	11/18/2021 10:16:30	Linear	1/Conc	-0.000025	0.000001	0.000000	1.000000	1.000000	0.000000	29.446529	98.155098

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Hg 194.227 {473}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	1	Ce	-0.001808	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000238	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	4	Al	0.001423	0.000000	No
			Mn	-0.000003	0.000000	No
			Ni	-0.000722	0.000000	No
			Cr	0.000734	0.000000	No
As 197.262 {471}	☒	1	Al	0.000112	0.000000	No
Ba 233.527 {445}	☒	1	Fe	0.000025	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000009	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000004	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000001	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000013	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Ce	0.001430	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000188	0.000000	No
Cd 228.802 {447}	☒	1	Fe	-0.000005	0.000000	No
Co 228.616 {447}	☒	4	Fe	0.000002	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
			Ce	-0.000069	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	2	Fe	0.000053	0.000000	No
			Mo	0.004000	0.000000	No
Cu 224.700 {450}	☒	2	Fe	0.003134	0.000000	No
			Ni	-0.007040	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000081	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	3	Al	-0.000002	0.000000	No
			K	0.000100	0.000000	No
			Ce	-0.000166	0.000000	No
Mn 259.373 {130}	☒	1	Fe	0.000400	0.000000	No
Mo 202.030 {466}	☒	2	Fe	0.000004	0.000000	No
			Ti	0.000527	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000052	0.000000	No
Mo 202.030 {467}	☒	1	Fe	-0.000009	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	6	Fe	-0.000075	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Al	0.000003	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {453}	☒	4	Si	0.000000	0.000000	No
			Al	0.000024	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	-0.001644	0.000000	No
Pb 216.999 {456}	☒	1	Al	0.003022	0.000000	No
Pb 220.353 {153}	☒	1	Fe	-0.000011	0.000000	No
Sb 206.833 {463}	☒	3	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
			Ce	0.005500	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000158	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000139	0.000000	No
Se 203.985 {465}	☒	1	Fe	-0.000160	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	8	Fe	-0.000455	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000000	0.000000	No
			Mn	0.000000	0.000000	No
			Ni	0.000000	0.000000	No
			Co	0.002495	0.000000	No
			Cr	0.000220	0.000000	No
			Cu	0.001535	0.000000	No
Tl 190.856 {477}	☒	3	Fe	-0.000026	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cr	0.000000	0.000000	No
			Ce	0.000980	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000192	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000001	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000001	0.000000	No
Si 212.412 {458}	☒	None				
Si 251.611 {134}	☒	1	Fe	-0.000158	0.000000	No
Ti 323.452 {104}	☒	2	Fe	0.000029	0.000000	No
			Ce	0.000123	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000106	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000049	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000017	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000002	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000463	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000002	0.000000	No
K 766.490 { 44}	☒	2	Fe	0.000003	0.000000	No
			Cu	0.000000	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
P 213.618 {457}	☒	1	Fe	-0.000069	0.000000	No
S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
			Fe	-0.000035	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Hg 194.227 {473}	☒	None				
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

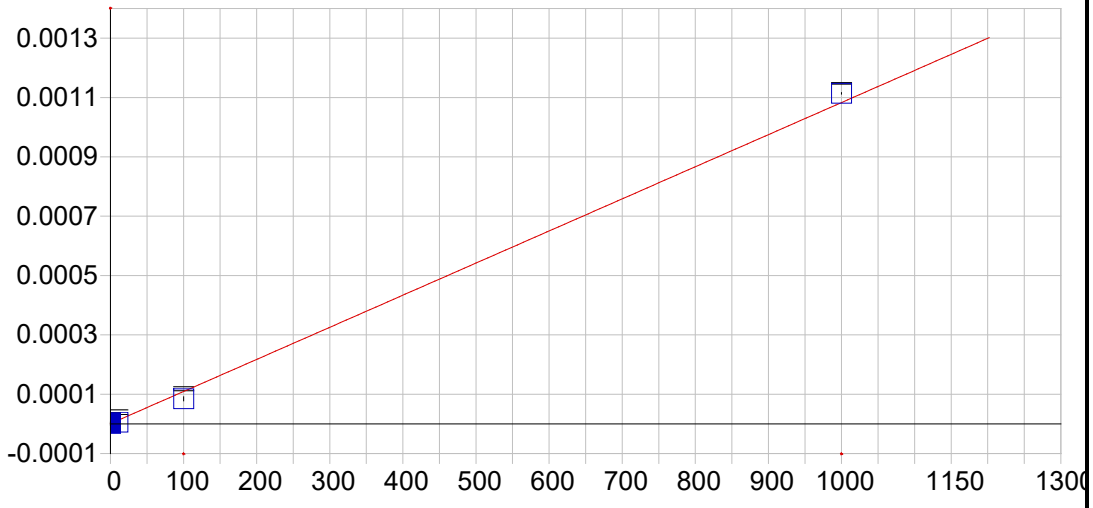


Ag 328.068 {103}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999512	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.609195		
Predicted MQL:	2.030650		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00066	-.001	.000	.00000	.000	1
CalStd8=100	100.00	98.823	-1.18	-1.18	.00018	.000	1
CalStd4=5	5.0000	5.2509	.251	5.02	.00001	.000	1
CalStd5=10	10.000	10.926	.926	9.26	.00002	.000	1

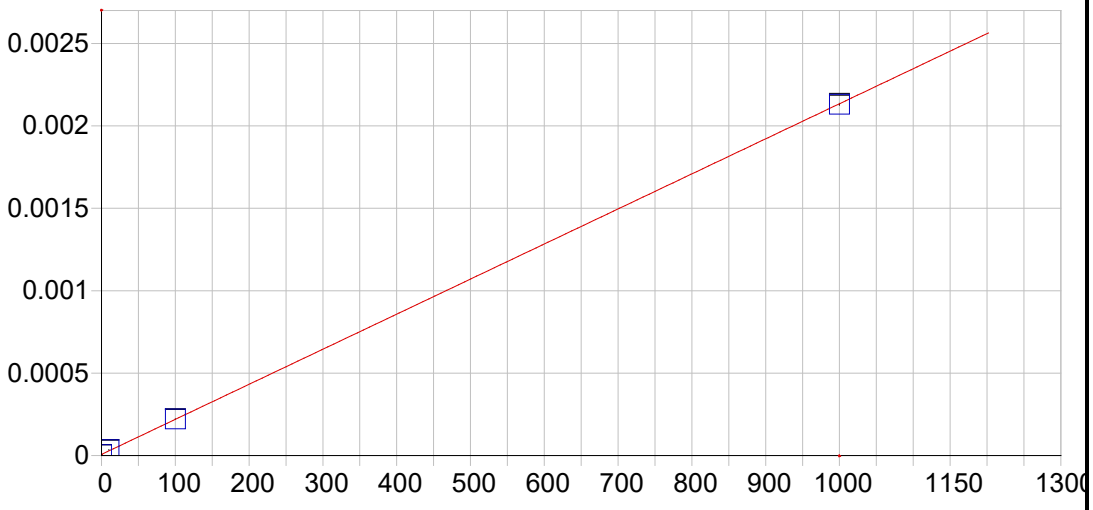


Ag 338.289 {100}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995813	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	8.743987		
Predicted MQL:	29.146624		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00776	.008	.000	.00000	.000	1
CalStd8=100	100.00	77.177	-22.8	-22.8	.00008	.000	1
Ag Ba 1000,	1000.0	1028.6	28.6	2.86	.00111	.000	1
CalStd5=10	10.000	4.2377	-5.76	-57.6	.00001	.000	1

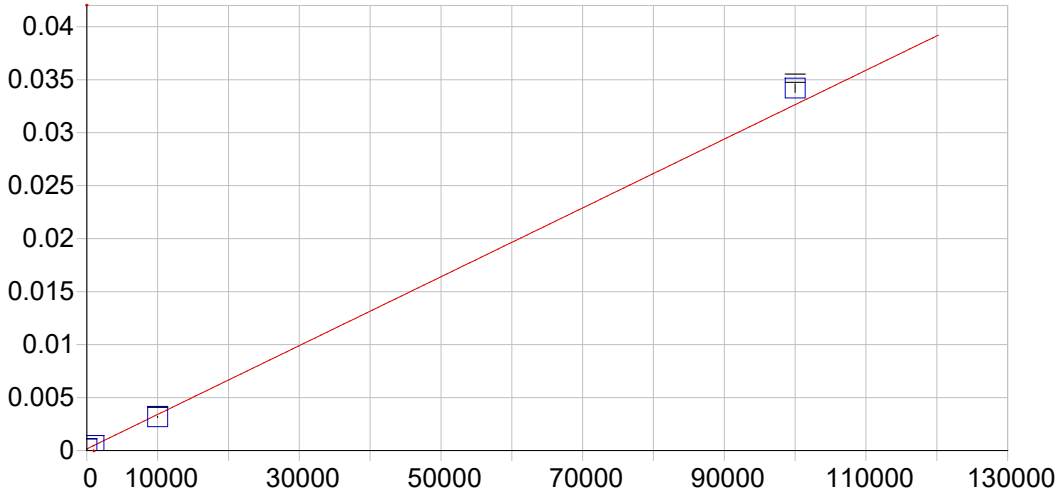


Al 167.079 {501}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.854507		
Predicted MQL:	2.848357		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0511	-1.05	.000	.00000	.000	1
CalStd9=100	1000.0	998.44	-1.56	-.156	.00213	.000	1
CalStd5=10	10.000	13.062	3.06	30.6	.00003	.000	1
CalStd8=100	100.00	100.66	.664	.664	.00022	.000	1

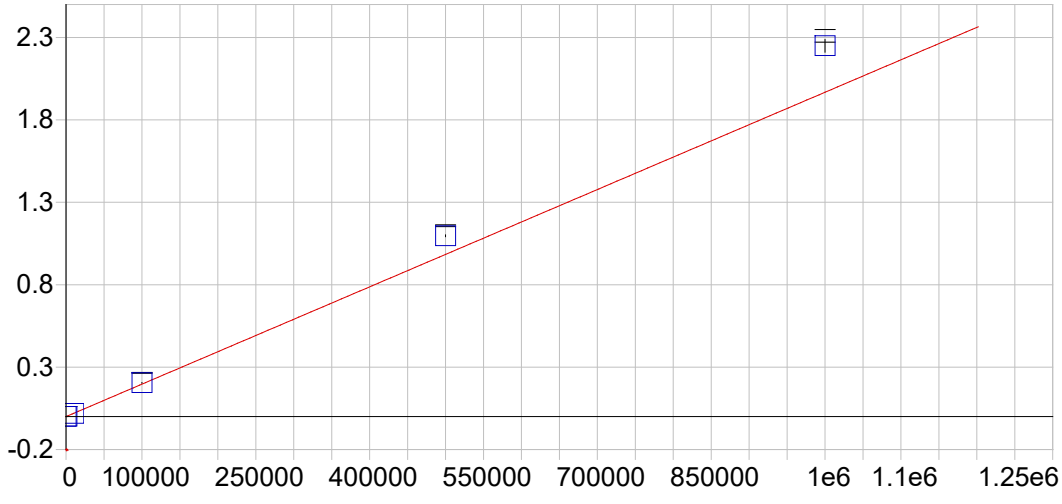


Al 308.215 {109}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000157	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998324	Status:	OK.
Std Error of Est:	0.000035		
Predicted MDL:	35.271163		
Predicted MQL:	117.570544		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	6.5521	6.55	.000	.00016	.000	1
CalStd10=10	10000.	9286.0	-714.	-7.14	.00317	.000	1
CalStd9=100	1000.0	972.89	-27.1	-2.71	.00047	.000	1
CalStd13=10	100000.	104790.	4790.	4.79	.03420	.000	1

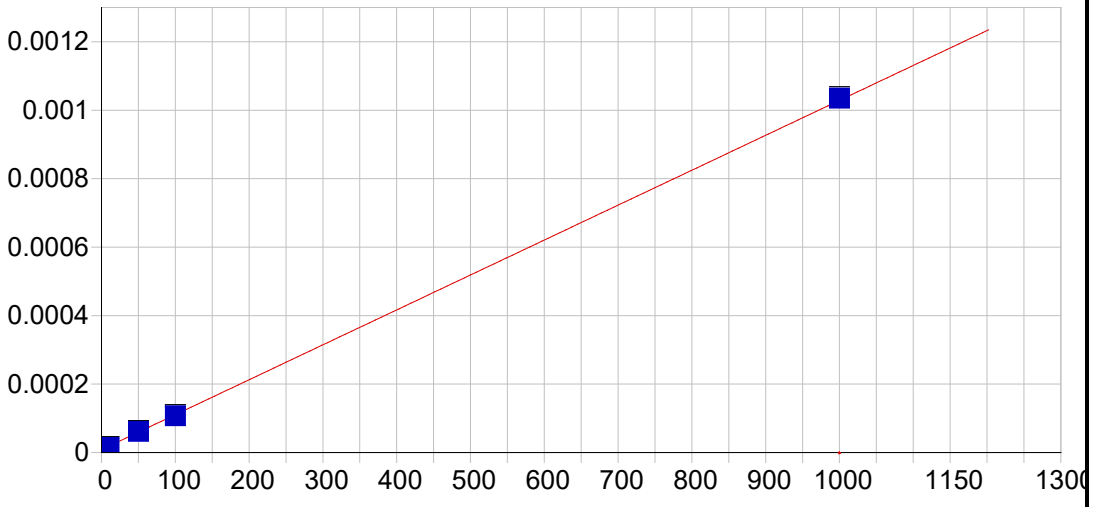


Al 396.152 { 85}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000089	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999774	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	9.568382		
Predicted MQL:	31.894607		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	7.5196	7.52	.000	-.00007	.000	1
CalStd14=50	500000.	557430.	57400.	11.5	1.0968	.006	1
CalStd13=10	100000.	104140.	4140.	4.14	.20484	.003	1
CalStd10=10	10000.	9549.9	-450.	-4.50	.01870	.000	1
CalStd9=100	1000.0	991.50	-8.50	-.850	.00186	.000	1
CalibStd15=	1000000.	1143100.	143000.	14.3	2.2493	.038	1

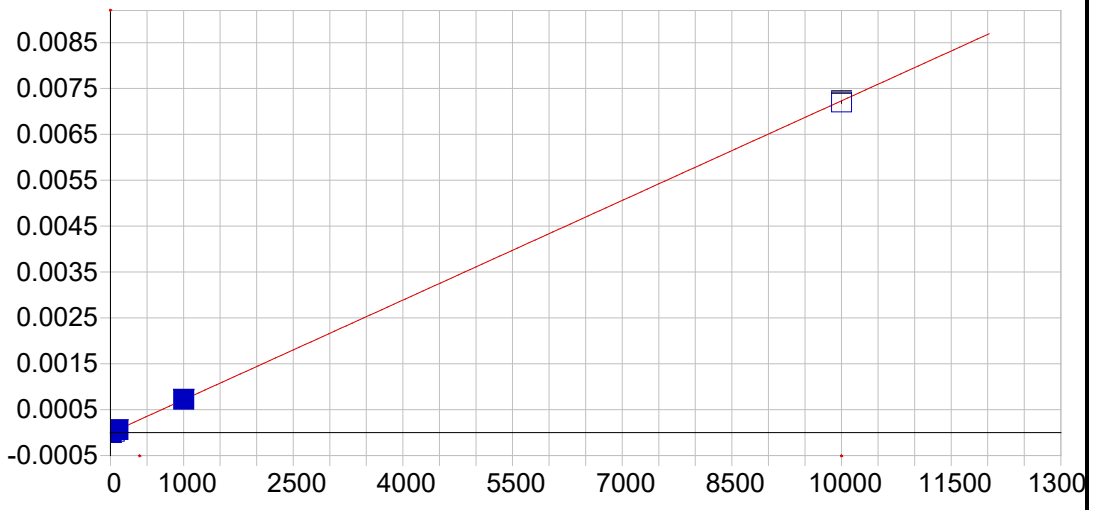


As 193.759 {474}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999254	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.512778		
Predicted MQL:	15.042593		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00385	.004	.000	.00001	.000	1
CalStd9=100	1000.0	1005.7	5.67	.567	.00104	.000	1
CalStd7=50	50.000	51.714	1.71	3.43	.00006	.000	1
CalStd5=10	10.000	6.0967	-3.90	-39.0	.00001	.000	1
CalStd8=100	100.00	96.519	-3.48	-3.48	.00011	.000	1

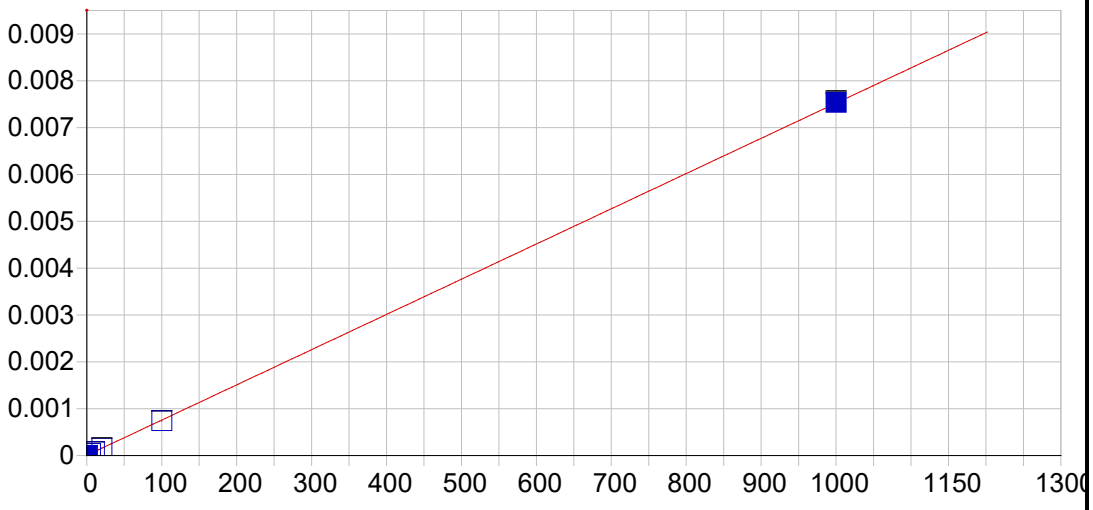


As 197.262 {471}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	5.717350		
Predicted MQL:	19.057834		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.4228	1.42	.000	-.00001	.000	1
CalStd9=100	1000.0	1006.2	6.21	.621	.00072	.000	1
CalStd7=50	50.000	45.254	-4.75	-9.49	.00003	.000	1
CalStd5=10	10.000	8.1163	-1.88	-18.8	-.00000	.000	1
CalStd8=100	100.00	95.465	-4.54	-4.54	.00006	.000	1
CalStd10=10	10000.	9962.9	-37.1	-.371	.00720	.000	1

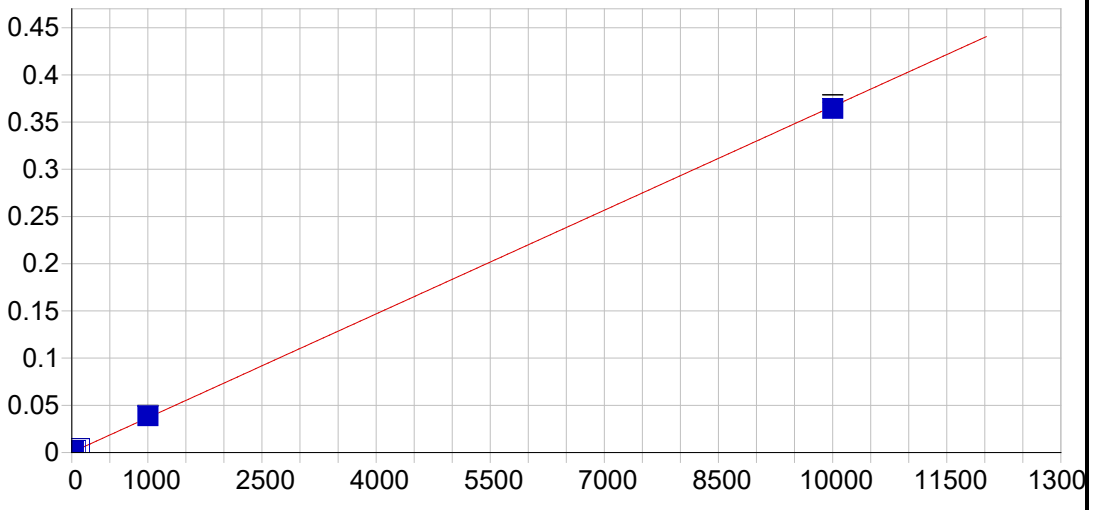


Ba 233.527 {445}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999879	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.461875		
Predicted MQL:	1.539583		

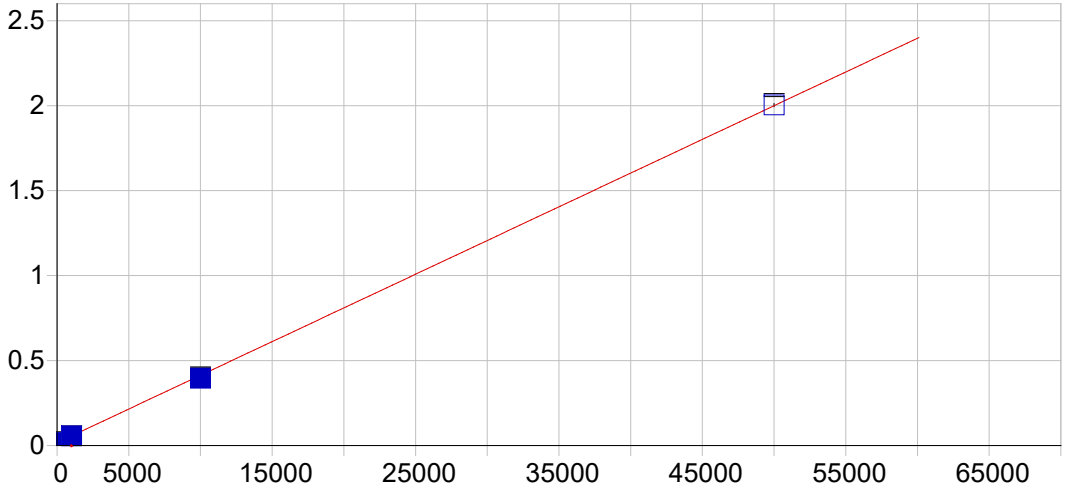
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00046	.000	.000	.00000	.000	1
CalStd5=10	10.000	9.9453	-.055	-.547	.00008	.000	1
CalStd6=20	20.000	20.715	.715	3.57	.00016	.000	1
CalStd8=100	100.00	98.063	-1.94	-1.94	.00074	.000	1
CalStd4=5	5.0000	4.8778	-.122	-2.44	.00004	.000	1
CalStd9=100	1000.0	1001.9	1.85	.185	.00754	.000	1
CalStd3=1	1.0000	.54783	-.452	-45.2	.00001	.000	1



Ba 455.403 { 74}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000306		Re-Slope:	1.000000	
A1 (Gain):	0.000037		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999830		Status:	OK.	
Std Error of Est:	0.000003				
Predicted MDL:	0.418222				
Predicted MQL:	1.394073				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00032	-.000	.000	.00031	.000	1
CalStd7=50	50.000	53.581	3.58	7.16	.00227	.000	1
CalStd5=10	10.000	10.402	.402	4.02	.00069	.000	1
CalStd6=20	20.000	22.185	2.19	10.9	.00112	.000	1
CalStd8=100	100.00	102.21	2.21	2.21	.00405	.000	1
CalStd4=5	5.0000	5.6283	.628	12.6	.00051	.000	1
CalStd9=100	1000.0	1052.7	52.7	5.27	.03886	.000	1
CalStd3=1	1.0000	.89997	-.100	-10.0	.00034	.000	1
CalStd10=10	10000.	9938.4	-61.6	-.616	.36429	.004	1

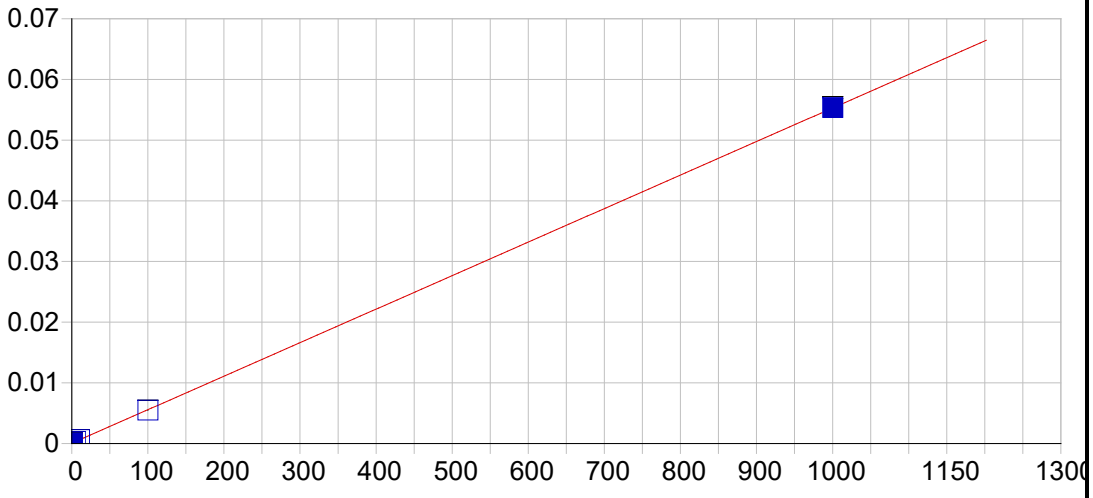


Ba 493.409 { 68}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.016571	Re-Slope:	1.000000
A1 (Gain):	0.000040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999844	Status:	OK.
Std Error of Est:	0.000769		
Predicted MDL:	1.375594		
Predicted MQL:	4.585313		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.262	-12.3	.000	.01609	.000	1
CalStd9=100	1000.0	1007.1	7.15	.715	.05652	.001	1
CalStd8=100	100.00	111.30	11.3	11.3	.02099	.000	1
Ag Ba 1000,	50000.	50086.	86.3	.173	2.0032	.009	1
CalStd10=10	10000.	9557.4	-443.	-4.43	.39567	.007	1

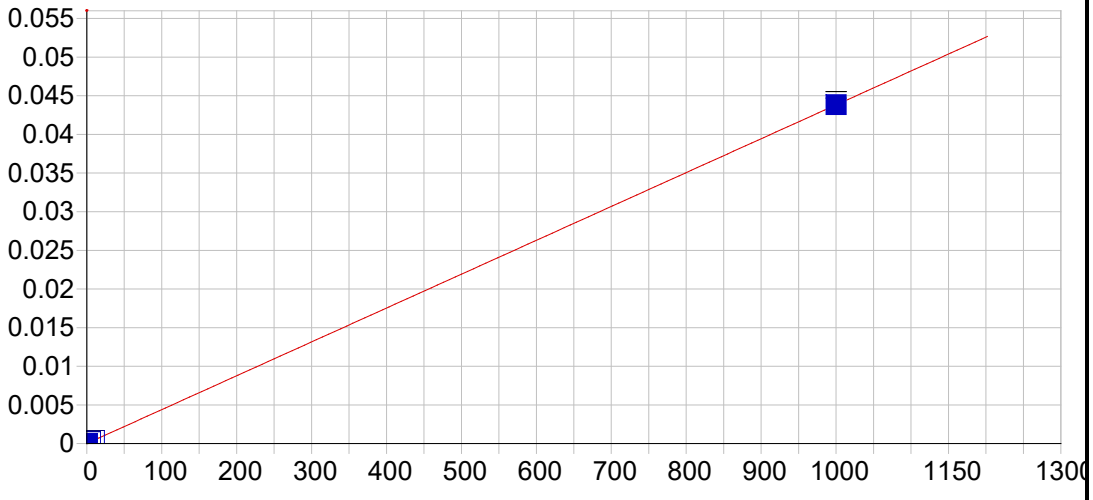


Be 313.042 {108}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000049	Re-Slope:	1.000000
A1 (Gain):	0.000055	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.019270		
Predicted MQL:	0.064235		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00005	.000	1
CalStd5=10	10.000	10.338	.338	3.38	.00062	.000	1
CalStd8=100	100.00	98.254	-1.75	-1.75	.00548	.000	1
CalStd2=0.5	.50000	.44767	-.052	-10.5	.00007	.000	1
CalStd4=5	5.0000	5.2196	.220	4.39	.00034	.000	1
CalStd9=100	1000.0	1001.2	1.20	.120	.05536	.000	1
CalStd3=1	1.0000	1.0424	.042	4.24	.00011	.000	1

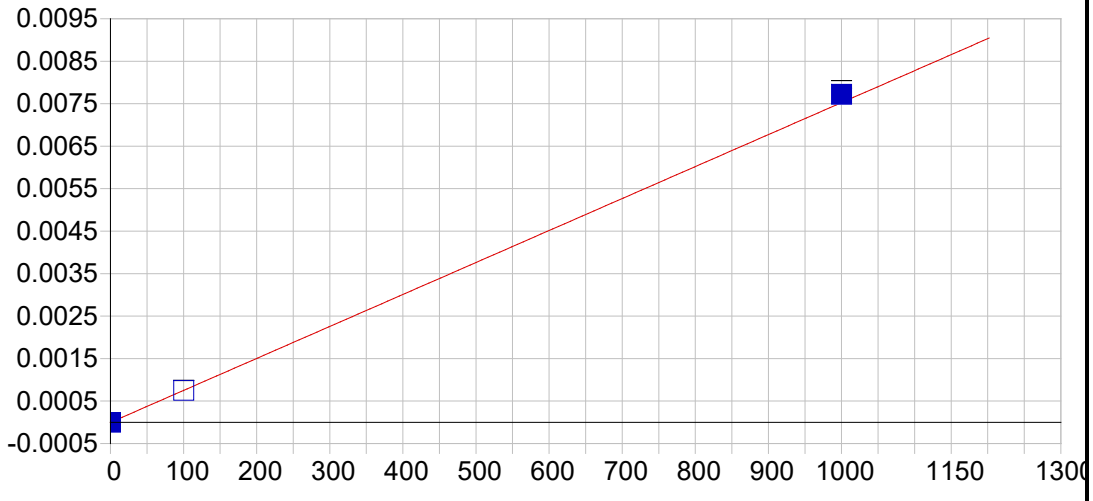


Be 313.107 {108}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000044	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.160178		
Predicted MQL:	0.533928		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00023	.000	.000	.00001	.000	1
CalStd5=10	10.000	10.125	.125	1.25	.00045	.000	1
CalStd2=0.5	.50000	.30262	-.197	-39.5	.00002	.000	1
CalStd4=5	5.0000	5.0884	.088	1.77	.00023	.000	1
CalStd9=100	1000.0	1000.1	.081	.008	.04383	.000	1
CalStd3=1	1.0000	.90258	-.097	-9.74	.00005	.000	1

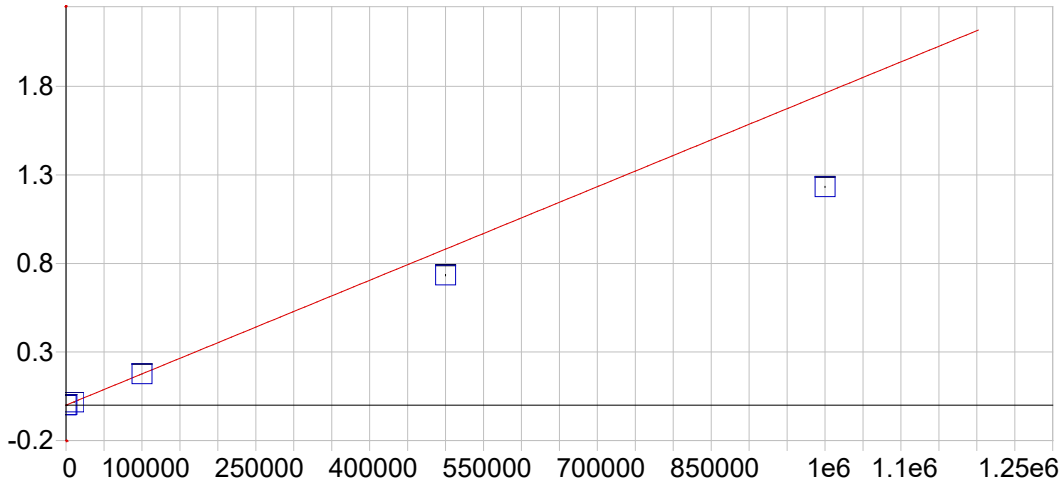


Be 234.861 {144}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999936	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.417814		
Predicted MQL:	1.392714		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.30233	.302	.000	-.00000	.000	1
CalStd9=100	1000.0	1025.8	25.8	2.58	.00772	.000	1
CalStd8=100	100.00	99.836	-.164	-.164	.00075	.000	1

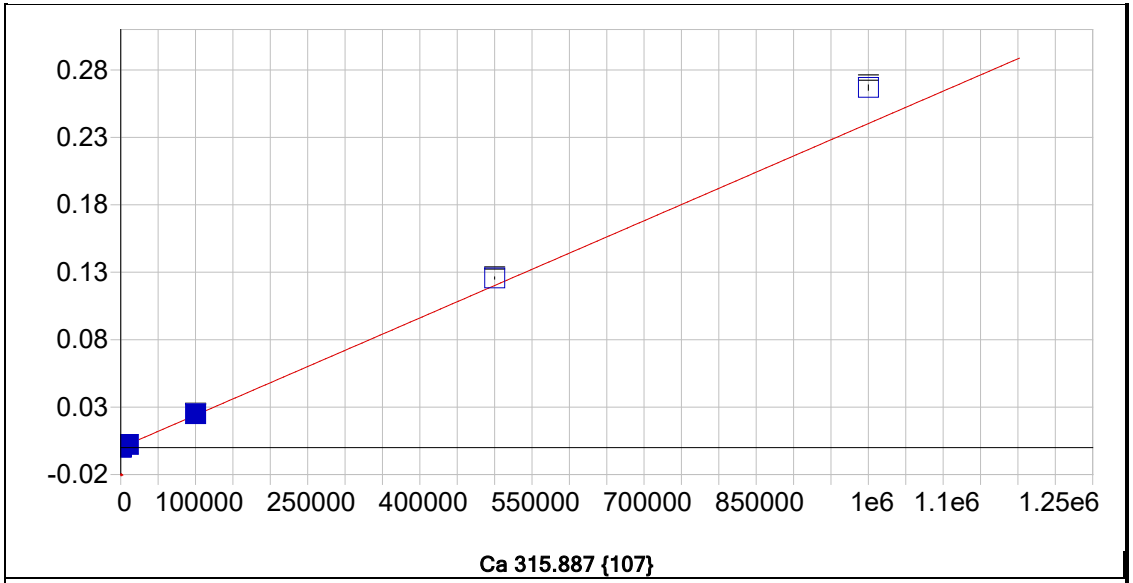


Ca 184.006 {483}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	2.075389		
Predicted MQL:	6.917963		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01027	.010	.000	-.00004	.000	1
CalStd10=10	10000.	9771.4	-229.	-2.29	.01718	.000	1
CalStd13=10	100000.	99747.	-253.	-.253	.17572	.000	1
CalStd14=50	500000.	416530.	-83500.	-16.7	.73390	.004	1
CalStd9=100	1000.0	1006.9	6.92	.692	.00174	.000	1
CalibStd15=	1000000.	699310.	-301000.	-30.1	1.2322	.003	1

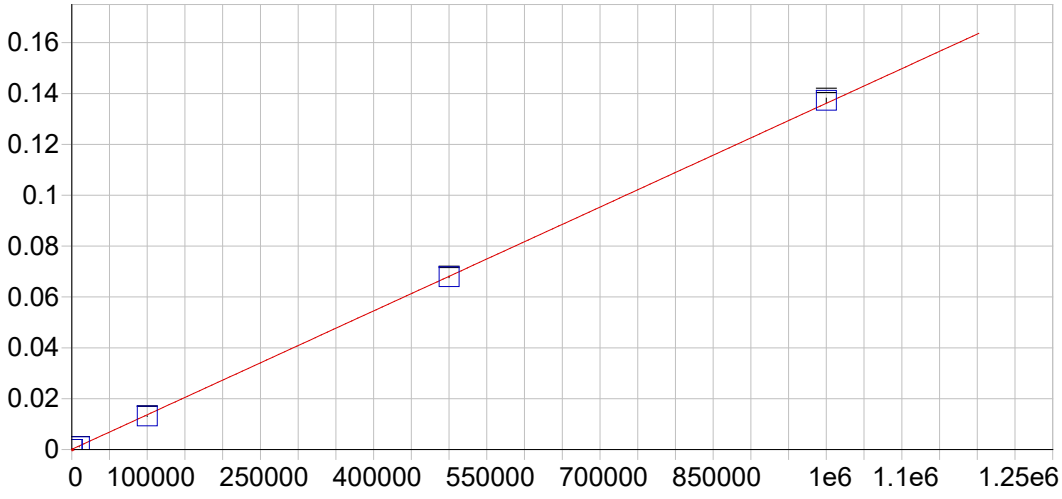


Ca 315.887 {107}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	16.846767		
Predicted MQL:	56.155889		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.09958	.100	.000	.00000	.000	1
CalStd10=10	10000.	9301.6	-698.	-6.98	.00224	.000	1
CalStd13=10	100000.	104190.	4190.	4.19	.02504	.000	1
CalStd14=50	500000.	523240.	23200.	4.65	.12572	.001	1
CalStd9=100	1000.0	946.85	-53.1	-5.31	.00023	.000	1
CalibStd15=	1000000.	1111000.	111000.	11.1	.26694	.002	1

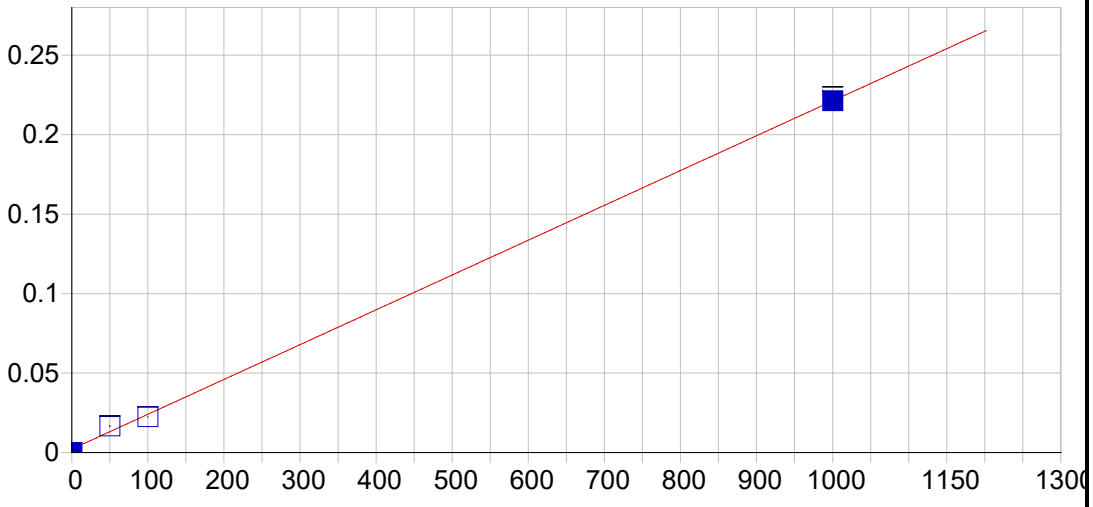


Ca 317.933 {106}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000075	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999702	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	41.969677		
Predicted MQL:	139.898923		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.51375	.514	.000	.00008	.000	1
CalStd10=10	10000.	7380.7	-2620.	-26.2	.00108	.000	1
CalStd13=10	100000.	96101.	-3900.	-3.90	.01315	.000	1
CalStd14=50	500000.	498330.	-1670.	-.334	.06789	.000	1
CalStd9=100	1000.0	782.11	-218.	-21.8	.00018	.000	1
CalibStd15=	1000000.	1008400.	8410.	.841	.13730	.001	1

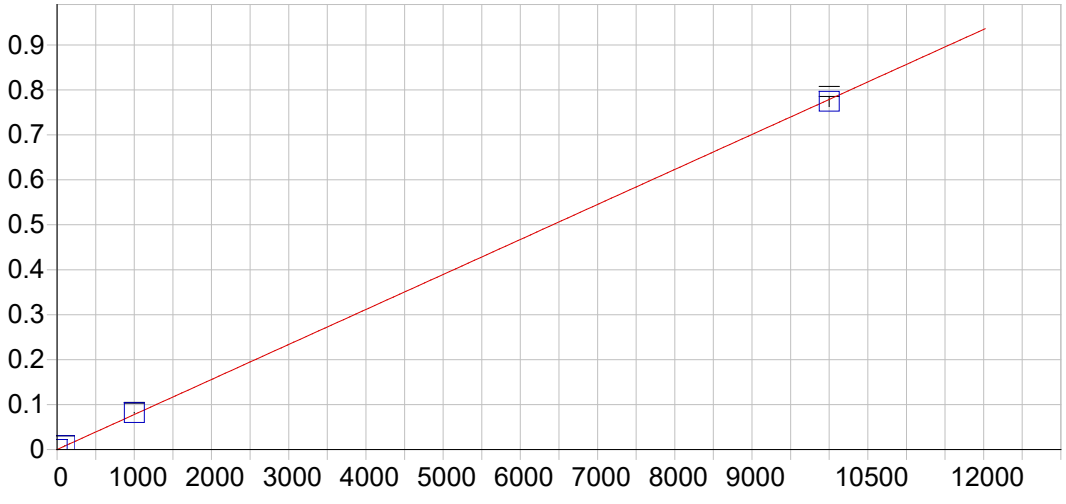


Ca 393.366 { 86}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.002159	Re-Slope:	1.000000
A1 (Gain):	0.000219	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999715	Status:	OK.
Std Error of Est:	0.003059		
Predicted MDL:	0.060947		
Predicted MQL:	0.203157		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-8.8021	-8.80	.000	.00023	.000	1
CalStd9=100	1000.0	999.92	-.082	-.008	.22153	.002	1
CalStd8=100	100.00	92.758	-7.24	-7.24	.02248	.000	1
CalStd7=50	50.000	66.126	16.1	32.3	.01665	.000	1

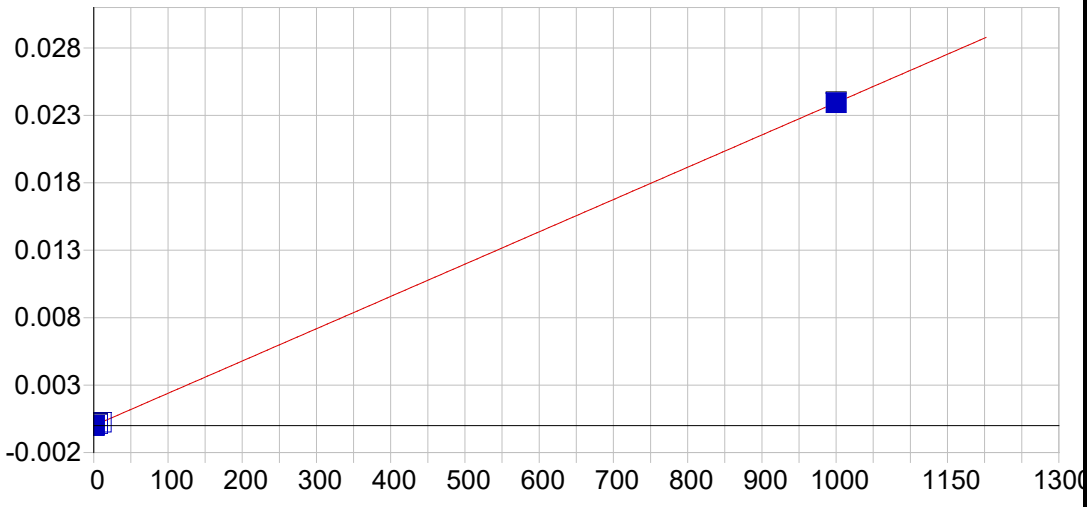


Ca 396.847 { 85}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000093	Re-Slope:	1.000000
A1 (Gain):	0.000078	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999855	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.153541		
Predicted MQL:	0.511805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01074	-.011	.000	.00009	.000	1
CalStd10=10	10000.	9943.7	-56.3	-.563	.77444	.011	1
CalStd8=100	100.00	106.30	6.30	6.30	.00837	.000	1
CalStd9=100	1000.0	1050.0	50.0	5.00	.08186	.001	1

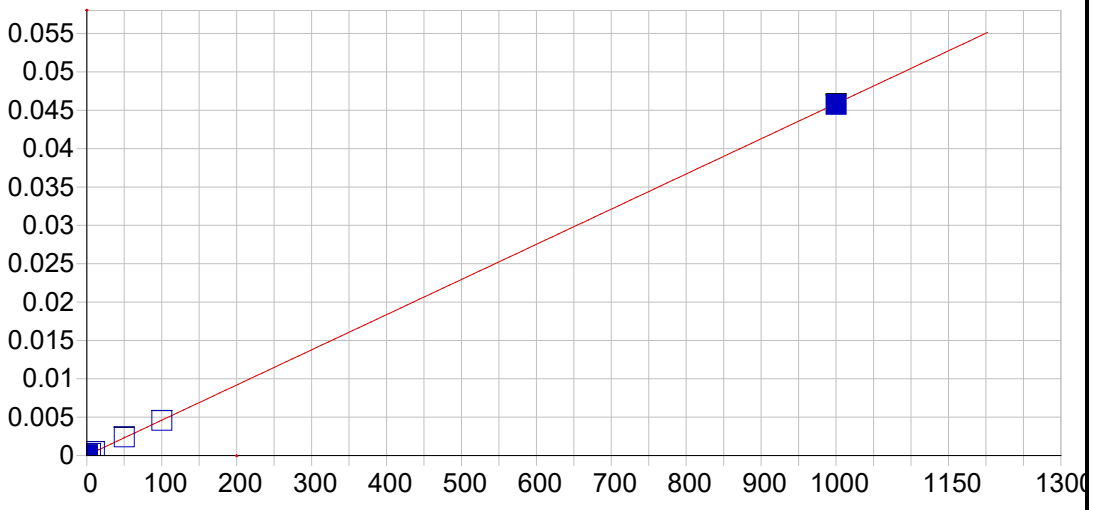


Cd 226.502 {449}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.231377		
Predicted MQL:	0.771255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00005	.000	.000	-.00000	.000	1
CalStd3=1	1.0000	1.0318	.032	3.18	.00002	.000	1
CalStd2=0.5	.50000	.38617	-.114	-22.8	.00001	.000	1
CalStd4=5	5.0000	5.2833	.283	5.67	.00012	.000	1
CalStd5=10	10.000	10.400	.400	4.00	.00025	.000	1
CalStd9=100	1000.0	999.40	-.601	-.060	.02393	.000	1

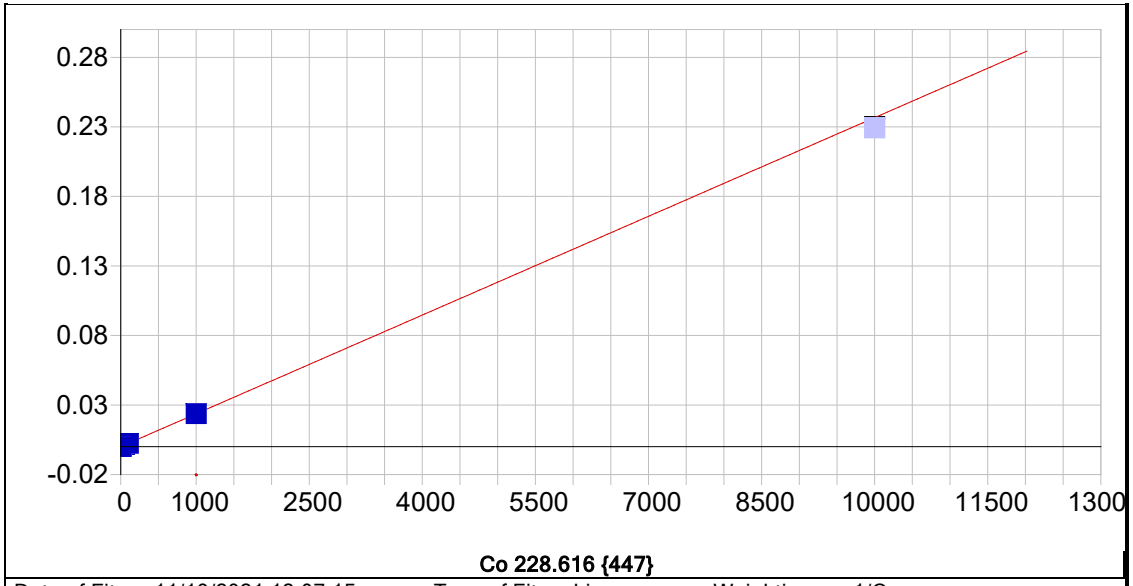


Cd 228.802 {447}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.172691		
Predicted MQL:	0.575637		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00045	-.000	.000	.00002	.000	1
CalStd7=50	50.000	51.945	1.94	3.89	.00240	.000	1
CalStd3=1	1.0000	1.2685	.269	26.9	.00008	.000	1
CalStd2=0.5	.50000	.72621	.226	45.2	.00005	.000	1
CalStd4=5	5.0000	5.5015	.501	10.0	.00027	.000	1
CalStd8=100	100.00	99.147	-.853	-.853	.00457	.000	1
CalStd5=10	10.000	10.566	.566	5.66	.00050	.000	1
CalStd9=100	1000.0	997.35	-2.65	-.265	.04575	.000	1

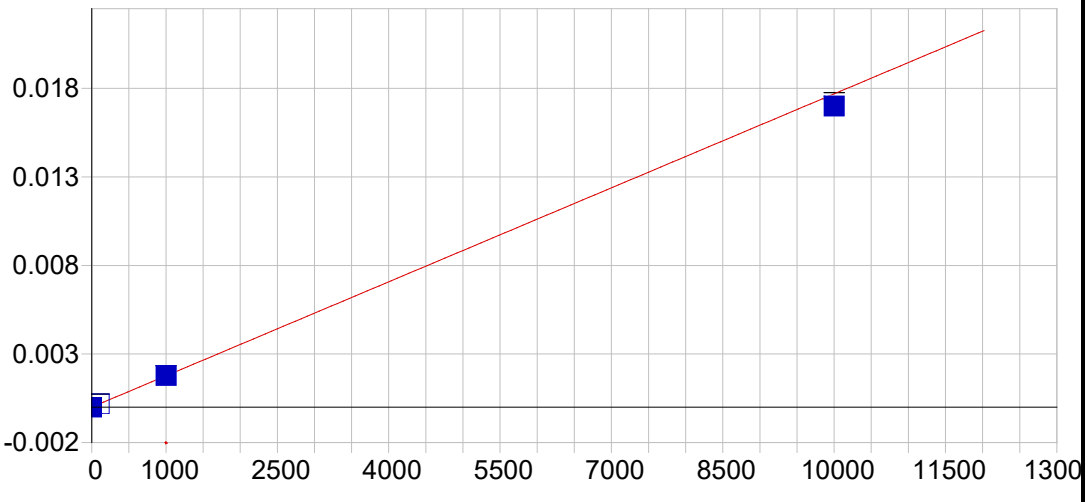


Co 228.616 {447}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.297765		
Predicted MQL:	0.992549		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00066	.001	.000	.00000	.000	1
CalStd7=50	50.000	51.257	1.26	2.51	.00122	.000	1
CalStd5=10	10.000	9.7334	-.267	-2.67	.00023	.000	1
CalStd4=5	5.0000	4.8816	-.118	-2.37	.00012	.000	1
CalStd8=100	100.00	98.273	-1.73	-1.73	.00233	.000	1
CalStd9=100	1000.0	1001.5	1.47	.147	.02373	.000	1
CalStd3=1	1.0000	.38351	-.616	-61.6	.00001	.000	1
CalStd10=10	10000.	9677.7	-322.	-3.22	.22955	.001	0

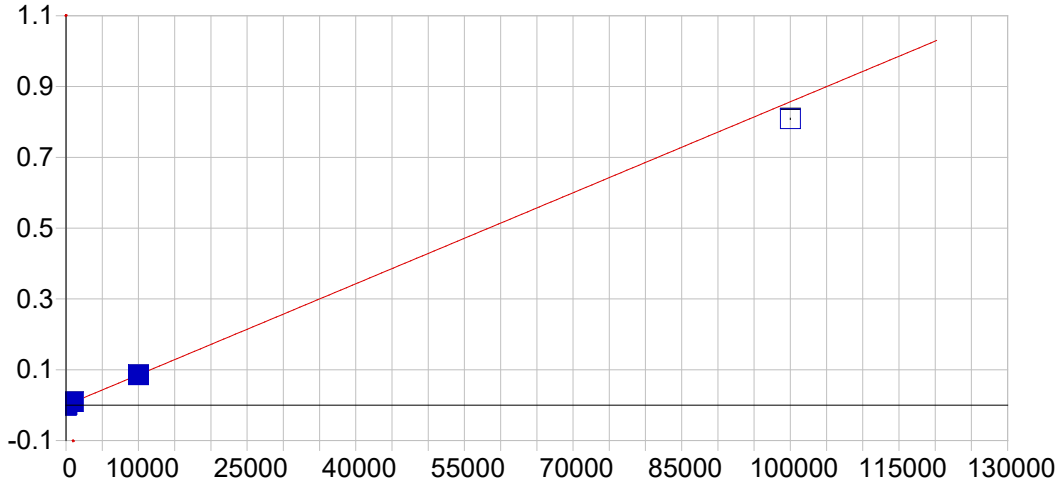


Co 238.892 {141}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.395660		
Predicted MQL:	1.318867		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.21140	.211	.000	-.00000	.000	1
CalStd9=100	1000.0	1004.2	4.25	.425	.00178	.000	1
CalStd10=10	10000.	9608.4	-392.	-3.92	.01700	.000	1
CalStd8=100	100.00	99.105	-.895	-.895	.00017	.000	1

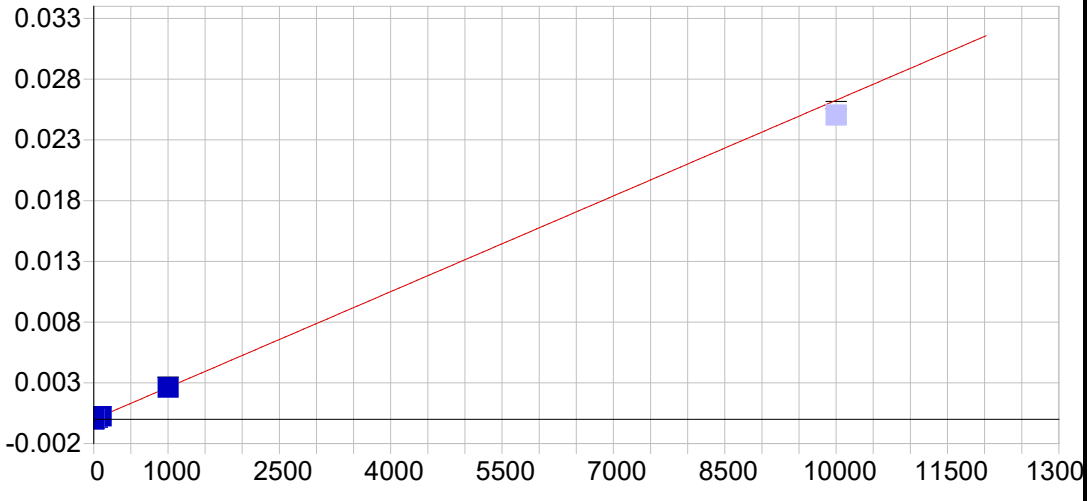


Cr 205.560 {464}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999283	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.493134		
Predicted MQL:	1.643779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.1169	-2.12	.000	-.00001	.000	1
CalStd5=10	10.000	9.0754	-.925	-9.25	.00009	.000	1
CalStd7=50	50.000	51.792	1.79	3.58	.00045	.000	1
CalStd9=100	1000.0	1037.3	37.3	3.73	.00890	.000	1
CalStd8=100	100.00	100.67	.668	.668	.00087	.000	1
CalStd4=5	5.0000	3.2966	-1.70	-34.1	.00004	.000	1
CalStd3=1	1.0000	-1.2120	-2.21	-221.	.00000	.000	1
CalStd10=10	10000.	9980.1	-19.9	-.199	.08554	.000	1
CalStd12=10	100000.	94383.	-5620.	-5.62	.80885	.002	1

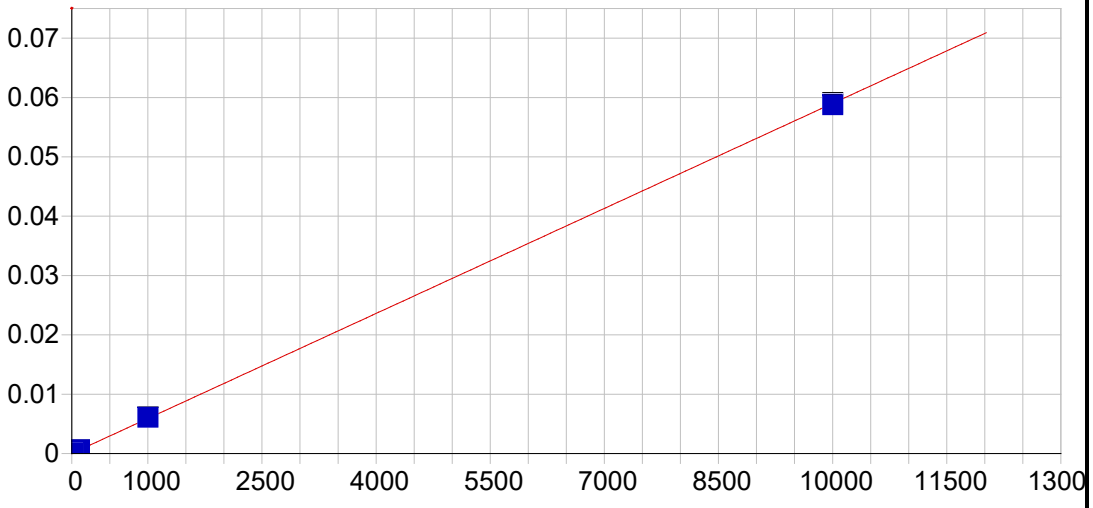


Cr 267.716 {126}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.401875		
Predicted MQL:	1.339585		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00112	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.633	.633	6.33	.00003	.000	1
CalStd7=50	50.000	51.406	1.41	2.81	.00013	.000	1
CalStd9=100	1000.0	998.21	-1.79	-.179	.00262	.000	1
CalStd8=100	100.00	99.037	-.963	-.963	.00026	.000	1
CalStd4=5	5.0000	5.7175	.717	14.3	.00001	.000	1
CalStd10=10	10000.	9529.9	-470.	-4.70	.02504	.000	0

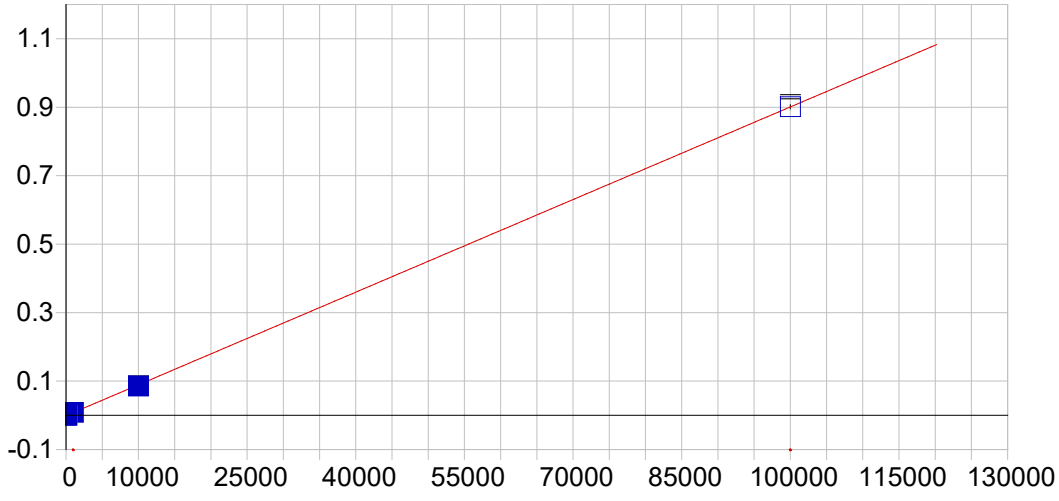


Cu 223.008 {451}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999798	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.185949		
Predicted MQL:	3.953163		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00767	-.008	.000	.00001	.000	1
CalStd9=100	1000.0	1029.9	29.9	2.99	.00611	.000	1
CalStd8=100	100.00	104.48	4.48	4.48	.00063	.000	1
CalStd6=20	20.000	24.354	4.35	21.8	.00016	.000	1
CalStd5=10	10.000	14.791	4.79	47.9	.00010	.000	1
CalStd10=10	10000.	9956.5	-43.5	-.435	.05899	.000	1

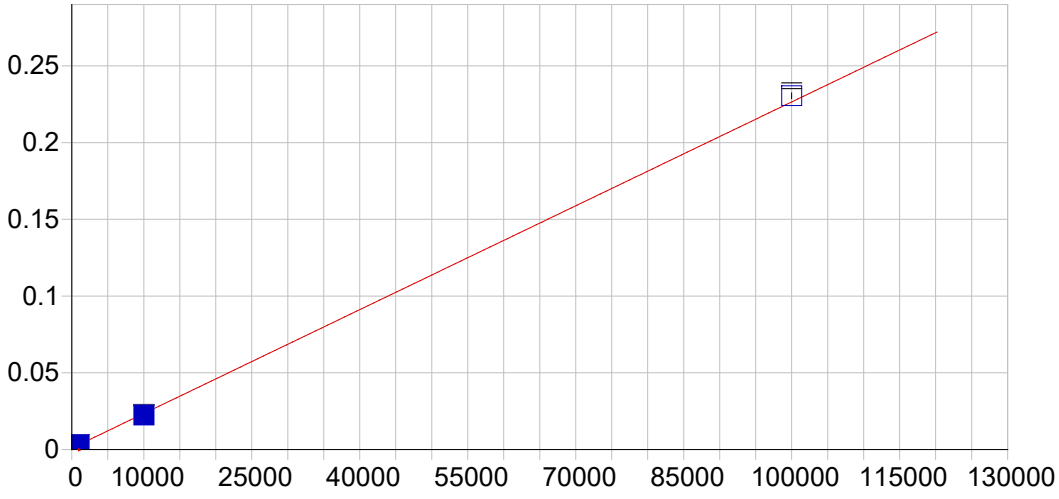


Cu 224.700 {450}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.001009	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.001827		
Predicted MDL:	0.465478		
Predicted MQL:	1.551592		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	112.54	113.	.000	.00001	.000	1
CalStd9=100	1000.0	1037.2	37.2	3.72	.00831	.000	1
CalStd7=50	50.000	126.30	76.3	153.	.00013	.000	1
CalStd8=100	100.00	149.46	49.5	49.5	.00033	.000	1
CalStd6=20	20.000	118.04	98.0	490.	.00006	.000	1
CalStd12=10	100000.	100040.	40.8	.041	.90116	.006	1
CalStd10=10	10000.	9585.7	-414.	-4.14	.08508	.000	1

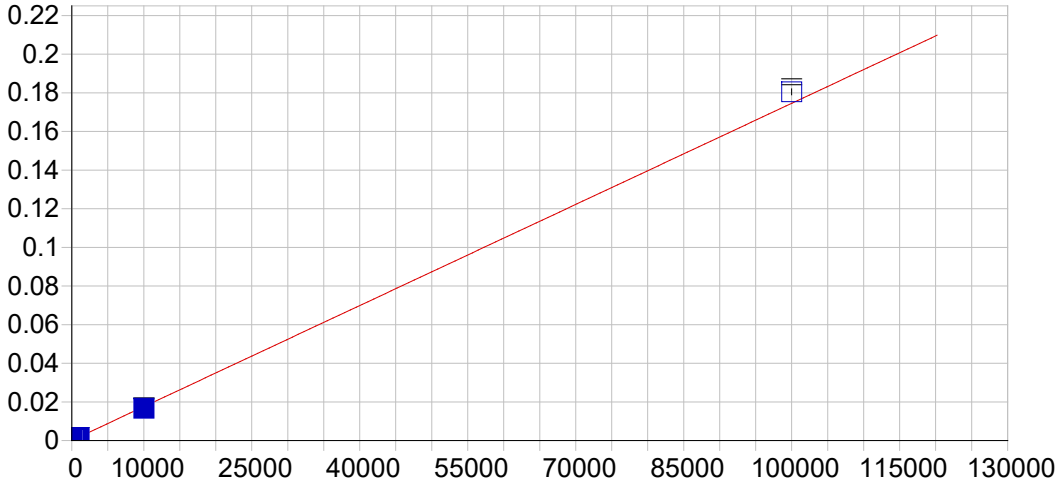


Cu 324.754 {104}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000911	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999407	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	3.662145		
Predicted MQL:	12.207149		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-21.681	-21.7	.000	.00086	.000	1
CalStd9=100	1000.0	978.76	-21.2	-2.12	.00312	.000	1
CalStd8=100	100.00	110.78	10.8	10.8	.00116	.000	1
CalStd10=10	10000.	9552.6	-447.	-4.47	.02246	.000	1
CalStd12=10	100000.	101750.	1750.	1.75	.23047	.002	1
CalStd5=10	10.000	28.382	18.4	184.	.00098	.000	1
CalStd6=20	20.000	21.719	1.72	8.60	.00096	.000	1
CalStd7=50	50.000	48.745	-1.26	-2.51	.00102	.000	1

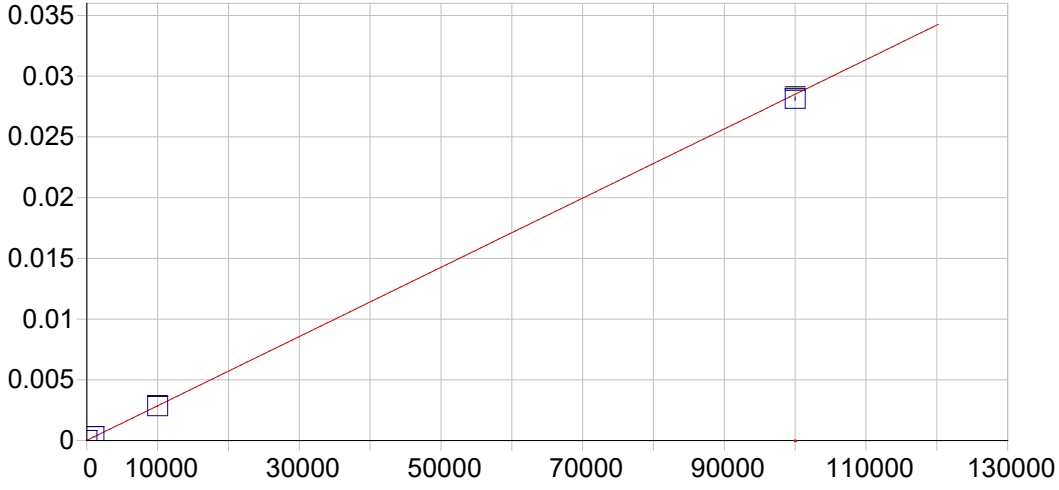


Cu 327.396 {103}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000086	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999303	Status:	OK.
Std Error of Est:	0.000024		
Predicted MDL:	8.051764		
Predicted MQL:	26.839214		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.3037	2.30	.000	.00009	.000	1
CalStd6=20	20.000	21.748	1.75	8.74	.00012	.000	1
CalStd7=50	50.000	50.067	.067	.133	.00017	.000	1
CalStd8=100	100.00	98.215	-1.78	-1.78	.00026	.000	1
CalStd9=100	1000.0	988.97	-11.0	-1.10	.00181	.000	1
CalStd10=10	10000.	9483.0	-517.	-5.17	.01662	.000	1
CalStd4=5	5.0000	10.677	5.68	114.	.00010	.000	1
CalStd5=10	10.000	7.7543	-2.25	-22.5	.00010	.000	1
CalStd12=10	100000.	103400.	3400.	3.40	.18049	.001	1

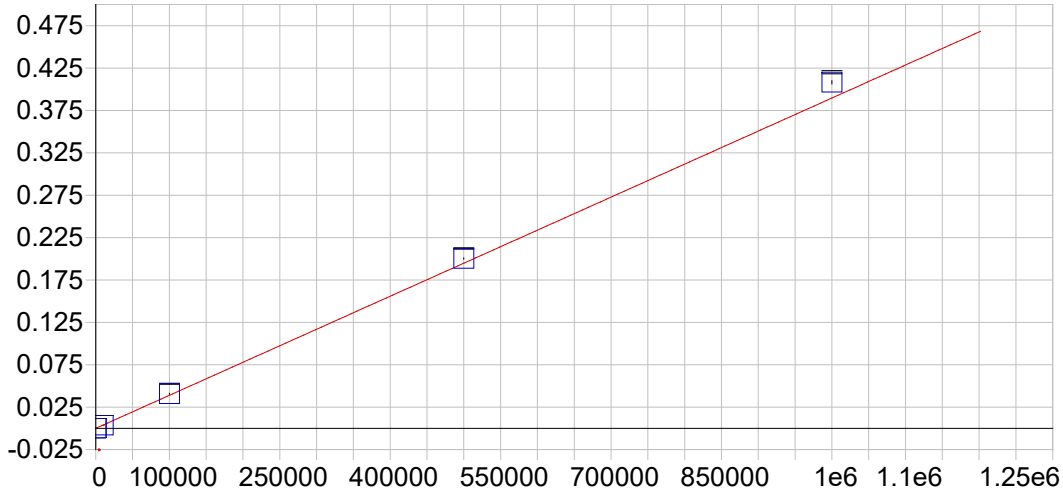


Fe 234.349 {144}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.149547		
Predicted MQL:	3.831824		

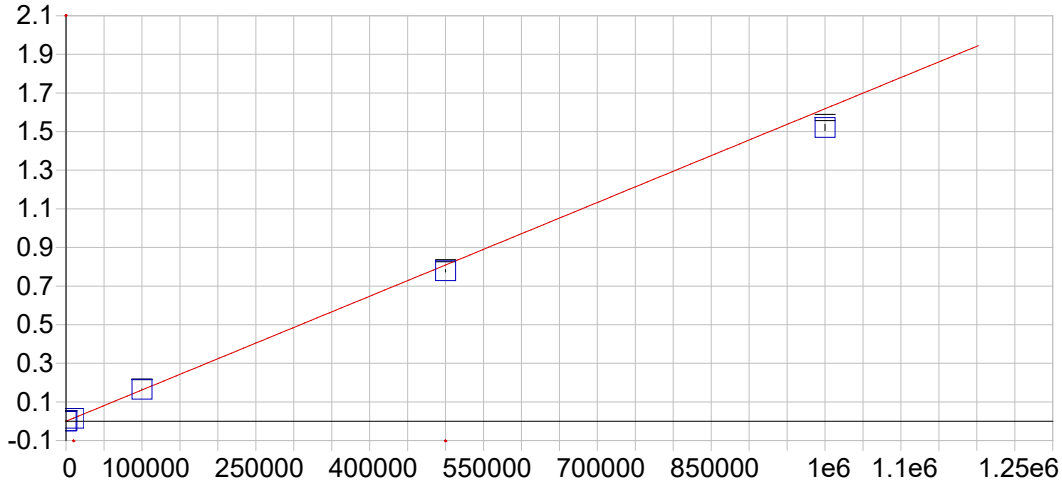
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05036	-.050	.000	.00001	.000	1
CalStd10=10	10000.	9925.5	-74.5	-.745	.00284	.000	1
CalStd13=10	100000.	98771.	-1230.	-1.23	.02816	.000	1
CalStd9=100	1000.0	1056.4	56.4	5.64	.00031	.000	1



Fe 239.562 {140}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999932		Status:	OK.	
Std Error of Est:	0.000012				
Predicted MDL:	9.083517				
Predicted MQL:	30.278389				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.34866	.349	.000	.00000	.000	1
CalStd10=10	10000.	9646.4	-354.	-3.54	.00376	.000	1
CalStd13=10	100000.	104630.	4630.	4.63	.04077	.001	1
CalStd14=50	500000.	514380.	14400.	2.88	.20043	.001	1
CalStd9=100	1000.0	1001.0	1.04	.104	.00039	.000	1
CalibStd15=	1000000.	1047700.	47700.	4.77	.40823	.002	1

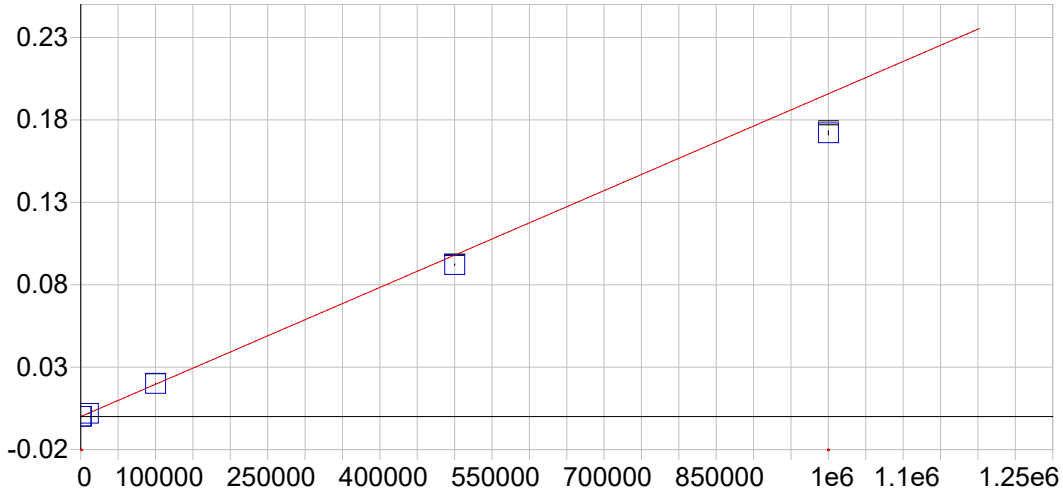


Fe 259.940 {129}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	3.500247		
Predicted MQL:	11.667489		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06303	.063	.000	-.00000	.000	1
CalStd10=10	10000.	9338.5	-662.	-6.62	.01511	.000	1
CalStd13=10	100000.	101940.	1940.	1.94	.16496	.002	1
CalStd14=50	500000.	481350.	-18600.	-3.73	.77895	.005	1
CalStd9=100	1000.0	982.07	-17.9	-1.79	.00159	.000	1
CalibStd15=	1000000.	939830.	-60200.	-6.02	1.5209	.016	1

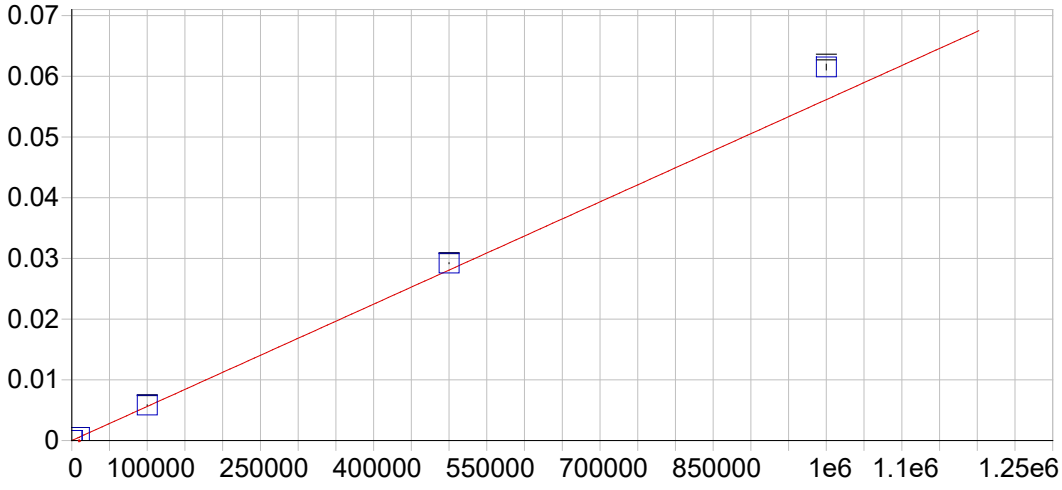


Mg 202.582 {466}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999872	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	2.725238		
Predicted MQL:	9.084126		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.9232	2.92	.000	-.00000	.000	1
CalStd13=10	100000.	102220.	2220.	2.22	.02002	.000	1
CalStd10=10	10000.	9817.2	-183.	-1.83	.00192	.000	1
CalStd14=50	500000.	470350.	-29600.	-5.93	.09212	.000	1
CalStd9=100	1000.0	991.14	-8.86	-.886	.00019	.000	1
CalibStd15=	1000000.	878740.	-121000.	-12.1	.17211	.001	1

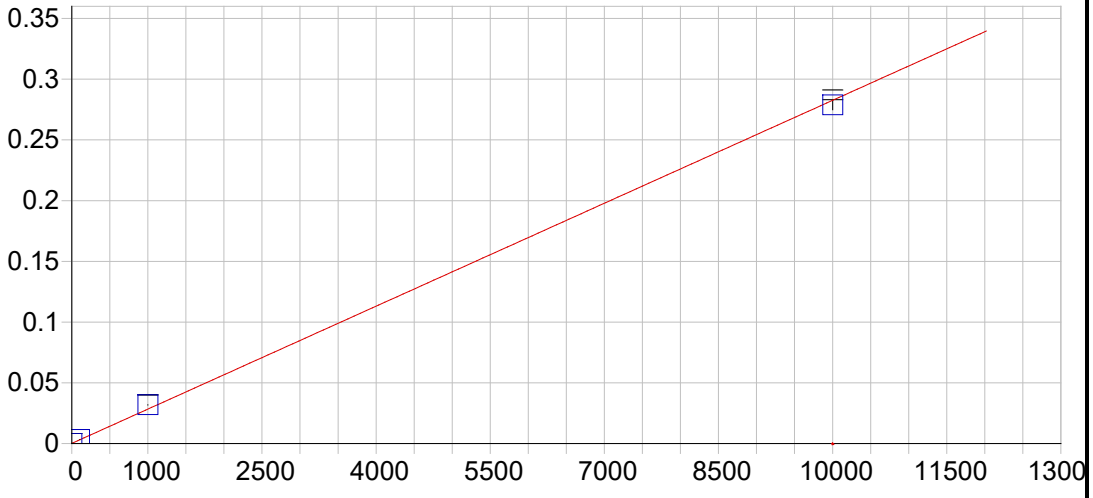


Mg 279.079 {121}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	43.981483		
Predicted MQL:	146.604944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.10488	.105	.000	.00000	.000	1
CalStd13=10	100000.	103700.	3700.	3.70	.00583	.000	1
CalStd10=10	10000.	9197.9	-802.	-8.02	.00052	.000	1
CalStd14=50	500000.	520280.	20300.	4.06	.02922	.000	1
CalStd9=100	1000.0	953.95	-46.1	-4.61	.00006	.000	1
CalibStd15=	1000000.	1095500.	95500.	9.55	.06153	.000	1

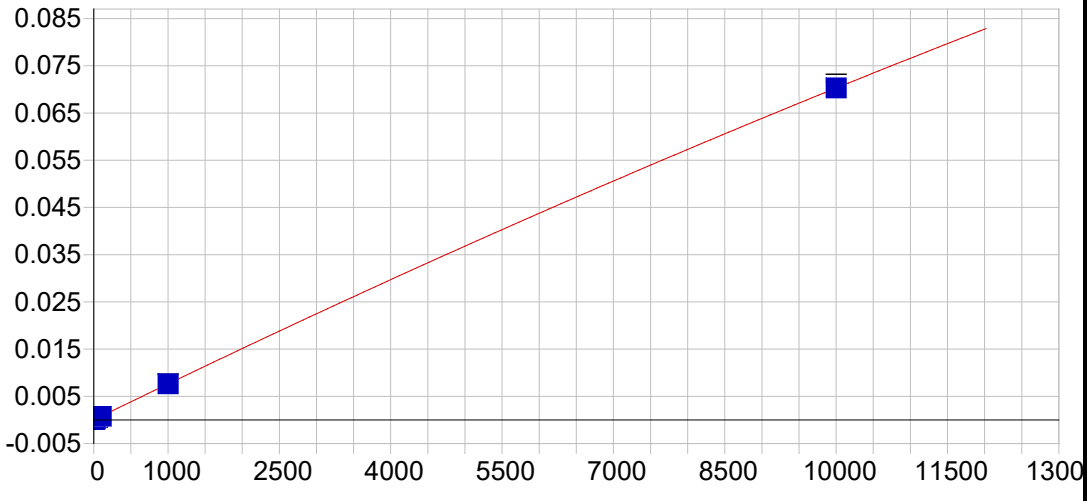


Mg 280.270 {120}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000108	Re-Slope:	1.000000
A1 (Gain):	0.000028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999196	Status:	OK.
Std Error of Est:	0.000053		
Predicted MDL:	0.022741		
Predicted MQL:	0.075805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02141	-.021	.000	.00011	.000	1
CalStd9=100	1000.0	1122.5	122.	12.2	.03182	.000	1
CalStd10=10	10000.	9867.0	-133.	-1.33	.27884	.004	1
CalStd8=100	100.00	110.49	10.5	10.5	.00323	.000	1

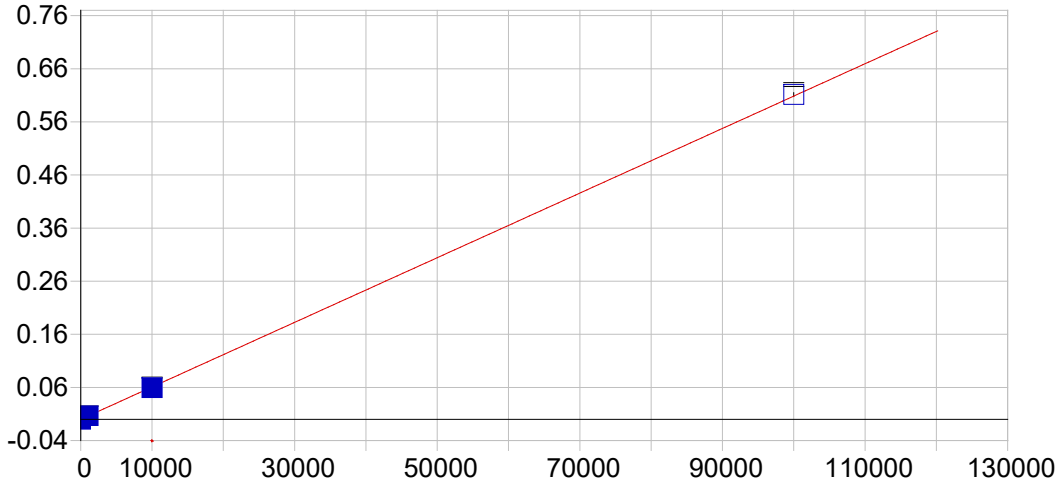


Mn 257.610 {131}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.065064		
Predicted MQL:	0.216881		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00075	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.434	.434	4.34	.00008	.000	1
CalStd7=50	50.000	51.404	1.40	2.81	.00040	.000	1
CalStd6=20	20.000	21.025	1.03	5.13	.00016	.000	1
CalStd8=100	100.00	98.239	-1.76	-1.76	.00075	.000	1
CalStd4=5	5.0000	5.2271	.227	4.54	.00004	.000	1
CalStd9=100	1000.0	998.49	-1.51	-.151	.00761	.000	1
CalStd10=10	10000.	10000.	.189	.002	.07029	.001	1

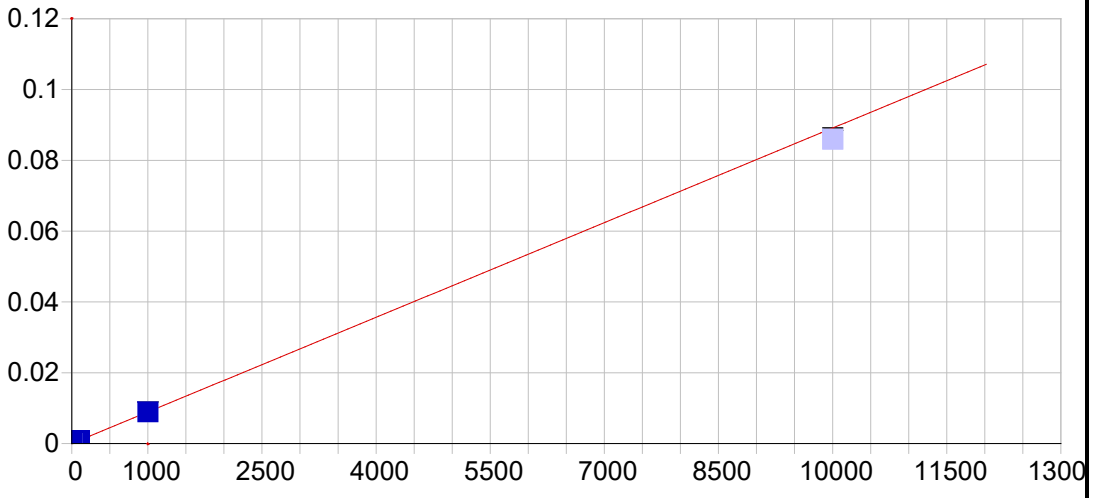


Mn 259.373 {130}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.856740		
Predicted MQL:	2.855801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01329	-.013	.000	-.00000	.000	1
CalStd10=10	10000.	9750.4	-250.	-2.50	.05935	.001	1
CalStd9=100	1000.0	1005.7	5.66	.566	.00612	.000	1
CalStd12=10	100000.	100470.	471.	.471	.61138	.004	1

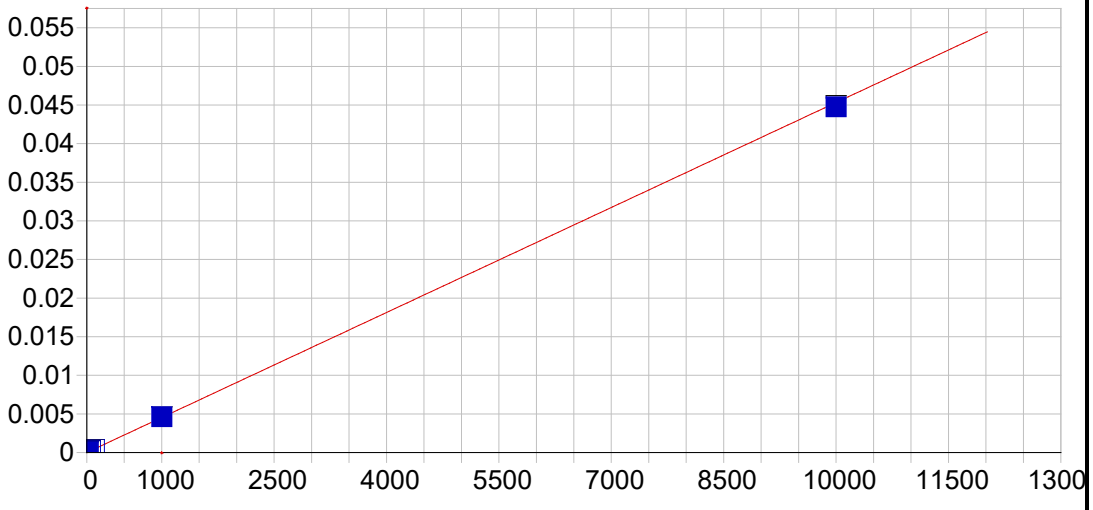


Mo 202.030 {466}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999943	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.509886		
Predicted MQL:	1.699622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00022	-.000	.000	.00001	.000	1
CalStd7=50	50.000	51.224	1.22	2.45	.00047	.000	1
CalStd6=20	20.000	21.031	1.03	5.15	.00020	.000	1
CalStd5=10	10.000	10.368	.368	3.68	.00010	.000	1
CalStd8=100	100.00	98.498	-1.50	-1.50	.00089	.000	1
CalStd4=5	5.0000	4.7325	-.267	-5.35	.00005	.000	1
CalStd9=100	1000.0	999.15	-.853	-.085	.00892	.000	1
CalStd10=10	10000.	9643.4	-357.	-3.57	.08599	.000	0

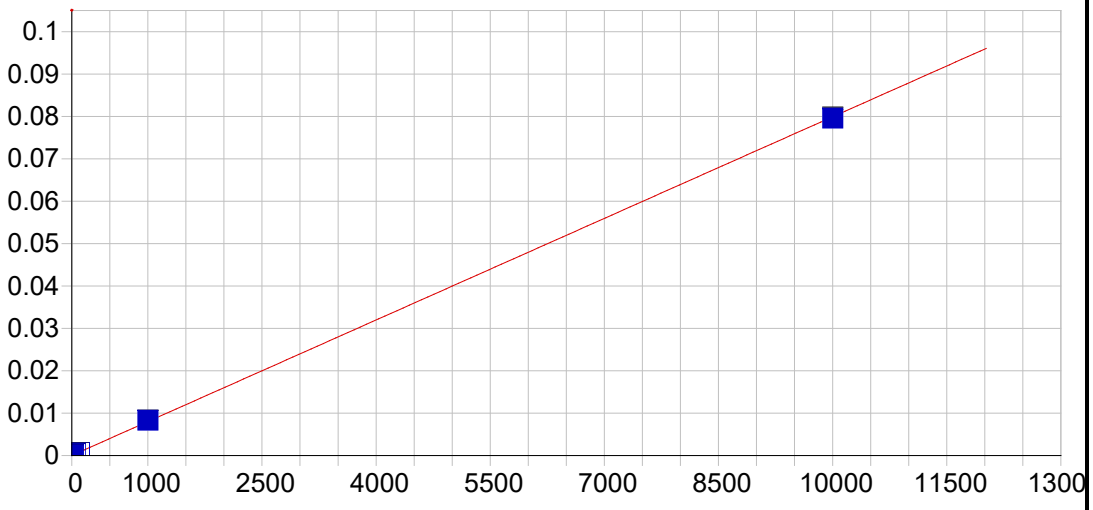


Mo 204.598 {464}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	1.008766		
Predicted MQL:	3.362553		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.42243	.422	.000	.00001	.000	1
CalStd7=50	50.000	51.145	1.14	2.29	.00024	.000	1
CalStd6=20	20.000	19.601	-.399	-1.99	.00009	.000	1
CalStd5=10	10.000	8.7252	-1.27	-12.7	.00004	.000	1
CalStd8=100	100.00	99.787	-.213	-.213	.00046	.000	1
CalStd4=5	5.0000	3.7192	-1.28	-25.6	.00002	.000	1
CalStd9=100	1000.0	1019.9	19.9	1.99	.00463	.000	1
CalStd10=10	10000.	9872.6	-127.	-1.27	.04475	.000	1

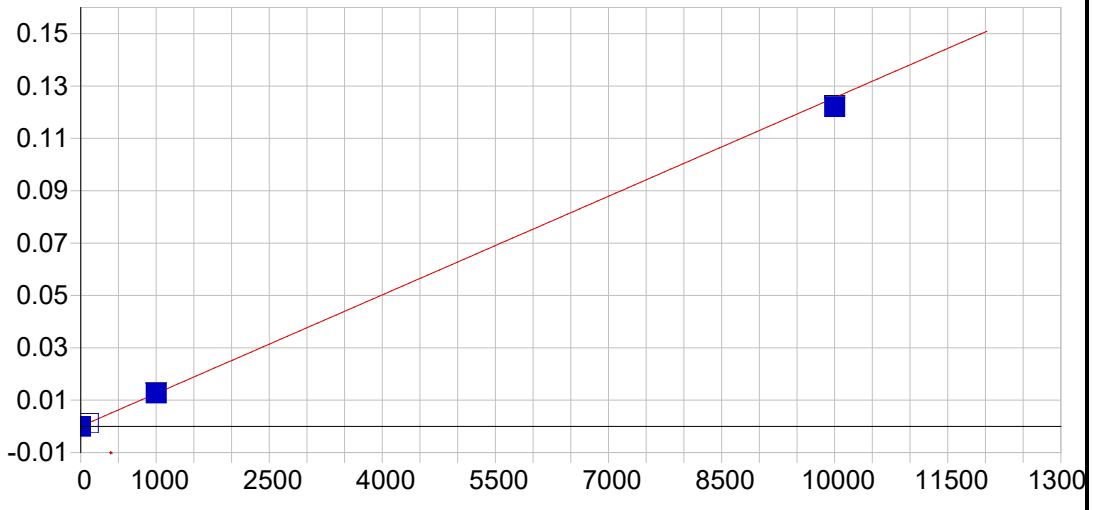


Mo 202.030 {467}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.528019		
Predicted MQL:	1.760065		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00218	-.002	.000	.00002	.000	1
CalStd7=50	50.000	53.260	3.26	6.52	.00045	.000	1
CalStd6=20	20.000	21.926	1.93	9.63	.00019	.000	1
CalStd5=10	10.000	11.115	1.11	11.1	.00011	.000	1
CalStd8=100	100.00	101.56	1.56	1.56	.00083	.000	1
CalStd4=5	5.0000	5.5785	.578	11.6	.00006	.000	1
CalStd9=100	1000.0	1035.2	35.2	3.52	.00829	.000	1
CalStd10=10	10000.	9956.3	-43.7	-.437	.07958	.000	1

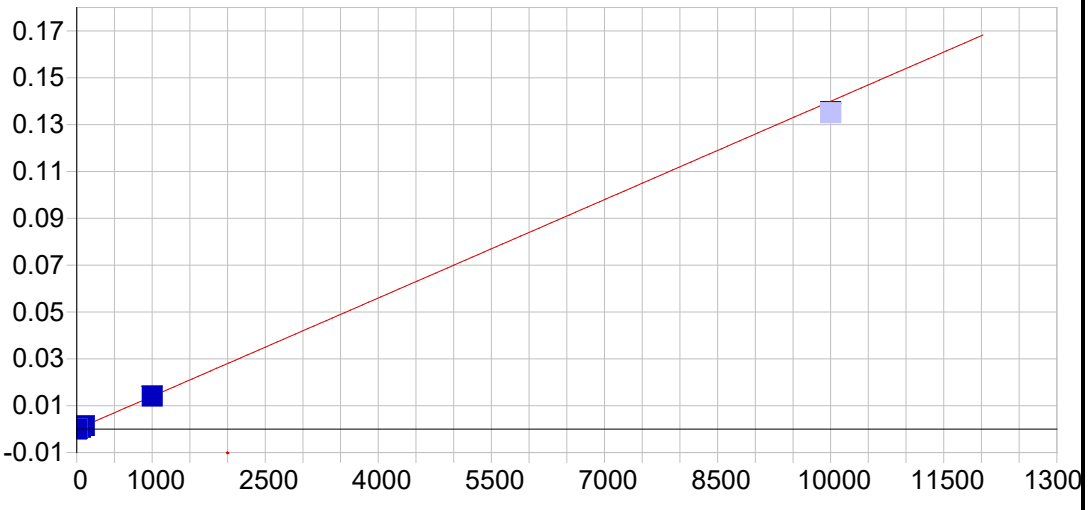


Ni 221.647 {452}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999836	Status:	OK.
Std Error of Est:	0.000055		
Predicted MDL:	0.606621		
Predicted MQL:	2.022071		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.47570	-.476	.000	.00000	.000	1
CalStd10=10	10000.	9721.8	-278.	-2.78	.12207	.000	1
CalStd8=100	100.00	99.864	-.136	-.136	.00126	.000	1
CalStd9=100	1000.0	1011.3	11.3	1.13	.01270	.000	1

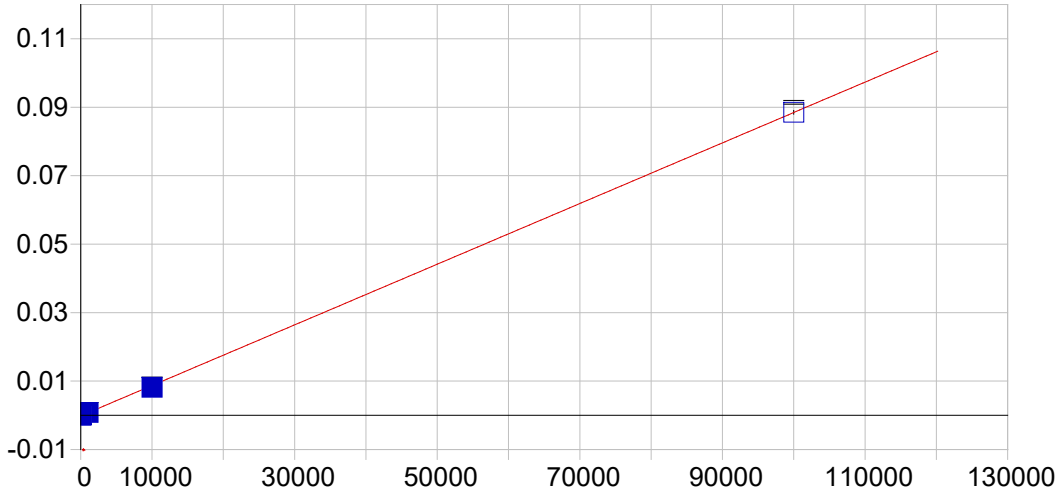


Ni 231.604 {445}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999719	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.577493		
Predicted MQL:	1.924975		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00082	.001	.000	-.00001	.000	1
CalStd7=50	50.000	51.573	1.57	3.15	.00071	.000	1
CalStd5=10	10.000	9.5629	-.437	-4.37	.00013	.000	1
CalStd8=100	100.00	97.628	-2.37	-2.37	.00136	.000	1
CalStd4=5	5.0000	4.5620	-.438	-8.76	.00006	.000	1
CalStd9=100	1000.0	1002.4	2.37	.237	.01401	.000	1
CalStd3=1	1.0000	.30476	-.695	-69.5	-.00000	.000	1
CalStd10=10	10000.	9644.2	-356.	-3.56	.13509	.000	0

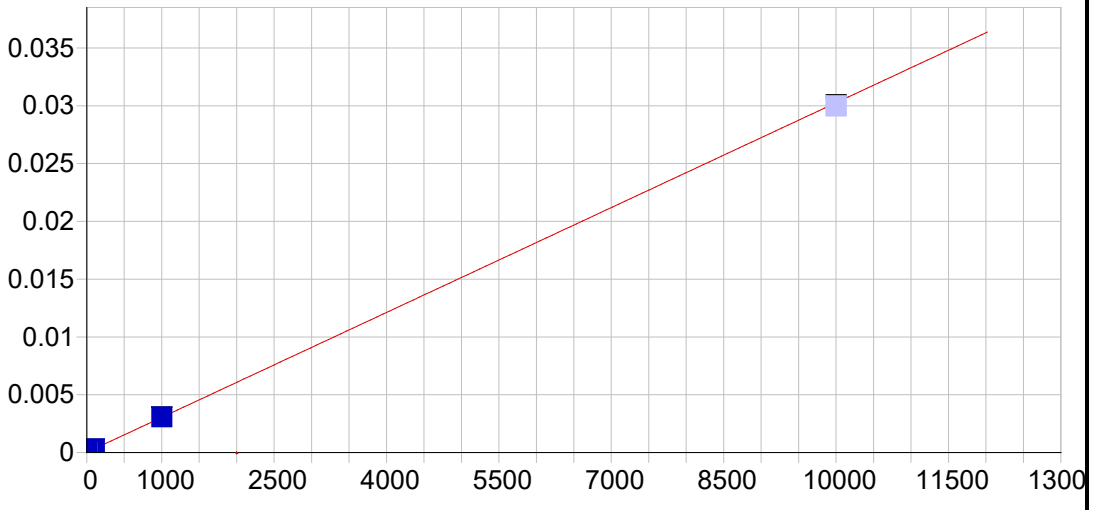


Pb 216.999 {455}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000162	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.000312		
Predicted MDL:	6.756296		
Predicted MQL:	22.520987		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	170.94	171.	.000	-.00001	.000	1
CalStd9=100	1000.0	1076.8	76.8	7.68	.00080	.000	1
CalStd10=10	10000.	9364.1	-636.	-6.36	.00816	.000	1
CalStd8=100	100.00	255.09	155.	155.	.00006	.000	1
CalStd5=10	10.000	180.16	170.	1700.	-.00000	.000	1
CalStd12=10	100000.	100060.	62.8	.063	.08851	.001	1

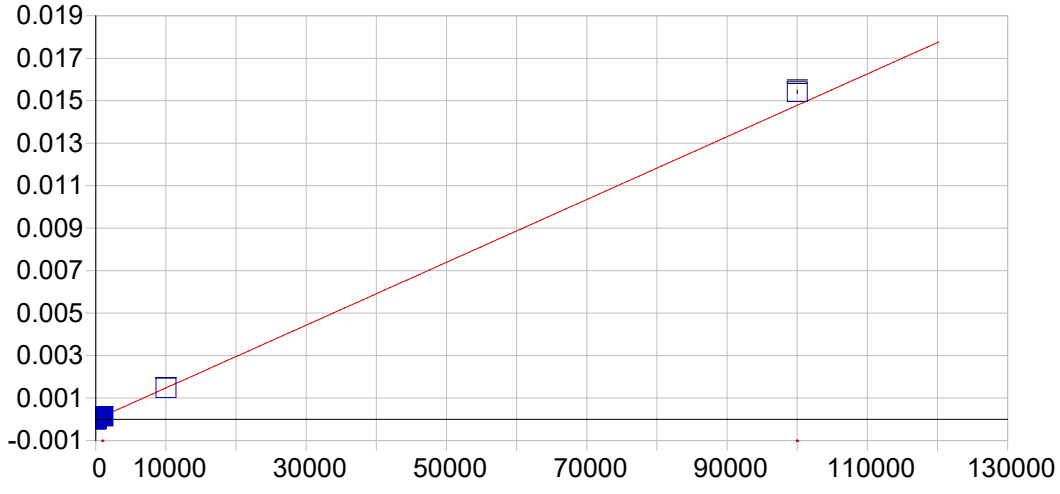


Pb 220.353 {453}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999094	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.702777		
Predicted MQL:	9.009256		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00380	.004	.000	.00002	.000	1
CalStd5=10	10.000	7.1218	-2.88	-28.8	.00004	.000	1
CalStd8=100	100.00	96.654	-3.35	-3.35	.00031	.000	1
CalStd4=5	5.0000	2.7618	-2.24	-44.8	.00003	.000	1
CalStd9=100	1000.0	1008.5	8.46	.846	.00307	.000	1
CalStd10=10	10000.	9912.1	-87.9	-.879	.02995	.000	0

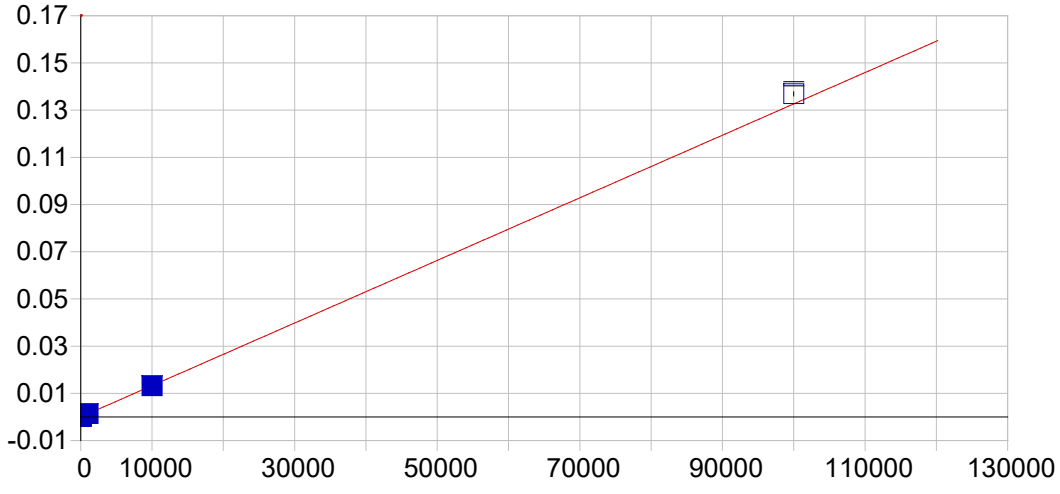


Pb 216.999 {456}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	21.514603		
Predicted MQL:	71.715343		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01140	-.011	.000	-.00000	.000	1
CalStd9=100	1000.0	993.06	-6.94	-.694	.00014	.000	1
CalStd10=10	10000.	10049.	48.9	.489	.00148	.000	1
CalStd8=100	100.00	89.595	-10.4	-10.4	.00001	.000	1
CalStd5=10	10.000	22.513	12.5	125.	.00000	.000	1
CalStd12=10	100000.	104310.	4310.	4.31	.01542	.000	1

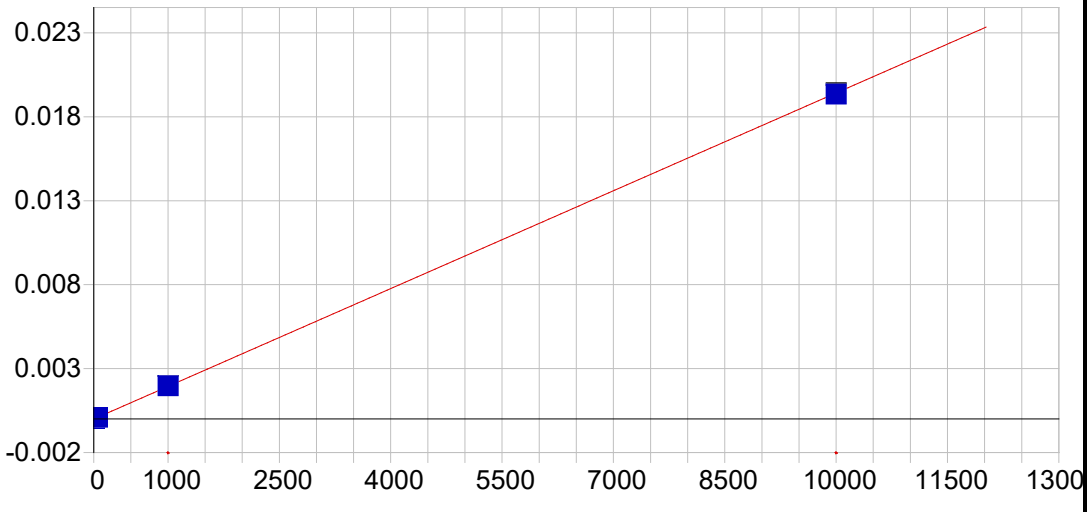


Pb 220.353 {153}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999912	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	4.017215		
Predicted MQL:	13.390717		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.5508	-3.55	.000	.00000	.000	1
CalStd9=100	1000.0	1005.5	5.48	.548	.00134	.000	1
CalStd10=10	10000.	9916.5	-83.5	-.835	.01316	.000	1
CalStd8=100	100.00	95.713	-4.29	-4.29	.00013	.000	1
CalStd12=10	100000.	103210.	3210.	3.21	.13692	.001	1

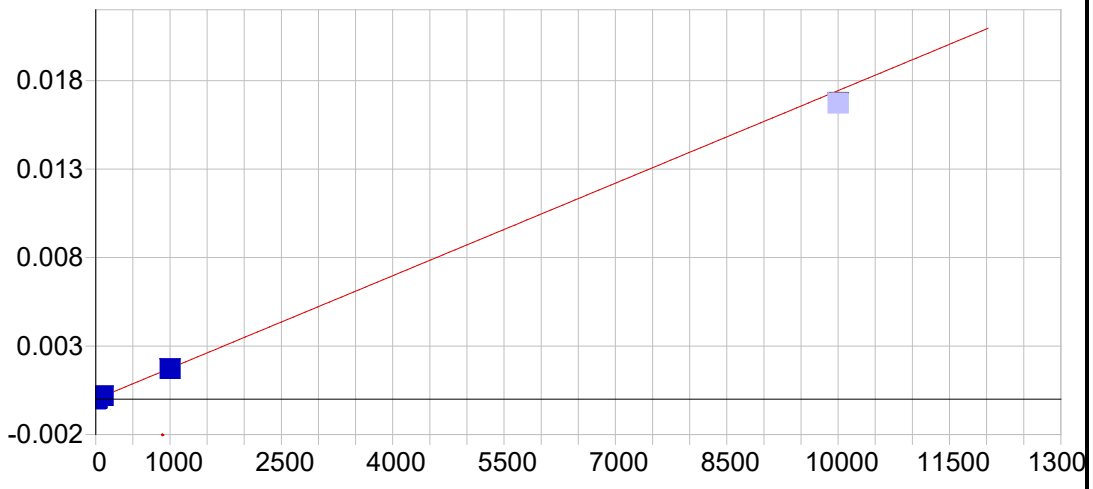


Sb 206.833 {463}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	2.582606		
Predicted MQL:	8.608686		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0227	-2.02	.000	-.00001	.000	1
CalStd9=100	1000.0	1013.8	13.8	1.38	.00198	.000	1
CalStd5=10	10.000	8.2872	-1.71	-17.1	.00001	.000	1
CalStd7=50	50.000	50.869	.869	1.74	.00010	.000	1
CalStd10=10	10000.	9961.0	-39.0	-.390	.01934	.000	1

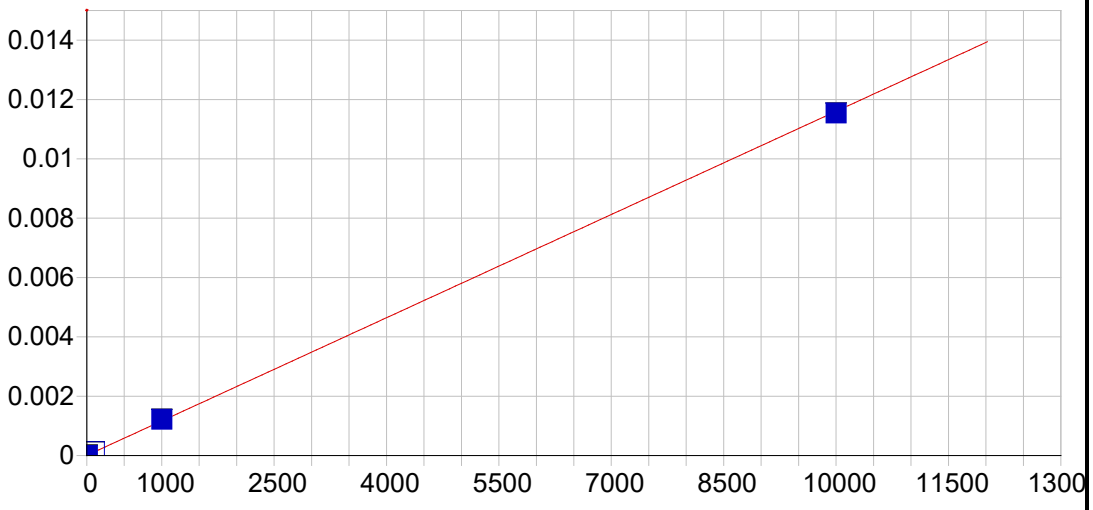


Sb 217.581 {455}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998324	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.923730		
Predicted MQL:	9.745766		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00501	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	987.35	-12.6	-1.26	.00172	.000	1
CalStd6=20	20.000	24.016	4.02	20.1	.00004	.000	1
CalStd5=10	10.000	14.806	4.81	48.1	.00002	.000	1
CalStd8=100	100.00	102.27	2.27	2.27	.00018	.000	1
CalStd4=5	5.0000	6.5523	1.55	31.0	.00001	.000	1
CalStd10=10	10000.	9592.5	-408.	-4.08	.01672	.000	0

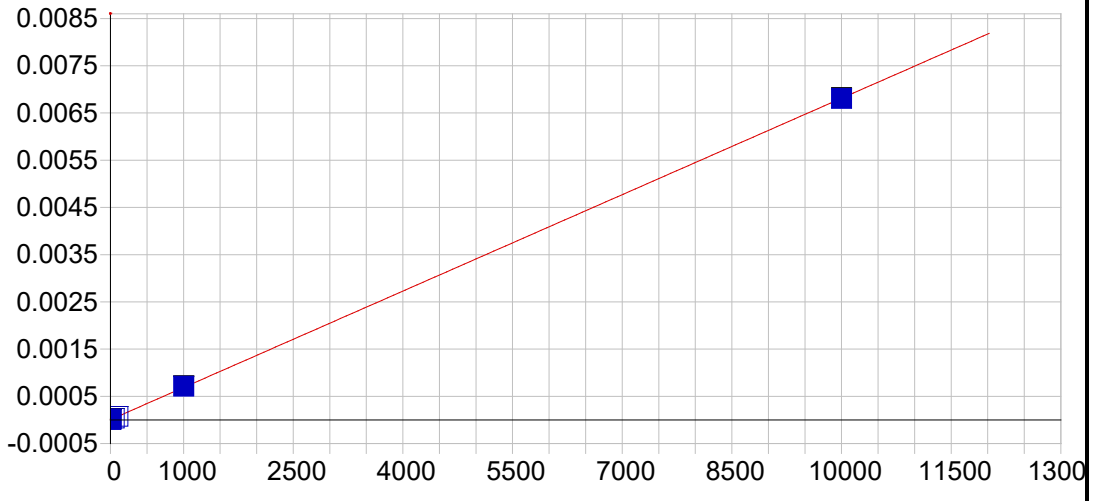


Se 196.090 {472}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.435552		
Predicted MQL:	11.451841		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00049	-.000	.000	.00001	.000	1
CalStd9=100	1000.0	1045.4	45.4	4.54	.00122	.000	1
CalStd5=10	10.000	9.4322	-.568	-5.68	.00002	.000	1
CalStd8=100	100.00	106.57	6.57	6.57	.00013	.000	1
CalStd10=10	10000.	9948.6	-51.4	-.514	.01154	.000	1

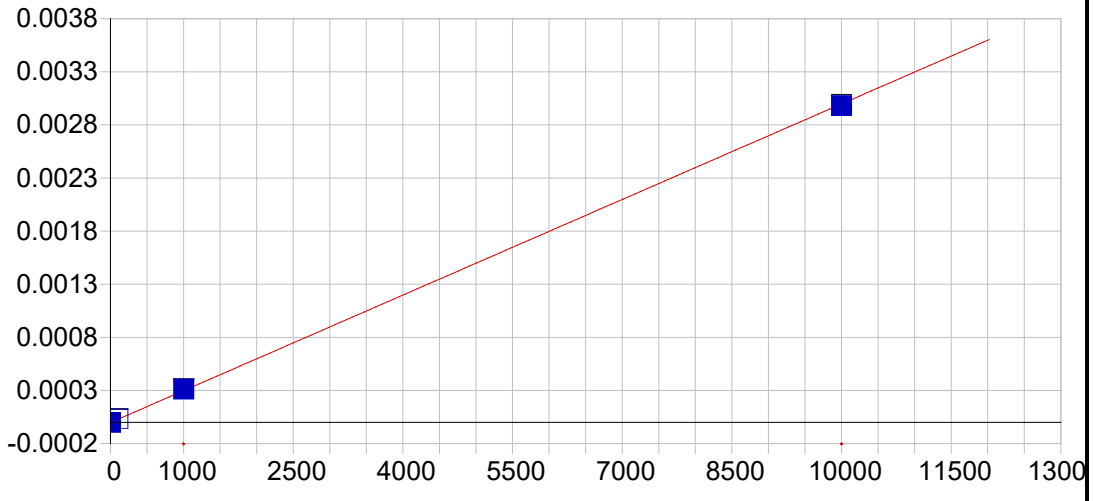


Se 203.985 {465}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	9.442415		
Predicted MQL:	31.474715		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.77669	.777	.000	.00001	.000	1
CalStd7=50	50.000	46.813	-3.19	-6.37	.00004	.000	1
CalStd9=100	1000.0	1038.9	38.9	3.89	.00071	.000	1
CalStd5=10	10.000	10.051	.051	.514	.00001	.000	1
CalStd8=100	100.00	100.36	.363	.363	.00007	.000	1
CalStd10=10	10000.	9992.3	-7.72	-.077	.00681	.000	1

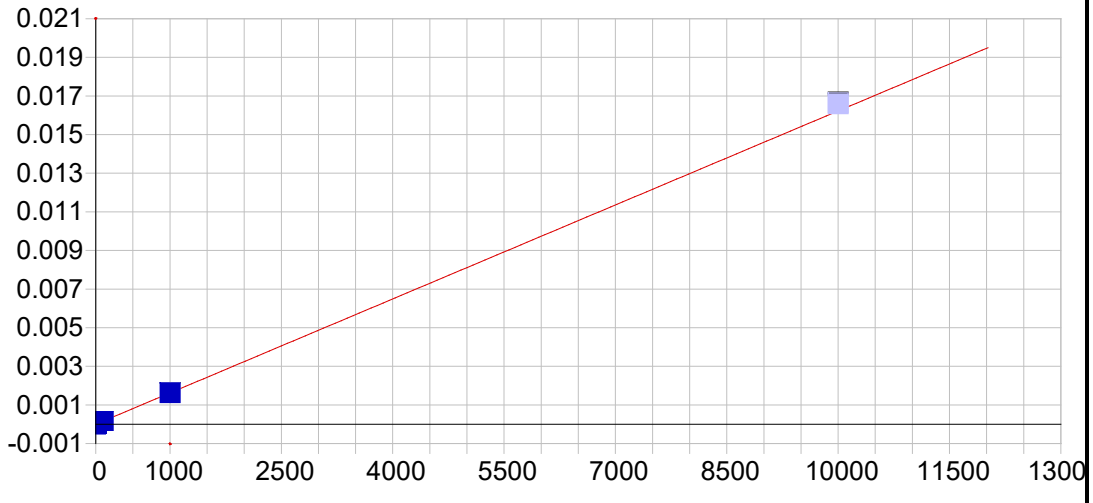


Se 206.279 {463}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999826	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	18.345561		
Predicted MQL:	61.151870		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01598	-.016	.000	-.00000	.000	1
CalStd9=100	1000.0	1045.8	45.8	4.58	.00031	.000	1
CalStd10=10	10000.	9942.2	-57.8	-.578	.00298	.000	1
CalStd8=100	100.00	111.98	12.0	12.0	.00003	.000	1

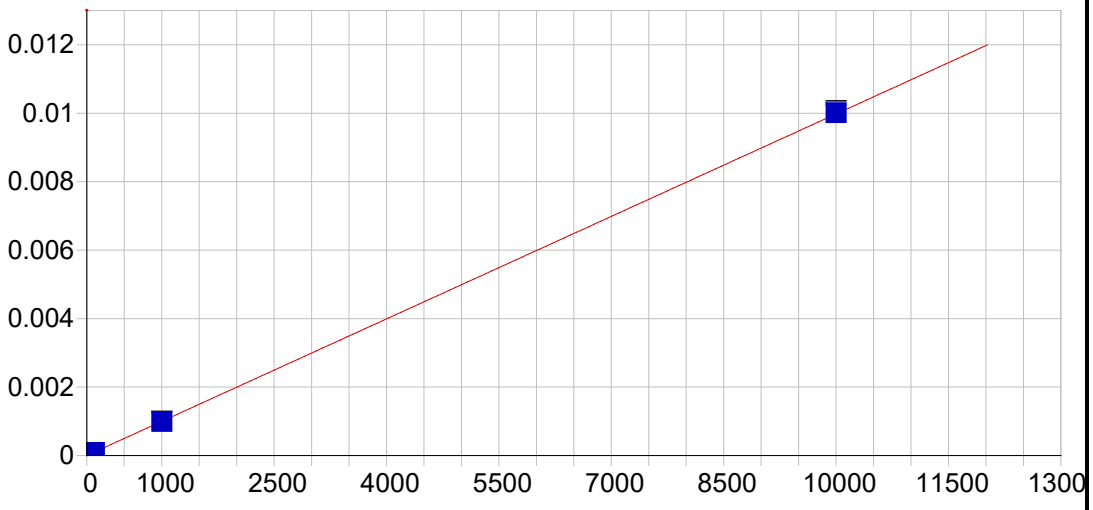


Tl 190.856 {476}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999098	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.127516		
Predicted MQL:	10.425052		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00432	.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1003.3	3.33	.333	.00163	.000	1
CalStd8=100	100.00	101.14	1.14	1.14	.00016	.000	1
CalStd5=10	10.000	5.5330	-4.47	-44.7	.00001	.000	1
CalStd10=10	10000.	10220.	220.	2.20	.01664	.000	0

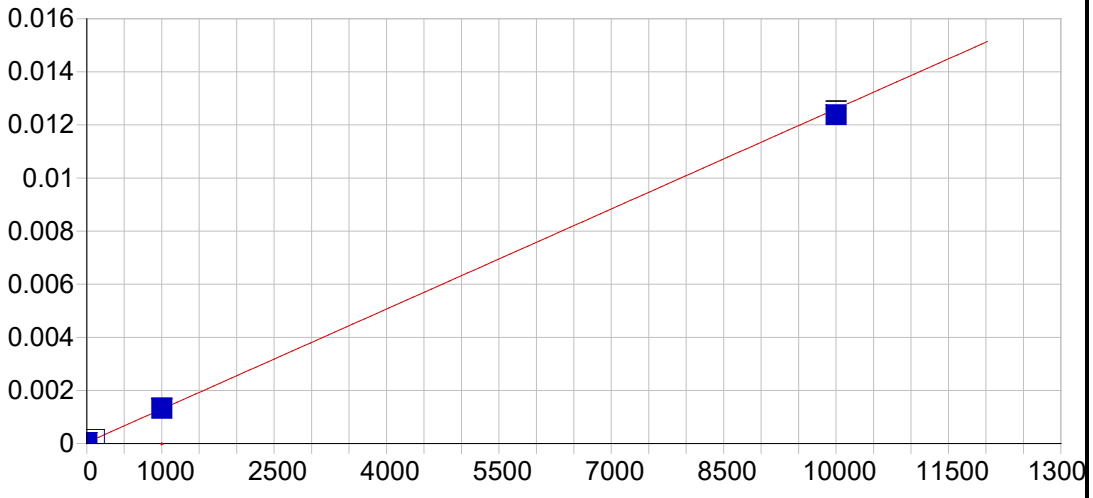


Tl 190.856 {477}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999972	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	3.733344		
Predicted MQL:	12.444479		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	3.5344	3.53	.000	.00000	.000	1
CalStd9=100	1000.0	991.69	-8.31	-.831	.00099	.000	1
CalStd8=100	100.00	99.286	-.714	-.714	.00010	.000	1
CalStd5=10	10.000	9.1963	-.804	-8.04	.00001	.000	1
CalStd10=10	10000.	10032.	32.3	.323	.01001	.000	1

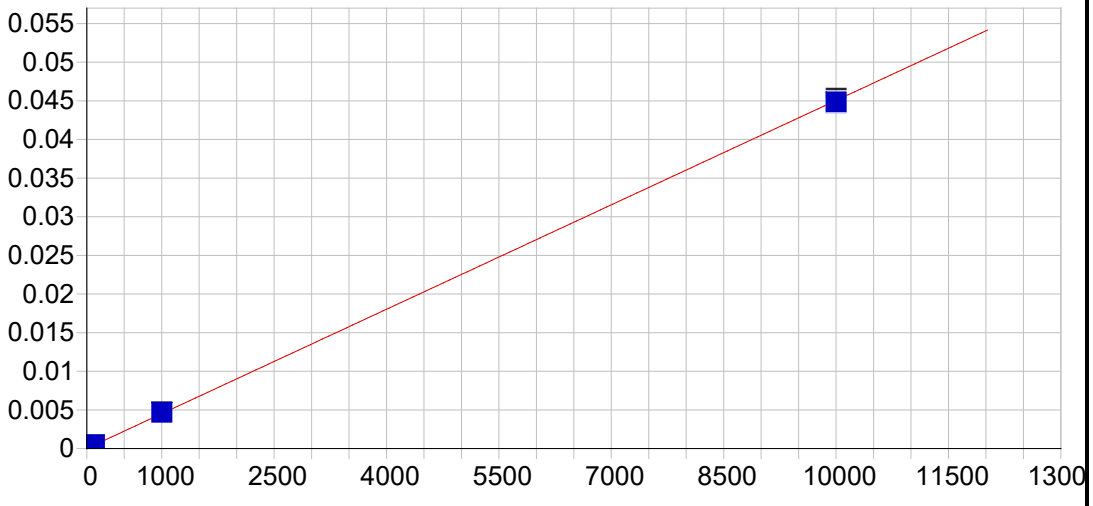


V 290.882 {116}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000040	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	5.434184		
Predicted MQL:	18.113946		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.48649	-.486	.000	.00004	.000	1
CalStd9=100	1000.0	1017.3	17.3	1.73	.00132	.000	1
CalStd10=10	10000.	9821.5	-179.	-1.79	.01238	.000	1
CalStd8=100	100.00	97.506	-2.49	-2.49	.00016	.000	1

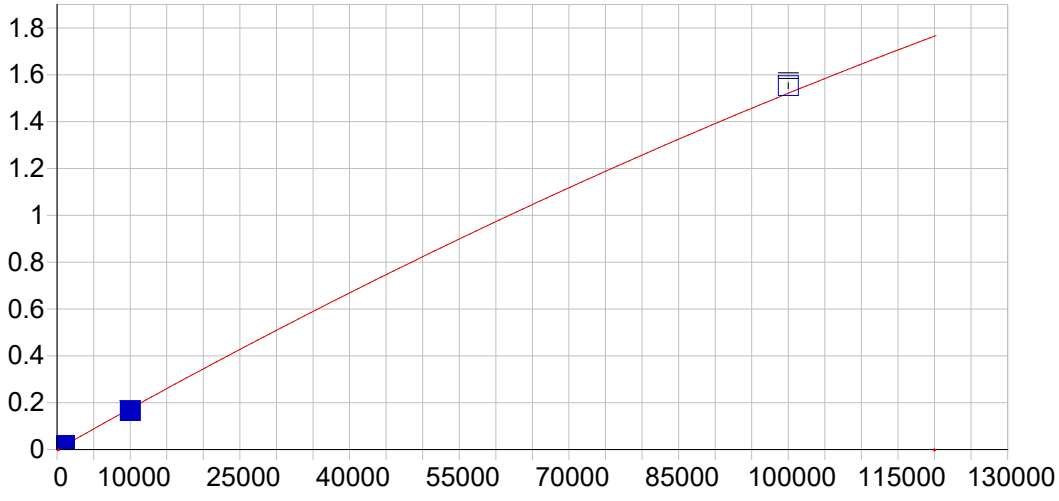


V 292.402 {115}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.428045		
Predicted MQL:	1.426817		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00304	-.003	.000	.00001	.000	1
CalStd7=50	50.000	53.134	3.13	6.27	.00025	.000	1
CalStd9=100	1000.0	1037.7	37.7	3.77	.00466	.000	1
CalStd6=20	20.000	22.119	2.12	10.6	.00011	.000	1
CalStd5=10	10.000	10.780	.780	7.80	.00006	.000	1
CalStd8=100	100.00	102.41	2.41	2.41	.00047	.000	1
CalStd10=10	10000.	9953.9	-46.1	-.461	.04467	.000	1

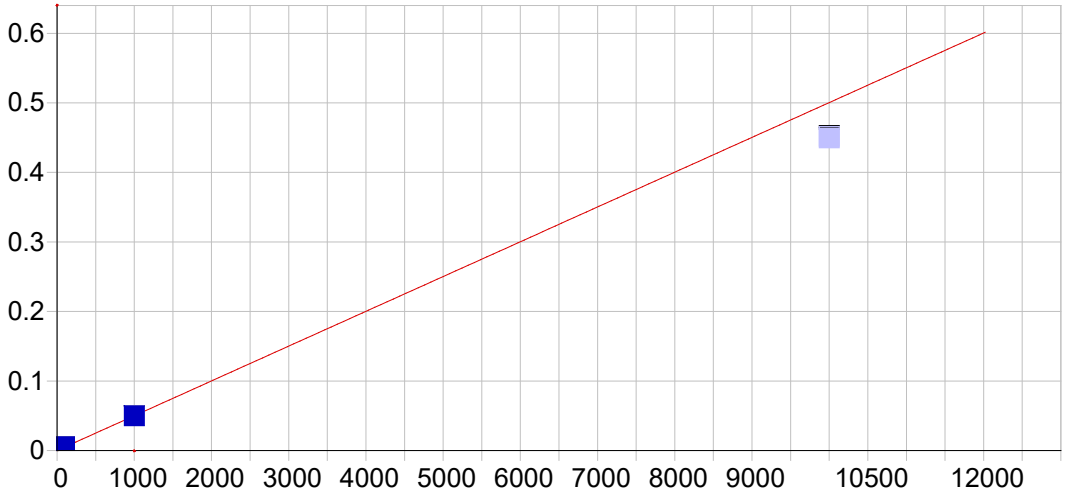


Zn 206.200 {463}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000018	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999812	Status:	OK.
Std Error of Est:	0.000059		
Predicted MDL:	0.289670		
Predicted MQL:	0.965565		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9474.6	-525.	-5.25	.16565	.001	1
Blank	.00000	-.42580	-.426	.000	.00001	.000	1
CalStd9=100	1000.0	1004.3	4.27	.427	.01778	.000	1
CalStd12=10	100000.	102540.	2540.	2.54	1.5533	.012	1
CalStd5=10	10.000	10.098	.098	.980	.00019	.000	1
CalStd8=100	100.00	104.36	4.36	4.36	.00186	.000	1

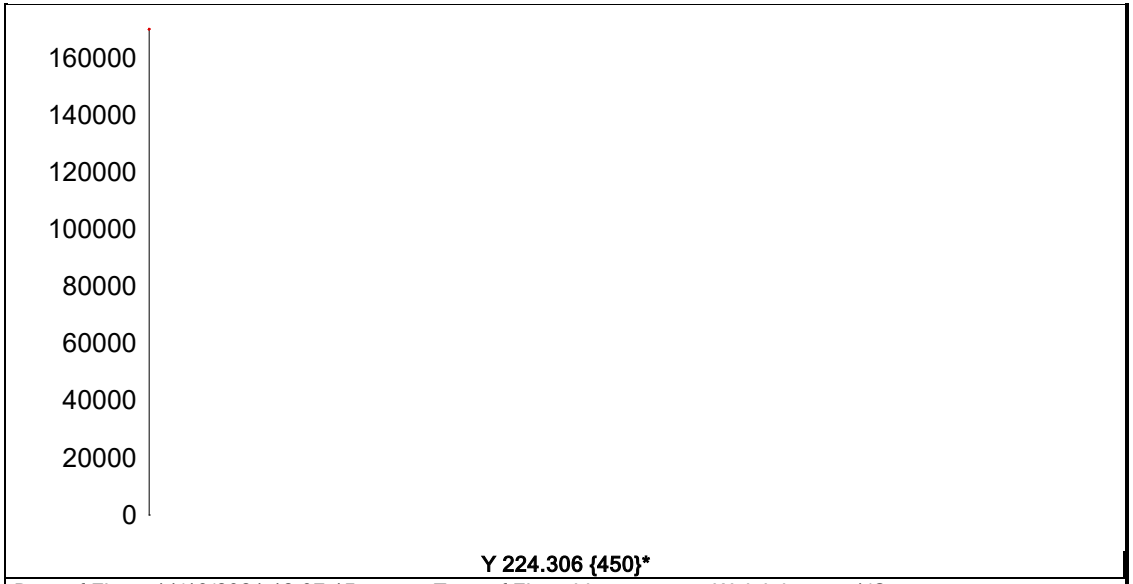


Zn 213.856 {457}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000048	Re-Slope:	1.000000
A1 (Gain):	0.000050	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.120912		
Predicted MQL:	0.403040		

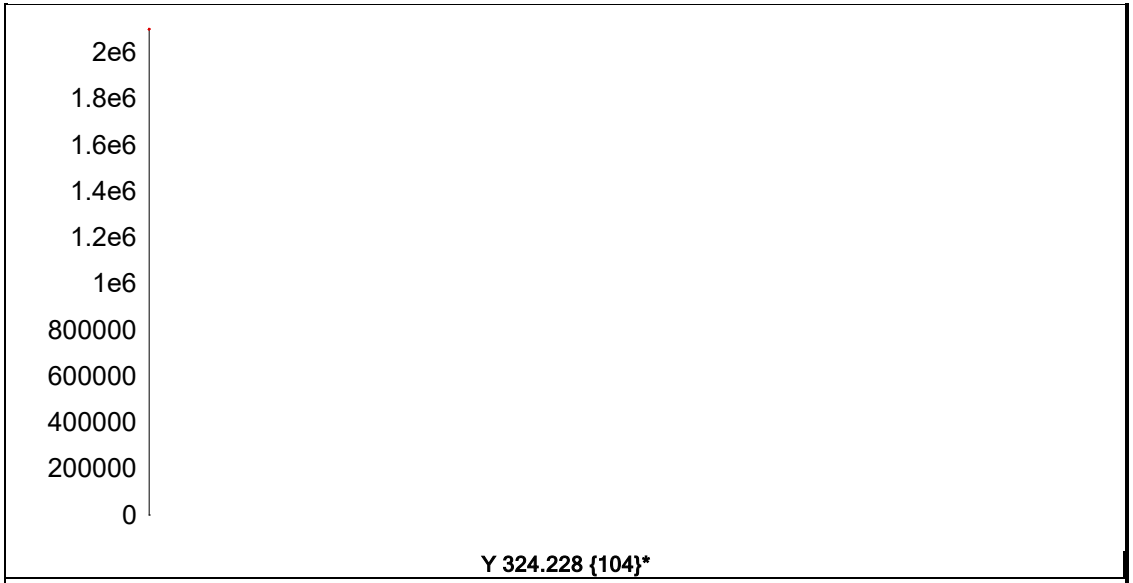
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00107	-.001	.000	.00005	.000	1
CalStd9=100	1000.0	994.36	-5.64	-.564	.05003	.000	1
CalStd5=10	10.000	10.621	.621	6.21	.00058	.000	1
CalStd8=100	100.00	105.02	5.02	5.02	.00532	.000	1
CalStd10=10	10000.	8979.3	-1020.	-10.2	.45158	.001	0



Y 224.306 {450}*

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

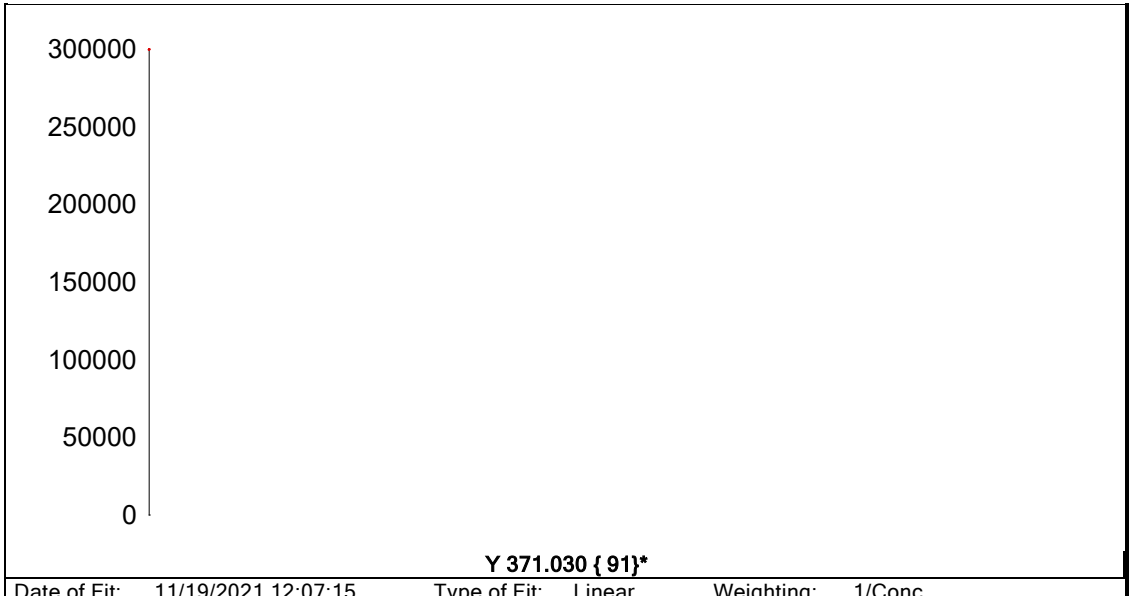
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	158810.	311.	1



Y 324.228 {104}*

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

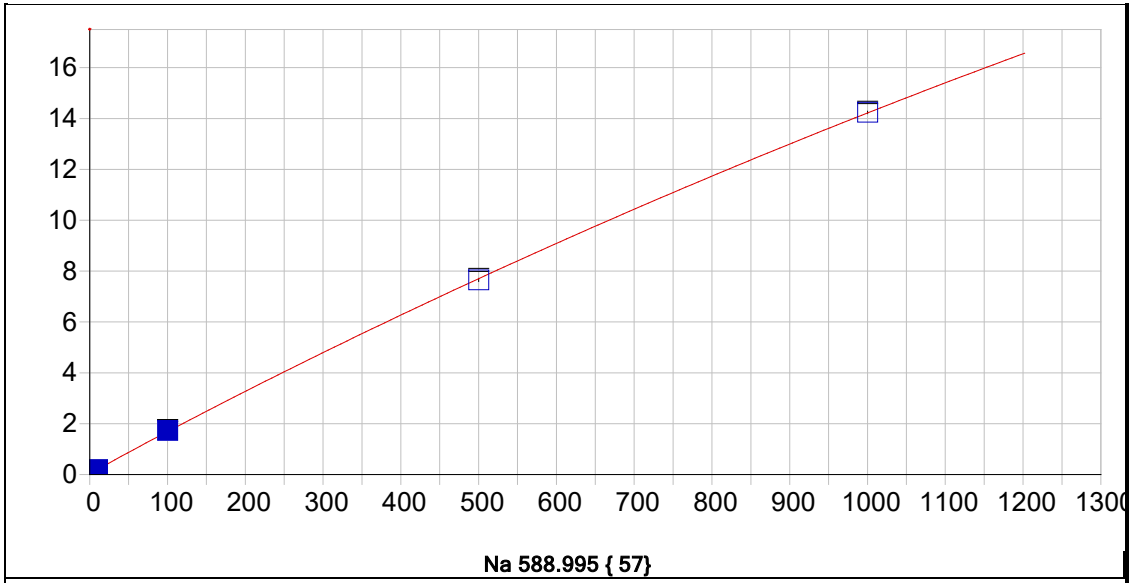
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1942500.	7250.	1



Y 371.030 { 91}*

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	279310.	2500.	1

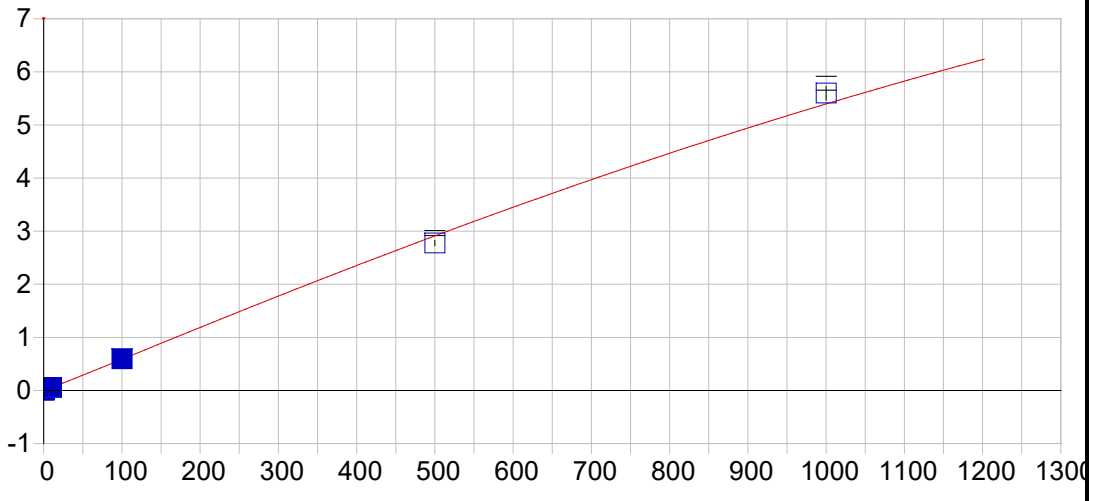


Na 588.995 { 57}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.021213	Re-Slope:	1.000000
A1 (Gain):	0.018516	Y-int:	0.000000
A2 (Curvature):	-0.000003		
n (Exponent):	0.980000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000333		
Predicted MDL:	0.003499		
Predicted MQL:	0.011664		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00014	.000	.000	.02122	.000	1
CalStd9=100	1.0000	.86540	-.135	-13.5	.03729	.000	1
CalStd10=10	10.000	9.4326	-.567	-5.67	.18812	.004	1
CalStd13=10	100.00	102.50	2.50	2.50	1.7304	.035	1
CalibStd15=	1000.0	1001.7	1.73	.173	14.240	.045	1
CalStd14=50	500.00	496.54	-3.46	-.693	7.6525	.058	1

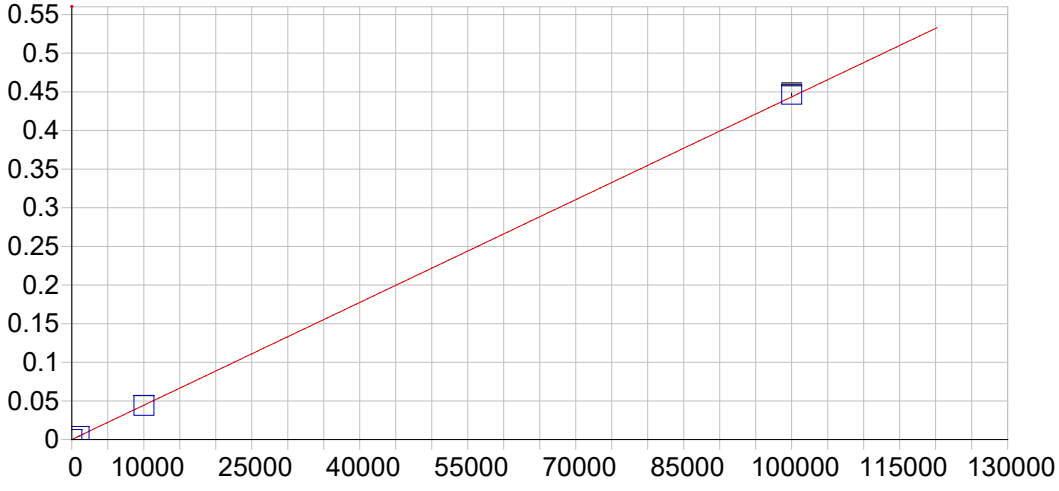


Na 589.592 { 57}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Full Fit	Weighting:	1/Var

A0 (Offset):	-0.000083	Re-Slope:	1.000000
A1 (Gain):	0.004966	Y-int:	0.000000
A2 (Curvature):	-0.000001		
n (Exponent):	1.040000		
Correlation:	0.999715	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.006278		
Predicted MQL:	0.020928		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00010	.000	.000	-.00008	.000	1
CalStd9=100	1.0000	.99939	-.001	-.061	.00488	.000	1
CalStd10=10	10.000	9.8025	-.197	-1.97	.05320	.001	1
CalibStd15=	1000.0	1046.4	46.4	4.64	5.5977	.130	1
CalStd13=10	100.00	101.24	1.24	1.24	.59510	.005	1
CalStd14=50	500.00	475.32	-24.7	-4.94	2.7753	.048	1

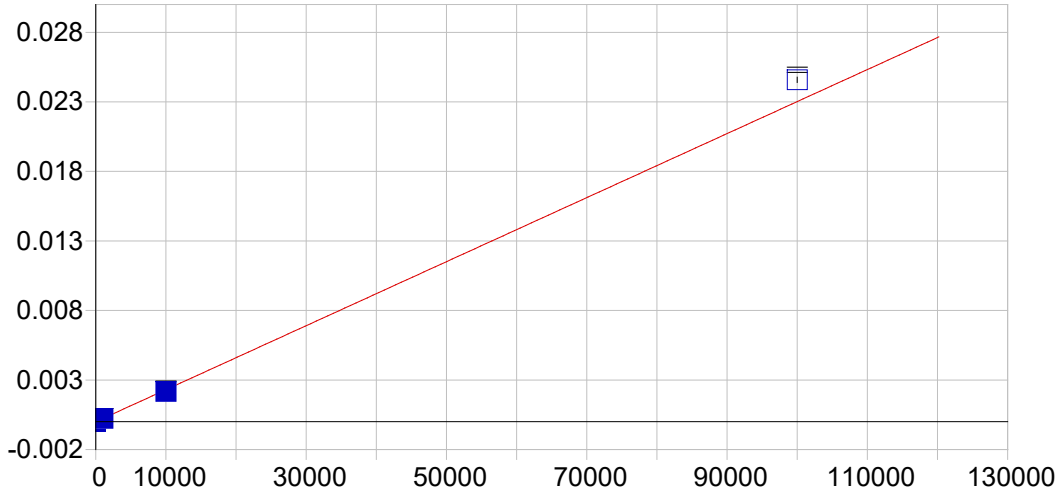


Si 212.412 {458}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	1.308256		
Predicted MQL:	4.360853		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02195	-.022	.000	.00002	.000	1
CalStd9=100	1000.0	1021.0	21.0	2.10	.00455	.000	1
CalibStd15=	100000.	100710.	713.	.713	.44658	.002	1
CalStd10=10	10000.	9915.6	-84.4	-.844	.04399	.000	1

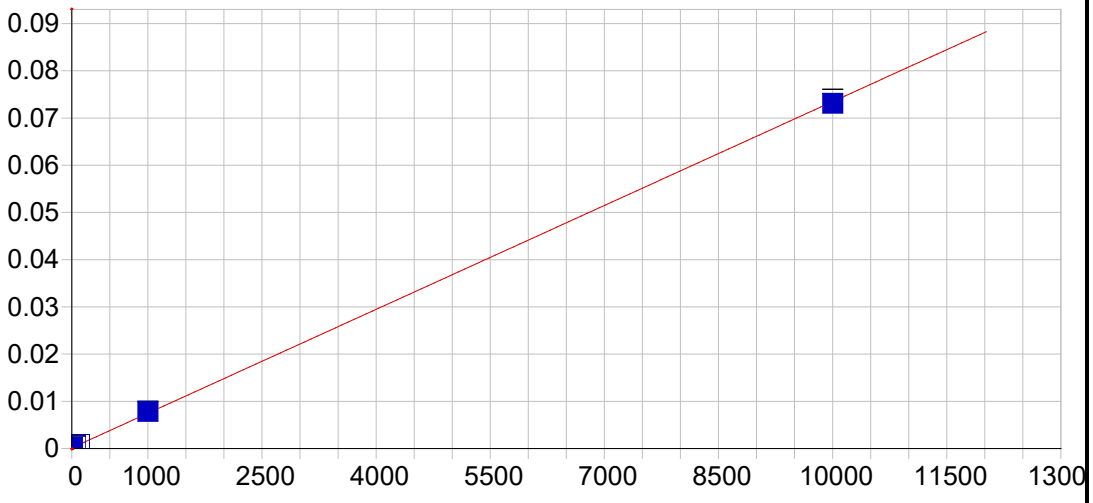


Si 251.611 {134}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998080	Status:	OK.
Std Error of Est:	0.000045		
Predicted MDL:	21.040350		
Predicted MQL:	70.134499		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	11.132	11.1	.000	.00000	.000	1
CalStd9=100	1000.0	1029.6	29.6	2.96	.00024	.000	1
CalibStd15=	100000.	106790.	6790.	6.79	.02458	.000	1
CalStd10=10	10000.	9443.8	-556.	-5.56	.00217	.000	1

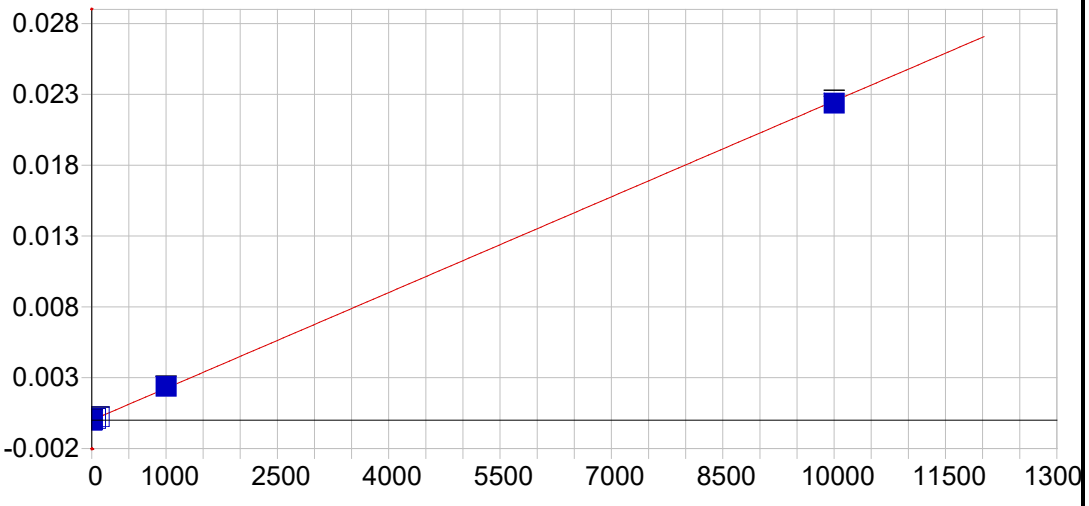


Ti 323.452 {104}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000143	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.632725		
Predicted MQL:	5.442417		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00126	-.001	.000	.00014	.000	1
CalStd5=10	10.000	10.737	.737	7.37	.00022	.000	1
CalStd8=100	100.00	100.90	.905	.905	.00088	.000	1
CalStd9=100	1000.0	1047.2	47.2	4.72	.00782	.000	1
CalStd10=10	10000.	9946.4	-53.6	-.536	.07308	.001	1
CalStd7=50	50.000	54.603	4.60	9.21	.00054	.000	1
CalStd4=5	5.0000	5.1719	.172	3.44	.00018	.000	1

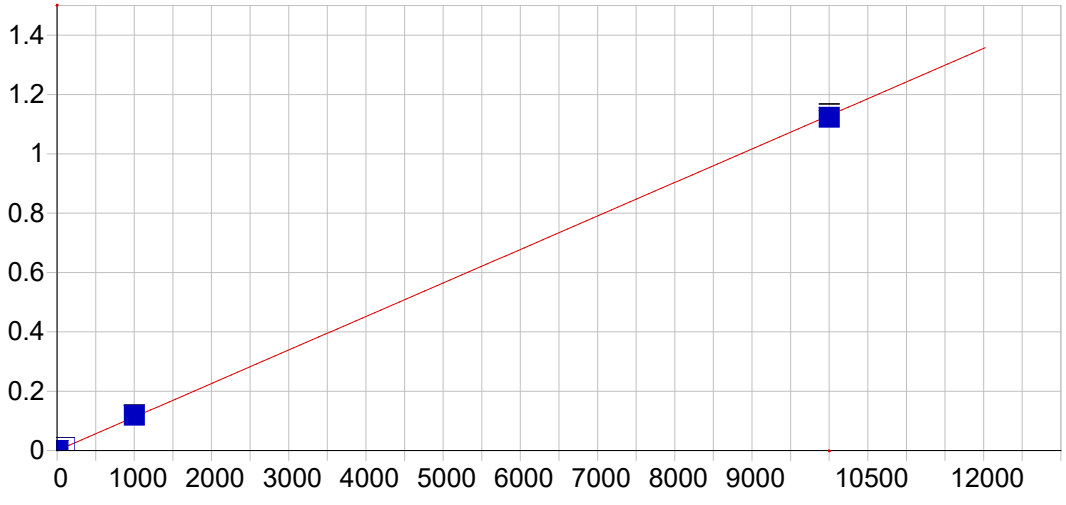


Ti 334.941 {101}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999761	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.449274		
Predicted MQL:	11.497580		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00171	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	12.713	2.71	27.1	.00003	.000	1
CalStd8=100	100.00	102.89	2.89	2.89	.00023	.000	1
CalStd9=100	1000.0	1062.6	62.6	6.26	.00239	.000	1
CalStd10=10	10000.	9929.9	-70.1	-.701	.02237	.000	1
CalStd7=50	50.000	52.184	2.18	4.37	.00011	.000	1
CalStd4=5	5.0000	4.7137	-.286	-5.73	.00001	.000	1

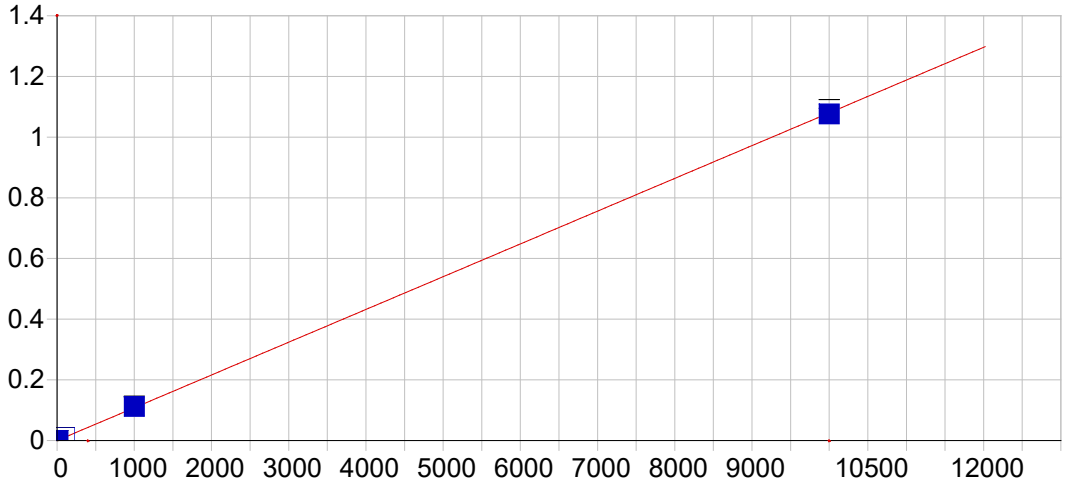


Sr 407.771 { 83}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000035	Re-Slope:	1.000000
A1 (Gain):	0.000113	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999854	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.122074		
Predicted MQL:	0.406915		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00037	-.000	.000	.00004	.000	1
CalStd3=1	1.0000	1.0868	.087	8.68	.00016	.000	1
CalStd4=5	5.0000	5.5395	.540	10.8	.00066	.000	1
CalStd5=10	10.000	10.920	.920	9.20	.00127	.000	1
CalStd8=100	100.00	103.54	3.54	3.54	.01173	.000	1
CalStd9=100	1000.0	1051.6	51.6	5.16	.11881	.001	1
CalStd10=10	10000.	9943.3	-56.7	-.567	1.1231	.011	1

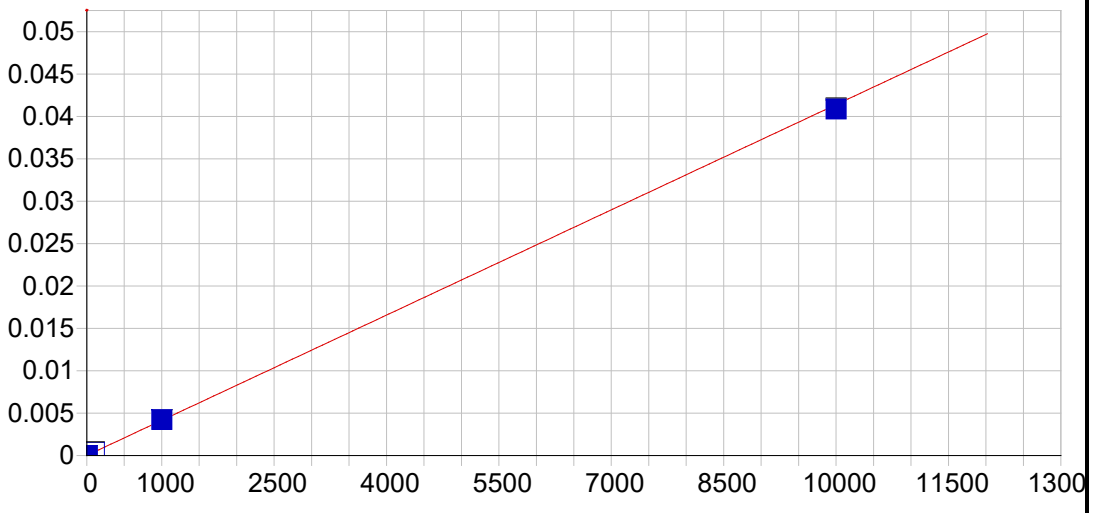


Sr 421.552 { 80}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000081	Re-Slope:	1.000000
A1 (Gain):	0.000108	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.153159		
Predicted MQL:	0.510531		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00022	-.000	.000	.00008	.000	1
CalStd3=1	1.0000	1.0337	.034	3.37	.00019	.000	1
CalStd4=5	5.0000	5.4822	.482	9.64	.00067	.000	1
CalStd5=10	10.000	10.509	.509	5.09	.00122	.000	1
CalStd8=100	100.00	101.30	1.30	1.30	.01102	.000	1
CalStd9=100	1000.0	1033.1	33.1	3.31	.11165	.001	1
CalStd10=10	10000.	9964.5	-35.5	-.355	1.0762	.014	1

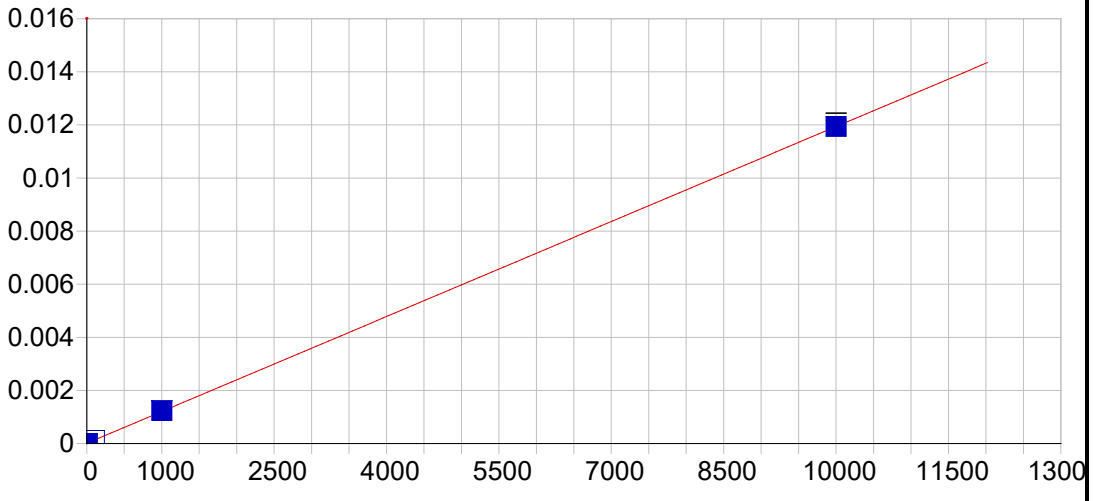


Sn 189.989 {477}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	1.014092		
Predicted MQL:	3.380306		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.88763	-.888	.000	.00001	.000	1
CalStd10=10	10000.	9868.7	-131.	-1.31	.04086	.000	1
CalStd9=100	1000.0	1018.9	18.9	1.89	.00423	.000	1
CalStd8=100	100.00	98.854	-1.15	-1.15	.00042	.000	1
CalStd5=10	10.000	10.960	.960	9.60	.00006	.000	1

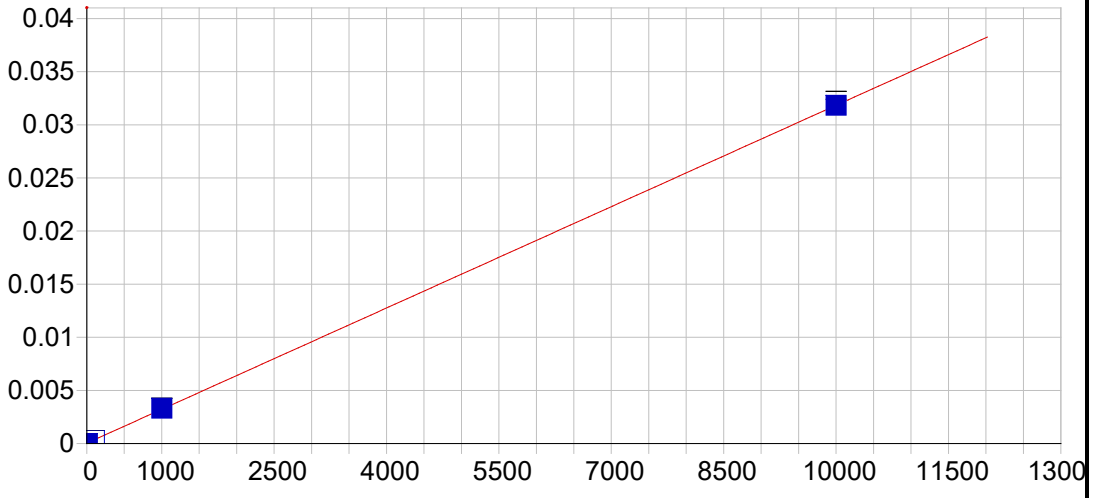


B 249.678 {135}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.753227		
Predicted MQL:	2.510755		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-8.5935	-8.59	.000	.00000	.000	1
CalStd8=100	100.00	92.442	-7.56	-7.56	.00012	.000	1
CalStd5=10	10.000	2.2588	-7.74	-77.4	.00002	.000	1
CalStd9=100	1000.0	1026.5	26.5	2.65	.00124	.000	1
CalStd10=10	10000.	9997.4	-2.56	-.026	.01194	.000	1

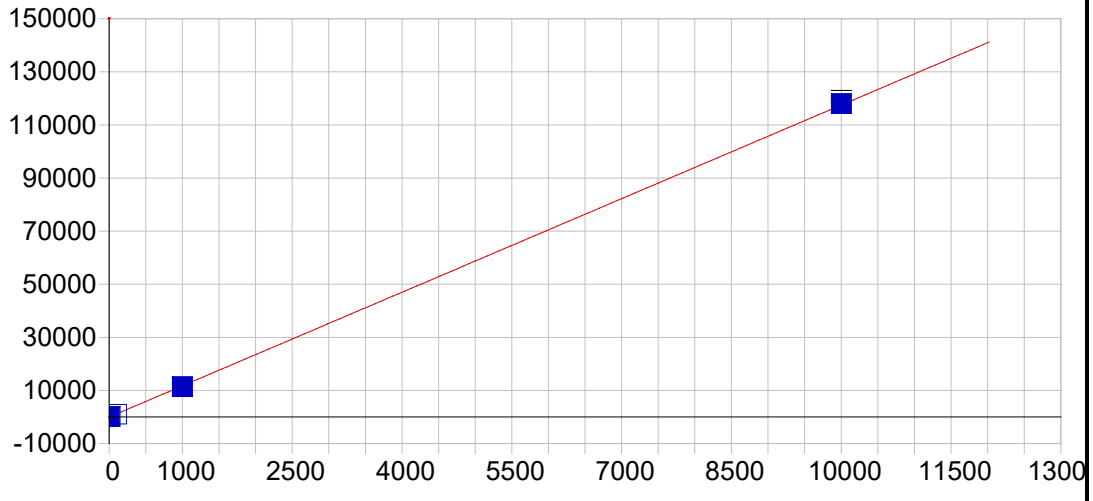


B 249.773 {135}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000058		
Predicted MDL:	0.309534		
Predicted MQL:	1.031781		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-9.2560	-9.26	.000	.00001	.000	1
CalStd8=100	100.00	92.501	-7.50	-7.50	.00033	.000	1
CalStd5=10	10.000	1.4891	-8.51	-85.1	.00004	.000	1
CalStd9=100	1000.0	1028.0	28.0	2.80	.00331	.000	1
CalStd10=10	10000.	9997.3	-2.71	-.027	.03184	.000	1

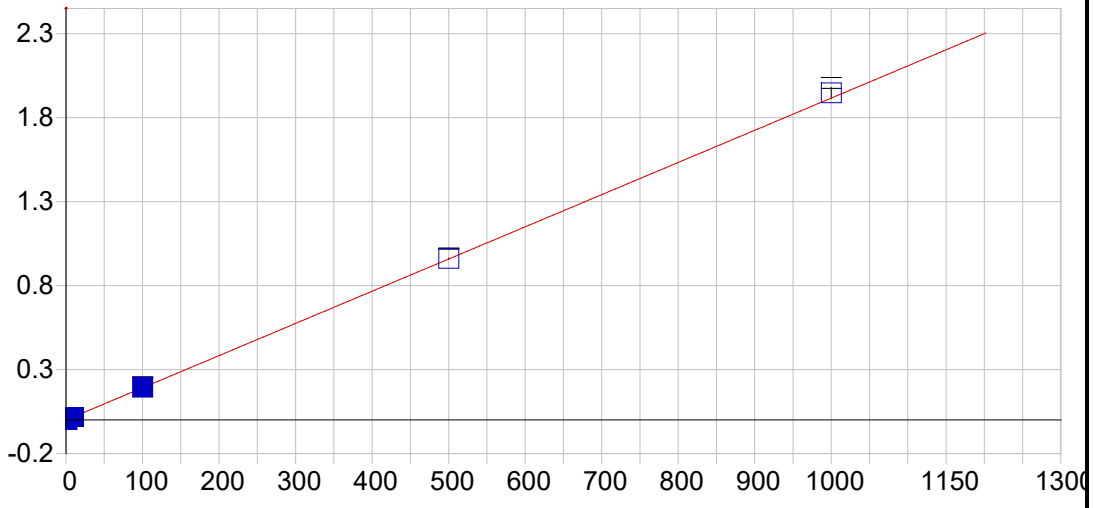


Li 670.784 { 50}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-7.298847	Re-Slope:	1.000000
A1 (Gain):	11.749327	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999877	Status:	OK.
Std Error of Est:	2.509788		
Predicted MDL:	0.774155		
Predicted MQL:	2.580518		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00375	.004	.000	-7.2548	4.71	1
CalStd5=10	10.000	7.4109	-2.59	-25.9	79.774	2.45	1
CalStd8=100	100.00	91.249	-8.75	-8.75	1064.8	9.76	1
CalStd9=100	1000.0	966.77	-33.2	-3.32	11352.	95.4	1
CalStd10=10	10000.	10045.	44.6	.446	118010.	1210.	1

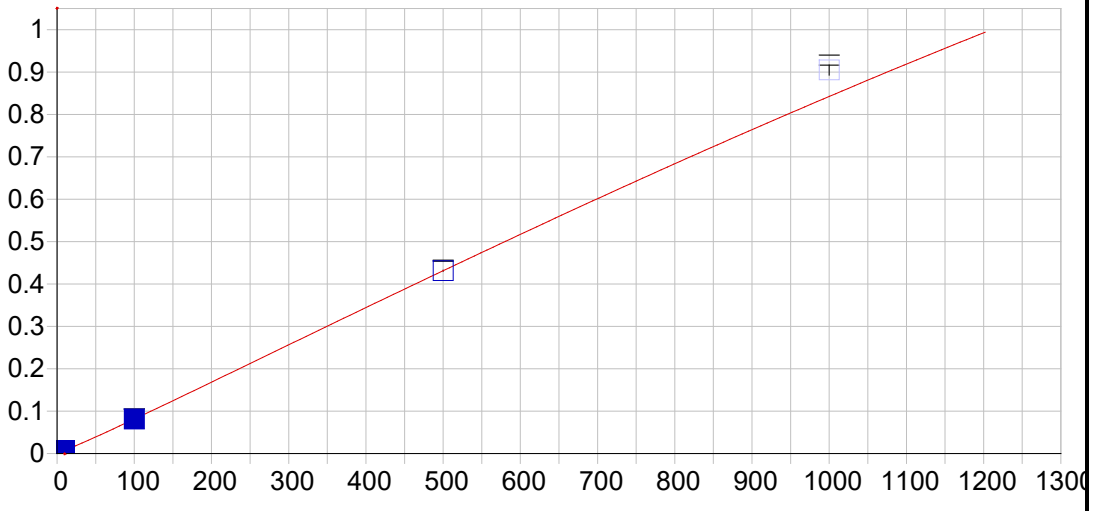


K 766.490 { 44}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000112	Re-Slope:	1.000000
A1 (Gain):	0.001917	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999724	Status:	OK.
Std Error of Est:	0.000128		
Predicted MDL:	0.017754		
Predicted MQL:	0.059181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00713	.007	.000	-.00010	.000	1
CalStd9=100	1.0000	.82061	-.179	-17.9	.00147	.000	1
CalStd10=10	10.000	8.9726	-1.03	-10.3	.01714	.000	1
CalibStd15=	1000.0	1015.9	15.9	1.59	1.9471	.032	1
CalStd13=10	100.00	101.48	1.48	1.48	.19498	.002	1
CalStd14=50	500.00	501.39	1.39	.278	.96093	.003	1

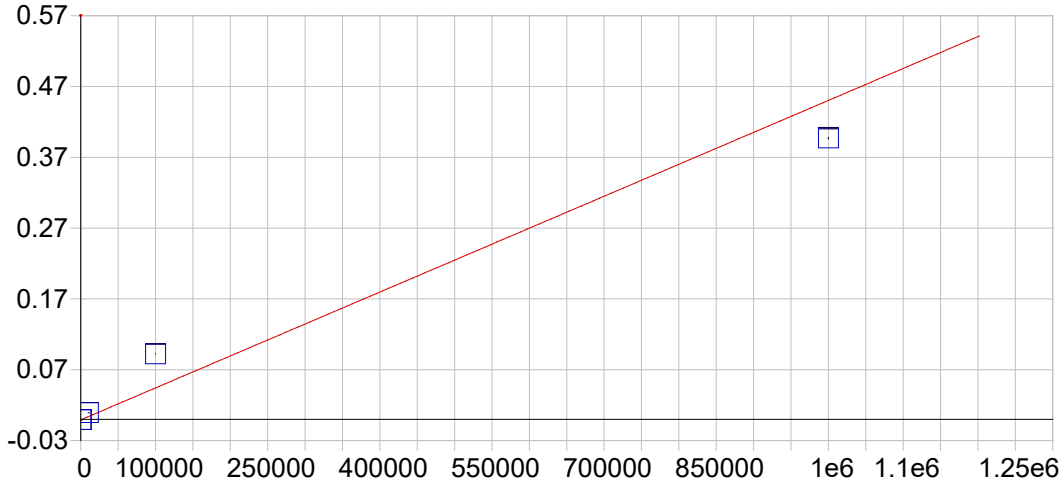


K 769.896 { 44}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Full Fit	Weighting:	1/Conc

A0 (Offset):	0.000357	Re-Slope:	1.000000
A1 (Gain):	0.000593	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.070000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.046476		
Predicted MQL:	0.154920		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00036	.000	1
CalStd9=100	1.0000	1.1006	.101	10.1	.00101	.000	1
CalStd10=10	10.000	9.9468	-.053	-.532	.00728	.000	1
CalibStd15=	1000.0	1081.4	81.4	8.14	.90474	.012	0
CalStd13=10	100.00	99.981	-.019	-.019	.08139	.001	1
CalStd14=50	500.00	500.00	.003	.001	.43137	.001	1

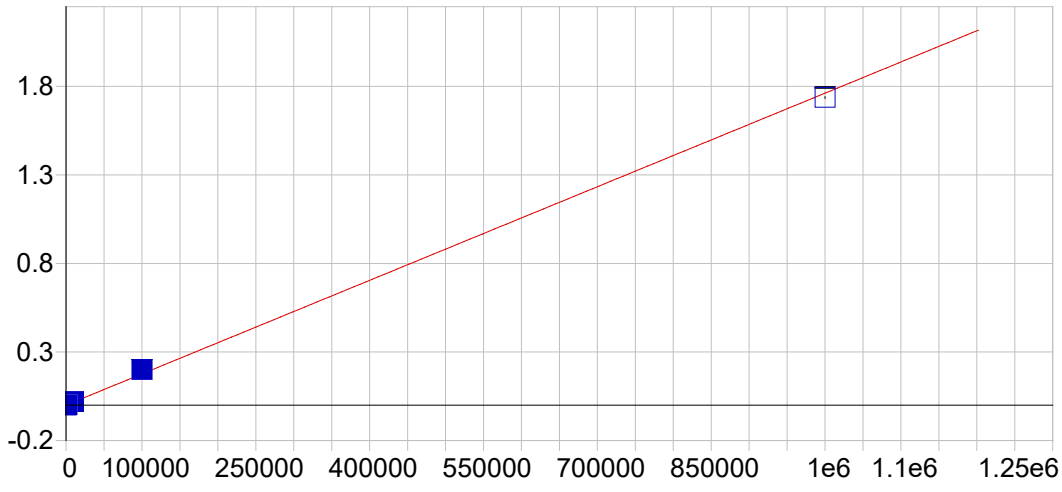


P 177.495 {489}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000796	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.941618	Status:	OK.
Std Error of Est:	0.000219		
Predicted MDL:	12.295516		
Predicted MQL:	40.985054		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.8355	-1.84	.000	-.00080	.000	1
CalStd10=10	10000.	22253.	12300.	123.	.00924	.000	1
CalStd9=100	1000.0	665.67	-334.	-33.4	-.00050	.000	1
CalibStd15=	1000000.	881810.	-118000.	-11.8	.39708	.001	1
CalStd13=10	100000.	206270.	106000.	106.	.09228	.000	1

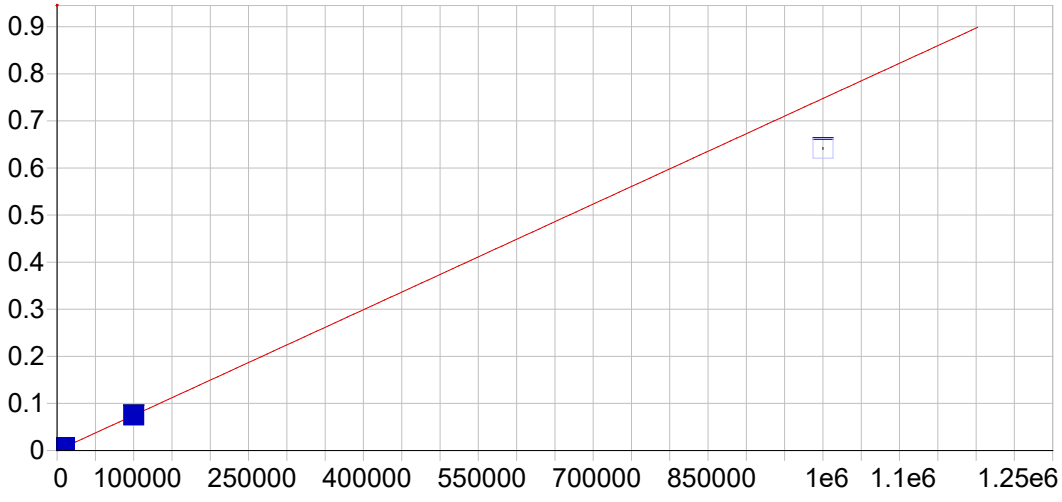


P 213.618 {457}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998827	Status:	OK.
Std Error of Est:	0.000116		
Predicted MDL:	3.904623		
Predicted MQL:	13.015409		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.46467	.465	.000	-.00000	.000	1
CalStd10=10	10000.	10933.	933.	9.33	.01925	.000	1
CalStd9=100	1000.0	319.29	-681.	-68.1	.00056	.000	1
CalibStd15=	1000000.	986080.	-13900.	-1.39	1.7369	.005	1
CalStd13=10	100000.	113660.	13700.	13.7	.20020	.000	1

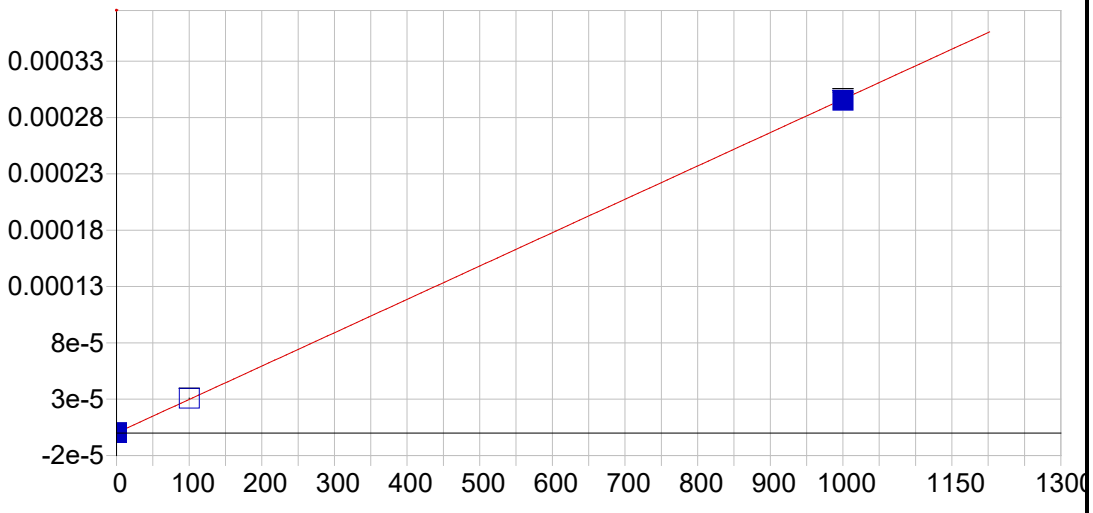


S 182.034 {485}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999845	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	4.636645		
Predicted MQL:	15.455483		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07234	.072	.000	.00002	.000	1
CalStd9=100	1000.0	977.20	-22.8	-2.28	.00075	.000	1
CalStd10=10	10000.	9446.9	-553.	-5.53	.00710	.000	1
CalibStd15=	1000000.	858060.	-142000.	-14.2	.64150	.002	0
CalStd13=10	100000.	100580.	577.	.577	.07521	.000	1

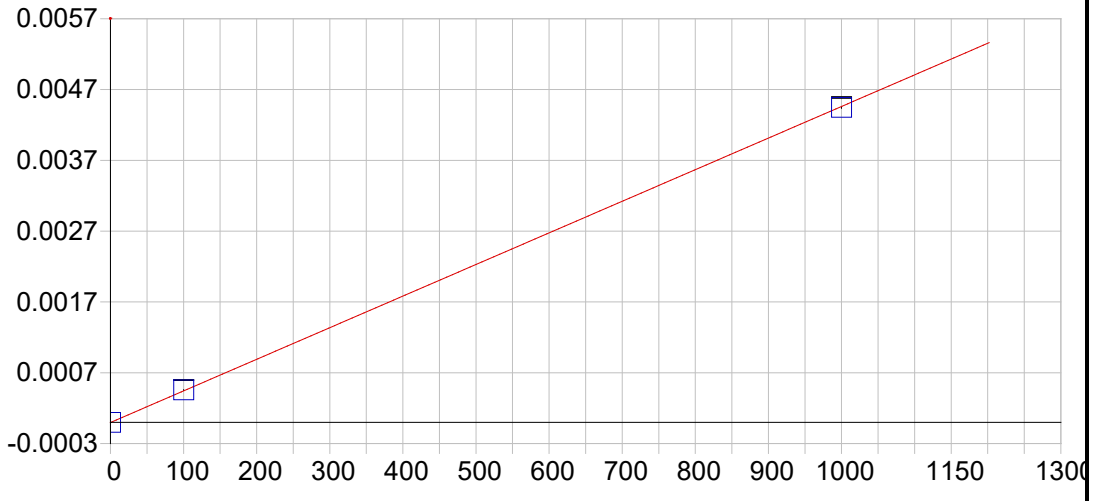


Hg 184.950 {482}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999936	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.027887		
Predicted MQL:	3.426291		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00322	-.003	.000	.00000	.000	1
CalStd8=100	100.00	103.57	3.57	3.57	.00003	.000	1
CalStd9=100	1000.0	996.43	-3.57	-.357	.00030	.000	1

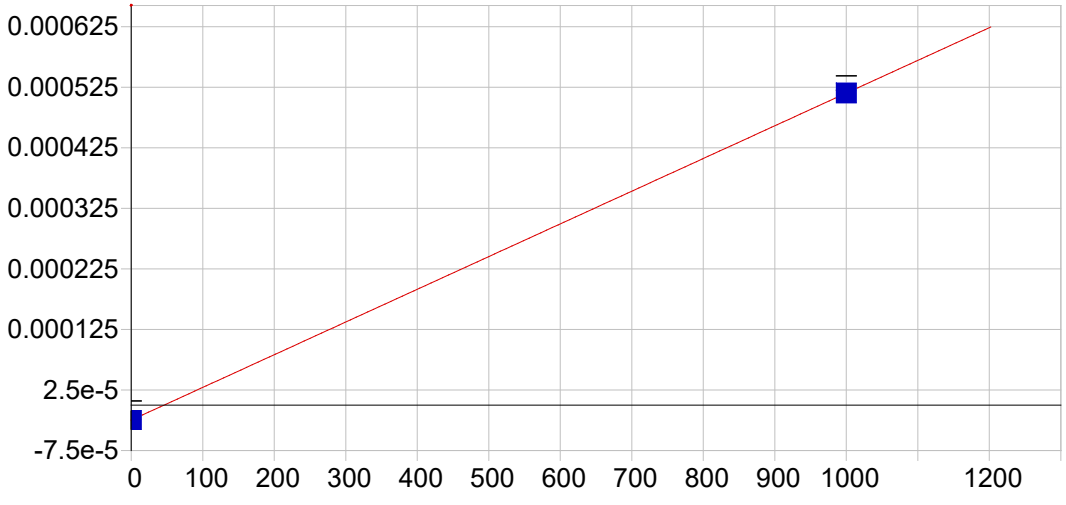


Hg 194.227 {473}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.863381		
Predicted MQL:	2.877936		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00260	-.003	.000	-.00000	.000	1
CalStd8=100	100.00	102.89	2.89	2.89	.00046	.000	1
CalStd9=100	1000.0	997.11	-2.89	-.289	.00445	.000	1



Ce 404.076 { 83}

Date of Fit:	11/19/2021 12:07:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	29.446529		
Predicted MQL:	98.155098		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00002	.000	1
CalStd9=100	1000.0	1000.00	.000	.000	.00052	.000	1

Sample Name: Blank Acquired: 11/18/2021 09:06:57 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca1840	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.016**	**.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	14.0	17.3	18.8	18.6	38.0	75.0	1.28	1.43	55.3	3.81	105.	9.53

Elem	Ca3968	Cd2265	Co2286	Co2388	Cr2677	Cu2230	Cu2247	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.00	147.	134.	59.8	14.5	36.3	61.8	2.98	107.	324.	328.	85.2

Elem	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	22.5	880.	147.	50.6	50.8	359.	57.1	27.5	20.7	61.5	18.6	59.0

Elem	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**.000**	**.000**	**.000**	**.021**	**-.000**	**.000**	**.000**	**.000**	**-7.25**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	4.71	.000
%RSD	120.	268.	25.8	55.5	7.63	.791	21.4	10.2	5.74	7.12	65.0	15.3

Elem	K_7698
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	6.50

Sample Name: Blank Acquired: 11/18/2021 09:06:57 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**158810.**	**1942500.**	**279310.**
Stddev	311.	7246.	2499.
%RSD	.19579	.37305	.89475

Sample Name: CalStd2=0.5 Acquired: 11/18/2021 09:14:49 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Be3131	Cd2265
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	2.20	19.9	80.0

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154740.**	**1875200.**	**281750.**
Stddev	325.	6304.	2270.
%RSD	.20990	.33619	.80548

Sample Name: CalStd3=1 Acquired: 11/18/2021 09:22:41 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Be3131	Cd2265	Co2286	Ni2316	Sr4077	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	26.7	1.68	12.7	20.3	81.3	109.	6.72	3.75

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**155470.**	**1876500.**	**279300.**
Stddev	604.	2346.	2156.
%RSD	.38834	.12504	.77191

Sample Name: CalStd4=5 Acquired: 11/18/2021 09:30:29 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Be3131	Cd2265	Co2286	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	8.47	5.51	.529	2.09	4.91	3.23	9.94	.513	4.91	16.8	15.8	13.1

Elem	Sb2175	Sr4077	Sr4215
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**.001**
Stddev	.000	.000	.000
%RSD	66.1	3.47	2.63

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**155450.**	**1876000.**	**275480.**
Stddev	400.	10285.	4122.
%RSD	.25728	.54826	1.4962

Sample Name: CalStd5=10 Acquired: 11/18/2021 09:38:18 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Cd2265	Co2286	Cr2677	Cu2230	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.79	4.43	12.1	211.	1.10	.124	1.63	1.46	1.22	1.25	4.43	.594

Elem	Mo2020	Mo2045	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.03	11.0	3.76	22.8	180.	25.3	17.7	21.3	76.1	3.40	2.33	.704

Elem	Sr4077	Sr4215	B_2497	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.001**	**.000**	**79.8**
Stddev	.000	.000	.000	2.5
%RSD	.356	1.85	1.05	3.07

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**153260.**	**1852600.**	**277990.**
Stddev	419.	3399.	2111.
%RSD	.27307	.18344	.75920

Sample Name: CalStd6=20 Acquired: 11/18/2021 09:46:12 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2230	Cu2247	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.721	5.03	5.85	.724	2.02	5.16	2.79	1.89

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154350.**	**1869800.**	**277560.**
Stddev	316.	15603.	2588.
%RSD	.20479	.83451	.93229

Sample Name: CalStd7=50 Acquired: 11/18/2021 09:53:59 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Ca3933	Co2286	Cr2677	Cu2247	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.017**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.86	12.6	1.72	.385	.955	1.65	.632	.512	1.54	1.40	2.19	1.09

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154600.**	**1881100.**	**275490.**
Stddev	294.	10566.	3618.
%RSD	.19017	.56170	1.3134

Sample Name: CalStd8=100 Acquired: 11/18/2021 10:01:43 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Ca3933	Ca3968	Co2286	Co2388	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.021**	**.005**	**.022**	**.008**	**.002**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.827	.570	2.76	9.02	.573	.957	.254	.477	.898	.226	.707	.541

Elem	Cu2230	Cu2247	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Pb2169	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.003**	**.001**	**.001**	**.000**	**.001**	**.001**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.729	3.79	.278	.282	.560	1.31	.328	.349	.776	21.3	2.33	3.65

Elem	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Sr4077	Sr4215	B_2497	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.002**	**.005**	**.012**	**.011**	**.000**	**1060.**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	10.
%RSD	24.2	2.80	.272	.625	.443	.995	.702	.248	.917

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**153080.**	**1856200.**	**279550.**
Stddev	169.	5715.	2052.
%RSD	.11011	.30787	.73397

Sample Name: CalStd9=1000 Acquired: 11/18/2021 10:09:23 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca1840	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.002**	**.001**	**.001**	**.008**	**.057**	**.055**	**.044**	**.002**	**.000**	**.222**
Stddev	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.002
%RSD	.250	.840	.343	.452	.403	1.06	.324	.974	.550	2.59	1.09

Elem	Ca3968	Cd2265	Co2286	Co2388	Cr2677	Cu2230	Cu2247	Fe2343	Fe2395	Fe2599	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.082**	**.024**	**.024**	**.002**	**.003**	**.006**	**.008**	**.000**	**.000**	**.002**	**.000**
Stddev	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.04	.197	.225	.287	.339	.408	.352	.339	.666	.874	.377

Elem	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2203	Pb2169	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.032**	**.008**	**.006**	**.009**	**.005**	**.013**	**.014**	**.003**	**.000**	**.002**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.18	.351	.284	1.20	.384	.405	.182	.068	.628	2.48	.664

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.001**	**.000**	**.002**	**.005**	**.018**	**.050**	**.037**	**.005**	**.119**	**.112**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001
%RSD	.468	.405	1.72	.559	.589	.122	.198	.999	1.65	.998	1.09

Elem	B_2497	Li6707	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**11400.**	**.001**	**.001**
Stddev	.000	95.	.000	.000
%RSD	.432	.841	5.88	3.08

Sample Name: CalStd9=1000 Acquired: 11/18/2021 10:09:23 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154820.**	**1863000.**	**275360.**
Stddev	430.	7542.	3053.
%RSD	.27779	.40485	1.1089

Sample Name: CalStd10=10000 Acquired: 11/18/2021 10:16:34 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ba4934	Ca1840	Ca3158	Ca3968	Co2286	Co2388	Cr2677	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.019**	**.007**	**.396**	**.017**	**.002**	**.774**	**.230**	**.017**	**.025**	**.059**
Stddev	.000	.000	.007	.000	.000	.011	.001	.000	.000	.000
%RSD	1.92	.362	1.65	.267	1.41	1.44	.300	1.14	1.20	.302

Elem	Cu2247	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.085**	**.003**	**.004**	**.015**	**.002**	**.001**	**.279**	**.070**	**.059**	**.086**
Stddev	.000	.000	.000	.000	.000	.000	.004	.001	.001	.000
%RSD	.259	1.13	1.13	1.25	.799	1.52	1.44	1.15	1.23	.378

Elem	Mo2045	Ni2216	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.045**	**.122**	**.135**	**.030**	**.001**	**.019**	**.017**	**.012**	**.003**	**.017**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.329	.304	.284	.322	.465	.342	.249	.111	.307	.267

Elem	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.045**	**.166**	**.452**	**.188**	**.053**	**1.12**	**1.08**	**.032**	**118000.**	**.017**
Stddev	.000	.001	.001	.004	.001	.01	.01	.000	1210.	.000
%RSD	1.06	.370	.300	1.86	2.20	.991	1.34	1.19	1.02	2.09

Elem	K_7698
Units	Cts/S
Avg	**.007**
Stddev	.000
%RSD	1.82

Sample Name: CalStd10=10000 Acquired: 11/18/2021 10:16:34 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**151440.**	**1869200.**	**277860.**
Stddev	348.	18518.	3935.
%RSD	.22982	.99073	1.4160

Sample Name: CalStd12=100K Acquired: 11/18/2021 10:24:21 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cu2247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.901**	**.611**	**.015**	**1.55**
Stddev	.006	.004	.000	.01
%RSD	.649	.588	.554	.770

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**152810.**	**277540.**
Stddev	890.	1703.
%RSD	.58255	.61369

Sample Name: CalStd13=100000 Acquired: 11/18/2021 10:32:29 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Ca3158	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.205**	**.176**	**.025**	**.028**	**.041**	**.165**	**.020**	**.006**	**1.73**	**.595**	**.195**	**.081**
Stddev	.003	.000	.000	.000	.001	.002	.000	.000	.04	.005	.002	.001
%RSD	1.22	.282	1.47	.498	1.46	1.14	.566	1.15	2.01	.891	1.11	1.02

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**146990.**	**1814400.**	**262620.**
Stddev	205.	7176.	3092.
%RSD	.13954	.39549	1.1772

Sample Name: CalStd14=500000 Acquired: 11/18/2021 10:40:37 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.10**	**.734**	**.126**	**.200**	**.779**	**.092**	**.029**	**7.65**	**2.78**	**.961**	**.431**
Stddev	.01	.004	.001	.001	.005	.000	.000	.06	.05	.003	.001
%RSD	.517	.499	.621	.365	.682	.394	.285	.763	1.72	.361	.330

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**136570.**	**1708900.**	**255210.**
Stddev	366.	11056.	737.
%RSD	.26775	.64698	.28878

Sample Name: CalibStd15=1000k Acquired: 11/18/2021 10:49:05 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca1840	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na5889	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.25**	**1.23**	**.267**	**.408**	**1.52**	**.172**	**.062**	**14.2**	**5.60**	**1.95**	**.905**
Stddev	.04	.00	.002	.002	.02	.001	.000	.0	.13	.03	.012
%RSD	1.69	.208	.729	.470	1.06	.693	.748	.318	2.33	1.66	1.31

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**123370.**	**1571200.**	**220000.**
Stddev	342.	9611.	1113.
%RSD	.27757	.61166	.50588

Sample Name: Ag Ba 1000, 50000 Acquired: 11/18/2021 10:57:30 Type: Cal
Method: DOD Calibration Updated 060614(v4650) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba4934
Units	Cts/S
Avg	**2.00**
Stddev	.01
%RSD	.439

Int. Std.	Y_3710
Units	Cts/S
Avg	**263910.**
Stddev	2295.
%RSD	.86947

Sample Name: icv Acquired: 11/18/2021 11:21:03 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca1840	Ca3158	Ca3968	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**50.7**	**11900.**	**2080.**	**2030.**	**2120.**	**50.7**	**50.4**	**10400.**	**9750.**	**10800.**	**51.1**	**516.**
Stddev	.4	138.	13.	8.	28.	.2	.7	35.	126.	50.	.1	2.
%RSD	.821	1.16	.626	.372	1.34	.325	1.40	.336	1.29	.458	.190	.367
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Cr2677	Cu2230	Fe2343	Fe2395	Mg2025	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**201.**	**256.**	**5260.**	**4760.**	**9970.**	**497.**	**512.**	**521.**	**514.**	**525.**	**507.**	**2120.**
Stddev	1.	2.	8.	59.	29.	1.	2.	2.	2.	8.	4.	10.
%RSD	.395	.700	.157	1.24	.290	.251	.426	.297	.422	1.45	.867	.463
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Se2062	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**2150.**	**523.**	**537.**	**534.**	**4.95**	**5.32**	**543.**	**535.**	**520.**	**490.**	**4.78**
Stddev	30.	1.	4.	5.	.05	.03	7.	6.	1.	2.	.05
%RSD	1.41	.219	.817	.882	1.05	.563	1.31	1.21	.263	.399	1.11
Check ?	None	None	None	None	None	None	None	None	None	None	None
Value											
Range											

Sample Name: icv Acquired: 11/18/2021 11:21:03 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**152840.**	**1862600.**	**255340.**
Stddev	659.	2928.	2506.
%RSD	.43099	.15720	.98131

Sample Name: ICVLL Acquired: 11/18/2021 11:28:38 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca1840	Ca3158	Ca3933	Ca3968	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**48.4**	**1250.**	**60.1**	**31.4**	**12.9**	**12.8**	**1610.**	**1520.**	**1640.**	**1700.**	**16.0**	**31.5**
Stddev	.6	29.	4.2	.6	.1	.1	10.	16.	17.	16.	.1	.2
%RSD	1.22	2.32	6.99	1.85	.723	1.14	.606	1.06	1.03	.938	.696	.561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2230	Fe2343	Mg2025	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**31.1**	**37.3**	**987.**	**1510.**	**1720.**	**31.5**	**34.8**	**31.3**	**30.3**	**68.0**	**64.9**	**56.9**
Stddev	.3	1.3	9.	22.	15.	.3	.3	.7	2.6	2.4	2.8	3.8
%RSD	1.08	3.47	.918	1.45	.899	.830	.744	2.31	8.67	3.58	4.27	6.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2138	Na5889	Na5895	Sr4077	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**33.5**	**38.9**	**3.00**	**3.27**	**34.3**	**53.5**	**56.7**	**13.7**	**14.9**
Stddev	.6	1.1	.06	.06	.3	1.1	.4	.2	.2
%RSD	1.79	2.86	1.88	1.74	.912	2.02	.667	1.45	1.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICVLL Acquired: 11/18/2021 11:28:38 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154140.**	**1887300.**	**255190.**
Stddev	615.	20070.	2535.
%RSD	.39909	1.0634	.99322

Sample Name: icb Acquired: 11/18/2021 11:43:59 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.461**	**-1.02**	**1.24**	**-.343**	**.017**	**-.080**	**-7.67**	**.955**	**-.001**	**-.140**	**.295**	**.796**
Stddev	.544	1.05	2.00	.291	.011	.044	.09	.092	.326	.255	.205	1.16
%RSD	118.	103.	162.	84.9	65.6	54.9	1.20	9.62	24100.	182.	69.3	145.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**1.19**	**.716**	**-.039**	**-.078**	**-.010**	**-1.01**	**4.08**	**-2.16**	**2.97**	**.305**	**8.33**	**.052**
Stddev	4.35	1.80	.082	.495	.387	1.66	2.17	.54	2.88	.070	1.33	.006
%RSD	364.	252.	211.	632.	3770.	164.	53.1	25.1	97.0	22.8	16.0	12.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**.031**	**-.052**	**-9.88**	**-2.17**	**.050**
Stddev	.005	.027	.17	.47	.028
%RSD	15.2	52.0	1.77	21.5	57.1
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: icb Acquired: 11/18/2021 11:43:59 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**157030.**	**1917100.**	**263290.**
Stddev	618.	19042.	1705.
%RSD	.39353	.99329	.64770

Sample Name: ICSA Acquired: 11/18/2021 11:59:30 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca1840	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.72**	**542000.**	**-.198**	**.000**	**.620**	**.432**	**428000.**	**530000.**	**.001**	**.934**	**5.69**
Stddev	.37	6620.	10.4	.389	.030	.068	1210.	5260.	.764	.306	.14
%RSD	13.6	1.22	5250.	634000.	4.82	15.8	.282	.991	81000.	32.7	2.41
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4.73**	**477000.**	**456000.**	**466000.**	**508000.**	**2.01**	**.000**	**-1.61**	**.001**	**-.002**	**6.62**
Stddev	1.05	4470.	5110.	995.	6080.	.19	.271	.68	2.77	4.84	4.39
%RSD	22.3	.938	1.12	.213	1.20	9.25	911000.	42.1	368000.	235000.	66.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Tl1908	V_2924	Zn2138	Na5889	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**-4.45**	**10500.**	**.002**	**.007**	**-.066**	**-1.85**	**-.046**	**-.000**	**-1.26**
Stddev	1.14	39.	1.84	.010	.007	.19	2.91	.516	.02
%RSD	25.7	.374	87800.	154.	10.7	10.1	6290.	4610000.	1.60
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 11/18/2021 11:59:30 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**138510.**	**1742000.**	**239000.**
Stddev	383.	7658.	2778.
%RSD	.27654	.43962	1.1624

Sample Name: ICSAB Acquired: 11/18/2021 12:07:32 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3382	Al3961	As1937	As1972	Ba2335	Be3130	Be3131	Ca1840	Ca3158	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**557.**	**548000.**	**525.**	**463.**	**508.**	**485.**	**513.**	**423000.**	**513000.**	**486.**	**512.**
Stddev	13.	7470.	11.	5.	3.	2.	2.	2310.	942.	3.	3.
%RSD	2.25	1.36	2.13	1.07	.628	.408	.322	.545	.183	.614	.505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cr2677	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**487.**	**515.**	**475000.**	**452000.**	**469000.**	**504000.**	**489.**	**510.**	**514.**	**499.**	**519.**
Stddev	1.	4.	1070.	814.	1230.	1330.	2.	3.	2.	2.	7.
%RSD	.162	.707	.226	.180	.262	.265	.345	.617	.450	.392	1.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L
Avg	**499.**	**521.**	**525.**	**522.**	**475.**	**506.**	**58.7**	**58.2**	**561.**	**569.**	**544.**
Stddev	4.	6.	1.	2.	4.	4.	.5	.4	2.	2.	3.
%RSD	.727	1.16	.262	.466	.810	.767	.855	.753	.313	.404	.485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Sample Name: ICSAB Acquired: 11/18/2021 12:07:32 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Li6707	K_7664
Units	ug/L	mg/L
Avg	**575.**	**59.3**
Stddev	5.	.5
%RSD	.802	.808
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**136780.**	**1725300.**	**234060.**
Stddev	551.	5006.	796.
%RSD	.40264	.29015	.34029

Sample Name: ICVLL ag Acquired: 11/18/2021 12:22:46 Type: Unk
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**10.6**	**3.12**	**-1.57**	**-.592**	**.035**	**.008**	**-4.74**	**3.91**	**.009**	**-.435**	**.473**	**2.67**
Stddev	.3	1.28	3.34	.271	.010	.080	.11	.22	.174	.454	.185	1.11
%RSD	2.43	40.9	213.	45.8	28.2	982.	2.23	5.55	1940.	104.	39.2	41.5

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**25.0**	**1.04**	**.075**	**.436**	**-.011**	**-1.17**	**6.92**	**1.81**	**-3.19**	**.356**	**4.80**	**.105**
Stddev	4.8	.07	.025	.251	.251	1.30	1.38	1.66	1.89	.374	.21	.023
%RSD	19.1	6.58	34.1	57.5	2310.	111.	20.0	91.8	59.4	105.	4.46	21.5

Elem	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**.026**	**-.041**	**-10.3**	**-1.49**	**.048**
Stddev	.005	.074	.2	.60	.020
%RSD	20.9	178.	2.35	40.1	40.8

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154870.**	**1912400.**	**249390.**
Stddev	900.	4171.	2826.
%RSD	.58145	.21812	1.1332

Sample Name: ccv1 Acquired: 11/18/2021 13:42:52 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3130	Be3131	Ca1840	Ca3158	Ca3968	Cd2265	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**445.**	**4820.**	**5030.**	**4690.**	**4950.**	**478.**	**470.**	**5110.**	**4630.**	**5270.**	**483.**	**4760.**
Stddev	1.	46.	16.	14.	61.	1.	4.	20.	47.	58.	2.	10.
%RSD	.133	.958	.308	.288	1.23	.244	.921	.394	1.01	1.10	.328	.208
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cr2677	Cu2230	Cu2247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**4630.**	**5050.**	**4730.**	**5400.**	**4700.**	**5070.**	**5130.**	**4780.**	**4920.**	**4830.**	**5140.**	**5020.**
Stddev	17.	19.	11.	36.	119.	10.	23.	10.	15.	12.	32.	18.
%RSD	.370	.379	.241	.661	2.52	.203	.445	.216	.305	.248	.620	.355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Se1960	Se2062	V_2924	Zn2062	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**4970.**	**4980.**	**5100.**	**4770.**	**102.**	**103.**	**5010.**	**5010.**	**4950.**	**5190.**	**103.**	**102.**
Stddev	24.	39.	12.	17.	3.	1.	46.	48.	19.	21.	1.	1.
%RSD	.489	.781	.243	.353	2.52	1.30	.922	.962	.386	.398	1.10	1.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Sample Name: ccv1 Acquired: 11/18/2021 13:42:52 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**152360.**	**1854000.**	**241030.**
Stddev	299.	2716.	2591.
%RSD	.19595	.14647	1.0751

Sample Name: ccv2 Acquired: 11/18/2021 13:49:58 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**49.2**	**532.**	**504.**	**510.**	**493.**	**48.3**	**46.4**	**499.**	**530.**	**48.6**	**492.**	**482.**
Stddev	.9	2.	3.	7.	1.	.4	.5	4.	4.	.2	1.	4.
%RSD	1.84	.452	.682	1.41	.213	.763	1.09	.818	.742	.389	.273	.865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2230	Fe2343	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**518.**	**550.**	**549.**	**486.**	**503.**	**499.**	**483.**	**502.**	**490.**	**514.**	**518.**	**519.**
Stddev	3.	6.	4.	3.	1.	1.	2.	3.	5.	3.	3.	4.
%RSD	.494	1.05	.793	.648	.157	.179	.374	.606	.962	.602	.660	.822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**496.**	**486.**	**9.69**	**10.2**	**520.**	**514.**	**503.**	**461.**	**9.07**	**10.2**
Stddev	2.	2.	.10	.1	4.	4.	4.	.	.08	.1
%RSD	.361	.330	1.03	.989	.686	.837	.730	.089	.900	1.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ccv2 Acquired: 11/18/2021 13:49:58 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**154600.**	**1880900.**	**241410.**
Stddev	506.	13546.	1858.
%RSD	.32751	.72019	.76982

Sample Name: ccb Acquired: 11/18/2021 13:57:08 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.650**	**-.630**	**1.82**	**-.366**	**.125**	**.062**	**-8.15**	**.456**	**.045**	**-.214**	**.019**	**.757**
Stddev	.534	.704	4.13	.183	.013	.100	.09	.269	.097	.161	.461	1.45
%RSD	82.1	112.	227.	49.8	10.7	162.	1.11	59.0	213.	75.4	2420.	191.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**1.04**	**.166**	**-.018**	**.594**	**-.395**	**-3.33**	**4.69**	**1.17**	**2.87**	**.547**	**1.72**	**.129**
Stddev	1.61	.038	.041	.278	.756	2.32	3.48	2.32	1.84	.480	.29	.013
%RSD	155.	23.2	228.	46.9	191.	69.7	74.2	199.	64.0	87.8	16.7	9.92
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**.089**	**.054**	**-7.50**	**-2.47**	**.021**
Stddev	.006	.149	.18	.20	.014
%RSD	6.80	275.	2.42	8.30	67.5
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: ccb Acquired: 11/18/2021 13:57:08 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**155760.**	**1887700.**	**248080.**
Stddev	148.	20506.	2538.
%RSD	.09482	1.0863	1.0230

Sample Name: lcsw83193 Acquired: 11/18/2021 14:04:57 Type: Unk
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca1840	Ca3158	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**20.4**	**872.**	**825.**	**825.**	**793.**	**19.5**	**18.7**	**187000.**	**182000.**	**19.6**	**198.**
Stddev	.5	4.	5.	5.	2.	.1	.1	487.	1790.	.1	1.
%RSD	2.20	.491	.649	.648	.247	.615	.657	.260	.986	.468	.403

Elem	Cr2677	Cu2230	Fe2343	Mg2025	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**76.9**	**122.**	**415.**	**97700.**	**86900.**	**189.**	**2210.**	**195.**	**206.**	**202.**	**831.**
Stddev	.8	2.	4.	190.	736.	1.	4.	1.	2.	3.	5.
%RSD	1.00	1.81	1.05	.195	.847	.543	.164	.450	1.15	1.41	.652

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**883.**	**208.**	**196.**	**203.**	**102.**	**101.**	**2.93**	**-8.21**	**-1.22**	**105.**	**104.**
Stddev	4.	2.	1.	1.	2.	1.	.11	.28	.73	1.	1.
%RSD	.421	1.10	.287	.319	1.66	1.14	3.69	3.44	60.1	1.06	1.06

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**147950.**	**1827500.**	**242500.**
Stddev	291.	7960.	2115.
%RSD	.19678	.43558	.87196

Sample Name: mbw83193 Acquired: 11/18/2021 14:12:43 Type: Unk
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.380**	**-.935**	**3.49**	**-.279**	**.107**	**.001**	**-3.51**	**5.22**	**.027**	**-.309**	**.145**	**-.102**
Stddev	.535	.730	2.29	.439	.029	.167	1.23	1.26	.262	.320	.207	.710
%RSD	141.	78.1	65.6	158.	26.6	12400.	34.9	24.1	981.	104.	143.	697.

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**.464**	**1.90**	**-.021**	**1.65**	**-.709**	**-1.32**	**3.10**	**-1.53**	**2.26**	**.117**	**.906**	**.166**
Stddev	1.04	.11	.040	.77	.437	2.34	4.19	2.33	1.71	.020	.200	.017
%RSD	224.	5.65	186.	46.7	61.6	177.	135.	152.	75.7	16.8	22.1	10.2

Elem	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**.112**	**.112**	**-9.61**	**-1.49**	**.049**
Stddev	.006	.033	.16	.82	.018
%RSD	4.99	29.3	1.67	55.0	35.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**156590.**	**1893800.**	**245160.**
Stddev	272.	12260.	1892.
%RSD	.17379	.64738	.77153

Sample Name: 1097793 Acquired: 11/18/2021 14:20:32 Type: Unk
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Be3131	Ca1840	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.544**	**4060.**	**-.540**	**137.**	**.369**	**-.021**	**67600.**	**59400.**	**-.047**	**1.92**	**11.5**	**13.1**
Stddev	.408	32.	4.82	1.	.015	.141	122.	499.	.096	.21	.3	1.0
%RSD	74.9	.790	893.	.435	4.13	673.	.180	.840	205.	10.7	2.52	7.51

Elem	Fe2343	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5450.**	**36900.**	**32500.**	**247.**	**2.81**	**8.31**	**8.97**	**3.63**	**1.38**	**-1.37**	**7.75**	**67.4**
Stddev	57.	165.	217.	1.	.54	.48	3.49	1.99	3.50	1.40	.41	.4
%RSD	1.04	.446	.668	.404	19.2	5.75	38.9	54.7	253.	102.	5.27	.647

Elem	Na5889	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**40.4**	**40.3**	**233.**	**6.79**	**53.8**	**3.56**
Stddev	.7	.7	1.	.83	.6	.08
%RSD	1.72	1.69	.512	12.2	1.16	2.15

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**144530.**	**1794700.**	**228380.**
Stddev	173.	5288.	991.
%RSD	.11990	.29463	.43399

Sample Name: ccv1 Acquired: 11/18/2021 15:23:41 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba2335	Ba4934	Be3131	Ca1840	Ca3158	Ca3968	Cd2265	Co2388	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**451.**	**4810.**	**5110.**	**4680.**	**4910.**	**464.**	**5160.**	**4520.**	**5250.**	**483.**	**4760.**	**4690.**
Stddev	4.	38.	28.	9.	32.	4.	11.	54.	36.	1.	18.	24.
%RSD	.806	.782	.543	.189	.646	.758	.218	1.19	.690	.267	.370	.513
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2230	Cu2247	Fe2343	Mg2025	Mg2802	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se1960	Se2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5130.**	**4710.**	**5270.**	**5090.**	**5160.**	**4810.**	**4930.**	**4840.**	**5300.**	**5110.**	**4950.**	**4990.**
Stddev	19.	13.	25.	37.	11.	20.	13.	12.	14.	17.	7.	32.
%RSD	.364	.272	.471	.730	.221	.421	.267	.252	.261	.333	.145	.632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	V_2924	Zn2062	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**5220.**	**4800.**	**104.**	**104.**	**4950.**	**4960.**	**5010.**	**5280.**	**104.**	**104.**
Stddev	23.	16.	2.	1.	35.	34.	25.	35.	1.	1.
%RSD	.435	.334	1.90	.702	.709	.683	.502	.664	.655	.652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ccv1 Acquired: 11/18/2021 15:23:41 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**152520.**	**1847100.**	**238070.**
Stddev	406.	10409.	1506.
%RSD	.26636	.56356	.63273

Sample Name: ccv2 Acquired: 11/18/2021 15:30:41 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**49.6**	**542.**	**507.**	**512.**	**493.**	**48.5**	**46.6**	**500.**	**533.**	**48.7**	**492.**	**486.**
Stddev	.4	3.	4.	5.	1.	.2	.6	6.	6.	.6	1.	2.
%RSD	.790	.466	.861	.934	.226	.351	1.32	1.15	1.16	1.16	.136	.384
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Cu2230	Fe2343	Mg2802	Mn2576	Mo2020	Ni2216	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**521.**	**540.**	F **555.**	**489.**	**504.**	**499.**	**480.**	**501.**	**488.**	**514.**	**522.**	**525.**
Stddev	3.	3.	2.	2.	2.	1.	1.	5.	3.	5.	4.	3.
%RSD	.621	.507	.442	.355	.357	.291	.211	.952	.625	.915	.768	.548
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			500.									
Range			10.4%									

Elem	Zn2062	Zn2138	Na5889	Na5895	Sr4077	Sr4215	B_2497	Li6707	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**498.**	**485.**	**9.75**	**10.2**	**519.**	**516.**	**502.**	**461.**	**9.16**	**10.3**
Stddev	3.	1.	.18	.1	6.	6.	2.	2.	.15	.2
%RSD	.578	.215	1.81	1.37	1.23	1.15	.388	.535	1.68	1.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Sample Name: ccv2 Acquired: 11/18/2021 15:30:41 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**156150.**	**1889600.**	**236880.**
Stddev	462.	6989.	2502.
%RSD	.29585	.36986	1.0564

Sample Name: ccb Acquired: 11/18/2021 15:37:51 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Be3131	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.702**	**-.773**	**-1.68**	**-.410**	**.107**	**-.179**	**-8.49**	**.023**	**.081**	**-.203**	**.143**	**.766**
Stddev	.232	.516	1.77	.321	.013	.175	.03	.107	.072	.149	.260	1.16
%RSD	33.0	66.8	105.	78.3	11.9	97.7	.378	457.	89.7	73.6	182.	152.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**1.38**	**.257**	**.054**	**1.03**	**-.582**	**-.461**	**3.77**	**-.809**	**-.190**	**.157**	**.588**	**.130**
Stddev	.76	.107	.074	.07	.241	1.86	2.51	.899	2.29	.167	.152	.003
%RSD	54.7	41.8	138.	7.30	41.4	403.	66.6	111.	1210.	106.	25.9	2.23
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

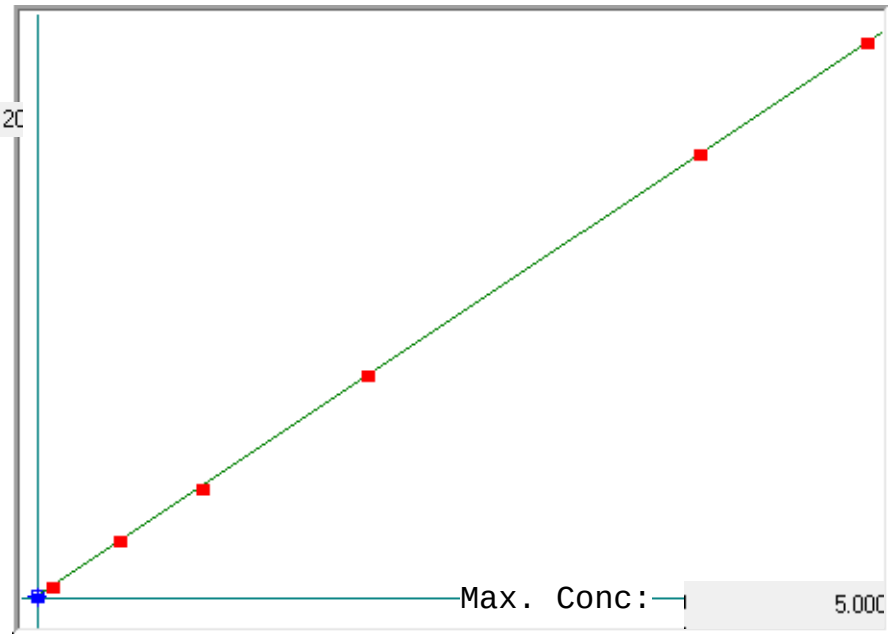
Elem	Na5895	Sr4077	B_2497	Li6707	K_7664
Units	mg/L	ug/L	ug/L	ug/L	mg/L
Avg	**.033**	**.135**	**-8.39**	**-1.88**	**.011**
Stddev	.004	.078	.27	.75	.005
%RSD	11.5	58.1	3.18	40.0	43.3
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: ccb Acquired: 11/18/2021 15:37:51 Type: QC
Method: DOD Calibration Updated 060614(v4650) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**157560.**	**1922000.**	**244250.**
Stddev	278.	12871.	609.
%RSD	.17629	.66968	.24926

Hg WATERS

Wt. Linear



A= 0.0000e+000

B= 1.6151e-004

C= -2.3041e-002

Rho= 0.9999409

Accept= Accepted

Accepted Date=

11/05/21 09:20

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	0.000	0.000	144	7.259	152	138	152	137	
0.1	0.100	0.096	-0.004	738	2.9 %	708	730	761	755	
0.5	0.500	0.506	0.006	3274	1.3 %	3200	3297	3301	3299	
1.0	1.000	0.985	-0.015	6244	1.8 %	6098	6186	6297	6395	
2.0	2.000	1.998	-0.002	12512	1.7 %	12191	12445	12646	12767	
4.0	4.000	4.010	0.010	24969	1.2 %	24543	24888	25140	25308	
5.0	5.000	5.003	0.003	31119	1.6 %	30409	30961	31370	31738	

110521W

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	Mean
CALIBRATION BLANK	05 Nov 2021 08:58:03	Hg			145
0.1	05 Nov 2021 09:01:13	Hg			739
0.5	05 Nov 2021 09:04:24	Hg			3274
1.0	05 Nov 2021 09:07:36	Hg			6244
2.0	05 Nov 2021 09:10:48	Hg			12512
4.0	05 Nov 2021 09:13:59	Hg			24970
5.0	05 Nov 2021 09:17:10	Hg			31120
ICV	05 Nov 2021 09:20:20	Hg			102.5% 3.076
ICB	05 Nov 2021 09:26:40	Hg			-0.002
MBW	05 Nov 2021 09:29:50	Hg			0.000
MSDW1063758	05 Nov 2021 09:33:00	Hg			2.157
1063759	05 Nov 2021 09:36:10	Hg			-0.005
1063760	05 Nov 2021 09:39:21	Hg			0.104
1063829	05 Nov 2021 09:42:31	Hg			0.009
1064426	05 Nov 2021 09:45:42	Hg			-0.003
1064437	05 Nov 2021 09:48:53	Hg			0.006
1064438	05 Nov 2021 09:52:05	Hg			0.029
1064439	05 Nov 2021 09:55:15	Hg			-0.001
1064440	05 Nov 2021 09:58:25	Hg			0.006
CCV	05 Nov 2021 10:01:35	Hg			94.7% 2.840
CCB	05 Nov 2021 10:07:54	Hg			-0.004
1064441	05 Nov 2021 10:11:04	Hg			0.259
1064442	05 Nov 2021 10:14:14	Hg			0.003
1065694	05 Nov 2021 10:17:24	Hg			0.001
1065695	05 Nov 2021 10:20:35	Hg			0.012
1065696	05 Nov 2021 10:23:45	Hg			0.008
1065697	05 Nov 2021 10:26:55	Hg			0.195
1065698	05 Nov 2021 10:30:06	Hg			0.008
1065699	05 Nov 2021 10:33:17	Hg			-0.004
1065700	05 Nov 2021 10:36:28	Hg			0.010
1065716	05 Nov 2021 10:39:40	Hg			0.006
CCV	05 Nov 2021 10:42:50	Hg			98.4% 2.951
CCB	05 Nov 2021 10:49:09	Hg			-0.006
LCSW	05 Nov 2021 10:52:19	Hg			1.939
MBW	05 Nov 2021 10:58:39	Hg			0.001
1060821	05 Nov 2021 11:01:49	Hg		5	1.369
1066849	05 Nov 2021 11:08:10	Hg			-0.017
DUP1066849	05 Nov 2021 11:11:20	Hg			-0.017
1067793	05 Nov 2021 11:14:31	Hg			-0.011
1060821	05 Nov 2021 11:17:42	Hg		2	3.428
DUP1060821	05 Nov 2021 11:20:53	Hg		2	3.619
CCV	05 Nov 2021 11:24:04	Hg			98.4% 2.953
CCB	05 Nov 2021 11:30:24	Hg			-0.004
MSW1060821	05 Nov 2021 11:33:34	Hg		2	4.095
MSDW1060821	05 Nov 2021 11:36:46	Hg		2	4.012
MSW1066849	05 Nov 2021 11:39:56	Hg			0.591
MSDW1066849	05 Nov 2021 11:43:07	Hg			0.536
1065160	05 Nov 2021 11:49:29	Hg			-0.004
1067508	05 Nov 2021 11:52:40	Hg			-0.007
1065429	05 Nov 2021 11:55:51	Hg			0.011
1065430	05 Nov 2021 11:59:01	Hg			4.233
1065431	05 Nov 2021 12:02:12	Hg			1.415
CCV	05 Nov 2021 12:05:23	Hg			101.5% 3.046
CCB	05 Nov 2021 12:11:42	Hg			-0.000
1067667	05 Nov 2021 12:14:52	Hg			0.001
1067673	05 Nov 2021 12:18:03	Hg			0.007
1067674	05 Nov 2021 12:21:15	Hg			0.296
DUP1067674	05 Nov 2021 12:24:26	Hg			0.309
1067675	05 Nov 2021 12:27:37	Hg			0.003
1067676	05 Nov 2021 12:30:48	Hg			0.004
1067677	05 Nov 2021 12:33:59	Hg			0.001
DUP1067677	05 Nov 2021 12:37:09	Hg			0.007
1067678	05 Nov 2021 12:40:20	Hg			0.096
1067679	05 Nov 2021 12:43:30	Hg			0.024
CCV	05 Nov 2021 12:46:41	Hg			92.2% 2.767
CCB	05 Nov 2021 12:53:01	Hg			0.000
1067680	05 Nov 2021 12:56:10	Hg			0.015
1067681	05 Nov 2021 12:59:21	Hg			0.024
DUP1067681	05 Nov 2021 13:02:32	Hg			0.027
1067682	05 Nov 2021 13:05:43	Hg			0.445
1067696	05 Nov 2021 13:08:55	Hg			0.005

110521W

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	Mean
MSW1067674	05 Nov 2021 13:12:07	Hg			2.114
MSDW1067674	05 Nov 2021 13:15:17	Hg			2.059
MSW1067677	05 Nov 2021 13:18:28	Hg			1.865
MSDW1067677	05 Nov 2021 13:21:39	Hg			1.946
MSW1067681	05 Nov 2021 13:24:50	Hg			1.916
CCV	05 Nov 2021 13:28:01	Hg			96.2% 2.886
CCB	05 Nov 2021 13:34:21	Hg			0.008
MSDW1067681	05 Nov 2021 13:37:30	Hg			1.926
LCSW	05 Nov 2021 13:40:41	Hg			1.865
MBW	05 Nov 2021 13:47:03	Hg			0.001
1065199	05 Nov 2021 13:50:14	Hg			0.012
1065211	05 Nov 2021 13:53:25	Hg			0.017
1065214	05 Nov 2021 13:56:37	Hg			0.056
1065718	05 Nov 2021 13:59:49	Hg			0.019
1065720	05 Nov 2021 14:03:01	Hg			0.031
1065723	05 Nov 2021 14:06:12	Hg			0.030
CCV	05 Nov 2021 14:09:23	Hg			97.6% 2.927
CCB	05 Nov 2021 14:15:43	Hg			-0.001
MSW1065199	05 Nov 2021 14:18:53	Hg			1.684
MSW1065718	05 Nov 2021 14:22:04	Hg			1.716
CCV	05 Nov 2021 14:25:15	Hg			(L)88.7% 2.662
CCV	05 Nov 2021 14:28:25	Hg			92.8% 2.784
CCB	05 Nov 2021 14:34:45	Hg			-0.007

110521W DETAILED

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	05 Nov 2021 08:58:03	Hg			152	-
CALIBRATION BLANK - 2	05 Nov 2021 08:58:03	Hg			138	-
CALIBRATION BLANK - 3	05 Nov 2021 08:58:03	Hg			152	-
CALIBRATION BLANK - 4	05 Nov 2021 08:58:03	Hg			137	-
0.1 - 1	05 Nov 2021 09:01:13	Hg			708	-
0.1 - 2	05 Nov 2021 09:01:13	Hg			730	-
0.1 - 3	05 Nov 2021 09:01:13	Hg			761	-
0.1 - 4	05 Nov 2021 09:01:13	Hg			755	-
0.5 - 1	05 Nov 2021 09:04:24	Hg			3200	-
0.5 - 2	05 Nov 2021 09:04:24	Hg			3297	-
0.5 - 3	05 Nov 2021 09:04:24	Hg			3301	-
0.5 - 4	05 Nov 2021 09:04:24	Hg			3299	-
1.0 - 1	05 Nov 2021 09:07:36	Hg			6098	-
1.0 - 2	05 Nov 2021 09:07:36	Hg			6186	-
1.0 - 3	05 Nov 2021 09:07:36	Hg			6297	-
1.0 - 4	05 Nov 2021 09:07:36	Hg			6395	-
2.0 - 1	05 Nov 2021 09:10:48	Hg			12191	-
2.0 - 2	05 Nov 2021 09:10:48	Hg			12445	-
2.0 - 3	05 Nov 2021 09:10:48	Hg			12646	-
2.0 - 4	05 Nov 2021 09:10:48	Hg			12767	-
4.0 - 1	05 Nov 2021 09:13:59	Hg			24543	-
4.0 - 2	05 Nov 2021 09:13:59	Hg			24888	-
4.0 - 3	05 Nov 2021 09:13:59	Hg			25140	-
4.0 - 4	05 Nov 2021 09:13:59	Hg			25308	-
5.0 - 1	05 Nov 2021 09:17:10	Hg			30409	-
5.0 - 2	05 Nov 2021 09:17:10	Hg			30961	-
5.0 - 3	05 Nov 2021 09:17:10	Hg			31370	-
5.0 - 4	05 Nov 2021 09:17:10	Hg			31738	-
ICV - 1	05 Nov 2021 09:20:20	Hg			18786	100.4% 3.011
ICV - 2	05 Nov 2021 09:20:20	Hg			19093	102.0% 3.061
ICV - 3	05 Nov 2021 09:20:20	Hg			19332	103.3% 3.099
ICV - 4	05 Nov 2021 09:20:20	Hg			19532	104.4% 3.132
ICB - 1	05 Nov 2021 09:26:40	Hg			117	-0.004
ICB - 2	05 Nov 2021 09:26:40	Hg			149	0.001
ICB - 3	05 Nov 2021 09:26:40	Hg			113	-0.005
ICB - 4	05 Nov 2021 09:26:40	Hg			133	-0.002
MBW - 1	05 Nov 2021 09:29:50	Hg			111	-0.005
MBW - 2	05 Nov 2021 09:29:50	Hg			136	-0.001
MBW - 3	05 Nov 2021 09:29:50	Hg			166	0.004
MBW - 4	05 Nov 2021 09:29:50	Hg			168	0.004
MSDW1063758 - 1	05 Nov 2021 09:33:00	Hg			13108	2.094
MSDW1063758 - 2	05 Nov 2021 09:33:00	Hg			13446	2.149
MSDW1063758 - 3	05 Nov 2021 09:33:00	Hg			13668	2.184
MSDW1063758 - 4	05 Nov 2021 09:33:00	Hg			13782	2.203
1063759 - 1	05 Nov 2021 09:36:10	Hg			90	-0.009
1063759 - 2	05 Nov 2021 09:36:10	Hg			111	-0.005
1063759 - 3	05 Nov 2021 09:36:10	Hg			132	-0.002
1063759 - 4	05 Nov 2021 09:36:10	Hg			123	-0.003
1063760 - 1	05 Nov 2021 09:39:21	Hg			773	0.102
1063760 - 2	05 Nov 2021 09:39:21	Hg			790	0.105
1063760 - 3	05 Nov 2021 09:39:21	Hg			770	0.101
1063760 - 4	05 Nov 2021 09:39:21	Hg			810	0.108
1063829 - 1	05 Nov 2021 09:42:31	Hg			187	0.007
1063829 - 2	05 Nov 2021 09:42:31	Hg			192	0.008
1063829 - 3	05 Nov 2021 09:42:31	Hg			207	0.010
1063829 - 4	05 Nov 2021 09:42:31	Hg			211	0.011
1064426 - 1	05 Nov 2021 09:45:42	Hg			79	-0.010
1064426 - 2	05 Nov 2021 09:45:42	Hg			155	0.002
1064426 - 3	05 Nov 2021 09:45:42	Hg			133	-0.002
1064426 - 4	05 Nov 2021 09:45:42	Hg			136	-0.001
1064437 - 1	05 Nov 2021 09:48:53	Hg			196	0.009
1064437 - 2	05 Nov 2021 09:48:53	Hg			185	0.007
1064437 - 3	05 Nov 2021 09:48:53	Hg			173	0.005
1064437 - 4	05 Nov 2021 09:48:53	Hg			153	0.002
1064438 - 1	05 Nov 2021 09:52:05	Hg			311	0.027
1064438 - 2	05 Nov 2021 09:52:05	Hg			317	0.028
1064438 - 3	05 Nov 2021 09:52:05	Hg			331	0.030
1064438 - 4	05 Nov 2021 09:52:05	Hg			330	0.030
1064439 - 1	05 Nov 2021 09:55:15	Hg			149	0.001
1064439 - 2	05 Nov 2021 09:55:15	Hg			114	-0.005
1064439 - 3	05 Nov 2021 09:55:15	Hg			131	-0.002
1064439 - 4	05 Nov 2021 09:55:15	Hg			148	0.001
1064440 - 1	05 Nov 2021 09:58:25	Hg			181	0.006
1064440 - 2	05 Nov 2021 09:58:25	Hg			181	0.006
1064440 - 3	05 Nov 2021 09:58:25	Hg			179	0.006
1064440 - 4	05 Nov 2021 09:58:25	Hg			172	0.005
CCV - 1	05 Nov 2021 10:01:35	Hg			17520	93.6% 2.807
CCV - 2	05 Nov 2021 10:01:35	Hg			17673	94.4% 2.831
CCV - 3	05 Nov 2021 10:01:35	Hg			17782	95.0% 2.849

110521W DETAILED

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CCV - 4	05 Nov 2021 10:01:35	Hg			17929	95.8% 2.873
CCB - 1	05 Nov 2021 10:07:54	Hg			106	-0.006
CCB - 2	05 Nov 2021 10:07:54	Hg			113	-0.005
CCB - 3	05 Nov 2021 10:07:54	Hg			135	-0.001
CCB - 4	05 Nov 2021 10:07:54	Hg			125	-0.003
1064441 - 1	05 Nov 2021 10:11:04	Hg			1711	0.253
1064441 - 2	05 Nov 2021 10:11:04	Hg			1735	0.257
1064441 - 3	05 Nov 2021 10:11:04	Hg			1770	0.263
1064441 - 4	05 Nov 2021 10:11:04	Hg			1771	0.263
1064442 - 1	05 Nov 2021 10:14:14	Hg			141	-0.000
1064442 - 2	05 Nov 2021 10:14:14	Hg			164	0.003
1064442 - 3	05 Nov 2021 10:14:14	Hg			158	0.002
1064442 - 4	05 Nov 2021 10:14:14	Hg			188	0.007
1065694 - 1	05 Nov 2021 10:17:24	Hg			120	-0.004
1065694 - 2	05 Nov 2021 10:17:24	Hg			159	0.003
1065694 - 3	05 Nov 2021 10:17:24	Hg			156	0.002
1065694 - 4	05 Nov 2021 10:17:24	Hg			168	0.004
1065695 - 1	05 Nov 2021 10:20:35	Hg			212	0.011
1065695 - 2	05 Nov 2021 10:20:35	Hg			236	0.015
1065695 - 3	05 Nov 2021 10:20:35	Hg			191	0.008
1065695 - 4	05 Nov 2021 10:20:35	Hg			230	0.014
1065696 - 1	05 Nov 2021 10:23:45	Hg			179	0.006
1065696 - 2	05 Nov 2021 10:23:45	Hg			211	0.011
1065696 - 3	05 Nov 2021 10:23:45	Hg			194	0.008
1065696 - 4	05 Nov 2021 10:23:45	Hg			192	0.008
1065697 - 1	05 Nov 2021 10:26:55	Hg			1309	0.188
1065697 - 2	05 Nov 2021 10:26:55	Hg			1347	0.195
1065697 - 3	05 Nov 2021 10:26:55	Hg			1362	0.197
1065697 - 4	05 Nov 2021 10:26:55	Hg			1371	0.198
1065698 - 1	05 Nov 2021 10:30:06	Hg			181	0.006
1065698 - 2	05 Nov 2021 10:30:06	Hg			166	0.004
1065698 - 3	05 Nov 2021 10:30:06	Hg			206	0.010
1065698 - 4	05 Nov 2021 10:30:06	Hg			204	0.010
1065699 - 1	05 Nov 2021 10:33:17	Hg			101	-0.007
1065699 - 2	05 Nov 2021 10:33:17	Hg			108	-0.006
1065699 - 3	05 Nov 2021 10:33:17	Hg			150	0.001
1065699 - 4	05 Nov 2021 10:33:17	Hg			113	-0.005
1065700 - 1	05 Nov 2021 10:36:28	Hg			188	0.007
1065700 - 2	05 Nov 2021 10:36:28	Hg			211	0.011
1065700 - 3	05 Nov 2021 10:36:28	Hg			193	0.008
1065700 - 4	05 Nov 2021 10:36:28	Hg			222	0.013
1065716 - 1	05 Nov 2021 10:39:40	Hg			177	0.006
1065716 - 2	05 Nov 2021 10:39:40	Hg			158	0.002
1065716 - 3	05 Nov 2021 10:39:40	Hg			204	0.010
1065716 - 4	05 Nov 2021 10:39:40	Hg			170	0.004
CCV - 1	05 Nov 2021 10:42:50	Hg			17992	96.1% 2.883
CCV - 2	05 Nov 2021 10:42:50	Hg			18236	97.4% 2.922
CCV - 3	05 Nov 2021 10:42:50	Hg			18559	99.1% 2.974
CCV - 4	05 Nov 2021 10:42:50	Hg			18863	100.8% 3.023
CCB - 1	05 Nov 2021 10:49:09	Hg			94	-0.008
CCB - 2	05 Nov 2021 10:49:09	Hg			115	-0.004
CCB - 3	05 Nov 2021 10:49:09	Hg			102	-0.007
CCB - 4	05 Nov 2021 10:49:09	Hg			122	-0.003
LCSW - 1	05 Nov 2021 10:52:19	Hg			11882	1.896
LCSW - 2	05 Nov 2021 10:52:19	Hg			12072	1.927
LCSW - 3	05 Nov 2021 10:52:19	Hg			12220	1.951
LCSW - 4	05 Nov 2021 10:52:19	Hg			12410	1.981
MBW - 1	05 Nov 2021 10:58:39	Hg			156	0.002
MBW - 2	05 Nov 2021 10:58:39	Hg			170	0.004
MBW - 3	05 Nov 2021 10:58:39	Hg			133	-0.002
MBW - 4	05 Nov 2021 10:58:39	Hg			140	-0.000
1060821 - 1	05 Nov 2021 11:01:49	Hg		5	8491	1.348
1060821 - 2	05 Nov 2021 11:01:49	Hg		5	8603	1.366
1060821 - 3	05 Nov 2021 11:01:49	Hg		5	8661	1.376
1060821 - 4	05 Nov 2021 11:01:49	Hg		5	8715	1.384
1066849 - 1	05 Nov 2021 11:08:10	Hg			54	-0.014
1066849 - 2	05 Nov 2021 11:08:10	Hg			26	-0.019
1066849 - 3	05 Nov 2021 11:08:10	Hg			35	-0.017
1066849 - 4	05 Nov 2021 11:08:10	Hg			30	-0.018
DUP1066849 - 1	05 Nov 2021 11:11:20	Hg			56	-0.014
DUP1066849 - 2	05 Nov 2021 11:11:20	Hg			41	-0.016
DUP1066849 - 3	05 Nov 2021 11:11:20	Hg			25	-0.019
DUP1066849 - 4	05 Nov 2021 11:11:20	Hg			37	-0.017
1067793 - 1	05 Nov 2021 11:14:31	Hg			49	-0.015
1067793 - 2	05 Nov 2021 11:14:31	Hg			88	-0.009
1067793 - 3	05 Nov 2021 11:14:31	Hg			88	-0.009
1067793 - 4	05 Nov 2021 11:14:31	Hg			74	-0.011
1060821 - 1	05 Nov 2021 11:17:42	Hg		2	21136	3.391
1060821 - 2	05 Nov 2021 11:17:42	Hg		2	21335	3.423

110521W DETAILED

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
1060821 - 3	05 Nov 2021 11:17:42	Hg		2	21461	3.443
1060821 - 4	05 Nov 2021 11:17:42	Hg		2	21537	3.455
DUP1060821 - 1	05 Nov 2021 11:20:53	Hg		2	22138	3.552
DUP1060821 - 2	05 Nov 2021 11:20:53	Hg		2	22523	3.615
DUP1060821 - 3	05 Nov 2021 11:20:53	Hg		2	22707	3.644
DUP1060821 - 4	05 Nov 2021 11:20:53	Hg		2	22836	3.665
CCV - 1	05 Nov 2021 11:24:04	Hg			17999	96.1% 2.884
CCV - 2	05 Nov 2021 11:24:04	Hg			18277	97.6% 2.929
CCV - 3	05 Nov 2021 11:24:04	Hg			18560	99.2% 2.975
CCV - 4	05 Nov 2021 11:24:04	Hg			18873	100.8% 3.025
CCB - 1	05 Nov 2021 11:30:24	Hg			118	-0.004
CCB - 2	05 Nov 2021 11:30:24	Hg			148	0.001
CCB - 3	05 Nov 2021 11:30:24	Hg			113	-0.005
CCB - 4	05 Nov 2021 11:30:24	Hg			101	-0.007
MSW1060821 - 1	05 Nov 2021 11:33:34	Hg		2	25025	4.019
MSW1060821 - 2	05 Nov 2021 11:33:34	Hg		2	25330	4.068
MSW1060821 - 3	05 Nov 2021 11:33:34	Hg		2	25618	4.114
MSW1060821 - 4	05 Nov 2021 11:33:34	Hg		2	26026	4.180
MSDW1060821 - 1	05 Nov 2021 11:36:46	Hg		2	24338	3.908
MSDW1060821 - 2	05 Nov 2021 11:36:46	Hg		2	24881	3.995
MSDW1060821 - 3	05 Nov 2021 11:36:46	Hg		2	25217	4.050
MSDW1060821 - 4	05 Nov 2021 11:36:46	Hg		2	25488	4.093
MSW1066849 - 1	05 Nov 2021 11:39:56	Hg			4042	0.630
MSW1066849 - 2	05 Nov 2021 11:39:56	Hg			3855	0.600
MSW1066849 - 3	05 Nov 2021 11:39:56	Hg			3699	0.574
MSW1066849 - 4	05 Nov 2021 11:39:56	Hg			3603	0.559
MSDW1066849 - 1	05 Nov 2021 11:43:07	Hg			3659	0.568
MSDW1066849 - 2	05 Nov 2021 11:43:07	Hg			3504	0.543
MSDW1066849 - 3	05 Nov 2021 11:43:07	Hg			3392	0.525
MSDW1066849 - 4	05 Nov 2021 11:43:07	Hg			3289	0.508
1065160 - 1	05 Nov 2021 11:49:29	Hg			113	-0.005
1065160 - 2	05 Nov 2021 11:49:29	Hg			102	-0.007
1065160 - 3	05 Nov 2021 11:49:29	Hg			131	-0.002
1065160 - 4	05 Nov 2021 11:49:29	Hg			115	-0.004
1067508 - 1	05 Nov 2021 11:52:40	Hg			44	-0.016
1067508 - 2	05 Nov 2021 11:52:40	Hg			74	-0.011
1067508 - 3	05 Nov 2021 11:52:40	Hg			135	-0.001
1067508 - 4	05 Nov 2021 11:52:40	Hg			145	0.000
1065429 - 1	05 Nov 2021 11:55:51	Hg			210	0.011
1065429 - 2	05 Nov 2021 11:55:51	Hg			215	0.012
1065429 - 3	05 Nov 2021 11:55:51	Hg			184	0.007
1065429 - 4	05 Nov 2021 11:55:51	Hg			233	0.015
1065430 - 1	05 Nov 2021 11:59:01	Hg			25692	4.126
1065430 - 2	05 Nov 2021 11:59:01	Hg			26223	4.212
1065430 - 3	05 Nov 2021 11:59:01	Hg			26648	4.281
1065430 - 4	05 Nov 2021 11:59:01	Hg			26852	4.314
1065431 - 1	05 Nov 2021 12:02:12	Hg			8786	1.396
1065431 - 2	05 Nov 2021 12:02:12	Hg			8835	1.404
1065431 - 3	05 Nov 2021 12:02:12	Hg			8920	1.418
1065431 - 4	05 Nov 2021 12:02:12	Hg			9082	1.444
CCV - 1	05 Nov 2021 12:05:23	Hg			18603	99.4% 2.981
CCV - 2	05 Nov 2021 12:05:23	Hg			18928	101.1% 3.034
CCV - 3	05 Nov 2021 12:05:23	Hg			19116	102.1% 3.064
CCV - 4	05 Nov 2021 12:05:23	Hg			19370	103.5% 3.105
CCB - 1	05 Nov 2021 12:11:42	Hg			152	0.002
CCB - 2	05 Nov 2021 12:11:42	Hg			134	-0.001
CCB - 3	05 Nov 2021 12:11:42	Hg			122	-0.003
CCB - 4	05 Nov 2021 12:11:42	Hg			154	0.002
1067667 - 1	05 Nov 2021 12:14:52	Hg			131	-0.002
1067667 - 2	05 Nov 2021 12:14:52	Hg			148	0.001
1067667 - 3	05 Nov 2021 12:14:52	Hg			156	0.002
1067667 - 4	05 Nov 2021 12:14:52	Hg			157	0.002
1067673 - 1	05 Nov 2021 12:18:03	Hg			197	0.009
1067673 - 2	05 Nov 2021 12:18:03	Hg			170	0.004
1067673 - 3	05 Nov 2021 12:18:03	Hg			172	0.005
1067673 - 4	05 Nov 2021 12:18:03	Hg			205	0.010
1067674 - 1	05 Nov 2021 12:21:15	Hg			1916	0.286
1067674 - 2	05 Nov 2021 12:21:15	Hg			1971	0.295
1067674 - 3	05 Nov 2021 12:21:15	Hg			1964	0.294
1067674 - 4	05 Nov 2021 12:21:15	Hg			2054	0.309
DUP1067674 - 1	05 Nov 2021 12:24:26	Hg			2004	0.301
DUP1067674 - 2	05 Nov 2021 12:24:26	Hg			2034	0.305
DUP1067674 - 3	05 Nov 2021 12:24:26	Hg			2061	0.310
DUP1067674 - 4	05 Nov 2021 12:24:26	Hg			2128	0.321
1067675 - 1	05 Nov 2021 12:27:37	Hg			158	0.002
1067675 - 2	05 Nov 2021 12:27:37	Hg			140	-0.000
1067675 - 3	05 Nov 2021 12:27:37	Hg			157	0.002
1067675 - 4	05 Nov 2021 12:27:37	Hg			183	0.007
1067676 - 1	05 Nov 2021 12:30:48	Hg			153	0.002

110521W DETAILED

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
1067676 - 2	05 Nov 2021 12:30:48	Hg			168	0.004
1067676 - 3	05 Nov 2021 12:30:48	Hg			164	0.003
1067676 - 4	05 Nov 2021 12:30:48	Hg			183	0.007
1067677 - 1	05 Nov 2021 12:33:59	Hg			143	0.000
1067677 - 2	05 Nov 2021 12:33:59	Hg			138	-0.001
1067677 - 3	05 Nov 2021 12:33:59	Hg			172	0.005
1067677 - 4	05 Nov 2021 12:33:59	Hg			136	-0.001
DUP1067677 - 1	05 Nov 2021 12:37:09	Hg			196	0.009
DUP1067677 - 2	05 Nov 2021 12:37:09	Hg			209	0.011
DUP1067677 - 3	05 Nov 2021 12:37:09	Hg			152	0.002
DUP1067677 - 4	05 Nov 2021 12:37:09	Hg			197	0.009
1067678 - 1	05 Nov 2021 12:40:20	Hg			694	0.089
1067678 - 2	05 Nov 2021 12:40:20	Hg			739	0.096
1067678 - 3	05 Nov 2021 12:40:20	Hg			735	0.096
1067678 - 4	05 Nov 2021 12:40:20	Hg			768	0.101
1067679 - 1	05 Nov 2021 12:43:30	Hg			277	0.022
1067679 - 2	05 Nov 2021 12:43:30	Hg			291	0.024
1067679 - 3	05 Nov 2021 12:43:30	Hg			295	0.025
1067679 - 4	05 Nov 2021 12:43:30	Hg			290	0.024
CCV - 1	05 Nov 2021 12:46:41	Hg			16869	90.0% 2.701
CCV - 2	05 Nov 2021 12:46:41	Hg			17115	91.4% 2.741
CCV - 3	05 Nov 2021 12:46:41	Hg			17426	93.0% 2.791
CCV - 4	05 Nov 2021 12:46:41	Hg			17702	94.5% 2.836
CCB - 1	05 Nov 2021 12:53:01	Hg			125	-0.003
CCB - 2	05 Nov 2021 12:53:01	Hg			146	0.001
CCB - 3	05 Nov 2021 12:53:01	Hg			143	0.000
CCB - 4	05 Nov 2021 12:53:01	Hg			160	0.003
1067680 - 1	05 Nov 2021 12:56:10	Hg			239	0.016
1067680 - 2	05 Nov 2021 12:56:10	Hg			223	0.013
1067680 - 3	05 Nov 2021 12:56:10	Hg			230	0.014
1067680 - 4	05 Nov 2021 12:56:10	Hg			246	0.017
1067681 - 1	05 Nov 2021 12:59:21	Hg			273	0.021
1067681 - 2	05 Nov 2021 12:59:21	Hg			281	0.022
1067681 - 3	05 Nov 2021 12:59:21	Hg			300	0.025
1067681 - 4	05 Nov 2021 12:59:21	Hg			322	0.029
DUP1067681 - 1	05 Nov 2021 13:02:32	Hg			311	0.027
DUP1067681 - 2	05 Nov 2021 13:02:32	Hg			312	0.027
DUP1067681 - 3	05 Nov 2021 13:02:32	Hg			304	0.026
DUP1067681 - 4	05 Nov 2021 13:02:32	Hg			324	0.029
1067682 - 1	05 Nov 2021 13:05:43	Hg			2821	0.433
1067682 - 2	05 Nov 2021 13:05:43	Hg			2836	0.435
1067682 - 3	05 Nov 2021 13:05:43	Hg			2919	0.448
1067682 - 4	05 Nov 2021 13:05:43	Hg			3006	0.462
1067696 - 1	05 Nov 2021 13:08:55	Hg			166	0.004
1067696 - 2	05 Nov 2021 13:08:55	Hg			189	0.007
1067696 - 3	05 Nov 2021 13:08:55	Hg			189	0.007
1067696 - 4	05 Nov 2021 13:08:55	Hg			139	-0.001
MSW1067674 - 1	05 Nov 2021 13:12:07	Hg			12759	2.038
MSW1067674 - 2	05 Nov 2021 13:12:07	Hg			13131	2.098
MSW1067674 - 3	05 Nov 2021 13:12:07	Hg			13422	2.145
MSW1067674 - 4	05 Nov 2021 13:12:07	Hg			13626	2.178
MSDW1067674 - 1	05 Nov 2021 13:15:17	Hg			12525	2.000
MSDW1067674 - 2	05 Nov 2021 13:15:17	Hg			12816	2.047
MSDW1067674 - 3	05 Nov 2021 13:15:17	Hg			13051	2.085
MSDW1067674 - 4	05 Nov 2021 13:15:17	Hg			13174	2.105
MSW1067677 - 1	05 Nov 2021 13:18:28	Hg			11349	1.810
MSW1067677 - 2	05 Nov 2021 13:18:28	Hg			11579	1.847
MSW1067677 - 3	05 Nov 2021 13:18:28	Hg			11854	1.891
MSW1067677 - 4	05 Nov 2021 13:18:28	Hg			11982	1.912
MSDW1067677 - 1	05 Nov 2021 13:21:39	Hg			11952	1.907
MSDW1067677 - 2	05 Nov 2021 13:21:39	Hg			12104	1.932
MSDW1067677 - 3	05 Nov 2021 13:21:39	Hg			12220	1.951
MSDW1067677 - 4	05 Nov 2021 13:21:39	Hg			12491	1.994
MSW1067681 - 1	05 Nov 2021 13:24:50	Hg			11790	1.881
MSW1067681 - 2	05 Nov 2021 13:24:50	Hg			11936	1.905
MSW1067681 - 3	05 Nov 2021 13:24:50	Hg			12043	1.922
MSW1067681 - 4	05 Nov 2021 13:24:50	Hg			12246	1.955
CCV - 1	05 Nov 2021 13:28:01	Hg			17640	94.2% 2.826
CCV - 2	05 Nov 2021 13:28:01	Hg			17870	95.4% 2.863
CCV - 3	05 Nov 2021 13:28:01	Hg			18130	96.8% 2.905
CCV - 4	05 Nov 2021 13:28:01	Hg			18401	98.3% 2.949
CCB - 1	05 Nov 2021 13:34:21	Hg			192	0.008
CCB - 2	05 Nov 2021 13:34:21	Hg			190	0.008
CCB - 3	05 Nov 2021 13:34:21	Hg			186	0.007
CCB - 4	05 Nov 2021 13:34:21	Hg			210	0.011
MSDW1067681 - 1	05 Nov 2021 13:37:30	Hg			11831	1.888
MSDW1067681 - 2	05 Nov 2021 13:37:30	Hg			11987	1.913
MSDW1067681 - 3	05 Nov 2021 13:37:30	Hg			12149	1.939
MSDW1067681 - 4	05 Nov 2021 13:37:30	Hg			12299	1.963

110521W DETAILED

Method: Hg WATERS Operator: Admin Date of Analysis: 05 Nov 2021 08:32:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
LCSW - 1	05 Nov 2021 13:40:41	Hg			11376	1.814
LCSW - 2	05 Nov 2021 13:40:41	Hg			11611	1.852
LCSW - 3	05 Nov 2021 13:40:41	Hg			11815	1.885
LCSW - 4	05 Nov 2021 13:40:41	Hg			11949	1.907
MBW - 1	05 Nov 2021 13:47:03	Hg			152	0.002
MBW - 2	05 Nov 2021 13:47:03	Hg			125	-0.003
MBW - 3	05 Nov 2021 13:47:03	Hg			157	0.002
MBW - 4	05 Nov 2021 13:47:03	Hg			173	0.005
1065199 - 1	05 Nov 2021 13:50:14	Hg			216	0.012
1065199 - 2	05 Nov 2021 13:50:14	Hg			239	0.016
1065199 - 3	05 Nov 2021 13:50:14	Hg			203	0.010
1065199 - 4	05 Nov 2021 13:50:14	Hg			220	0.012
1065211 - 1	05 Nov 2021 13:53:25	Hg			275	0.021
1065211 - 2	05 Nov 2021 13:53:25	Hg			228	0.014
1065211 - 3	05 Nov 2021 13:53:25	Hg			247	0.017
1065211 - 4	05 Nov 2021 13:53:25	Hg			254	0.018
1065214 - 1	05 Nov 2021 13:56:37	Hg			490	0.056
1065214 - 2	05 Nov 2021 13:56:37	Hg			478	0.054
1065214 - 3	05 Nov 2021 13:56:37	Hg			499	0.058
1065214 - 4	05 Nov 2021 13:56:37	Hg			493	0.057
1065718 - 1	05 Nov 2021 13:59:49	Hg			247	0.017
1065718 - 2	05 Nov 2021 13:59:49	Hg			258	0.019
1065718 - 3	05 Nov 2021 13:59:49	Hg			270	0.021
1065718 - 4	05 Nov 2021 13:59:49	Hg			265	0.020
1065720 - 1	05 Nov 2021 14:03:01	Hg			309	0.027
1065720 - 2	05 Nov 2021 14:03:01	Hg			328	0.030
1065720 - 3	05 Nov 2021 14:03:01	Hg			343	0.032
1065720 - 4	05 Nov 2021 14:03:01	Hg			350	0.033
1065723 - 1	05 Nov 2021 14:06:12	Hg			324	0.029
1065723 - 2	05 Nov 2021 14:06:12	Hg			327	0.030
1065723 - 3	05 Nov 2021 14:06:12	Hg			316	0.028
1065723 - 4	05 Nov 2021 14:06:12	Hg			342	0.032
CCV - 1	05 Nov 2021 14:09:23	Hg			17765	94.9% 2.846
CCV - 2	05 Nov 2021 14:09:23	Hg			18221	97.3% 2.920
CCV - 3	05 Nov 2021 14:09:23	Hg			18507	98.9% 2.966
CCV - 4	05 Nov 2021 14:09:23	Hg			18563	99.2% 2.975
CCB - 1	05 Nov 2021 14:15:43	Hg			143	0.000
CCB - 2	05 Nov 2021 14:15:43	Hg			136	-0.001
CCB - 3	05 Nov 2021 14:15:43	Hg			109	-0.005
CCB - 4	05 Nov 2021 14:15:43	Hg			146	0.001
MSW1065199 - 1	05 Nov 2021 14:18:53	Hg			10303	1.641
MSW1065199 - 2	05 Nov 2021 14:18:53	Hg			10519	1.676
MSW1065199 - 3	05 Nov 2021 14:18:53	Hg			10679	1.702
MSW1065199 - 4	05 Nov 2021 14:18:53	Hg			10785	1.719
MSW1065718 - 1	05 Nov 2021 14:22:04	Hg			10533	1.678
MSW1065718 - 2	05 Nov 2021 14:22:04	Hg			10701	1.705
MSW1065718 - 3	05 Nov 2021 14:22:04	Hg			10851	1.729
MSW1065718 - 4	05 Nov 2021 14:22:04	Hg			10996	1.753
CCV - 1	05 Nov 2021 14:25:15	Hg			16159	(L)86.2% 2.587
CCV - 2	05 Nov 2021 14:25:15	Hg			16440	(L)87.7% 2.632
CCV - 3	05 Nov 2021 14:25:15	Hg			16789	(L)89.6% 2.689
CCV - 4	05 Nov 2021 14:25:15	Hg			17104	91.3% 2.739
CCV - 1	05 Nov 2021 14:28:25	Hg			17083	91.2% 2.736
CCV - 2	05 Nov 2021 14:28:25	Hg			17329	92.5% 2.776
CCV - 3	05 Nov 2021 14:28:25	Hg			17502	93.5% 2.804
CCV - 4	05 Nov 2021 14:28:25	Hg			17601	94.0% 2.820
CCB - 1	05 Nov 2021 14:34:45	Hg			141	-0.000
CCB - 2	05 Nov 2021 14:34:45	Hg			105	-0.006
CCB - 3	05 Nov 2021 14:34:45	Hg			95	-0.008
CCB - 4	05 Nov 2021 14:34:45	Hg			63	-0.013

METALS
LOGBOOK
DOCUMENTS

MICP WATER QSM Analytical Run
196999 on 11/10/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1071158								MICP WATER QSM				
					ICV					0			
	1071159								MICP WATER QSM				
					ICVLL					0			
	1071160								MICP WATER QSM				
					ICB					0			
	1071161								MICP WATER QSM				
					ICSA					0			
	1071162								MICP WATER QSM				
					ICSAB					0			
	1071163								MICP WATER QSM				
					ICVLL					0			
	1071164								MICP WATER QSM				
					CCV1					0			
	1071165								MICP WATER QSM				
					CCV2					0			
	1071166								MICP WATER QSM				
					CCB					0			
	1068627								ICP TOTAL QSM 5.0				
					LCSW					83194			
	1068626								ICP TOTAL QSM 5.0				
					MBW					83194			
165524	1067793		10/28/2021	16:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP TOTAL QSM 5.0		GW	**4**	
		49-IDW								83194			
	1071167								ICP TOTAL QSM 5.0				
					L	1067793				0			
	1068624		10/28/2021	16:50					ICP TOTAL QSM 5.0				
		49-IDW			DUP	1067793				83194			
	1071168								MICP WATER QSM				
					CCV1					0			
	1071169								MICP WATER QSM				
					CCV2					0			
	1071170								MICP WATER QSM				
					CCB					0			
	1068625		10/28/2021	16:50					ICP TOTAL QSM 5.0				
		49-IDW			MSW	1067793				83194			
	1068628		10/28/2021	16:50					ICP TOTAL QSM 5.0				
		49-IDW			MSDW	1068625				83194			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp9AA2.tmp

MICP WATER QSM Analytical Run
196999 on 11/10/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1071171						ICP TOTAL QSM 5.0				
				PDSW 1067793				0			
	1071172						MICP WATER QSM				
				CCV1				0			
	1071173						MICP WATER QSM				
				CCV2				0			
	1071174						MICP WATER QSM				
				CCB				0			

23 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp9AA2.tmp

MICP WATER QSM K&Na Analytical Run
197000 on 11/10/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1071175								MICP WATER QSM K&Na				
					ICV					0			
	1071176								MICP WATER QSM K&Na				
					ICVLL					0			
	1071177								MICP WATER QSM K&Na				
					ICB					0			
	1071178								MICP WATER QSM K&Na				
					ICSA					0			
	1071179								MICP WATER QSM K&Na				
					ICSAB					0			
	1071181								MICP WATER QSM K&Na				
					CCV1					0			
	1071182								MICP WATER QSM K&Na				
					CCV2					0			
	1071183								MICP WATER QSM K&Na				
					CCB					0			
	1068620								ICP K TOTAL QSM 5.0				
					LCSW					83193			
	1068620								ICP NA TOTAL QSM 5.0				
					LCSW					83193			
	1068619								ICP K TOTAL QSM 5.0				
					MBW					83193			
	1068619								ICP NA TOTAL QSM 5.0				
					MBW					83193			
165524	1067793		10/28/2021	16:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP K TOTAL QSM 5.0		GW	4	
		49-IDW								83193			
165524	1067793		10/28/2021	16:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ICP NA TOTAL QSM 5.0		GW	4	
		49-IDW								83193			
	1073237								ICP K TOTAL QSM 5.0				
					L	1067793							
	1073238								ICP NA TOTAL QSM 5.0				
					L	1067793							
	1068621		10/28/2021	16:50					ICP K TOTAL QSM 5.0				
		49-IDW			DUP	1067793				83193			
	1068621		10/28/2021	16:50					ICP NA TOTAL QSM 5.0				
		49-IDW			DUP	1067793				83193			
	1071185								MICP WATER QSM K&Na				
					CCV1					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpE71E.tmp

MICP WATER QSM K&Na Analytical Run
197000 on 11/10/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1071186							MICP WATER QSM K&Na				
				CCV2					0			
	1071187							MICP WATER QSM K&Na				
				CCB					0			
	1068622		10/28/2021 16:50					ICP K TOTAL QSM 5.0				
		49-IDW		MSW	1067793				83193			
	1068622		10/28/2021 16:50					ICP NA TOTAL QSM 5.0				
		49-IDW		MSW	1067793				83193			
	1068623		10/28/2021 16:50					ICP K TOTAL QSM 5.0				
		49-IDW		MSDW	1068622				83193			
	1068623		10/28/2021 16:50					ICP NA TOTAL QSM 5.0				
		49-IDW		MSDW	1068622				83193			
	1073239							ICP K TOTAL QSM 5.0				
				PDSW	1067793							
	1073240							ICP NA TOTAL QSM 5.0				
				PDSW	1067793							
	1071189							MICP WATER QSM K&Na				
				CCV1					0			
	1071190							MICP WATER QSM K&Na				
				CCV2					0			
	1071191							MICP WATER QSM K&Na				
				CCB					0			

30 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpE71E.tmp

MERCURY QSM 5.0 Analytical Run
197150 on 11/8/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1071663							MERCURY QSM 5.0				
				ICV					0			
	1071664							MERCURY QSM 5.0				
				ICB					0			
	1071665							MERCURY QSM 5.0				
				CCV					0			
	1071666							MERCURY QSM 5.0				
				CCB					0			
	1067770							MERCURY TOTAL QSM 5.0				
				LCSW					83168			
	1067769							MERCURY TOTAL QSM 5.0				
				MBW					83168			
165486	1066849		10/27/2021 13:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	MERCURY TOTAL QSM 5.0		GW	**4**	
		54-IDW							83168			
	1067771		10/27/2021 13:45					MERCURY TOTAL QSM 5.0				
		54-IDW		DUP	1066849				83168			
165524	1067793		10/28/2021 16:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	MERCURY TOTAL QSM 5.0		GW	**4**	
		49-IDW							83168			
	1071667							MERCURY QSM 5.0				
				CCV					0			
	1071668							MERCURY QSM 5.0				
				CCB					0			
	1067772		10/27/2021 13:45					MERCURY TOTAL QSM 5.0				
		54-IDW		MSW	1066849				83168			
	1067773		10/27/2021 13:45					MERCURY TOTAL QSM 5.0				
		54-IDW		MSDW	1067772				83168			
	1071669							MERCURY QSM 5.0				
				CCV					0			
	1071670							MERCURY QSM 5.0				
				CCB					0			

15 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6933.tmp

PrepWrkSht2
on 11/19/2021

Prep Batch: **83194**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1068626	MBW	0	ICP TOTAL QSM 5.0			LIQUID			
	1068626	MBW	0	ICP TOTAL QSM 5.0			LIQUID			
	1068627	LCSW	0	ICP TOTAL QSM 5.0			LIQUID			
	1068627	LCSW	0	ICP TOTAL QSM 5.0			LIQUID			
165524	1067793		0	ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4
	1067793		0	ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4
	1067793			ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4
	1068624	DUP	1067793	ICP TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068625	MSW	1067793	ICP TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068628	MSDW	1068625	ICP TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp1887.tmp

PrepWrkSht2
on 11/19/2021

Prep Batch: **83193**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1068619	MBW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1068619	MBW	0	ICP NA TOTAL QSM 5.0			LIQUID			
	1068620	LCSW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1068620	LCSW	0	ICP NA TOTAL QSM 5.0			LIQUID			
165524	1067793			ICP K TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4
	1067793			ICP NA TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4
	1068621	DUP	1067793	ICP K TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068621	DUP	1067793	ICP NA TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068622	MSW	1067793	ICP K TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068622	MSW	1067793	ICP NA TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068623	MSDW	1068622	ICP K TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		
	1068623	MSDW	1068622	ICP NA TOTAL QSM 5.0		49-IDW	GROUND WATER	10/28/21 16:50		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp76D6.tmp

PrepWrkSht2
on 11/22/2021

Prep Batch: **83168**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1067769	MBW		MERCURY TOTAL QSM 5.0			LIQUID				
	1067770	LCSW		MERCURY TOTAL QSM 5.0			LIQUID				
165486	1066849			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54-IDW	GROUND WATER	10/27/21	13:45	11/9/21	4
165524	1067793			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21	16:50	11/10/21	4
	1067771	DUP	1066849	MERCURY TOTAL QSM 5.0		54-IDW	GROUND WATER	10/27/21	13:45		
	1067772	MSW	1066849	MERCURY TOTAL QSM 5.0		54-IDW	GROUND WATER	10/27/21	13:45		
	1067773	MSDW	1067772	MERCURY TOTAL QSM 5.0		54-IDW	GROUND WATER	10/27/21	13:45		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp24C4.tmp

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	83194
Prep Method:	200.2
Analyst:	NAH
Date:	11/01/2021
Start Time:	10:11

Prep Analyst: BMM
Balance ID:

End Date: 11/01/2021
End Time: 21:04

Reagent:	Ref. #
Nitric Acid:	AB708
Hydrochloric Acid:	AB712
Hydrogen Peroxide:	

Digestion Tube Lot #: 3591
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 94
Final-Digestion Temp (ºC,corrected): 94

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1068626	(MB)			50.0	50
1068627	(LCS)			50.0	50
1067793				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1068624	(DUP)			50.0	50
1068625	(MS)	Parent Sample		50.0	50
1068628	(MSD)	1067793		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M14888
0.2	M14988
0.5	M14987
0.5	M15045

LCS Spike Amount (ml)	Spike Ref. #
0.1	M14888
0.2	M14988
0.5	M14987
0.5	M15045

Reviewed x

11/19/202113:04

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	83193
Prep Method:	200.2
Analyst:	NAH
Date:	11/01/2021
Start Time:	10:11

Prep Analyst: BMM
Balance ID:

End Date: 11/01/2021
End Time: 21:04

Reagent:	Ref. #
Nitric Acid:	AB708
Hydrochloric Acid:	AB712
Hydrogen Peroxide:	

Digestion Tube Lot #: 3591
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 94
Final-Digestion Temp (ºC,corrected): 94

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1068619	(MB)			50.0	50
1068620	(LCS)			50.0	50
1067793				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1068621	(DUP)			50.0	50
1068622	(MS)	Parent Sample		50.0	50
1068623	(MSD)	1067793		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M14888
0.2	M14988
0.5	M14987
0.5	M15045

LCS Spike Amount (ml)	Spike Ref. #
0.1	M14888
0.2	M14988
0.5	M14987
0.5	M15045

Reviewed x

11/19/202113:03

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M15119
ICV/LCSW ID: M15120

*Matrix: GW
Balance ID:

7470A= Hg Liquids
7471A= Hg Solids

Prep Batch #:	83168
Prep Method:	7470A
Analyst:	MDS
Date:	11/03/2021
Start Time:	14:45

End Date: 11/03/2021
End Time: 16:45

Digestion Tube Lot #: 10521010
Block Used: A
Cell Position for Temp. Check: A-1
Initial-DigestionTemp (ºC,corrected): 92.1
Final-Digestion Temp (ºC,corrected): 92.1
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M15118

Reagent:	Ref. #
HNO3:	AB.705
H2SO4:	AB.696
NaCl/Hydrox.SO4:	M15124
KMnO4:	M15121
K2S2O8:	M15122
Aqua-Regia:	

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	1067769	(MB)			25.0	25
	1067770	(LCS)			25.0	25
	1066849				25.0	25
	1067793	**Comments:**			25.0	25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	1067771	(DUP) if applicable			25.0	25
	1067772	(MS)	Parent Sample		25.0	25
	1067773	(MSD)	1066849		25.0	25
Leave >>		(DUP) if applicable				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP) if applicable				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100	M15120

B:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date: X

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 11/2/21	Data File: 000 Results	Date of review: 11/19/21
Cal Std ID: M1506 LIMS # 197000,6999	Analyst: [illegible]	Reviewer: MOS	Approved? Yes / No
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)			
Prep Batch Check			

QC Parameters : 6010 / 200.7 / QSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r > 0.995 / r > 0.998	✓		✓		
2) ICV: 90-110% / 95-105%	✓		✓		
2) ICVLL: 70-130% / 80-120%	✓		✓		
3) ICB: < 3X IDL / <LOD / <LOQ	✓	✓	✓		Pb >LOD RR sample
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%					
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	
Prep Batch ID#: 83193 Dig. Meth. 200.2	✓		✓		
LCS - generated limits or project specific limits	✓	✓	✓		Ca, Ag RR samples
MB - <LOD or ≤ ½ RL	✓	✓	✓	✓	Mg >LOD <½ RL "B"
Spiked samples in batch:					
a) 1062193 matrix = GW	✓	✓	✓	✓	Al, Fe Mn, Ag, Tl MS, MSD Al, Fe "Y" Ag "M"
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
PDS: ±15% / 20% / 25% Sample#:					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA		Hydra II Hg ANALYZER			
Analysis Date: 11/5/21	Data File: 110521W	Date Review: 11/8/21	Analyte: Hg			
Cal Std ID: M1518	LIMS # : 197150	Analyst: MDS	Reviewer:	Approved? Yes	No	

Prep Batch Check ✓

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓		✓		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		✓		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓		✓		
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 83168 Dig. Meth. 7470a	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓		✓		
Spiked samples in batch:					
a) 1066849 matrix = GW	✓	✓	✓	✓	Dup invalid, MS/MSD failed "M"
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					
MSA Performed? Yes No					
Prep Batch ID#:_____ Dig. Meth._____					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a)_____ matrix = _____					
b)_____ matrix = _____					
c)_____ matrix = _____					
d)_____ matrix = _____					
e)_____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#_____					

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
10/19/21	1000 / 0313	JA	101921	DOD Cal u	196486 196485 1964827 196482 196368 1963596 196359 196360 196332 196618 196309	270	M15060 M15061 M15063	V4571	M15065 M15061 M15064 M15062
10/20/21	1332 / 1944	JA	102021	DOD Cal u	196485 196486	270	M15060 M15061 M15063	V4583 V4572	M15065 M15061 M15064 M15062
10/21/21	1301 / 0157	JA	102121	DOD Cal u	1965569 196612,14 196568 1965593 196611	270	M15060 M15061 M15063	V4579 V4574	M15065 M15061 M15064 M15062
10/25/21	1038 / 2030	JA	10/25/21	DOD Cal u	196645,47 196642, 196663 196629, 196391,93, 196685, 72, 73, 75, 77 196650,52,54,56,58,61	320	M15060 M15061 M15063	V4580 V4581 V4582	M15065 M15061 M15064 M15062
10/26/21	1038 / 2030	JA	↓	DOD Cal u	196780 196642 196696 196689,90 197279 196691, 196687,86 196683 196693,94, 196688	320	M15060 M15061 M15063	V4583 V4584 V4585 V4586 V4587	M15065 M15061 M15064 M15062
10/27/21	1444 / 1221	JA	10/27/21	DOD Cal u	196703 196778 196782,81 196673,85,93,91,77,76,79,87 196809,10,27 196685 196682,31 196830,30 196805, 196832 196837,832 196834 196683,82 196829	320	M15060 M15061 M15063	V4589	M15065 M15061 M15064 M15062
10/28/21	1406 / 0451	JA	10/28/21	DOD Cal u	196781,82 196863 196696 196692 196868 196840	320	M15060 M15061 M15063	V4588 V4593	M15065 M15061 M15064 M15062
10/29/21	1153 / 2030	JA	102921	DOD Cal u	196905 196906 1969708 196870 196927 196917	250	M15060 M15061 M15063	V4598	M15065 M15061 M15064 M15062
11/01/21	0923 / 1838	JA	11/01/21	DOD cal u	196696 196916 196914 196950	250	M15060 M15061 M15063	V4599 V4595	M15065 M15061 M15064 M15062
11/02/21	1252 / 0643	JA	11/02/21	DOD cal u	197005 197000, 1976999 197002 197007 197004, 197003	290	M15060 M15061 M15063	V4597	M15065 M15061 M15064 M15062
11/03/21	1505 / 0252	JA	11/03/21	DOD Cal u	196998 197038 197034,33	250	M15060 M15061 M15063	V4602 V4601 V4600 V4603	M15065 M15061 M15064 M15062
11/4/21	/						M15060 M15061 M15063		M15065 M15061 M15064 M15062

Comments: _____

_____

Checked By / Date: _____

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version V4.6.2.5 / V4.6.3.0	Comments
11/5/21	1137 / 1003	[illegible]	11/5/21	1700 Cal u	197191 197163 197107, 34,33 197108 197135 197105 197158 197164 197136 197109 197206	290	m15060 m15061 m15063	V4.6.2.3 V4.6.1.5	m15061 m15061 m15064 m15062
11/8/21	1055/2150	[illegible]	11/8/21	1000 Cal u	197206 197203 197205 197202,01 197209	290	m15060 m15061 m15063	V4.6.2.3 V4.6.3.0	m15065 m15061 m15064 m15062
11/18/21	0906/0703	[illegible]	11/18/21	1000 Cal u	197206 197364 197329 197362 197363 197000 197365 197360 196999 197393 197320 197401 197402	310	m15060 m15061 m15063	V4.6.2.3 V4.6.3.0 V4.6.3.0	m15065 m15061 m15064 m15062
11/19/21	0827/ 11/20 1402	[illegible]	11/19/21	1000 Cal u	197204,05 197310 197209,62 197342 197005,6 197345	310	m15060 m15061 m15063	V4.6.3.0 V4.6.3.0 V4.6.3.0	m15065 m15061 m15064 m15062
11/20/21	/	[illegible]	11/20/21	1000 Cal u		320	m15060 m15061 m15063	V4.6.3.0	m15065 m15061 m15064 m15062
11/22/21	/		11/2[illegible]	1000 Cal u		320	m15060 m15061 m15063		m15065 m15061 m15064 m15062
	/								
	/								
	/								
	/								
	/								
	/								

Comments: _____

Checked By / Date: _____

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: Cetac M-6000A

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
10/14/21	1257	1513	MDS	196292, 196293, 196294, 196295	101421W	M15080	5.935	J500203-4932	$SnCl_2$: M15087
10/20/21	0947	1257	MDS	196535, 196536, 196537 195091, 196531, 196532, 196533, 196534,	102021W	M15100	5.931	J500203-4932	$SnCl_2$: M15107
10/21/21	0851	1042	MDS	196549, 196548, 196547, 196546	102121S	M15100	5.920	J500203-4932	$SnCl_2$: M15107
11/4/21	0923	1150	MDS	197118, 197119, 197117	110421S	M15118	5.917	J500203-4932	$SnCl_2$: M15125
11/4/21	1237	1603	MDS	197141 197144, 197143, 197142, 197138, 197137	110421W	M15118	—	J500203-4932	$SnCl_2$: M15125
11/5/21	0858	1434	MDS	197149, 197147, 197148, 197141, 197139, 197140, 197150, 197145, 197146	110521W	M15118	5.950	J500203-4932	$SnCl_2$: M15125
11/11/21	0919	1314	MDS	197368, 197367, 197366, 197371, 197369,	111121W	M15126	5.968	J500203-4932	$SnCl_2$: M15133
11/12/21	0941	1116	MDS	197373, 197372	111221S	M15126	5.976	J500203-4932	$SnCl_2$: M15133
11/17/21	0934	1206	MDS	197560, 197561, 197562, 197563	111721W	M15135	6.012	J500203-4932	$SnCl_2$: M15142
11/18/21	0849	1018	MDS	197565, 197601	111821S	M15135	6.034	J500203-4932	$SnCl_2$: M15142

Reviewed By/Date:_____

Type	Date/Time	Message	User name	Application	Sequence Name
	11/01/2021 15:10:31	Running 1068382 (25)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:17:07	Running msw1068382 (26)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:22:57	Running msdw1068382 (27)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:28:52	Running 1068385 (28)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:35:38	Running 1068386 (29)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:42:13	Running 1068387 (30)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:48:46	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:54:03	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/01/2021 15:59:34	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:06:03	Running 1068388 (31)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:12:35	Running 1068389 (32)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:19:07	Running 1068390 (33)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:25:40	Running 1068391 (34)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:32:14	Running 1068394 (35)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:38:37	Running 1068395 (36)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:45:12	Running 1068396 (37)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:51:48	Running 1068397 (38)	NAH	Analyst	S_DOD Calibration
	11/01/2021 16:58:24	Running 1068398 (39)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:04:56	Running 1068399 (40)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:11:33	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:16:49	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:22:20	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:28:45	Running 1068400 (41)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:35:20	Running 1068401 (42)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:41:56	Running 1068402 (43)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:48:30	Running 1068403 (44)	NAH	Analyst	S_DOD Calibration
	11/01/2021 17:55:04	Running 1068404 (45)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:01:41	Running 1068405 (46)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:08:15	Running msw1068405 (47)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:14:49	Running msdw1068405 (48)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:21:24	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:27:40	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:32:57	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:38:28	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/01/2021 18:44:55	Plasma off	NAH	iTEVA Control Center	
	11/01/2021 18:44:55	Plasma extinguished successfully	NAH	Analyst	
	11/01/2021 18:44:58	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/02/2021 06:46:35	Plasma On	NAH	iTEVA Control Center	
	11/02/2021 06:46:42	Plasma ignition successful	NAH	Analyst	
	11/02/2021 06:47:28	D33534 - Debug:Wavelength check : x = -0.620, y =-0.373	NAH	Analyst	
	11/02/2021 12:52:00	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/02/2021 12:52:00	Autosampler Run Started	NAH	Analyst	
	11/02/2021 12:52:20	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:00:07	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:07:52	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:15:32	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:23:15	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:30:59	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:38:37	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:41:40	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 13:42:21	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 13:46:13	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/02/2021 13:53:40	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	11/02/2021 13:54:52	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 13:54:56	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 14:00:45	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:06:29	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 14:12:09	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:20:03	E33539 - : Error Updating Method with standard: Standard saturated.	NAH	Analyst	
	11/02/2021 14:20:07	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:28:08	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:31:26	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 14:36:18	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:38:52	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 14:44:16	Running Ag Ba 1000, 50000 (15)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:49:30	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 14:52:19	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/02/2021 14:59:58	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:03:03	Closing will close the method and all associated samples.	NAH	Analyst	
	11/02/2021 15:07:15	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:14:27	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:21:54	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:29:34	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:37:14	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:44:50	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:52:36	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	11/02/2021 15:59:49	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:07:30	Running ICVLL ag1 (95)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:15:11	Running LCSW83199 (1)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:22:36	Running MBW83199 (2)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:30:16	Running 1067806 (3)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:37:55	Running L1067806 (4)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:45:20	Running DUP1067806 (5)	NAH	Analyst	S_DOD Calibration
	11/02/2021 16:52:54	Running MSS1067806 (6)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:00:24	Running MSDS1067806 (7)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:07:51	Running PDSS1067806 (8)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:15:40	Running 1067807 (9)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:23:13	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:30:04	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:37:05	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:44:49	Running 1067808 (10)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:52:24	Running 1067809 (11)	NAH	Analyst	S_DOD Calibration
	11/02/2021 17:59:59	Running 1067810 (12)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:07:34	Running 1067811 (13)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:15:17	Running 1067812 (14)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:22:52	Running 1067813 (15)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:30:26	Running 1067814 (16)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:38:00	Running 1067815 (17)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:45:45	Running 1067816 (18)	NAH	Analyst	S_DOD Calibration
	11/02/2021 18:53:19	Running 1067817 (19)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:01:05	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:07:48	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:14:50	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:22:33	Running 1067818 (20)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/02/2021 19:30:08	Running 1067819 (21)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:37:44	Running 1067820 (22)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:45:21	Running 1067821 (23)	NAH	Analyst	S_DOD Calibration
	11/02/2021 19:52:58	Running 1067822 (24)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:00:35	Running 1067823 (25)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:08:12	Running 1067824 (26)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:15:48	Running 1067825 (27)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:23:26	Running LCSS83200 (28)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:30:47	Running MBS83200 (29)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:38:28	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:45:07	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:52:09	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/02/2021 20:59:53	Running 1067826 (30)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:07:30	Running L1067826 (31)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:15:07	Running DUP1067826 (32)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:22:43	Running MSS1067826 (33)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:30:20	Running MSDS1067826 (34)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:37:46	Running PDSS1067826 (35)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:45:28	Running LCSW83191 (36)	NAH	Analyst	S_DOD Calibration
	11/02/2021 21:53:06	Running MBW83191 (37)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:00:49	Running 1067667 (38)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:08:53	Running 1067673 (39)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:16:55	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:23:39	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:30:41	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:38:24	Running 1067674 (40)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:46:24	Running L1067674 (41)	NAH	Analyst	S_DOD Calibration
	11/02/2021 22:54:10	Running DUP1067674 (42)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:02:10	Running MSW1067674 (43)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:09:48	Running MSDW1067674 (44)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:17:20	Running PDSW1067674 (45)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:24:49	Running 1067675 (46)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:32:31	Running 1067676 (47)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:40:14	Running 1067677 (48)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:48:08	Running L1067677 (49)	NAH	Analyst	S_DOD Calibration
	11/02/2021 23:55:43	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:02:24	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:09:26	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:17:10	Running DUP1067677 (50)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:25:02	Running MSW1067677 (51)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:32:58	Running MSDW1067677 (52)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:40:53	Running PDSW1067677 (53)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:48:27	Running 1067678 (54)	NAH	Analyst	S_DOD Calibration
	11/03/2021 00:56:30	Running 1067679 (55)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:04:33	Running 1067680 (56)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:12:36	Running 1067681 (57)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:20:21	Running L1067681 (58)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:27:59	Running DUP1067681 (59)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:35:45	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:42:25	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:49:27	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/03/2021 01:57:11	Running MSW1067681 (60)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/03/2021 02:04:50	Running MSDW1067681 (61)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:12:24	Running PDSW1067681 (62)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:19:56	Running 1067682 (63)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:27:58	Running 1067696 (64)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:35:41	Running LCSW83193 (65)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:43:22	Running MBW83193 (66)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:51:04	Running 1067793 (67)	NAH	Analyst	S_DOD Calibration
	11/03/2021 02:58:59	Running L1067793 (68)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:06:40	Running DUP1067793 (69)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:14:34	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:21:17	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:28:20	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:36:09	Running MSW1067793 (70)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:43:47	Running MSDW1067793 (71)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:51:25	Running PDSW1067793 (72)	NAH	Analyst	S_DOD Calibration
	11/03/2021 03:58:58	Running LCSW83197 (73)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:06:39	Running MBW83197 (74)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:14:23	Running 1068380 (75)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:22:28	Running MSW1068380 (76)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:30:05	Running MSDW1068380 (77)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:37:43	Running PDSW1068380 (78)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:45:10	Running 1068408 (79)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:52:57	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/03/2021 04:59:40	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:06:44	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:14:29	Running LCSS83196 (80)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:21:51	Running MBS83196 (81)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:29:33	Running 1067709 (82)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:37:03	Running MSS1067709 (83)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:44:14	Running MSDS1067709 (84)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:51:26	Running PDSS1067709 (85)	NAH	Analyst	S_DOD Calibration
	11/03/2021 05:58:45	Running LCSW83198 (86)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:06:24	Running MBW83198 (87)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:14:07	Running 1068142 (88)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:22:07	Running 1068143 (89)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:29:58	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:36:41	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:43:44	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:51:29	Running 1067861 (90)	NAH	Analyst	S_DOD Calibration
	11/03/2021 06:59:22	Running MSW1067861 (91)	NAH	Analyst	S_DOD Calibration
	11/03/2021 07:07:05	Running MSDW1067861 (92)	NAH	Analyst	S_DOD Calibration
	11/03/2021 07:14:48	Running PDSW1067861 (93)	NAH	Analyst	S_DOD Calibration
	11/03/2021 07:16:45	Closing will close the method and all associated samples.	NAH	Analyst	
	11/03/2021 07:23:02	iTEVA loaded	NAH	iTEVA Control Center	
	11/03/2021 07:23:20	Connected to instrument 20082101	NAH	iTEVA Control Center	
	11/03/2021 07:23:59	Plasma On	NAH	iTEVA Control Center	
	11/03/2021 07:29:04	iTEVA loaded	NAH	iTEVA Control Center	
	11/03/2021 07:29:22	Connected to instrument 20082101	NAH	iTEVA Control Center	
	11/03/2021 07:30:11	Plasma On	NAH	iTEVA Control Center	
	11/03/2021 14:54:14	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/03/2021 14:54:14	Autosampler Run Started	NAH	Analyst	
	11/03/2021 14:54:35	Running Blank (1)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/17/2021 16:39:31	Plasma ignition successful	NAH	Analyst	
	11/17/2021 16:40:18	D33534 - Debug:Wavelength check : x = -1.290, y =-0.201	NAH	Analyst	
	11/17/2021 17:57:19	Plasma off	NAH	iTEVA Control Center	
	11/17/2021 17:57:20	Plasma extinguished successfully	NAH	Analyst	
	11/18/2021 07:05:33		NAH	iTEVA Control Center	
	11/18/2021 07:34:24	iTEVA loaded	NAH	iTEVA Control Center	
	11/18/2021 07:34:43	Connected to instrument 20082101	NAH	iTEVA Control Center	
	11/18/2021 07:35:51	Plasma On	NAH	iTEVA Control Center	
	11/18/2021 07:35:56	Plasma ignition successful	NAH	Analyst	
	11/18/2021 07:36:35	D33534 - Debug:Wavelength check : x = -1.541, y =-1.411	NAH	Analyst	
	11/18/2021 07:52:20	Autosampler Run Started	NAH	Analyst	
	11/18/2021 07:52:20	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 07:52:42	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 07:59:53	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:00:22	Autosampler Run Started	NAH	Analyst	
	11/18/2021 08:00:22	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:00:43	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:02:16	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:05:07	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:05:07	Autosampler Run Started	NAH	Analyst	
	11/18/2021 08:05:16	Closing will close the method and all associated samples.	NAH	Analyst	
	11/18/2021 08:05:28	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:13:08	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:20:50	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:24:22	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:38:19	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:38:19	Autosampler Run Started	NAH	Analyst	
	11/18/2021 08:38:40	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:46:23	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:48:06	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:55:45	Autosampler Run Started	NAH	Analyst	
	11/18/2021 08:55:45	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:56:06	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:59:07	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/18/2021 08:59:20	Plasma off	NAH	iTEVA Control Center	
	11/18/2021 08:59:20	Plasma extinguished successfully	NAH	Analyst	
	11/18/2021 08:59:41		NAH	iTEVA Control Center	
	11/18/2021 09:03:21	iTEVA loaded	NAH	iTEVA Control Center	
	11/18/2021 09:03:39	Connected to instrument 20082101	NAH	iTEVA Control Center	
	11/18/2021 09:04:46	Plasma On	NAH	iTEVA Control Center	
	11/18/2021 09:04:51	Plasma ignition successful	NAH	Analyst	
	11/18/2021 09:05:39	D33534 - Debug:Wavelength check : x = -1.046, y =-0.519	NAH	Analyst	
	11/18/2021 09:06:36	Autosampler Run Started	NAH	Analyst	
	11/18/2021 09:06:36	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:06:57	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:14:49	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:22:40	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:30:29	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:38:18	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:46:12	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	11/18/2021 09:53:59	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:01:43	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	11/18/2021 10:09:23	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:16:34	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:24:21	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:32:29	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:40:37	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:49:05	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	11/18/2021 10:57:30	Running Ag Ba 1000, 50000 (15)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:05:40	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:13:28	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:21:03	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:28:38	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:36:14	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:43:59	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:51:46	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	11/18/2021 11:59:30	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:07:32	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:15:00	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:22:46	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:30:33	Running 1070414 x10 Fe (2)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:38:03	Running lcsw (3)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:45:43	Running mbw (4)	NAH	Analyst	S_DOD Calibration
	11/18/2021 12:53:30	Running 1073888 (5)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:01:55	Running msw1073888 (6)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:09:59	Running 1073892 (7)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:18:53	Running 1073894 (8)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:27:20	Running blk (9)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:35:05	Running blk (10)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:42:52	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:49:58	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/18/2021 13:57:08	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:04:57	Running lcsw83193 (11)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:12:43	Running mbw83193 (12)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:20:32	Running 1097793 (13)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:28:16	Running lcsw83329 (14)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:36:00	Running mbw83329 (15)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:43:45	Running 1072993 (16)	NAH	Analyst	S_DOD Calibration
	11/18/2021 14:51:52	Running l1072993 (17)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:00:04	Running dup1072993 (18)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:08:16	Running msw1072993 (19)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:16:00	Running msdw1072993 (20)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:23:41	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:30:41	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:37:51	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:45:40	Running pdsw1072993 (21)	NAH	Analyst	S_DOD Calibration
	11/18/2021 15:53:15	Running 1072994 (22)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:01:25	Running 1072995 (23)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:09:33	Running 1072997 (24)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:17:13	Running 1072998 (25)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:25:10	Running lcss83339 (26)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:32:20	Running mbs83339 (27)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:39:56	Running 1072846 (28)	NAH	Analyst	S_DOD Calibration
	11/18/2021 16:47:39	Running mss1072846 (29)	NAH	Analyst	S_DOD Calibration

Standard Log #:	M15138	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15139	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15140	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	11/17/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15141	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15142	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15135	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15136	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15137	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/16/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15134	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/11/2021	Lot #:	1-040EL
Expiration Date (if any):	11/20/2022	Catalog #:	XCTWI-5-500

Standard Log #:	M15129	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15130	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15131	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	11/11/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15132	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15133	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15126	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15127	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15128	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/10/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15124	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/04/2021	Expiration Date:	12/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15125	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/05/2021	Expiration Date:	12/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15121	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15122	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15123	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	11/04/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard ID#:	M15117	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/03/2021	Lot #:	CL12-145HGY
Expiration Date (if any):	10/30/2022	Catalog #:	CLHG4-2Y

		Instrument:	HydraII
Standard Log #:	M15118	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15119	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15120	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/03/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15112	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1144484-5
Expiration Date (if any):	04/2023	Catalog #:	4400-10M11

Standard ID#:	M15113	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	KD37797-20
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411-500

Standard ID#:	M15114	Vendor:	CPI
Analyst:	NAH	Chemical:	ZN 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1149838-4
Expiration Date (if any):	04/2023	Catalog #:	S4400-10M681

Standard ID#:	M15115	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1157358-4
Expiration Date (if any):	04/2023	Catalog #:	4400-10M671

Standard ID#:	M15116	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1137797-18
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411

		Instrument:	GFAA
Standard Log #:	M15109	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15110	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15111	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15108	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	10/21/2021	Lot #:	1084154-49
Expiration Date (if any):	01/22/2023	Catalog #:	S4400-1000331

Standard Log #:	M15103	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15104	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15105	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	10/20/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15106	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15107	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15100	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15101	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15102	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15099	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	10/15/2021	Expiration Date:	02/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M15094	Vendor:	CPI
Analyst:	NAH	Chemical:	MG 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1075232-5
Expiration Date (if any):	09/2022	Catalog #:	4400-10M311

Standard ID#:	M15095	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	10/14/2021	Lot #:	1049780-73
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000361

Standard ID#:	M15096	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	10/14/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15097	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1055526-35
Expiration Date (if any):	11/2022	Catalog #:	4400-10M521

Standard ID#:	M15098	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	10/14/2021	Lot #:	1080470-23
Expiration Date (if any):	01/2023	Catalog #:	S4400-100081

Standard ID#:	M15090	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1079898-11
Expiration Date (if any):	01/2023	Catalog #:	S4400-10M391

Standard ID#:	M15091	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	10/14/2021	Lot #:	1072683-57
Expiration Date (if any):	01/2023	Catalog #:	S4400-100051

Standard ID#:	M15092	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1072921-23
Expiration Date (if any):	01/2023	Catalog #:	4400-10M91

Standard ID#:	M15093	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1034257-71
Expiration Date (if any):	03/2023	Catalog #:	4400-10M261

Standard Log #:	M15086	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15087	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14949 and brought up to volume.		

Standard ID#:	M15088	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/L
Date Received:	10/13/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15089	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/13/2021	Lot #:	57-130CR
Expiration Date (if any):	10/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M15083	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15084	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15085	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	10/13/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15080	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15081	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15082	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/12/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15079	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/11/2021	Expiration Date:	02/2022

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

Standard Log #:	M15074	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15075	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15076	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	10/06/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15077	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15078	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15071	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15072	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15073	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/05/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15067	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/04/2021	Expiration Date:	08/20/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M14739 and brought up to volume.		

Standard ID#:	M15068	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/4/2021	Lot #:	18-102WLX
Expiration Date (if any):	09/22	Catalog #:	INT-A1

Standard ID#:	M15069	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/04/2021	Lot #:	1-181-PC
Expiration Date (if any):	09/30/2022	Catalog #:	XCTWI-1-500

MRL BASE STD M15066 Analyst NAH

Prep Date 10/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M15098	10000	2	02/23
Ba	10	M14772	1000	0.5	09/22
Be	4	M15203	1000	0.2	09/22
Cd	5	M14201	1000	0.25	09/22
Co	10	M15019	1000	0.5	02/23
Cr	10	M15027	10000	0.05	02/23
Cu	10	M15021	10000	0.05	02/23
Mg	500	M14739	10000	2.5	08/22
Mn	10	M15023	10000	0.05	02/23
Mo	10	M15022	1000	0.5	02/23
Ni	10	M14196	1000	0.5	xx
Pb	10	M15045	10000	0.05	03/23
Sb	20	M14622	1000	1	02/22
V	10	M15020	1000	0.5	02/23
Zn	10	M14197	10000	0.05	xx
K	1000	M14887	10000	5	11/22
Na	1000	M14969	10000	5	01/23
As	20	M14621	1000	1	02/22
Ca	500	M15026	10000	2.5	02/23
Fe	300	M15024	10000	1.5	02/23
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14968	1000	5	01/23
B	20	M14966	1000	1	01/23
Li	20	M14681	1000	1	07/22
W	50	xxxxx	1000	2.5	xxxxx
Ti	10	M14674	1000	0.5	07/22
Sr	10	M14683	1000	0.5	07/22
Sn	50	M14774	1000	2.5	09/22
S	300	M14773	10000	1.5	09/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15064	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M15204, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15065	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833 and **15 mL** Fe (10000 mg/L) M15024 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15061	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15062	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15063	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14988, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774 and **0.5 mL** Ti (1000 mg/L) M14674.		

		Instrument:	ICP 6500
Standard Log #:	M15060	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	10/14/2021	Expiration Date:	01/30/2022
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15828, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14968 and 1 mL M14682 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M15046. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14969. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14739, **10 mL** of Fe (10,000 mg/L) M15024, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14737. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

Standard Log #:	M15059	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/29/2021	Expiration Date:	10/29/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard ID#:	M15057	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15058	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15056	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	09/22/2021	Lot #:	A0428169
Expiration Date (if any):		Catalog #:	198531000

Standard Log #:	M15051	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15052	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15053	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	09/21/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15054	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15055	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15048	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15049	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15050	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15047	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/09/2021	Expiration Date:	09/09/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard ID#:	M15045	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10,000 mg/L
Date Received:	09/15/2021	Lot #:	1035677-18
Expiration Date (if any):	03/2023	Catalog #:	4400-10M281

Standard ID#:	M15046	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,1000 mg/L
Date Received:	09/15/2021	Lot #:	1137797-13
Expiration Date (if any):	03/2023	Catalog #:	4400-10M411-500

Standard Log #:	M15040	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15041	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15042	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	09/15/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15043	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15044	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15037	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15038	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15039	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15032	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15033	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15034	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	09/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15035	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15036	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14940 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15029	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15030	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15031	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/01/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15023	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10,000 mg/L
Date Received:	08/30/2021	Lot #:	985851-80
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M321

Standard ID#:	M15024	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1034257-71
Expiration Date (if any):	02/2023	Catalog #:	4400-10M261

Standard ID#:	M15025	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1050965-59
Expiration Date (if any):	02/2023	Catalog #:	4400-10M544

Standard ID#:	M15026	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1072921-23
Expiration Date (if any):	02/2023	Catalog #:	4400-10M91

Standard ID#:	M15027	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1076194-26
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M121

Standard ID#:	M15028	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	NAH	Lot #:	17-023AB
Expiration Date (if any):	AUG 30,2022	Catalog #:	XCTWI-5-500

Standard ID#:	M15018	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1077245-48
Expiration Date (if any):	02/2023	Catalog #:	4400-10M11

Standard ID#:	M15019	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	08/30/2021	Lot #:	1107088-1
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000131

Standard ID#:	M15020	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/30/2021	Lot #:	1055682-88
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000651

Standard ID#:	M15021	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1063159-57
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M141

Standard ID#:	M15022	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	08/30/2021	Lot #:	1075718-15
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000343

Standard Log #:	M15013	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15014	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15015	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	08/25/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15016	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15017	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15010	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15011	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15012	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/24/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15009	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	08/23/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

Standard ID#:	M15008	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Palladium Matrix Modifier
Date Received:	08/19/2021	Lot #:	2113302-100
Expiration Date (if any):	08/31/2022	Catalog #:	HP1900-100

Standard Log #:	M15003	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15004	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15005	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	08/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15006	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15007	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15000	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15001	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15002	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/18/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14997	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14998	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14999	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14992	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14993	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14994	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	08/11/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14995	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14996	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14989	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14990	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14991	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14987	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-190MF
Expiration Date (if any):	08/30/2022	Catalog #:	XCTWI-1-500

Standard ID#:	M14988	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-189MF
Expiration Date (if any):	08/30/2021	Catalog #:	XSPIKE-1-250

Standard Log #:	M14982	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14983	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14984	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	08/04/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14985	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14986	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14979	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14980	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14981	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14978	Vendor:	Enviromental Express
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	05/20/2021	Lot #:	400175-1116-T
Expiration Date (if any):		Catalog #:	FG77150MM

Standard Log #:	M14973	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14974	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14975	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	07/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14976	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14977	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14970	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14971	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14972	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14966	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 10,000 mg/L
Date Received:	07/27/2021	Lot #:	1101946-16
Expiration Date (if any):	01/2023	Catalog #:	S4400-100074

Standard ID#:	M14967	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 mk/L
Date Received:	07/27/2021	Lot #:	1109477-26
Expiration Date (if any):	01/2023	Catalog #:	4400-10M671

Standard ID#:	M14968	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2021	Lot #:	1047570-64
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000504F

Standard ID#:	M14969	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000
Date Received:	07/27/2021	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M14963	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

Standard Log #:	M14964	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/22/2021	Expiration Date:	07/22/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard Log #:	M14965	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	07/23/2021	Expiration Date:	07/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.704 and brought up to volume.		

Standard Log #:	M14959	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14960	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14961	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	07/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14962	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14956	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14957	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14958	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14955	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	AMCO Clear 2.0 NTU
Date Received:	07/16/2021	Lot #:	21150075
Expiration Date (if any):	07/22/2022	Catalog #:	8008

Standard Log #:	M14950	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14951	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14952	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	07/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14953	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14954	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14947	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14948	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14949	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14944	Standard:	ICV Std.
Analyst:	nah	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/09/2021	Expiration Date:	08/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14874, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M14888, **0.5 mL** B (1000 mg/L) M14675, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) XXXXXXX, **0.5 mL** Si (1000 mg/L) M14680, **0.5 mL** S (10000 mg/L) M14570, **0.5 mL** K (10000 mg/L) M14887, and **0.5 mL** Na (10000 mg/L) M14736		

Standard Log #:	M14945	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/12/2021	Expiration Date:	07/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14946	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/14/2021	Expiration Date:	12/14/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC272 and brought up to volume.		

Standard ID#:	M14939	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14940	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14941	Vendor:	GFS
Analyst:	NAH	Chemical:	AMCO Clear 0.1 ntu
Date Received:	07/12/2021	Lot #:	Returned to manufacturer
Expiration Date (if any):	not used	Catalog #:	not used

		Instrument:	ICP 6500
Standard Log #:	M14942	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/09/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14833 and 15 **mL** 10000 mg/L Fe M14676 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14943	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	07/09/2021	Expiration Date:	12/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M14676, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788, **2.5 mLs Na 10,000 ug/mL** M14736 **,2.5 mLs k 10,000 ug/mL** M14370 **2.5 mLs S 10,000 ug/mL** M14677, **0.5 mls Si 1000 ug/mL** M14735 and brought up to volume with milli-Q .		

Standard Log #:	M14938	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	07/08/2021	Expiration Date:	07/08/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703. Dilute to 20 L and mix.		

Standard Log #:	M14933	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14934	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14935	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	07/08/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14936	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14937	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14930	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14931	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14932	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/07/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14925	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14926	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14927	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	07/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14928	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14929	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14922	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14923	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14924	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/30/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14921	Vendor:	LabChem
Analyst:	NAH	Chemical:	Turbidity Standard(Formazin) 4000NT
Date Received:	06/25/2021	Lot #:	L147-07
Expiration Date (if any):	06/08/2022	Catalog #:	LC26290

		Instrument:	ICP 6500
Standard Log #:	M14919	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M14205 0.5 **mL** 10000 mg/L Cu M14199 5.0 **mL** 1000 mg/L Co M14204 5.0 **mL** 1000 mg/L Mo M14888 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14920	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M14196 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M14916	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14917	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M14200 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14918	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 10000 mg/L Be M14203 5.0 **mL** 10000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M14912	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14913	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14914	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	06/23/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14915	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14909	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14910	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14911	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/22/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14904	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14905	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14906	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	06/17/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14907	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14908	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

Standard Log #:	M14903	Instrument:	ICP 6500
Analyst:	NAH	Standard:	Dissolved MDL Verificaion
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	2.7	M14623	1000	0.135
Al	10	M14736	**10000**	.05
As	20	M14621	1000	1
Ba	2	M14772	1000	0.1
Be	1	M14203	1000	0.05
Ca	50	M14740	**10000**	0.25
Cd	0.5	M14201	1000	.025
Co	2.5	M14204	1000	0.125
Cr	5	M14205	**10000**	.025
Cu	10	M14199	**10000**	.05
Fe	40	M14738	**10000**	0.2
Mg	25	M14676	**10000**	0.125
Mn	3	M14200	**10000**	.015
Mo	2.5	M14888	1000	0.125
Ni	3	M14196	1000	0.15
Pb	20	M14202	**10000**	0.1
Sb	10	M14622	1000	0.5
Se	20	M14624	1000	1
Tl	20	M14626	1000	1
V	3	M14198	1000	0.15
Zn	5	M14197	**10000**	0.025
Na	150	M14736	**10000**	0.75
K	150	M14741	**10000**	0.75
B	20	M14675	1000	1
Si	200	M14735	1000	10
Li	10	M14681	1000	0.5
Sr	20	M14775	1000	1
Sn	20	M14774	1000	1
Ti	5	M14674	1000	0.25
S	200	M14773	**10000**	10

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14902	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spike Soln.
Prep Date:	06/16/2021	Expiration Date:	09//2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	20	M14772	1000	1
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14901	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ Solid QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	40	M14772	1000	2
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14900	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M14623	1000	0.25
Al	120	M14737	**10000**	0.6
As	40	M14621	1000	2
Ba	4	M14772	1000	0.2
Be	8	M14203	1000	0.4
Ca	100	M14740	**10000**	0.5
Cd	2	M14201	1000	0.1
Co	5	M14204	1000	0.25
Cr	5	M14205	**10000**	0.025
Cu	40	M14199	**10000**	0.2
Fe	80	M14738	**10000**	0.4
Mg	40	M14676	**10000**	0.2
Mn	5	M14200	**10000**	0.025
Mo	5	M14888	1000	0.25
Ni	5	M14196	1000	0.25
Pb	20	M14202	**10000**	0.1
Sb	20	M14622	1000	1.0
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	5	M14198	1000	0.25
Zn	20	M14197	**10000**	0.1
Na	700	M14736	**10000**	3.5
K	500	M14741	**10000**	2.5
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14897	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14898	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14899	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14892	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14893	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14894	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	06/09/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14895	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14896	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14889	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14890	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14891	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14886	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/04/2021	Lot #:	Y20F051
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M14887	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	06/04/2021	Lot #:	1053109-69
Expiration Date (if any):	11/2022	Catalog #:	4400-10M411500

Standard ID#:	M14888	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06/04/2021	Lot #:	1075718-15
Expiration Date (if any):	11/2022	Catalog #:	S4400-1000343

Standard Log #:	M14885	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14883	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14884	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14878	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14879	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14880	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	06/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14881	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14882	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14875	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14876	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14877	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14874	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/24/2021	Lot #:	16-115AB
Expiration Date (if any):	05/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14869	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14870	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14871	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	05/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14872	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14873	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14866	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14867	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14868	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/18/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14865	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/12/2021	Expiration Date:	09/30/2021
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M14508 and **10 mL** Mg (10,000 mg/L) M14676 and brought up to volume.		

Standard Log #:	M14860	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14861	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14862	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	05/12/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14863	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14864	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14857	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14858	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14859	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14854	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14855	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14850	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14851	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14852	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	05/05/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14853	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14847	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/04/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14848	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/04/2021	Expiration Date:	05/02/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14849	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/04/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14846	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	ACID WASHED TCLP FILTERS
Date Received:	04/29/2021	Lot #:	400175-1081-AG
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

		Instrument:	CETAC
Standard Log #:	M14842	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14843	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/19/2021	Expiration Date:	04/19/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard ID#:	M14844	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14845	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M14838	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14839	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14840	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	04/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14841	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14835	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14836	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14837	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14832	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard ID#:	M14833	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	04/21/2021	Lot #:	18-102WLX
Expiration Date (if any):	04/30/2022	Catalog #:	INT-A1

Standard ID#:	M14834	Vendor:	Custom Assurance Std
Analyst:	NAH	Chemical:	Ca 20000 Mg,Na 10000: THardness
Date Received:	04/21/2021	Lot #:	16-022AB
Expiration Date (if any):	04/30/2022	Catalog #:	XCTIWI-1-500

Standard Log #:	M14828	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14829	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14830	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	04/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14831	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14825	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14826	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14827	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/20/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14824	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14821	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14395 , **15 mL** Fe (10,000 mg/L) M14738 , **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 , **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788 , **2.5 mLs Na 10,000 ug/mL** M14736 ,**2.5 mLs k 10,000 ug/mL** 14625 **2.5 mLs S 10,000 ug/mL** M14570 , **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14822	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14395 and 15 **mL** 10000 mg/L Fe M14738 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.	

		Instrument:	ICP 6500
Standard Log #:	M14823	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.	

MRL BASE STD M14820 Analyst NAH

Prep Date 04/15/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	XX
Al	400	M14737	10000	2	XX
Ba	10	M14772	1000	0.5	XX
Be	4	M14203	1000	0.2	09/21
Cd	5	M14740	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14676	10000	2.5	XX
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14684	1000	0.5	XX
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	XX
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14741	10000	5	XX
Na	1000	M14736	10000	5	XX
As	20	M14621	1000	1	XX
Ca	500	M14740	10000	2.5	XX
Fe	300	M14738	10000	1.5	XX
Se	20	M14624	1000	1	XX
Tl	20	M14674	1000	1	XX
Si	100	M14735	1000	5	XX
B	20	M14675	1000	1	09/21
Li	20	M14681	1000	1	XX
W	50	MXXX	1000	2.5	XXXXX
Ti	10	M14674	1000	0.5	XX
Sr	10	M14775	1000	0.5	XX
Sn	50	M14774	1000	2.5	XX
S	300	M14773	10000	1.5	XX

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M14815	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14816	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14817	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	04/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14818	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14819	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14812	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14813	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14814	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/14/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14811	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	04/13/2021	Expiration Date:	09/2021
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14477. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14736. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14676, **10 mL** of Fe (10,000 mg/L) M14676, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14478. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	GFAA
Standard Log #:	M14808	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14809	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14810	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14803	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14804	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14805	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	04/07/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14806	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14807	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14800	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14801	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14802	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/06/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14799	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	04/06/2021	Lot #:	A0417285
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M14797	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	04/05/2021	Lot #:	S2-MEB703691
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-SPK-1

Standard ID#:	M14798	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	04/05/2021	Lot #:	S2-MEB703690
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-GFCAL-1

Standard Log #:	M14792	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	04/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14793	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	03/31/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

Standard Log #:	M14795	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14796	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14789	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14790	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14791	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/30/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14787	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Phosphorus 10,000 mg/L
Date Received:	03/29/2021	Lot #:	AR18-111PY
Expiration Date (if any):	3/29/2022	Catalog #:	PLP9-3Y

Standard ID#:	M14788	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/29/2021	Lot #:	4-070MF
Expiration Date (if any):	03/29/2021	Catalog #:	XCTWI-5-500

Standard Log #:	M14786	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/25/2021	Expiration Date:	03/25/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14785	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/24/2021	Expiration Date:	08/24/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC208 and brought up to volume.		

Standard Log #:	M14780	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14781	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14782	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	03/24/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14783	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14784	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14777	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14778	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14779	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/23/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14772	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/mL
Date Received:	03/22/2021	Lot #:	994634-134
Expiration Date (if any):	09/2022	Catalog #:	S4400-100041

Standard ID#:	M14773	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/mL
Date Received:	03/22/2021	Lot #:	1050965-34
Expiration Date (if any):	09/2022	Catalog #:	4400-10M544

Standard ID#:	M14774	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1066479-21
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000613

Standard ID#:	M14775	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1096004-1
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000531

Standard ID#:	M14776	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/23/2021	Lot #:	56-049CR
Expiration Date (if any):	03/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14767	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14768	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	03/17/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14769	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14770	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14771	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14764	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14765	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14766	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14763	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	TCLP Acid Washed Filters
Date Received:	01/05/21	Lot #:	400182-0364-T
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

Standard Log #:	M14758	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	04/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14759	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	03/10/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14760	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14761	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14762	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14755	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14756	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14757	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14754	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	03/04/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

		Instrument:	GFAA
Standard Log #:	M14751	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14752	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14753	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14748	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14749	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14750	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/02/2021	Expiration Date:	03/02/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14745	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14746	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14747	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	03/02/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14742	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14743	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14744	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14740	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Calcium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1072921-23
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M91

Standard ID#:	M14741	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Potassium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1053109-37
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M411

Standard ID#:	M14735	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Silicon 1000 µg/mL
Date Received:	02/25/2021	Lot #:	1047570-64
Expiration Date (if any):	08/20/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14736	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Sodium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1055526-35
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M521

Standard ID#:	M14737	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Aluminum 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1077245-17
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M11

Standard ID#:	M14738	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Iron 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1034257-40
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M261

Standard ID#:	M14739	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Magnesium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1075232-5
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M311

Standard Log #:	M14731	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14732	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14733	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14734	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14728	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14729	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14730	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14725	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14726	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14727	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14720	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14721	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14723	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard ID#:	M14724	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	02/08/2021	Lot #:	201466
Expiration Date (if any):	Suggested Retest 04/202	Catalog #:	P279

		Instrument:	HydraII
Standard Log #:	M14717	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14718	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14719	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14713	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14714	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14715 (1) & (2)	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	02/3/2021	Lot #:	2023715-500
Expiration Date (if any):	08/31/2022	Catalog #:	10M67-1-500

Standard ID#:	M14716	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Phosphorus 10000 mg/L
Date Received:	02/08/2021	Lot #:	AR18-111PY
Expiration Date (if any):	02/28/2022	Catalog #:	PLP9--3Y

Standard Log #:	M14708	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14709	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14710	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	02/03/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14711	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14712	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14705	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14706	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14707	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/02/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14702	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/27/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14703	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14704	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/28/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14694	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) N/A **3.2 mL** of As (1000 mg/L) M14621 **3.2 mL** of Se (1000 mg/L) M14624 **0.08 mL** of Pb (10,000 mg/L) M14202 **1.0 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M14695	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M14622 **1.0 mL** of As (1000 mg/L) M14621 **2.0 mL** of Se (1000 mg/L) M14624 **0.045 mL** of Pb (10,000 mg/L) M14202 **0.4 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M14689	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14690	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14691	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	01/20/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14692	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14693	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14686	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14687	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14688	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14680	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/15/2021	Lot #:	1047870-29
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14681	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	01/15/2021	Lot #:	104768-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000291

Standard ID#:	M14682	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	01/15/2021	Lot #:	S4400-1000101
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000101

Standard ID#:	M14683	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	01/15/2021	Lot #:	1096004-1
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000531

Standard ID#:	M14684	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	01/15/2021	Lot #:	1075718-2
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000343

Standard ID#:	M14685	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	01/18/2021	Lot #:	XCTWI-4-500
Expiration Date (if any):	01/30/2022	Catalog #:	14-242AB

Standard ID#:	M14674	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	01/15/2021	Lot #:	1038255-27
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000623

Standard ID#:	M14675	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	01/15/2021	Lot #:	1024903-65
Expiration Date (if any):	07/2022	Catalog #:	S4400-100074

Standard ID#:	M14676	Vendor:	CPI
Analyst:	NAH	Chemical:	M 10000 mg/L
Date Received:	01/15/2021	Lot #:	1013353
Expiration Date (if any):	07/2022	Catalog #:	4400-10M311

Standard ID#:	M14677	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	01/15/2021	Lot #:	1050965-25
Expiration Date (if any):	07/2022	Catalog #:	4400-10M544

Standard ID#:	M14678	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 mg/L
Date Received:	01/15/2021	Lot #:	1079898-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-10M391

Standard ID#:	M14679	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	01/15/2021	Lot #:	1034527-40
Expiration Date (if any):	07/2022	Catalog #:	4400-10M261

Standard Log #:	M14673	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	01/13/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M14202	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14670	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14671	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14597 and brought up to volume.		

Standard Log #:	M14672	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/12/2021	Expiration Date:	01/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14667	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14668	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14669	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	01/12/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14664	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14665	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14666	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14663	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	01/06/2021	Expiration Date:	09/2021

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M14202	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

		Instrument:	GFAA
Standard Log #:	M14660	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14661	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14662	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

MRL BASE STD M14659 Analyst NAH

Prep Date 01/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M14478	10000	2	02/22
Ba	10	M14568	1000	0.5	05/22
Be	4	M14203	1000	0.2	09/21
Cd	5	M14201	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14472	10000	2.5	02/22
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14569	1000	0.5	05/22
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	02/22
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14436	10000	5	02/22
Na	1000	M14559	10000	5	02/22
As	20	M14621	1000	1	02/22
Ca	500	M14476	10000	2.5	02/22
Fe	300	M14470	10000	1.5	02/22
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14435	1000	5	02/22
B	20	M14131	1000	1	07/21
Li	20	M14127	1000	1	07/21
W	50	xxxxxxxx	1000	2.5	xxxxxx
Ti	10	M14009	1000	0.5	04/21
Sr	10	M14007	1000	0.5	04/21
Sn	50	M14008	1000	2.5	04/21
S	300	M14570	10000	1.5	05/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M14658	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	1/04/2021	Expiration Date:	03/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **15 mL** Fe (10,000 mg/L) M14470, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14628, **2.5 mLs Na 10,000 ug/mL** M14473 ,**2.5 mLs k 10,000 ug/mL** M14436 **2.5 mLs S 10,000 ug/mL** M14570, **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14656	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14639, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **0.5 mL** Mo (1000 mg/L) M14569, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008, **0.5 mL** Ti (1000 mg/L) M14009, **0.5 mL** W (1000 mg/L) xxxxxxx, **0.5 mL** Si (1000 mg/L) M14567, **0.5 mL** S (10000 mg/L) M14372, **0.5 mL** K (10000 mg/L) M14436, and **0.5 mL** Na (10000 mg/L) M14559		

		Instrument:	ICP 6500
Standard Log #:	M14657	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14359 and 15 **mL** 10000 mg/L Fe M14470 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M1359 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14655	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	01/04/2021	Expiration Date:	03/30/2021
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14628, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **1 mL** of Si (1000 mg/L) M14435 and 1 mL M13859 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14559. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14472, **10 mL** of Fe (10,000 mg/L) M14470, **10 mL** of Ca (10,000 mg/L) M14476 and **10 mL** Al (10,000 mg/L) M14478. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066471
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 17:51
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066471
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 23:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.22	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	36		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/28/2021 08:04
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.5		0.12	0.20	0.40	0.40

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:29
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 21:09
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	97	M	4.0	7.5	15	15

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066467
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:04
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.64	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066467
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 19:03
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.65		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	37		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066468
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.63	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066468
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 19:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.64		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	38		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066854
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 18:09
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066854
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 20:43
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067789
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:18
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.9	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.85		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.7		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067789
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:33
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.56	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067790
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:36
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	4.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	19		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067790
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.53	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 14:12
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	9.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.95		0.12	0.20	0.40	0.40

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 14:30
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	68		4.0	7.5	15	15

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 20:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.77	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 410.4	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197021	Analysis Date/Time	11/03/2021 13:03
Analytical Prep Batch #:	83211	Prep. Date/Time:	11/02/2021 10:30
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	120		18	50	75	75

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 9040C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196942	Analysis Date/Time	10/29/2021 15:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.58		0.1	0.1	0.1	0.1

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067787
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 12:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.37	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.88	J	0.80	1.5	3.0	3.0

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067787
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 18:30
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067791
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:54
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.36	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	12		0.80	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067791
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:56
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066470
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 17:32
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066470
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 22:57
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.27	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067788
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/05/2021 09:27
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	6.1		0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067788
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1067886

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/26/21	16:57	15.00	13.66	91	90	110
Nitrate Nitrogen	4/26/21	16:57	3.50	3.336	95	90	110
Sulfate	4/26/21	16:57	25.00	23.21	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071459

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	11/3/21 13:03	400.0	387.7	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155 Lab Sample ID: 1072206

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	9/27/21	15:55	50.0	46.51	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066902

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/27/21	13:56	15.00	14.61	97	90	110
Nitrate Nitrogen	10/27/21	13:56	3.500	3.649	104	90	110
Sulfate	10/27/21	13:56	25.00	24.97	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066905

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/27/21	17:50	15.00	14.59	97	90	110
Nitrate Nitrogen	10/27/21	17:50	3.500	3.632	104	90	110
Sulfate	10/27/21	17:50	25.00	24.87	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066907

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/27/21	21:27	15.00	14.65	98	90	110
Nitrate Nitrogen	10/27/21	21:27	3.500	3.645	104	90	110
Sulfate	10/27/21	21:27	25.00	25.00	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066910

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/27/21	23:34	15.00	14.58	97	90	110
Nitrate Nitrogen	10/27/21	23:34	3.500	3.627	104	90	110
Sulfate	10/27/21	23:34	25.00	24.89	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066912

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/28/21	07:28	15.00	14.60	97	90	110
Nitrate Nitrogen	10/28/21	07:28	3.500	3.644	104	90	110
Sulfate	10/28/21	07:28	25.00	24.92	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851

Lab Sample ID: 1066917

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/28/21	09:16	15.00	14.67	98	90	110
Nitrate Nitrogen	10/28/21	09:16	3.500	3.650	104	90	110
Sulfate	10/28/21	09:16	25.00	25.10	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067749

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/28/21	14:06	15.00	14.60	97	90	110
Nitrate Nitrogen	10/28/21	14:06	3.500	3.587	102	90	110
Sulfate	10/28/21	14:06	25.00	24.84	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067753

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/28/21	18:01	15.00	14.63	98	90	110
Nitrate Nitrogen	10/28/21	18:01	3.500	3.580	102	90	110
Sulfate	10/28/21	18:01	25.00	24.88	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067757

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/28/21	21:01	15.00	14.64	98	90	110
Nitrate Nitrogen	10/28/21	21:01	3.500	3.577	102	90	110
Sulfate	10/28/21	21:01	25.00	24.87	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067759

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/29/21	07:43	15.00	14.58	97	90	110
Nitrate Nitrogen	10/29/21	07:43	3.500	3.587	102	90	110
Sulfate	10/29/21	07:43	25.00	24.82	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067762

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/29/21	09:14	15.00	14.52	97	90	110
Nitrate Nitrogen	10/29/21	09:14	3.500	3.565	102	90	110
Sulfate	10/29/21	09:14	25.00	24.79	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196929

Lab Sample ID: 1068697

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/29/21	11:48	15.00	14.65	98	90	110
Nitrate Nitrogen	10/29/21	11:48	3.500	3.596	103	90	110
Sulfate	10/29/21	11:48	25.00	24.92	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196929

Lab Sample ID: 1068707

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	10/29/21	15:43	15.00	14.62	97	90	110
Nitrate Nitrogen	10/29/21	15:43	3.500	3.572	102	90	110
Sulfate	10/29/21	15:43	25.00	24.80	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071021

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	11/4/21	15:19	50.0	48.98	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071028

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	11/4/21	18:50	50.0	47.41	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071030

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	11/4/21	21:53	50.0	47.31	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071260

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	11/5/21	08:56	50.0	48.97	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071262

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	11/5/21	09:42	50.0	49.42	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071461

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	11/3/21	13:03	400.0	392.5	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071463

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	11/3/21	13:03	400.0	394.9	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071465

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	11/3/21	13:03	400.0	394.9	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071460

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	11/03/2021 13:03	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1072207

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	09/27/2021 16:08	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

3-1

ICB

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1067887

Analytical Prep Batch #: Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/27/2021 10:28	0.5847	U	1.0	1.5
Nitrate Nitrogen	04/27/2021 10:28	0	U	0.12	0.20
Sulfate	04/27/2021 10:28	0.7141	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066906

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/27/2021 18:08	0.5965	U	1.0	1.5
Nitrate Nitrogen	10/27/2021 18:08	0.08280	U	0.12	0.20
Sulfate	10/27/2021 18:08	0.7199	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066908

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/27/2021 21:45	0.5970	U	1.0	1.5
Nitrate Nitrogen	10/27/2021 21:45	0.08320	U	0.12	0.20
Sulfate	10/27/2021 21:45	0.7246	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066911

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/27/2021 23:52	0.6165	U	1.0	1.5
Nitrate Nitrogen	10/27/2021 23:52	0.08640	U	0.12	0.20
Sulfate	10/27/2021 23:52	0.7444	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066913

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/28/2021 07:46	0.6111	U	1.0	1.5
Nitrate Nitrogen	10/28/2021 07:46	0.08510	U	0.12	0.20
Sulfate	10/28/2021 07:46	0.7297	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066918

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/28/2021 09:34	0.6138	U	1.0	1.5
Nitrate Nitrogen	10/28/2021 09:34	0.08760	U	0.12	0.20
Sulfate	10/28/2021 09:34	0.7697	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892 Lab Sample ID: 1067754

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/28/2021 18:19	0.5845	U	1.0	1.5
Nitrate Nitrogen	10/28/2021 18:19	0.08050	U	0.12	0.20
Sulfate	10/28/2021 18:19	0.7074	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892 Lab Sample ID: 1067758

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/28/2021 21:20	0.5943	U	1.0	1.5
Nitrate Nitrogen	10/28/2021 21:20	0.07980	U	0.12	0.20
Sulfate	10/28/2021 21:20	0.7182	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892

Lab Sample ID: 1067760

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/29/2021 08:01	0.5871	U	1.0	1.5
Nitrate Nitrogen	10/29/2021 08:01	0	U	0.12	0.20
Sulfate	10/29/2021 08:01	0.7120	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892 Lab Sample ID: 1067764

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/29/2021 09:32	0.6099	U	1.0	1.5
Nitrate Nitrogen	10/29/2021 09:32	0.08220	U	0.12	0.20
Sulfate	10/29/2021 09:32	0.7285	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196929

Lab Sample ID: 1068709

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/29/2021 16:01	0.6093	U	1.0	1.5
Nitrate Nitrogen	10/29/2021 16:01	0.08390	U	0.12	0.20
Sulfate	10/29/2021 16:01	0.7254	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071029

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	11/04/2021 19:03	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071031

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	11/04/2021 22:06	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155 Lab Sample ID: 1071261

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL 0550 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	11/05/2021 09:09	0.02	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155

Lab Sample ID: 1071263

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL 0550

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	11/05/2021 09:55	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071462

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	11/03/2021 13:03	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071464

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	11/03/2021 13:03	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021

Lab Sample ID: 1071466

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	11/03/2021 13:03	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196851 Lab Sample ID: 1066904

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/27/2021 14:32	0.6196	U	1.0	1.5
Nitrate Nitrogen	10/27/2021 14:32	0.08770	U	0.12	0.20
Sulfate	10/27/2021 14:32	0.7381	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196892 Lab Sample ID: 1067751

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/28/2021 14:42	0.6094	U	1.0	1.5
Nitrate Nitrogen	10/28/2021 14:42	0.08920	U	0.12	0.20
Sulfate	10/28/2021 14:42	0.7334	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 196929 Lab Sample ID: 1068699

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	10/29/2021 12:24	0.6075	U	1.0	1.5
Nitrate Nitrogen	10/29/2021 12:24	0.08350	U	0.12	0.20
Sulfate	10/29/2021 12:24	0.7267	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197021 Lab Sample ID: 1069190

Analytical Prep Batch # 83211 Preparation Date/Time: 11/02/2021 10:30

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total COD	11/03/2021 13:03	0	U	18	37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

SDG No.: 165461

Analytical Run #: 197155 Lab Sample ID: 1071023

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL 0550 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	11/04/2021 15:45	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1066915	Parent Sample No.:	1066469
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196851	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: ----- 10/27/2021 Analysis Time: -------- 22:21

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sulfate	87-112	134		97		40.0	92		

BDL = analyte concentration was below detection limit

CT LABORATORIES
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5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1066915	Parent Sample No.:	1066469
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196851	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	10/28/2021	Analysis Time: --------	08:40

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	11.1		3.6		8.00	94		
Nitrate Nitrogen	88-111	3.55		1.5		2.00	102		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1068704	Parent Sample No.:	1067787
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196929	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	10/29/2021	Analysis Time: --------	15:06

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	12.0		4.6		8.00	92		
Nitrate Nitrogen	88-111	2.32		0.37	J	2.00	98		
Sulfate	87-112	8.08		0.88	J	8.00	90		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1071025	Parent Sample No.:	1066469
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	197155	ICAL Calibration #:	ICAL 0550

Analysis Type	*Initial Analysis*	Analysis Date: -----	11/04/2021	Analysis Time: --------	17:08

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.1		BDL	U	50.0	96		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1066916	Parent Sample No.:	1066915
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196851	ICAL Calibration #:	

ReRun *Re-Analysis #1* Analysis Date: ----- 10/27/2021 Analysis Time: -------- 22:39

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	131		97		40.0	85			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1066916	Parent Sample No.:	1066915
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196851	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	10/28/2021	Analysis Time: --------	08:58

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	11.0		3.6		8.00	92		
Nitrate Nitrogen	88-111	3.50		1.5		2.00	100		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1068705	Parent Sample No.:	1068704
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	196929	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	10/29/2021	Analysis Time: --------	15:25

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	12.1		4.6		8.00	94		
Nitrate Nitrogen	88-111	2.35		0.37	J	2.00	99		
Sulfate	87-112	8.09		0.88	J	8.00	90		

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW3**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	LIQUID	SDG No.:	165461
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1071026	Parent Sample No.:	1071025
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	197155	ICAL Calibration #:	ICAL 0550

Analysis Type: *Initial Analysis* Analysis Date: ----- 11/04/2021 Analysis Time: -------- 17:20

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	47.3		BDL	U	50.0	95		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW3

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID

SDG No.: 165461

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 196851

ICAL Calibration #:

Sample #: 1066914

Parent Sample #: 1066469

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	10/28/2021	08:22	10	3.6		3.63		1		
Nitrate Nitrogen	10/28/2021	08:22	10	1.5		1.52		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW3

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID

SDG No.: 165461

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 2

Analytical Preparation Date/Time 0

Analytical Run #: 196851

ICAL Calibration #:

Sample #: 1066914

Parent Sample #: 1066469

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	10/27/2021	22:03	10	97		91.9		5		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49-IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID

SDG No.: 165461

% Solid for Sample:

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 196942

ICAL Calibration #:

Sample #: 1068507

Parent Sample #: 1067793

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	10/29/2021	15:15	1	7.58		7.57		0		ELEC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49MW01

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch # 1
Analytical Preparation Date/Time 0
Analytical Run #: 196929
ICAL Calibration #:
Sample #: 1068703
Parent Sample #: 1067787

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	10/29/2021	14:48	10	4.6		4.66		1		
Nitrate Nitrogen	10/29/2021	14:48	10	0.37	J	0.364	J	2		
Sulfate	10/29/2021	14:48	10	0.88	J	0.907	J	3		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW3

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

Matrix: LIQUID

SDG No.: 165461

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 197155

ICAL Calibration #: ICAL 0550

Sample #: 1071024

Parent Sample #: 1066469

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	11/04/2021	16:46	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 196851
ICAL Calibration #:
Sample #: 1066916
Parent Sample #: 1066915

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	10/28/2021	08:58	15	11.1		11.0		2		
Nitrate Nitrogen	10/28/2021	08:58	15	3.55		3.50		2		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 196851
ICAL Calibration #:
Sample #: 1066916
Parent Sample #: 1066915

ReRun *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	10/27/2021	22:39	15	134		131		2		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49MW01**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 196929
ICAL Calibration #:
Sample #: 1068705
Parent Sample #: 1068704

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	10/29/2021	15:25	15	12.0		12.1		1		
Nitrate Nitrogen	10/29/2021	15:25	15	2.32		2.35		1		
Sulfate	10/29/2021	15:25	15	8.08		8.09		0		

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW3**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix: LIQUID
SDG No.: 165461
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 197155
ICAL Calibration #: ICAL 0550
Sample #: 1071026
Parent Sample #: 1071025

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	11/04/2021	17:20	20	48.1		47.3		2		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: mg/L

Analytical Run #: 196851 Sample No.:#: 1066903

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	10/27/2021 14:14	87-111	14.27		15.00	95		
Nitrate Nitrogen	10/27/2021 14:14	88-111	3.598		3.500	103		
Sulfate	10/27/2021 14:14	87-112	25.13		25.00	101		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 165461

Concentration Units: mg/L

Analytical Run #: 196892

Sample No.:#: 1067750

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	10/28/2021 14:24	87-111	14.19		15.00	95		
Nitrate Nitrogen	10/28/2021 14:24	88-111	3.570		3.500	102		
Sulfate	10/28/2021 14:24	87-112	24.87		25.00	99		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: mg/L

Analytical Run #: 196929 Sample No.:#: 1068698

Analytical Prep Batch #: 0 Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	10/29/2021 12:06	87-111	14.21		15.00	95		
Nitrate Nitrogen	10/29/2021 12:06	88-111	3.565		3.500	102		
Sulfate	10/29/2021 12:06	87-112	24.92		25.00	100		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra SDG No.: 165461

Concentration Units: mg/L

Analytical Run #: 197021 Sample No.:#: 1069191

Analytical Prep Batch #: 83211 Preparation Date/Time: 11/02/2021 10:30

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
COD	11/03/2021 13:03	90-110	387.7		400.0	97		SP

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49

LCS Source: SPEX and Ultra

SDG No.: 165461

Concentration Units: mg/L

Analytical Run #: 197155

Sample No.:#: 1071022

Analytical Prep Batch #: 0

Preparation Date/Time:

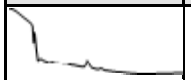
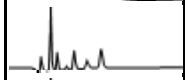
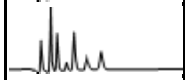
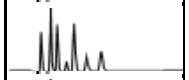
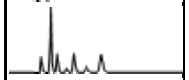
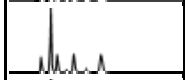
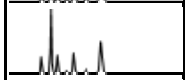
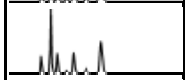
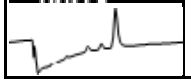
ICAL Calibration #: ICAL 0550

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	11/04/2021 15:32	85-111	50.81		50.0	102		TOC

INORGANICS
RAW DATA
DOCUMENTS

Sequence: 042621 - IC3602A
Last Update Operator: AQUION

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	STD1	1.0000	Calibration Standard	1	2	5000	Anions 1.0	IC3602A	Finished
	STD2	1.0000	Calibration Standard	2	3	5000	Anions 1.0	IC3602A	Finished
	STD3	1.0000	Calibration Standard	3	4	5000	Anions 1.0	IC3602A	Finished
	STD4	1.0000	Calibration Standard	4	5	5000	Anions 1.0	IC3602A	Finished
	STD5	1.0000	Calibration Standard	5	6	5000	Anions 1.0	IC3602A	Finished
	STD6	1.0000	Calibration Standard	6	7	5000	Anions 1.0	IC3602A	Finished
	STD7	1.0000	Calibration Standard	7	8	5000	Anions 1.0	IC3602A	Finished
	STD8	1.0000	Calibration Standard	8	9	5000	Anions 1.0	IC3602A	Finished
	STD9	1.0000	Calibration Standard	9	10	5000	Anions 1.0	IC3602A	Finished
	ICV	1.0000	Unknown		11	5000	Anions 1.0	IC3602A	Finished
	ICB	1.0000	Unknown		23	5000	Anions 1.0	IC3602A	Finished

Calibration Concentrations

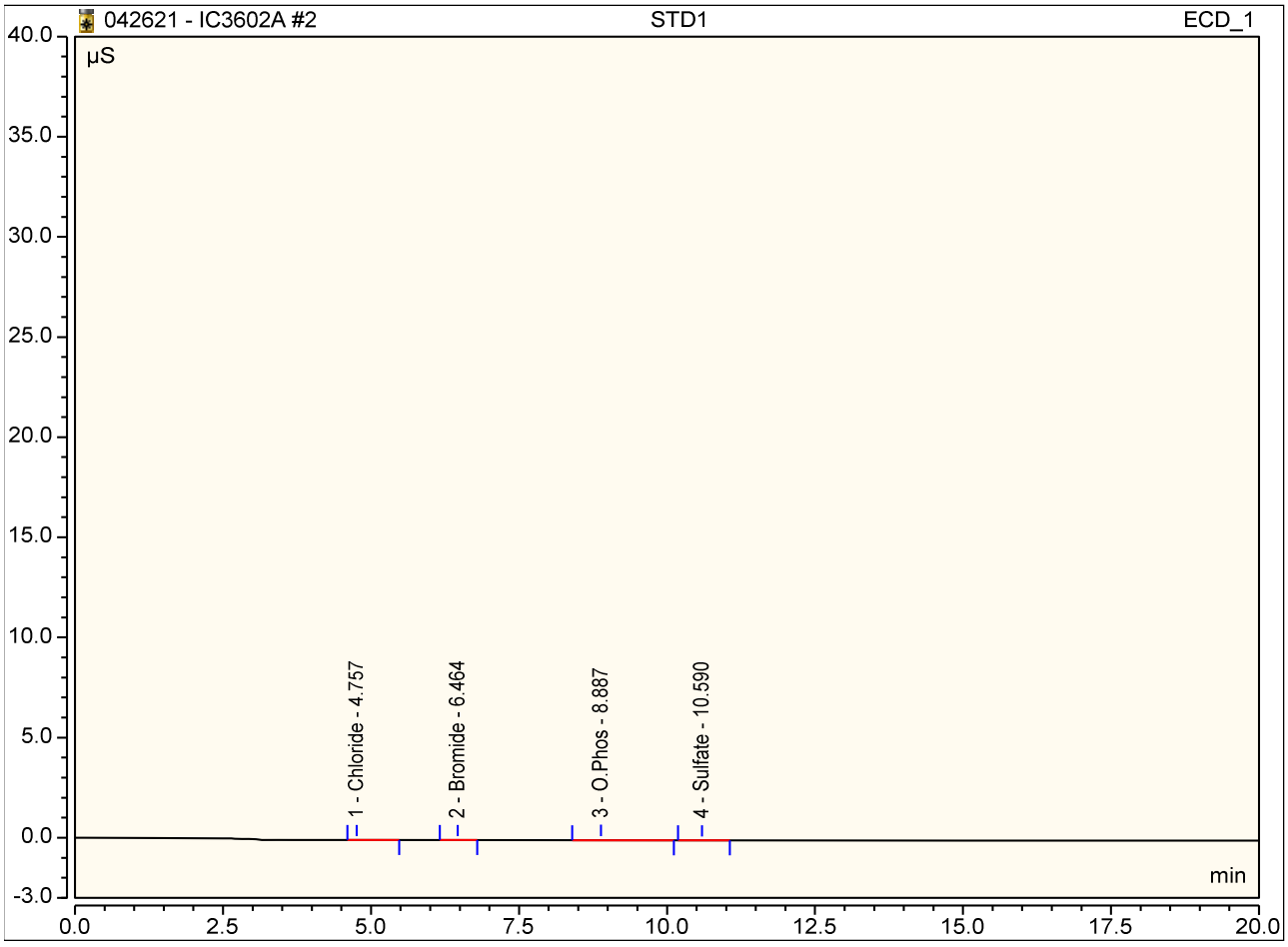
Instrument:AQUION 4 Cal. File: IC3602A					ICV	IC3596 IC3599		Analyst/Date: TMG 04/26/2021		
Analyte	Cal Level 1 (mg/L)	Cal Level 2 (mg/L)	Cal Level 3 (mg/L)	Cal Level 4 (mg/L)	Cal Level 5 (mg/L)	Cal Level 6 (mg/L)	Cal Level 7 (mg/L)	Cal Level 8 (mg/L)	Cal Level 9 (mg/L)	ICV (mg/L)
Fluoride	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Chloride	0.0	0.5	0.75	1.0	5.0	10.0	20.0	30.0	40.0	15.0
Bromide	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrite	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrate	0.0	0.1	0.30	0.5	1.0	2.0	5.0	7.0		3.5
O-Phoshorous	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Sulfate	0.0	0.5	0.75	1.0	5.0	10.0	30.0	50.0	70.0	25.0

RJ 05/06/2021

Peak Integration Report

Sample Name:	**STD1**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 13:57**	*Run Time:*	**20.00**

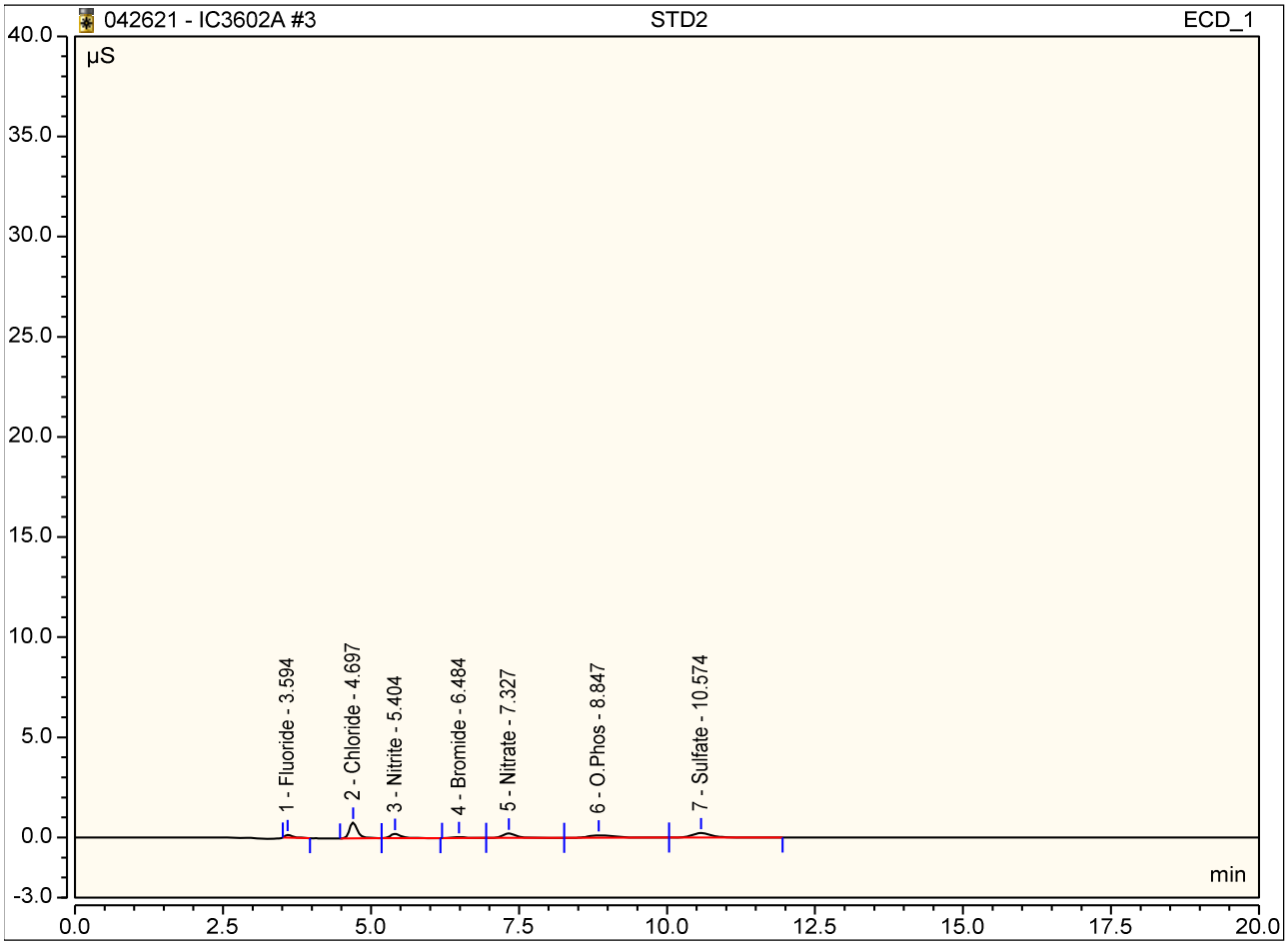
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.76	Chloride	0.002	0.005	0.5812
2	6.46	Bromide	0.001	0.002	n.a.
3	8.89	O.Phos	0.011	0.021	n.a.
4	10.59	Sulfate	0.001	0.003	0.7007



Peak Integration Report

Sample Name:	**STD2**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 14:17**	*Run Time:*	**20.00**

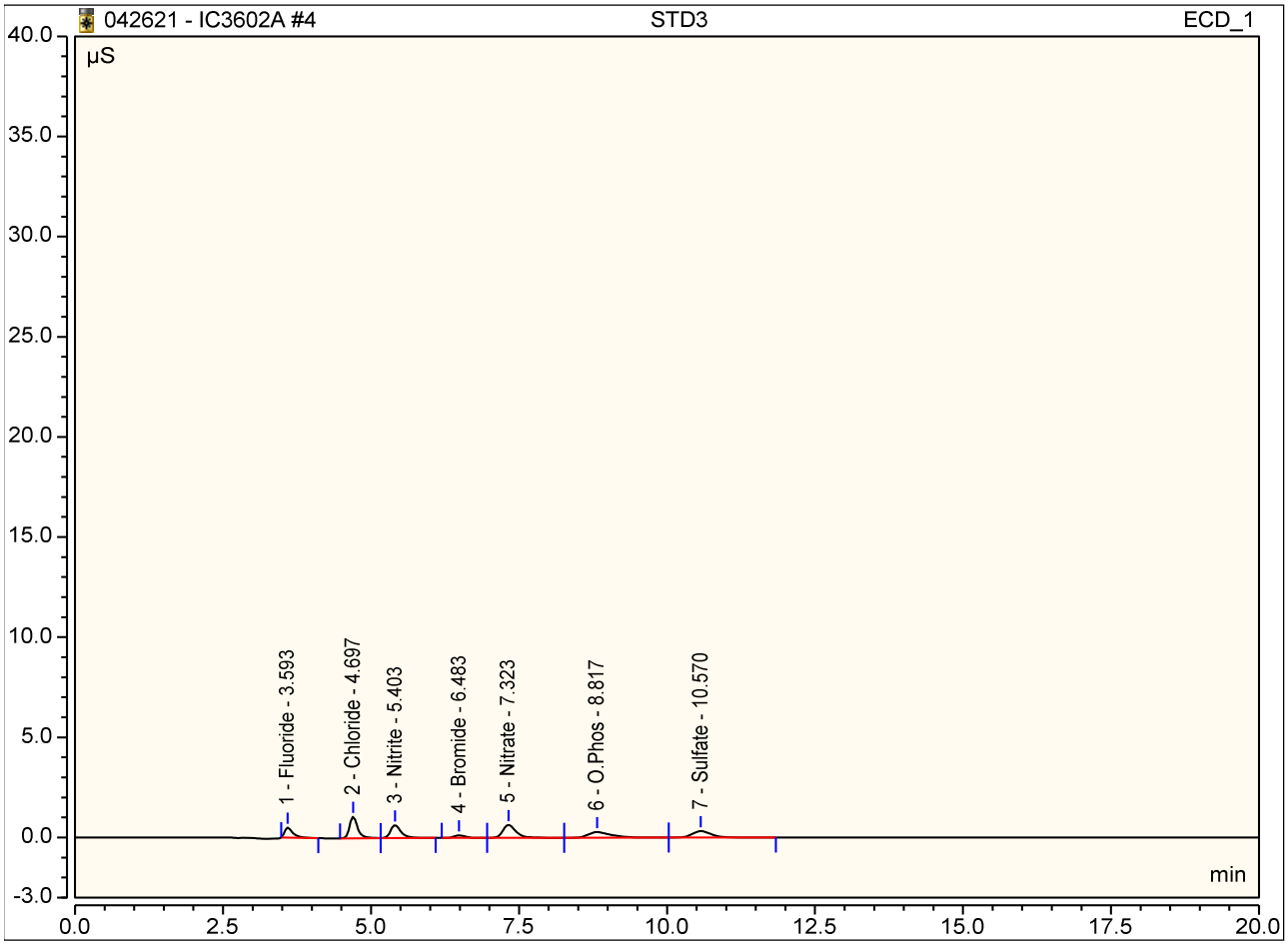
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.59	Fluoride	0.020	0.135	0.1309
2	4.70	Chloride	0.127	0.783	0.9998
3	5.40	Nitrite	0.044	0.213	0.1113
4	6.48	Bromide	0.010	0.046	0.0954
5	7.33	Nitrate	0.057	0.220	0.1671
6	8.85	O.Phos	0.059	0.122	0.0635
7	10.57	Sulfate	0.086	0.224	1.1155



Peak Integration Report

Sample Name:	**STD3**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 14:37**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.59	Fluoride	0.081	0.497	0.2981
2	4.70	Chloride	0.174	1.072	1.1555
3	5.40	Nitrite	0.132	0.636	0.3004
4	6.48	Bromide	0.029	0.133	0.2916
5	7.32	Nitrate	0.166	0.643	0.3379
6	8.82	O.Phos	0.124	0.278	0.3469
7	10.57	Sulfate	0.123	0.323	1.2980



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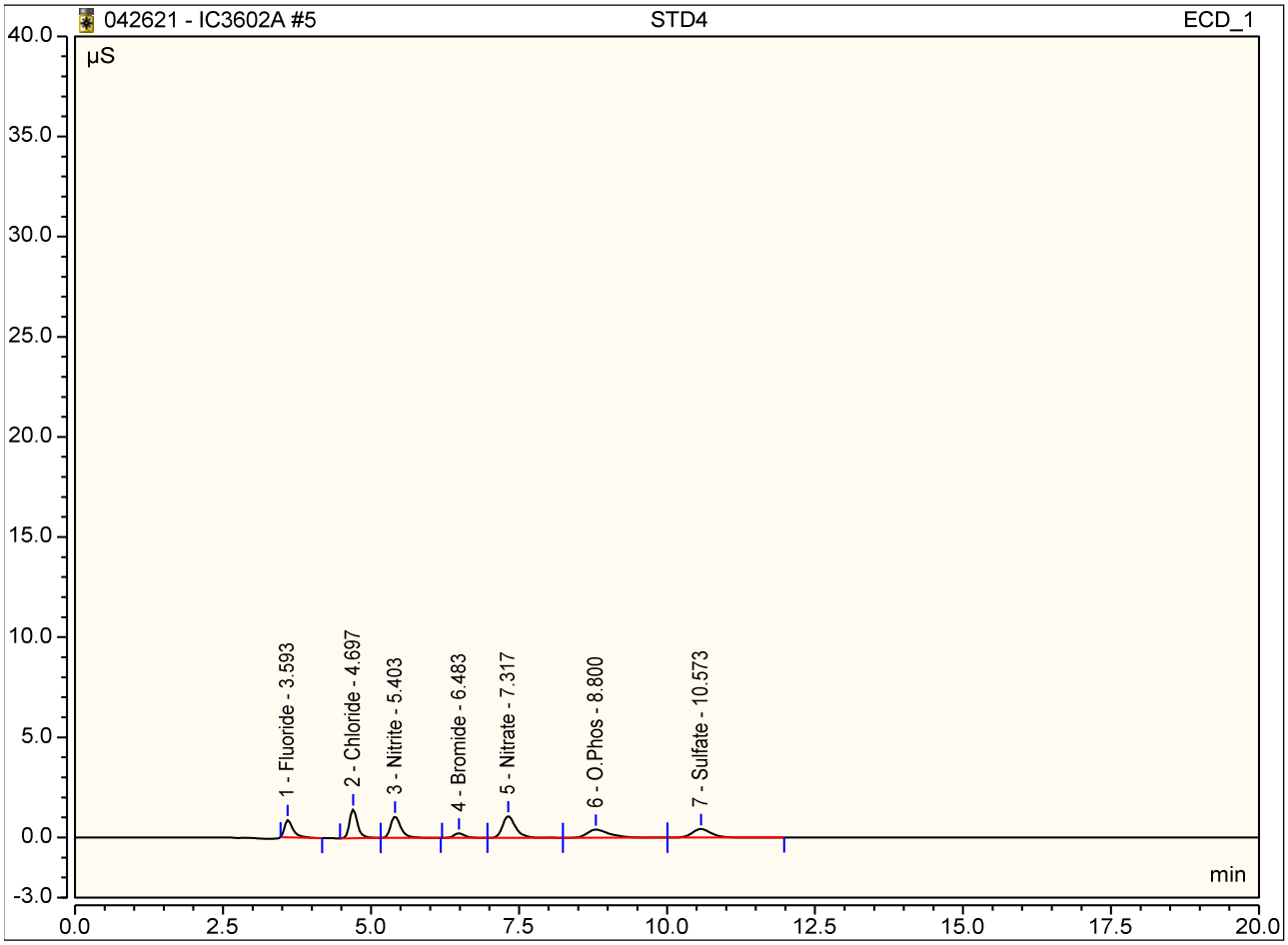
Peak Integration Report

Sample Name:	**STD4**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 14:57**	*Run Time:*	**20.00**

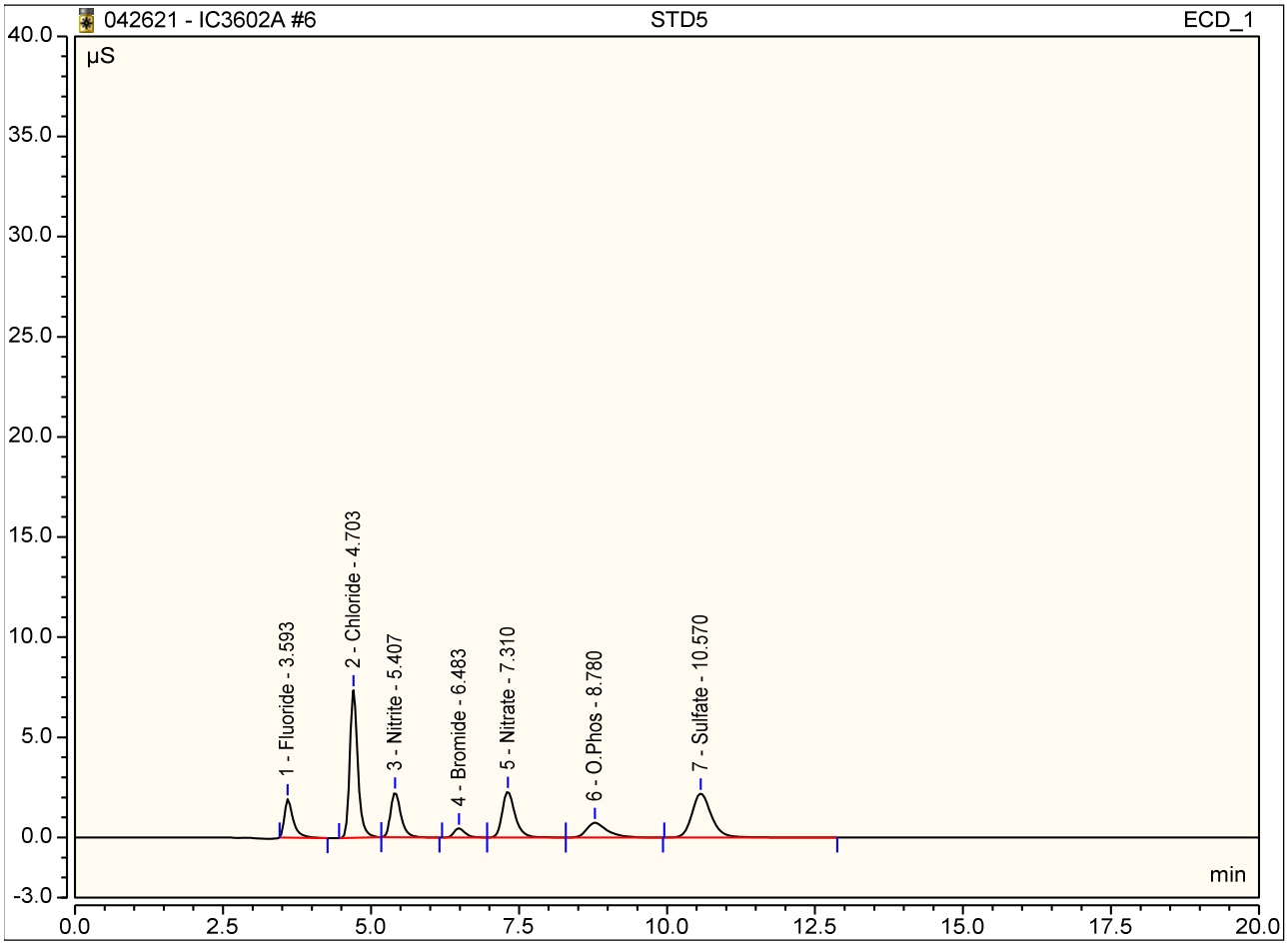
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.59	Fluoride	0.150	0.880	0.4868
2	4.70	Chloride	0.234	1.448	1.3560
3	5.40	Nitrite	0.222	1.069	0.4938
4	6.48	Bromide	0.048	0.222	0.4892
5	7.32	Nitrate	0.277	1.080	0.5121
6	8.80	O.Phos	0.176	0.409	0.5701
7	10.57	Sulfate	0.165	0.433	1.5061



Peak Integration Report

Sample Name:	**STD5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 15:17**	*Run Time:*	**20.00**

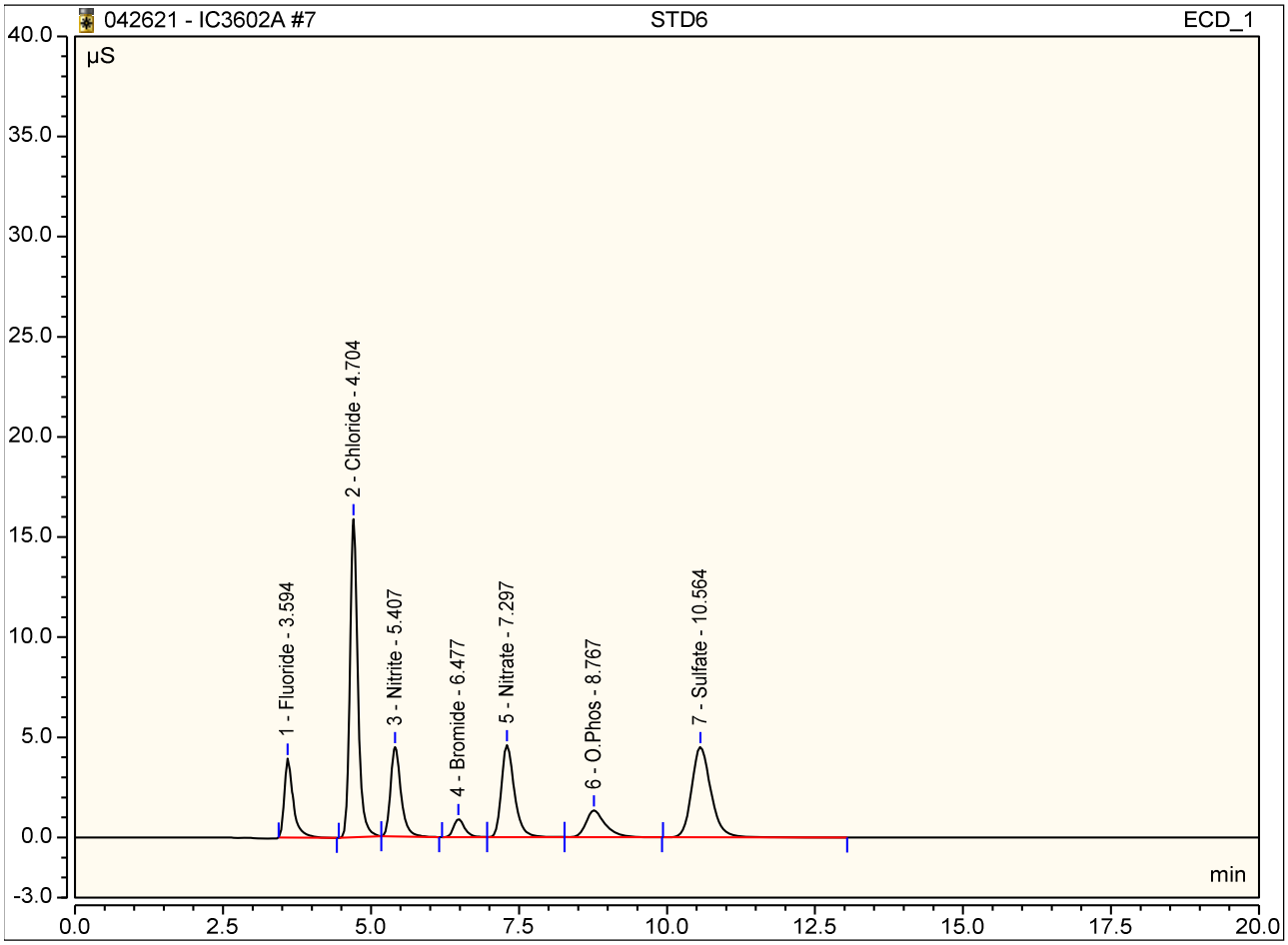
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.59	Fluoride	0.335	1.918	0.9947
2	4.70	Chloride	1.170	7.371	4.4751
3	5.41	Nitrite	0.461	2.244	1.0069
4	6.48	Bromide	0.100	0.459	1.0213
5	7.31	Nitrate	0.584	2.282	0.9928
6	8.78	O.Phos	0.296	0.735	1.0881
7	10.57	Sulfate	0.836	2.196	4.7988



Peak Integration Report

Sample Name:	**STD6**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 15:37**	*Run Time:*	**20.00**

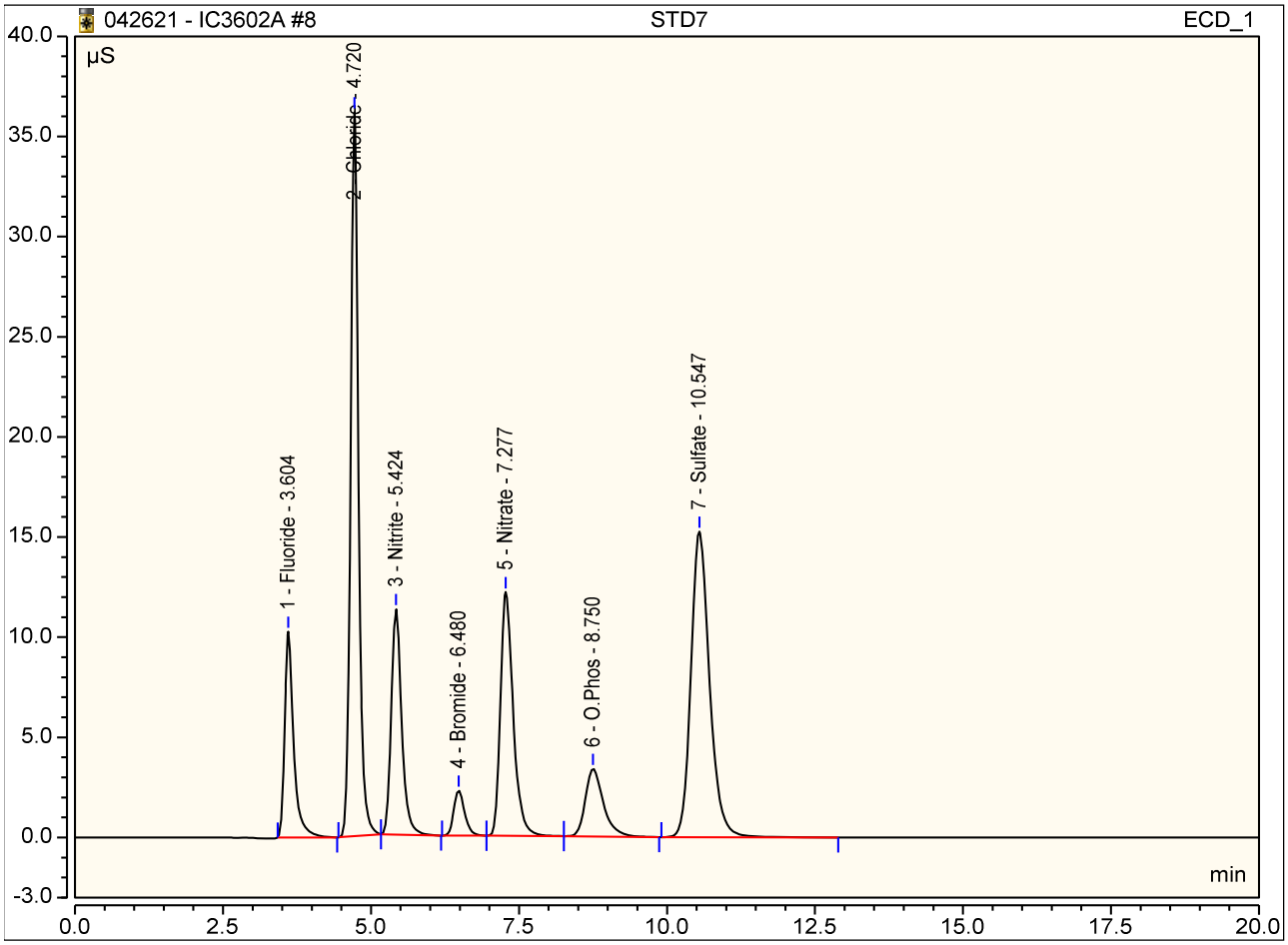
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.59	Fluoride	0.694	3.939	1.9793
2	4.70	Chloride	2.475	15.887	8.8219
3	5.41	Nitrite	0.915	4.462	1.9810
4	6.48	Bromide	0.196	0.904	2.0129
5	7.30	Nitrate	1.169	4.589	1.9100
6	8.77	O.Phos	0.507	1.334	2.0002
7	10.56	Sulfate	1.705	4.511	9.0620



Peak Integration Report

Sample Name:	**STD7**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 15:57**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.60	Fluoride	1.801	10.272	5.0101
2	4.72	Chloride	5.574	36.153	19.1491
3	5.42	Nitrite	2.325	11.275	5.0066
4	6.48	Bromide	0.486	2.263	4.9922
5	7.28	Nitrate	3.044	12.166	4.8487
6	8.75	O.Phos	1.196	3.382	4.9732
7	10.55	Sulfate	5.562	15.252	27.9879



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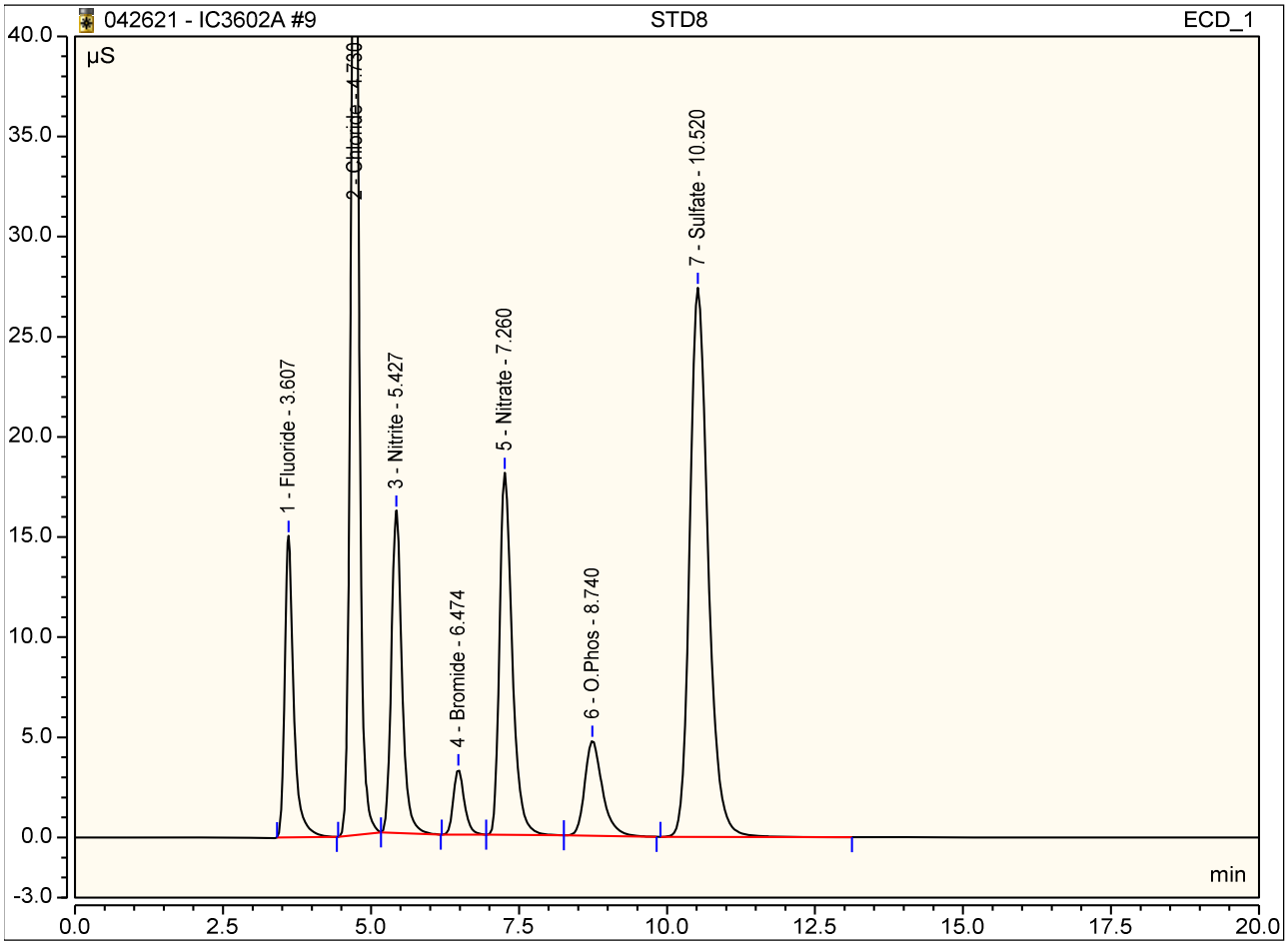
Peak Integration Report

Sample Name:	**STD8**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 16:17**	*Run Time:*	**20.00**

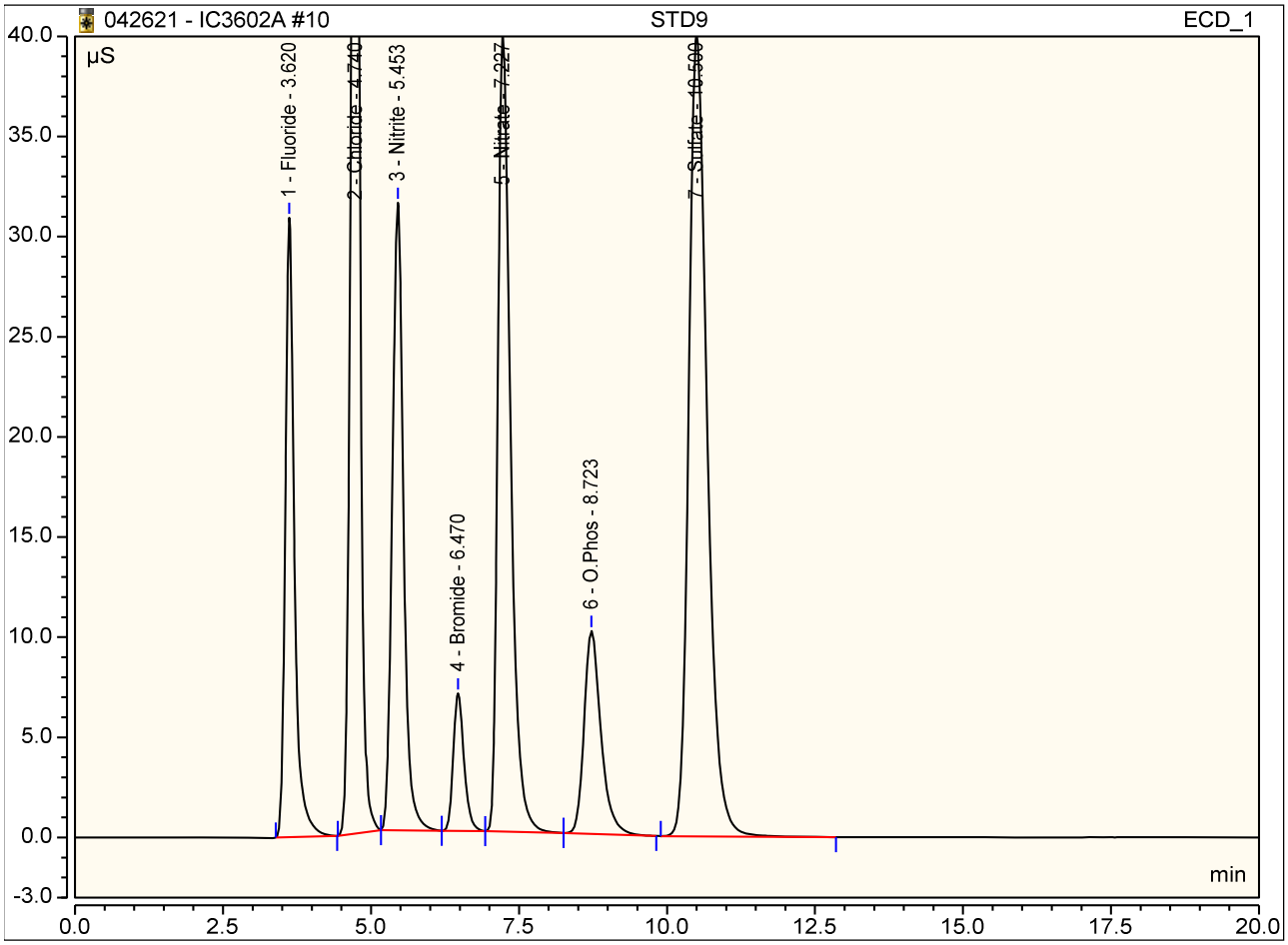
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.61	Fluoride	2.637	15.048	7.2999
2	4.73	Chloride	8.769	55.885	29.7944
3	5.43	Nitrite	3.348	16.093	7.2041
4	6.47	Bromide	0.697	3.262	7.1617
5	7.26	Nitrate	4.501	18.075	7.1314
6	8.74	O.Phos	1.637	4.743	6.8778
7	10.52	Sulfate	9.897	27.424	49.2574



Peak Integration Report

Sample Name:	**STD9**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 16:37**	*Run Time:*	**20.00**

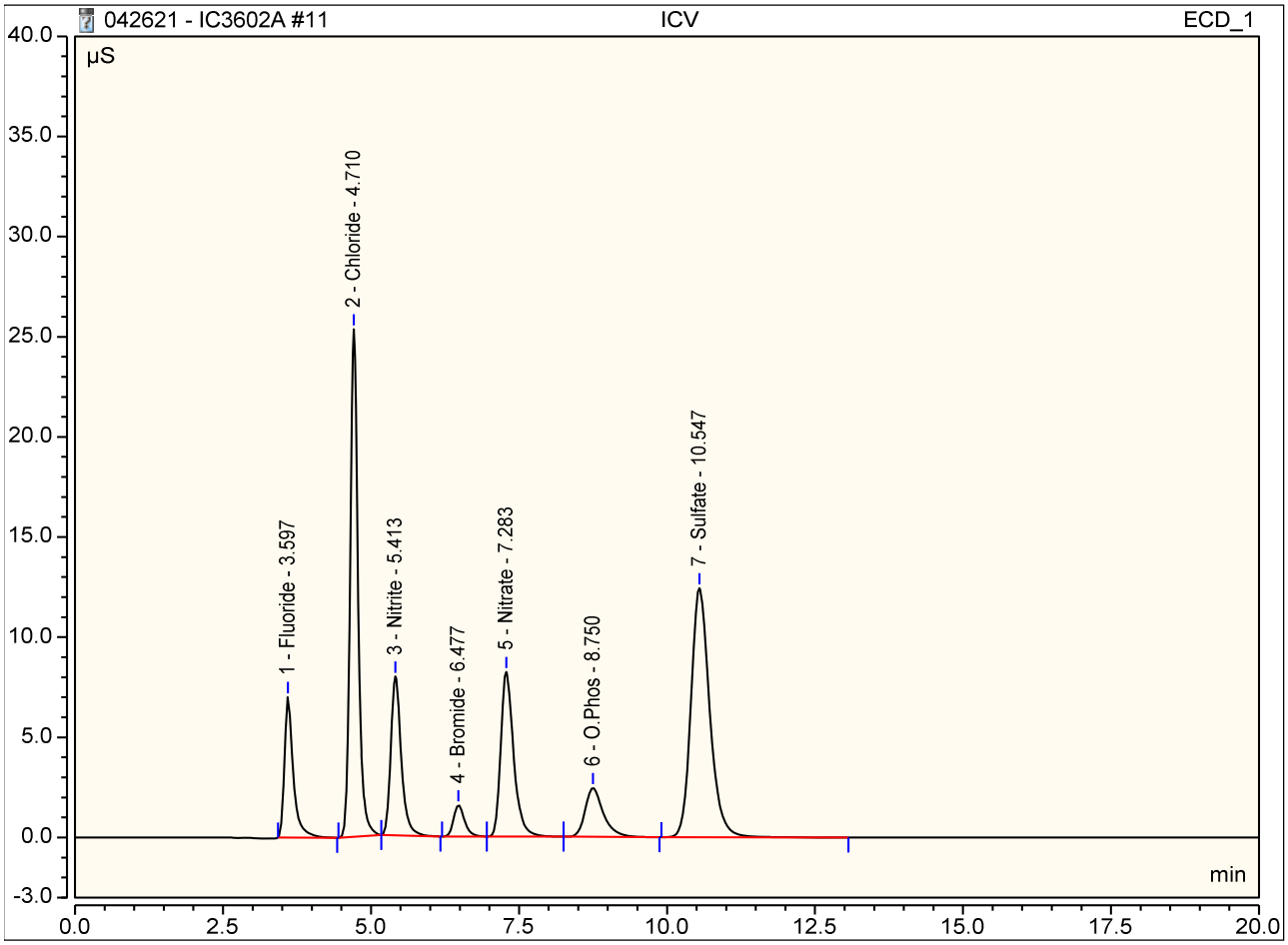
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.62	Fluoride	5.521	30.932	15.2019
2	4.74	Chloride	12.107	74.563	40.9170
3	5.45	Nitrite	6.874	31.339	14.7710
4	6.47	Bromide	1.445	6.872	14.8532
5	7.23	Nitrate	9.938	39.842	15.6520
6	8.72	O.Phos	3.344	10.135	14.2505
7	10.50	Sulfate	14.435	40.069	71.5237



Peak Integration Report

Sample Name:	**ICV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2021 / 16:57**	*Run Time:*	**20.00**

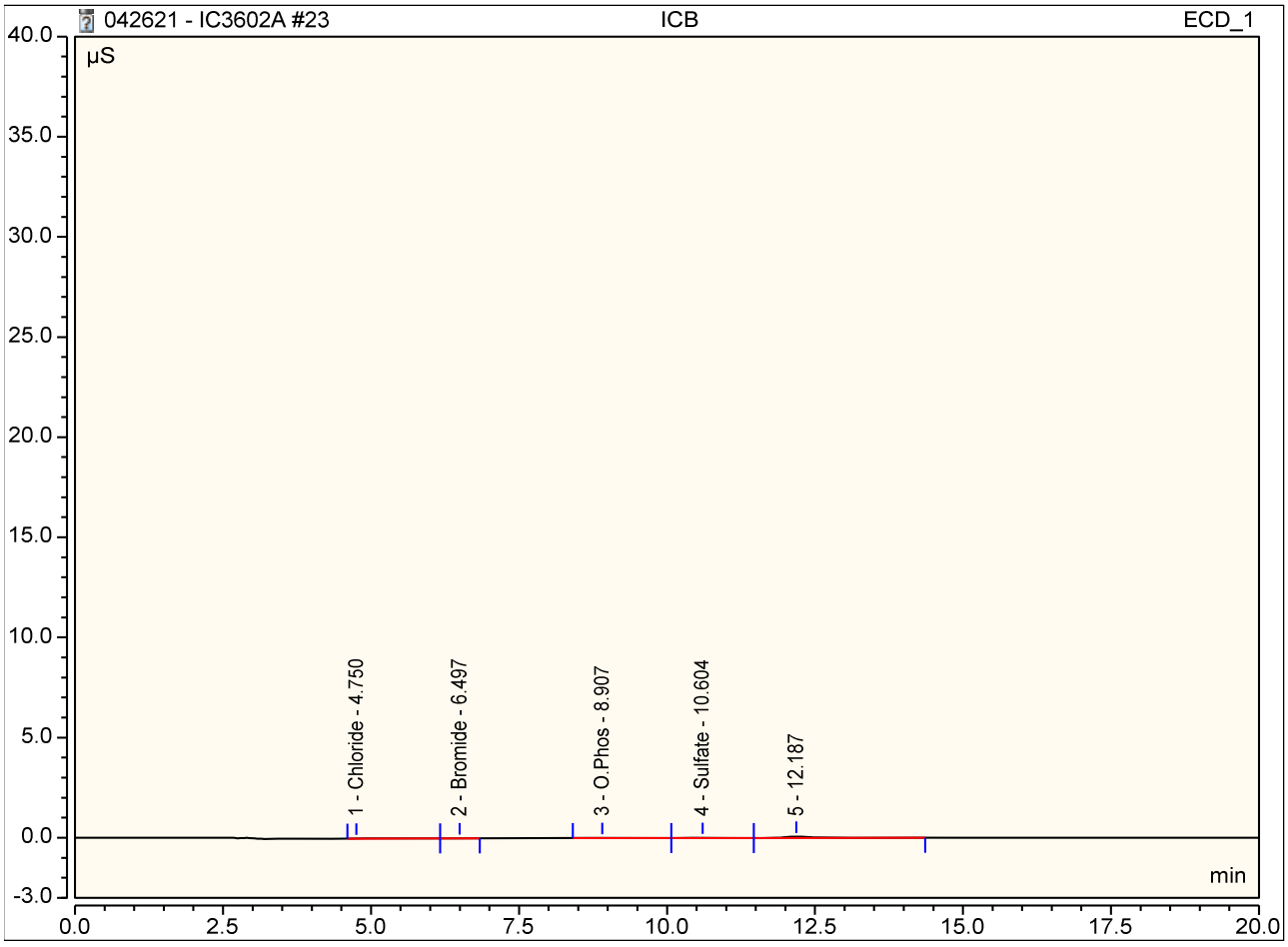
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.60	Fluoride	1.219	7.014	3.4149
2	4.71	Chloride	3.927	25.333	13.6600
3	5.41	Nitrite	1.632	7.933	3.5197
4	6.48	Bromide	0.338	1.559	3.4673
5	7.28	Nitrate	2.079	8.216	3.3362
6	8.75	O.Phos	0.873	2.441	3.5784
7	10.55	Sulfate	4.589	12.436	23.2125



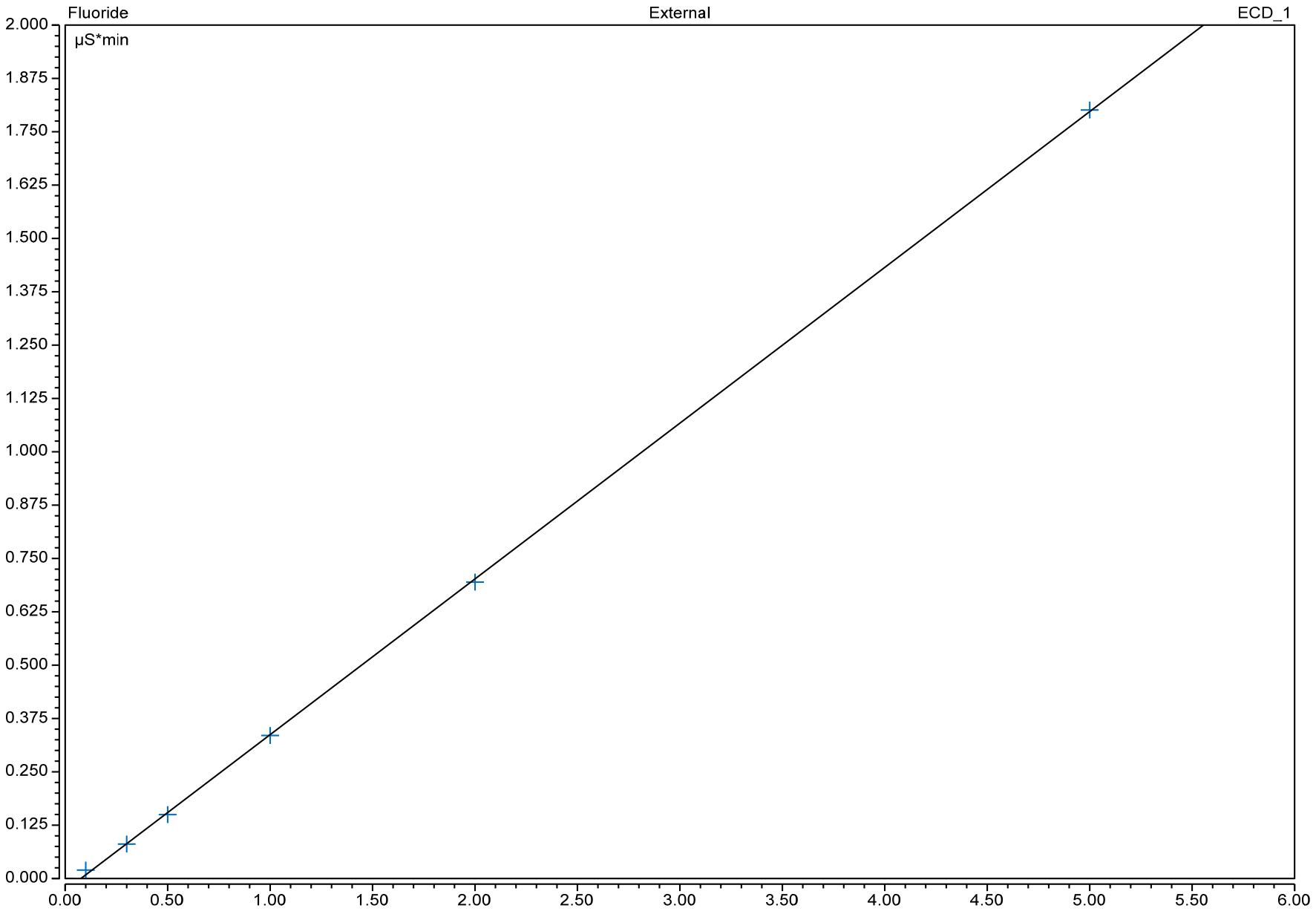
Peak Integration Report

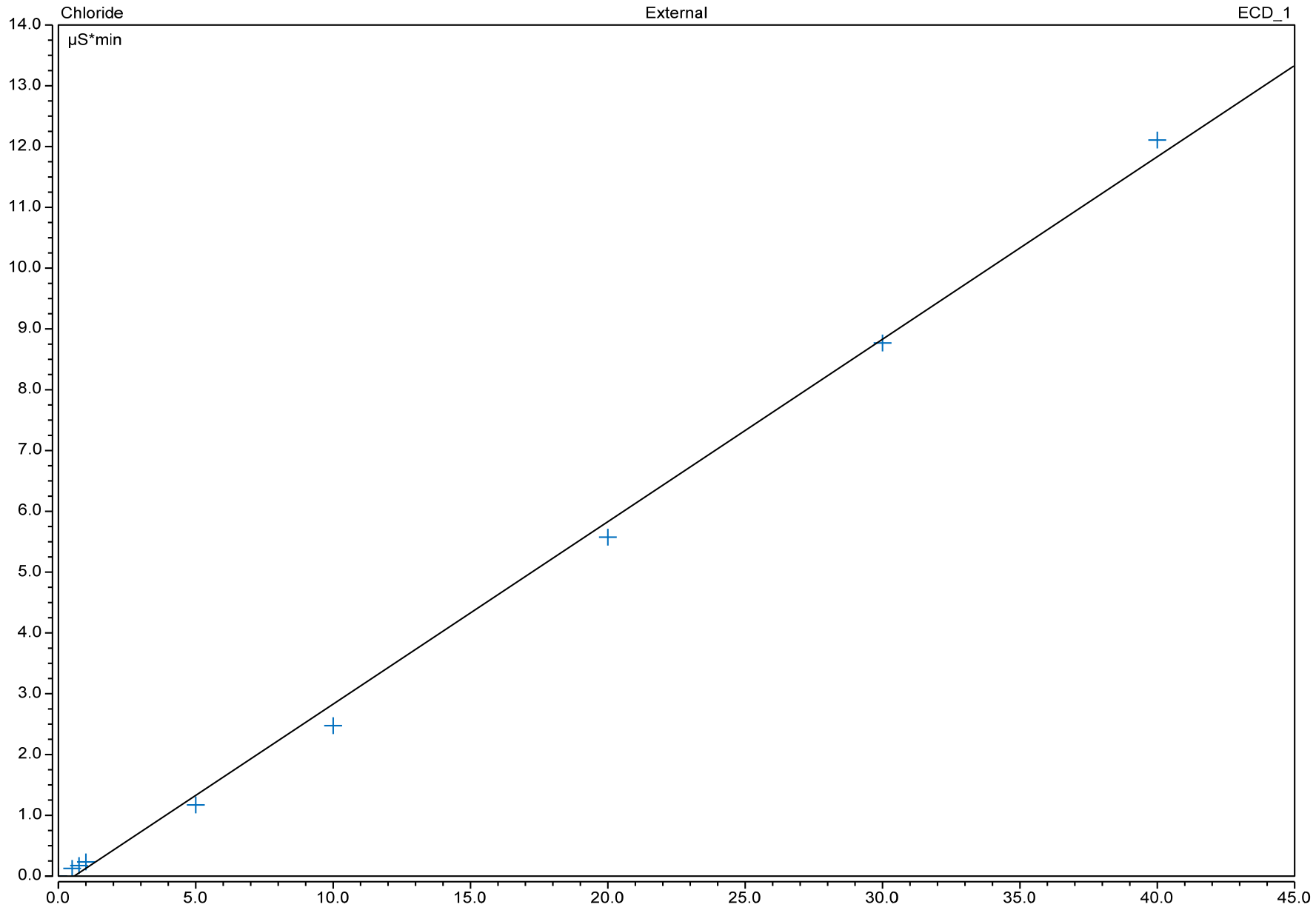
Sample Name:	**ICB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**27-Apr-2021 / 10:28**	*Run Time:*	**20.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.75	Chloride	0.003	0.004	0.5847
2	6.50	Bromide	0.001	0.004	0.0025
3	8.91	O.Phos	0.006	0.011	n.a.
4	10.60	Sulfate	0.004	0.010	0.7141

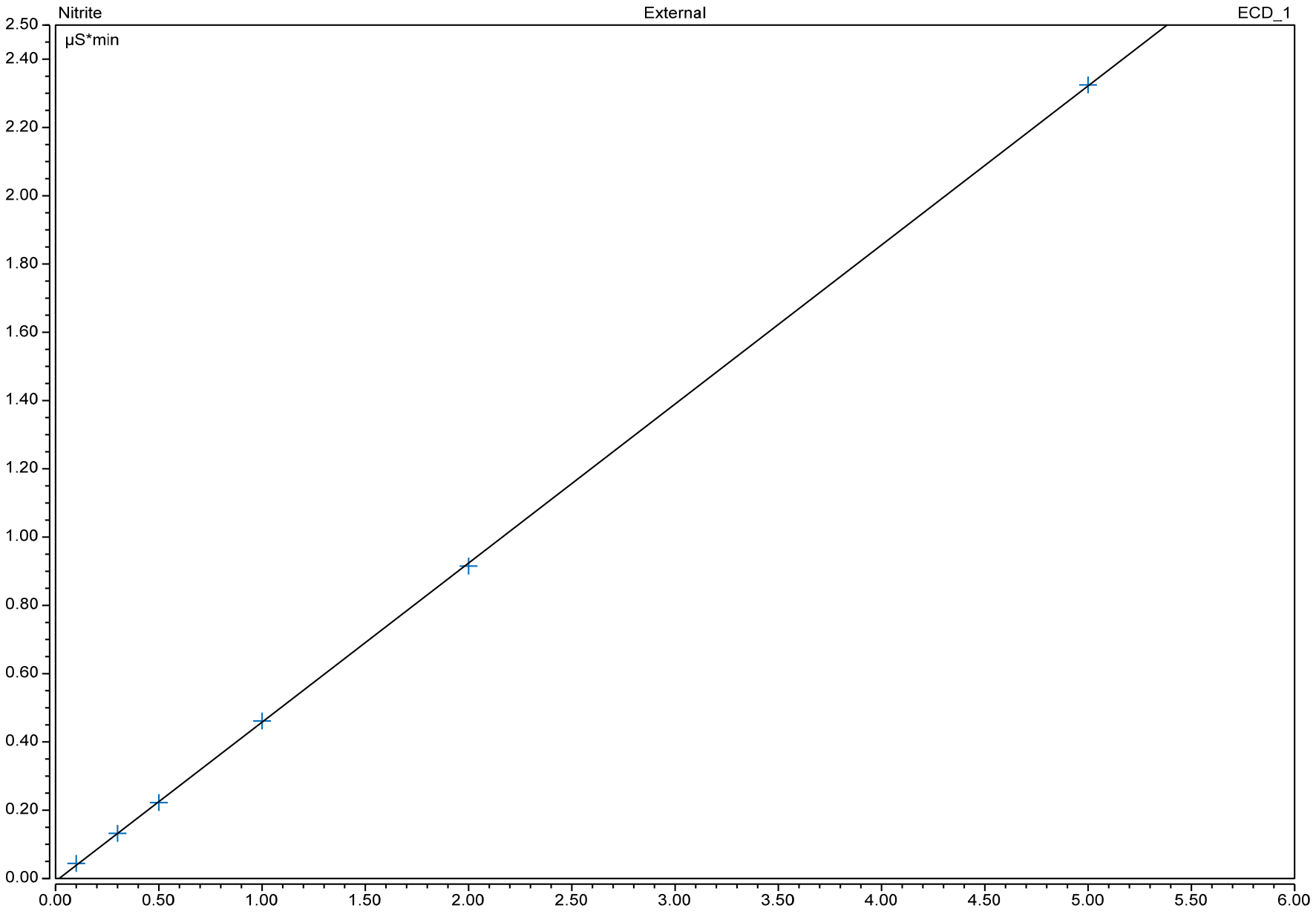


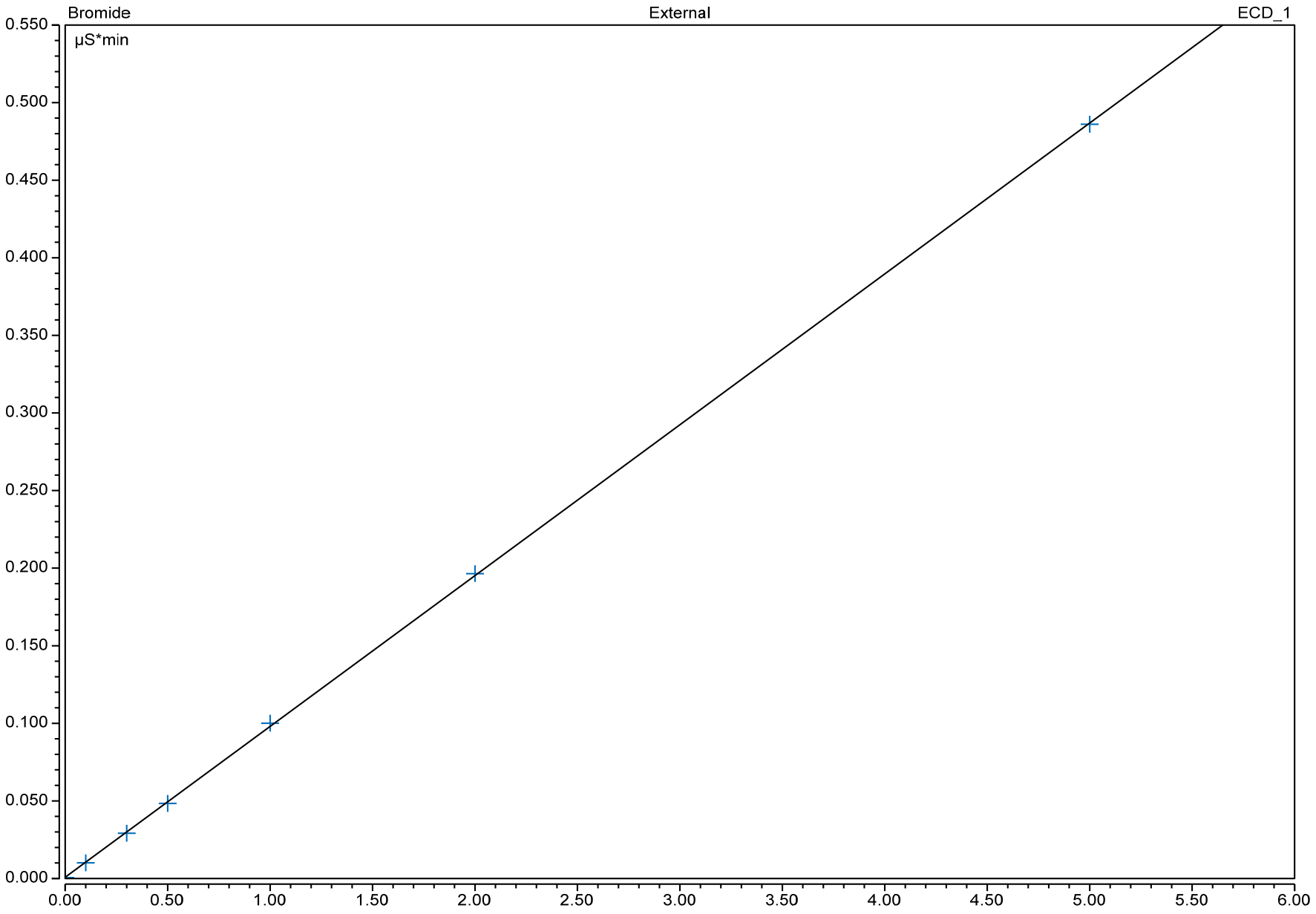
Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	*Fluoride*	*Lin, WithOffset*	*Area*	*6*	*1.4622*	*0.99990*	*-0.0281*	*0.3650*	*0.0000*
2	Chloride	Lin, WithOffset	Area	9	6.7889	0.99763	-0.1728	0.3001	0.0000
3	Nitrite	Lin, WithOffset	Area	6	0.8487	0.99996	-0.0078	0.4659	0.0000
4	Bromide	Lin, WithOffset	Area	7	1.0465	0.99995	0.0008	0.0972	0.0000
5	Nitrate	Lin, WithOffset	Area	7	4.7550	0.99874	-0.0496	0.6381	0.0000
6	O.Phos	Lin, WithOffset	Area	7	5.8978	0.99805	0.0438	0.2316	0.0000
7	Sulfate	Lin, WithOffset	Area	9	6.4325	0.99826	-0.1416	0.2038	0.0000
Maximum					**6.7889**	0.99996			
Minimum					0.8487	**0.99763**			


Fluoride
External
ECD_1
µS*min
2.000
1.875
1.750
1.625
1.500
1.375
1.250
1.125
1.000
0.875
0.750
0.625
0.500
0.375
0.250
0.125
0.000
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

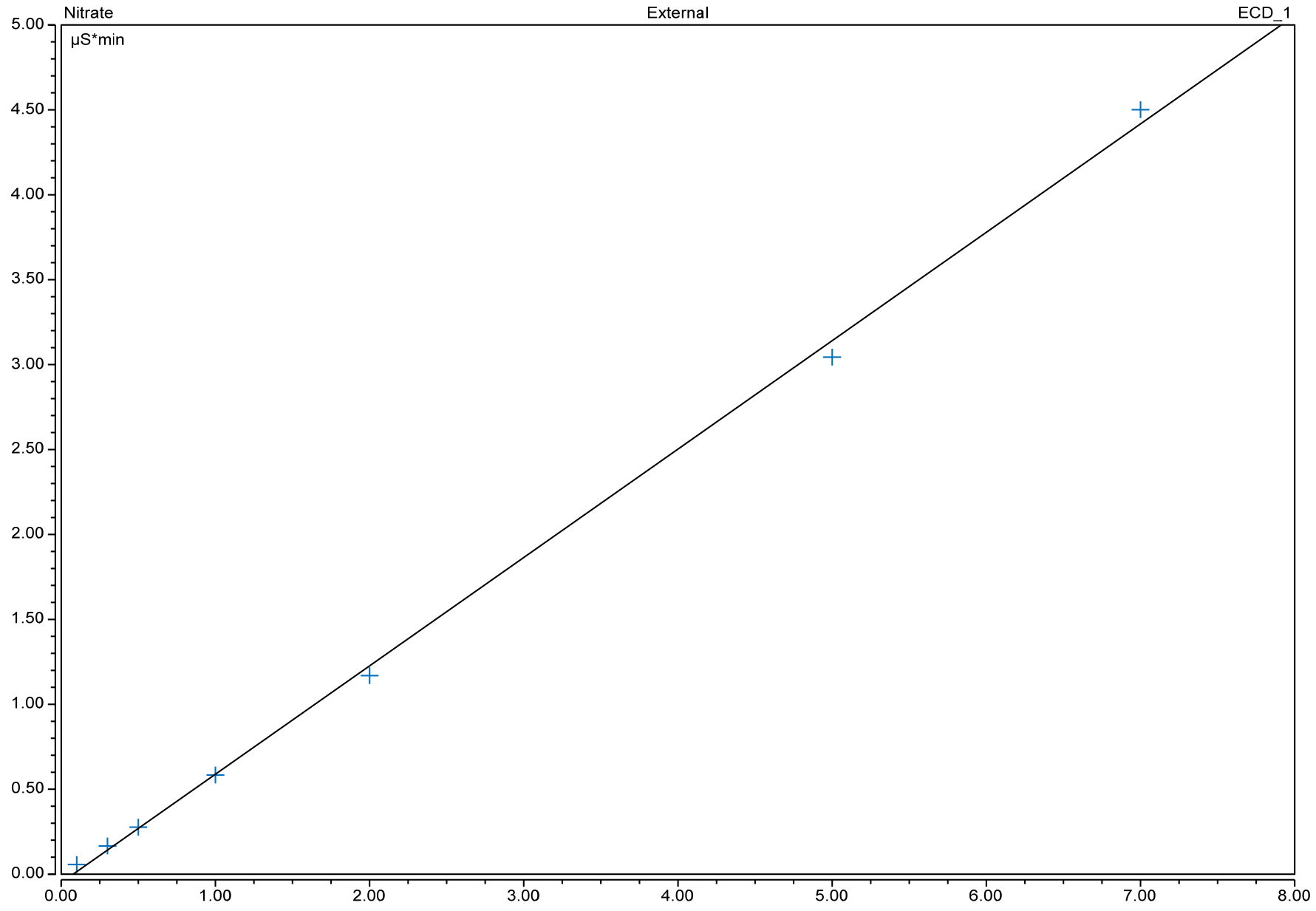

Chloride
External
ECD_1
µS*min
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0

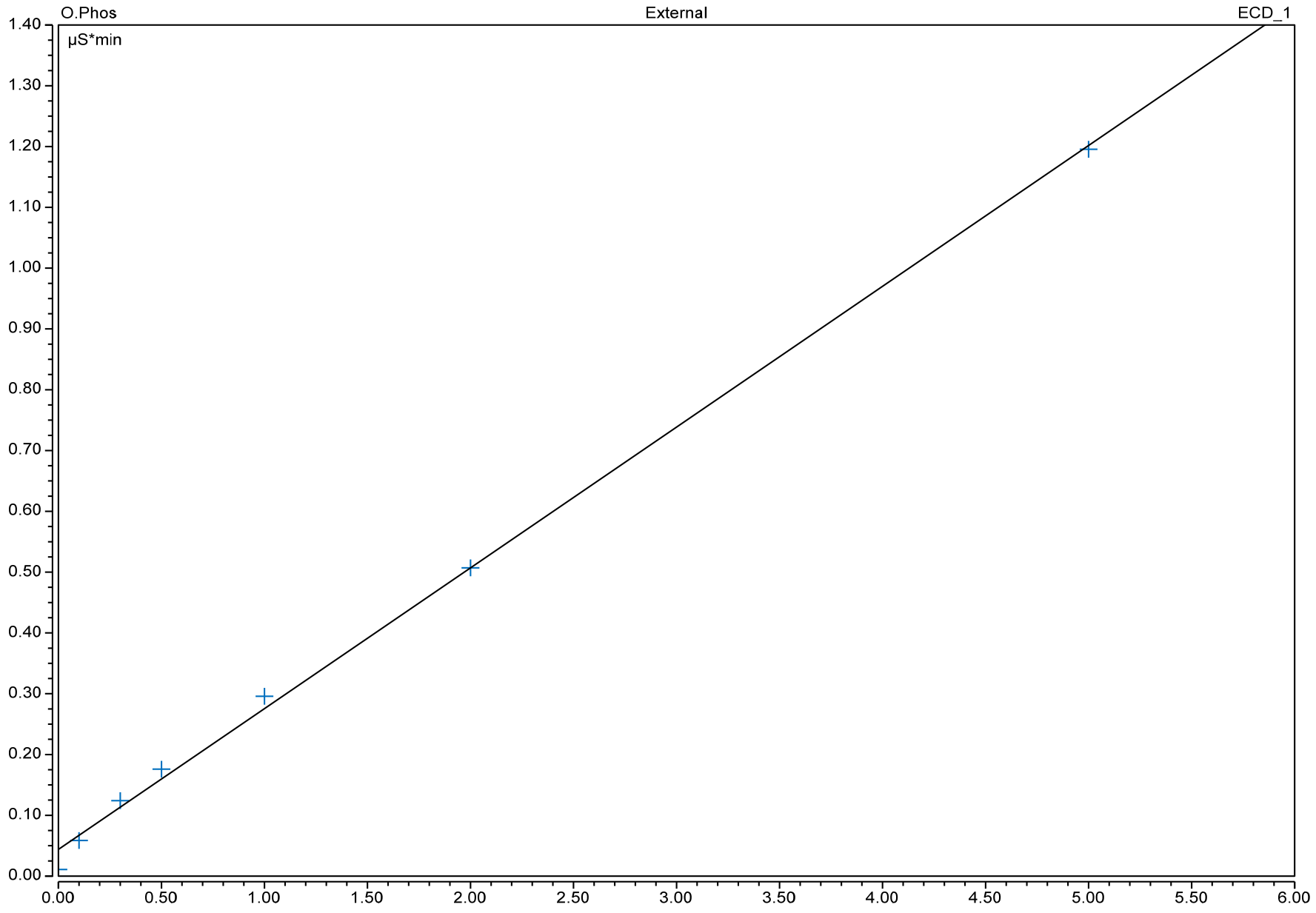
Calibration Plot

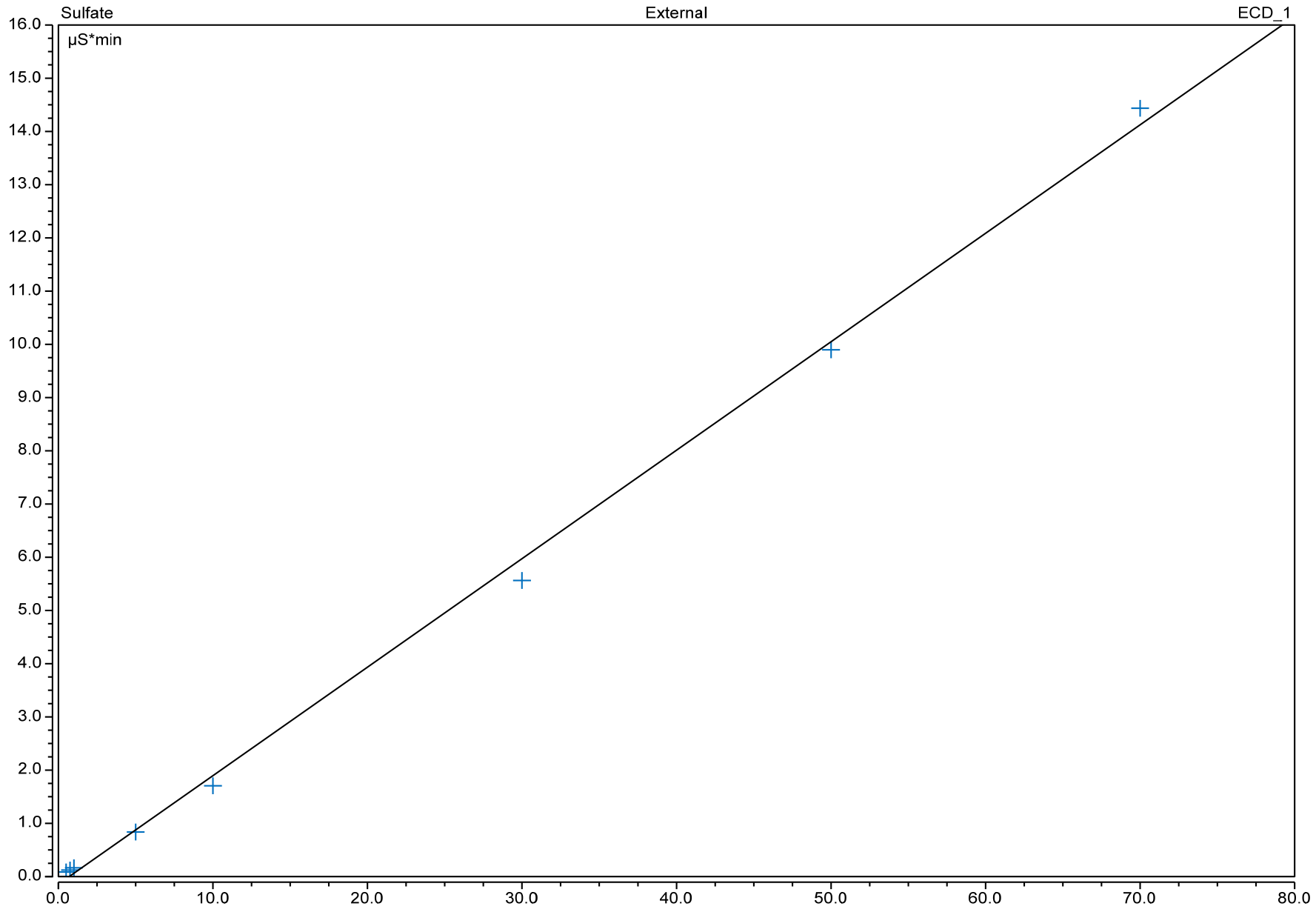



Bromide
External
ECD_1
µS*min
0.550
0.500
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

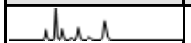
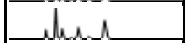
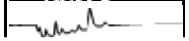
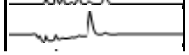
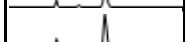
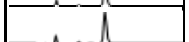
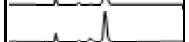
Calibration Plot




O.Phos
External
ECD_1
µS*min
1.40
1.30
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00


Sulfate
External
ECD_1
µS*min
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0

Sequence: 102721 - 196851 196852
Last Update Operator: aquion

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		2	5000	Anions	IC3602A	Finished
	LCSW	1.0000	Unknown		3	5000	Anions	IC3602A	Finished
	MBW	1.0000	Unknown		4	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		15	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		16	5000	Anions	IC3602A	Finished
	1066467	1.0000	Unknown		19	5000	Anions	IC3602A	Finished
	1066468	1.0000	Unknown		20	5000	Anions	IC3602A	Finished
	1066468X5	1.0000	Unknown		21	5000	Anions	IC3602A	Finished
	1066469	1.0000	Unknown		22	5000	Anions	IC3602A	Finished
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	MSW1066469	1.0000	Unknown		24	5000	Anions	IC3602A	Finished
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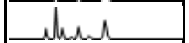
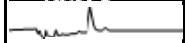
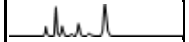
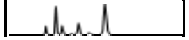
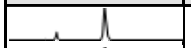
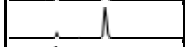
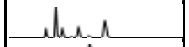
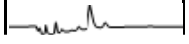
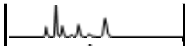
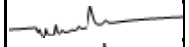
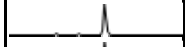
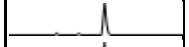
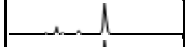
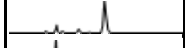
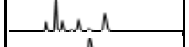
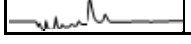
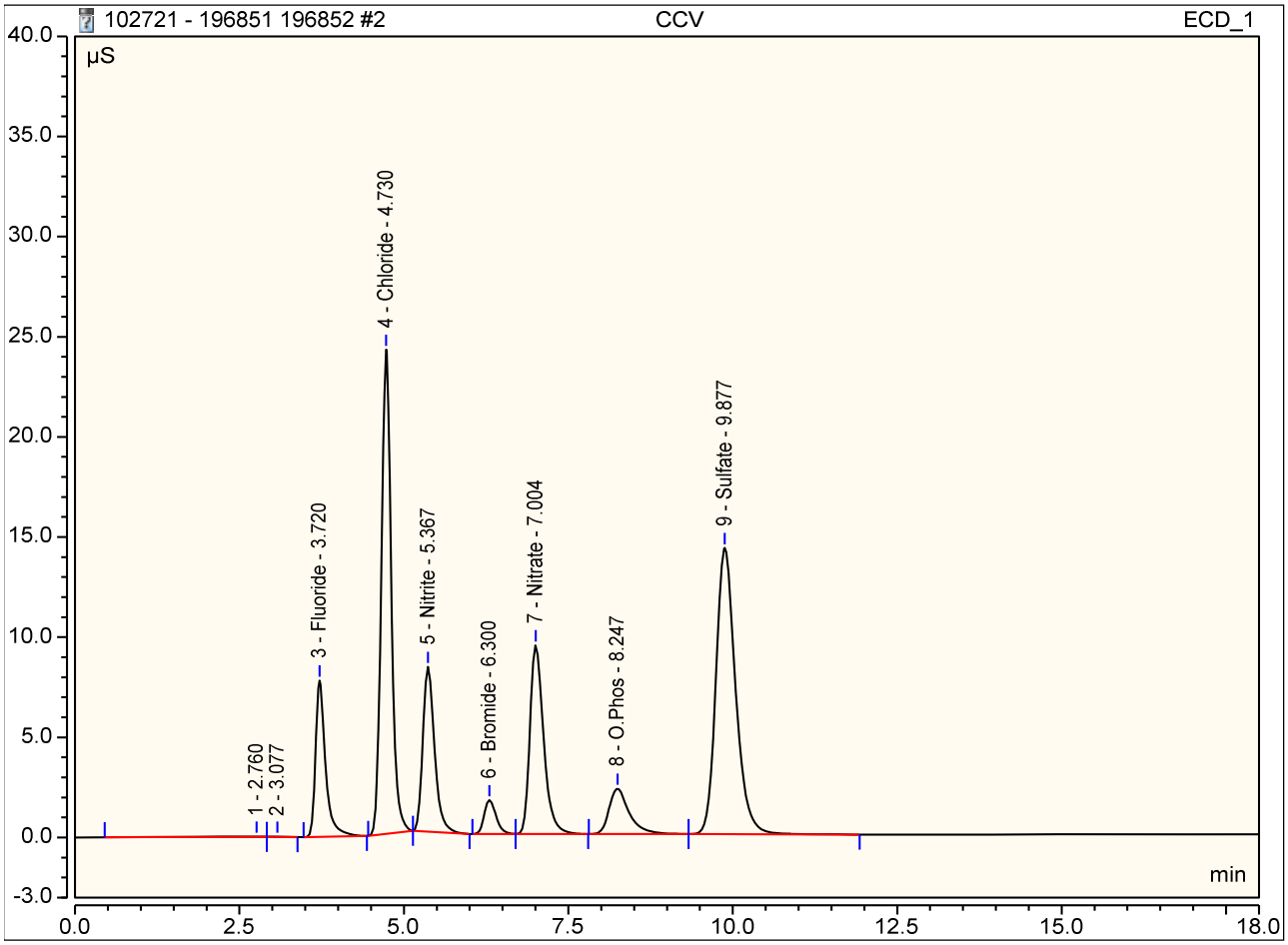
	CCV	1.0000	Unknown		27	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		28	5000	Anions	IC3602A	Finished
	DUP1066469X5	1.0000	Unknown		29	5000	Anions	IC3602A	Finished
	MSW1066469X5	1.0000	Unknown		30	5000	Anions	IC3602A	Finished
	MSDW1066469X5	1.0000	Unknown		31	5000	Anions	IC3602A	Finished

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	1066470	1.0000	Unknown		32	5000	Anions	IC3602A	Finished
	1066471	1.0000	Unknown		33	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		34	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		35	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		38	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		39	5000	Anions	IC3602A	Finished
	1066469	1.0000	Unknown		40	5000	Anions	IC3602A	Finished
	DUP1066469	1.0000	Unknown		41	5000	Anions	IC3602A	Finished
	MSW1066469	1.0000	Unknown		42	5000	Anions	IC3602A	Finished
	MSDW1066469	1.0000	Unknown		43	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		44	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		45	5000	Anions	IC3602A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 13:56**	*Run Time:*	**18.00**

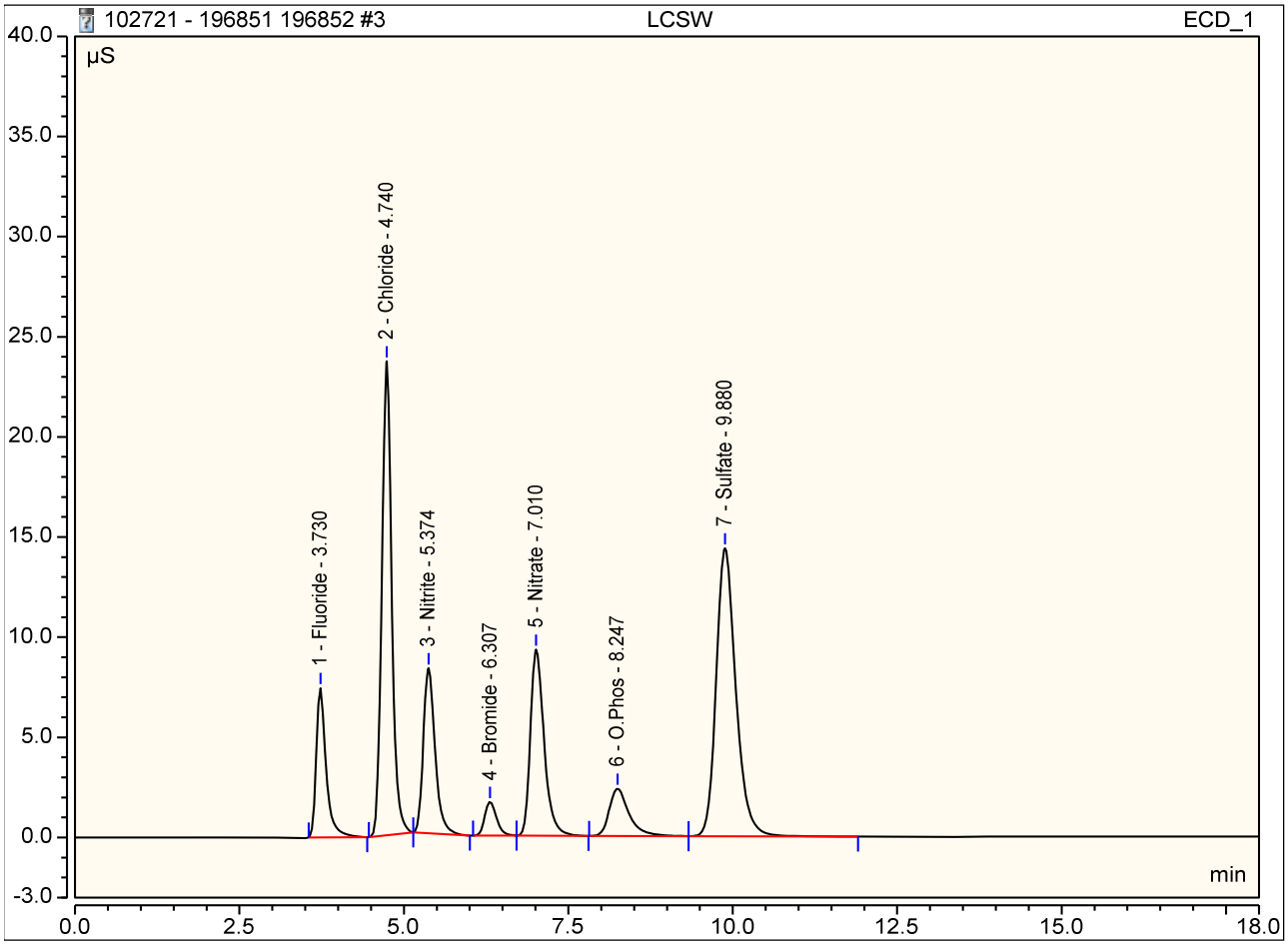
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	3.72	Fluoride	1.365	7.808	3.8175
4	4.73	Chloride	4.213	24.176	14.6142
5	5.37	Nitrite	1.704	8.235	3.6734
6	6.30	Bromide	0.356	1.698	3.6517
7	7.00	Nitrate	2.278	9.426	3.6485
8	8.25	O.Phos	0.808	2.272	3.2978
9	9.88	Sulfate	4.948	14.288	24.9737



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 14:14**	*Run Time:*	**18.00**

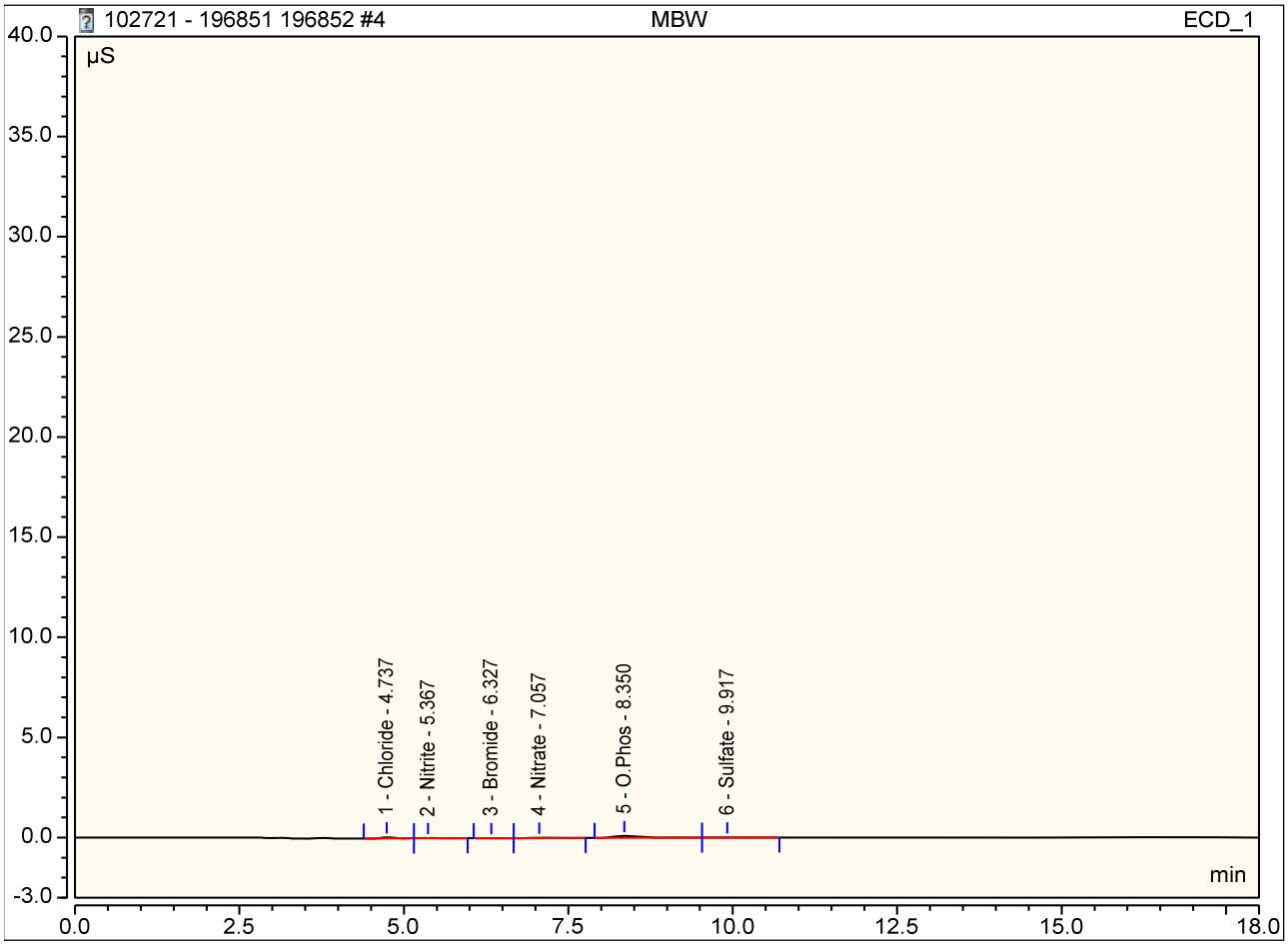
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	1.293	7.457	3.6185
2	4.74	Chloride	4.109	23.668	14.2654
3	5.37	Nitrite	1.706	8.240	3.6793
4	6.31	Bromide	0.354	1.691	3.6335
5	7.01	Nitrate	2.246	9.292	3.5978
6	8.25	O.Phos	0.823	2.371	3.3653
7	9.88	Sulfate	4.979	14.382	25.1266



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 14:32**	*Run Time:*	**18.00**

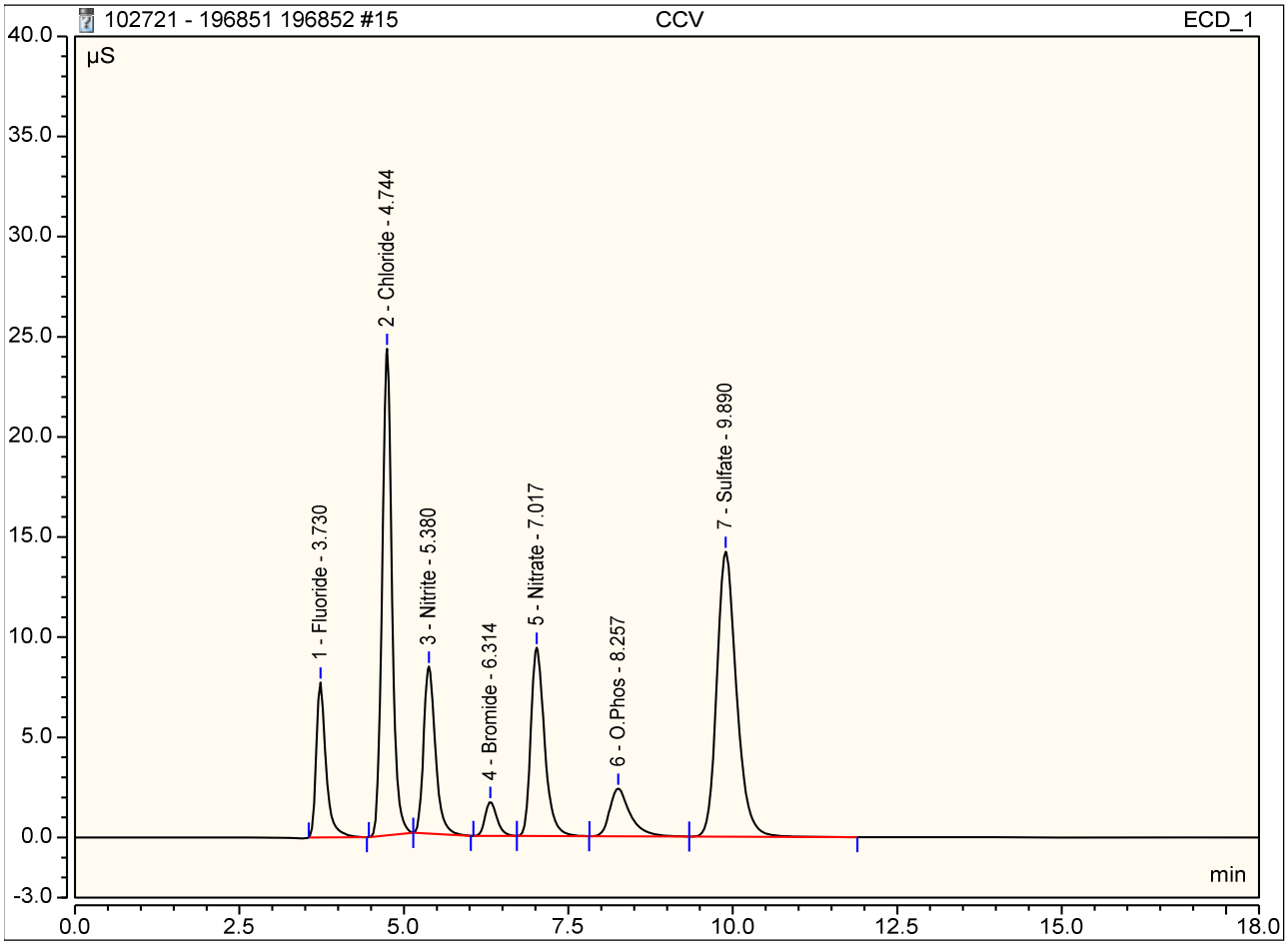
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.74	Chloride	0.013	0.065	0.6196
2	5.37	Nitrite	0.005	0.023	0.0278
3	6.33	Bromide	0.002	0.008	0.0102
4	7.06	Nitrate	0.006	0.024	0.0877
5	8.35	O.Phos	0.047	0.096	0.0155
6	9.92	Sulfate	0.009	0.024	0.7381



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 17:50**	*Run Time:*	**18.00**

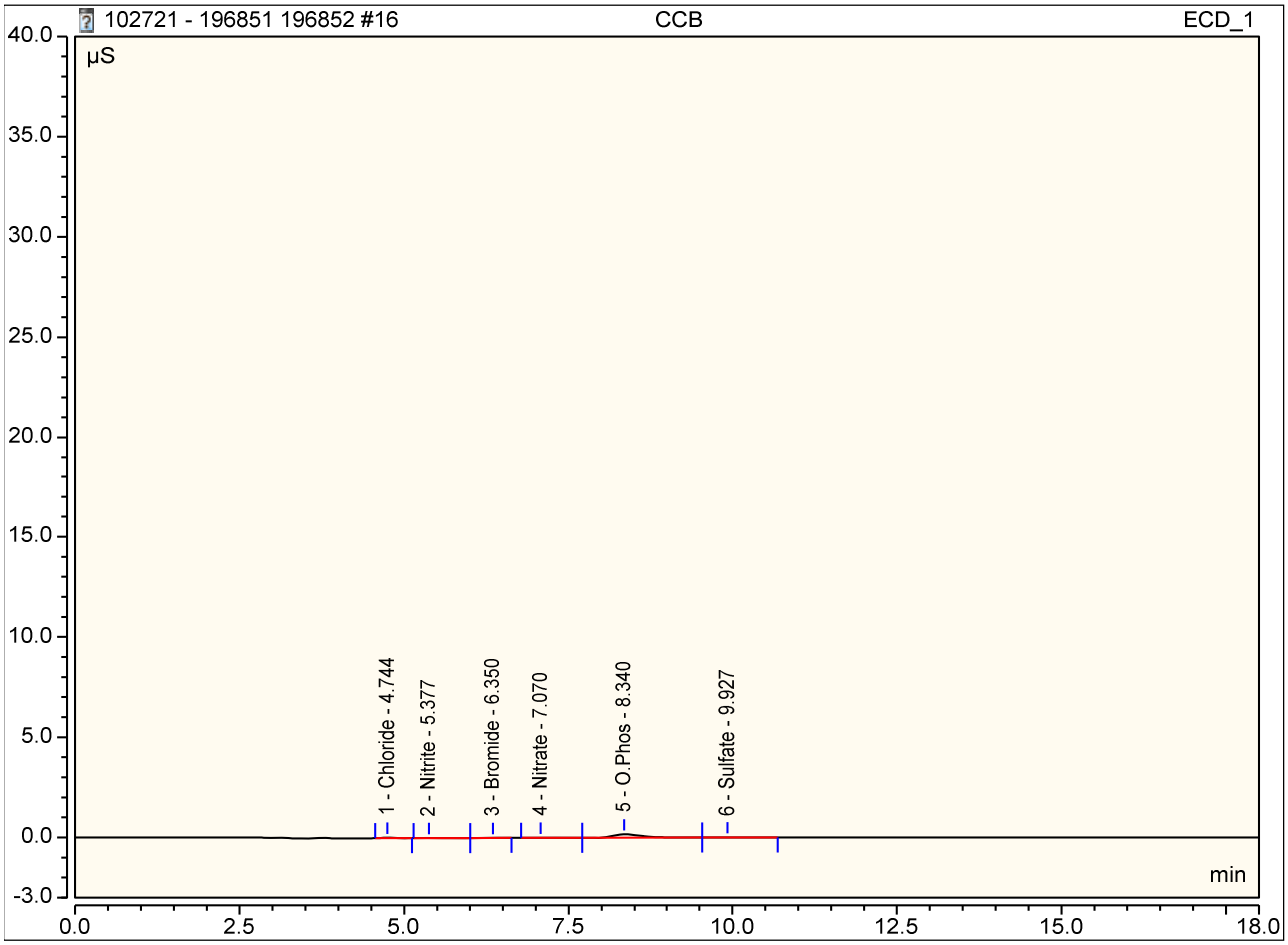
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	1.331	7.740	3.7216
2	4.74	Chloride	4.205	24.305	14.5857
3	5.38	Nitrite	1.730	8.340	3.7301
4	6.31	Bromide	0.356	1.696	3.6498
5	7.02	Nitrate	2.268	9.393	3.6317
6	8.26	O.Phos	0.857	2.379	3.5111
7	9.89	Sulfate	4.926	14.228	24.8660



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 18:08**	*Run Time:*	**18.00**

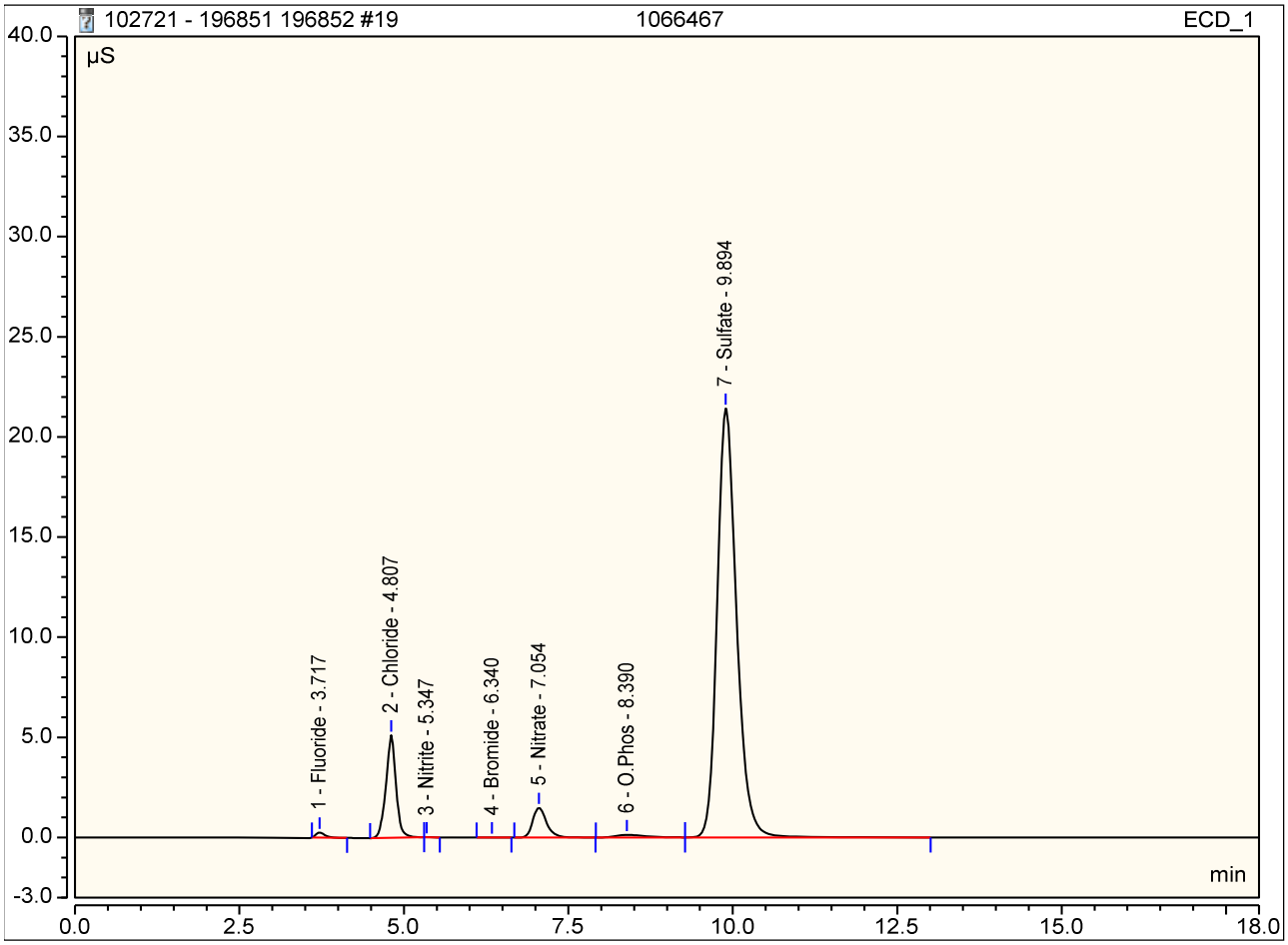
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.74	Chloride	0.006	0.034	0.5965
2	5.38	Nitrite	0.002	0.010	0.0220
3	6.35	Bromide	0.001	0.004	0.0024
4	7.07	Nitrate	0.003	0.012	0.0828
5	8.34	O.Phos	0.083	0.174	0.1692
6	9.93	Sulfate	0.005	0.013	0.7199



Peak Integration Report

Sample Name:	**1066467**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 19:03**	*Run Time:*	**18.00**

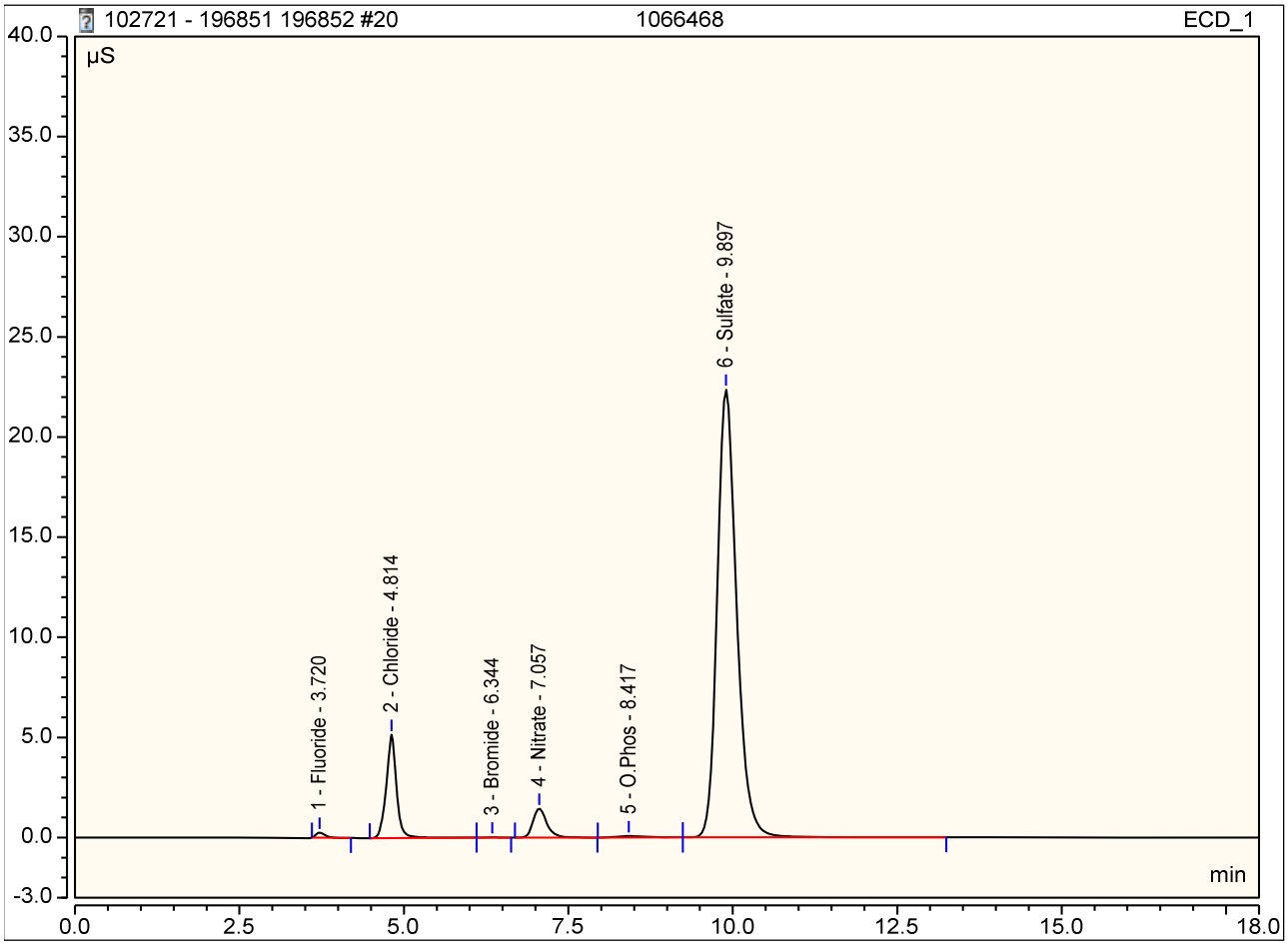
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.040	0.251	0.1864
2	4.81	Chloride	0.912	5.111	3.6136
3	5.35	Nitrite	0.000	0.002	0.0177
4	6.34	Bromide	0.003	0.014	0.0230
5	7.05	Nitrate	0.366	1.491	0.6518
6	8.39	O.Phos	0.064	0.130	0.0886
7	9.89	Sulfate	7.315	21.413	36.5896



Peak Integration Report

Sample Name:	**1066468**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 19:21**	*Run Time:*	**18.00**

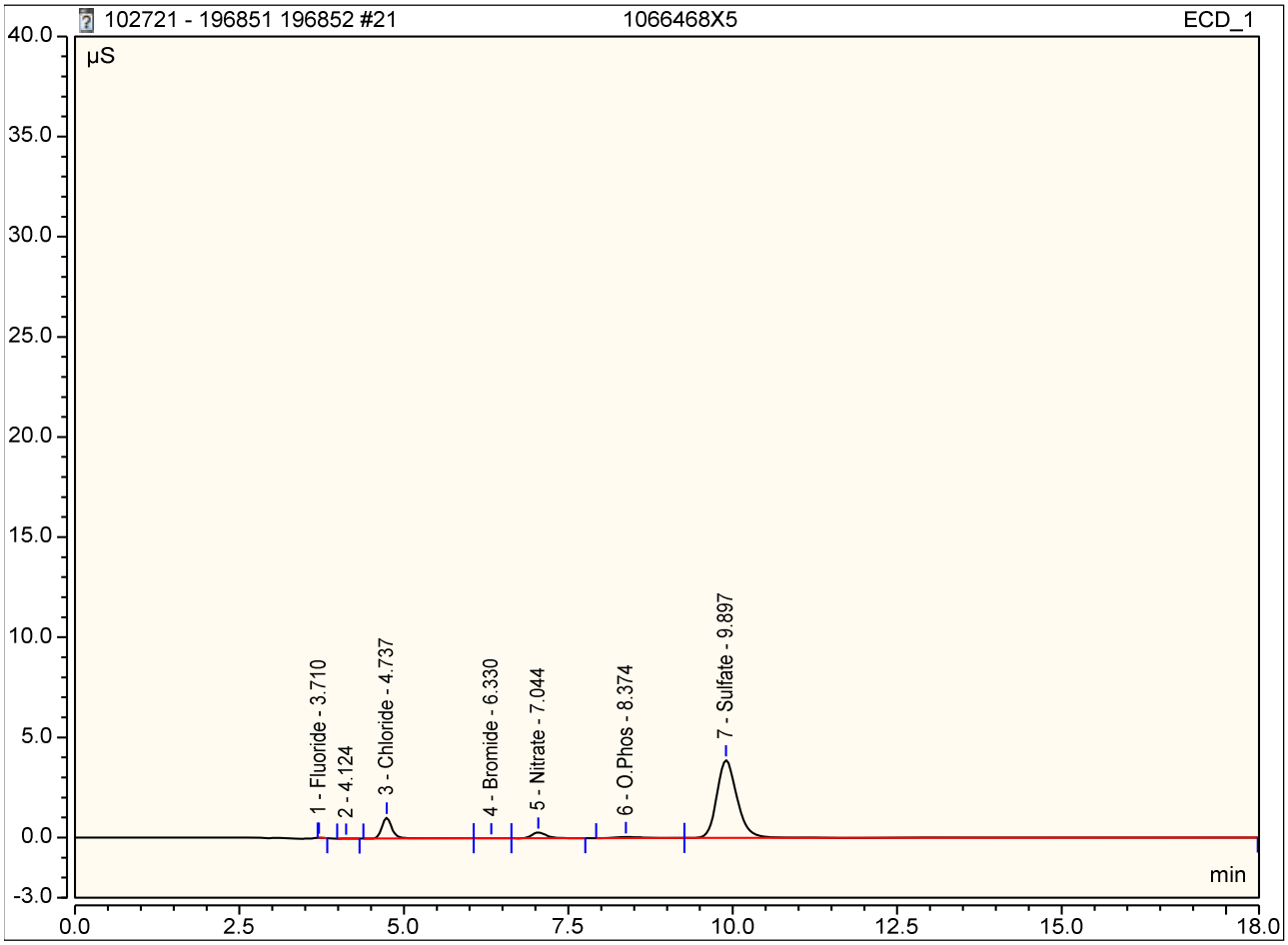
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.041	0.253	0.1886
2	4.81	Chloride	0.933	5.153	3.6833
3	6.34	Bromide	0.004	0.016	0.0277
4	7.06	Nitrate	0.358	1.449	0.6381
5	8.42	O.Phos	0.035	0.070	n.a.
6	9.90	Sulfate	7.666	22.365	38.3079



Peak Integration Report

Sample Name:	**1066468X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 19:39**	*Run Time:*	**18.00**

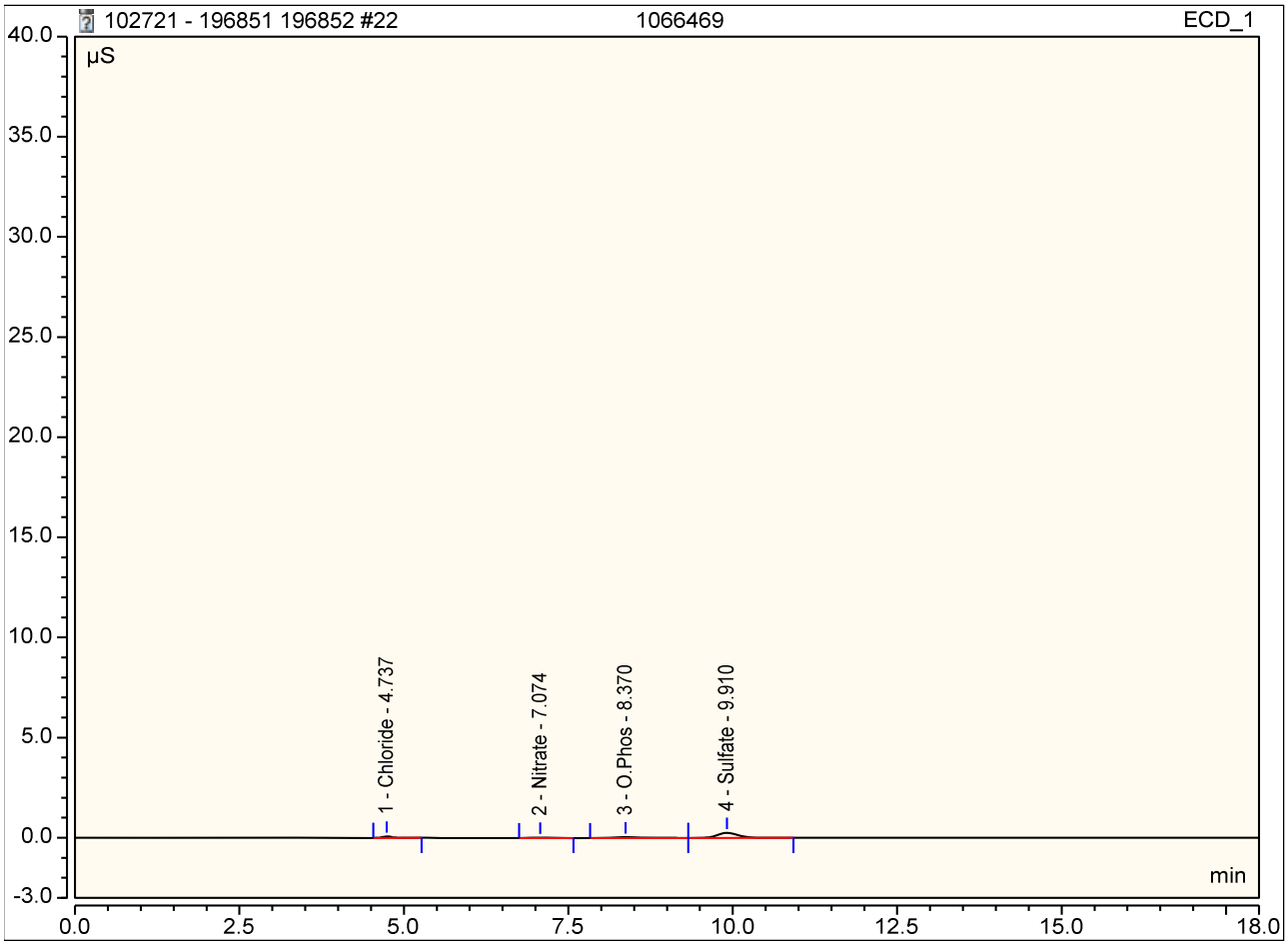
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.71	Fluoride	0.001	0.010	0.0794
3	4.74	Chloride	0.188	1.045	1.2029
4	6.33	Bromide	0.001	0.003	n.a.
5	7.04	Nitrate	0.073	0.293	0.1924
6	8.37	O.Phos	0.026	0.053	n.a.
7	9.90	Sulfate	1.417	3.879	7.6491



Peak Integration Report

Sample Name:	**1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 19:57**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.74	Chloride	0.013	0.076	0.6191
2	7.07	Nitrate	0.005	0.020	0.0856
3	8.37	O.Phos	0.018	0.035	n.a.
4	9.91	Sulfate	0.094	0.256	1.1558

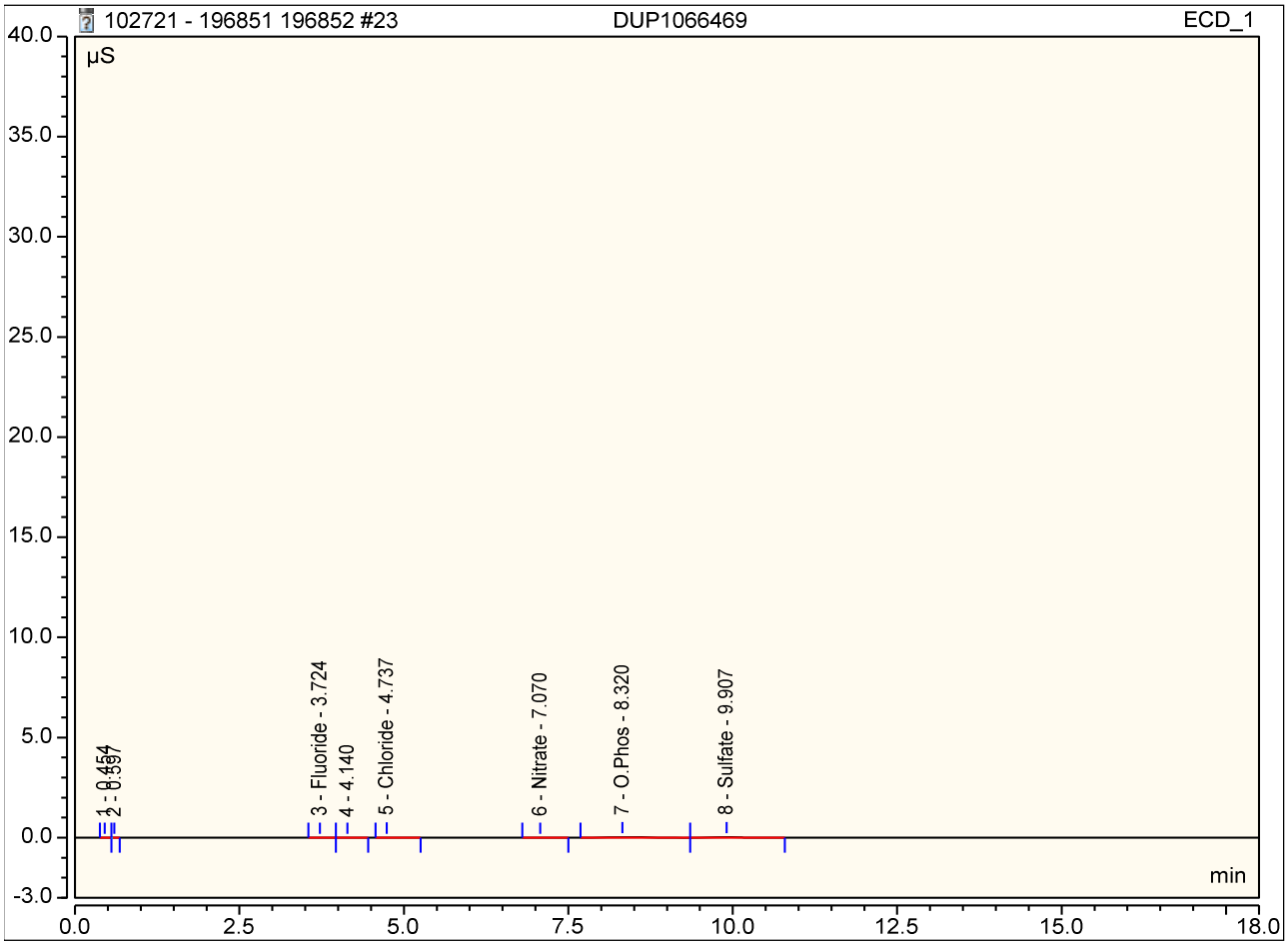


NOT USED

Peak Integration Report

Sample Name:	**DUP1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 20:15**	*Run Time:*	**18.00**

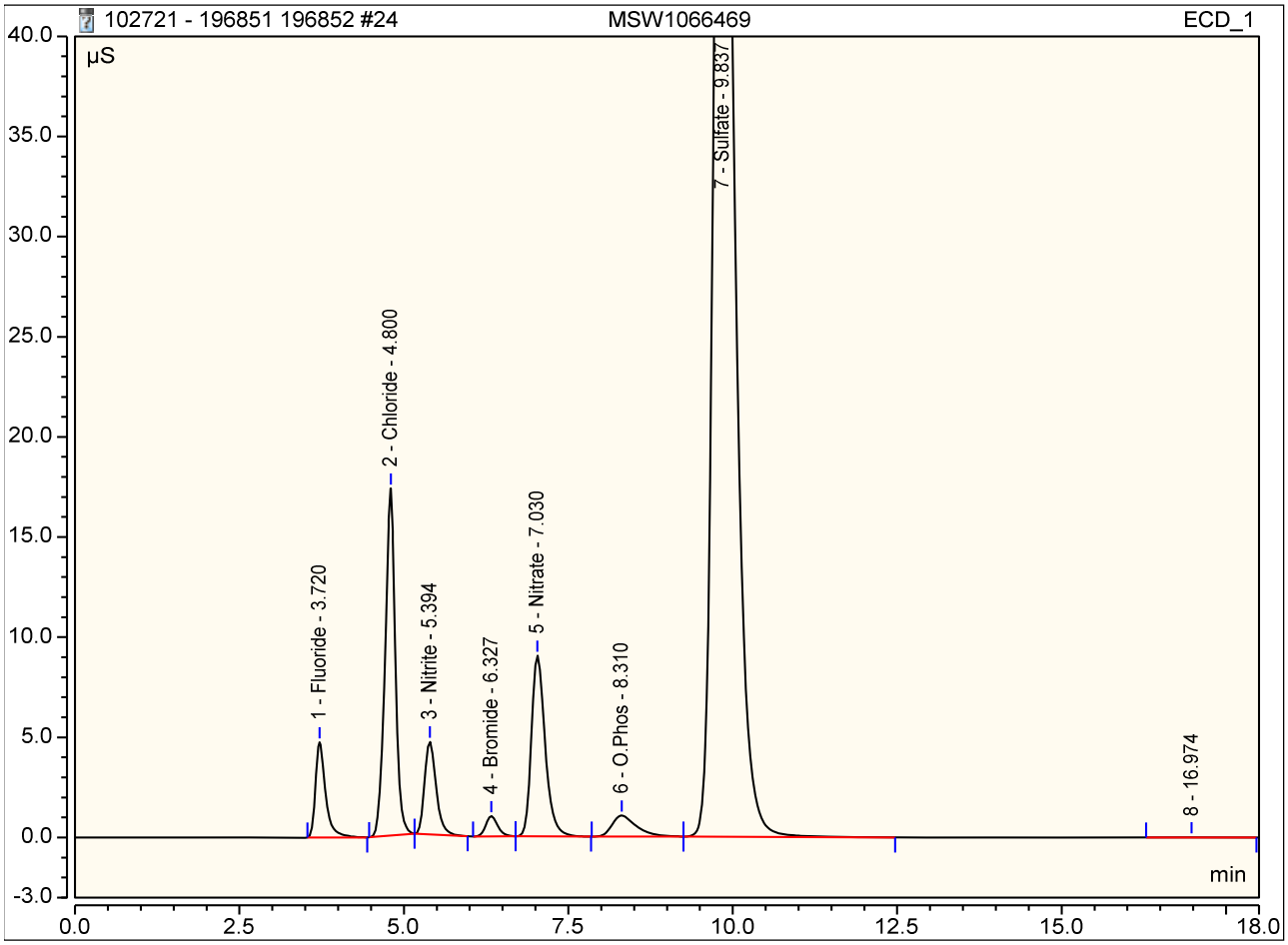
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	3.72	Fluoride	0.000	0.003	0.0782
5	4.74	Chloride	0.002	0.013	0.5834
6	7.07	Nitrate	0.001	0.003	0.0791
7	8.32	O.Phos	0.018	0.037	n.a.
8	9.91	Sulfate	0.013	0.036	0.7606



Peak Integration Report

Sample Name:	**MSW1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 20:33**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.845	4.754	2.3908
2	4.80	Chloride	3.133	17.339	11.0132
3	5.39	Nitrite	0.948	4.645	2.0508
4	6.33	Bromide	0.213	1.011	2.1843
5	7.03	Nitrate	2.193	9.029	3.5142
6	8.31	O.Phos	0.448	1.056	1.7467
7	9.84	Sulfate	24.090	69.332	118.8997

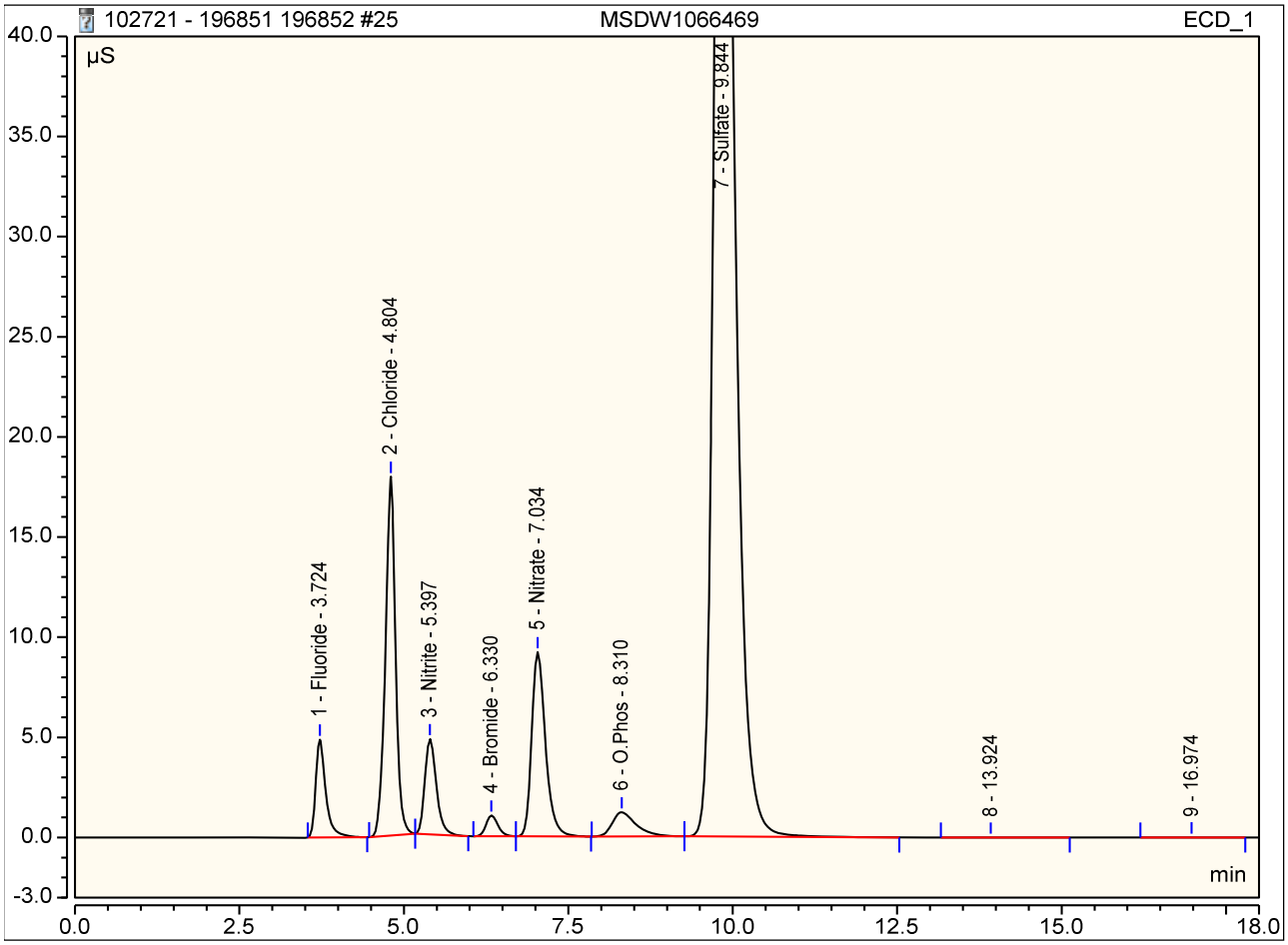


NOT USED

Peak Integration Report

Sample Name:	**MSDW1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 20:51**	*Run Time:*	**18.00**

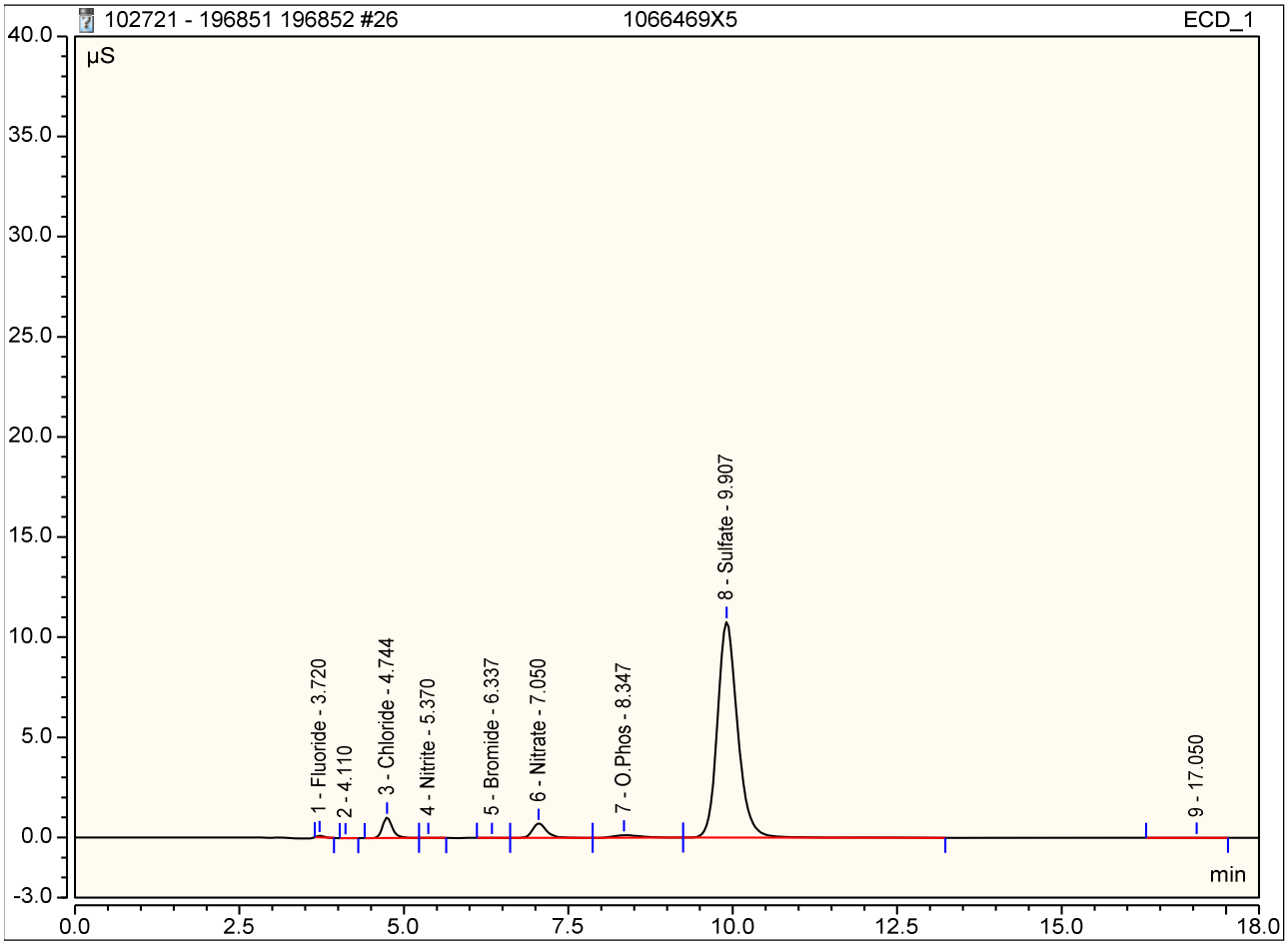
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.866	4.885	2.4486
2	4.80	Chloride	3.202	17.915	11.2436
3	5.40	Nitrite	0.972	4.764	2.1021
4	6.33	Bromide	0.219	1.039	2.2434
5	7.03	Nitrate	2.230	9.196	3.5726
6	8.31	O.Phos	0.506	1.207	1.9976
7	9.84	Sulfate	24.183	69.624	119.3551



Peak Integration Report

Sample Name:	**1066469X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 21:09**	*Run Time:*	**18.00**

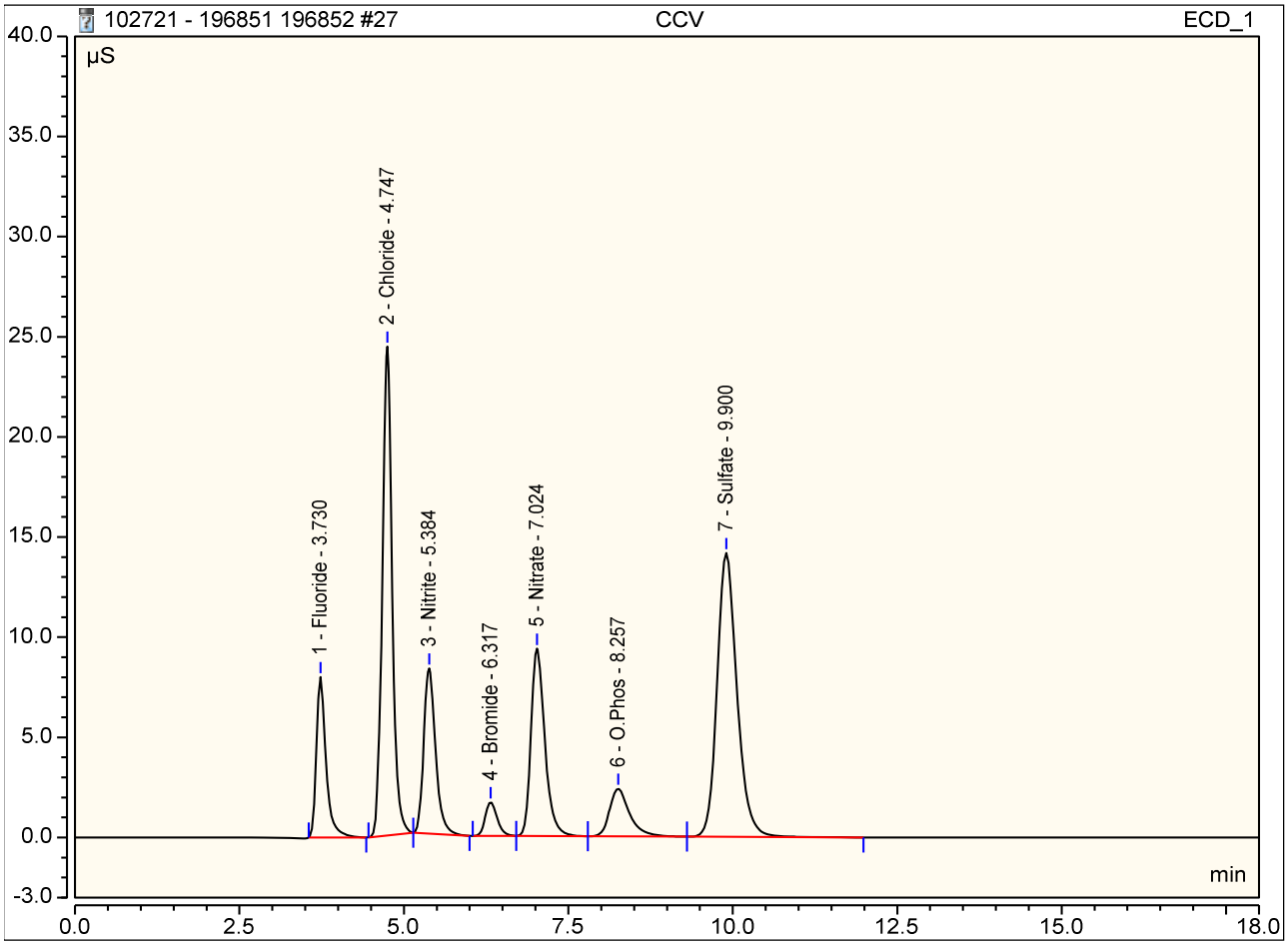
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.010	0.082	0.1044
3	4.74	Chloride	0.182	1.028	1.1829
4	5.37	Nitrite	0.001	0.008	0.0200
5	6.34	Bromide	0.001	0.006	0.0046
6	7.05	Nitrate	0.179	0.709	0.3581
7	8.35	O.Phos	0.060	0.129	0.0718
8	9.91	Sulfate	3.820	10.774	19.4398



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 21:27**	*Run Time:*	**18.00**

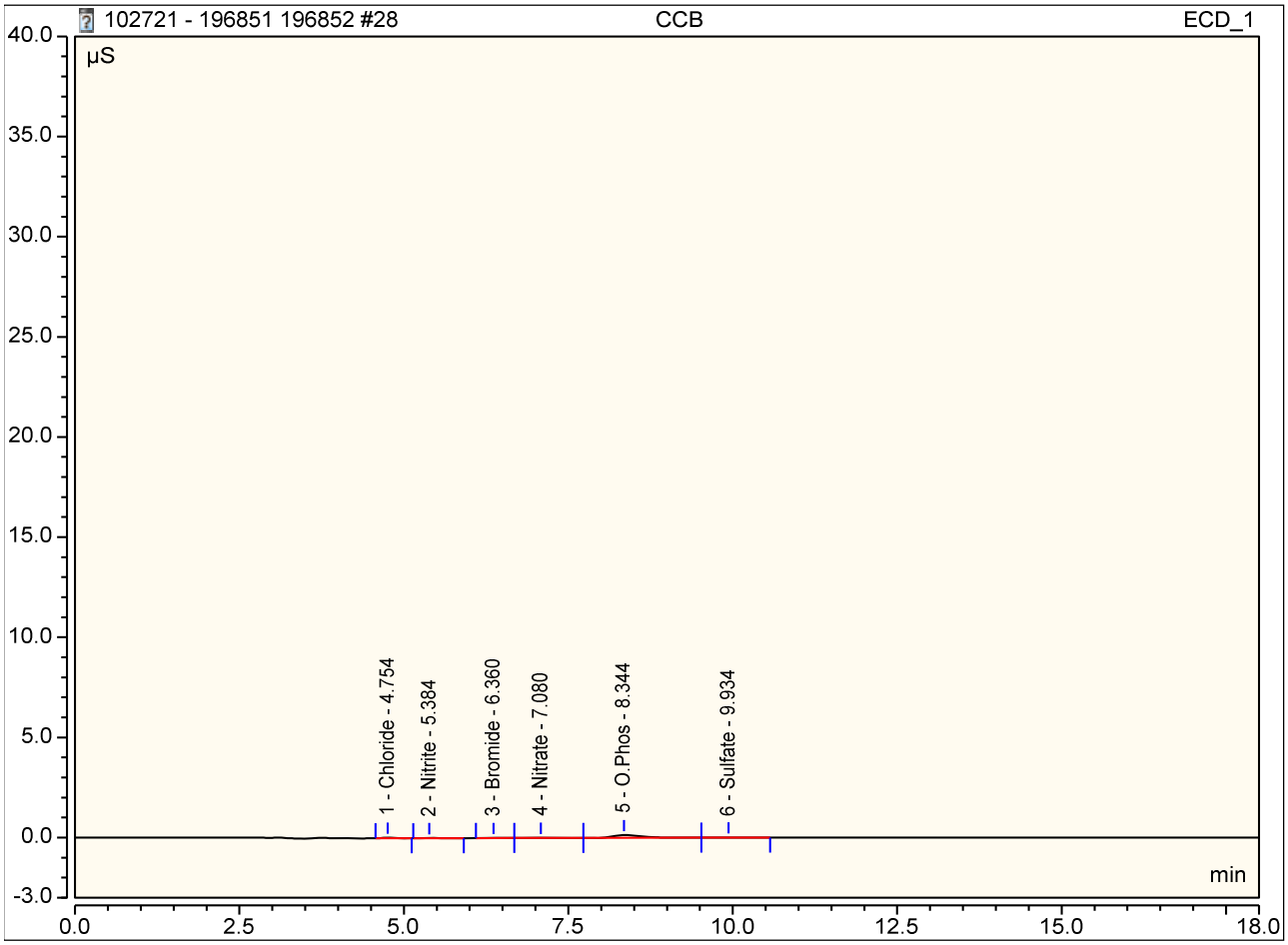
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	1.361	8.006	3.8048
2	4.75	Chloride	4.223	24.417	14.6466
3	5.38	Nitrite	1.719	8.252	3.7061
4	6.32	Bromide	0.356	1.685	3.6528
5	7.02	Nitrate	2.276	9.347	3.6449
6	8.26	O.Phos	0.840	2.382	3.4399
7	9.90	Sulfate	4.954	14.170	25.0023



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 21:45**	*Run Time:*	**18.00**

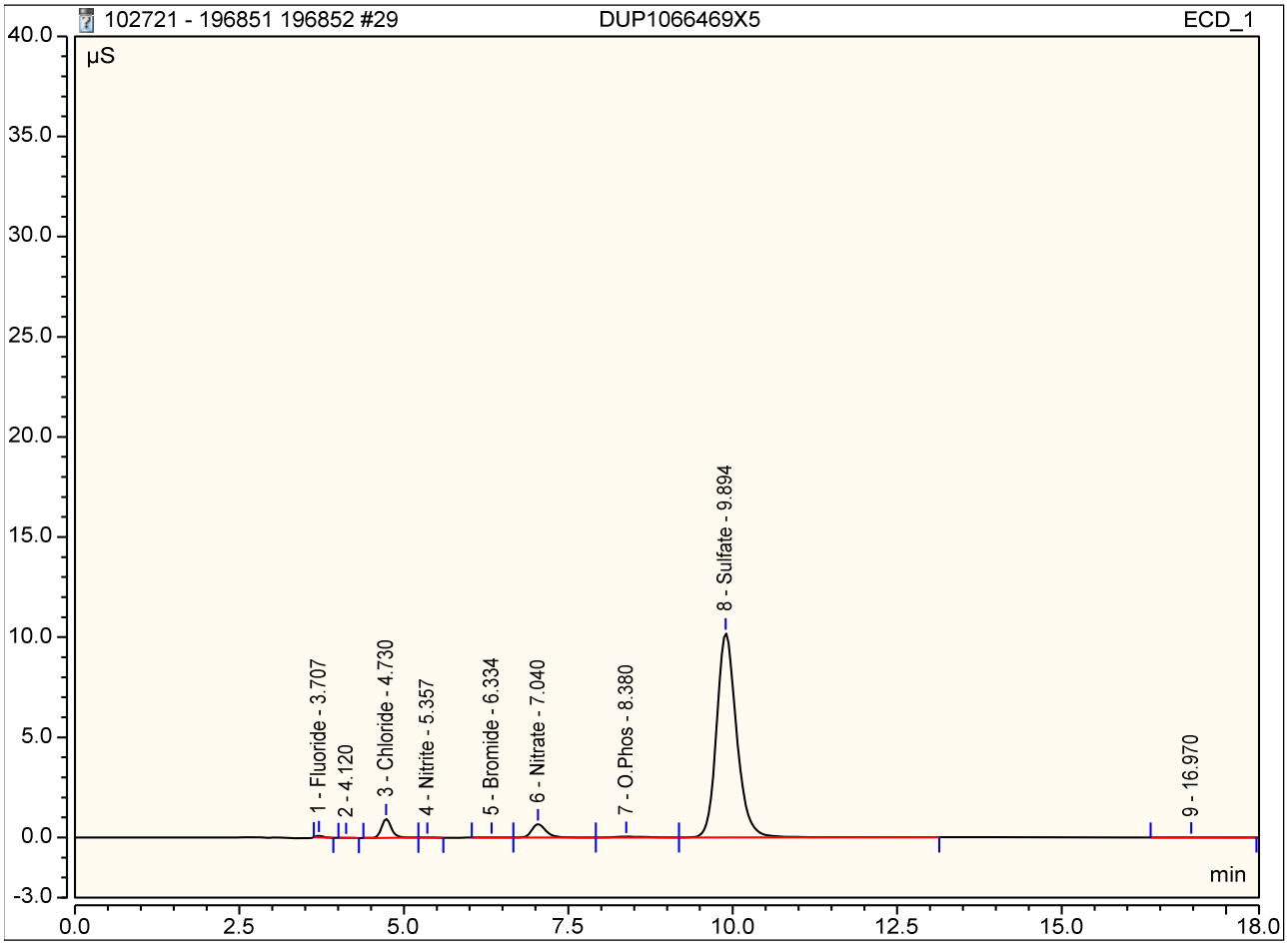
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.75	Chloride	0.006	0.035	0.5970
2	5.38	Nitrite	0.002	0.010	0.0219
3	6.36	Bromide	0.001	0.003	0.0001
4	7.08	Nitrate	0.003	0.012	0.0832
5	8.34	O.Phos	0.067	0.139	0.1006
6	9.93	Sulfate	0.006	0.016	0.7246



Peak Integration Report

Sample Name:	**DUP1066469X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 22:03**	*Run Time:*	**18.00**

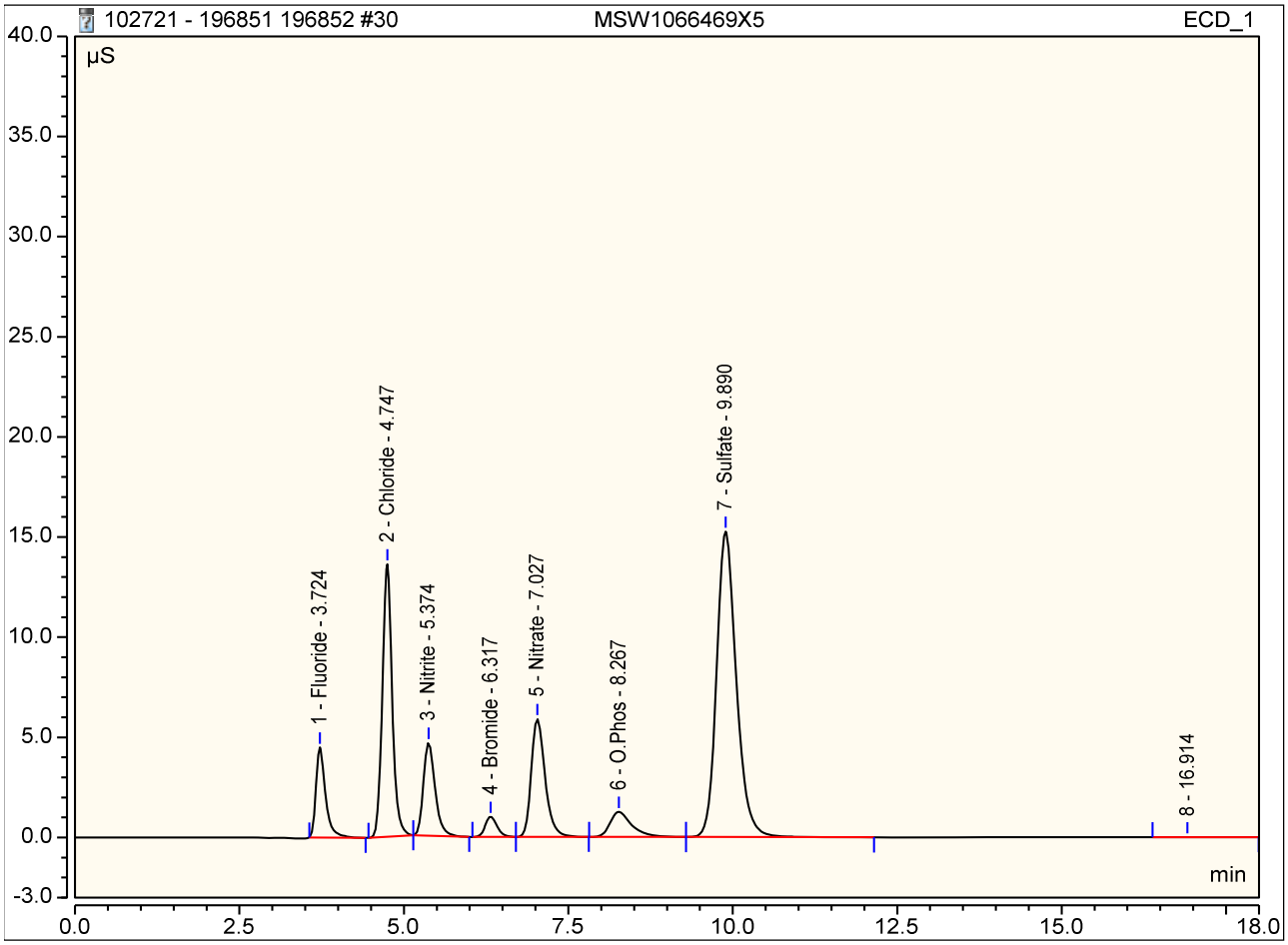
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.71	Fluoride	0.010	0.081	0.1050
3	4.73	Chloride	0.168	0.947	1.1355
4	5.36	Nitrite	0.001	0.005	0.0188
5	6.33	Bromide	0.002	0.010	0.0162
6	7.04	Nitrate	0.167	0.666	0.3397
7	8.38	O.Phos	0.020	0.041	n.a.
8	9.89	Sulfate	3.606	10.184	18.3865



Peak Integration Report

Sample Name:	**MSW1066469X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 22:21**	*Run Time:*	**18.00**

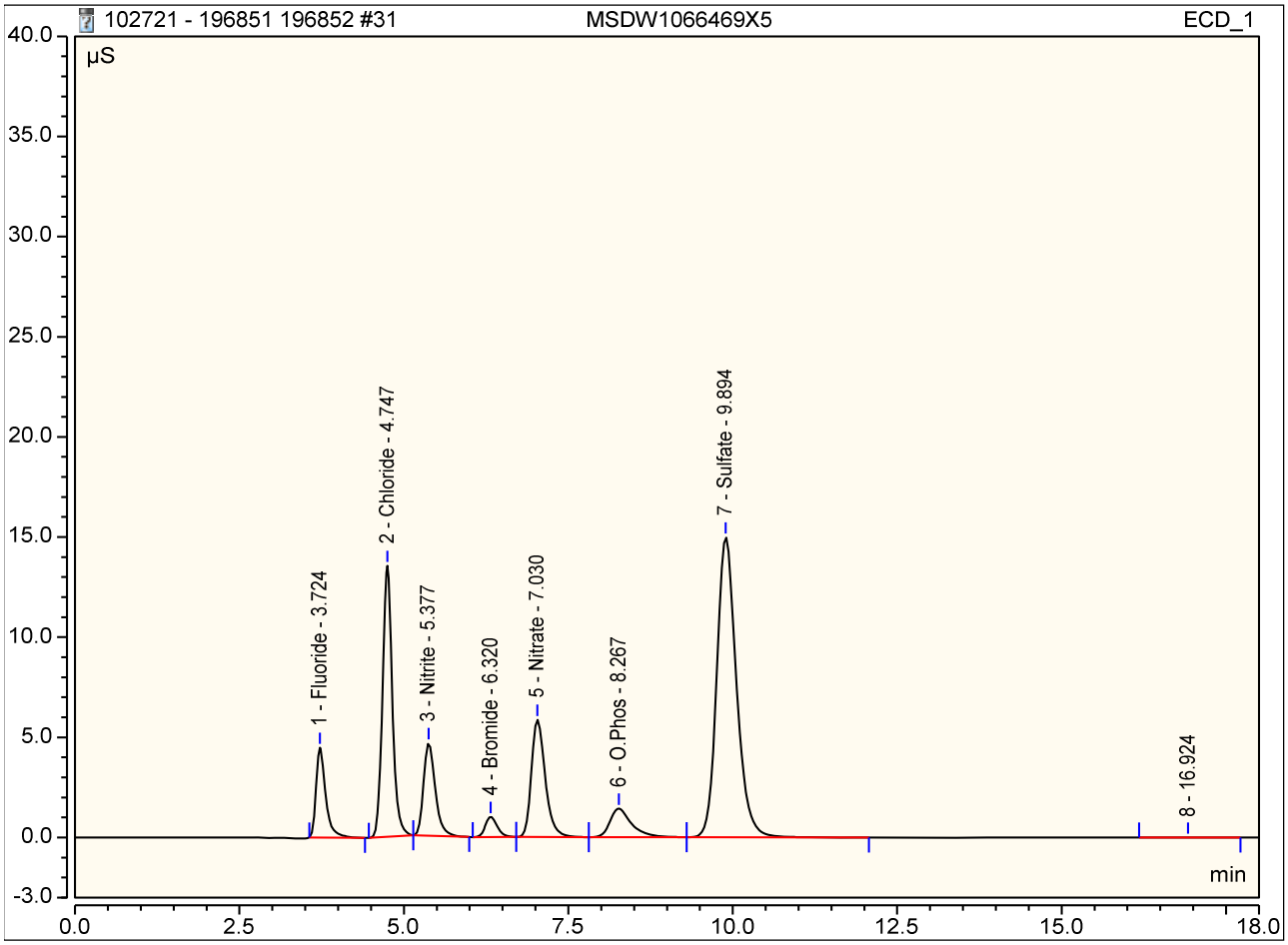
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.760	4.497	2.1582
2	4.75	Chloride	2.346	13.609	8.3926
3	5.37	Nitrite	0.960	4.643	2.0764
4	6.32	Bromide	0.214	1.012	2.1897
5	7.03	Nitrate	1.438	5.895	2.3311
6	8.27	O.Phos	0.482	1.258	1.8913
7	9.89	Sulfate	5.311	15.253	26.7543



Peak Integration Report

Sample Name:	**MSDW1066469X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 22:39**	*Run Time:*	**18.00**

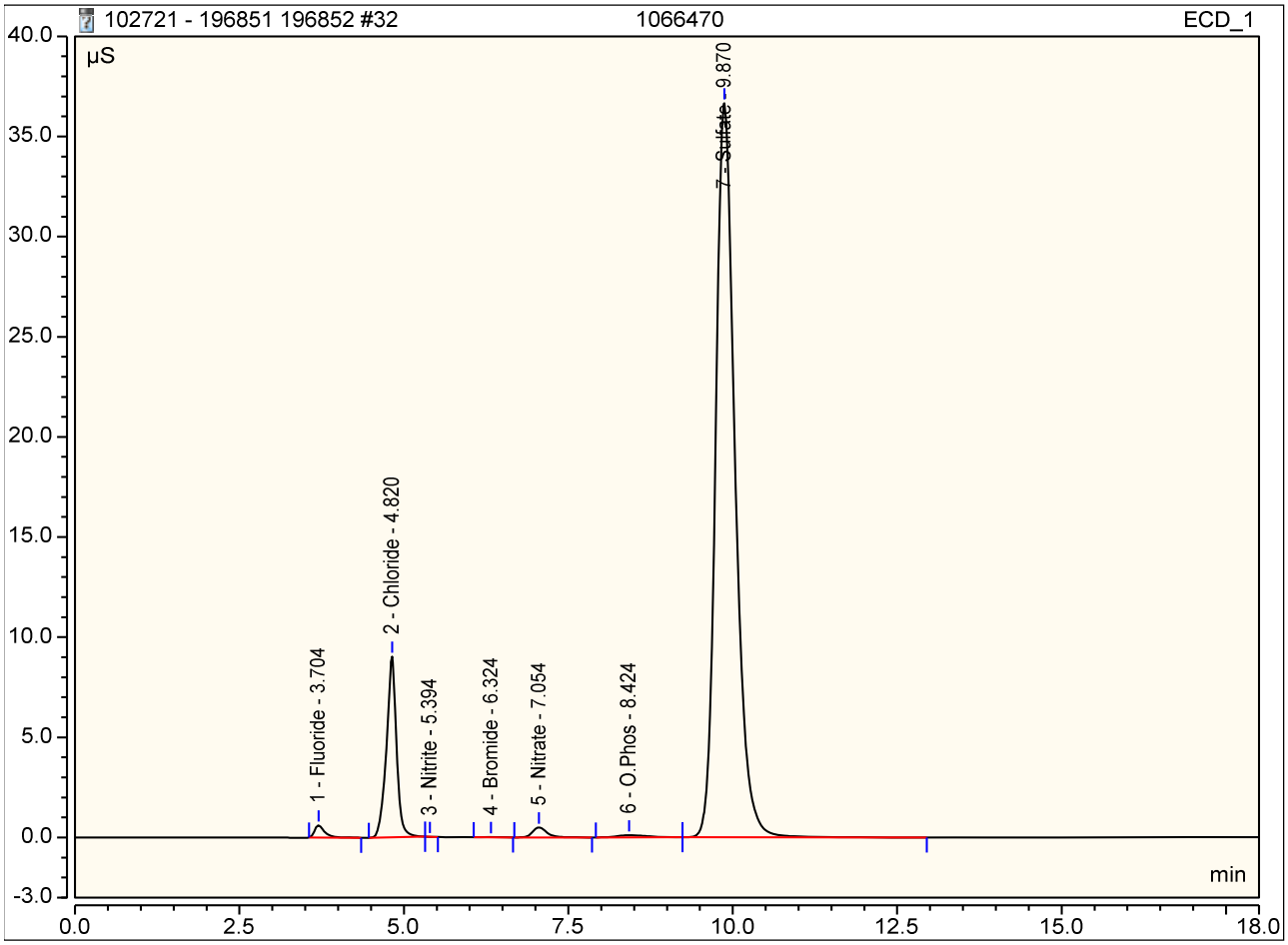
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.757	4.484	2.1519
2	4.75	Chloride	2.333	13.531	8.3506
3	5.38	Nitrite	0.955	4.624	2.0665
4	6.32	Bromide	0.213	1.008	2.1789
5	7.03	Nitrate	1.429	5.856	2.3179
6	8.27	O.Phos	0.539	1.426	2.1386
7	9.89	Sulfate	5.212	14.981	26.2683



Peak Integration Report

Sample Name:	**1066470**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 22:57**	*Run Time:*	**18.00**

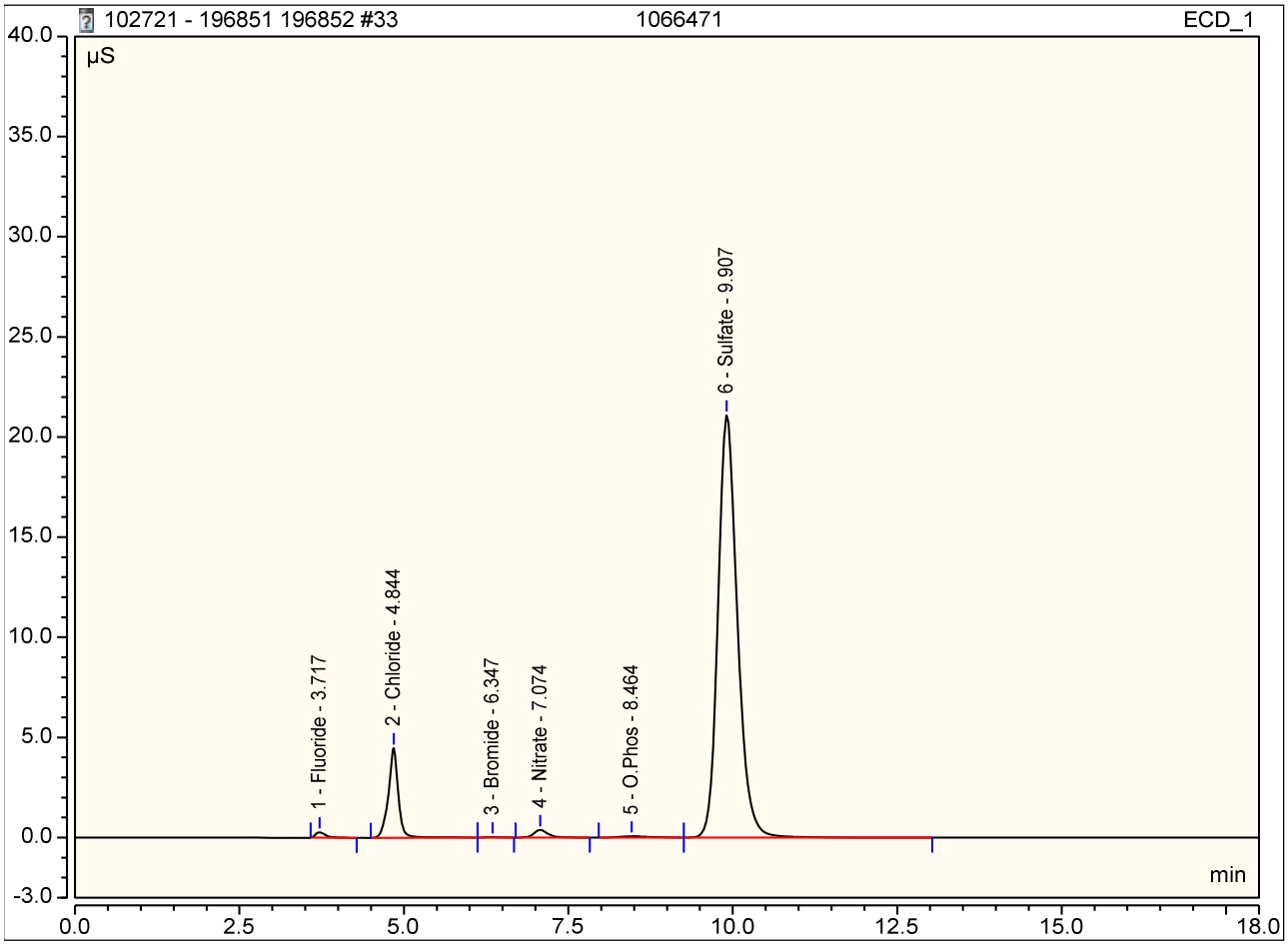
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.70	Fluoride	0.109	0.611	0.3747
2	4.82	Chloride	1.613	9.029	5.9519
3	5.39	Nitrite	0.000	0.003	0.0174
4	6.32	Bromide	0.003	0.016	0.0273
5	7.05	Nitrate	0.124	0.499	0.2725
6	8.42	O.Phos	0.054	0.105	0.0427
7	9.87	Sulfate	12.509	36.645	62.0751



Peak Integration Report

Sample Name:	**1066471**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 23:15**	*Run Time:*	**18.00**

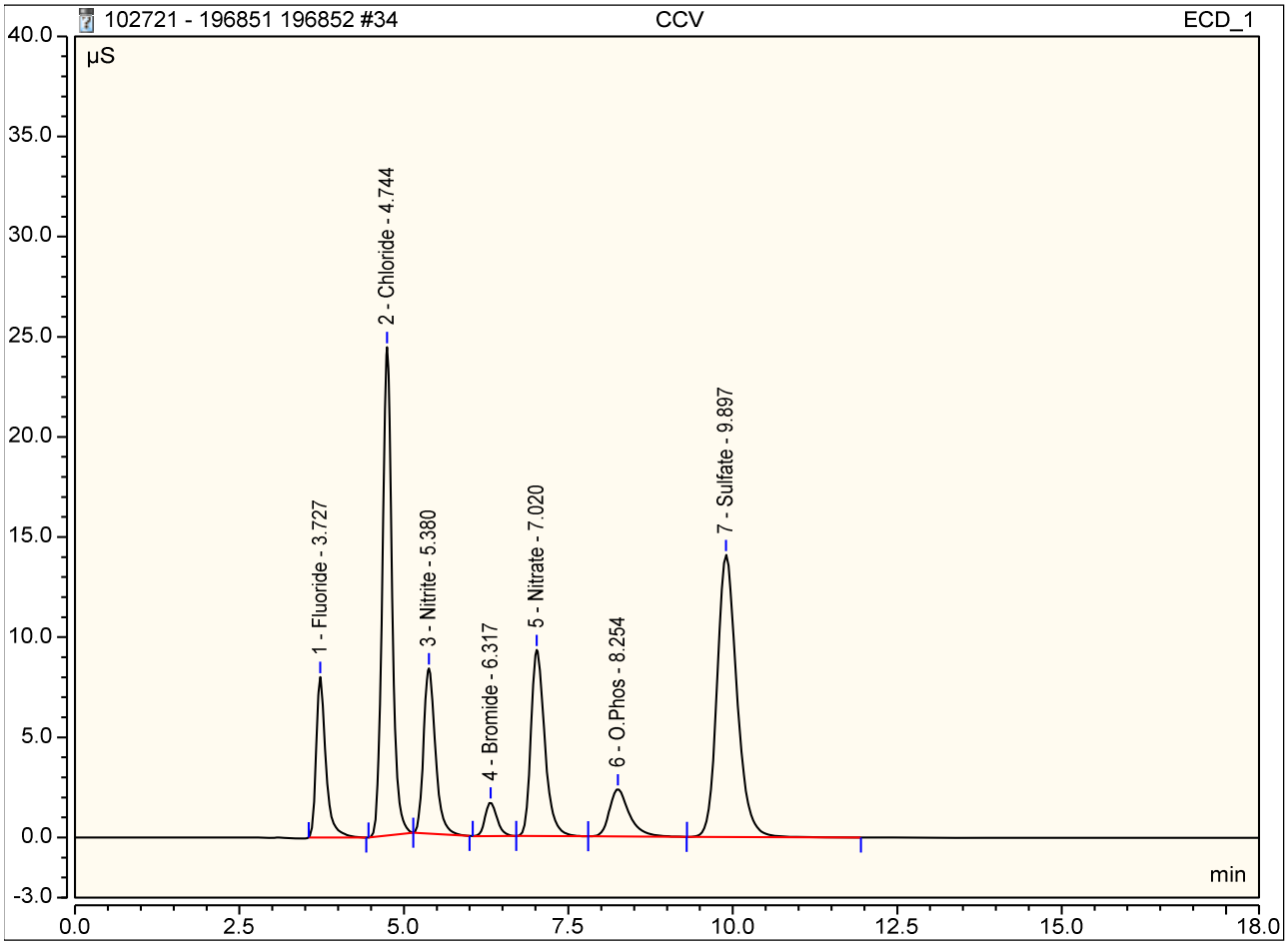
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.047	0.273	0.2057
2	4.84	Chloride	0.785	4.472	3.1903
3	6.35	Bromide	0.003	0.012	0.0181
4	7.07	Nitrate	0.092	0.373	0.2220
5	8.46	O.Phos	0.030	0.058	n.a.
6	9.91	Sulfate	7.206	21.083	36.0523



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 23:34**	*Run Time:*	**18.00**

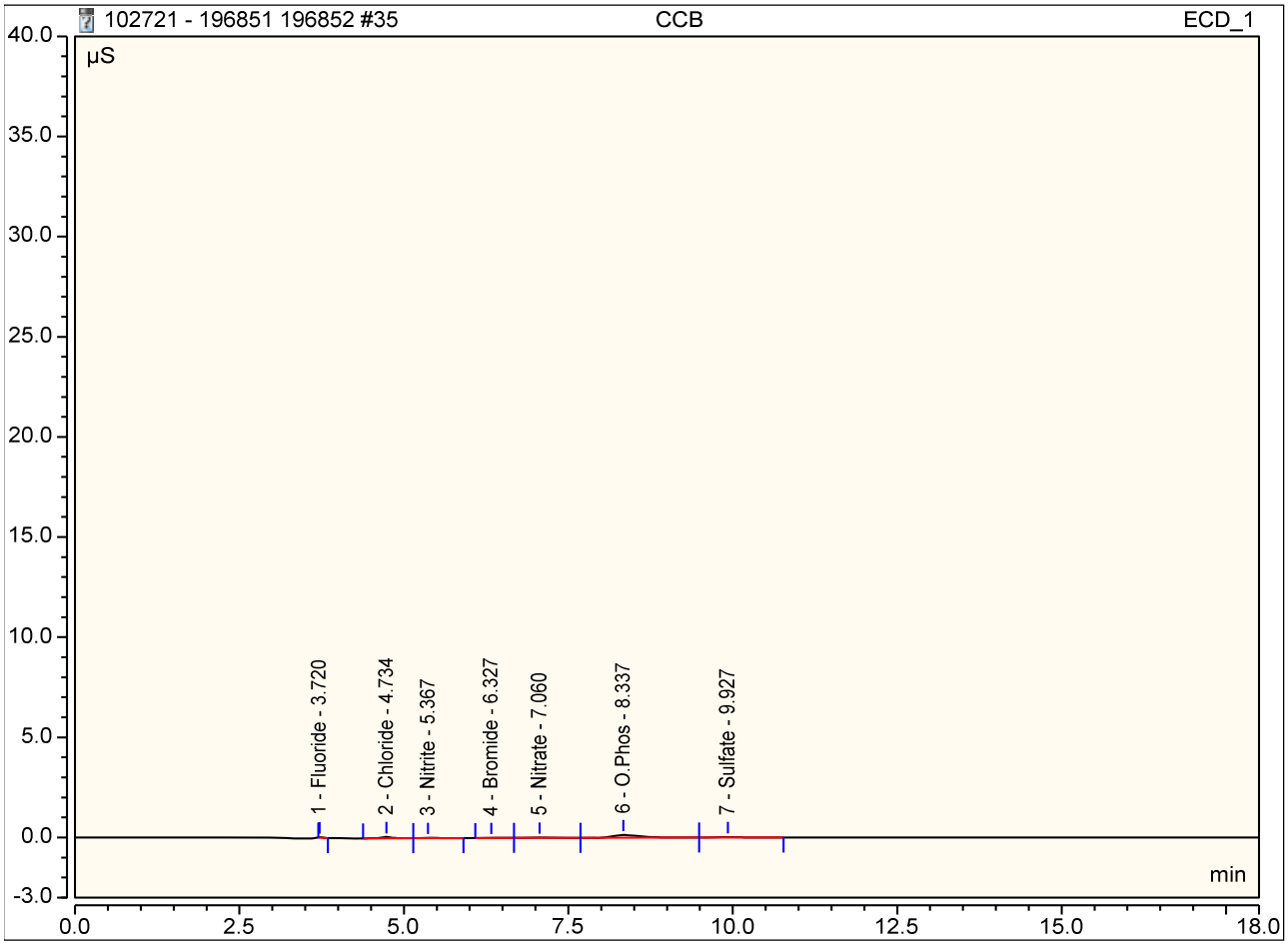
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	1.357	8.014	3.7956
2	4.74	Chloride	4.202	24.389	14.5768
3	5.38	Nitrite	1.716	8.255	3.7007
4	6.32	Bromide	0.354	1.677	3.6338
5	7.02	Nitrate	2.265	9.296	3.6269
6	8.25	O.Phos	0.829	2.365	3.3913
7	9.90	Sulfate	4.931	14.083	24.8881



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**27-Oct-2021 / 23:52**	*Run Time:*	**18.00**

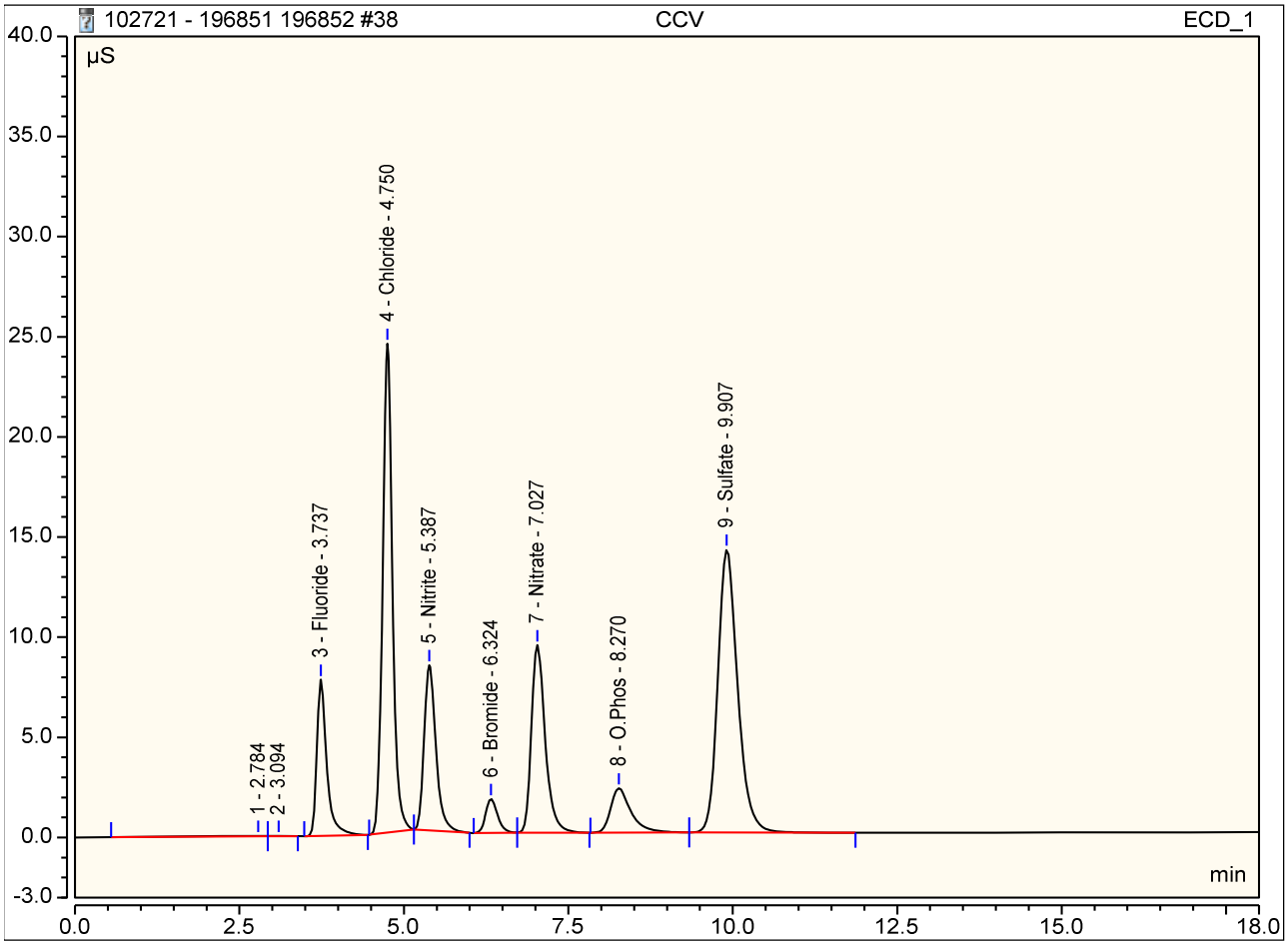
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.001	0.010	0.0793
2	4.73	Chloride	0.012	0.063	0.6165
3	5.37	Nitrite	0.004	0.019	0.0257
4	6.33	Bromide	0.001	0.005	0.0038
5	7.06	Nitrate	0.005	0.021	0.0864
6	8.34	O.Phos	0.064	0.133	0.0875
7	9.93	Sulfate	0.010	0.027	0.7444



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 07:28**	*Run Time:*	**18.00**

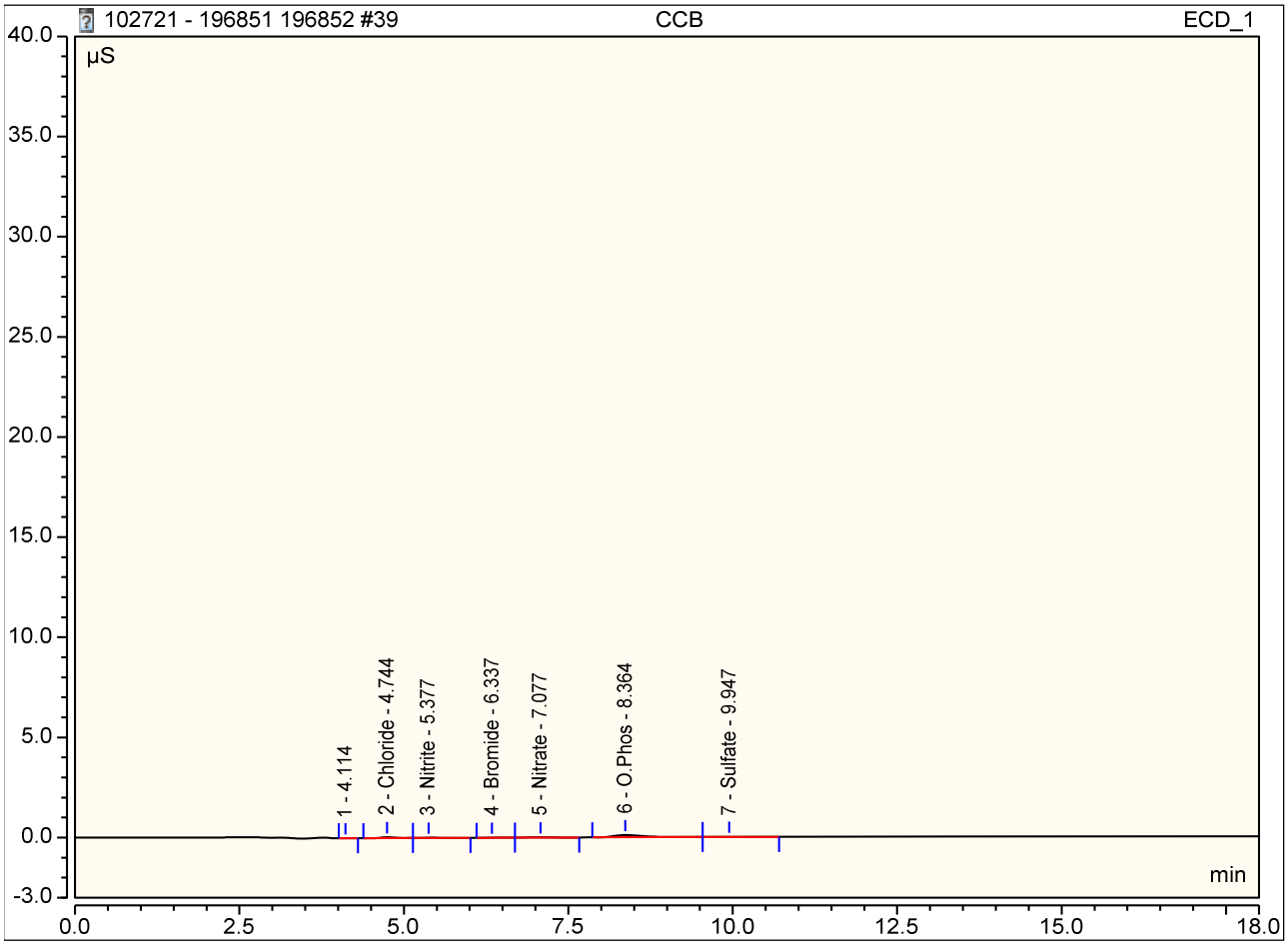
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	3.74	Fluoride	1.364	7.800	3.8137
4	4.75	Chloride	4.209	24.413	14.6007
5	5.39	Nitrite	1.716	8.259	3.6991
6	6.32	Bromide	0.355	1.686	3.6390
7	7.03	Nitrate	2.275	9.357	3.6437
8	8.27	O.Phos	0.792	2.210	3.2297
9	9.91	Sulfate	4.936	14.127	24.9167



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 07:46**	*Run Time:*	**18.00**

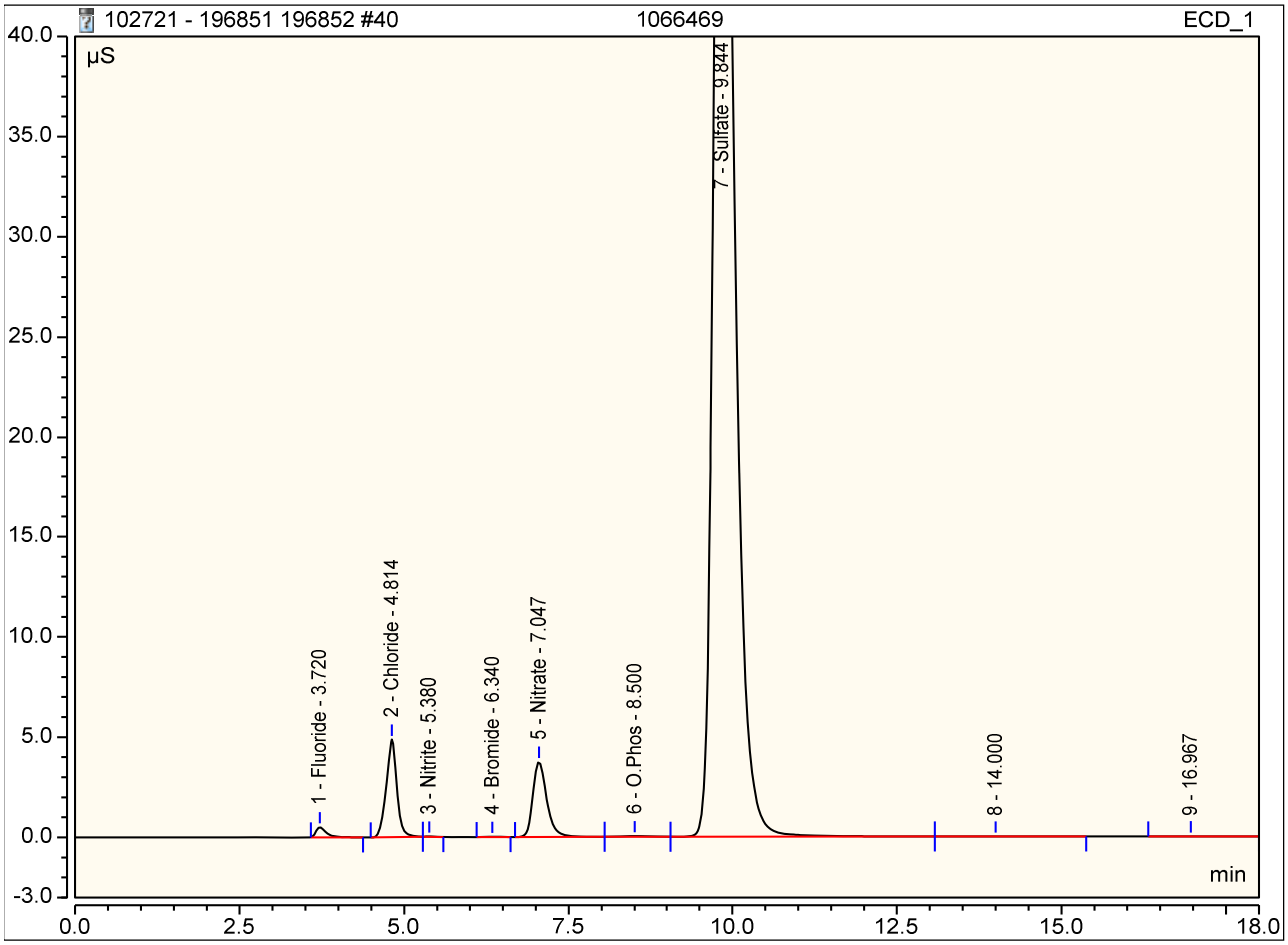
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	4.74	Chloride	0.011	0.052	0.6111
3	5.38	Nitrite	0.004	0.017	0.0251
4	6.34	Bromide	0.002	0.007	0.0076
5	7.08	Nitrate	0.005	0.017	0.0851
6	8.36	O.Phos	0.056	0.113	0.0545
7	9.95	Sulfate	0.007	0.019	0.7297



Peak Integration Report

Sample Name:	**1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 08:04**	*Run Time:*	**18.00**

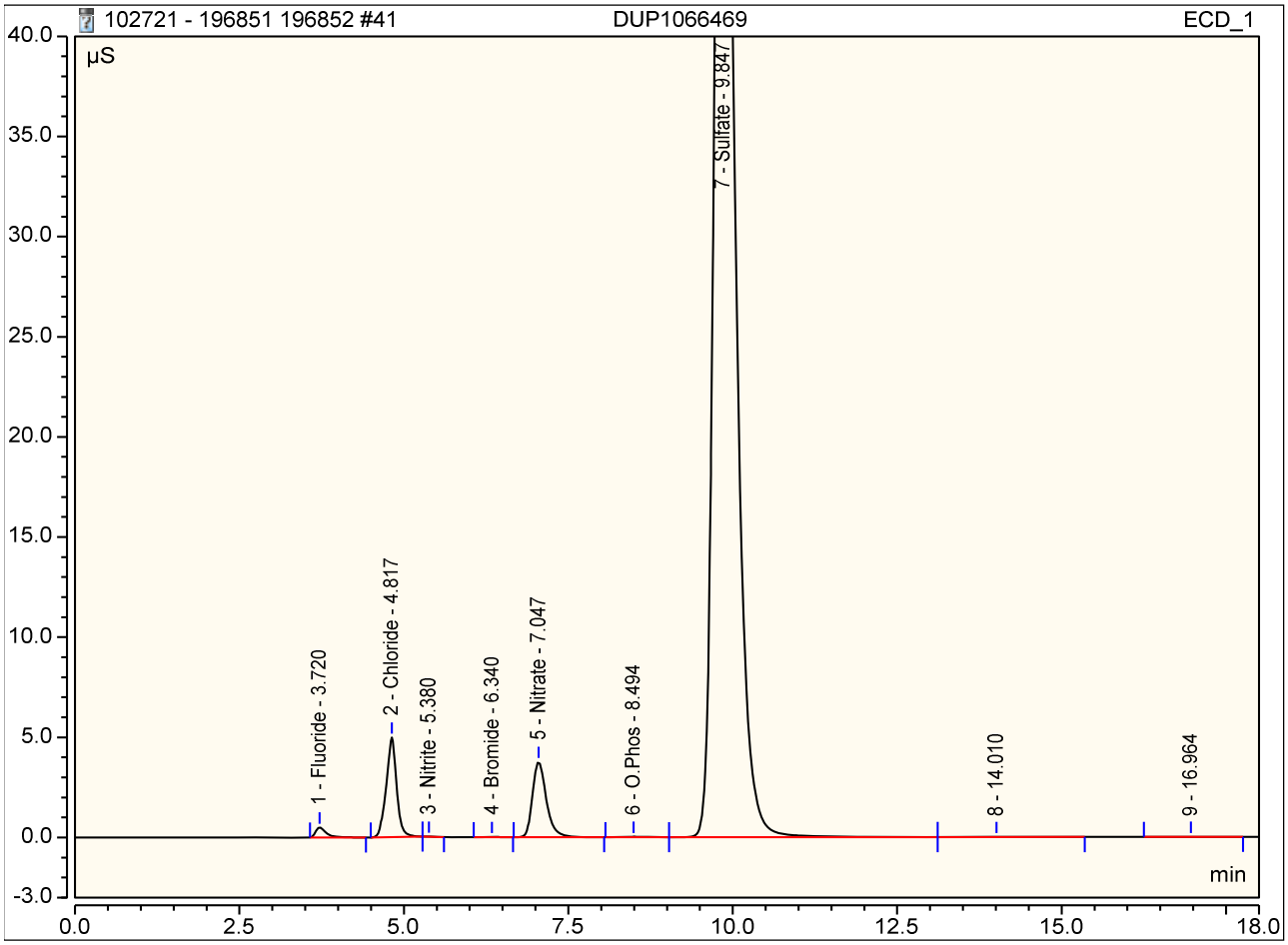
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.092	0.502	0.3281
2	4.81	Chloride	0.914	4.865	3.6198
3	5.38	Nitrite	0.002	0.012	0.0208
4	6.34	Bromide	0.004	0.018	0.0295
5	7.05	Nitrate	0.917	3.751	1.5142
6	8.50	O.Phos	0.015	0.033	n.a.
7	9.84	Sulfate	23.667	68.651	116.8250



Peak Integration Report

Sample Name:	**DUP1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 08:22**	*Run Time:*	**18.00**

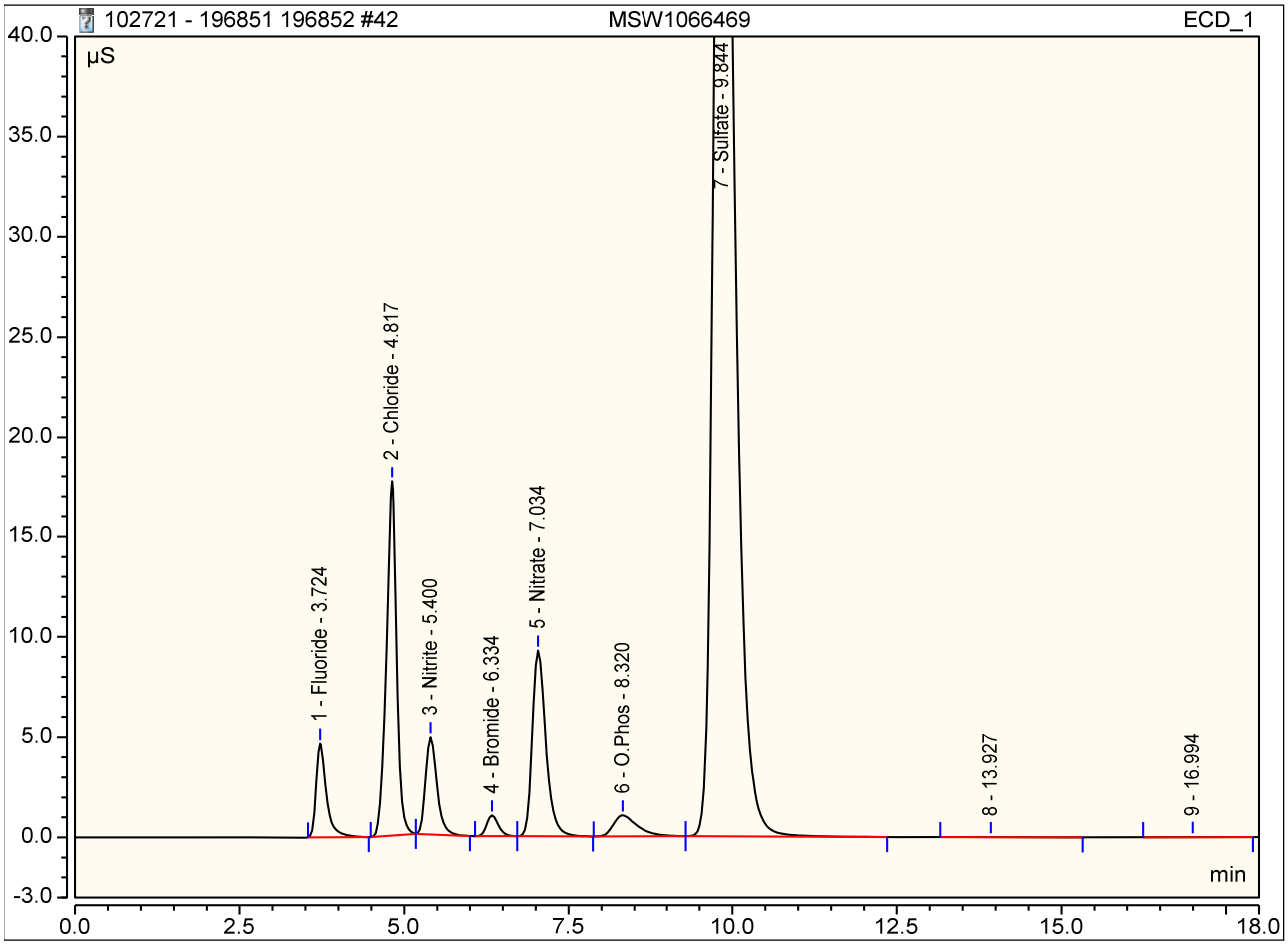
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.093	0.502	0.3321
2	4.82	Chloride	0.918	4.975	3.6329
3	5.38	Nitrite	0.002	0.011	0.0205
4	6.34	Bromide	0.004	0.018	0.0317
5	7.05	Nitrate	0.922	3.769	1.5222
6	8.49	O.Phos	0.010	0.023	n.a.
7	9.85	Sulfate	23.741	68.853	117.1888



Peak Integration Report

Sample Name:	**MSW1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 08:40**	*Run Time:*	**18.00**

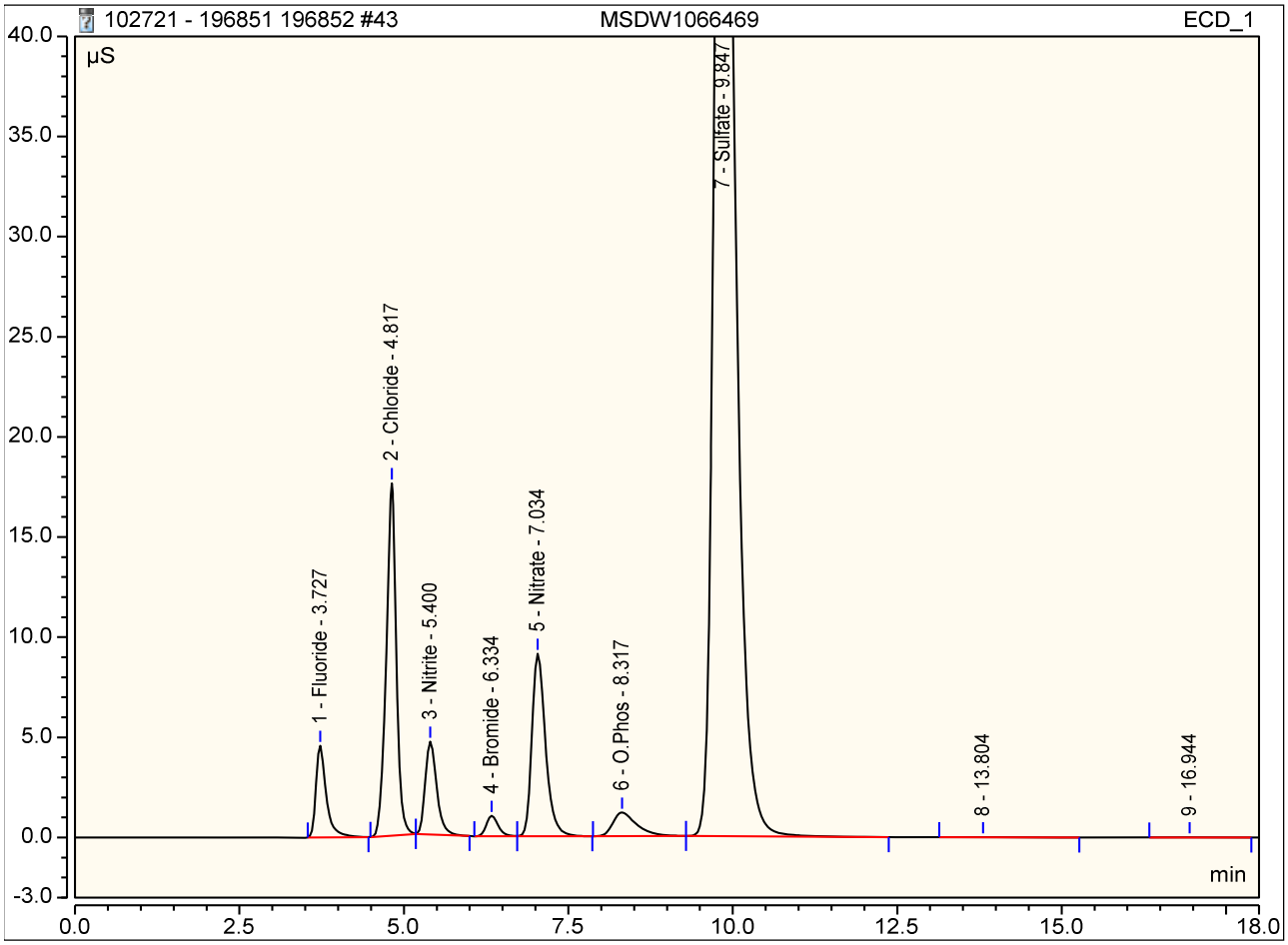
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.848	4.667	2.3998
2	4.82	Chloride	3.170	17.667	11.1375
3	5.40	Nitrite	0.978	4.841	2.1159
4	6.33	Bromide	0.216	1.037	2.2103
5	7.03	Nitrate	2.217	9.263	3.5527
6	8.32	O.Phos	0.451	1.054	1.7565
7	9.84	Sulfate	24.179	70.133	119.3351



Peak Integration Report

Sample Name:	**MSDW1066469**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 08:58**	*Run Time:*	**18.00**

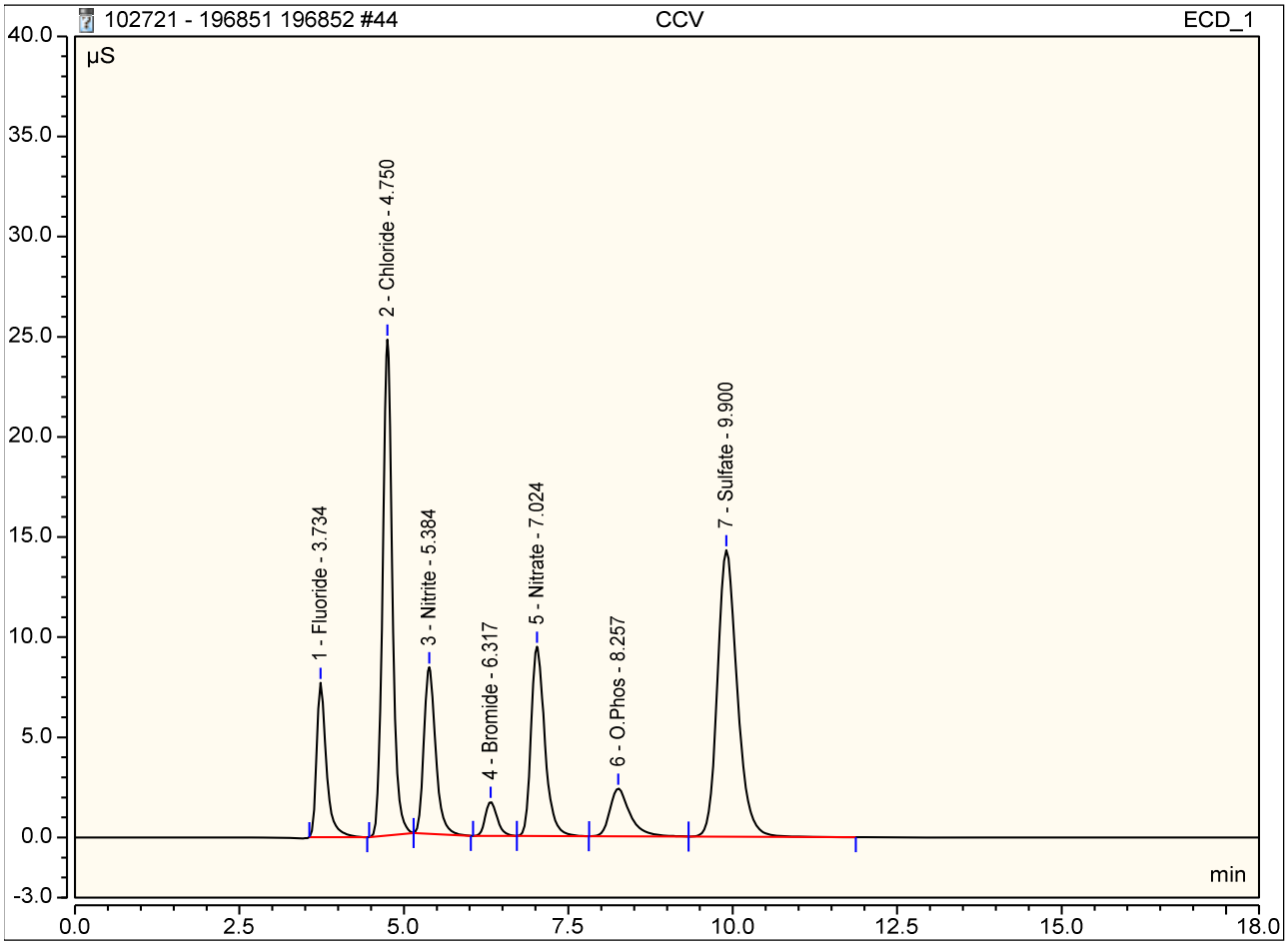
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.831	4.572	2.3530
2	4.82	Chloride	3.116	17.592	10.9588
3	5.40	Nitrite	0.937	4.639	2.0291
4	6.33	Bromide	0.212	1.016	2.1686
5	7.03	Nitrate	2.184	9.112	3.4998
6	8.32	O.Phos	0.498	1.183	1.9627
7	9.85	Sulfate	24.195	70.138	119.4165



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 09:16**	*Run Time:*	**18.00**

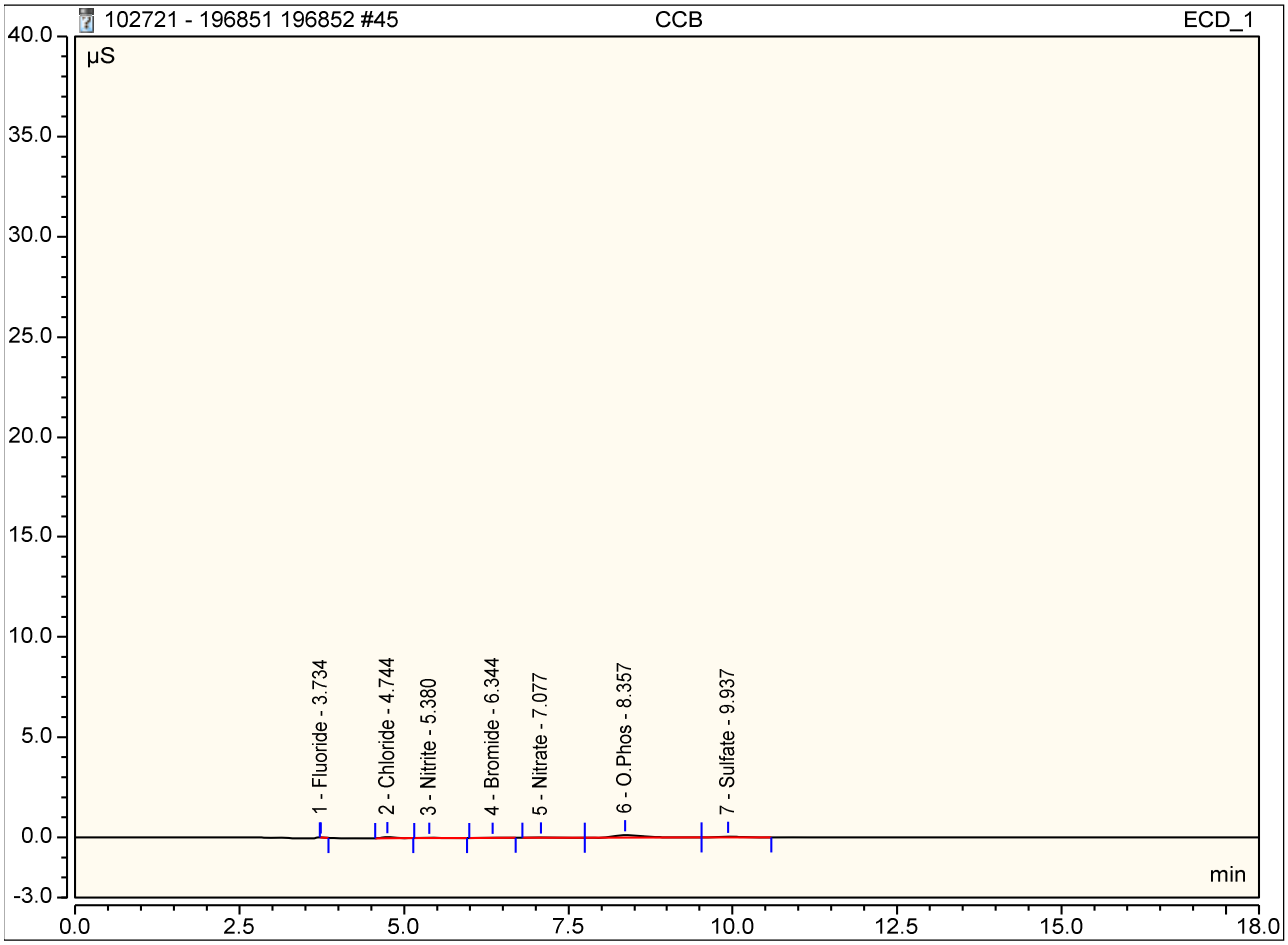
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	1.335	7.714	3.7348
2	4.75	Chloride	4.230	24.767	14.6695
3	5.38	Nitrite	1.722	8.313	3.7130
4	6.32	Bromide	0.357	1.704	3.6627
5	7.02	Nitrate	2.280	9.443	3.6504
6	8.26	O.Phos	0.838	2.382	3.4309
7	9.90	Sulfate	4.975	14.302	25.1043



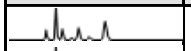
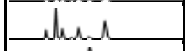
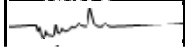
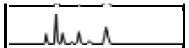
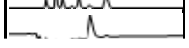
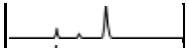
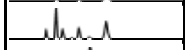
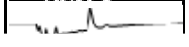
Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 09:34**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.001	0.005	0.0783
2	4.74	Chloride	0.011	0.062	0.6138
3	5.38	Nitrite	0.004	0.019	0.0262
4	6.34	Bromide	0.003	0.014	0.0246
5	7.08	Nitrate	0.006	0.023	0.0876
6	8.36	O.Phos	0.064	0.129	0.0867
7	9.94	Sulfate	0.015	0.041	0.7697



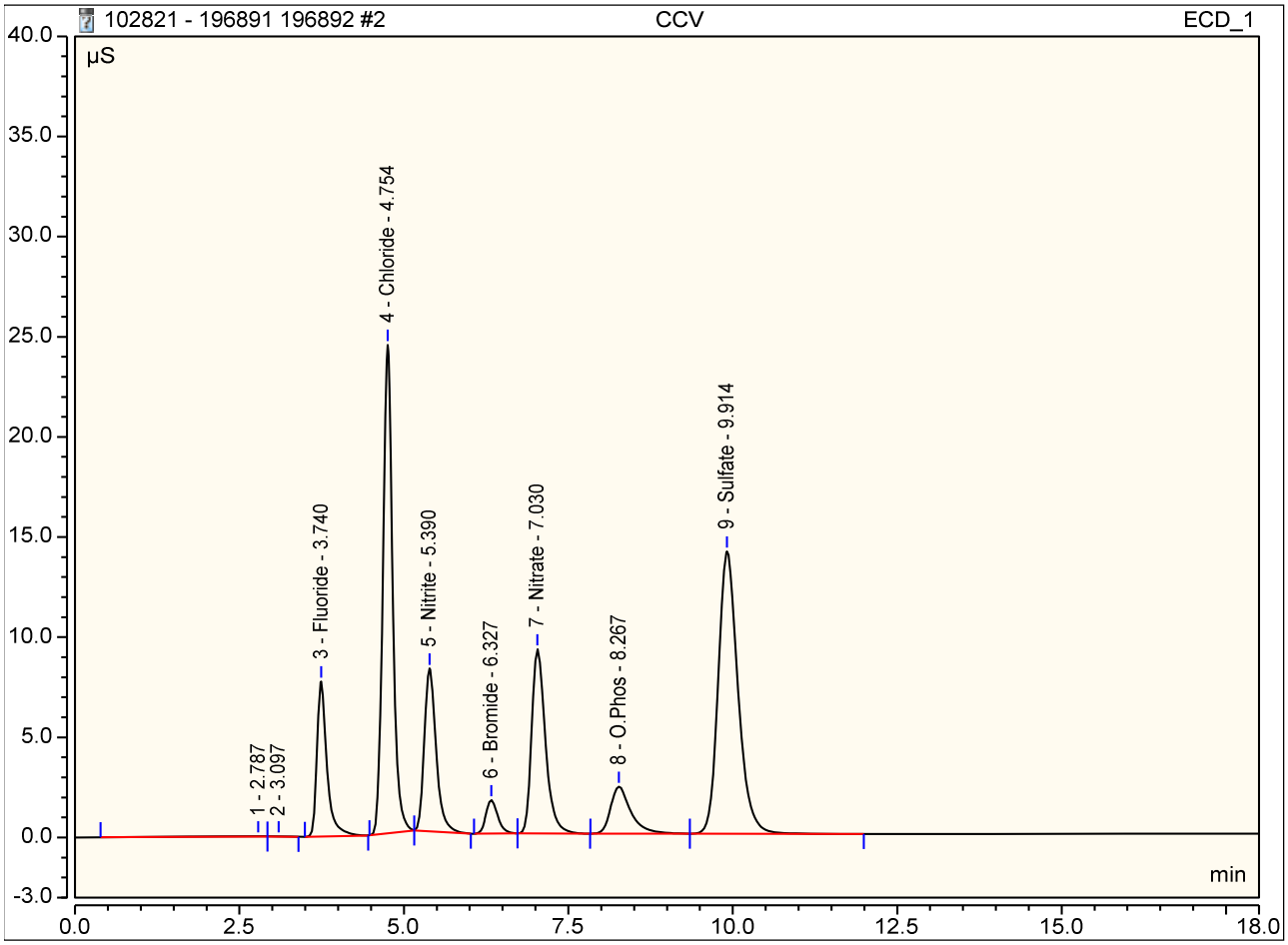
Sequence: 102821 - 196891 196892
Last Update Operator: aquion

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		2	5000	Anions	IC3602A	Finished
	LCSW	1.0000	Unknown		3	5000	Anions	IC3602A	Finished
	MBW	1.0000	Unknown		4	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		15	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		16	5000	Anions	IC3602A	Finished
	1066854	1.0000	Unknown		24	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		25	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		26	5000	Anions	IC3602A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 14:06**	*Run Time:*	**18.00**

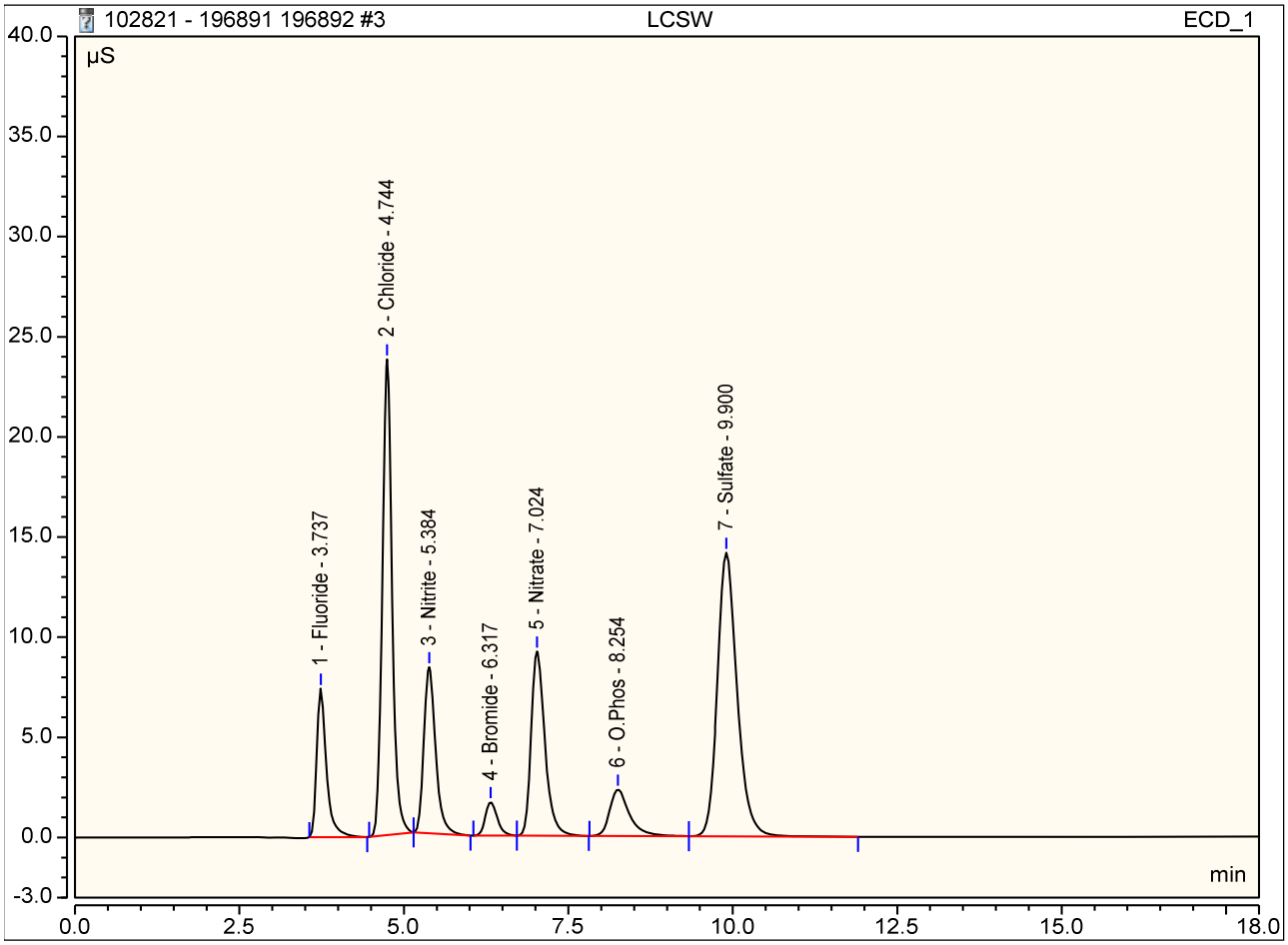
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
3	3.74	Fluoride	1.357	7.742	3.7954
4	4.75	Chloride	4.210	24.392	14.6047
5	5.39	Nitrite	1.688	8.123	3.6396
6	6.33	Bromide	0.352	1.674	3.6140
7	7.03	Nitrate	2.239	9.204	3.5869
8	8.27	O.Phos	0.835	2.347	3.4164
9	9.91	Sulfate	4.921	14.092	24.8405



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 14:24**	*Run Time:*	**18.00**

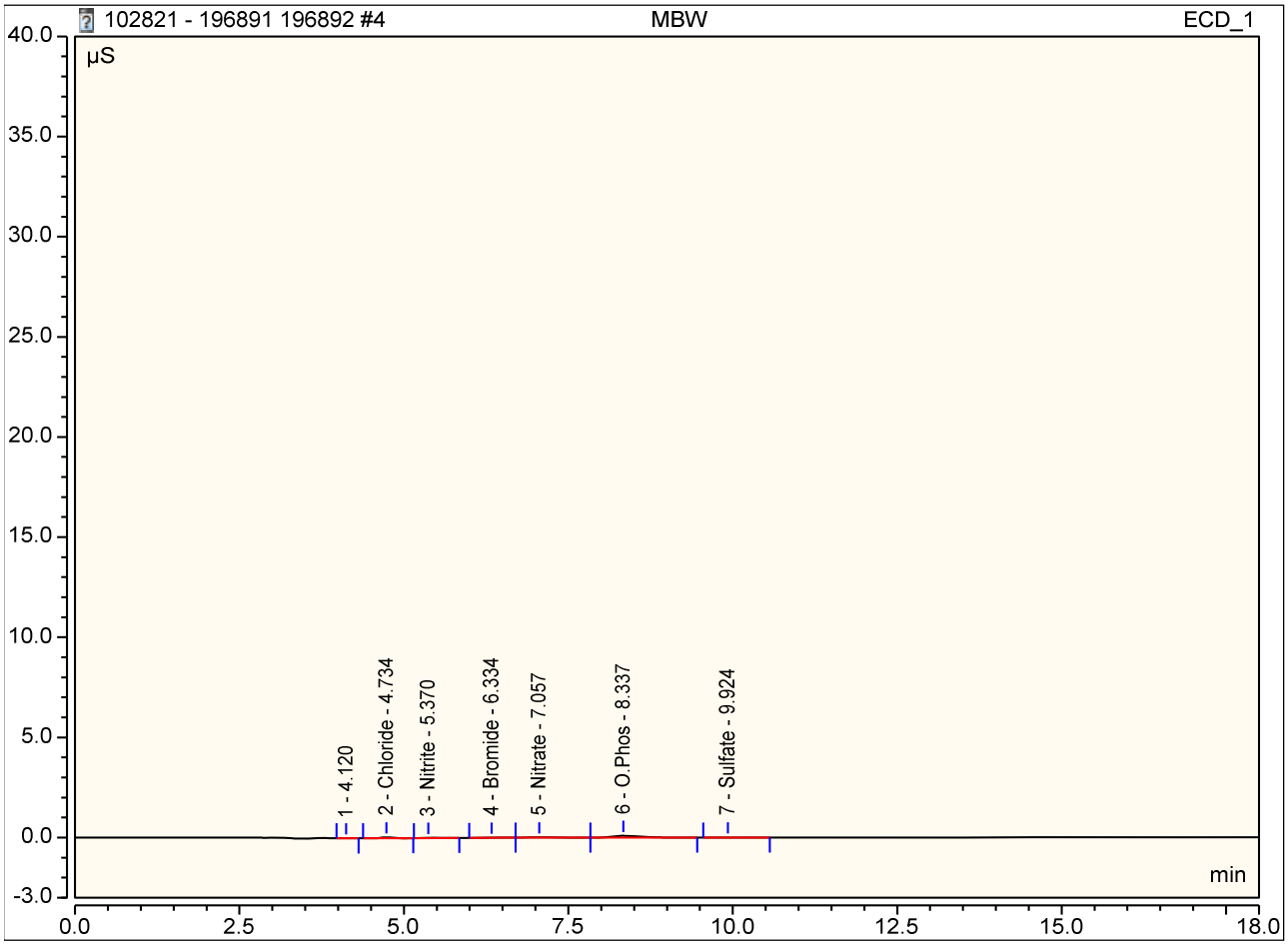
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.281	7.416	3.5850
2	4.74	Chloride	4.087	23.766	14.1928
3	5.38	Nitrite	1.721	8.302	3.7114
4	6.32	Bromide	0.352	1.675	3.6113
5	7.02	Nitrate	2.228	9.200	3.5698
6	8.25	O.Phos	0.804	2.319	3.2830
7	9.90	Sulfate	4.927	14.161	24.8690



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 14:42**	*Run Time:*	**18.00**

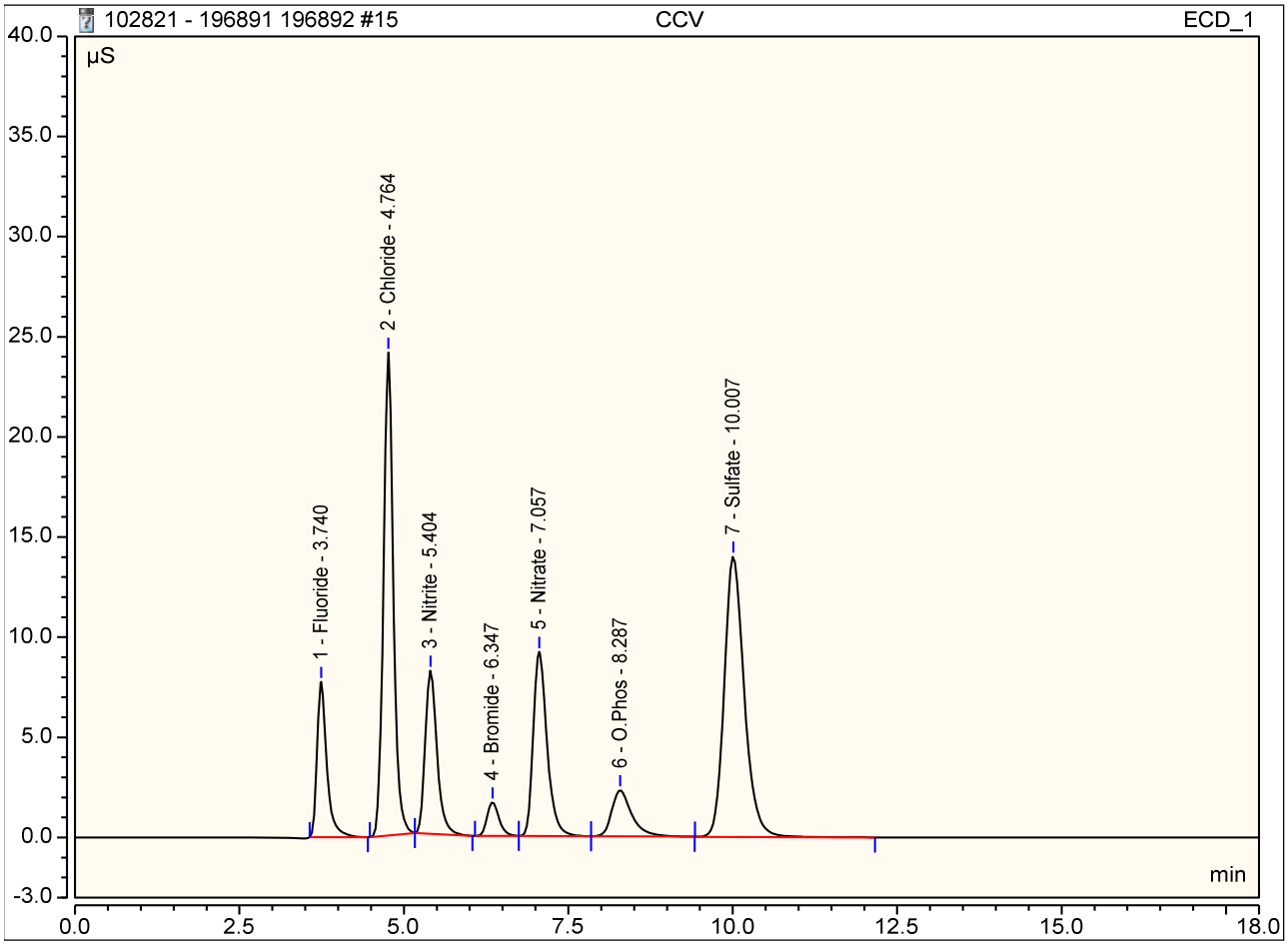
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	4.73	Chloride	0.010	0.048	0.6094
3	5.37	Nitrite	0.004	0.019	0.0256
4	6.33	Bromide	0.002	0.009	0.0149
5	7.06	Nitrate	0.007	0.023	0.0892
6	8.34	O.Phos	0.042	0.086	n.a.
7	9.92	Sulfate	0.008	0.022	0.7334



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 18:01**	*Run Time:*	**18.00**

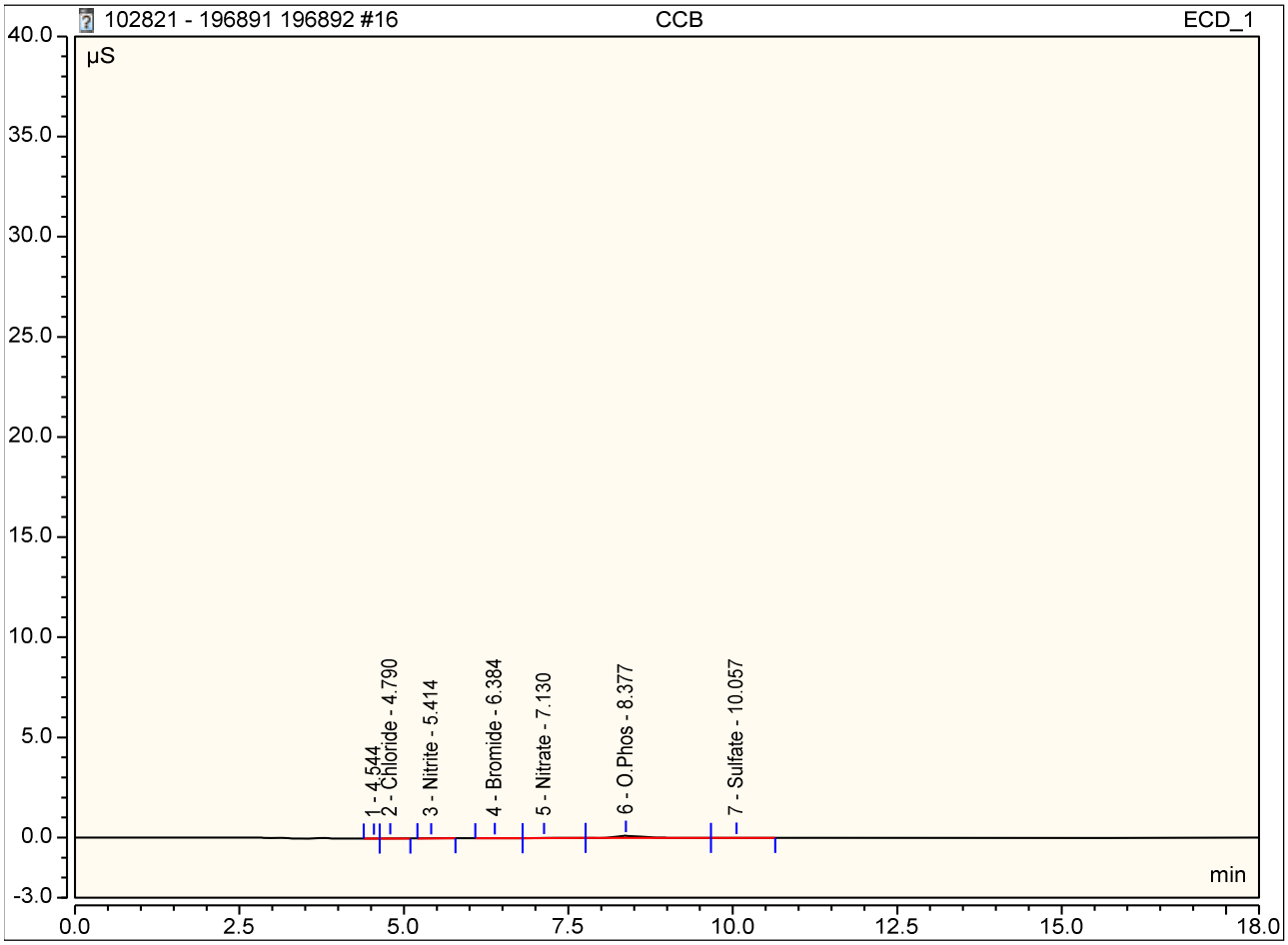
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.339	7.758	3.7438
2	4.76	Chloride	4.217	24.112	14.6256
3	5.40	Nitrite	1.700	8.154	3.6663
4	6.35	Bromide	0.355	1.681	3.6435
5	7.06	Nitrate	2.234	9.191	3.5795
6	8.29	O.Phos	0.815	2.306	3.3304
7	10.01	Sulfate	4.930	13.993	24.8833



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 18:19**	*Run Time:*	**18.00**

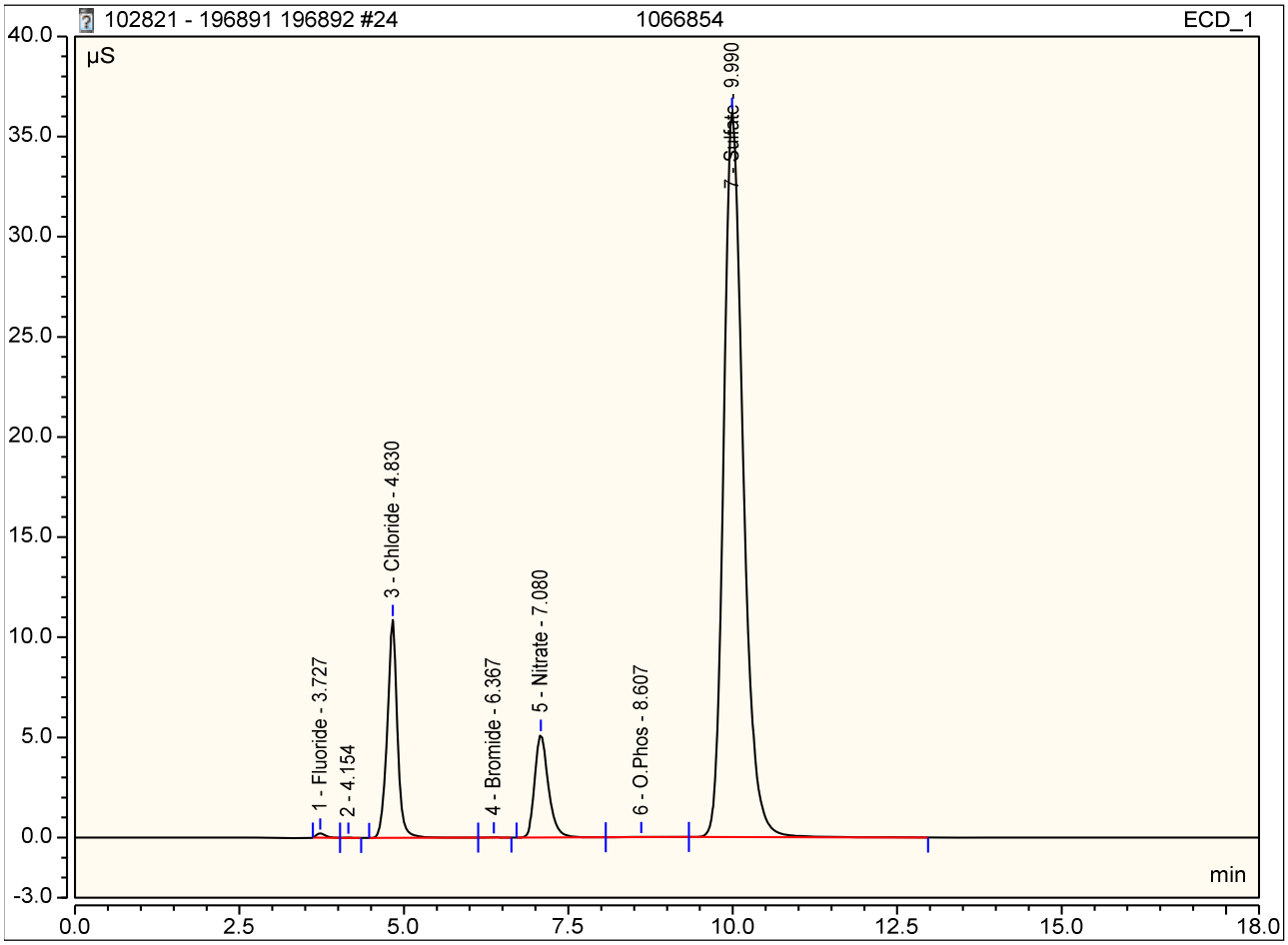
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	4.79	Chloride	0.003	0.015	0.5845
3	5.41	Nitrite	0.001	0.003	0.0185
4	6.38	Bromide	0.002	0.009	0.0162
5	7.13	Nitrate	0.002	0.006	0.0805
6	8.38	O.Phos	0.052	0.107	0.0372
7	10.06	Sulfate	0.003	0.007	0.7074



Peak Integration Report

Sample Name:	**1066854**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 20:43**	*Run Time:*	**18.00**

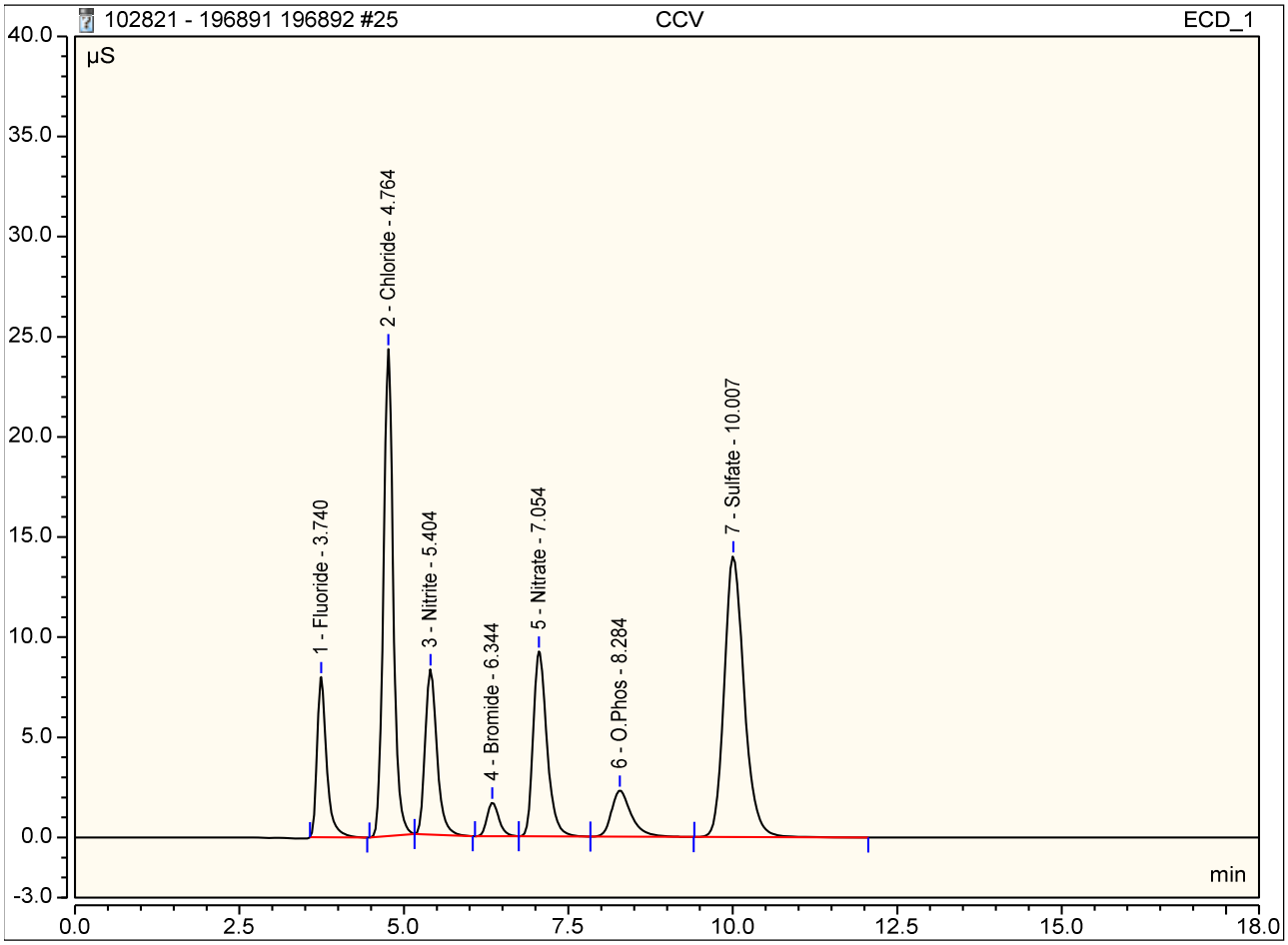
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.033	0.210	0.1668
3	4.83	Chloride	1.949	10.887	7.0701
4	6.37	Bromide	0.004	0.021	0.0356
5	7.08	Nitrate	1.245	5.132	2.0283
6	8.61	O.Phos	0.012	0.020	n.a.
7	9.99	Sulfate	12.463	36.177	61.8486



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 21:01**	*Run Time:*	**18.00**

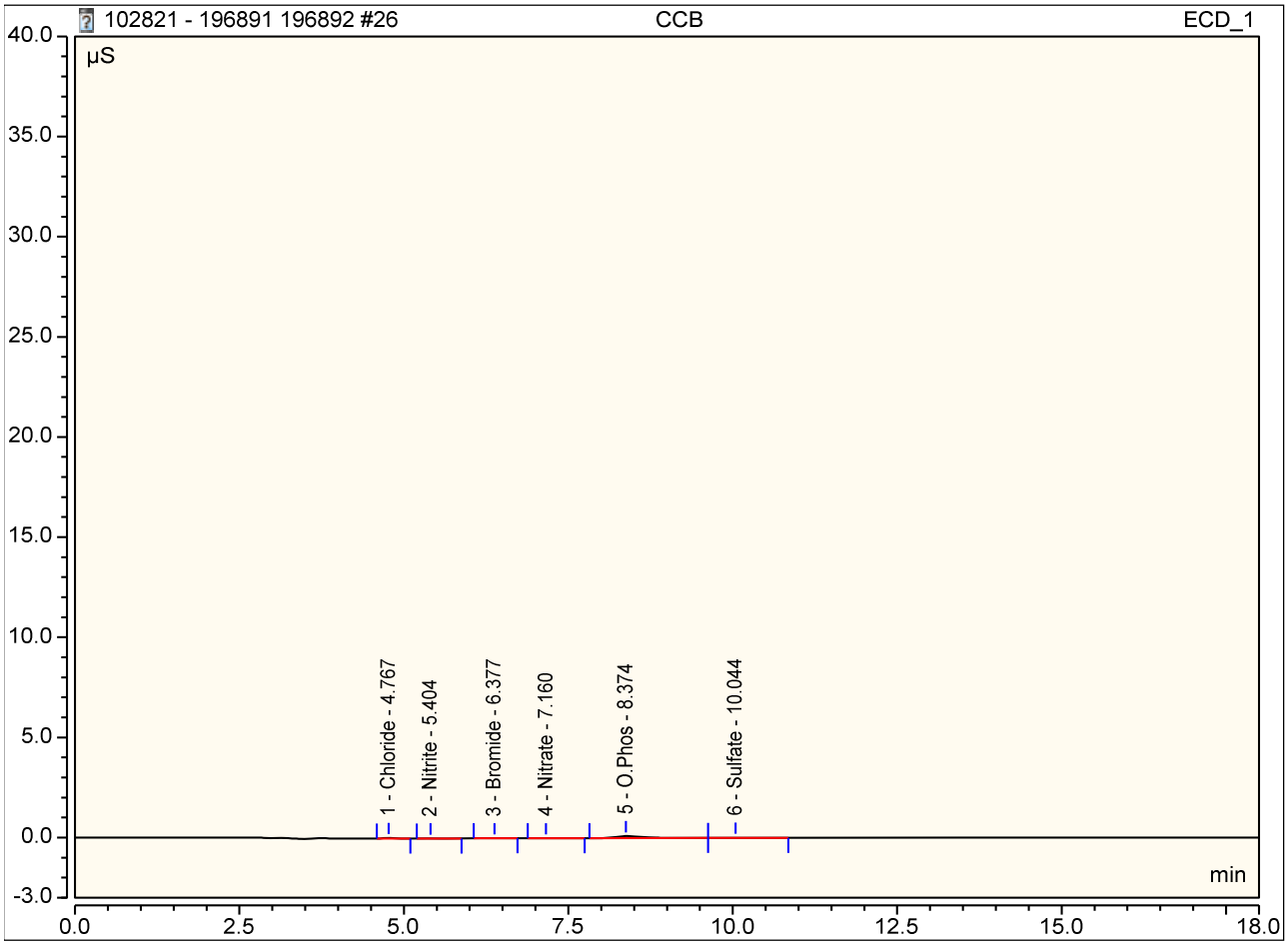
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.352	8.011	3.7816
2	4.76	Chloride	4.221	24.309	14.6387
3	5.40	Nitrite	1.714	8.253	3.6962
4	6.34	Bromide	0.355	1.686	3.6419
5	7.05	Nitrate	2.233	9.229	3.5772
6	8.28	O.Phos	0.804	2.307	3.2809
7	10.01	Sulfate	4.926	14.024	24.8669



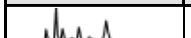
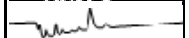
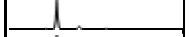
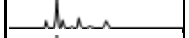
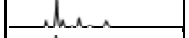
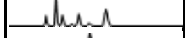
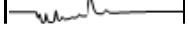
Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**aquion**
Inj. Date / Time:	**28-Oct-2021 / 21:20**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.77	Chloride	0.006	0.031	0.5943
2	5.40	Nitrite	0.001	0.004	0.0188
3	6.38	Bromide	0.001	0.003	n.a.
4	7.16	Nitrate	0.001	0.004	0.0798
5	8.37	O.Phos	0.047	0.097	0.0126
6	10.04	Sulfate	0.005	0.013	0.7182



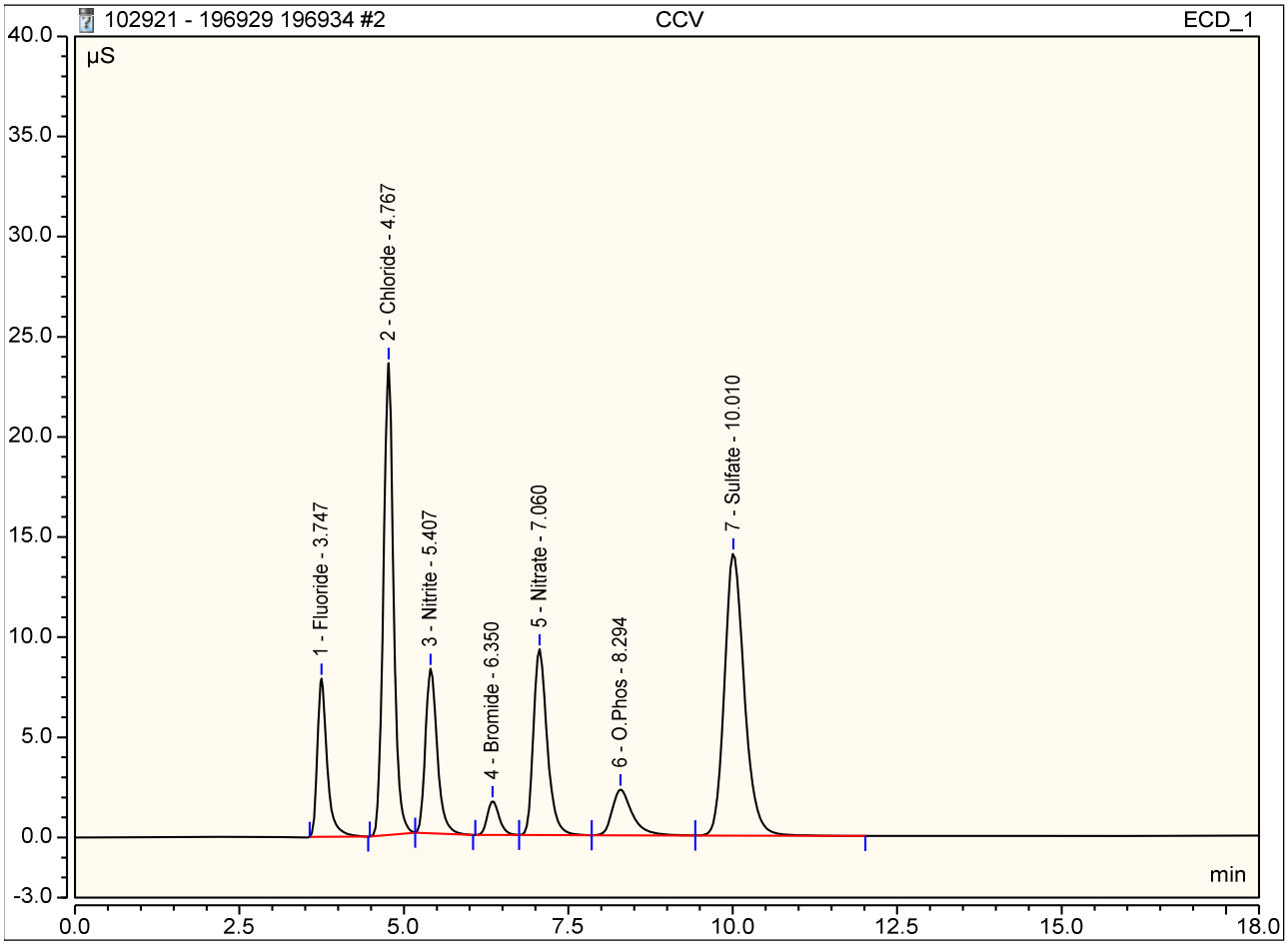
Sequence: 102921 - 196929 196934
Last Update Operator: AQUION

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		2	5000	Anions	IC3602A	Finished
	LCSW	1.0000	Unknown		3	5000	Anions	IC3602A	Finished
	MBW	1.0000	Unknown		4	5000	Anions	IC3602A	Finished
	1067787	1.0000	Unknown		5	5000	Anions	IC3602A	Finished
	1067788	1.0000	Unknown		6	5000	Anions	IC3602A	Finished
	1067789	1.0000	Unknown		7	5000	Anions	IC3602A	Finished
	1067790	1.0000	Unknown		8	5000	Anions	IC3602A	Finished
	1067791	1.0000	Unknown		9	5000	Anions	IC3602A	Finished
	1067792	1.0000	Unknown		10	5000	Anions	IC3602A	Finished
	1067792X5	1.0000	Unknown		11	5000	Anions	IC3602A	Finished
	DUP1067787	1.0000	Unknown		12	5000	Anions	IC3602A	Finished
	MSW1067787	1.0000	Unknown		13	5000	Anions	IC3602A	Finished
	MSDW1067787	1.0000	Unknown		14	5000	Anions	IC3602A	Finished
	CCV	1.0000	Unknown		15	5000	Anions	IC3602A	Finished
	CCB	1.0000	Unknown		16	5000	Anions	IC3602A	Finished

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 11:48**	*Run Time:*	**18.00**

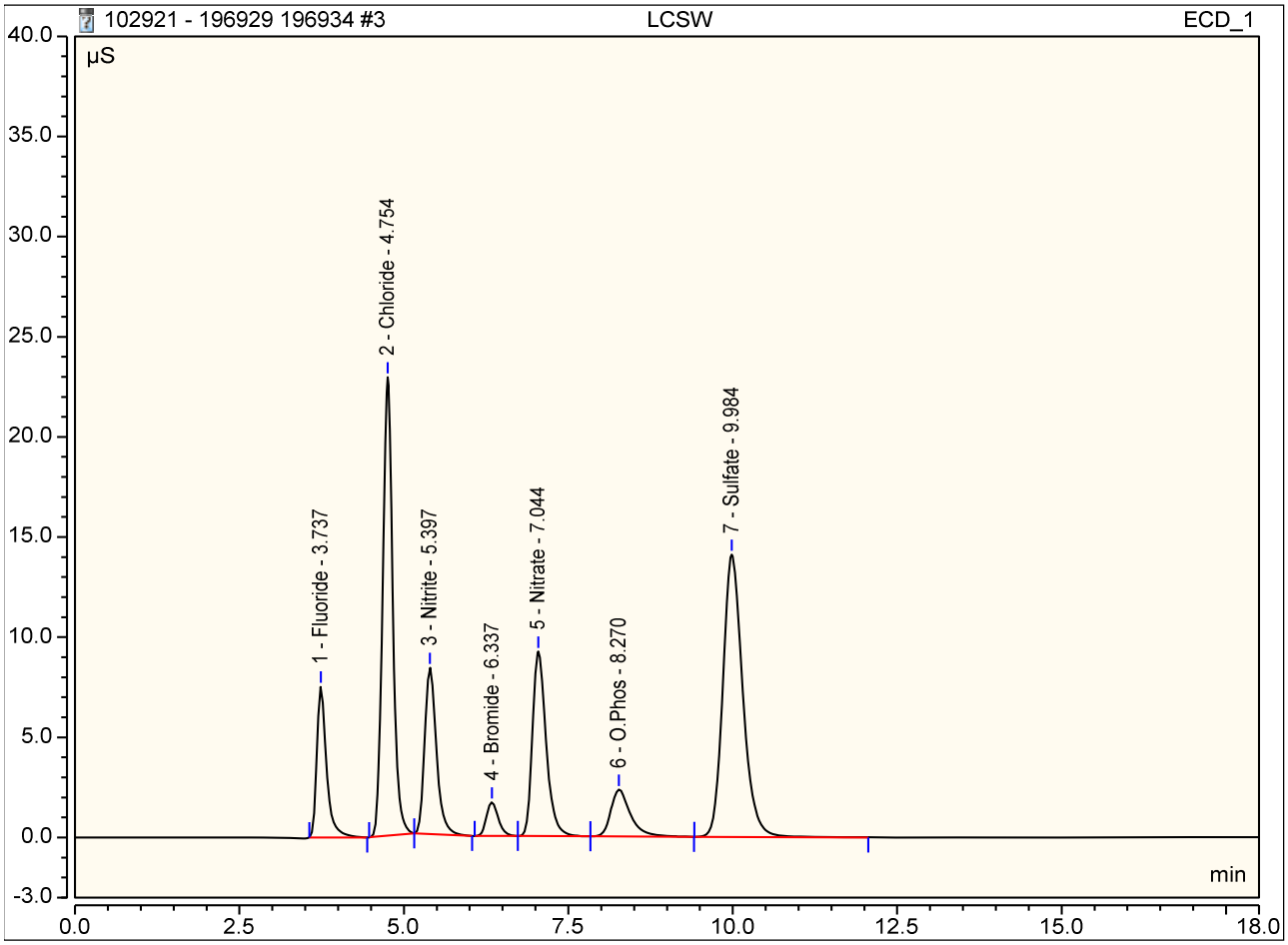
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.75	Fluoride	1.353	7.890	3.7836
2	4.77	Chloride	4.225	23.559	14.6523
3	5.41	Nitrite	1.710	8.213	3.6874
4	6.35	Bromide	0.356	1.694	3.6589
5	7.06	Nitrate	2.245	9.272	3.5962
6	8.29	O.Phos	0.806	2.289	3.2918
7	10.01	Sulfate	4.936	14.090	24.9163



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 12:06**	*Run Time:*	**18.00**

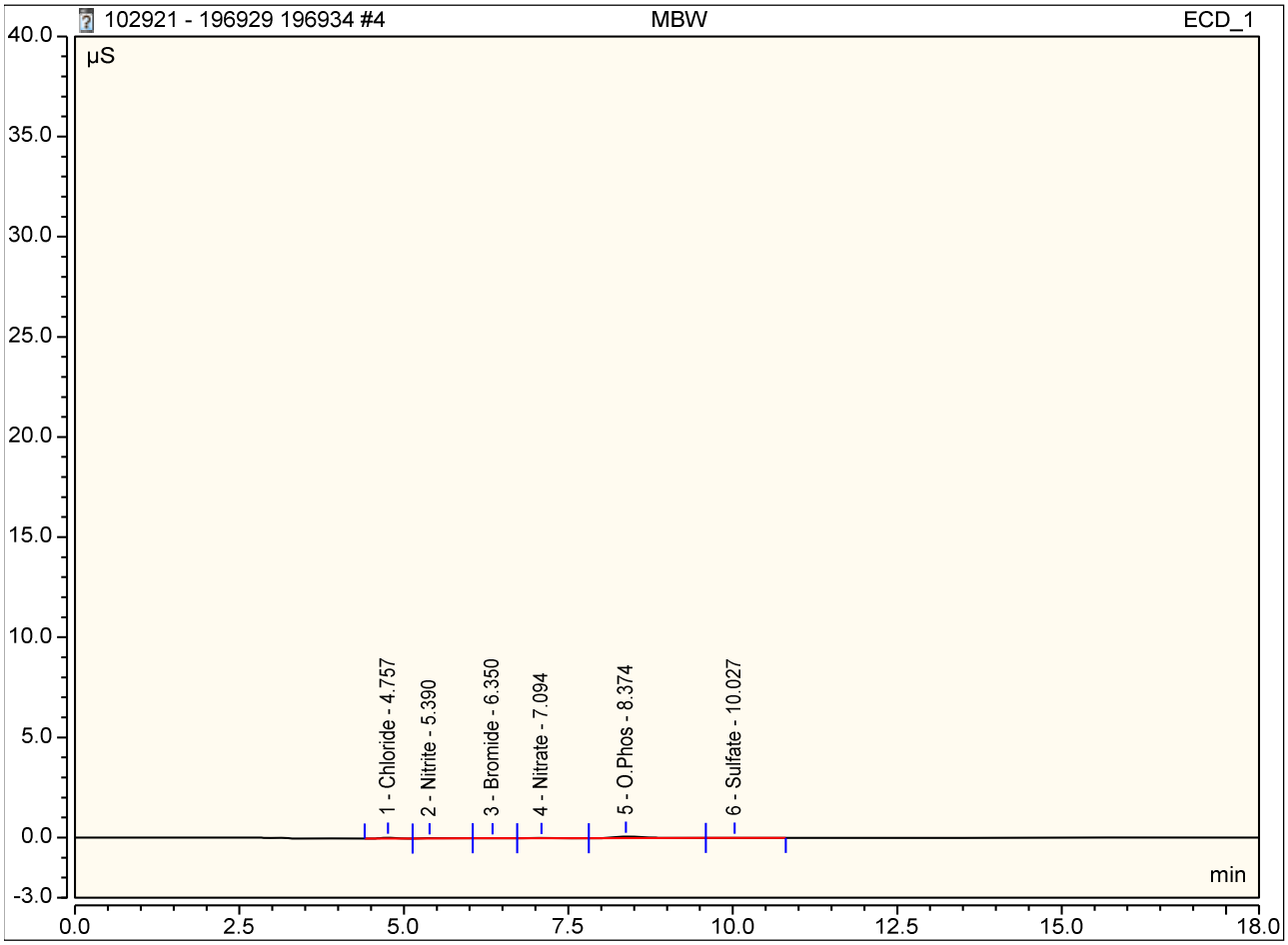
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.288	7.534	3.6039
2	4.75	Chloride	4.091	22.891	14.2063
3	5.40	Nitrite	1.726	8.308	3.7222
4	6.34	Bromide	0.353	1.682	3.6264
5	7.04	Nitrate	2.225	9.213	3.5648
6	8.27	O.Phos	0.808	2.336	3.2982
7	9.98	Sulfate	4.937	14.094	24.9210



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 12:24**	*Run Time:*	**18.00**

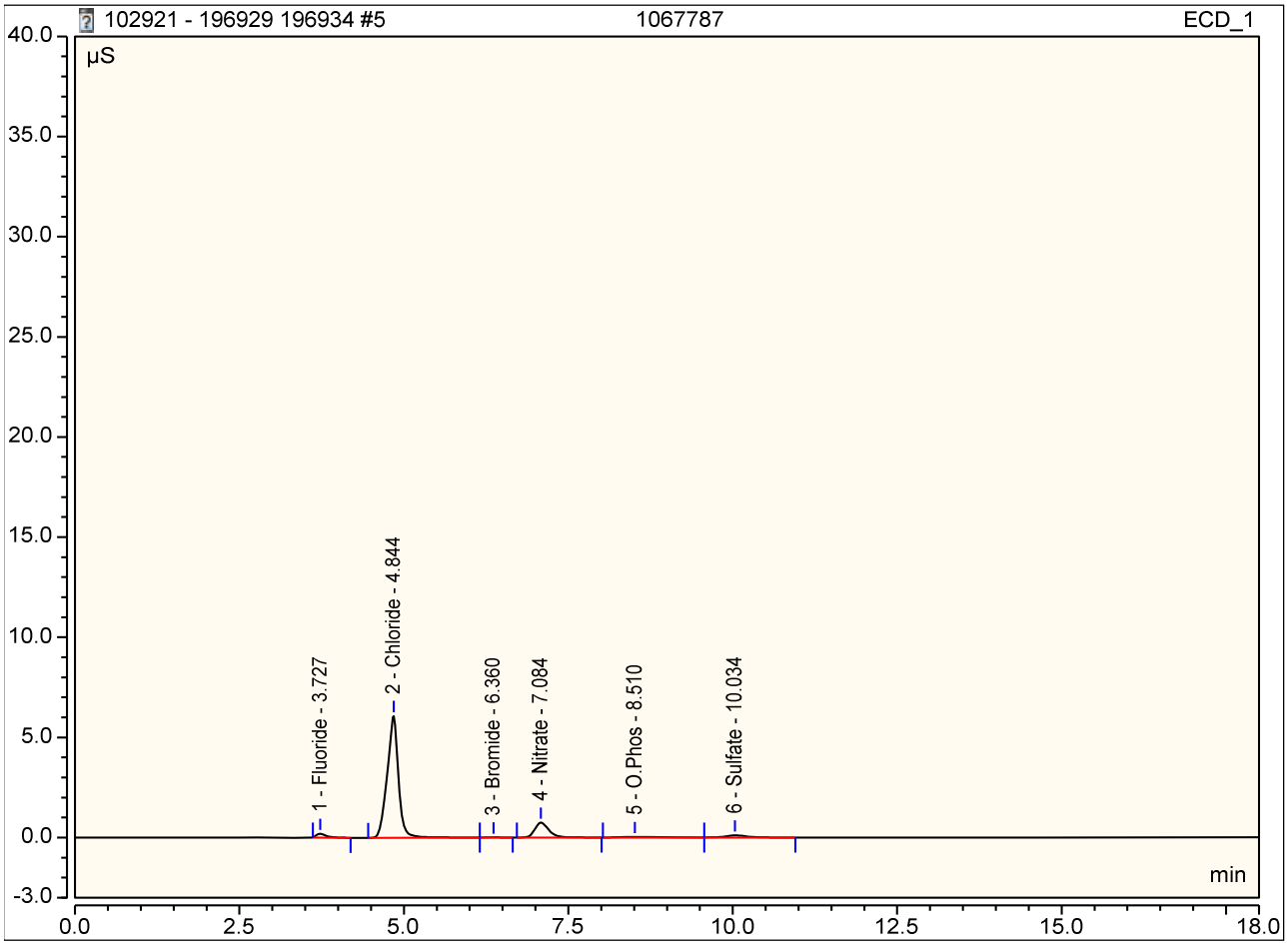
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.76	Chloride	0.010	0.043	0.6075
2	5.39	Nitrite	0.003	0.015	0.0242
3	6.35	Bromide	0.001	0.006	0.0061
4	7.09	Nitrate	0.004	0.012	0.0835
5	8.37	O.Phos	0.039	0.078	n.a.
6	10.03	Sulfate	0.007	0.017	0.7267



Peak Integration Report

Sample Name:	**1067787**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 12:42**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.032	0.189	0.1635
2	4.84	Chloride	1.209	6.083	4.6056
3	6.36	Bromide	0.001	0.005	0.0032
4	7.08	Nitrate	0.183	0.747	0.3651
5	8.51	O.Phos	0.018	0.031	n.a.
6	10.03	Sulfate	0.039	0.106	0.8843

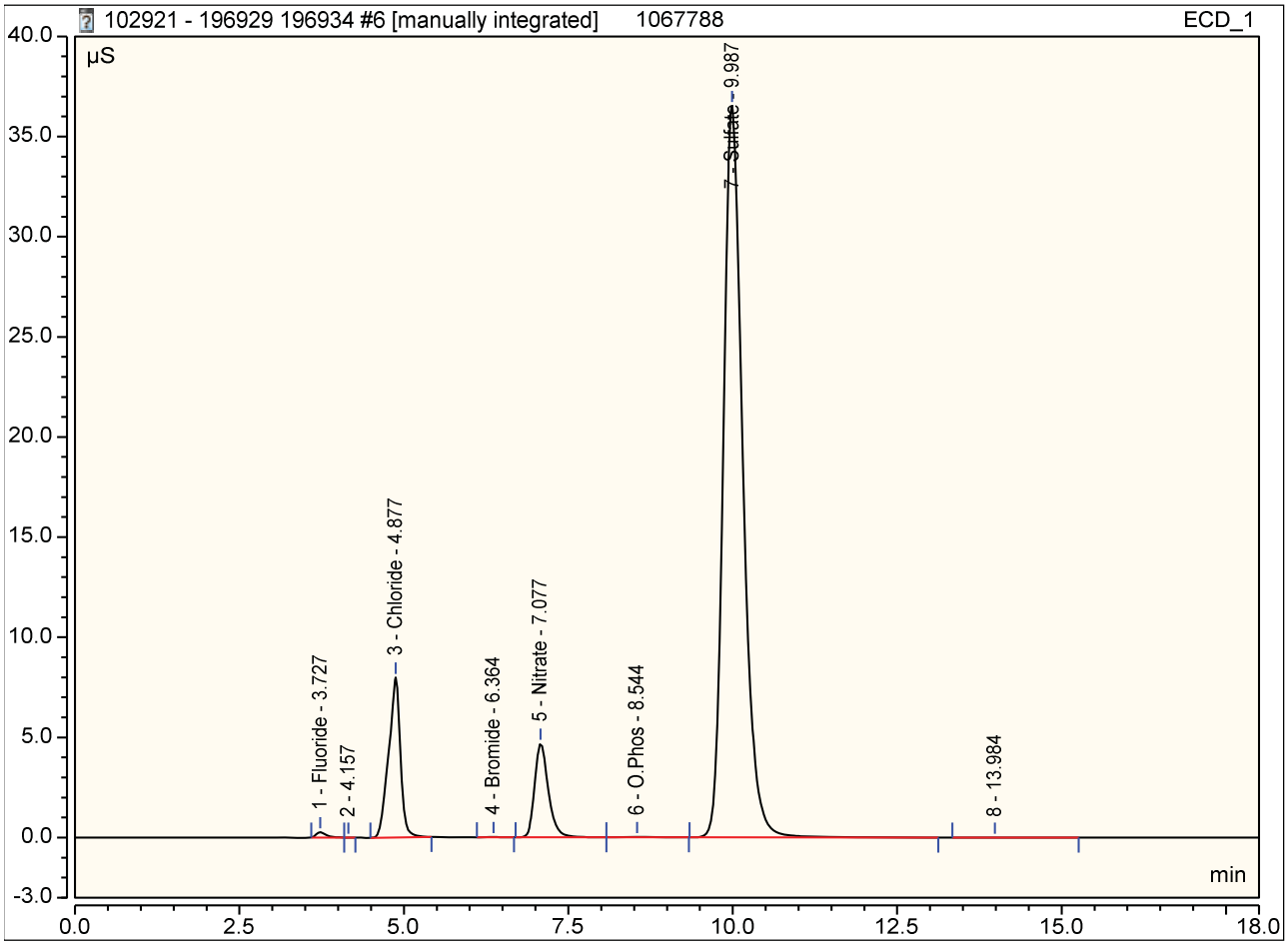


TMG 11/01/2021

Peak Integration Report

Sample Name:	**1067788**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 13:00**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.045	0.265	0.2015
3	4.88	Chloride	1.656	7.980	6.0919
4	6.36	Bromide	0.004	0.018	0.0303
5	7.08	Nitrate	1.136	4.685	1.8574
6	8.54	O.Phos	0.011	0.021	n.a.
7	9.99	Sulfate	12.505	36.521	62.0521

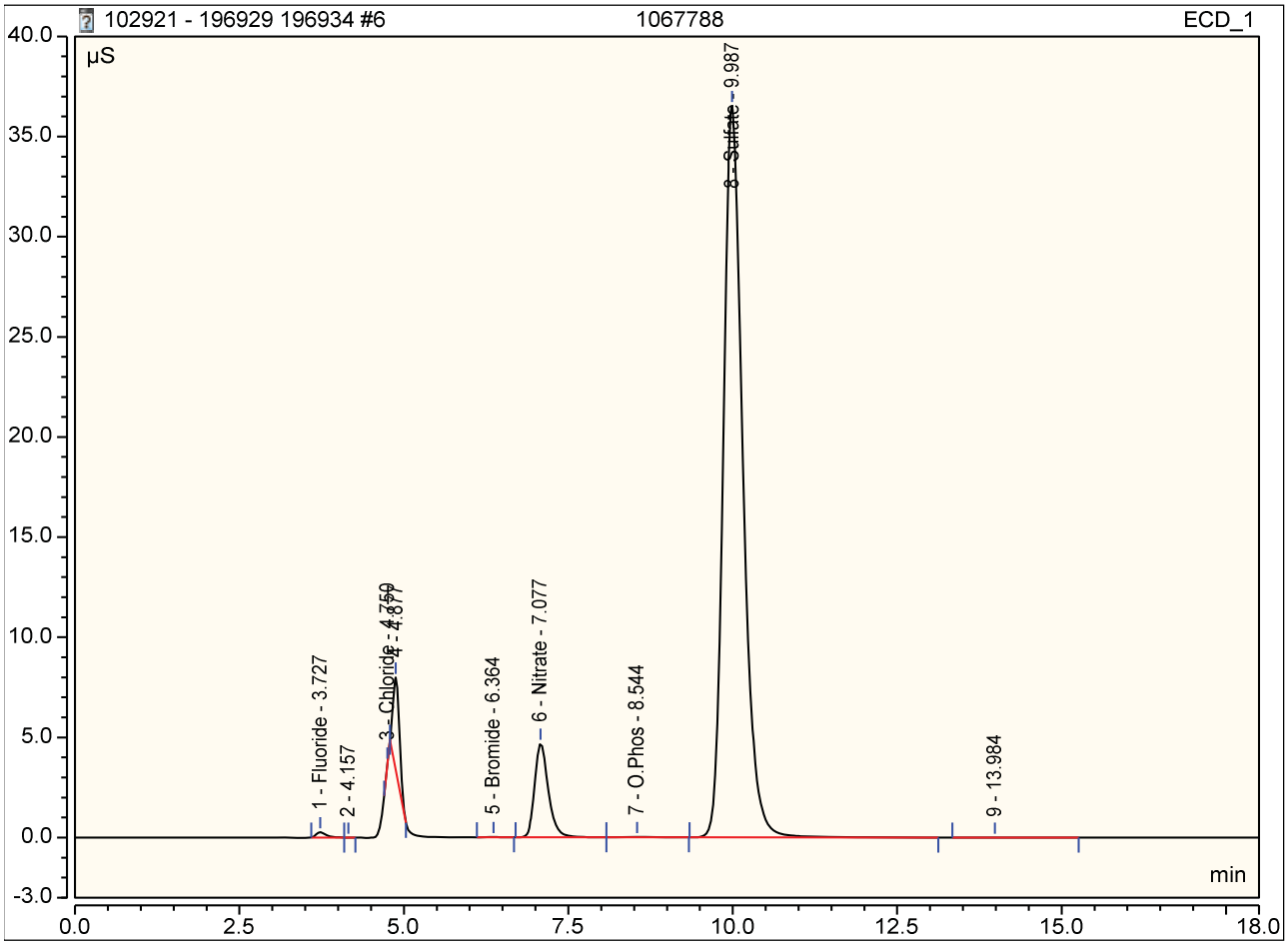


TMG 11/01/2021

Peak Integration Report

Sample Name:	**1067788**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 13:00**	*Run Time:*	**18.00**

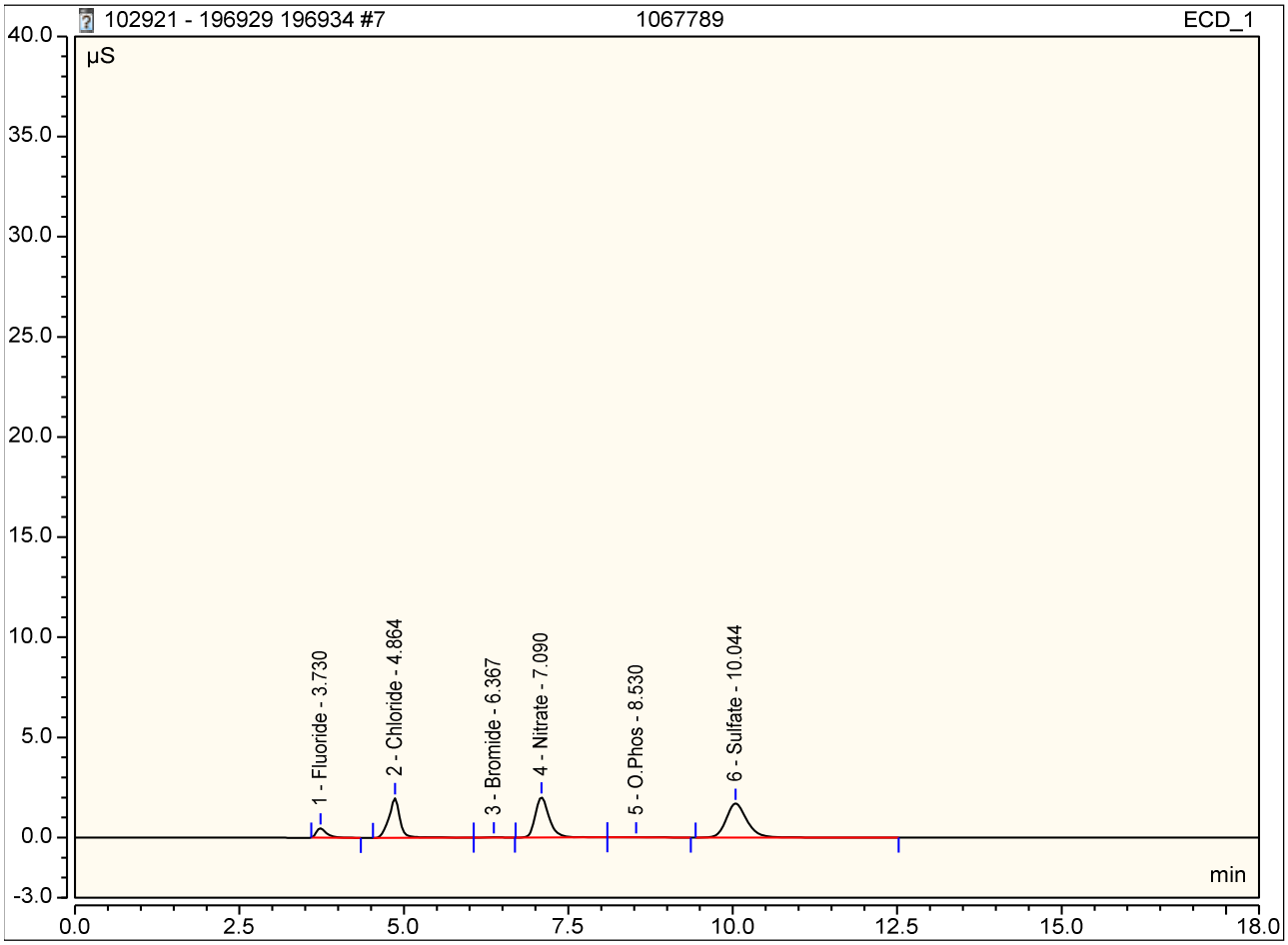
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.045	0.265	0.2015
3	4.75	Chloride	0.003	0.059	0.5853
5	6.36	Bromide	0.004	0.018	0.0303
6	7.08	Nitrate	1.136	4.685	1.8574
7	8.54	O.Phos	0.011	0.021	n.a.
8	9.99	Sulfate	12.505	36.521	62.0521



Peak Integration Report

Sample Name:	**1067789**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 13:18**	*Run Time:*	**18.00**

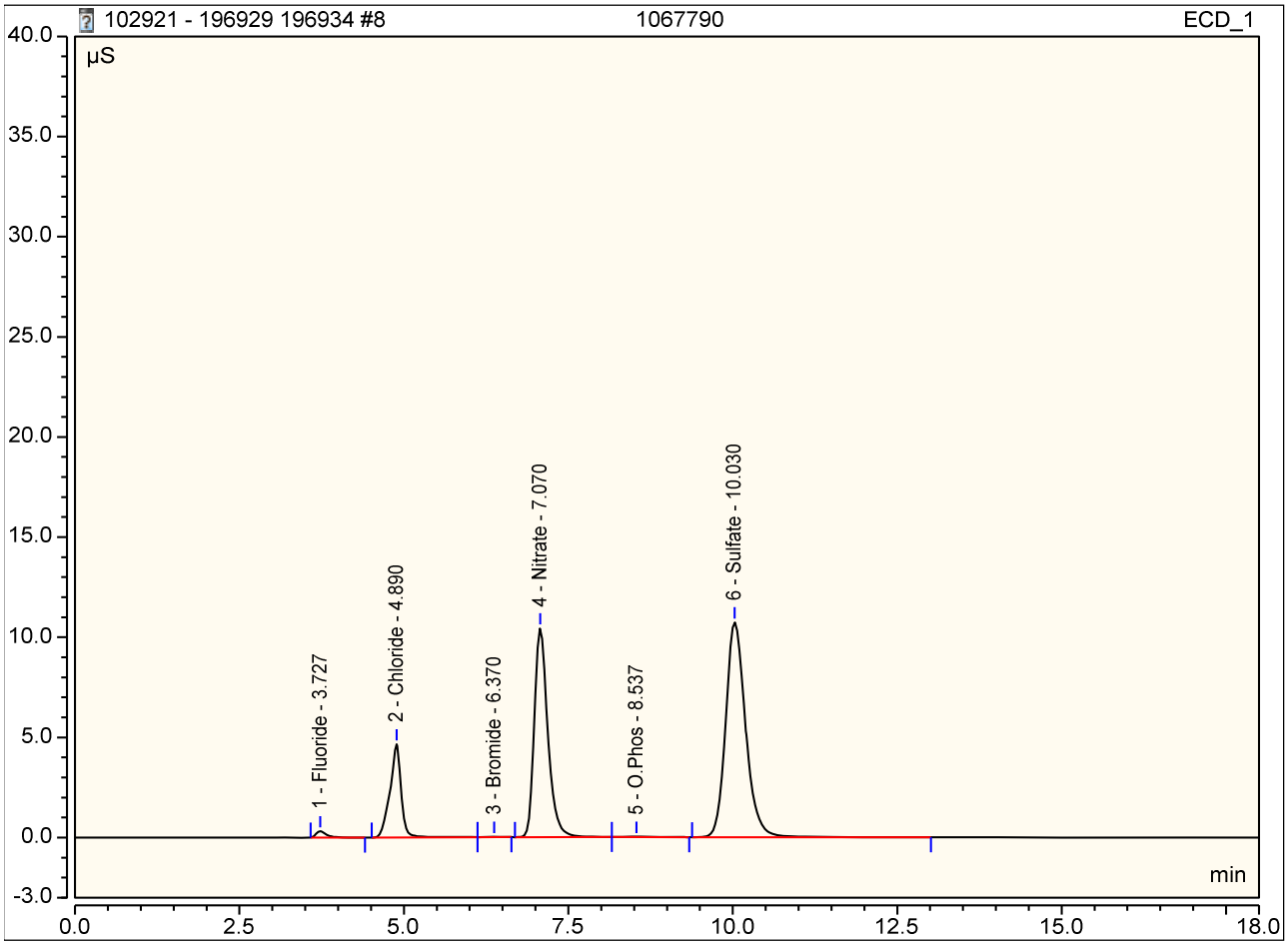
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.084	0.470	0.3075
2	4.86	Chloride	0.387	1.981	1.8647
3	6.37	Bromide	0.002	0.008	0.0079
4	7.09	Nitrate	0.490	2.000	0.8456
5	8.53	O.Phos	0.007	0.014	n.a.
6	10.04	Sulfate	0.621	1.691	3.7399



Peak Integration Report

Sample Name:	**1067790**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 13:36**	*Run Time:*	**18.00**

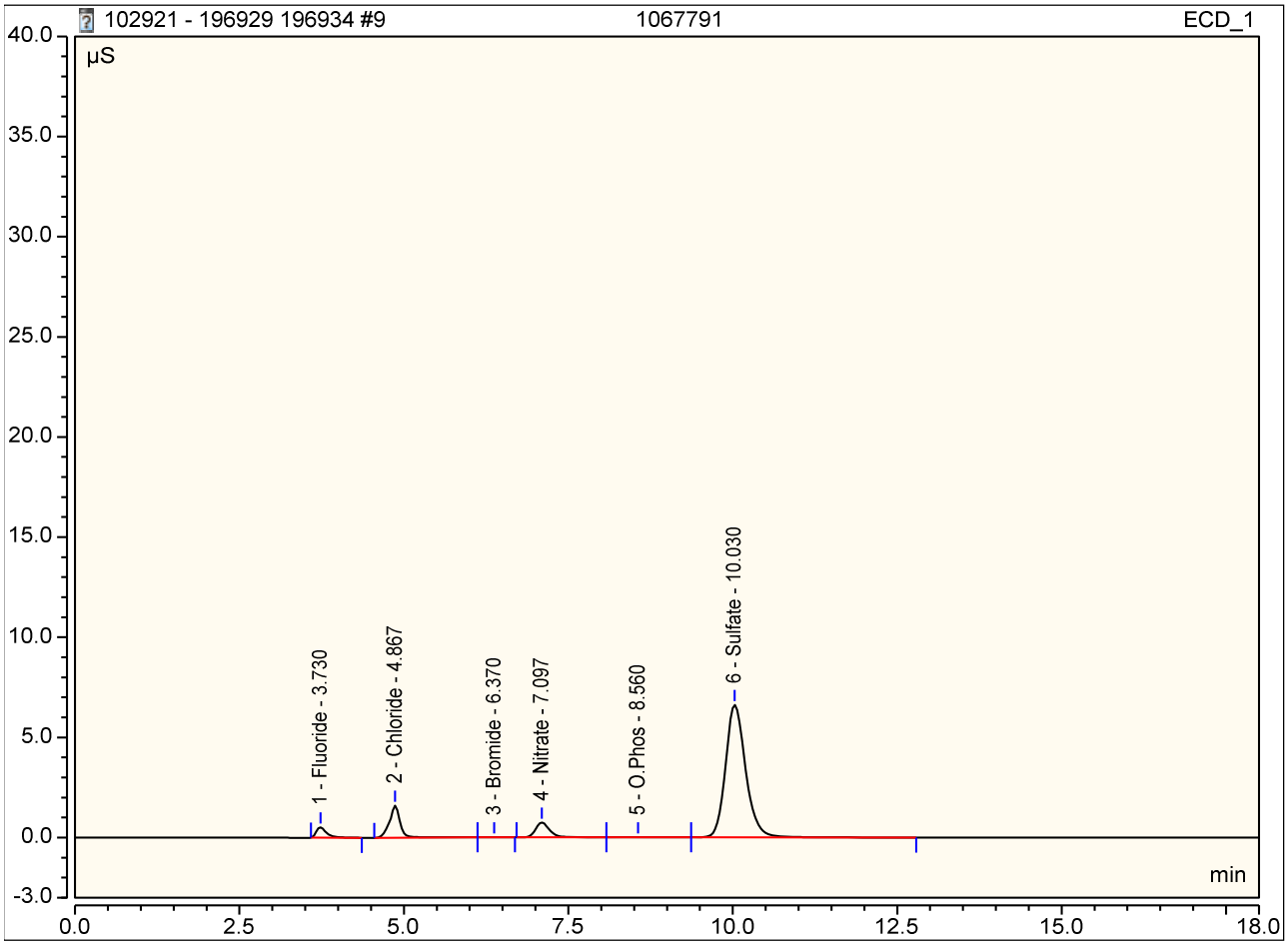
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.057	0.313	0.2343
2	4.89	Chloride	0.918	4.654	3.6333
3	6.37	Bromide	0.003	0.017	0.0253
4	7.07	Nitrate	2.486	10.425	3.9734
5	8.54	O.Phos	0.007	0.014	n.a.
6	10.03	Sulfate	3.778	10.730	19.2314



Peak Integration Report

Sample Name:	**1067791**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 13:54**	*Run Time:*	**18.00**

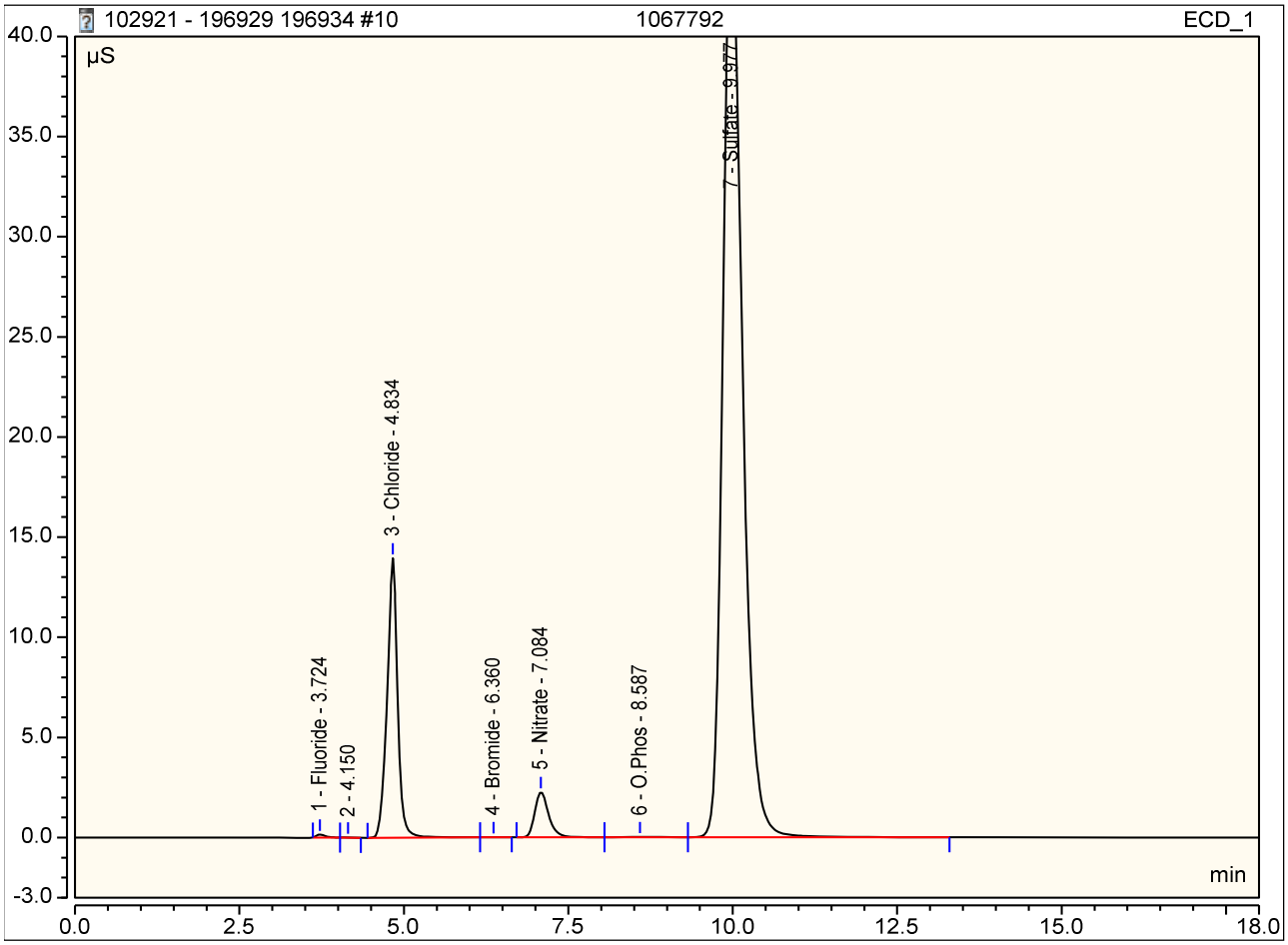
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.093	0.515	0.3311
2	4.87	Chloride	0.303	1.601	1.5871
3	6.37	Bromide	0.001	0.006	0.0054
4	7.10	Nitrate	0.181	0.742	0.3617
5	8.56	O.Phos	0.005	0.009	n.a.
6	10.03	Sulfate	2.354	6.619	12.2472



Peak Integration Report

Sample Name:	**1067792**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 14:12**	*Run Time:*	**18.00**

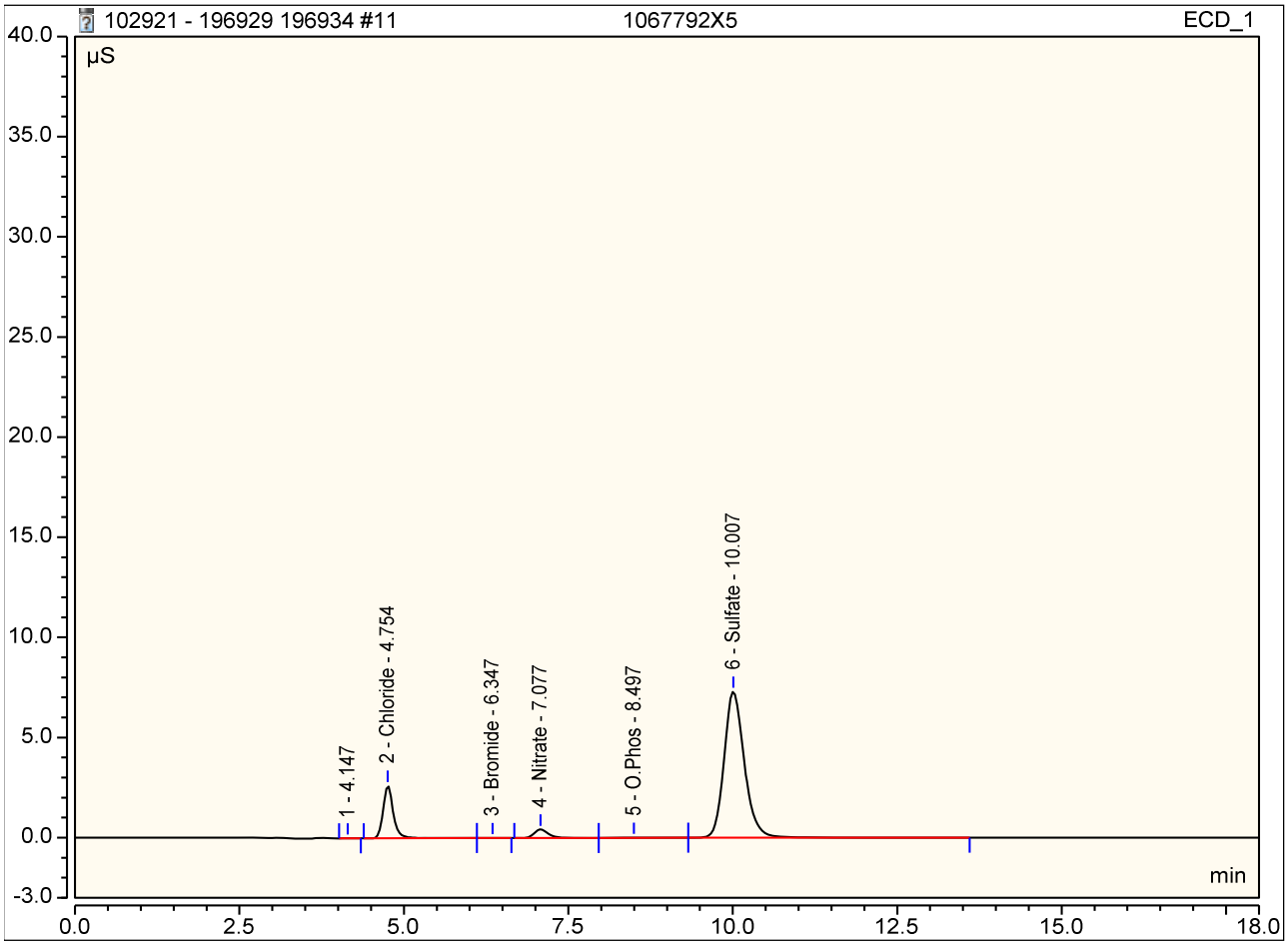
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.023	0.148	0.1409
3	4.83	Chloride	2.580	13.957	9.1737
4	6.36	Bromide	0.002	0.010	0.0114
5	7.08	Nitrate	0.555	2.263	0.9471
6	8.59	O.Phos	0.008	0.013	n.a.
7	9.98	Sulfate	15.815	45.878	78.2971



Peak Integration Report

Sample Name:	**1067792X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 14:30**	*Run Time:*	**18.00**

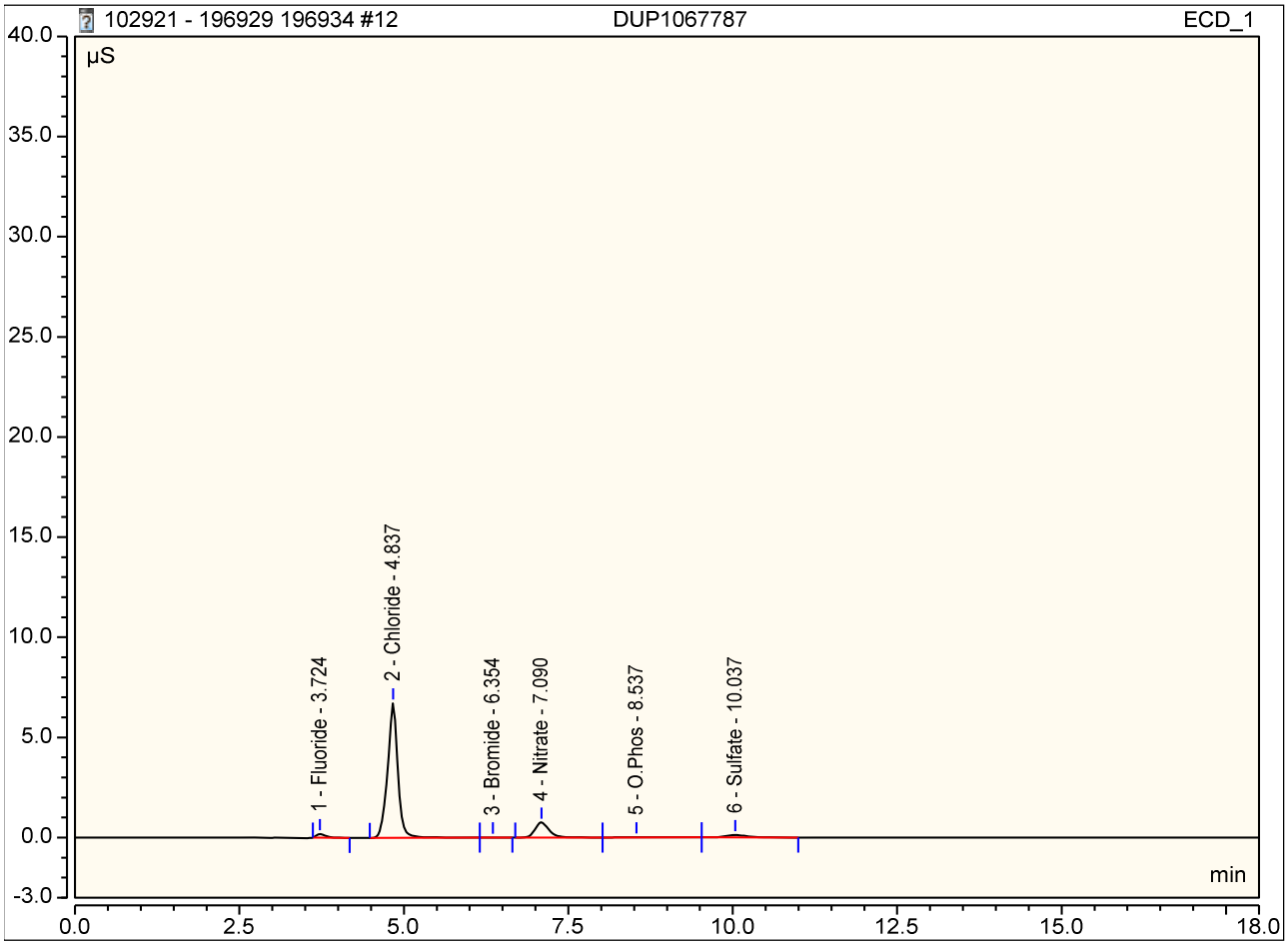
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
2	4.75	Chloride	0.471	2.628	2.1437
3	6.35	Bromide	0.000	0.002	n.a.
4	7.08	Nitrate	0.105	0.425	0.2427
5	8.50	O.Phos	0.005	0.009	n.a.
6	10.01	Sulfate	2.612	7.294	13.5118



Peak Integration Report

Sample Name:	**DUP1067787**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 14:48**	*Run Time:*	**18.00**

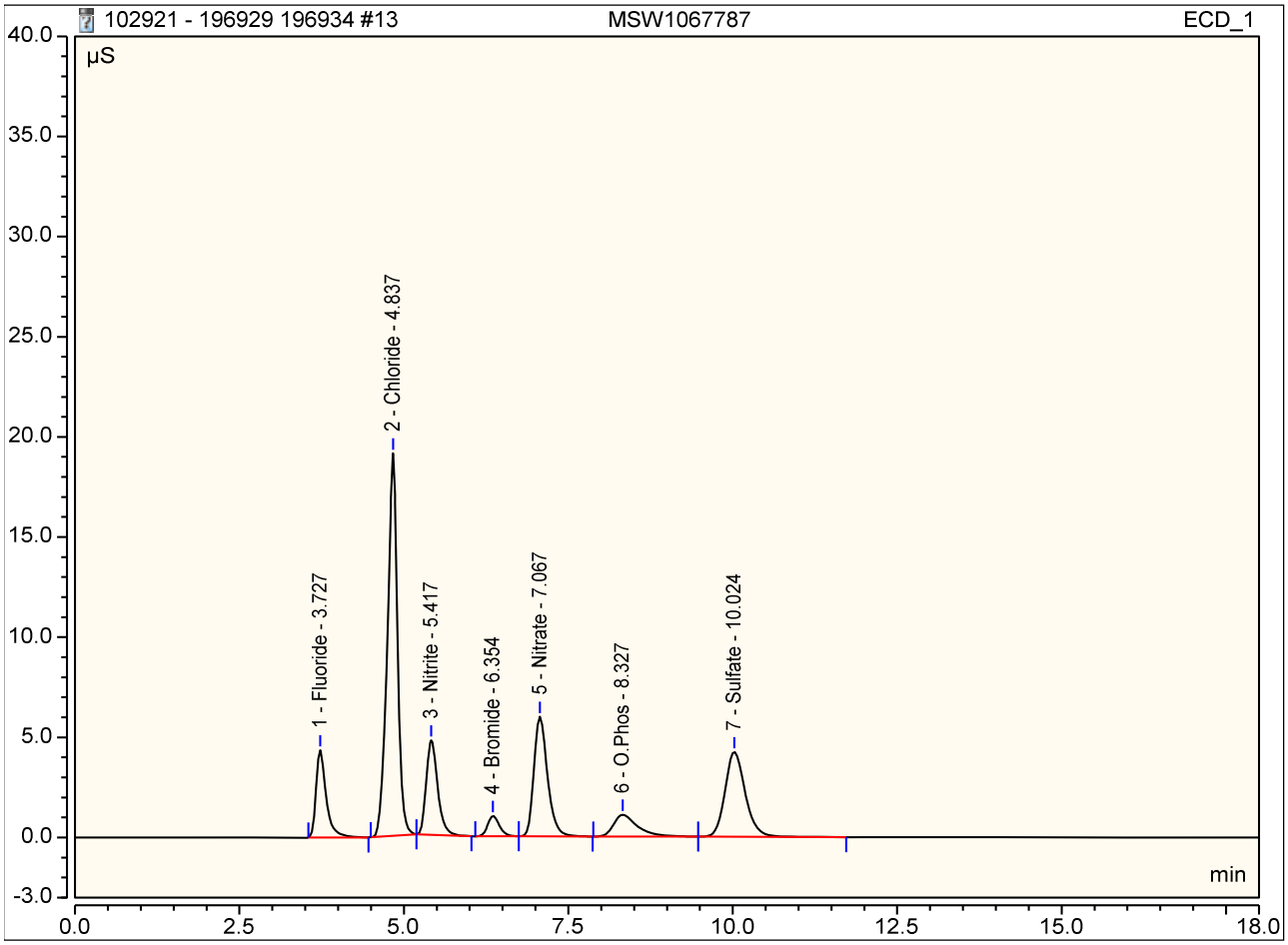
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.72	Fluoride	0.030	0.183	0.1590
2	4.84	Chloride	1.225	6.724	4.6589
3	6.35	Bromide	0.001	0.005	0.0017
4	7.09	Nitrate	0.183	0.748	0.3641
5	8.54	O.Phos	0.008	0.012	n.a.
6	10.04	Sulfate	0.043	0.120	0.9074



Peak Integration Report

Sample Name:	**MSW1067787**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 15:06**	*Run Time:*	**18.00**

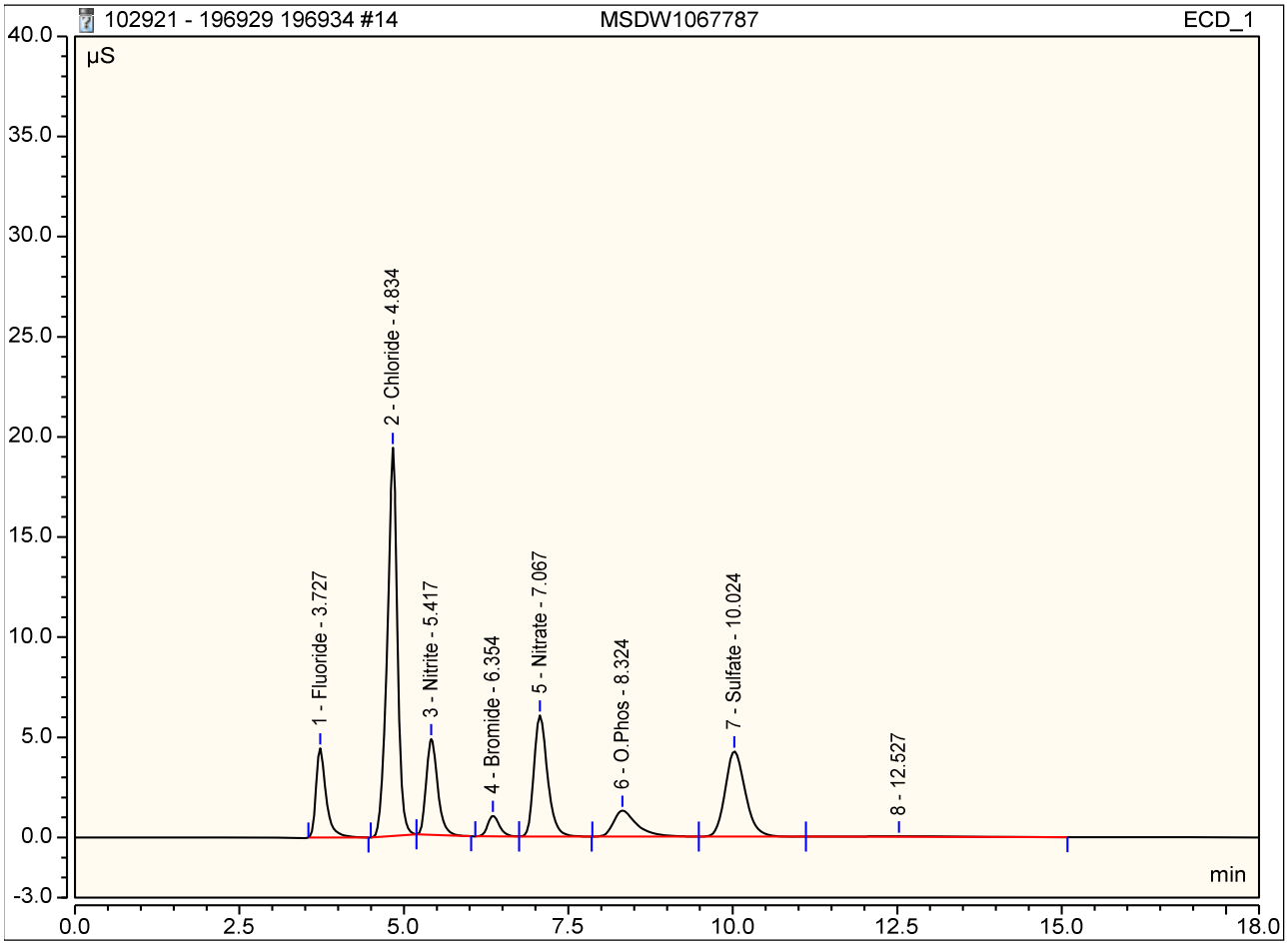
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.774	4.353	2.1971
2	4.84	Chloride	3.433	19.093	12.0128
3	5.42	Nitrite	0.951	4.723	2.0571
4	6.35	Bromide	0.212	1.017	2.1726
5	7.07	Nitrate	1.433	5.971	2.3232
6	8.33	O.Phos	0.457	1.090	1.7835
7	10.02	Sulfate	1.506	4.228	8.0848



Peak Integration Report

Sample Name:	**MSDW1067787**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 15:25**	*Run Time:*	**18.00**

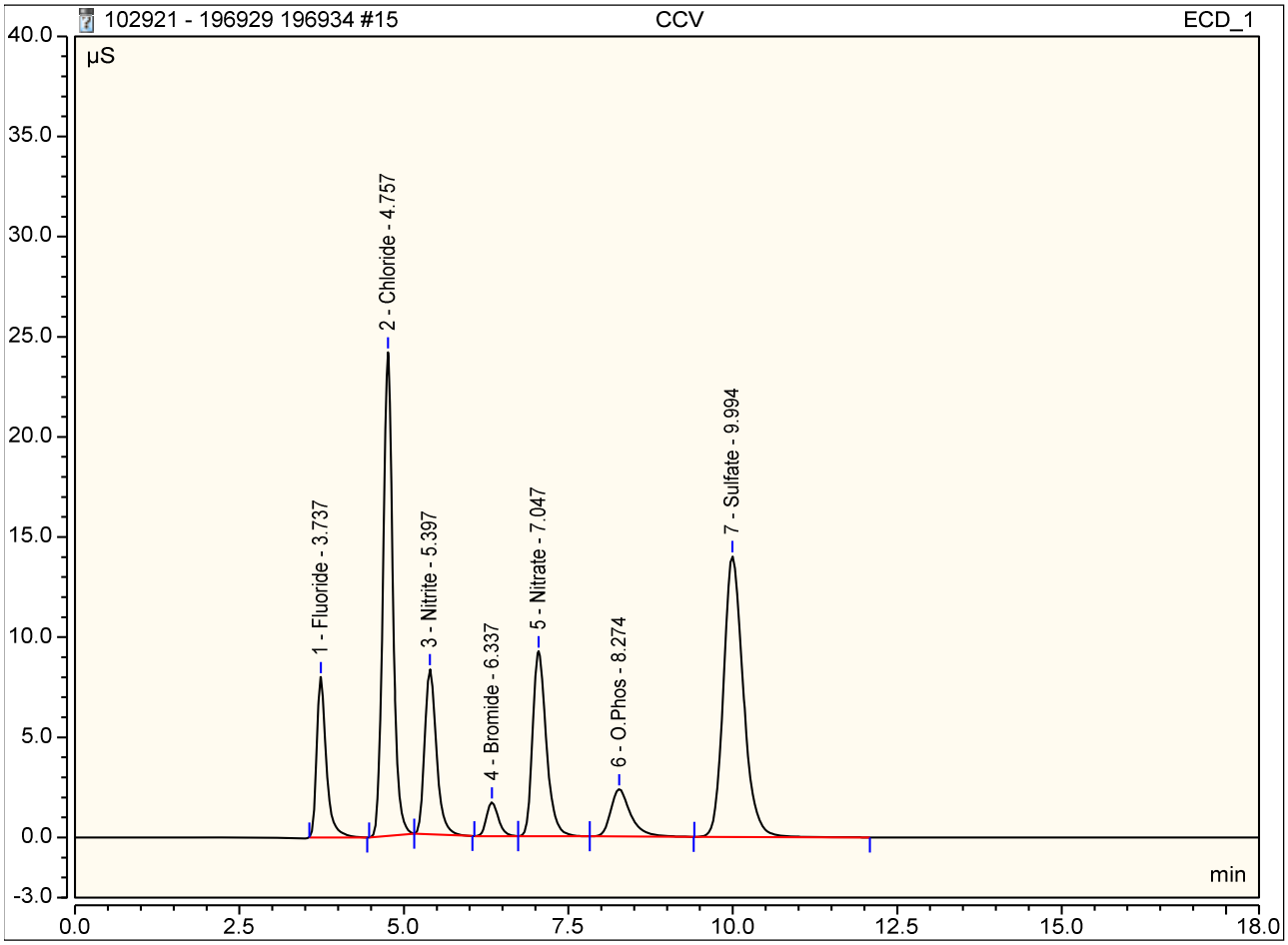
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.73	Fluoride	0.788	4.454	2.2352
2	4.83	Chloride	3.465	19.383	12.1220
3	5.42	Nitrite	0.964	4.789	2.0851
4	6.35	Bromide	0.215	1.032	2.2016
5	7.07	Nitrate	1.448	6.041	2.3477
6	8.32	O.Phos	0.535	1.301	2.1219
7	10.02	Sulfate	1.508	4.259	8.0943



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 15:43**	*Run Time:*	**18.00**

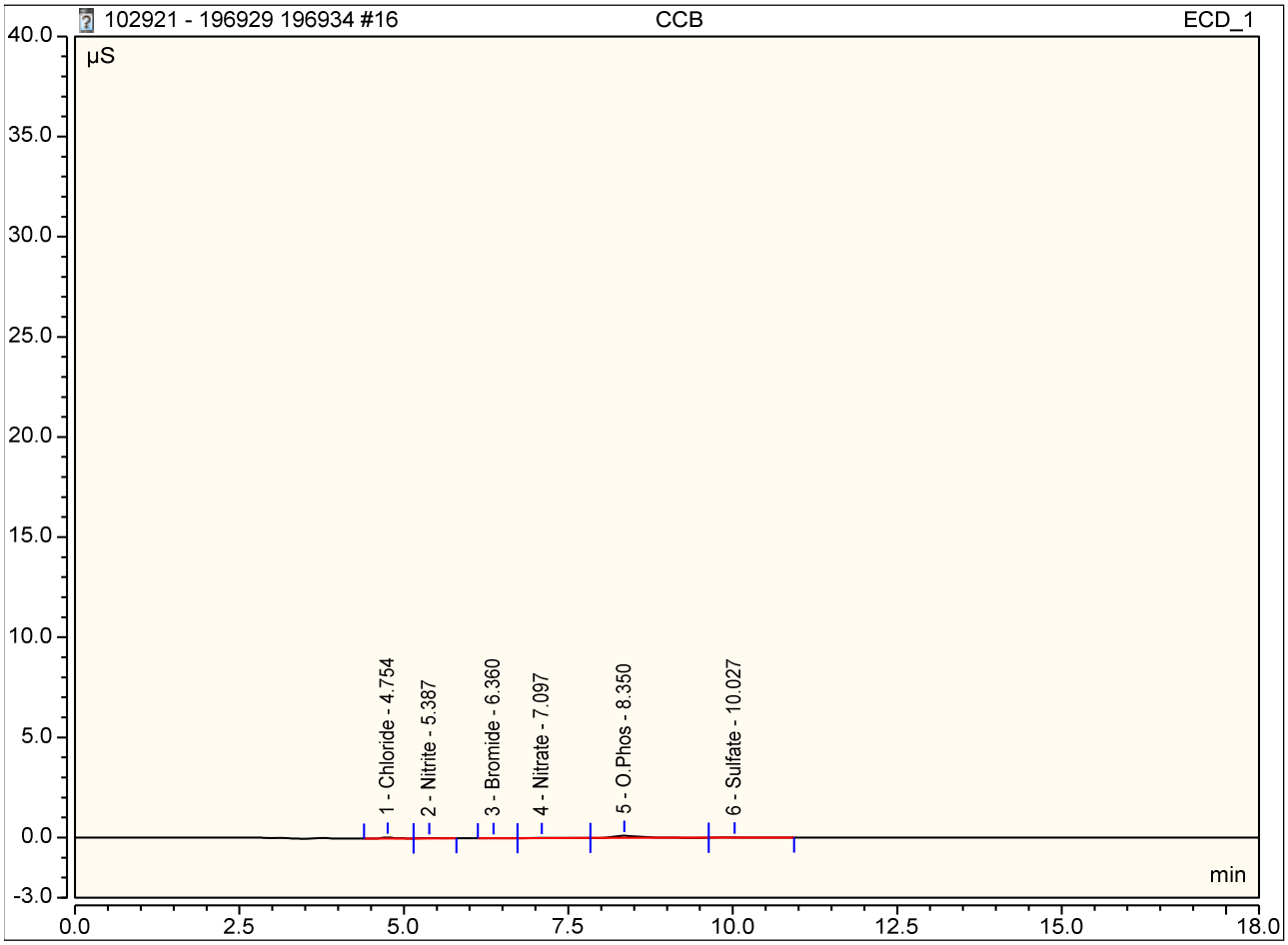
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.74	Fluoride	1.356	8.011	3.7923
2	4.76	Chloride	4.214	24.143	14.6179
3	5.40	Nitrite	1.717	8.252	3.7015
4	6.34	Bromide	0.355	1.686	3.6409
5	7.05	Nitrate	2.230	9.229	3.5724
6	8.27	O.Phos	0.824	2.362	3.3671
7	9.99	Sulfate	4.913	14.022	24.8003



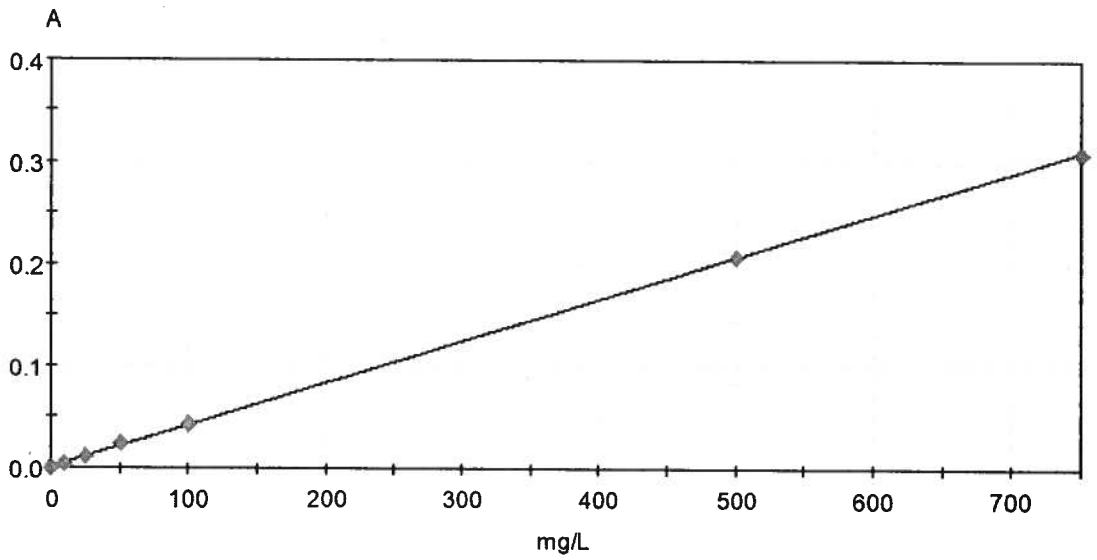
Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC3602A**	*Operator:*	**AQUION**
Inj. Date / Time:	**29-Oct-2021 / 16:01**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.75	Chloride	0.010	0.049	0.6093
2	5.39	Nitrite	0.003	0.015	0.0238
3	6.36	Bromide	0.001	0.006	0.0059
4	7.10	Nitrate	0.004	0.014	0.0839
5	8.35	O.Phos	0.050	0.104	0.0277
6	10.03	Sulfate	0.006	0.016	0.7254



Method:	W51710.mqa (600 nm)
Last modified:	10/13/2021 13:32:30 by CTLABORATORIES\SPEC
Spectrophotometer:	GENESYS 30
Serial number:	9A1W117104
Firmware:	104
Autozero:	11/03/2021 12:39:36
Measured:	11/03/2021 13:03:51 by CTLABORATORIES\SPEC
Result filename:	196967 197021 DATA.rqa



Curve parameters: y = 4.129621E-04 x + 9.141997E-04
Residual error: 0.0016 Correlation coefficient: 0.99993
Date: 10/13/2021 13:31:43 Autozero 10/13/2021 13:29:02

Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.161	387.7
ICB	1	-0.004	-11.9
CCV	1	0.163	392.5
CCB	1	-0.005	-14.3
1069191	1	0.161	387.7
1069190	1	-0.005	-14.3
1069197	1	0.029	68.0
1060823		0.058	discarded
1060823x2	1	0.030	70.4
1061696	1	0.016	36.5
1061738	1	0.013	29.3
CCV	1	0.164	394.9
CCB	1	-0.003	-9.5
1066849	1	-0.001	-4.6
1066849MS	1	0.062	147.9
1066849MSD	1	0.064	152.8

RLB
11/3/21

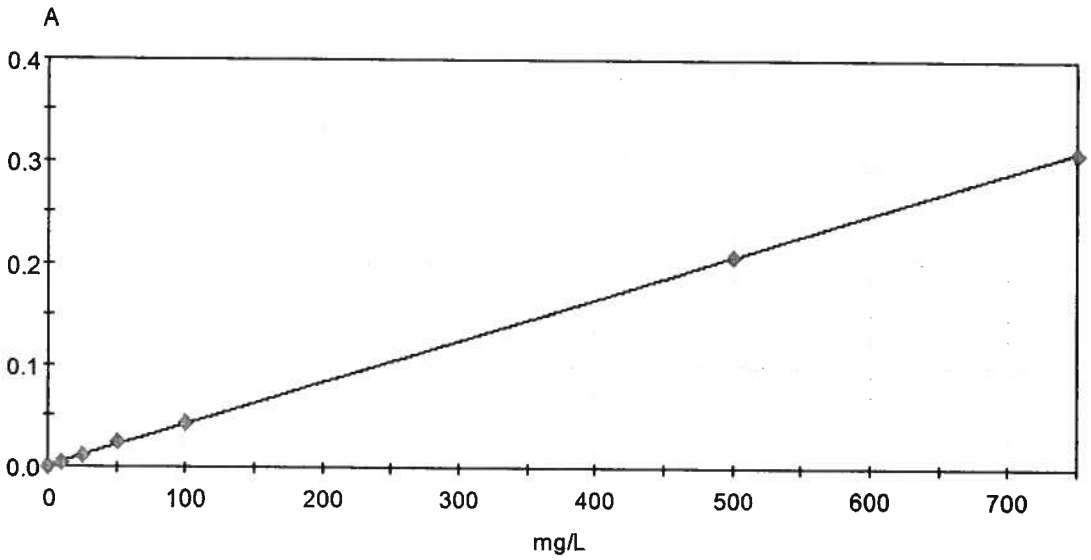
1066849DUP	1	0.000	-2.2
1067793	1	0.050	118.9
CCV	1	0.164	394.9
CCB	1	-0.005	-14.3
1068752	1	0.160	385.2
1068751	1	-0.006	-16.7
1066374	1	0.013	29.3
1066374MS	1	0.078	186.7
1066374MSD	1	0.077	184.2
1066375	1	0.105	252.0
1066379	1	0.013	29.3
~~* 1066380~~	~~1~~	~~0.075~~	~~179.4~~
~~* 1066381~~	~~1~~	~~0.063~~	~~150.3~~
1066382	1	0.009	19.6
CCV	1	0.163	392.5
CCB	1	-0.005	-14.3
1066383	1	0.000	-2.2
1066459	1	0.003	5.1
1066459MS	1	0.077	184.2
1066459MSD	1	0.072	172.1
1066864	1	0.007	14.7
1066934X20	1	0.191	460.3
~~* 1066956X10~~	~~1~~	~~0.096~~	~~230.3~~
~~* 1066957X50~~	~~1~~	~~0.100~~	~~239.9~~
1066958X20	1	0.099	237.5
1066959X20	1	0.170	409.4
CCV	1	0.165	397.3
CCB	1	-0.006	-16.7
1066960X20	1	0.026	60.7
~~* 1066961X20~~	~~1~~	~~0.384~~	~~927.7~~ ... Range
1067828	1	0.035	82.5
CCV	1	0.163	392.5
CCB	1	-0.004	-11.9

*1060823 set up on Re-run

RLB 11/3/21

* Re Run

Method:	W51710.mqa (600 nm)
Last modified:	10/13/2021 13:32:30 by CTLABORATORIES\SPEC
Spectrophotometer:	GENESYS 30
Serial number:	9A1W117104
Firmware:	104
Autozero:	11/05/2021 14:49:31
Measured:	11/05/2021 15:00:04 by CTLABORATORIES\SPEC
Result filename:	196967 RERUN.rqa



Curve parameters: y = 4.129621E-04 x + 9.141997E-04
Residual error: 0.0016 Correlation coefficient: 0.99993
Date: 10/13/2021 13:31:43 Autozero 10/13/2021 13:29:02

Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.161	387.7
ICB	1	0.001	0.2
CCV	1	0.167	402.2
CCB	1	0.003	5.1
1060823X2	1	0.031	72.9
1066380	1	0.006	12.3
1066381	1	0.001	0.2
1066956 X10	1	0.041	97.1
1066957 X500	1	0.105	252.0
1066961 X50	1	0.165	397.3
CCV	1	0.164	394.9
CCB	1	0.000	-2.2

RLB
11/5/21

pH - Mettler Toledo Seven Easy

Date:	10/29/2021	Analyst:	HLB	Lims #:	196942	Slope (%)	98%

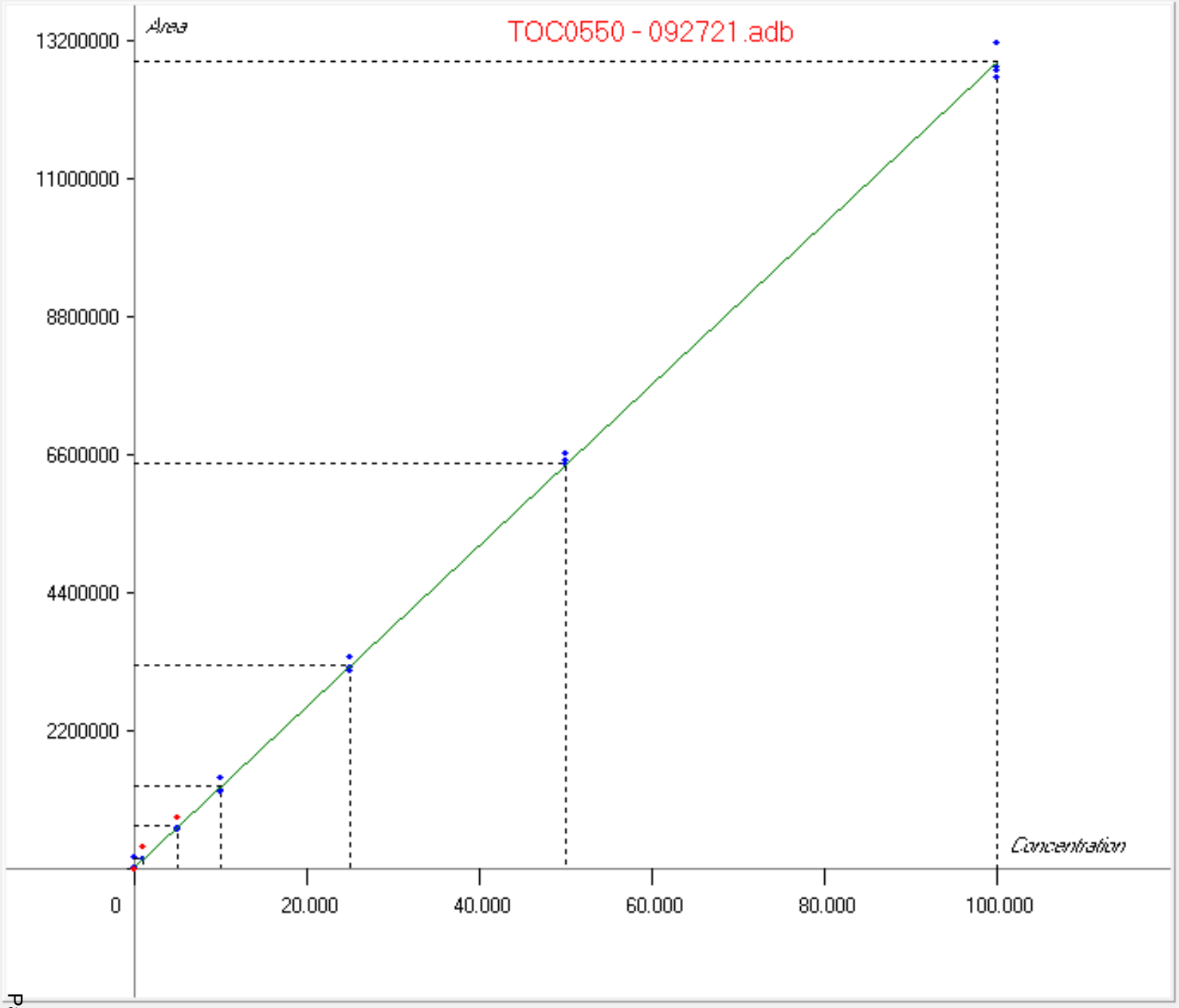
GRP	Sample ID#	Matrix	Temp (°C)*	Result	
1	BUFFER 7		24.8	6.98	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11	1067793	GW	13.9	7.58	
dup 11	1067793	GW	14.0	7.57	
12	BUFFER 7		23.4	7.04	
13					
14					
15					
16					
17					
18					
19					
20					
21					
23					
dup 23					
24	BUFFER 7				
25					
dup 25					
26					
dup 26					

To datacapture: Save CSV file under the TSS datacapture folder.

*Temperature of samples should be room temperature around 25°C

Buffer Standard IDs:

pH 4: WC205 pH 7: WC234 pH 10: WC275



Cursor Position

Concentration	Area
119.800 mg/l	9927500

A2	0
A1	128303
A0	48746
Correlation	0.99971
Order	1
Volume	100 µl
Conc.	100.00
Area	13178706

Conc.	Area	Sel.
0	202065	
0	37348	
0	0	
0	0	
0	0	
1	377250	
1	169594	
1	180562	

Used Value
Ignored Value

CurveNo:1 CurveType:TC

09/30/2021

Analysis Name TOC0550 - 092721.adb

Template Name CURVE TEMP.tdb
Method Name N / A
Operator KMT

Date Monday, September 27, 2021
Time 13:26

Start Oven Temp. 757 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL 0550 INST: TOCW
ICAL STOCK 0549 ICV STOCK 0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	This Analysis	Sep 27 2021, 13:26	13178706	100	1	0.99971	100 µl	Yes
	A2: 0		*A1: 128302.547262599*		*A0: 48745.8532633808*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	BLANK	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 13:37:03	3.08	443859	1	758	2	-	-
2	9/27/2021 13:40:22	0.00	0	0	757	2	-	Yes
3	9/27/2021 13:44:23	0.00	0	0	758	2	-	Yes
4	9/27/2021 13:48:25	0.00	0	0	758	2	-	Yes
5	9/27/2021 13:52:26	0.00	0	0	759	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	2	Unknown	BLANK	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 13:57:18	1.19	201872	1	758	2	-	-
2	9/27/2021 14:00:22	0.00	0	0	757	2	-	Yes
3	9/27/2021 14:04:23	0.00	0	0	758	2	-	Yes
4	9/27/2021 14:08:24	0.00	0	0	758	2	-	Yes
5	9/27/2021 14:12:26	0.00	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S1	Standard	TC Std 0.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**59853**	**161.11**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 14:17:18	1.19	202065	1	759	2	-	Yes
2	9/27/2021 14:20:14	ZERO !	37348	1	758	2	-	Yes
3	9/27/2021 14:22:32	0.00	0	1	758	2	-	Yes
4	9/27/2021 14:26:34	0.00	0	1	758	2	-	Yes
5	9/27/2021 14:30:35	0.00	0	1	758	2	-	-

Inj. Order	Position	Type	Identification	Dilution Factor
4	S2	Standard	TC Std 1.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.99**	**175386**	**2.58**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 14:35:29	2.56	377250	1	758	2	-	-
2	9/27/2021 14:38:37	0.94	169594	1	756	2	-	Yes
3	9/27/2021 14:40:54	1.03	180562	1	756	2	-	Yes
4	9/27/2021 14:43:15	0.98	175011	1	756	2	-	Yes
5	9/27/2021 14:45:33	0.99	176380	1	755	2	-	Yes

5 S3 Standard TC Std. 5.00 mg/l 1 x

TC **4.77** **660702** **0.27** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 14:48:44	6.07	827529	1	756	2	-	-
2	9/27/2021 14:51:59	4.79	662991	1	755	2	-	Yes
3	9/27/2021 14:54:28	4.75	658750	1	755	2	-	Yes
4	9/27/2021 14:56:57	4.77	661088	1	755	2	-	Yes
5	9/27/2021 14:59:28	4.76	659982	1	755	2	-	Yes

---

6 S4 Standard TC Std. 10.00 mg/l 1 x

TC **9.89** **1317979** **7.80** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 15:02:47	11.09	1471288	1	756	2	-	Yes
2	9/27/2021 15:06:13	9.45	1260726	1	755	2	-	Yes
3	9/27/2021 15:08:49	9.42	1257215	1	756	2	-	Yes
4	9/27/2021 15:11:24	9.62	1282688	1	755	2	-	Yes

---

7 S5 Standard TC Std. 25.00 mg/l 1 x

TC **24.88** **3240820** **3.07** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 15:15:00	25.99	3382999	1	756	2	-	Yes
2	9/27/2021 15:18:33	24.38	3176357	1	755	2	-	Yes
3	9/27/2021 15:21:23	24.32	3168579	1	755	2	-	Yes
4	9/27/2021 15:24:09	24.84	3235348	1	755	2	-	Yes

---

8 S6 Standard TC Std. 50.00 mg/l 1 x

TC **50.66** **6549163** **0.94** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 15:27:57	51.33	6634136	1	755	2	-	Yes
2	9/27/2021 15:31:33	50.18	6487387	1	755	2	-	Yes
3	9/27/2021 15:34:30	50.56	6535264	1	755	2	-	Yes
4	9/27/2021 15:37:30	50.59	6539867	1	755	2	-	Yes

---

9 S7 Standard TC Std. 100.00 mg/l 1 x

TC **99.72** **12843101** **1.82** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 15:41:18	102.34	13178706	1	755	2	-	Yes
2	9/27/2021 15:45:11	99.38	12799759	1	755	2	-	Yes
3	9/27/2021 15:48:22	99.05	12757369	1	755	2	-	Yes
4	9/27/2021 15:51:24	98.11	12636571	1	754	2	-	Yes

---

10 S8 Unknown ICV - 50.00 mg/L 1 x

TC **46.51** **6015986** **1.58** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 15:55:21	47.46	6138507	1	754	2	-	Yes
2	9/27/2021 15:59:01	45.68	5909159	1	754	2	-	Yes
3	9/27/2021 16:01:52	46.33	5992790	1	754	2	-	Yes
4	9/27/2021 16:04:42	46.57	6023491	1	754	2	-	Yes

---

11 S9 Unknown ICB 1 x

TC **ZERO !** **44571** **70.11** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	9/27/2021 16:08:30	1.23	206216	1	753	2	-	-
2	9/27/2021 16:11:32	0.16	69805	1	753	2	-	Yes
3	9/27/2021 16:13:42	ZERO !	46530	1	753	2	-	Yes
4	9/27/2021 16:15:56	0.10	61949	1	753	2	-	Yes
5	9/27/2021 16:18:05	0	0	0	753	2	-	Yes

Analysis Name 110421B - 197155 197156.adb

Template Name 110421B - 197155 197156.tdb
Method Name N / A
Operator KMT

Date Thursday, November 4, 2021
Time 14:49

Start Oven Temp. 776 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL 0550 INST: TOCW
CCV 0558 LCS 0559 SPIKE 0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0550 - 092721	Sep 27 2021, 13:26	13178706	100	1	0.99971	100 µl	Yes
	A2: 0		*A1: 128302.547262599*		*A0: 48745.8532633808*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**617558**	**195.32**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 15:00:05	18.53	2426637	1	774	2	-	Yes
2	11/4/2021 15:04:35	ZERO !	43597	1	772	2	-	Yes
3	11/4/2021 15:06:43	0	0	0	771	2	-	Yes
4	11/4/2021 15:10:45	0	0	0	769	2	-	Yes
5	11/4/2021 15:14:46	0	0	0	769	2	-	-

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**48.98**	**6332307**	**1.30**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 15:19:37	49.85	6445020	1	768	2	-	Yes
2	11/4/2021 15:23:19	48.36	6253403	1	767	2	-	Yes
3	11/4/2021 15:26:09	48.70	6296802	1	766	2	-	Yes
4	11/4/2021 15:29:02	48.99	6334006	1	765	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**50.81**	**6568026**	**0.87**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 15:32:46	51.32	6633680	1	764	2	-	Yes
2	11/4/2021 15:36:28	51.00	6592349	1	764	2	-	Yes
3	11/4/2021 15:39:23	50.31	6503265	1	763	2	-	Yes
4	11/4/2021 15:42:11	50.62	6542810	1	763	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**42161**	**139.89**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 15:45:57	0.60	125102	1	763	2	-	Yes
2	11/4/2021 15:48:59	0	0	0	761	2	-	Yes
3	11/4/2021 15:53:01	ZERO !	43542	1	761	2	-	Yes
4	11/4/2021 15:55:15	0	0	0	760	2	-	Yes
5	11/4/2021 15:59:16	0	0	0	760	2	-	-

Inj. Order	Position	Type	Identification	Dilution Factor
5	3	Unknown	1066467	1 x

		TC	**0.64**	**130318**	**11.38**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 16:04:08	1.19	201455	1	759	2	-	-
	2	11/4/2021 16:07:04	0.72	141515	1	758	2	-	Yes
	3	11/4/2021 16:09:19	0.72	141092	1	758	2	-	Yes
	4	11/4/2021 16:11:36	0.62	128743	1	757	2	-	Yes
	5	11/4/2021 16:13:47	0.48	109922	1	757	2	-	Yes

6	4	Unknown	1066468	1 x

		TC	**0.63**	**129013**	**5.97**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 16:16:45	1.17	198588	1	757	2	-	-
	2	11/4/2021 16:19:41	0.66	132851	1	757	2	-	Yes
	3	11/4/2021 16:21:52	0.64	131213	1	756	2	-	Yes
	4	11/4/2021 16:24:04	0.67	134363	1	756	2	-	Yes
	5	11/4/2021 16:26:15	0.54	117625	1	756	2	-	Yes

7	5	Unknown	1066469	1 x

		TC	**ZERO !**	**-66148**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 16:29:13	0.90	164700	1	756	2	-	-
	2	11/4/2021 16:32:04	ZERO !	-15539	1	755	2	-	Yes
	3	11/4/2021 16:34:48	ZERO !	-104760	1	755	2	-	Yes
	4	11/4/2021 16:38:19	ZERO !	-144294	1	755	2	-	Yes
	5	11/4/2021 16:41:55	0	0	0	755	2	-	Yes

8	6	Unknown	DUP1066469	1 x

		TC	**ZERO !**	**-6003**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 16:46:49	ZERO !	-24015	1	755	2	-	Yes
	2	11/4/2021 16:51:26	0	0	0	755	2	-	-
	3	11/4/2021 16:55:27	0	0	0	754	2	-	Yes
	4	11/4/2021 16:59:29	0	0	0	754	2	-	Yes
	5	11/4/2021 17:03:30	0	0	0	754	2	-	Yes

9	7	Unknown	MSW1066469	1 x

		TC	**48.14**	**6225758**	**0.65**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 17:08:23	47.80	6181729	1	754	2	-	Yes
	2	11/4/2021 17:11:47	47.95	6200973	1	753	2	-	Yes
	3	11/4/2021 17:14:24	48.45	6265506	1	753	2	-	Yes
	4	11/4/2021 17:17:03	48.37	6254824	1	753	2	-	Yes

10	8	Unknown	MSDW1066469	1 x

		TC	**47.26**	**6112847**	**1.23**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 17:20:34	47.12	6094014	1	753	2	-	Yes
	2	11/4/2021 17:23:53	48.07	6216057	1	752	2	-	Yes
	3	11/4/2021 17:26:33	46.67	6036632	1	752	2	-	Yes
	4	11/4/2021 17:29:11	47.20	6104686	1	752	2	-	Yes

11	9	Unknown	1066470	1 x

		TC	**ZERO !**	**-124159**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 17:32:38	ZERO !	-112840	1	753	2	-	Yes
	2	11/4/2021 17:36:46	ZERO !	-112647	1	753	2	-	Yes
	3	11/4/2021 17:39:44	ZERO !	-148491	1	752	2	-	Yes
	4	11/4/2021 17:43:19	ZERO !	-122660	1	752	2	-	Yes
	5	11/4/2021 17:46:47	ZERO !	-111047	1	753	2	-	-

12	10	Unknown	1066471	1 x

		TC	**ZERO !**	**-85747**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 17:51:16	ZERO !	-62936	1	753	2	-	Yes
	2	11/4/2021 17:55:22	0	0	0	753	2	-	Yes

3	11/4/2021 17:59:23	0.31	88736	1	753	2	-	-
4	11/4/2021 18:01:21	ZERO !	-74736	1	752	2	-	Yes
5	11/4/2021 18:05:03	ZERO !	-205316	1	752	2	-	Yes

13 11 Unknown 1066854 1 x

TC **ZERO !** **-174743** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 18:09:52	ZERO !	-70761	1	752	2	-	-
2	11/4/2021 18:14:25	ZERO !	-145757	1	752	2	-	Yes
3	11/4/2021 18:18:02	ZERO !	-149067	1	752	2	-	Yes
4	11/4/2021 18:21:30	ZERO !	-212614	1	753	2	-	Yes
5	11/4/2021 18:25:32	ZERO !	-191537	1	752	2	-	Yes

14 12 Unknown 1067787 1 x

TC **ZERO !** **-133408** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 18:30:24	ZERO !	-69050	1	753	2	-	-
2	11/4/2021 18:34:44	ZERO !	-132757	1	752	2	-	Yes
3	11/4/2021 18:38:34	ZERO !	-143613	1	752	2	-	Yes
4	11/4/2021 18:42:35	ZERO !	-118046	1	752	2	-	Yes
5	11/4/2021 18:46:01	ZERO !	-139217	1	752	2	-	Yes

15 S1 Unknown CCV 1 x

TC **47.41** **6130996** **1.22** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 18:50:30	46.92	6068758	1	752	2	-	Yes
2	11/4/2021 18:53:58	47.00	6078800	1	751	2	-	Yes
3	11/4/2021 18:56:47	48.18	6230300	1	751	2	-	Yes
4	11/4/2021 18:59:38	47.52	6146127	1	752	2	-	Yes

16 13 Unknown CCB 1 x

TC **0.00** **0** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 19:03:12	0	0	0	752	2	-	Yes
2	11/4/2021 19:07:49	0	0	0	752	2	-	Yes
3	11/4/2021 19:11:50	0	0	0	752	2	-	Yes
4	11/4/2021 19:15:52	0	0	0	752	2	-	Yes

17 14 Unknown 1067788X2 1 x

NOT USED

TC **1.48** **239020** **7.61** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 19:20:45	1.79	278024	1	752	2	-	-
2	11/4/2021 19:23:40	1.36	222771	1	751	2	-	Yes
3	11/4/2021 19:25:52	1.39	226548	1	751	2	-	Yes
4	11/4/2021 19:28:08	1.67	262370	1	751	2	-	Yes
5	11/4/2021 19:30:25	1.52	244394	1	751	2	-	Yes

18 15 Unknown 1067789 1 x

TC **0.56** **120013** **4.08** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 19:33:30	0.76	146675	1	752	2	-	-
2	11/4/2021 19:36:18	0.61	126679	1	752	2	-	Yes
3	11/4/2021 19:38:25	0.54	117463	1	751	2	-	Yes
4	11/4/2021 19:40:28	0.56	120448	1	751	2	-	Yes
5	11/4/2021 19:42:32	0.52	115464	1	751	2	-	Yes

19 16 Unknown 1067790 1 x

TC **0.53** **116965** **8.28** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/4/2021 19:45:29	0.61	126594	1	752	2	-	Yes
2	11/4/2021 19:48:12	0.51	113851	1	752	2	-	Yes
3	11/4/2021 19:50:10	0.44	104819	1	751	2	-	Yes
4	11/4/2021 19:52:07	0.58	122599	1	751	2	-	Yes

20	17	Unknown	1067791				1 x		
		TC	**ZERO !**	**-109742**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 19:56:39	ZERO !	-35855	1	753	2	-	Yes
	2	11/4/2021 20:00:40	ZERO !	-163458	1	753	2	-	Yes
	3	11/4/2021 20:04:41	ZERO !	-129883	1	752	2	-	Yes
	4	11/4/2021 20:08:32	ZERO !	-109774	1	752	2	-	Yes
	5	11/4/2021 20:12:33	0.18	71709	1	753	2	-	-

21	18	Unknown	1067792				1 x		
		TC	**0.77**	**147783**	**6.35**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 20:15:25	0.88	161710	1	752	2	-	Yes
	2	11/4/2021 20:18:06	0.72	141457	1	752	2	-	Yes
	3	11/4/2021 20:20:05	0.75	144813	1	752	2	-	Yes
	4	11/4/2021 20:22:04	0.74	143152	1	751	2	-	Yes

27	S1	Unknown	CCV				1 x		
		TC	**47.31**	**6118450**	**1.27**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.

	1	11/4/2021 21:53:19	46.71	6041701	1	753	2	-	Yes
	2	11/4/2021 21:57:03	46.97	6075723	1	752	2	-	Yes
	3	11/4/2021 21:59:53	47.46	6137412	1	752	2	-	Yes
	4	11/4/2021 22:02:42	48.09	6218965	1	751	2	-	Yes

28	24	Unknown	CCB				1 x		
		TC	**0.00**	**0**		**0.00**	**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/4/2021 22:06:35	0	0	0	752	2	-	Yes
	2	11/4/2021 22:11:12	0	0	0	752	2	-	Yes
	3	11/4/2021 22:15:13	0	0	0	752	2	-	Yes
	4	11/4/2021 22:19:14	0	0	0	752	2	-	Yes

Analysis Name 110521 - 197155RR.adb

Template Name 110521 - 197155RR.tdb
Method Name N / A
Operator KMT

Date Friday, November 5, 2021
Time 8:32

Start Oven Temp. 758 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL 0550 INST: TOCW
CCV 0558 LCS 0559 SPIKE 0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0550 - 092721	Sep 27 2021, 13:26	13178706	100	1	0.99971	100 µl	Yes
	A2: 0		*A1: 128302.547262599*		*A0: 48745.8532633808*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**1.69**	**265363**	**7.64**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/5/2021 8:42:43	8.39	1125010	1	760	2	-	-
2	11/5/2021 8:46:45	1.81	281571	1	759	2	-	Yes
3	11/5/2021 8:49:03	1.67	263380	1	758	2	-	Yes
4	11/5/2021 8:51:18	1.47	237462	1	758	2	-	Yes
5	11/5/2021 8:53:32	1.79	279042	1	757	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**48.97**	**6330972**	**0.90**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/5/2021 8:56:40	49.52	6402214	1	758	2	-	Yes
2	11/5/2021 9:00:21	48.76	6305234	1	758	2	-	Yes
3	11/5/2021 9:03:12	48.49	6269671	1	758	2	-	Yes
4	11/5/2021 9:06:05	49.09	6346770	1	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	2	Unknown	CCB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.02**	**27527**	**116.55**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/5/2021 9:09:52	0.09	60381	1	758	2	-	Yes
2	11/5/2021 9:12:38	0	0	0	758	2	-	Yes
3	11/5/2021 9:16:39	0.01	49727	1	758	2	-	Yes
4	11/5/2021 9:18:50	0	0	0	756	2	-	Yes
5	11/5/2021 9:22:52	0	0	0	757	2	-	-

Inj. Order	Position	Type	Identification	Dilution Factor
4	3	Unknown	1067788	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**6.07**	**827223**	**8.08**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	11/5/2021 9:27:43	5.95	812480	1	758	2	-	Yes
2	11/5/2021 9:30:57	5.38	738930	1	758	2	-	Yes
3	11/5/2021 9:33:30	6.42	872412	1	757	2	-	Yes
4	11/5/2021 9:36:07	7.80	1049448	1	757	2	-	-
5	11/5/2021 9:38:41	6.52	885071	1	757	2	-	Yes

5	S1	Unknown	CCV					1 x	
		TC	**49.42**	**6389555**		**0.64**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/5/2021 9:42:02	49.49	6399053	1	757	2	-	Yes
	2	11/5/2021 9:45:41	49.27	6370700	1	756	2	-	Yes
	3	11/5/2021 9:48:38	49.83	6441561	1	756	2	-	Yes
	4	11/5/2021 9:51:35	49.09	6346906	1	756	2	-	Yes
6	4	Unknown	CCB					1 x	
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	11/5/2021 9:55:22	0.17	71081	1	756	2	-	-
	2	11/5/2021 9:58:14	0	0	0	755	2	-	Yes
	3	11/5/2021 10:02:16	0	0	0	756	2	-	Yes
	4	11/5/2021 10:06:17	0	0	0	755	2	-	Yes
	5	11/5/2021 10:10:18	0	0	0	756	2	-	Yes

INORGANICS
LOGBOOK
DOCUMENTS

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1067886						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
		Sulfate		ICV							
	1067887						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1066902						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1066903						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1066904						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1066905							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1066906							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
165461	1066467		10/26/2021	10:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
165461	1066468		10/26/2021	10:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Sulfate										
		Nitrate Nitrogen										
165461	1066469		10/26/2021	11:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride		***RERUN***	*							
		Nitrate Nitrogen		***RERUN***	*							
		Sulfate		***RERUN***	*							

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1066907						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1066908						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1066914		10/26/2021 11:26				ANIONS IC QSM 5.0				
		Sulfate	***RERUN***	DUP 1066469				0			
		Chloride	***RERUN***	DUP 1066469				0			
		Nitrate Nitrogen	***RERUN***	DUP 1066469				0			
	1066915		10/26/2021 11:26				ANIONS IC QSM 5.0				
		Sulfate	***RERUN***	MSW 1066469				0			
		Chloride	***RERUN***	MSW 1066469				0			
		Nitrate Nitrogen	***RERUN***	MSW 1066469				0			
	1066916		10/26/2021 11:26				ANIONS IC QSM 5.0				
		Sulfate	***RERUN***	MSDW 1066915				0			
		Chloride	***RERUN***	MSDW 1066915				0			
		Nitrate Nitrogen	***RERUN***	MSDW 1066915				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165461	1066470		10/26/2021 12:30		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Sulfate									
		Nitrate Nitrogen									
165461	1066471		10/26/2021 13:38		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Sulfate									
		Nitrate Nitrogen									
	1066910						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1066911						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1066912						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1066913								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB					0			
		Chloride			CCB					0			
		Sulfate			CCB					0			
165461	1066469		10/26/2021	11:26			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride			*								
		Sulfate			*								
		Nitrate Nitrogen			*								
	1066914		10/26/2021	11:26					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1066469				0			
		Chloride			DUP	1066469				0			
		Sulfate			DUP	1066469				0			
	1066915		10/26/2021	11:26					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1066469				0			
		Chloride			MSW	1066469				0			
		Sulfate			MSW	1066469				0			
	1066916		10/26/2021	11:26					ANIONS IC QSM 5.0				
		Sulfate			MSDW	1066915				0			
		Nitrate Nitrogen			MSDW	1066915				0			
		Chloride			MSDW	1066915				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196851 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1066917						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1066918						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

81

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
196851 196852	10/27/2021	TMG	RLD	10/29/2021	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Aquion Run Log - System 4

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviewed/Date
08/18/21	12:43	08/19/21	01:58	TMG	194566 194567	IC3602A	081821 -	IC3740 IC3748	IC3741 IC3749	IC3742 IC3750	21.49	1140	0.94		RLD 09/22/2021
08/19/21	11:38	08/19/21	23:23	TMG	194623 194625 194633	IC3602A	081921 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.56	1135	0.94		RLD 09/22/2021
08/20/21	11:03	08/20/21	17:59	TMG	194648 194649	IC3602A	082021 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.22	1139	0.94		RLD 09/22/2021
08/24/21	10:42	08/25/21	08:42	TMG	194751 194752	IC3602A	082421 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	21.39	1132	0.94		RLD 09/22/2021
08/25/21	9:49	08/25/21	16:26	TMG	194796 194799	IC3602A	082521 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	22.02	1130	0.94		RLD 09/22/2021
08/26/21	13:56	08/26/21	19:57	TMG	194850 194851	IC3602A	082621 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.49	1132	0.94		RLD 09/22/2021
08/27/21	9:30	08/27/21	16:26	TMG	194876 194878	IC3602A	082721 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.52	1128	0.94		RLD 09/22/2021
08/30/21	11:47	08/30/21	19:37	TMG	194932 194933	IC3602A	083021 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.36	1134	0.94		RLD 09/22/2021
08/31/21	10:10	09/01/21	09:28	TMG	194971 195005 MDL	IC3602A	083121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.26	1132	0.94		RLD 09/22/2021
09/01/21	12:06	09/01/21	17:32	TMG	195025 1950026	IC3602A	090121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.44	1126	0.94		RLD 09/22/2021
09/02/21	12:45	09/02/21	18:10	TMG	195080 195082	IC3602A	090221 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	21.01	1129	0.94		RLD 09/22/2021
09/03/21	10:47	09/07/21	08:59	TMG	195119 195120	IC3602A	090321 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.99	1131	0.94		RLD 09/22/2021
09/08/21	12:23	09/08/21	18:24	TMG	195218 195219	IC3602A	090821 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.67	1132	0.94		RLD 09/22/2021
09/09/21	12:21	09/10/21	10:27	TMG	195250 195251	IC3602A	090921 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.77	1129	0.94		RLD 09/22/2021
09/10/21	12:56	09/13/21	09:15	TMG	195312	IC3602A	091021 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.35	1131	0.94		RLD 09/22/2021
09/13/21	14:01	09/13/21	17:20	TMG	195352	IC3602A	091321 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.11	1131	0.94		RLD 09/22/2021
09/14/21	14:05	09/15/21	10:03	TMG	195401 195402 195411	IC3602A	091421 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.82	1134	0.94		RLD 09/22/2021
09/15/21	11:40	09/20/21	10:32	TMG	195437 195438	IC3602A	091521 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.39	1125	0.94		RLD 09/22/2021
09/16/21	13:16	09/17/21	10:16	TMG	195521 195522	IC3602A	091621 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.3	1121	0.94		RLD 09/22/2021
09/17/21	13:00	09/17/21	22:02	TMG	195546	IC3062A	091721 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.44	1120	0.94		RLD 09/22/2021
09/20/21	14:58	09/20/21	17:05	TMG	195612	IC3602A	092021 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.13	1122	0.94		RLD 09/22/2021
09/21/21	12:19	09/22/21	13:19	TMG	195635 195636 195686	IC3602A	092121 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	20.8	1121	0.94		
09/22/21	14:33	09/23/21	09:48	TMG	195700 195702	IC3602A	092221 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	21.5	1119	0.94		
09/23/21	13:29	09/24/21	09:26	TMG	195753 195754	IC3602A	092321 -	IC3799 IC3802	IC3800 IC3803	IC3801 IC3804	21.3	1119	0.94		
09/28/21	13:53	09/28/21	21:25	TMG	195885 195886	IC3602A	092821 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.31	1133	0.94		
09/29/21	12:26	09/30/21	10:22	TMG	195928 195929 195938 195939	IC3602A	092921 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.07	1130	0.94		
09/30/21	13:24	10/01/21	10:31	TMG	195973 195974	IC3602A	093021 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.42	1127	0.94		
10/01/21	12:20	10/01/21	19:16	TMG	196011	IC3602A	100121 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.46	1126	0.94		
10/05/21	12:51	10/06/21	09:11	TMG	196112	IC3602A	100521 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.16	1133	0.94		
10/06/21	14:24	10/07/21	10:10	TMG	196163 196164	IC3602A	100621 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.22	1127.5	0.94		
10/07/21	14:03	10/07/21	18:16	TMG	196207	IC3602A	100721 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.31	1125.91	0.94		
10/08/21	12:15	10/11/21	09:26	TMG	196230	IC3602A	100821 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.07	1129.77	0.94		
10/13/21	14:45	10/14/21	09:20	TMG	196323 196324	IC3602A	101321 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.09	1131.35	0.94		
10/14/21	14:16	10/15/21	20:33	TMG	196355 196366 196412 196417	IC3602A	101421 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.33	1127.92	0.94		
10/19/21	12:45	10/20/21	09:09	TMG	196483	IC3602A	101921 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.25	1137.14	0.94		
10/20/21	12:33	10/21/21	10:22	TMG	196516 MDL	IC3602A	102021 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.61	1139.53	0.94		
10/22/21	12:37	10/22/21	15:01	TMG	196697	IC3602A	102221 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.03	1152.18	0.94		
10/25/21	12:38	10/25/21	23:29	TMG	196740 196741	IC3602A	102521 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.17	1161.28	0.94		
10/26/21	11:30	10/27/21	10:23	TMG	196795 196796 PT	IC3602A	102621 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.16	1159.12	0.94		
10/27/21	13:56	10/28/21	09:34	TMG	196851 196852	IC3602A	102721 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.56	1151.87	0.94		
10/28/21	14:06	10/29/21	09:32	TMG	196891 196892	IC3602A	102821 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.52	1137.91	0.94		
10/29/21	11:48	10/29/21	17:49	TMG	196929 196932	IC3602A	102921 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.89	1135.56	0.94		

WANIONS IC QSM 5.0 Anion Run
196892 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1068041						WANIONS IC QSM 5.0				
		Sulfate		ICV							
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
	1068042						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1067749						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1067750						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1067751						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196892 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165486	1066840		10/27/2021 09:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride		*							
		Nitrate Nitrogen		*							
		Sulfate		*							
	1067752		10/27/2021 09:00				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		DUP	1066840			0			
		Chloride		DUP	1066840			0			
		Sulfate		DUP	1066840			0			
	1067753						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1067754						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1067755		10/27/2021 09:00				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW	1066840			0			
		Chloride		MSW	1066840			0			
		Sulfate		MSW	1066840			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196892 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1067756		10/27/2021 09:00				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW 1067755				0			
		Chloride		MSDW 1067755				0			
		Sulfate		MSDW 1067755				0			
165486	1066845		10/27/2021 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate									
		Chloride									
		Nitrate Nitrogen									
165486	1066845		10/27/2021 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Chloride	***RERUN***								
165486	1066846		10/27/2021 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165486	1066847		10/27/2021 12:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196892 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165486	1066848		10/27/2021 13:07		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165487	1066854		10/27/2021 15:08		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
	1067757						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1067758						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1067759						WANIONS IC QSM 5.0				
		Chloride		CCV				0			
		Sulfate		CCV				0			
		Nitrate Nitrogen		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196892 on 10/29/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1067760						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
165486	1066846		10/27/2021 10:40		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Chloride	***RERUN***								
	1067762						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1067764						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

72

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
196891 196892	10/28/2021	TMG	RLD	10/29/2021	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Aquion Run Log - System 4

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviewed/Date
08/18/21	12:43	08/19/21	01:58	TMG	194566 194567	IC3602A	081821 -	IC3740 IC3748	IC3741 IC3749	IC3742 IC3750	21.49	1140	0.94		RLD 09/22/2021
08/19/21	11:38	08/19/21	23:23	TMG	194623 194625 194633	IC3602A	081921 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.56	1135	0.94		RLD 09/22/2021
08/20/21	11:03	08/20/21	17:59	TMG	194648 194649	IC3602A	082021 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.22	1139	0.94		RLD 09/22/2021
08/24/21	10:42	08/25/21	08:42	TMG	194751 194752	IC3602A	082421 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	21.39	1132	0.94		RLD 09/22/2021
08/25/21	9:49	08/25/21	16:26	TMG	194796 194799	IC3602A	082521 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	22.02	1130	0.94		RLD 09/22/2021
08/26/21	13:56	08/26/21	19:57	TMG	194850 194851	IC3602A	082621 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.49	1132	0.94		RLD 09/22/2021
08/27/21	9:30	08/27/21	16:26	TMG	194876 194878	IC3602A	082721 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.52	1128	0.94		RLD 09/22/2021
08/30/21	11:47	08/30/21	19:37	TMG	194932 194933	IC3602A	083021 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.36	1134	0.94		RLD 09/22/2021
08/31/21	10:10	09/01/21	09:28	TMG	194971 195005 MDL	IC3602A	083121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.26	1132	0.94		RLD 09/22/2021
09/01/21	12:06	09/01/21	17:32	TMG	195025 1950026	IC3602A	090121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.44	1126	0.94		RLD 09/22/2021
09/02/21	12:45	09/02/21	18:10	TMG	195080 195082	IC3602A	090221 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	21.01	1129	0.94		RLD 09/22/2021
09/03/21	10:47	09/07/21	08:59	TMG	195119 195120	IC3602A	090321 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.99	1131	0.94		RLD 09/22/2021
09/08/21	12:23	09/08/21	18:24	TMG	195218 195219	IC3602A	090821 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.67	1132	0.94		RLD 09/22/2021
09/09/21	12:21	09/10/21	10:27	TMG	195250 195251	IC3602A	090921 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.77	1129	0.94		RLD 09/22/2021
09/10/21	12:56	09/13/21	09:15	TMG	195312	IC3602A	091021 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.35	1131	0.94		RLD 09/22/2021
09/13/21	14:01	09/13/21	17:20	TMG	195352	IC3602A	091321 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.11	1131	0.94		RLD 09/22/2021
09/14/21	14:05	09/15/21	10:03	TMG	195401 195402 195411	IC3602A	091421 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.82	1134	0.94		RLD 09/22/2021
09/15/21	11:40	09/20/21	10:32	TMG	195437 195438	IC3602A	091521 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.39	1125	0.94		RLD 09/22/2021
09/16/21	13:16	09/17/21	10:16	TMG	195521 195522	IC3602A	091621 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.3	1121	0.94		RLD 09/22/2021
09/17/21	13:00	09/17/21	22:02	TMG	195546	IC3062A	091721 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.44	1120	0.94		RLD 09/22/2021
09/20/21	14:58	09/20/21	17:05	TMG	195612	IC3602A	092021 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.13	1122	0.94		RLD 09/22/2021
09/21/21	12:19	09/22/21	13:19	TMG	195635 195636 195686	IC3602A	092121 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	20.8	1121	0.94		
09/22/21	14:33	09/23/21	09:48	TMG	195700 195702	IC3602A	092221 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	21.5	1119	0.94		
09/23/21	13:29	09/24/21	09:26	TMG	195753 195754	IC3602A	092321 -	IC3799 IC3802	IC3800 IC3803	IC3801 IC3804	21.3	1119	0.94		
09/28/21	13:53	09/28/21	21:25	TMG	195885 195886	IC3602A	092821 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.31	1133	0.94		
09/29/21	12:26	09/30/21	10:22	TMG	195928 195929 195938 195939	IC3602A	092921 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.07	1130	0.94		
09/30/21	13:24	10/01/21	10:31	TMG	195973 195974	IC3602A	093021 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.42	1127	0.94		
10/01/21	12:20	10/01/21	19:16	TMG	196011	IC3602A	100121 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.46	1126	0.94		
10/05/21	12:51	10/06/21	09:11	TMG	196112	IC3602A	100521 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.16	1133	0.94		
10/06/21	14:24	10/07/21	10:10	TMG	196163 196164	IC3602A	100621 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.22	1127.5	0.94		
10/07/21	14:03	10/07/21	18:16	TMG	196207	IC3602A	100721 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.31	1125.91	0.94		
10/08/21	12:15	10/11/21	09:26	TMG	196230	IC3602A	100821 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.07	1129.77	0.94		
10/13/21	14:45	10/14/21	09:20	TMG	196323 196324	IC3602A	101321 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.09	1131.35	0.94		
10/14/21	14:16	10/15/21	20:33	TMG	196355 196366 196412 196417	IC3602A	101421 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.33	1127.92	0.94		
10/19/21	12:45	10/20/21	09:09	TMG	196483	IC3602A	101921 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.25	1137.14	0.94		
10/20/21	12:33	10/21/21	10:22	TMG	196516 MDL	IC3602A	102021 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.61	1139.53	0.94		
10/22/21	12:37	10/22/21	15:01	TMG	196697	IC3602A	102221 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.03	1152.18	0.94		
10/25/21	12:38	10/25/21	23:29	TMG	196740 196741	IC3602A	102521 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.17	1161.28	0.94		
10/26/21	11:30	10/27/21	10:23	TMG	196795 196796 PT	IC3602A	102621 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.16	1159.12	0.94		
10/27/21	13:56	10/28/21	09:34	TMG	196851 196852	IC3602A	102721 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.56	1151.87	0.94		
10/28/21	14:06	10/29/21	09:32	TMG	196891 196892	IC3602A	102821 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.52	1137.91	0.94		
10/29/21	11:48	10/29/21	17:49	TMG	196929 196932	IC3602A	102921 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.89	1135.56	0.94		

WANIONS IC QSM 5.0 Anion Run
196929 on 11/1/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1068768						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
		Sulfate		ICV							
	1068769						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1068697						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1068698						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1068699						WANIONS IC QSM 5.0				
		Chloride		MBW				0			
		Sulfate		MBW				0			
		Nitrate Nitrogen		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196929 on 11/1/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067787		10/28/2021	08:29	WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165524	1067788		10/28/2021	09:52	WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165524	1067789		10/28/2021	11:15	WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165524	1067790		10/28/2021	12:59	WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
165524	1067791		10/28/2021	14:57	WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196929 on 11/1/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067792		10/28/2021 16:22		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate									
		Nitrate Nitrogen									
		Chloride									
165524	1067792		10/28/2021 16:22		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								
	1068703		10/28/2021 08:29				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		DUP	1067787			0			
		Chloride		DUP	1067787			0			
		Sulfate		DUP	1067787			0			
	1068704		10/28/2021 08:29				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW	1067787			0			
		Chloride		MSW	1067787			0			
		Sulfate		MSW	1067787			0			
	1068705		10/28/2021 08:29				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW	1068704			0			
		Chloride		MSDW	1068704			0			
		Sulfate		MSDW	1068704			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
196929 on 11/1/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1068707						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1068709						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

51

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
196929 196934	10/29/2021	TMG	RLD	11/01/2021	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits	Yes		Yes		
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Aquion Run Log - System 4

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviewed/Date
08/18/21	12:43	08/19/21	01:58	TMG	194566 194567	IC3602A	081821 -	IC3740 IC3748	IC3741 IC3749	IC3742 IC3750	21.49	1140	0.94		RLD 09/22/2021
08/19/21	11:38	08/19/21	23:23	TMG	194623 194625 194633	IC3602A	081921 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.56	1135	0.94		RLD 09/22/2021
08/20/21	11:03	08/20/21	17:59	TMG	194648 194649	IC3602A	082021 -	IC3751 IC3754	IC3752 IC3755	IC3753 IC3756	21.22	1139	0.94		RLD 09/22/2021
08/24/21	10:42	08/25/21	08:42	TMG	194751 194752	IC3602A	082421 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	21.39	1132	0.94		RLD 09/22/2021
08/25/21	9:49	08/25/21	16:26	TMG	194796 194799	IC3602A	082521 -	IC3751 IC3757	IC3752 IC3758	IC3753 IC3759	22.02	1130	0.94		RLD 09/22/2021
08/26/21	13:56	08/26/21	19:57	TMG	194850 194851	IC3602A	082621 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.49	1132	0.94		RLD 09/22/2021
08/27/21	9:30	08/27/21	16:26	TMG	194876 194878	IC3602A	082721 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.52	1128	0.94		RLD 09/22/2021
08/30/21	11:47	08/30/21	19:37	TMG	194932 194933	IC3602A	083021 -	IC3764 IC3767	IC3765 IC3768	IC3766 IC3769	21.36	1134	0.94		RLD 09/22/2021
08/31/21	10:10	09/01/21	09:28	TMG	194971 195005 MDL	IC3602A	083121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.26	1132	0.94		RLD 09/22/2021
09/01/21	12:06	09/01/21	17:32	TMG	195025 1950026	IC3602A	090121 -	IC3764 IC3770	IC3765 IC3771	IC3766 IC3772	21.44	1126	0.94		RLD 09/22/2021
09/02/21	12:45	09/02/21	18:10	TMG	195080 195082	IC3602A	090221 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	21.01	1129	0.94		RLD 09/22/2021
09/03/21	10:47	09/07/21	08:59	TMG	195119 195120	IC3602A	090321 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.99	1131	0.94		RLD 09/22/2021
09/08/21	12:23	09/08/21	18:24	TMG	195218 195219	IC3602A	090821 -	IC3775 IC3778	IC3776 IC3779	IC3777 IC3780	20.67	1132	0.94		RLD 09/22/2021
09/09/21	12:21	09/10/21	10:27	TMG	195250 195251	IC3602A	090921 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.77	1129	0.94		RLD 09/22/2021
09/10/21	12:56	09/13/21	09:15	TMG	195312	IC3602A	091021 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.35	1131	0.94		RLD 09/22/2021
09/13/21	14:01	09/13/21	17:20	TMG	195352	IC3602A	091321 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.11	1131	0.94		RLD 09/22/2021
09/14/21	14:05	09/15/21	10:03	TMG	195401 195402 195411	IC3602A	091421 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	20.82	1134	0.94		RLD 09/22/2021
09/15/21	11:40	09/20/21	10:32	TMG	195437 195438	IC3602A	091521 -	IC3781 IC3784	IC3782 IC3785	IC3783 IC3786	21.39	1125	0.94		RLD 09/22/2021
09/16/21	13:16	09/17/21	10:16	TMG	195521 195522	IC3602A	091621 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.3	1121	0.94		RLD 09/22/2021
09/17/21	13:00	09/17/21	22:02	TMG	195546	IC3062A	091721 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.44	1120	0.94		RLD 09/22/2021
09/20/21	14:58	09/20/21	17:05	TMG	195612	IC3602A	092021 -	IC3790 IC3793	IC3791 IC3794	IC3792 IC3795	21.13	1122	0.94		RLD 09/22/2021
09/21/21	12:19	09/22/21	13:19	TMG	195635 195636 195686	IC3602A	092121 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	20.8	1121	0.94		
09/22/21	14:33	09/23/21	09:48	TMG	195700 195702	IC3602A	092221 -	IC3790 IC3796	IC3791 IC3797	IC3792 IC3798	21.5	1119	0.94		
09/23/21	13:29	09/24/21	09:26	TMG	195753 195754	IC3602A	092321 -	IC3799 IC3802	IC3800 IC3803	IC3801 IC3804	21.3	1119	0.94		
09/28/21	13:53	09/28/21	21:25	TMG	195885 195886	IC3602A	092821 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.31	1133	0.94		
09/29/21	12:26	09/30/21	10:22	TMG	195928 195929 195938 195939	IC3602A	092921 -	IC3799 IC3805	IC3800 IC3806	IC3801 IC3807	21.07	1130	0.94		
09/30/21	13:24	10/01/21	10:31	TMG	195973 195974	IC3602A	093021 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.42	1127	0.94		
10/01/21	12:20	10/01/21	19:16	TMG	196011	IC3602A	100121 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.46	1126	0.94		
10/05/21	12:51	10/06/21	09:11	TMG	196112	IC3602A	100521 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.16	1133	0.94		
10/06/21	14:24	10/07/21	10:10	TMG	196163 196164	IC3602A	100621 -	IC3808 IC3811	IC3809 IC3812	IC3810 IC3813	21.22	1127.5	0.94		
10/07/21	14:03	10/07/21	18:16	TMG	196207	IC3602A	100721 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.31	1125.91	0.94		
10/08/21	12:15	10/11/21	09:26	TMG	196230	IC3602A	100821 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.07	1129.77	0.94		
10/13/21	14:45	10/14/21	09:20	TMG	196323 196324	IC3602A	101321 -	IC3814 IC3817	IC3815 IC3818	IC3816 IC3819	21.09	1131.35	0.94		
10/14/21	14:16	10/15/21	20:33	TMG	196355 196366 196412 196417	IC3602A	101421 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.33	1127.92	0.94		
10/19/21	12:45	10/20/21	09:09	TMG	196483	IC3602A	101921 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.25	1137.14	0.94		
10/20/21	12:33	10/21/21	10:22	TMG	196516 MDL	IC3602A	102021 -	IC3822 IC3825	IC3823 IC3826	IC3824 IC3827	21.61	1139.53	0.94		
10/22/21	12:37	10/22/21	15:01	TMG	196697	IC3602A	102221 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.03	1152.18	0.94		
10/25/21	12:38	10/25/21	23:29	TMG	196740 196741	IC3602A	102521 -	IC3830 IC3833	IC3831 IC3834	IC3832 IC3835	21.17	1161.28	0.94		
10/26/21	11:30	10/27/21	10:23	TMG	196795 196796 PT	IC3602A	102621 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.16	1159.12	0.94		
10/27/21	13:56	10/28/21	09:34	TMG	196851 196852	IC3602A	102721 -	IC3830 IC3836	IC3831 IC3837	IC3832 IC3838	21.56	1151.87	0.94		
10/28/21	14:06	10/29/21	09:32	TMG	196891 196892	IC3602A	102821 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.52	1137.91	0.94		
10/29/21	11:48	10/29/21	17:49	TMG	196929 196932	IC3602A	102921 -	IC3842 IC3845	IC3843 IC3846	IC3844 IC3847	21.89	1135.56	0.94		

WCOD QSM Analytical Run
197021 on 11/15/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067793		10/28/2021 16:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	COD QSM		GW	4	
		49-IDW						83211			
	1069190			MBW			COD QSM	83211			
	1069191			LCSW			COD QSM	83211			
	1071459						WCOD QSM				
	1071460			ICV			WCOD QSM				
	1071461			ICB			WCOD QSM				
	1071462			CCV			WCOD QSM				
	1071463			CCB			WCOD QSM				
	1071464			CCV			WCOD QSM				
	1071465			CCB			WCOD QSM				
	1071466			CCV			WCOD QSM				
				CCB							

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp3149.tmp Page 1 of 1

WCOD QSM Analytical Run
197021 on 11/15/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

19 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

COD Data Validation Checklist

		Method: Chemical Oxygen Demand EPA 410.4			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
196967, 197021	11/3,5/2021	RLB			

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Does a digestion sheet accompany the data package?	---	Yes				
2. Does the digestion sheet include all reagent and standard prep log numbers?	---	Yes				
3. Was a passing calibration test applied to sample analysis?	≥0.995	Yes				
4. Was a passing ICV analyzed immediately after the calibration?	90-110%	Yes				
5. Was a passing ICB analyzed immediately after the ICV?	< |LOD| or client/project specific	Yes				
6. Were CCVs and CCB analyzed at the required frequency?	1 per 10 samples	Yes				
7. Did analyzed CCVs meet the required acceptance criteria?	90-110%	Yes				
8. Did analyzed CCBs meet the acceptance criteria?	< |LOD| or client/project specific	Yes				
9. Was a Method Blank prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes				
10. Was the method blank within acceptance criteria?	< |LOD| or client/project specific	Yes				
11. Was an LCS prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes				
12. Did the LCS meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes				
13. Was an MS and MSD prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes				
14. Did the MS/ MSD's meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits		No			M flagged affected sample.

15. Did the MS/MSD's meet the RPD criteria?	Within in-house or contract/program specific limits	Yes				
16. Was a Duplicate prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	NA				
17. Did the Duplicate meet the RPD criteria?	Within in-house or contract/program specific limits	NA				
18. Were the samples digested within hold time?	28 days	Yes				
19. Was the max temperature(s) for reactor(s) documented?	---	Yes				
20. Was the method specifed temperature reached?		Yes				
21. Were reagents/standards used before expiration date?	---	Yes				
22. Are all samples on the job lists accounted for?	---	Yes				

CHEMICAL OXYGEN DEMAND REAGENT LOG

Prep Batch(es): 83211, 83202
Date/Time/Analyst: 11/02/2021 12:50 RLB
Run(s): 197021, 196967
Date/Time/Analyst: 11/03/2021 13:03 RLB

Reagents:	W #	Exp Date
ICAL Preparation.....	W51710	01/12/2022
CCV Preparation.....	W51712	01/12/2022
LCS/ICV Preparation.....	W51713	01/12/2022
Silver Sulfate Acid.....	W51528	09/09/2022
Potassium Dichromate Dig Solution...	W50710	05/05/2022

Spiked Samples:	W #	Exp Date
Spiking Solution.....	W51711	01/12/2022

Concentration..... 2000 mg/L
Volume of Spike Used... 0.2 mL
Final Sample Volume..... 2.5 mL
Final Spike Concentration... 148.2 mg/L

Date: 11/02/2021
Time: 13:20

COD DIGESTION BLOCK TEMPS

	A	B
Temperature (Max) 150°C ± 2°C:		

	E	D
Temperature (Max) 150°C ± 2°C:	150	150

GENESYS 30 Instrument Run Logbook

Date	Start Time	End Time	Analyst	Test/Analyte	Calibration Test #	Run #/ Comments
11/03/21	12:35	13:05	RLB	COD	CODW51710	196967, 197021
11/05/21	14:45	15:00	RLB	COD	CODW51710	196967 RERUN
11/09/21	14:00	14:27	RLB	COD	CODW51710	197265, 197268
11/11/21	15:20	15:35	RLB	COD	CODW51710	197268 RERUN

197021

PrepWrkSht2
on 11/2/2021

Prep Batch: 83211, 83202

Date Prepped: 11/2/21

Prepped By: RLB

Date Entered:

CCV 1

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1069190	MBW 3	0	COD QSM			LIQUID			
	1069191	LCSW 2	0	COD QSM			LIQUID			
165524	1067793	12		COD QSM	WESTON SOLUTIONS, INC.	49-IDW	GROUND WATER	10/28/21 16:50	11/10/21	4

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpCF63.tmp

WPH Analytical Run
196942 on 11/1/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067793		10/28/2021	16:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	PH		GW	**4**	
		49-IDW											
	1068507		10/28/2021	16:50					PH				
		49-IDW			DUP	1067793				0			

2 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

pH Data Validation Checklist

		Method: pH EPA 150.1, SM 4500-H+B, EPA 9040C, EPA 9045D			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
196941, 196942	10/29/2021	HLB	SRW	10/29/2021	YES

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Was the calibration slope recorded on the bench sheet?	95-110%	Yes		Yes		
2. Were reagents/standards used before expiration date?	---	Yes		Yes		
3. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	Yes		Yes		
4. Were the duplicates within acceptable limits?	Differ by $\leq$ 0.10 pH units	Yes		Yes		
5. Are all samples on the job lists accounted for?	---	Yes		Yes		
6. Were SM 4500-H+B samples bracketed by calibration buffer 7?	Every 10 samples, Differ by $\leq$ 0.10 pH units	Yes		Yes		

Mettler Toledo (Easy Seven) pH Calibration & Maintenance Run Logb

		pH Buffer Reference ID #			3 Point Calibration				
Date	Analyst	pH 7	pH 4	pH 10	1st Buffer	2nd Buffer	3rd Buffer	Slope (95-110%)	Temp ° C
10/27/21	HLB	WC234 EX: 02/05/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.04	98%	24.9
10/28/21	LAY	WC234 EX: 02/05/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.01	98%	24.5
10/29/21	LAY	WC234 EX: 02/05/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.01	98%	24.6
11/01/21	LAY	WC234 EX: 02/05/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.03	4	10.09	98%	17.5

Mettler Toledo (Easy Seven) Instrument Run Logbook

Date	Start Time	End Time	Analyst	Analyte	Lims Run #(s)
10/29/21	15:15	15:50	HLB	PH	196941, 196942
11/01/21	14:30	14:40	RLB	PH	196983

WORGANIC CARBON QSM 5.0 Analytical Run
197155 on 11/8/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1072206								WORGANIC CARBON QSM 5.0				
					ICV								
	1072207								WORGANIC CARBON QSM 5.0				
					ICB								
	1071021								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1071022								WORGANIC CARBON QSM 5.0				
					LCSW					0			
	1071023								WORGANIC CARBON QSM 5.0				
					MBW					0			
165461	1066467		10/26/2021	10:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW4											
165461	1066468		10/26/2021	10:10			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13TW4											
165461	1066469		10/26/2021	11:26			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW3			Designated MS/MSD								
	1071024		10/26/2021	11:26					ORGAN CARBON T QSM 5.0				
		13MW3			DUP	1066469				0			
	1071025		10/26/2021	11:26					ORGAN CARBON T QSM 5.0				
		13MW3			MSW	1066469				0			
	1071026		10/26/2021	11:26					ORGAN CARBON T QSM 5.0				
		13MW3			MSDW	1071025				0			
165461	1066470		10/26/2021	12:30			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW04											
165461	1066471		10/26/2021	13:38			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		13MW2											
165487	1066854		10/27/2021	15:08			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW1											
165524	1067787		10/28/2021	08:29			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW01											
	1071028								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1071029								WORGANIC CARBON QSM 5.0				
					CCB					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WORGANIC CARBON QSM 5.0 Analytical Run
197155 on 11/8/2021

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
165524	1067789		10/28/2021	11:15		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW2										
165524	1067790		10/28/2021	12:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW3										
165524	1067791		10/28/2021	14:57		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		49MW02										
165524	1067792		10/28/2021	16:22		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		48MW6										
	1071030							WORGANIC CARBON QSM 5.0				
					CCV				0			
	1071031							WORGANIC CARBON QSM 5.0				
					CCB				0			
	1071260							WORGANIC CARBON QSM 5.0				
					CCV				0			
	1071261							WORGANIC CARBON QSM 5.0				
					CCB				0			
165524	1067788		10/28/2021	09:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 49	ORGAN CARBON T QSM 5.0		GW	4	
		50MW02										
	1071262							WORGANIC CARBON QSM 5.0				
					CCV				0			
	1071263							WORGANIC CARBON QSM 5.0				
					CCB				0			

28 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
197155, 197156	11/4,5/2021	KMT	RLD	11/10/2021	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	Yes		Yes		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	Yes		Yes		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	Yes		Yes		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

TOC Instrument Run Logbook

Start Date	Start Time	End Date	End Time	Analyst	LIMs Run #	Matrix (S or W)	Calibration ID #	COMMENTS
11/1/2021	09:40	11/1/2021	13:35	KMT	196720	S	0544	
11/1/2021	13:59	11/1/2021	22:28	KMT	196721	S	0544	
11/2/2021	10:47	11/2/2021	15:11	KMT	196722	S	0544	
11/2/2021	22:52	11/3/2021	01:14	KMT	197009	W	0550	
11/3/2021	17:32	11/4/2021	01:08	~~KMT~~	DT(197010,197011,197012) 197013,197014,197016	W	0550	
11/4/2021	08:41	11/4/2021	13:56	TMG	197013,197014,197016 RR	W	0550	
11/4/2021	15:00	11/4/2021	23:25	KMT	197155 197156	W	0550	
11/5/2021	08:42	11/5/2021	09:55	KMT	197155 RR	W	0550	
11/5/2021	10:58	11/5/2021	13:55	KMT	196723	S	0544	
11/8/2021	10:24	11/8/2021	12:51	TMG	197207, 197208, 196724, 197210	S	0544	
11/8/2021	13:22	11/8/2021	16:24	KMT	197211	S	0544	
11/9/2021	09:24	11/9/2021	12:29	KMT	197237	S	0544	
11/9/2021	12:48	11/9/2021	15:47	KMT	197239	S	0544	
11/10/2021	08:59	11/10/2021	11:59	KMT	197306	S	0544	
11/10/2021	12:18	11/10/2021	15:23	KMT	197307	S	0544	
11/11/2021	11:43	11/11/2021	14:54	KMT	197308	S	0544	

Page 1171

Reviewed By:_____

① TMG KMT 11/3/21

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: 757-819-5310
Project Name: Radford AAP
Project #: SWMU 49
Location: Radford, VA
Sampled By: M. Ewald, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 165461
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 49
Logged By: erc PM: BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To:
EMAIL: pacea@westonsolutions.com
Company: Weston Solutions, Inc.
Address: 2 Eaton St. Ste, 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOCs 8260C	MEE RSK-175	TOC 9060	Anions 9056	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test						
10/26	1000	GW	G	3	TB-1	N	3	~~3~~	~~1~~	~~1~~			Trip Blank 10664
10/26	1010	GW	G	8	13MW4	N	3	3	1	1			67
10/26	1010	GW	G	8	13TW4	N	3	3	1	1			68
10/26	1126	GW	G	24	13MW3	N	9	9	3	3		MS/MSD	69
10/26	1230	GW	G	8	49MW04	N	3	3	1	1			70
10/26	1338	GW	G	8	13MW2	N	3	3	1	1			71

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/26/2021 1630	Fedex	10/26/2021 1630
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			1106

Lab Use Only
Ice Present Yes No
Temp 2.6 IR Gun 27
Cooler # 6579

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 2.6

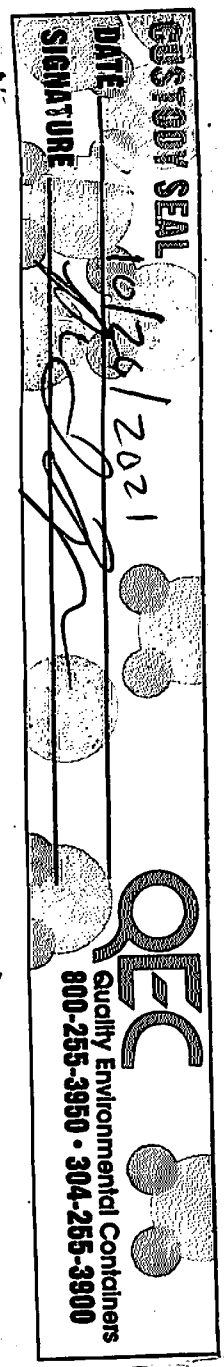
Actual Temperature 2.6

IR Gun # 27

Initials BNC

Date 10/27/21 Time 1000

Cooler #: 6579



FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:WALA (770) 855-6275
PAUL TAYLOR
WESTON SOLUTIONS, INC.
305 ROANOKE ST.

CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 26OCT21
ACTWGT: 50.00 LB
CAD: 105591775/INET4400
DIMS: 25x15x14 IN

BILL SENDER

TO SAMPLE RECEIVING
CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV
PO
REF 03886 552 500 2310
DEPT

56DJ3/14BAFE4A

FedEx Express

WED - 27 OCT 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7750 2210 3210

XH LNRA

53913
WI-US MSN

PM Login Confirmation

Folder #: 165461

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 166120

Project Manager: *BMS* **Date Received:** 10/27/21 **Log Date:** 10/27/2021

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 2.6 oC

SAMPLE #: 1066466 **DESCR:** TB-1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED:** 10/26/2021 **Time:** 10:00

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/9/2021	11/8/2021		Logged

SAMPLE #: 1066467 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 10:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/9/2021	11/8/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/9/2021	11/8/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/28/2021	11/8/2021		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6CC.tmp

Folder #: 165461 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1066467 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 10:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/23/2021	11/8/2021		Logged

SAMPLE #: 1066468 **DESCR:** 13TW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 10:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	11/9/2021	11/8/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/9/2021	11/8/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/28/2021	11/8/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/23/2021	11/8/2021		Logged

SAMPLE #: 1066469 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 11:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y*** ***DESIGNATED MATRIX SPIKE***	11/9/2021	11/8/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)			***DESIGNATED MATRIX SPIKE***	11/9/2021	11/8/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)			***DESIGNATED MATRIX SPIKE***	10/28/2021	11/8/2021		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6CC.tmp

Folder #: 165461 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1066469 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 11:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	11/23/2021	11/8/2021		Logged

SAMPLE #: 1066470 **DESCR:** 49MW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 12:30

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	11/9/2021	11/8/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/9/2021	11/8/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/28/2021	11/8/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/23/2021	11/8/2021		Logged

SAMPLE #: 1066471 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 13:38

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	11/9/2021	11/8/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/9/2021	11/8/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/28/2021	11/8/2021		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6CC.tmp

Folder #: 165461 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1066471 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/26/2021 **Time:** 13:38

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/23/2021	11/8/2021		Logged

Invoice Number: 166120 **Preliminary Invoice Estimate:** $1,264.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	7	$12.00	0.00	$84.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	7	$12.00	0.00	$84.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	7	$12.00	0.00	$84.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	7	$16.00	0.00	$112.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	7	$16.00	0.00	$112.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	7	$16.00	0.00	$112.00
ORGAN CARBON T QSM 5.0	GROUND WATER	7	$28.00	0.00	$196.00
VOC 8260 QSM 5.0	GROUND WATER	7	$60.00	0.00	$420.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**7**	TOC
UNPRES PL	**7**	Anions
VOA HCL	**45**	VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp6CC.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	165461	Print Date / Time:	10/27/2021 11:11
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	10/27/2021 11:00 erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/27/2021 11:11 erc
Project Phase:	RADFORD, VA	Project #:	PM: BMS
Coolers:	6579	Temperature:	2.6 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:? **Y**	Complete? **Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED
Ship Method:	FEDEX EXPRESS	Tracking Number:	7750 2210 3210
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLES WERE RECIEVED IN GOOD CONDITION ON ICE.

ONE CUSTODY SEAL WAS PRESENT AND INTACT UPON RECEIPT (DATED 10/26/2021 AND SIGNED).

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1066466 TB-1				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	N / N	VOC
	Total # of Containers of Type	(***VOA HCL***) = **3**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1066467 13MW4				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
1066467 13MW4				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **6**		
1066467 13MW4				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1066468 13TW4				

		UNPRES PL	1		/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**			
1066468	13TW4					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **6**			
1066468	13TW4					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1066469	13MW3				
		UNPRES PL	1	/	Anions
		UNPRES PL	1	N / N	ANIONS
		UNPRES PL	1	N / N	ANIONS
		Total # of Containers of Type	(***UNPRES PL***) = **3**		
1066469	13MW3				
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	N / N	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **18**		
1066469	13MW3				
		H2SO4 PL	1	Y / N	TOC
		H2SO4 PL	1	Y / N	TOC
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **3**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1066470	49MW04				

		UNPRES PL	1		/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**			
1066470	49MW04					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 6**			
1066470	49MW04					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1066471	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1066471	13MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 6**		
1066471	13MW2				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: M. Ewald, P. Taylor

Folder #: 165487
Company: WESTON SOLUTIONS, INC
Project: RADFORD AAP SWMU 49
Logged By: erc PM: BMS

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: pacea@westonsolutions.com
Company: Weston Solutions
Address: 2 Eaton St, Ste 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test				
10/27/2021	1508	GW	Grab		48MW1	N	1	1			1066854

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	10/27/2021 1730	Fedex	10/27/2021 1730
Received By: erc	Date/Time 10/28/21 941	Received for Laboratory by: erc	Date/Time 10/28/21 1008

Lab Use Only
Ice Present (Yes) No
Temp 2.0 IR Gun 27
Cooler # 6316

Cooler Receipt Form

Ice Present ~~YES~~ NO

Observed Temperature 20

Actual Temperature 20

IR Gun # 27

Initials DLC

Date 10/28/21 Time 941

Cooler #: 631C

CUSTODY SEAL
DATE 10/27/2021
SIGNATURE

QEC
Quality Environmental Containers
800-255-3850 • www.qecusa.com

CUSTODY SEAL
DATE 10/27/2021
SIGNATURE

QEC
Quality Environmental Containers
800-255-3850 • www.qecusa.com

ORIGIN ID:WALA (770) 855-6275
PAUL TAYLOR
WESTON SOLUTIONS, INC.
305 ROANOKE ST.

CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 27OCT21
ACTWGT: 50.00 LB
CAD: 105591775/INET4400
DIMS: 25x15x14 IN

BILL SENDER

TO SAMPLE RECEIVING
CT LABORATORIES
1230 LANGE COURT

BARABOO WI 53913
(608) 356-2760
INV.
PO: DEPT:

REF: 03886 552 500 3310

56DJ/14BA/FE4A

FedEx Express

1 of 2

TRK# 0201 7750 3583 6759

MASTER

XH LNRA

THU - 28 OCT 10:30A
PRIORITY OVERNIGHT

53913
WI-US MSN

PM Login Confirmation

Folder #: 165487

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 166147

Project Manager: *BMS* **Date Received:** 10/28/21 **Log Date:** 10/28/2021

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 2 oC

SAMPLE #: 1066854 **DESCR:** 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/27/2021 **Time:** 15:08

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/29/2021	11/9/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/24/2021	11/9/2021		Logged

Invoice Number: 166147 **Preliminary Invoice Estimate:** $64.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	1	$12.00	0.00	$12.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	1	$12.00	0.00	$12.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	1	$12.00	0.00	$12.00
ORGAN CARBON T QSM 5.0	GROUND WATER	1	$28.00	0.00	$28.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpF62A.tmp

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**1**	TOC
UNPRES PL	**1**	Anions

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	165487	Print Date / Time:	10/28/2021 10:07
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	10/28/2021 09:41 erc
Project Name:	RADFORD AAP SWMU 49	Log-In Date / Time / By:	10/28/2021 10:07 erc
Project Phase:	RADFORD, VA	Project #:	PM: BMS
Coolers:	6316	Temperature:	2.0 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:? **Y**	Complete? **Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED
Ship Method:	FEDEX EXPRESS	Tracking Number:	7750 3583 6759
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 10/27/2021 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1066854 48MW1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1066854 48MW1				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type (*H2SO4 PL*) = 1			

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: 757-819-5310
Project Name: Radford AAP SWMU 49
Project #:
Location: Radford, VA
Sampled By: M. Ewald / P. Taylor

Folder #: 165524
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP
Logged By: JLS PM: BMS

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program: RCRA SDWA NPDES
Waste Other

Report To:
EMAIL: pacea@westonsolutions.com
Company: Weston Solutions, Inc.
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:*
EMAIL:
Company: Same
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time: Normal / RUSH*
Date Needed:
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2021 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	VOCs 8260C	MEE RSK-175	TOC 9060A	Anions 9056	COD 410.4	pH 9040C	TAL Metals	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test									
10/27	0000	GW	Grab		TB-2	N	3		Trip Blank							1067785
10/27	1508	GW	Grab		48MW1	N	3	3								1067786
10/28	0829	GW	Grab		49MW01	N	3	3	1	1						1067787
10/28	0952	GW	Grab		50MW02	N	3	3	1	1						1067788
10/28	1115	GW	Grab		~~48MW5~~ 48MW2	N	3	3	1	1						1067789
10/28	1259	GW	Grab		48MW3	N	3	3	1	1						1067790
10/28	1457	GW	Grab		49MW02	N	3	3	1	1						1067791
10/28	1622	GW	Grab		48MW6	N	3	3	1	1						1067792
10/28	1650	GW	Grab		49-IDW	N					1	1	1			1067793

Relinquished By: [signature] — Date/Time: 10/28/2021 1800
Received By: [signature] — Date/Time: 10/29/21 0950

Received By: Fedex — Date/Time: 10/28/2021 1800
Received for Laboratory By: [signature] — Date/Time: 10/29/21 1041

Lab Use Only
Ice Present (Yes) No
Temp 1.8 IR Gun 28
Cooler # 6719

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 1.8

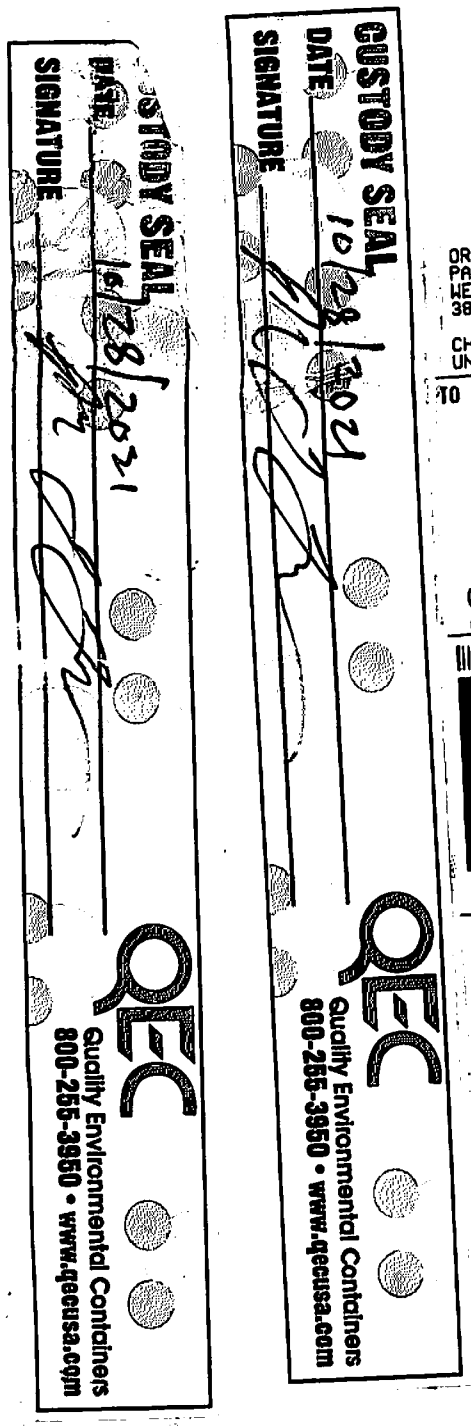
Actual Temperature 1.8

IR Gun # 28

Initials jls

Date 10/29/21 Time 0950

Cooler #: 6719



PM Login Confirmation

Folder #: 165524

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 49 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 166184

Project Manager: *BMS* **Date Received:** 10/29/21 **Log Date:** 10/29/2021

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 1.8 oC

SAMPLE #: 1067785 DESCR: TB-2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED: 10/27/2021 Time: 00:00**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/10/2021	11/10/2021		Logged

SAMPLE #: 1067786 DESCR: 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED: 10/27/2021 Time: 15:08**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/10/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/10/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp186B.tmp

Folder #: 165524 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1067787 **DESCR:** 49MW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 08:29

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

SAMPLE #: 1067788 **DESCR:** 50MW02 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 09:52

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

Folder #: 165524 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1067789 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 11:15

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

SAMPLE #: 1067790 **DESCR:** 48MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 12:59

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp186B.tmp

Folder #: 165524 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1067791 **DESCR:** 49MW02 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 14:57

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

SAMPLE #: 1067792 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 16:22

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	11/11/2021	11/10/2021		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				11/11/2021	11/10/2021		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				10/30/2021	11/10/2021		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				11/25/2021	11/10/2021		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp186B.tmp

Folder #: 165524 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 49

SAMPLE #: 1067793 **DESCR:** 49-IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 10/28/2021 **Time:** 16:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					11/10/2021		Validated
989	COD QSM	(EPA 410.4)				11/25/2021	11/10/2021		NeedPrep
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)				4/26/2022	11/10/2021		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)				4/26/2022	11/10/2021		NeedPrep
1200	ICP TOTAL QSM 5.0	(EPA 6010C)				4/26/2022	11/10/2021		NeedPrep
			Total Aluminum						
			Total Antimony						
			Total Arsenic						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						
			Total Copper						
			Total Iron						
			Total Lead						
			Total Magnesium						
			Total Manganese						
			Total Nickel						
			Total Selenium						
			Total Silver						
			Total Thallium						
			Total Vanadium						
			Total Zinc						
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)				11/25/2021	11/10/2021		NeedPrep

Invoice Number: 166184 **Preliminary Invoice Estimate:** $1,328.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	6	$12.00	0.00	$72.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	6	$12.00	0.00	$72.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	6	$12.00	0.00	$72.00
COD QSM	GROUND WATER	1	$18.00	0.00	$18.00
ICP K TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Aluminum	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Antimony	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Arsenic	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Barium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Beryllium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cadmium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Calcium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Chromium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cobalt	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Copper	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Iron	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Lead	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Magnesium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Manganese	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Nickel	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Selenium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Silver	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Thallium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Vanadium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Zinc	GROUND WATER	1	$3.50	0.00	$3.50
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$23.00	0.00	$23.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	7	$16.00	0.00	$112.00

METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	7	$16.00	0.00	$112.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	7	$16.00	0.00	$112.00
ORGAN CARBON T QSM 5.0	GROUND WATER	6	$28.00	0.00	$168.00
PH	GROUND WATER	1	$10.00	0.00	$10.00
VOC 8260 QSM 5.0	GROUND WATER	7	$60.00	0.00	$420.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**7**	COD
HNO3	**1**	HG,ICP,K,NA
UNPRES PL	**7**	Anions
VOA HCL	**45**	VOC

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Sample Condition Report

Folder #: 165524
Print Date / Time: 10/29/2021 10:34
Client: WESTON SOLUTIONS, INC.
Received Date / Time / By: 10/29/2021 09:50 JLS
Project Name: RADFORD AAP SWMU 49
Log-In Date / Time / By: 10/29/2021 10:34 JLS
Project Phase: RADFORD, VA
Project #: PM: BMS
Coolers: 6719
Temperature: 1.8 C On Ice: **Y**
Custody Seals Present : **Y**
COC Present:? **Y** Complete? **Y**
Seal Intact? **Y**
Numbers: DATED AND SIGNED
Ship Method: FEDEX EXPRESS
Tracking Number: 285480561237
Adequate Packaging: **Y**
Temp Blank Enclosed? **Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 10/28/2021 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067785 TB-2				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	VOA HCL	1	N / N	VOC
	Total # of Containers of Type (*VOA HCL*) = 3			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1067786 48MW1				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type (*VOA HCL*) = 6			
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1067787 49MW01				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type (*UNPRES PL*) = 1			
1067787 49MW01				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC

		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **6**		

1067787	49MW01				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067788	50MW02				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1067788	50MW02				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **6**		
1067788	50MW02				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067789	48MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1067789	48MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **6**		
1067789	48MW2				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067790	48MW3				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**		
1067790	48MW3				
		VOA HCL	1	/	GAS,VOC

		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 6**			

1067790	48MW3					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067791	49MW02				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1067791	49MW02				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 6**		
1067791	49MW02				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067792	48MW6				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1067792	48MW6				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 6**		
1067792	48MW6				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1067793	49-IDW				
		H2SO4 PL	1	Y / N	COD
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

1067793	49-IDW					
		HNO3	1	Y / N		HG,ICP,K,NA
		Total # of Containers of Type (*HNO3*) = 1				
1067793	49-IDW					
		UNPRES PL	1	/		pH
		Total # of Containers of Type (*UNPRES PL*) = 1				

Condition Code *Condition Description*

1 Sample Received OK

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ANALYTICAL RESULTS FOR:

ANTHONY PACE
WESTON SOLUTIONS, INC.
2 EATON STREET
SUITE 603
HAMPTON, VA 23669

PROJECT SITE:	RFAAP SWMUs 49&54; RADFORD, VA
DOD CONTRACT #:	
PROJECT #:	
SDG:	***169098***
FOLDERS:	169098, 169156, 169199, 169227
PREPARED:	May 20, 2022
TOTAL # OF PAGES:	1974

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: Brett Szymanski
PROJECT MANAGER

Certifications: IL (NELAP 200073), KS (NELAP E-10368), WI (157066030), DOD ELAP (A2LA 3806.01), VA (NELAP 460203), LA (primary NELAP 115843), ISO17025 (A2LA 3806.01)

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Table of Contents

Section	Page
Cover Page	1
Table of Contents	2
Case Narrative and Summary of Detects (if applicable)	3
Data Qualifier Sheet	8
Sample Delivery Group Summary	10
QC Batch Cross Reference	11
VOC QC Summary Documents	15
VOC Sample Data Documents	129
VOC ICAL Documents	250
VOC CCV Documents	347
VOC QC Documents	414
VOC Logbook Documents	436
Metals CLP Forms Documents	474
Metals Raw Data Documents	615
Metals Logbook Documents	1110
Inorganic CLP Forms Documents	1390
Inorganic Raw Data Documents	1587
Inorganic Logbook Documents	1763
Subcontracted Analysis Documents	1820
Chain of Custody, PM Confirmation and Sample Condition Forms	1929

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Case Narrative

Client: Weston Solutions
Project: RFAAP SWMUs 49&54, Radford, VA
Sample Receipt Dates: 04/26/2022, 04/28/2022, 04/29/2022, 04/30/2022
SDG #: *169098* (Folder #'s 169098, 169156, 169199, 169227)

Twenty-four water samples were received and analyzed for a variety of parameters, including: VOCs, Dissolved Gases, Metals, pH, COD, Anions, Chlorate/Chlorite, TIC and TOC. Three Trip Blanks were included with the VOCs. The Chlorate/Chlorite analysis was subcontracted to Eurofins Eaton Analytical in South Bend, IN. The assigned sample ID number, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. A breakdown of sample receipt information can be found on the Sample Condition Report located in the last section of the data package and any exceptions are noted below. The analyses were performed following DOD QSM 5.4 requirements.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a Reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Receipt

Several of the samples that arrived at CT Labs on 04/28/2022 were past the 48-hour hold time for Nitrate upon receipt. The client instructed the lab to proceed with the analysis of these samples.

Sample Analysis and Quality Control

Volatile Analysis:

The samples were analyzed using US EPA Methods 8260C (VOC) and RSK-175 (Dissolved Gases). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Detailed reports were provided for the 8260 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

VOC (8260C) Water Analysis

Analytical Run # 211603

All analytical results for this run met the method/project specified quality control criteria for the targeted compounds.

Dissolved Gases (RSK-175) Analysis

Analytical Run # 211667 (Methane, Ethene, Ethane)

All analytical results for this run met the method/project specified quality control criteria.

Metals Analysis:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7470A (Hg). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals (6010C) Water Analysis

Continuing Calibration Verification (CCV) standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 211581

The Initial Calibration Verification Low-Level (ICVLL) standard had a recovery outside the specified limits for selenium. The samples were reanalyzed using an acceptable ICVLL standard.

The Duplicate (DUP) for sample # 1136212 was not applicable for aluminum, antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc because the parent sample results were less than five times the Limit of Quantitation (LOQ). A

Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

Analytical Run # 211628

Silver was detected in the Method Blank (MB) greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). The sample was reanalyzed for silver.

The DUP for sample # 1137439 was not applicable for aluminum, antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was unacceptable for aluminum and iron. The parent sample was reported and qualified with a "Y" flag for the failing elements.

The Matrix Spike (MS) and MSD for sample # 1137439 had recoveries outside the specified limits for aluminum and iron. A Serial Dilution (L) was analyzed and was not applicable for aluminum and iron because the parent sample raw results were less than 50 times the LOQ. A Post Digestion Spike (PDS) was analyzed and was acceptable. The parent sample was reported and not qualified.

ICP Sodium & Potassium (6010C) Water Analysis

Analytical Run # 211582

The DUP for sample # 1136212 was not applicable for sodium and potassium because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

Analytical Run # 211629

The DUP for sample # 1137439 was not applicable for sodium and potassium because the parent sample results were less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

CVAA Mercury (7470A) Water Analysis

Analytical Run # 211699

The DUP for sample # 1136212 was not applicable for mercury because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was unacceptable. The parent sample was reported and qualified with a "Y" flag for mercury.

The MS and MSD for sample # 1136212 had recoveries outside the specified limits for mercury. The parent sample was reported and qualified with an "M" flag for the failing element.

Inorganic Analysis:

The samples were analyzed using US EPA Methods 9060A (TIC/TOC), 9040C (pH), 410.4 (COD) and 9056A (Anions). All samples were analyzed within the holding time unless noted below. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Anions (9056A) Water Analysis

Analytical Run # 211440

The MS and the MSD for sample # 1134804 had a low recovery for sulfate. The parent sample result for this compound was qualified with an "M" flag.

Analytical Run # 211534

Sample #'s 1136203 & 1136204 were received past the 48-hour hold time for the nitrate analyses. The nitrate results for these samples were qualified with an "H" flag.

The MS for sample # 1136203 had a low recovery for sulfate. The parent sample result for this compound was qualified with an "M" flag.

Analytical Run # 211592

The MS and the MSD for sample # 1136674 had a low recovery for sulfate. The parent sample result for this compound was qualified with an "M" flag.

Analytical Run # 211602

All analytical results for this run met the method/project specified quality control criteria.

COD (410.4) Water Analysis

Analytical Run # 211565

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 211650

All analytical results for this run met the method/project specified quality control criteria.

pH (9040C) Water Analysis

Analytical Run # 211555

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 211639

All analytical results for this run met the method/project specified quality control criteria.

TIC (9060A) Water Analysis

Analytical Run # 211530

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 211613

All analytical results for this run met the method/project specified quality control criteria.

TOC (9060A) Water Analysis

Analytical Run # 211696

All analytical results for this run met the method/project specified quality control criteria.

Analytical Run # 211697

All analytical results for this run met the method/project specified quality control criteria.

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Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

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MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

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www.ctlaboratories.com

Sample Delivery Group

169098

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMUs 49&54
Project #:

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	1134804	169098		54MW13	GROUND WATER	04/25/2022	04/26/2022
2	1134805	169098		54MW10	GROUND WATER	04/25/2022	04/26/2022
3	1136202	169156		TB1	TRIP BLANK	04/26/2022	04/28/2022
4	1136203	169156		13MW5	GROUND WATER	04/26/2022	04/28/2022
5	1136204	169156		13MW4	GROUND WATER	04/26/2022	04/28/2022
6	1136205	169156		13MW3	GROUND WATER	04/26/2022	04/28/2022
7	1136206	169156		49MW04	GROUND WATER	04/26/2022	04/28/2022
8	1136207	169156		49TW04	GROUND WATER	04/26/2022	04/28/2022
9	1136208	169156		13MW2	GROUND WATER	04/26/2022	04/28/2022
10	1136209	169156		54MW12	GROUND WATER	04/26/2022	04/28/2022
11	1136210	169156		54TW12	GROUND WATER	04/26/2022	04/28/2022
12	1136211	169156		54MW1	GROUND WATER	04/26/2022	04/28/2022
13	1136212	169156		54IDW	GROUND WATER	04/26/2022	04/28/2022
14	1136213	169156		49MW05	GROUND WATER	04/27/2022	04/28/2022
15	1136214	169156		49MW02	GROUND WATER	04/27/2022	04/28/2022
16	1136215	169156		48MW3	GROUND WATER	04/27/2022	04/28/2022
17	1136216	169156		48MW2	GROUND WATER	04/27/2022	04/28/2022
18	1136217	169156		48MW6	GROUND WATER	04/27/2022	04/28/2022
19	1136587	169199		TB2	TRIP BLANK	04/28/2022	04/29/2022
20	1136588	169199		50MW2	GROUND WATER	04/28/2022	04/29/2022
21	1136671	169199		50TW2	GROUND WATER	04/28/2022	04/29/2022
22	1136672	169199		49MW01	GROUND WATER	04/28/2022	04/29/2022
23	1136673	169199		49MW03	GROUND WATER	04/28/2022	04/29/2022
24	1136674	169199		48MW7	GROUND WATER	04/28/2022	04/29/2022
25	1137437	169227		TB3	TRIP BLANK	04/29/2022	04/30/2022
26	1137438	169227		48MW1	GROUND WATER	04/29/2022	04/30/2022
27	1137439	169227		49IDW	GROUND WATER	04/29/2022	04/30/2022

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www.ctlaboratories.com

QC Batch Cross Reference Summary

WESTON SOLUTIONS, INC.
ANTHONY PACE
2 EATON STREET
HAMPTON, VA 23669

Project Name: RADFORD AAP SWMUs 49&54
Project #:
Report Date: 05/20/2022
Date Received: 04/28/2022
SDG #: 169098

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	pH	EPA 9040C	GROUND WATER		211555
1137439	pH	EPA 9040C	GROUND WATER		211639

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1134804	Carbon , Total Inorganic and Orga	EPA 9060A	GROUND WATER		211530
1134805	Carbon , Total Inorganic and Orga	EPA 9060A	GROUND WATER		211530
1136209	Carbon , Total Inorganic and Orga	EPA 9060A	GROUND WATER		211613
1136210	Carbon , Total Inorganic and Orga	EPA 9060A	GROUND WATER		211613
1136211	Carbon , Total Inorganic and Orga	EPA 9060A	GROUND WATER		211613

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	COD QSM	EPA 410.4	GROUND WATER	95239	211565
1137439	COD QSM	EPA 410.4	GROUND WATER	95270	211650

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1134804	Anions QSM 5.0	EPA 9056A	GROUND WATER		211440
1134805	Anions QSM 5.0	EPA 9056A	GROUND WATER		211440
1136203	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136204	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136205	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136206	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136207	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136208	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136209	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136210	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136211	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136213	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136214	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136215	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136216	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136217	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534

CT LABORATORIES
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Project Name: RADFORD AAP SWMUs 49&54
Project #:
SDG #: 169098

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136588	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1136671	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1136672	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1136673	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1136674	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1137438	Anions QSM 5.0	EPA 9056A	GROUND WATER		211602
1134805	Anions QSM 5.0	EPA 9056A	GROUND WATER		211440
1136203	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136205	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136207	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136215	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136217	Anions QSM 5.0	EPA 9056A	GROUND WATER		211534
1136588	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1136671	Anions QSM 5.0	EPA 9056A	GROUND WATER		211592
1137438	Anions QSM 5.0	EPA 9056A	GROUND WATER		211602

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1134804	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1134805	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136203	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136204	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136205	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136206	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136207	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136208	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136209	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136210	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136211	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136213	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136214	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136215	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136216	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136217	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211696
1136588	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697
1136671	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697
1136672	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697
1136673	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697
1136674	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697
1137438	Organic Carbon, Total QSM 5.0	EPA 9060A	GROUND WATER		211697

Metal Parameters

CT LABORATORIES
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Project Name: RADFORD AAP SWMUs 49&54
Project #:
SDG #: 169098

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	95236	211582
1137439	Potassium, Total QSM 5.0	EPA 6010C	GROUND WATER	95267	211629

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	95236	211582
1137439	Sodium, Total QSM 5.0	EPA 6010C	GROUND WATER	95267	211629

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	95236	211581
1137439	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	95267	211628
1136212	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	95236	211581
1137439	ICP Metals, Total QSM 5.0	EPA 6010C	GROUND WATER	95267	211628

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136212	Mercury, Total QSM	EPA 7470A	GROUND WATER	95243	211699
1137439	Mercury, Total QSM	EPA 7470A	GROUND WATER	95243	211699

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136202	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		211603
1136203	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136204	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136205	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136206	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136207	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136208	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136213	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136214	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136215	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136216	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136217	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136587	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		211603
1136588	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136671	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136672	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136673	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1136674	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603
1137437	VOC's by 8260 QSM 5x	EPA 8260C	TRIP BLANK		211603
1137438	VOC's by 8260 QSM 5x	EPA 8260C	GROUND WATER		211603

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136203	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667

CT LABORATORIES
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Project Name: RADFORD AAP SWMUs 49&54
Project #:
SDG #: 169098

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
1136204	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136205	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136206	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136207	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136208	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136213	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136214	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136215	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136216	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136217	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136588	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136671	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136672	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136673	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1136674	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667
1137438	Dissolved Gases QSM 5.0	RSK 175	GROUND WATER	95280	211667

Summary of Methods Associated with SDG

SDG: 169098

Company: WESTON SOLUTIONS, INC.

Project Name: RADFORD AAP SWMUs 49&54

Matrix	Analytical Method	Prep Method	Cleanup Methods (if applicable)
GROUND WATER	EPA 9040C	NONE	
GROUND WATER	EPA 9060A	NONE	
GROUND WATER	EPA 410.4	EPA 414	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 6010C	EPA 3010A	
GROUND WATER	EPA 7470A	EPA 7470A	
GROUND WATER	EPA 8260C	EPA 5030B	
TRIP BLANK	EPA 8260C	EPA 5030B	
GROUND WATER	RSK 175	RSK175M	
GROUND WATER	EPA 9056A	NONE	
GROUND WATER	EPA 9060A	NONE	

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:50	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:30	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	6.0		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.61	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.95	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:26	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.68	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:05	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 11:02	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.61	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.73	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	2.4		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:07	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.58	J	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	29		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.4		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	75		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	10		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	13		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:03	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:38	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	2.0		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.4		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:59	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:50	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	3.0		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:58	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	2.7		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:55	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:42	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.74	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:46	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.70	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:42	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.71	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.72	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:46	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.78	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.70	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description: **TB1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1138360
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
74-84-0	Ethane	05/04/2022	09:02	0.38	U	0.38	1.0	***0.4***
74-85-1	Ethene	05/04/2022	09:02	0.59	U	0.59	1.4	***0.6***
74-82-8	Methane	05/04/2022	09:02	0.45	U	0.45	1.0	***0.4***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139090
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	05/05/2022	08:55	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	05/05/2022	08:55	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	05/05/2022	08:55	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	05/05/2022	08:55	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	05/05/2022	08:55	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	05/05/2022	08:55	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	05/05/2022	08:55	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	05/05/2022	08:55	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	05/05/2022	08:55	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	05/05/2022	08:55	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	05/05/2022	08:55	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	05/05/2022	08:55	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	05/05/2022	08:55	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	05/05/2022	08:55	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	05/05/2022	08:55	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	05/05/2022	08:55	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	05/05/2022	08:55	4.1	U	4.1	20	***10***
71-43-2	Benzene	05/05/2022	08:55	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	05/05/2022	08:55	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	05/05/2022	08:55	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	05/05/2022	08:55	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	05/05/2022	08:55	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	05/05/2022	08:55	0.83	U	0.83	4.0	***2.0***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **METHOD BLANK**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139090
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	05/05/2022	08:55	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	05/05/2022	08:55	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	05/05/2022	08:55	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	05/05/2022	08:55	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	05/05/2022	08:55	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	05/05/2022	08:55	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	05/05/2022	08:55	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	05/05/2022	08:55	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	05/05/2022	08:55	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	05/05/2022	08:55	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	05/05/2022	08:55	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	05/05/2022	08:55	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	05/05/2022	08:55	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	05/05/2022	08:55	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	05/05/2022	08:55	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	05/05/2022	08:55	0.28	U	0.28	1.1	***0.55***
108-87-2	Methylcyclohexane	05/05/2022	08:55	0.78	U	0.78	2.4	***1.2***
75-09-2	Methylene chloride	05/05/2022	08:55	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	05/05/2022	08:55	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	05/05/2022	08:55	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	05/05/2022	08:55	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	05/05/2022	08:55	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	05/05/2022	08:55	0.35	U	0.35	1.1	***0.55***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description

METHOD BLANK

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139090
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
10061-02-6	trans-1,3-Dichloropropene	05/05/2022	08:55	0.56	U	0.56	2.1	***1.05***
79-01-6	Trichloroethene	05/05/2022	08:55	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	05/05/2022	08:55	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	05/05/2022	08:55	0.12	U	0.12	0.50	***0.25***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139717
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	05/05/2022	13:26	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	05/05/2022	13:26	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	05/05/2022	13:26	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	05/05/2022	13:26	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	05/05/2022	13:26	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	05/05/2022	13:26	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	05/05/2022	13:26	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	05/05/2022	13:26	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	05/05/2022	13:26	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	05/05/2022	13:26	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	05/05/2022	13:26	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	05/05/2022	13:26	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	05/05/2022	13:26	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	05/05/2022	13:26	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	05/05/2022	13:26	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	05/05/2022	13:26	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	05/05/2022	13:26	4.1	U	4.1	20	***10***
71-43-2	Benzene	05/05/2022	13:26	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	05/05/2022	13:26	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	05/05/2022	13:26	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	05/05/2022	13:26	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	05/05/2022	13:26	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	05/05/2022	13:26	0.83	U	0.83	4.0	***2.0***

CT LABORATORIES
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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139717
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	05/05/2022	13:26	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	05/05/2022	13:26	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	05/05/2022	13:26	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	05/05/2022	13:26	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	05/05/2022	13:26	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	05/05/2022	13:26	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	05/05/2022	13:26	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	05/05/2022	13:26	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	05/05/2022	13:26	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	05/05/2022	13:26	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	05/05/2022	13:26	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	05/05/2022	13:26	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	05/05/2022	13:26	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	05/05/2022	13:26	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	05/05/2022	13:26	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	05/05/2022	13:26	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	05/05/2022	13:26	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	05/05/2022	13:26	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	05/05/2022	13:26	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	05/05/2022	13:26	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	05/05/2022	13:26	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	05/05/2022	13:26	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	05/05/2022	13:26	0.56	U	0.56	2.1	***1.05***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1139717
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	05/05/2022	13:26	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	05/05/2022	13:26	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	05/05/2022	13:26	0.12	U	0.12	0.50	***0.25***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1140062
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
71-55-6	1,1,1-Trichloroethane	05/06/2022	08:54	0.38	U	0.38	1.2	***0.60***
79-34-5	1,1,2,2-Tetrachloroethane	05/06/2022	08:54	0.36	U	0.36	1.1	***0.55***
79-00-5	1,1,2-Trichloroethane	05/06/2022	08:54	0.27	U	0.27	1.1	***0.55***
75-34-3	1,1-Dichloroethane	05/06/2022	08:54	0.28	U	0.28	1.1	***0.55***
75-35-4	1,1-Dichloroethene	05/06/2022	08:54	0.49	U	0.49	2.0	***1.0***
87-61-6	1,2,3-Trichlorobenzene	05/06/2022	08:54	0.43	U	0.43	2.0	***1.0***
120-82-1	1,2,4-Trichlorobenzene	05/06/2022	08:54	0.50	U	0.50	2.0	***1.0***
96-12-8	1,2-Dibromo-3-chloropropane	05/06/2022	08:54	0.35	U	0.35	2.0	***1.0***
106-93-4	1,2-Dibromoethane	05/06/2022	08:54	0.33	U	0.33	1.1	***0.55***
95-50-1	1,2-Dichlorobenzene	05/06/2022	08:54	0.35	U	0.35	1.1	***0.55***
107-06-2	1,2-Dichloroethane	05/06/2022	08:54	0.69	U	0.69	2.1	***1.05***
78-87-5	1,2-Dichloropropane	05/06/2022	08:54	0.37	U	0.37	1.2	***0.60***
541-73-1	1,3-Dichlorobenzene	05/06/2022	08:54	0.30	U	0.30	1.1	***0.55***
78-93-3	2-Butanone	05/06/2022	08:54	2.9	U	2.9	11	***5.5***
591-78-6	2-Hexanone	05/06/2022	08:54	3.3	U	3.3	11	***5.5***
108-10-1	4-Methyl-2-pentanone	05/06/2022	08:54	3.7	U	3.7	12	***6.0***
67-64-1	Acetone	05/06/2022	08:54	4.1	U	4.1	20	***10***
71-43-2	Benzene	05/06/2022	08:54	0.47	U	0.47	2.0	***1.0***
74-97-5	Bromochloromethane	05/06/2022	08:54	0.26	U	0.26	1.1	***0.55***
75-27-4	Bromodichloromethane	05/06/2022	08:54	0.080	U	0.080	0.50	***0.25***
75-25-2	Bromoform	05/06/2022	08:54	0.50	U	0.50	2.0	***1.0***
74-83-9	Bromomethane	05/06/2022	08:54	0.49	U	0.49	2.0	***1.0***
75-15-0	Carbon disulfide	05/06/2022	08:54	0.83	U	0.83	4.0	***2.0***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1140062
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
56-23-5	Carbon tetrachloride	05/06/2022	08:54	0.37	U	0.37	1.2	***0.60***
108-90-7	Chlorobenzene	05/06/2022	08:54	0.37	U	0.37	1.2	***0.60***
75-00-3	Chloroethane	05/06/2022	08:54	0.36	U	0.36	2.0	***1.0***
67-66-3	Chloroform	05/06/2022	08:54	0.46	U	0.46	1.4	***0.70***
74-87-3	Chloromethane	05/06/2022	08:54	0.39	U	0.39	2.0	***1.0***
156-59-2	cis-1,2-Dichloroethene	05/06/2022	08:54	0.41	U	0.41	1.3	***0.65***
10061-01-5	cis-1,3-Dichloropropene	05/06/2022	08:54	0.34	U	0.34	1.1	***0.55***
110-82-7	Cyclohexane	05/06/2022	08:54	0.71	U	0.71	2.2	***1.1***
124-48-1	Dibromochloromethane	05/06/2022	08:54	0.35	U	0.35	1.1	***0.55***
75-71-8	Dichlorodifluoromethane	05/06/2022	08:54	0.63	U	0.63	2.1	***1.05***
100-41-4	Ethylbenzene	05/06/2022	08:54	0.42	U	0.42	1.3	***0.65***
76-13-1	Freon 113	05/06/2022	08:54	1.5	U	1.5	4.5	***2.25***
98-82-8	Isopropylbenzene	05/06/2022	08:54	0.39	U	0.39	1.2	***0.60***
179601-23-1	m & p-Xylene	05/06/2022	08:54	0.74	U	0.74	2.3	***1.15***
79-20-9	Methyl Acetate	05/06/2022	08:54	0.34	U	0.34	2.0	***1.0***
1634-04-4	Methyl tert-butyl ether	05/06/2022	08:54	0.28	U	0.28	1.1	***0.55***
75-09-2	Methylene chloride	05/06/2022	08:54	1.2	U	1.2	4.1	***2.05***
95-47-6	o-Xylene	05/06/2022	08:54	0.72	U	0.72	2.2	***1.1***
100-42-5	Styrene	05/06/2022	08:54	0.33	U	0.33	1.1	***0.55***
127-18-4	Tetrachloroethene	05/06/2022	08:54	0.54	U	0.54	2.0	***1.0***
108-88-3	Toluene	05/06/2022	08:54	0.27	U	0.27	1.1	***0.55***
156-60-5	trans-1,2-Dichloroethene	05/06/2022	08:54	0.35	U	0.35	1.1	***0.55***
10061-02-6	trans-1,3-Dichloropropene	05/06/2022	08:54	0.56	U	0.56	2.1	***1.05***

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1A-2

VOLATILE ORGANICS ANALYSIS (MB or CCB)

Sample Description: **CCB**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:		SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1140062
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	0
Analytical Run #:	211603	Dilution Factor:	1
Cleanup Date/Time/Type:	. . ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
79-01-6	Trichloroethene	05/06/2022	08:54	0.39	U	0.39	1.2	***0.60***
75-69-4	Trichlorofluoromethane	05/06/2022	08:54	0.41	U	0.41	2.0	***1.0***
75-01-4	Vinyl chloride	05/06/2022	08:54	0.12	U	0.12	0.50	***0.25***

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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49

Analytical Method: EPA 8260C | SDG: 169098

Analytical Run #: 211603 | ICAL Calibration #: W042822.

CTLab #	1136202				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	102	80	119	

CTLab #	1136203				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	

CTLab #	1136204				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	

CTLab #	1136205				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	104	80	119	

CTLab #	1136206				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	102	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	102	80	119	

CTLab #	1136207				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	103	80	119	

CT LABORATORIES
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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49

Analytical Method: EPA 8260C | SDG: 169098

Analytical Run #: 211603 | ICAL Calibration #: W042822.

CTLab #	1136208				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1136213**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1136214**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1136215**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	104	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	103	89	112	
Dibromofluoromethane	100	102	80	119	
CTLab #	**1136216**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1136217**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	100	80	119	

CT LABORATORIES
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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49

Analytical Method: EPA 8260C | SDG: 169098

Analytical Run #: 211603 | ICAL Calibration #: W042822.

CTLab #	1136587				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	104	80	119	
CTLab #	**1136588**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	100	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1136671**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	104	80	119	
CTLab #	**1136672**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	81	118	
Bromofluorobenzene	100	96.0	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1136673**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	105	80	119	
CTLab #	**1136674**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	103	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	102	89	112	
Dibromofluoromethane	100	103	80	119	

CT LABORATORIES
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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49

Analytical Method: EPA 8260C | SDG: 169098

Analytical Run #: 211603 | ICAL Calibration #: W042822.

CTLab #	1137437				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	99.0	85	114	
d8-Toluene	100	100	89	112	
Dibromofluoromethane	100	103	80	119	
CTLab #	**1137438**				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	100	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1138907**	Sample Type:		Lab Control Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1138908**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	101	70	120	
Bromofluorobenzene	100	98.0	70	120	
d8-Toluene	100	101	85	120	
Dibromofluoromethane	100	101	85	115	
CTLab #	**1139090**	Sample Type:		Method Blank	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	70	120	
Bromofluorobenzene	100	100	75	120	
d8-Toluene	100	101	85	120	
Dibromofluoromethane	100	101	85	115	
CTLab #	**1139347**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	50	150	
Bromofluorobenzene	100	99.0	50	150	
d8-Toluene	100	103	50	150	
Dibromofluoromethane	100	103	50	150	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49

Analytical Method: EPA 8260C | SDG: 169098

Analytical Run #: 211603 | ICAL Calibration #: W042822.

CTLab #	1139500	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	70	120	
Bromofluorobenzene	100	99.0	70	120	
d8-Toluene	100	102	85	120	
Dibromofluoromethane	100	102	85	115	
CTLab #	**1139717**	Sample Type:		Normal Field Sample	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	70	120	
Bromofluorobenzene	100	100	75	120	
d8-Toluene	100	101	85	120	
Dibromofluoromethane	100	103	85	115	
CTLab #	**1139722**	Sample Type:		Matrix Spike	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	98.0	85	114	
d8-Toluene	100	103	89	112	
Dibromofluoromethane	100	101	80	119	
CTLab #	**1139723**	Sample Type:		Matrix Spike Duplicate	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	81	118	
Bromofluorobenzene	100	97.0	85	114	
d8-Toluene	100	101	89	112	
Dibromofluoromethane	100	100	80	119	
CTLab #	**1139724**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	102	50	150	
Bromofluorobenzene	100	96.0	50	150	
d8-Toluene	100	102	50	150	
Dibromofluoromethane	100	100	50	150	
CTLab #	**1139733**	Sample Type:		Continuing Calibration Verification	
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	105	70	120	
Bromofluorobenzene	100	99.0	70	120	
d8-Toluene	100	102	85	120	
Dibromofluoromethane	100	101	85	115	

CT LABORATORIES
delivering more than data from your environmental analyses

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49
Analytical Method:	EPA 8260C	SDG:	169098
Analytical Run #:	211603	ICAL Calibration #:	W042822.

CTLab #	1140062	Sample Type:	Normal Field Sample		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	99.0	70	120	
Bromofluorobenzene	100	101	75	120	
d8-Toluene	100	100	85	120	
Dibromofluoromethane	100	102	85	115	

CTLab #	1140124	Sample Type:	Continuing Calibration Verification		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
1,2 Dichloroethane-d4	100	98.0	50	150	
Bromofluorobenzene	100	98.0	50	150	
d8-Toluene	100	103	50	150	
Dibromofluoromethane	100	101	50	150	

CT LABORATORIES
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3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: GROUND WATER
SDG No.: 169098
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 211603
Sample No.: 1139722
Parent Sample No.: 1136203
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	05/05/2022	21:40	74-131	10.5	BDL	10.0	105
1,1,2,2-Tetrachloroethane	05/05/2022	21:40	71-121	9.34	BDL	10.0	93
1,1,2-Trichloroethane	05/05/2022	21:40	80-119	10.1	BDL	10.0	101
1,1-Dichloroethane	05/05/2022	21:40	77-125	10.2	BDL	10.0	102
1,1-Dichloroethene	05/05/2022	21:40	71-131	11.2	BDL	10.0	112
1,2,3-Trichlorobenzene	05/05/2022	21:40	69-129	8.96	BDL	10.0	90
1,2,4-Trichlorobenzene	05/05/2022	21:40	69-130	8.85	BDL	10.0	88
1,2-Dibromo-3-chloropropane	05/05/2022	21:40	62-128	8.16	BDL	10.0	82
1,2-Dibromoethane	05/05/2022	21:40	77-121	9.39	BDL	10.0	94
1,2-Dichlorobenzene	05/05/2022	21:40	80-119	9.03	BDL	10.0	90
1,2-Dichloroethane	05/05/2022	21:40	73-128	10.2	BDL	10.0	102
1,2-Dichloropropane	05/05/2022	21:40	78-122	10.0	BDL	10.0	100
1,3-Dichlorobenzene	05/05/2022	21:40	80-119	9.57	BDL	10.0	96
1,4-Dioxane	05/05/2022	21:40	59-139	452	BDL	500	90
2-Butanone	05/05/2022	21:40	56-143	96.3	BDL	100	96
2-Hexanone	05/05/2022	21:40	57-139	88.1	BDL	100	88
4-Methyl-2-pentanone	05/05/2022	21:40	67-130	99.3	BDL	100	99
Acetone	05/05/2022	21:40	39-160	80.1	BDL	100	80
Benzene	05/05/2022	21:40	79-120	10.7	BDL	10.0	107
Bromochloromethane	05/05/2022	21:40	78-123	10.1	BDL	10.0	101
Bromodichloromethane	05/05/2022	21:40	79-125	9.93	BDL	10.0	99
Bromoform	05/05/2022	21:40	66-130	9.27	BDL	10.0	93
Bromomethane	05/05/2022	21:40	53-141	10.6	BDL	10.0	106
Carbon disulfide	05/05/2022	21:40	64-133	21.8	BDL	20.0	109
Carbon tetrachloride	05/05/2022	21:40	72-136	11.1	BDL	10.0	111
Chlorobenzene	05/05/2022	21:40	82-118	9.76	BDL	10.0	98
Chloroethane	05/05/2022	21:40	60-138	10.2	BDL	10.0	102
Chloroform	05/05/2022	21:40	79-124	10.4	BDL	10.0	104
Chloromethane	05/05/2022	21:40	50-139	10.2	BDL	10.0	102
cis-1,2-Dichloroethene	05/05/2022	21:40	78-123	10.3	BDL	10.0	103
cis-1,3-Dichloropropene	05/05/2022	21:40	75-124	9.68	BDL	10.0	97

CT LABORATORIES
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3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: GROUND WATER
SDG No.: 169098
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 211603
Sample No.: 1139722
Parent Sample No.: 1136203
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Cyclohexane	05/05/2022	21:40	71-130	11.2	BDL	10.0	112
Dibromochloromethane	05/05/2022	21:40	74-126	8.90	BDL	10.0	89
Dichlorodifluoromethane	05/05/2022	21:40	32-152	11.4	BDL	10.0	114
Ethylbenzene	05/05/2022	21:40	79-121	10.2	BDL	10.0	102
Freon 113	05/05/2022	21:40	70-136	21.1	BDL	20.0	106
Isopropylbenzene	05/05/2022	21:40	72-131	10.4	BDL	10.0	104
m & p-Xylene	05/05/2022	21:40	80-121	20.4	BDL	20.0	102
Methyl Acetate	05/05/2022	21:40	56-136	8.77	BDL	10.0	88
Methyl tert-butyl ether	05/05/2022	21:40	71-124	9.67	BDL	10.0	97
Methylcyclohexane	05/05/2022	21:40	72-132	9.43	BDL	10.0	94
Methylene chloride	05/05/2022	21:40	74-124	9.24	BDL	10.0	92
o-Xylene	05/05/2022	21:40	78-122	9.94	BDL	10.0	99
Styrene	05/05/2022	21:40	78-123	9.83	BDL	10.0	98
Tetrachloroethene	05/05/2022	21:40	74-129	10.8	BDL	10.0	108
Toluene	05/05/2022	21:40	80-121	10.6	BDL	10.0	106
trans-1,2-Dichloroethene	05/05/2022	21:40	75-124	10.4	BDL	10.0	104
trans-1,3-Dichloropropene	05/05/2022	21:40	73-127	9.08	BDL	10.0	91
Trichloroethene	05/05/2022	21:40	79-123	10.3	BDL	10.0	103
Trichlorofluoromethane	05/05/2022	21:40	65-141	11.5	BDL	10.0	115
Vinyl chloride	05/05/2022	21:40	58-137	10.9	BDL	10.0	109

Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
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3A

WATER VOLATILE MATRIX SPIKE RECOVERY

Sample Description

13MW5

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: GROUND WATER SDG No.: 169098

Analytical Method: RSK 175 Concentration Units: ug/L

Analytical Run #: 211667 Sample No.: 1138358 Parent Sample No.: 1136203

Analytical Prep Batch #: 95280 Analytical Preparation Date/Time: 05/04/2022 08:50

ICAL Calibration #: P4DG070121

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	05/04/2022	09:15	74-131	3.70	BDL	4.76	78
Ethene	05/04/2022	09:15	72-133	5.35	BDL	6.77	79
Methane	05/04/2022	09:15	73-125	1.79	BDL	2.28	79

Spike Recovery: 0 out of 3 outside QC limits

CT LABORATORIES
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3A

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&
Matrix: GROUND WATER
SDG No.: 169098
Analytical Method: EPA 8260C
Concentration Units: ug/L
Analytical Run #: 211603
Sample No.: 1139723
Parent Sample No.: 1139722
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
1,1,1-Trichloroethane	05/05/2022	22:10	11.4	10.0	114	8	74-131	20
1,1,2,2-Tetrachloroethane	05/05/2022	22:10	10.1	10.0	101	8	71-121	20
1,1,2-Trichloroethane	05/05/2022	22:10	10.4	10.0	104	3	80-119	20
1,1-Dichloroethane	05/05/2022	22:10	11.0	10.0	110	7	77-125	20
1,1-Dichloroethene	05/05/2022	22:10	12.1	10.0	121	8	71-131	20
1,2,3-Trichlorobenzene	05/05/2022	22:10	10.1	10.0	101	12	69-129	20
1,2,4-Trichlorobenzene	05/05/2022	22:10	9.80	10.0	98	10	69-130	20
1,2-Dibromo-3-chloropropane	05/05/2022	22:10	9.75	10.0	98	18	62-128	20
1,2-Dibromoethane	05/05/2022	22:10	10.2	10.0	102	9	77-121	20
1,2-Dichlorobenzene	05/05/2022	22:10	9.89	10.0	99	9	80-119	20
1,2-Dichloroethane	05/05/2022	22:10	10.8	10.0	108	6	73-128	20
1,2-Dichloropropane	05/05/2022	22:10	10.6	10.0	106	6	78-122	20
1,3-Dichlorobenzene	05/05/2022	22:10	10.2	10.0	102	7	80-119	20
1,4-Dioxane	05/05/2022	22:10	479	500	96	6	59-139	20
2-Butanone	05/05/2022	22:10	102	100	102	6	56-143	20
2-Hexanone	05/05/2022	22:10	98.2	100	98	11	57-139	20
4-Methyl-2-pentanone	05/05/2022	22:10	107	100	107	8	67-130	20
Acetone	05/05/2022	22:10	84.7	100	85	6	39-160	20
Benzene	05/05/2022	22:10	11.4	10.0	114	6	79-120	20
Bromochloromethane	05/05/2022	22:10	10.9	10.0	109	7	78-123	20
Bromodichloromethane	05/05/2022	22:10	10.6	10.0	106	6	79-125	20
Bromoform	05/05/2022	22:10	9.89	10.0	99	6	66-130	20
Bromomethane	05/05/2022	22:10	11.6	10.0	116	9	53-141	20
Carbon disulfide	05/05/2022	22:10	23.7	20.0	118	8	64-133	20
Carbon tetrachloride	05/05/2022	22:10	12.2	10.0	122	9	72-136	20
Chlorobenzene	05/05/2022	22:10	10.6	10.0	106	8	82-118	20
Chloroethane	05/05/2022	22:10	10.7	10.0	107	5	60-138	20
Chloroform	05/05/2022	22:10	11.1	10.0	111	6	79-124	20
Chloromethane	05/05/2022	22:10	11.2	10.0	112	10	50-139	20
cis-1,2-Dichloroethene	05/05/2022	22:10	11.2	10.0	112	8	78-123	20
cis-1,3-Dichloropropene	05/05/2022	22:10	10.5	10.0	105	8	75-124	20

CT LABORATORIES
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3A

Sample Description

WATER VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

13MW5

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&

Matrix: GROUND WATER SDG No.: 169098

Analytical Method: EPA 8260C Concentration Units: ug/L

Analytical Run #: 211603 Sample No.: 1139723 Parent Sample No.: 1139722

Analytical Prep Batch #: 0 Analytical Preparation Date/Time:

ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits (%R)	Control Limits (%RPD)
Cyclohexane	05/05/2022	22:10	12.0	10.0	120	7	71-130	20
Dibromochloromethane	05/05/2022	22:10	10.4	10.0	104	15	74-126	20
Dichlorodifluoromethane	05/05/2022	22:10	12.1	10.0	121	6	32-152	20
Ethylbenzene	05/05/2022	22:10	11.2	10.0	112	10	79-121	20
Freon 113	05/05/2022	22:10	23.0	20.0	115	9	70-136	20
Isopropylbenzene	05/05/2022	22:10	11.5	10.0	115	10	72-131	20
m & p-Xylene	05/05/2022	22:10	22.4	20.0	112	9	80-121	20
Methyl Acetate	05/05/2022	22:10	9.16	10.0	92	4	56-136	20
Methyl tert-butyl ether	05/05/2022	22:10	10.6	10.0	106	9	71-124	20
Methylcyclohexane	05/05/2022	22:10	9.99	10.0	100	6	72-132	20
Methylene chloride	05/05/2022	22:10	10.2	10.0	102	10	74-124	20
o-Xylene	05/05/2022	22:10	10.8	10.0	108	9	78-122	20
Styrene	05/05/2022	22:10	11.0	10.0	110	11	78-123	20
Tetrachloroethene	05/05/2022	22:10	11.7	10.0	117	8	74-129	20
Toluene	05/05/2022	22:10	11.2	10.0	112	6	80-121	20
trans-1,2-Dichloroethene	05/05/2022	22:10	11.3	10.0	113	8	75-124	20
trans-1,3-Dichloropropene	05/05/2022	22:10	10.0	10.0	100	10	73-127	20
Trichloroethene	05/05/2022	22:10	10.9	10.0	109	6	79-123	20
Trichlorofluoromethane	05/05/2022	22:10	12.4	10.0	124	8	65-141	20
Vinyl chloride	05/05/2022	22:10	11.4	10.0	114	5	58-137	20

RPD or Spike Recovery: 0 out of 51 outside QC limits

CT LABORATORIES
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3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Sample No.: 1138361

SDG No.: 169098

Analytical Method: RSK 175

Concentration Units: ug/L

Sample No.: 1138361

Parent Sample No.:

Analytical Prep Batch #: 95280

Analytical Preparation Date/Time: 05/04/2022 08:50

Analytical Run #: 211667

ICAL Calibration #: P4DG070121

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Ethane	05/04/2022	08:57	74-131	3.78		4.76	79
Ethene	05/04/2022	08:57	72-133	5.52		6.77	82
Methane	05/04/2022	08:57	73-125	2.50		2.28	110

Spike Recovery: 0 out of 3 outside limits

CT LABORATORIES
delivering more than data from your environmental analyses

3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Sample No.: 1138907
SDG No.: 169098
Analytical Method: EPA 8260C
Concentration Units: ug/L

Sample No.: 1138907
Parent Sample No.: 0
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211603
ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,1,1-Trichloroethane	05/05/2022	07:54	74-131	10.3		10.0	103
1,1,2,2-Tetrachloroethane	05/05/2022	07:54	71-121	9.19		10.0	92
1,1,2-Trichloroethane	05/05/2022	07:54	80-119	10.0		10.0	100
1,1-Dichloroethane	05/05/2022	07:54	77-125	9.92		10.0	99
1,1-Dichloroethene	05/05/2022	07:54	71-131	10.6		10.0	106
1,2,3-Trichlorobenzene	05/05/2022	07:54	69-129	9.01		10.0	90
1,2,4-Trichlorobenzene	05/05/2022	07:54	69-130	9.06		10.0	91
1,2-Dibromo-3-chloropropane	05/05/2022	07:54	62-128	8.90		10.0	89
1,2-Dibromoethane	05/05/2022	07:54	77-121	9.38		10.0	94
1,2-Dichlorobenzene	05/05/2022	07:54	80-119	9.43		10.0	94
1,2-Dichloroethane	05/05/2022	07:54	73-128	10.1		10.0	101
1,2-Dichloropropane	05/05/2022	07:54	78-122	9.62		10.0	96
1,3-Dichlorobenzene	05/05/2022	07:54	80-119	9.48		10.0	95
2-Butanone	05/05/2022	07:54	56-143	95.1		100	95
2-Hexanone	05/05/2022	07:54	57-139	92.6		100	93
4-Methyl-2-pentanone	05/05/2022	07:54	67-130	99.2		100	99
Acetone	05/05/2022	07:54	39-160	92.1		100	92
Benzene	05/05/2022	07:54	79-120	10.3		10.0	103
Bromochloromethane	05/05/2022	07:54	78-123	9.55		10.0	96
Bromodichloromethane	05/05/2022	07:54	79-125	9.68		10.0	97
Bromoform	05/05/2022	07:54	66-130	9.69		10.0	97
Bromomethane	05/05/2022	07:54	53-141	10.4		10.0	104
Carbon disulfide	05/05/2022	07:54	64-133	20.6		20.0	103
Carbon tetrachloride	05/05/2022	07:54	72-136	10.9		10.0	109
Chlorobenzene	05/05/2022	07:54	82-118	9.65		10.0	96
Chloroethane	05/05/2022	07:54	60-138	9.47		10.0	95
Chloroform	05/05/2022	07:54	79-124	9.82		10.0	98
Chloromethane	05/05/2022	07:54	50-139	9.31		10.0	93

CT LABORATORIES
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3A

Sample Description

WATER VOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Sample No.: 1138907

SDG No.: 169098

Analytical Method: EPA 8260C

Concentration Units: ug/L

Sample No.: 1138907

Parent Sample No.: 0

Analytical Prep Batch #: 0

Analytical Preparation Date/Time:

Analytical Run #: 211603

ICAL Calibration #: W042822.

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
cis-1,2-Dichloroethene	05/05/2022	07:54	78-123	9.90		10.0	99
cis-1,3-Dichloropropene	05/05/2022	07:54	75-124	9.84		10.0	98
Cyclohexane	05/05/2022	07:54	71-130	10.8		10.0	108
Dibromochloromethane	05/05/2022	07:54	74-126	9.52		10.0	95
Dichlorodifluoromethane	05/05/2022	07:54	32-152	11.0		10.0	110
Ethylbenzene	05/05/2022	07:54	79-121	10.0		10.0	100
Freon 113	05/05/2022	07:54	70-136	21.7		20.0	108
Isopropylbenzene	05/05/2022	07:54	72-131	10.4		10.0	104
m & p-Xylene	05/05/2022	07:54	80-121	20.6		20.0	103
Methyl Acetate	05/05/2022	07:54	56-136	8.49		10.0	85
Methyl tert-butyl ether	05/05/2022	07:54	71-124	9.79		10.0	98
Methylcyclohexane	05/05/2022	07:54	72-132	9.95		10.0	100
Methylene chloride	05/05/2022	07:54	74-124	9.25		10.0	92
o-Xylene	05/05/2022	07:54	78-122	9.73		10.0	97
Styrene	05/05/2022	07:54	78-123	10.0		10.0	100
Tetrachloroethene	05/05/2022	07:54	74-129	10.5		10.0	105
Toluene	05/05/2022	07:54	80-121	10.2		10.0	102
trans-1,2-Dichloroethene	05/05/2022	07:54	75-124	10.1		10.0	101
trans-1,3-Dichloropropene	05/05/2022	07:54	73-127	9.77		10.0	98
Trichloroethene	05/05/2022	07:54	79-123	9.92		10.0	99
Trichlorofluoromethane	05/05/2022	07:54	65-141	10.8		10.0	108
Vinyl chloride	05/05/2022	07:54	58-137	10.1		10.0	101

Spike Recovery: 0 out of 50 outside limits

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Sample ID:	1138360	SDG No.:	169098
Matrix:	LIQUID	Date Extracted:	05/04/2022
Date Analyzed:	05/04/2022	Time Analyzed:	09:02
Analytical Method:	RSK 175	Extraction Method:	METHOD
Analytical Run #:	211667	Extraction Batch #:	95280
		ICAL Calibration #:	P4DG070121

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	CCV	1138464	05/04/2022 08:47	P4DG070121
2	LCSW	1138361	05/04/2022 08:57	P4DG070121
3	MBW	1138360	05/04/2022 09:02	P4DG070121
4	13MW5	1136203	05/04/2022 09:05	P4DG070121
5	13MW5MSW	1138358	05/04/2022 09:15	P4DG070121
6	13MW5MSDW	1138359	05/04/2022 09:22	P4DG070121
7	13MW4	1136204	05/04/2022 09:26	P4DG070121
8	13MW3	1136205	05/04/2022 09:30	P4DG070121
9	49MW04	1136206	05/04/2022 09:42	P4DG070121
10	49TW04	1136207	05/04/2022 09:46	P4DG070121
11	13MW2	1136208	05/04/2022 09:50	P4DG070121
12	49MW05	1136213	05/04/2022 09:55	P4DG070121
13	49MW02	1136214	05/04/2022 09:58	P4DG070121
14	48MW3	1136215	05/04/2022 10:03	P4DG070121
15	48MW2	1136216	05/04/2022 10:07	P4DG070121
16	CCV	1138465	05/04/2022 10:10	P4DG070121
17	48MW6	1136217	05/04/2022 10:38	
18	50MW2	1136588	05/04/2022 10:42	P4DG070121
19	50TW2	1136671	05/04/2022 10:46	P4DG070121
20	49MW01	1136672	05/04/2022 10:50	P4DG070121
21	49MW03	1136673	05/04/2022 10:55	P4DG070121
22	48MW7	1136674	05/04/2022 10:59	P4DG070121
23	48MW1	1137438	05/04/2022 11:02	P4DG070121
24	CCV	1138466	05/04/2022 11:06	P4DG070121

CT LABORATORIES
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VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Sample ID:	1139090	SDG No.:	169098
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	05/05/2022	Time Analyzed:	08:55
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	211603	Extraction Batch #:	0
		ICAL Calibration #:	W042822.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
1	BFB	1139501	05/05/2022 07:12	
2	LCSW	1138907	05/05/2022 07:54	W042822.
3	CCV	1138908	05/05/2022 07:54	W042822.
4	MBW	1139090	05/05/2022 08:55	W042822.
5	TB1	1136202	05/05/2022 09:23	W042822.
6	TB2	1136587	05/05/2022 09:53	W042822.
7	TB3	1137437	05/05/2022 10:22	W042822.
8	13MW5	1136203	05/05/2022 10:52	W042822.
9	CCVF	1139347	05/05/2022 11:21	W042822.
10	BFB	1139502	05/05/2022 11:45	
11	CCV	1139500	05/05/2022 12:28	W042822.
12	CCB	1139717	05/05/2022 13:26	W042822.
13	13MW4	1136204	05/05/2022 13:55	W042822.
14	13MW3	1136205	05/05/2022 14:24	W042822.
15	49MW04	1136206	05/05/2022 14:53	W042822.
16	49TW04	1136207	05/05/2022 15:22	W042822.
17	13MW2	1136208	05/05/2022 15:51	W042822.
18	49MW05	1136213	05/05/2022 16:20	W042822.
19	49MW02	1136214	05/05/2022 16:49	W042822.
20	48MW2	1136216	05/05/2022 17:47	W042822.
21	48MW6	1136217	05/05/2022 18:15	W042822.
22	50MW2	1136588	05/05/2022 18:45	W042822.
23	50TW2	1136671	05/05/2022 19:14	W042822.
24	49MW01	1136672	05/05/2022 19:43	W042822.
25	49MW03	1136673	05/05/2022 20:13	W042822.
26	48MW7	1136674	05/05/2022 20:42	W042822.
27	48MW1	1137438	05/05/2022 21:11	W042822.
28	13MW5MSW	1139722	05/05/2022 21:40	W042822.
29	13MW5MSDW	1139723	05/05/2022 22:10	W042822.
30	CCVF	1139724	05/05/2022 22:39	W042822.

CT LABORATORIES
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VOLATILE METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Sample ID:	1139090	SDG No.:	169098
Matrix:	LIQUID	Date Extracted:	
Date Analyzed:	05/05/2022	Time Analyzed:	08:55
Analytical Method:	EPA 8260C	Extraction Method:	NONE
Analytical Run #:	211603	Extraction Batch #:	0
		ICAL Calibration #:	W042822.

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION # ID
31	BFB	1140447	05/06/2022 07:12	
32	CCV	1139733	05/06/2022 07:54	W042822.
33	CCB	1140062	05/06/2022 08:54	W042822.
34	48MW3	1136215	05/06/2022 09:24	W042822.
35	CCVF	1140124	05/06/2022 09:53	W042822.

BFB

Data File : C:\Instarch\Data\APR2822\BFB1.D Vial: 1
Acq On : 28 Apr 2022 13:26 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.669 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	15244	PASS
75	95	30	60	45.7	41194	PASS
95	95	100	100	100.0	90050	PASS
96	95	5	9	6.2	5584	PASS
173	174	0.00	2	0.8	543	PASS
174	95	50	100	79.3	71393	PASS
175	174	5	9	7.7	5521	PASS
176	174	95	101	95.1	67885	PASS
177	176	5	9	6.7	4548	PASS

W042822.M Mon May 02 08:14:16 2022

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\APR2822\BFB1.D
Injection Date : 28 Apr 2022 Log Time Period (hrs) : ALL
Injection Time : 13:26 Total files within period : 17
Sample Directory : C:\INSTARCH\DATA\APR2822\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	28 Apr 2022	14:39
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	28 Apr 2022	15:09
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	28 Apr 2022	15:39
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	28 Apr 2022	16:09
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	28 Apr 2022	16:38
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	28 Apr 2022	17:08
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	28 Apr 2022	17:38
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	28 Apr 2022	18:08
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	28 Apr 2022	18:37
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	28 Apr 2022	19:37
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	28 Apr 2022	20:08
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK 5.0 mL DI H20 Purged	28 Apr 2022	21:36

Data File : C:\Instarch\Data\MAY0522\BFB1.D Vial: 1
Acq On : 5 May 2022 7:12 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	13111	PASS
75	95	30	60	47.7	36938	PASS
95	95	100	100	100.0	77434	PASS
96	95	5	9	6.6	5078	PASS
173	174	0.00	2	0.6	340	PASS
174	95	50	100	77.9	60288	PASS
175	174	5	9	7.1	4301	PASS
176	174	95	101	96.9	58394	PASS
177	176	5	9	6.5	3797	PASS

W042822.M Fri May 06 09:32:54 2022

BFB

Data File : C:\Instarch\Data\MAY0522\BFB2.D Vial: 11
Acq On : 5 May 2022 11:45 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	12354	PASS
75	95	30	60	48.1	34573	PASS
95	95	100	100	100.0	71890	PASS
96	95	5	9	6.7	4848	PASS
173	174	0.00	2	0.8	456	PASS
174	95	50	100	82.5	59322	PASS
175	174	5	9	6.6	3931	PASS
176	174	95	101	100.1	59378	PASS
177	176	5	9	7.4	4381	PASS

W042822.M Fri May 06 09:34:02 2022

Data File : C:\Instarch\Data\MAY0522\BFB3.D Vial: 35
Acq On : 6 May 2022 7:12 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	10205	PASS
75	95	30	60	46.4	30237	PASS
95	95	100	100	100.0	65162	PASS
96	95	5	9	7.5	4913	PASS
173	174	0.00	2	1.2	670	PASS
174	95	50	100	85.6	55786	PASS
175	174	5	9	7.0	3921	PASS
176	174	95	101	95.7	53360	PASS
177	176	5	9	6.1	3278	PASS

W042822.M Fri May 06 09:34:23 2022

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\MAY0522\BFB1.D
Injection Date : 5 May 2022 Log Time Period (hrs) : ALL
Injection Time : 07:12 Total files within period : 40
Sample Directory : C:\INSTARCH\DATA\MAY0522\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name Misc Info	Date	Time
CCV-LCS1	1.00	1.00	1.00	211603,LCSW, 10.0/100 ug/L, 5.0 m	5 May 2022	07:54
MB1	1.00	1.00	1.00	211603,MBW, pH<2,5.0 mL DI H20 P	5 May 2022	08:55
1136202	1.00	1.00	1.00	211603,1136202, pH<2,5.0 mL DI H20 P	5 May 2022	09:23
1136587	1.00	1.00	1.00	211603,1136587, pH<2,5.0 mL DI H20 P	5 May 2022	09:53
1137437	1.00	1.00	1.00	211603,1137437, pH<2,5.0 mL DI H20 P	5 May 2022	10:22
1136203	1.00	1.00	1.00	211603,1136203, pH<2,5.0 mL DI H20 P	5 May 2022	10:52
CCVF1	1.00	1.00	1.00	211603,CCVF, 10.0/100 ug/L, 5.0 m	5 May 2022	11:21
BFB2	1.00	1.00	1.00	BFB DIRECT INJ. 50 ng Inj.	5 May 2022	11:45
CCV2	1.00	1.00	1.00	211603,CCV, 10.0/100 ug/L, 5.0 m	5 May 2022	12:28
CCB1	1.00	1.00	1.00	211603,CCB, pH<2,5.0 mL DI H20 P	5 May 2022	13:26
1136204	1.00	1.00	1.00	211603,1136204, pH<2,5.0 mL DI H20 P	5 May 2022	13:55
1136205	1.00	1.00	1.00	211603,1136205, pH<2,5.0 mL DI H20 P	5 May 2022	14:24
1136206	1.00	1.00	1.00	211603,1136206, pH<2,5.0 mL DI H20 P	5 May 2022	14:53
1136207	1.00	1.00	1.00	211603,1136207, pH<2,5.0 mL DI H20 P	5 May 2022	15:22
1136208	1.00	1.00	1.00	211603,1136208,	5 May 2022	15:51

				pH<2,5.0 mL DI H20 P	
1136213	1.00	1.00	1.00	211603,1136213,	5 May 2022 16:20
				pH<2,5.0 mL DI H20 P	
1136214	1.00	1.00	1.00	211603,1136214,	5 May 2022 16:49
				pH<2,5.0 mL DI H20 P	
1136215	1.00	1.00	1.00	211603,1136215,5	5 May 2022 17:18
				pH<2,5.0 mL DI H20 P	
1136216	1.00	1.00	1.00	211603,1136216,	5 May 2022 17:47
				pH<2,5.0 mL DI H20 P	
1136217	1.00	1.00	1.00	211603,1136217,	5 May 2022 18:15
				pH<2,5.0 mL DI H20 P	
1136588	1.00	1.00	1.00	211603,1136588,	5 May 2022 18:45
				pH<2,5.0 mL DI H20 P	
1136671	1.00	1.00	1.00	211603,1136671,	5 May 2022 19:14
				pH<2,5.0 mL DI H20 P	
1136672	1.00	1.00	1.00	211603,1136672,	5 May 2022 19:43
				pH<2,5.0 mL DI H20 P	
1136673	1.00	1.00	1.00	211603,1136673,	5 May 2022 20:13
				pH<2,5.0 mL DI H20 P	
1136674	1.00	1.00	1.00	211603,1136674,	5 May 2022 20:42
				pH<2,5.0 mL DI H20 P	
1137438	1.00	1.00	1.00	211603,1137438,	5 May 2022 21:11
				pH<2,5.0 mL DI H20 P	
1136203M	1.00	1.00	1.00	211603,MSW1136203,	5 May 2022 21:40
				pH<2,5.0 mL DI H20 P	
1136203S	1.00	1.00	1.00	211603,MSDW1136203,	5 May 2022 22:10
				pH<2,5.0 mL DI H20 P	
CCVF2	1.00	1.00	1.00	211603,CCVF,	5 May 2022 22:39
				10.0/100 ug/L, 5.0 m	
BFB3	1.00	1.00	1.00	BFB DIRECT INJ.	6 May 2022 07:12
				50 ng Inj.	
CCV3	1.00	1.00	1.00	211603,CCV,	6 May 2022 07:54
				10.0/100 ug/L, 5.0 m	
CCB2	1.00	1.00	1.00	211603,CCB,	6 May 2022 08:54
				pH<2,5.0 mL DI H20 P	
1136215R	1.00	1.00	1.00	211603,1136215,	6 May 2022 09:24
				pH<2,5.0 mL DI H20 P	
CCVF3	1.00	1.00	1.00	211603,CCVF,	6 May 2022 09:53
				10.0/100 ug/L, 5.0 m	

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 28 Apr 2022
Instrument ID : VMS3 Time Analyzed : 4:38 pm
GC Column : DB-624 UI ID : VMS3(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1360561	7.70	1103594	11.61	612993	14.91
UPPER LIMIT	2721122	8.20	2207188	12.11	1225986	15.41
LOWER LIMIT	680281	7.20	551797	11.11	306497	14.41
File ID Sample						
1136202 211603,11	1241708	7.70	1038488	11.62	570196	14.91
1136203 211603,11	1253140	7.70	1046944	11.61	575171	14.91
1136203M 211603,MS	1276393	7.70	1080209	11.61	617675	14.91
1136203S 211603,MS	1301854	7.70	1079764	11.61	624415	14.91
1136204 211603,11	1232860	7.70	1039692	11.61	573520	14.91
1136205 211603,11	1245938	7.70	1060062	11.61	578963	14.91
1136206 211603,11	1234165	7.70	1048729	11.61	564327	14.91
1136207 211603,11	1222315	7.70	1052667	11.61	570603	14.91
1136208 211603,11	1245357	7.70	1059701	11.61	575678	14.91
1136213 211603,11	1228717	7.70	1049133	11.62	570058	14.91
1136214 211603,11	1235756	7.70	1070487	11.61	579684	14.91
1136215 211603,11	1231706	7.70	1049594	11.61	575670	14.91
1136215R 211603,11	1266562	7.70	1092903	11.61	606269	14.91
1136216 211603,11	1221702	7.70	1060089	11.61	579493	14.91
1136217 211603,11	1245475	7.70	1075295	11.61	591155	14.91
1136587 211603,11	1235410	7.70	1043837	11.61	577565	14.91
1136588 211603,11	1262698	7.70	1072817	11.61	596963	14.91
1136671 211603,11	1257693	7.70	1078615	11.61	598934	14.91
1136672 211603,11	1208000	7.70	1054940	11.61	588139	14.91
1136673 211603,11	1220349	7.70	1046257	11.62	576709	14.91
1136674 211603,11	1219084	7.70	1046002	11.62	573842	14.91
1137437 211603,11	1239122	7.70	1043249	11.62	571669	14.91
1137438 211603,11	1211102	7.70	1021786	11.61	566726	14.91
CCB1 211603,CC	1255693	7.70	1060285	11.61	572748	14.91
CCB2 211603,CC	1250976	7.70	1054853	11.61	580325	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : CT Laboratories, LLC Contract :
Project : Site : Location : Group :
Lab File ID (Standard): WCAL5.D Date Analyzed : 28 Apr 2022
Instrument ID : VMS3 Time Analyzed : 4:38 pm
GC Column : DB-624 UI ID : VMS3(mm) Heated Purge (Y:N) : N

	IS1		IS2		IS3	
	Area #	RT #	Area #	RT #	Area #	RT #
12 HOUR STD	1360561	7.70	1103594	11.61	612993	14.91
UPPER LIMIT	2721122	8.20	2207188	12.11	1225986	15.41
LOWER LIMIT	680281	7.20	551797	11.11	306497	14.41
File ID Sample						
CCV2 211603,CC	1304377	7.70	1100048	11.61	622966	14.91
CCV3 211603,CC	1303393	7.70	1087796	11.61	624527	14.91
CCVF1 211603,CC	1286028	7.70	1083020	11.62	619399	14.91
CCVF2 211603,CC	1303077	7.70	1071450	11.61	637939	14.91
CCVF3 211603,CC	1270595	7.70	1074033	11.62	626930	14.91
CCV-LCS1 211603,LC	1304103	7.70	1082679	11.61	620213	14.91
MB1 211603,MB	1260344	7.70	1051959	11.61	583749	14.91

IS1 = FLUOROBENZENE**ISTD**
IS2 = d5-CHLOROBENZENE**ISTD**
IS3 = d4-1,4-DICHLOROBENZENE**IS

AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = 0.5 minutes of internal standard RT
RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
* Values outside of contract required QC limits

VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136202.D Vial: 6
Acq On : 5 May 2022 9:23 Operator: DGS-RLD
Sample : 211603,1136202, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:44:33 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1241708	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1038488	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	570196	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	336857	20.409 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%	
45) SURR12DCAd4	7.27	102	87521	19.876 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%	
61) SURRd8Tolule	9.71	98	1310840	20.183 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%	
83) SURR4BrFBenz	13.25	95	553494	19.618 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%	

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	15780	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3011	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.63	84	5856	N.D.	
21) tbutylalcohol	4.84	59	2627	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136202.D Vial: 6
Acq On : 5 May 2022 9:23 Operator: DGS-RLD
Sample : 211603,1136202, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:44:33 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.63	43	3031	Below Cal # 29	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3025	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	2878	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136202.D Vial: 6
Acq On : 5 May 2022 9:23 Operator: DGS-RLD
Sample : 211603,1136202, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:44:33 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

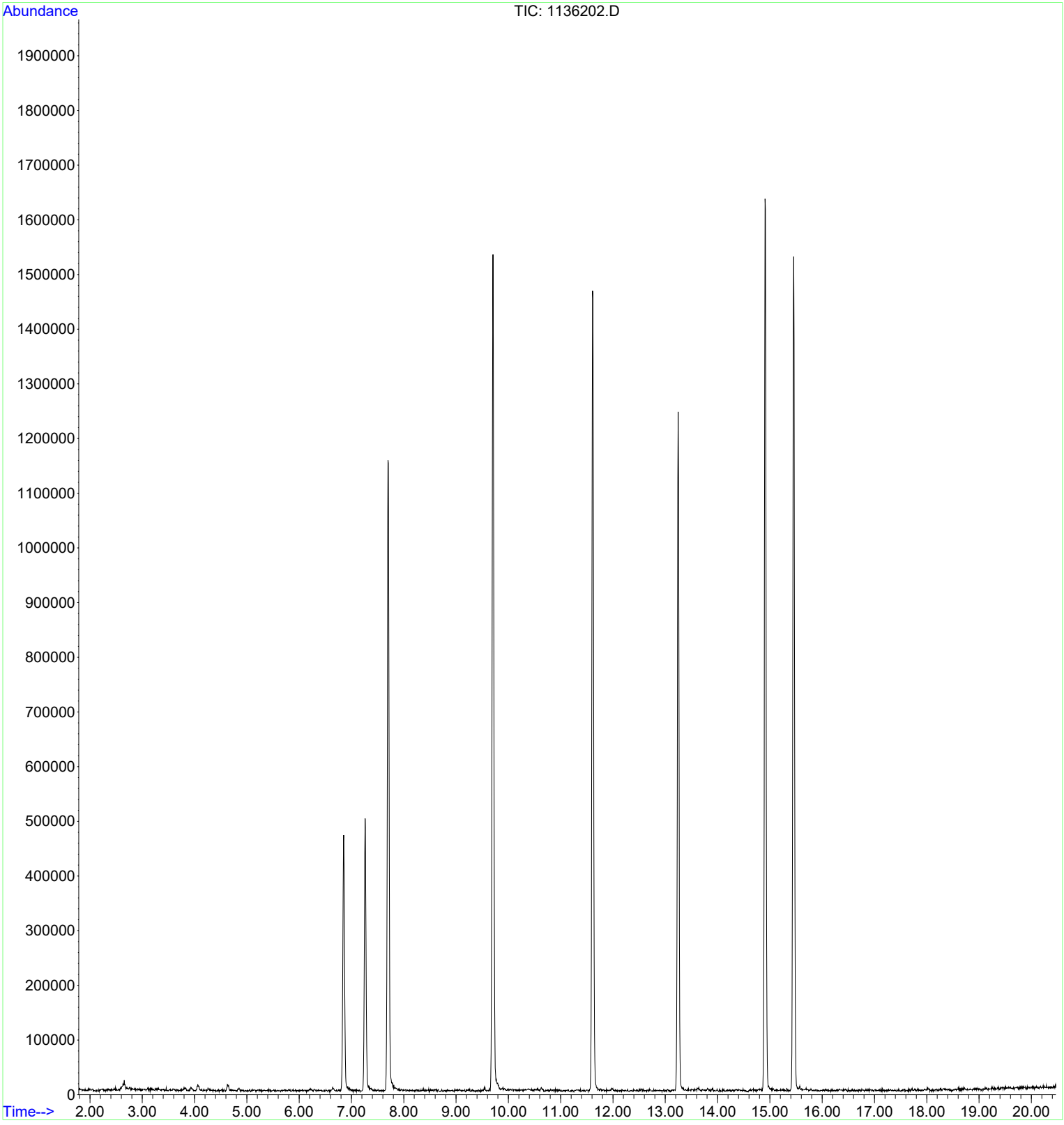
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.02	128	3406	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\INSTARCH\DATA\MAY0522\1136202.D Vial: 6
Acq On : 5 May 2022 9:23 Operator: DGS-RLD
Sample : 211603,1136202, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:44:33 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136587.D Vial: 7
Acq On : 5 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,1136587, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:14:25 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1235410	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1043837	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	577565	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	341349	20.786 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104 %		
45) SURR12DCAd4	7.27	102	89882	20.516 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.71	98	1311539	20.297 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	565701	19.795 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	16704	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	2615	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.63	84	5581	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	2725	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136587.D Vial: 7
Acq On : 5 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,1136587, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:14:25 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.64	43	2586	Below Cal #	29
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	2647	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136587.D Vial: 7
Acq On : 5 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,1136587, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:14:25 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	2739	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

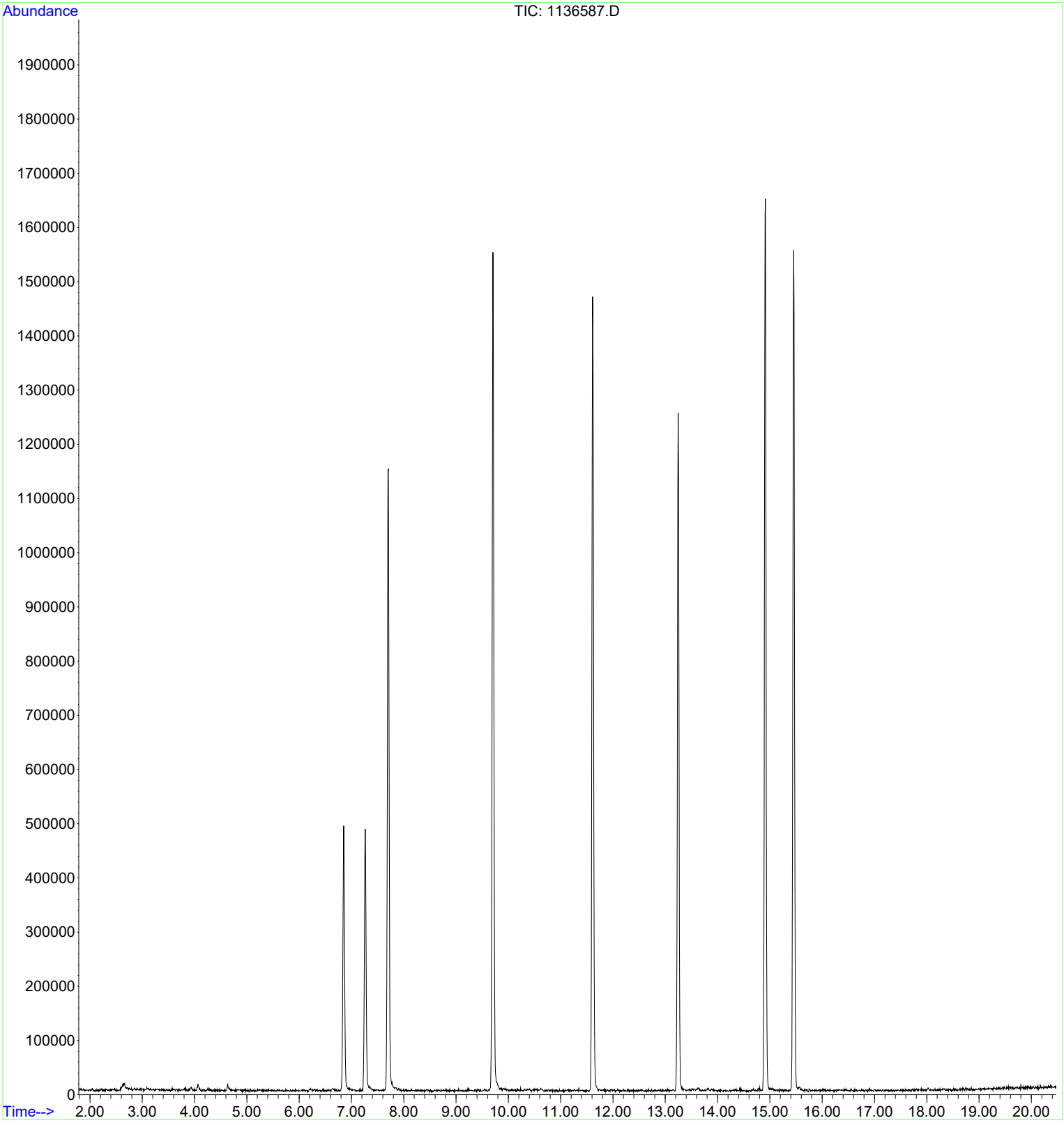
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136587.D Vial: 7
Acq On : 5 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,1136587, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:14:25 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137437.D Vial: 8
Acq On : 5 May 2022 10:22 Operator: DGS-RLD
Sample : 211603,1137437, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:43:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1239122	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1043249	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	571669	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	339423	20.607 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.26	102	88426	20.124 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1300993	20.074 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100 %		
83) SURR4BrFBenz	13.25	95	562201	19.875 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	18615	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	2774	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.64	84	4800	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.65	42	2556	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137437.D Vial: 8
Acq On : 5 May 2022 10:22 Operator: DGS-RLD
Sample : 211603,1137437, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:43:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3171	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137437.D Vial: 8
Acq On : 5 May 2022 10:22 Operator: DGS-RLD
Sample : 211603,1137437, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:43:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

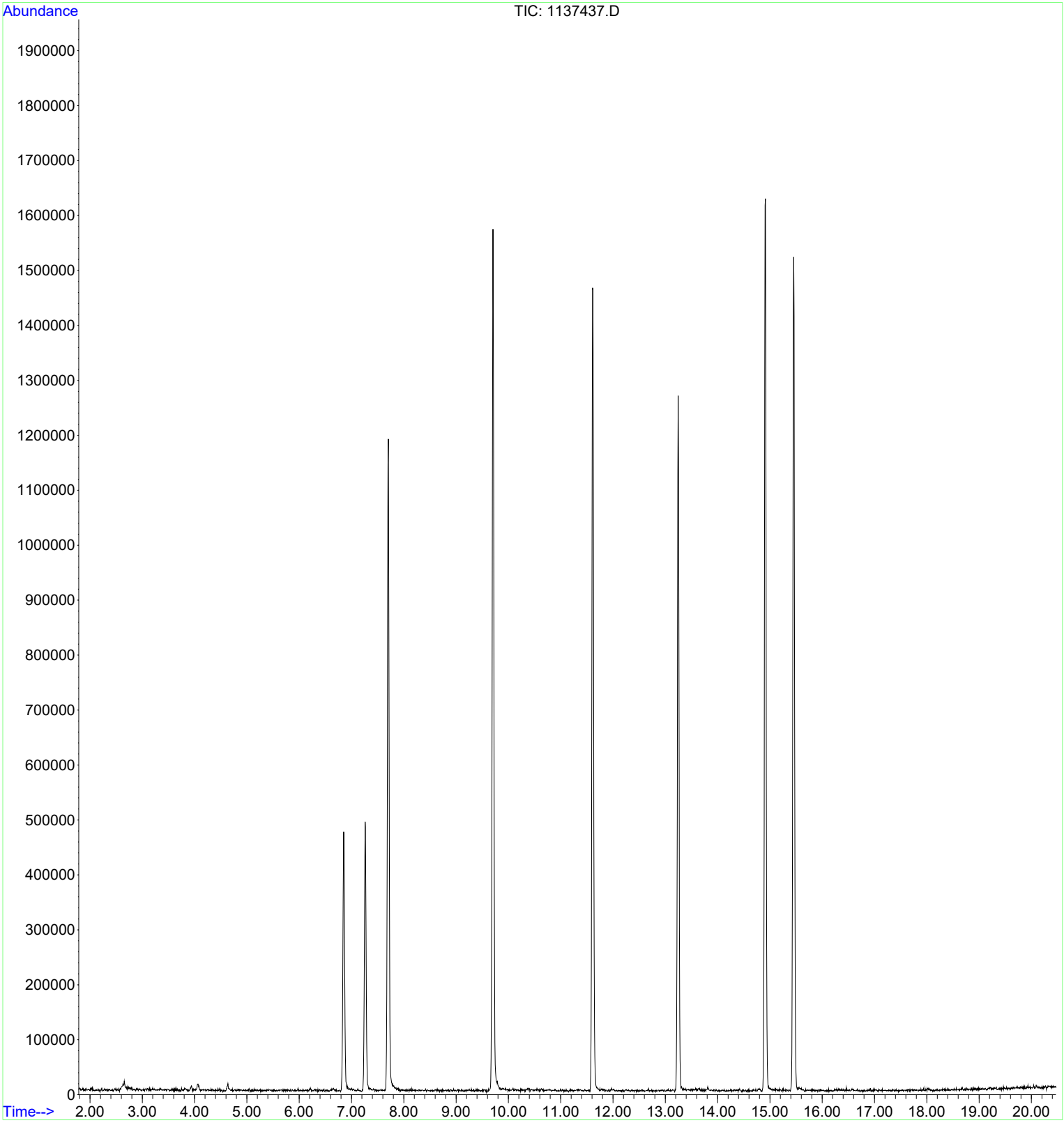
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137437.D Vial: 8
Acq On : 5 May 2022 10:22 Operator: DGS-RLD
Sample : 211603,1137437, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 10:43:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203.D Vial: 9
Acq On : 5 May 2022 10:52 Operator: DGS-RLD
Sample : 211603,1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:12:53 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1253140	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1046944	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	575171	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	336185	20.182 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.26	102	89194	20.071 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100 %		
61) SURRd8Tolule	9.71	98	1317696	20.104 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	562257	19.756 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	6443	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	8653	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	6.21	77	2977	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203.D Vial: 9
Acq On : 5 May 2022 10:52 Operator: DGS-RLD
Sample : 211603,1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:12:53 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203.D Vial: 9
Acq On : 5 May 2022 10:52 Operator: DGS-RLD
Sample : 211603,1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:12:53 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

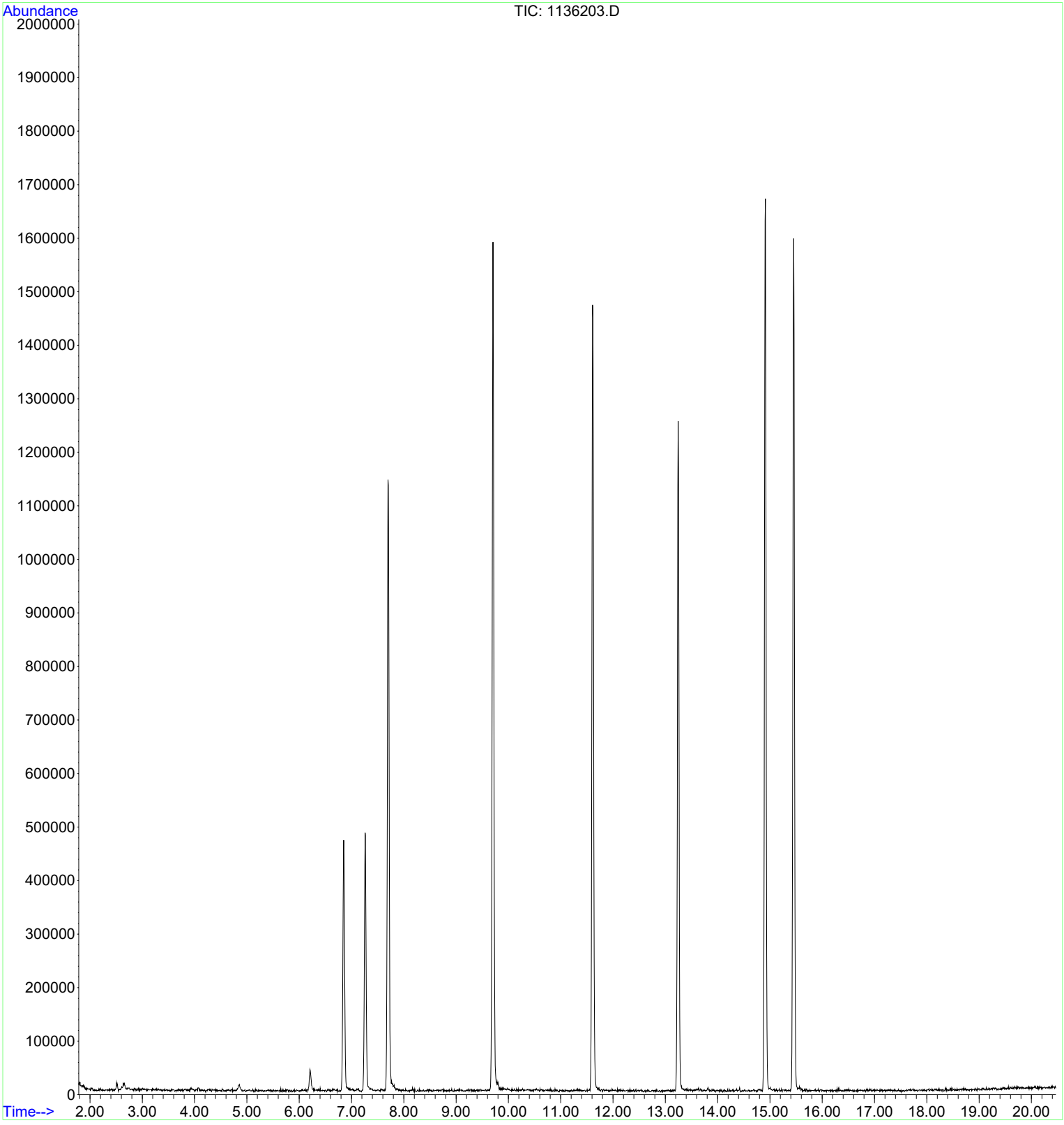
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203.D Vial: 9
Acq On : 5 May 2022 10:52 Operator: DGS-RLD
Sample : 211603,1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:12:53 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136204.D Vial: 16
Acq On : 5 May 2022 13:55 Operator: DGS-RLD
Sample : 211603,1136204, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:16:18 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1232860	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1039692	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	573520	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma		6.85	113	332469	20.287 ug/L	0.00
Spiked Amount	20.000	Range 90 - 110		Recovery = 101	%	
45) SURR12DCAd4		7.26	102	88395	20.219 ug/L	0.00
Spiked Amount	20.000	Range 89 - 111		Recovery = 101	%	
61) SURRd8Tolule		9.71	98	1305924	20.252 ug/L	0.00
Spiked Amount	20.000	Range 93 - 107		Recovery = 101	%	
83) SURR4BrFBenz		13.25	95	557693	19.652 ug/L	0.00
Spiked Amount	20.000	Range 83 - 111		Recovery = 98	%	

Target Compounds				Qvalue
2) Dichlorodi	0.00	85	0	N.D.
3) Chloromethan	0.00	50	0	N.D.
4) VinylChlorid	0.00	62	0	N.D.
5) Bromomethane	0.00	94	0	N.D.
6) Chloroethane	0.00	64	0	N.D.
7) Dichloroflmethane	0.00	67	0	N.D.
8) Trichlorofma	0.00	101	0	N.D.
9) Ethylether	0.00	59	0	N.D.
10) dichlorotfluoroethan	0.00	67	0	N.D.
11) propyleneoxide	0.00	58	0	N.D.
12) Acrolein	0.00	56	0	N.D.
13) 11dichlorthe	0.00	96	0	N.D.
14) Trichlorotfluoroeth	0.00	101	0	N.D.
15) Acetone	4.07	43	6352	N.D.
16) Iodomethane	0.00	142	0	N.D.
17) Carbon Dislf	4.25	76	2586	N.D.
18) allylchloride	0.00	41	0	N.D.
19) methylacetate	0.00	74	0	N.D.
20) Methylchlorid	0.00	84	0	N.D.
21) tbutylalcohol	4.84	59	3544	N.D.
22) Acrylonitrile	0.00	53	0	N.D.
23) t12dichlorte	0.00	96	0	N.D.
24) MtBE	0.00	73	0	N.D.
25) Hexane	0.00	57	0	N.D.
26) 11dichlorota	0.00	63	0	N.D.
27) Vinylacetate	0.00	43	0	N.D.
28) chloroprene	0.00	53	0	N.D.
29) Diisopether	0.00	45	0	N.D.
30) ETBE	0.00	59	0	N.D.
31) 22dichloropr	0.00	77	0	N.D.
32) c12dichlorte	0.00	96	0	N.D.
33) 2Butanone	0.00	72	0	N.D.
34) propionitrile	0.00	54	0	N.D.
35) Ethylacetate	0.00	88	0	N.D.
36) methacrylonitrile	0.00	67	0	N.D.
37) Bromochlorma	0.00	128	0	N.D.
38) Tetrahydofur	0.00	42	0	N.D.

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136204.D Vial: 16
Acq On : 5 May 2022 13:55 Operator: DGS-RLD
Sample : 211603,1136204, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:16:18 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.17	95	12410	0.6848	ug/L	96
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	10.63	43	3126	Below	Cal #	29
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	14.68	105	2504	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.45	91	3837	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136204.D Vial: 16
Acq On : 5 May 2022 13:55 Operator: DGS-RLD
Sample : 211603,1136204, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:16:18 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.01	128	3392	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

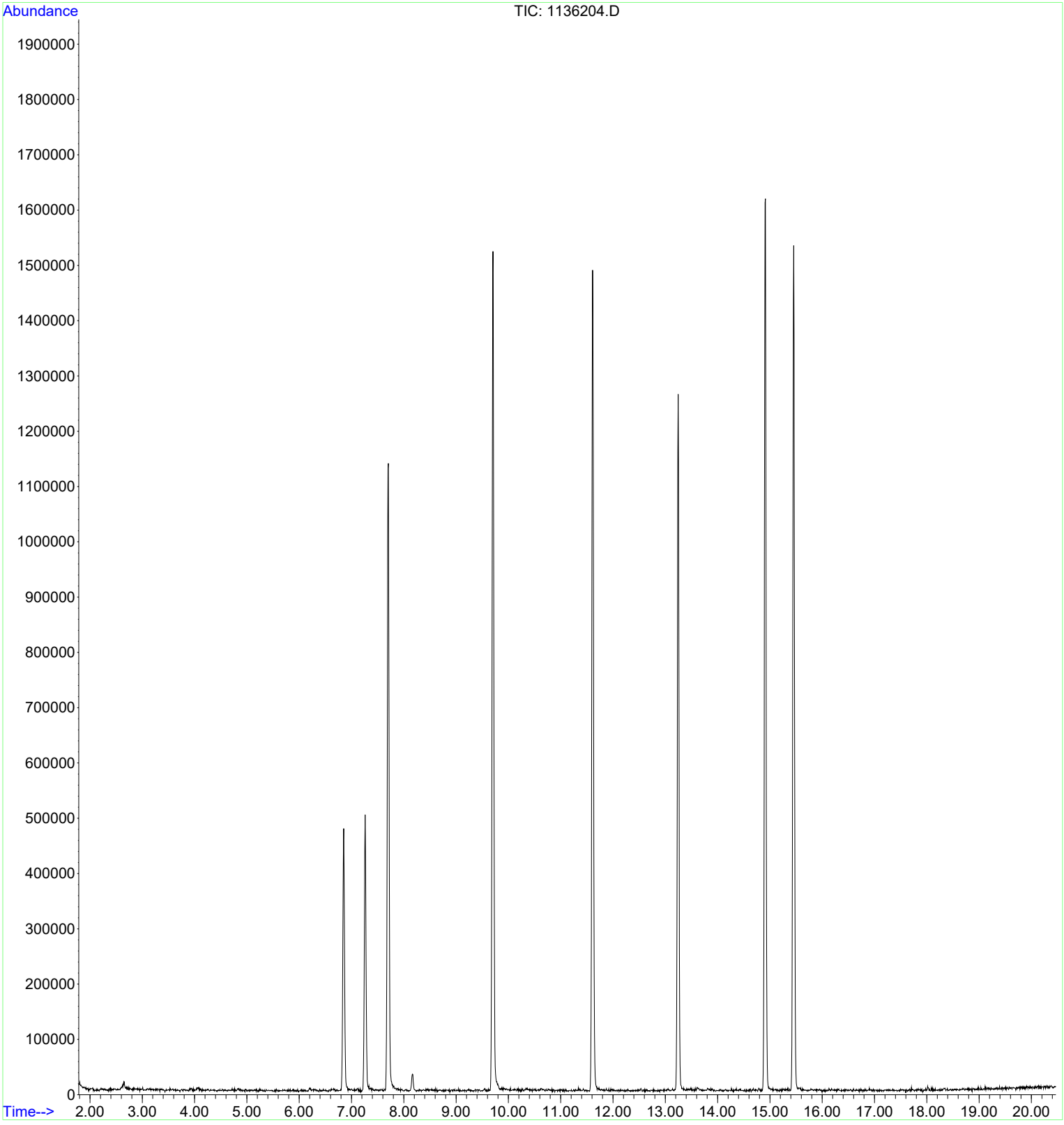
(#) = qualifier out of range (m) = manual integration

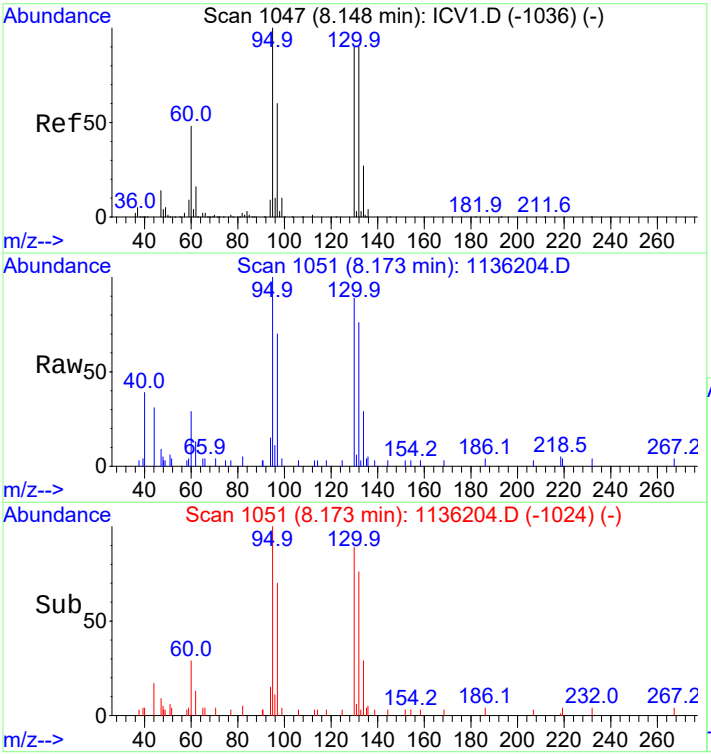
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136204.D Vial: 16
Acq On : 5 May 2022 13:55 Operator: DGS-RLD
Sample : 211603,1136204, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:16:18 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

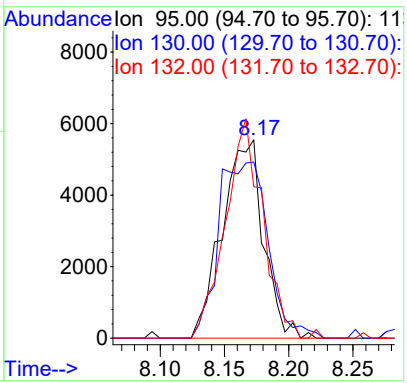




#49
trichloroete
Concen: 0.68 ug/L
RT: 8.17 min Scan# 1051
Delta R.T. 0.01 min
Lab File: 1136204.D
Acq: 5 May 2022 13:55

Tgt Ion: 95 Resp: 12410

Ion	Ratio	Lower	Upper
95	100		
130	106.5	83.7	123.7
132	99.8	74.4	114.4



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136205.D Vial: 17
Acq On : 5 May 2022 14:24 Operator: DGS-RLD
Sample : 211603,1136205, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:45:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1245938	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1060062	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	578963	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	344057	20.774 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104 %		
45) SURR12DCAd4	7.27	102	89621	20.284 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1318142	20.227 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	570606	19.918 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	3.26	101	7097	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	6043	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	2831	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.84	59	3184	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136205.D Vial: 17
Acq On : 5 May 2022 14:24 Operator: DGS-RLD
Sample : 211603,1136205, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:45:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	18697	0.6110 ug/L	99
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.12	119	116611	6.0326 ug/L	100
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.16	95	17431	0.9518 ug/L	95
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3000	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136205.D Vial: 17
Acq On : 5 May 2022 14:24 Operator: DGS-RLD
Sample : 211603,1136205, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:45:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

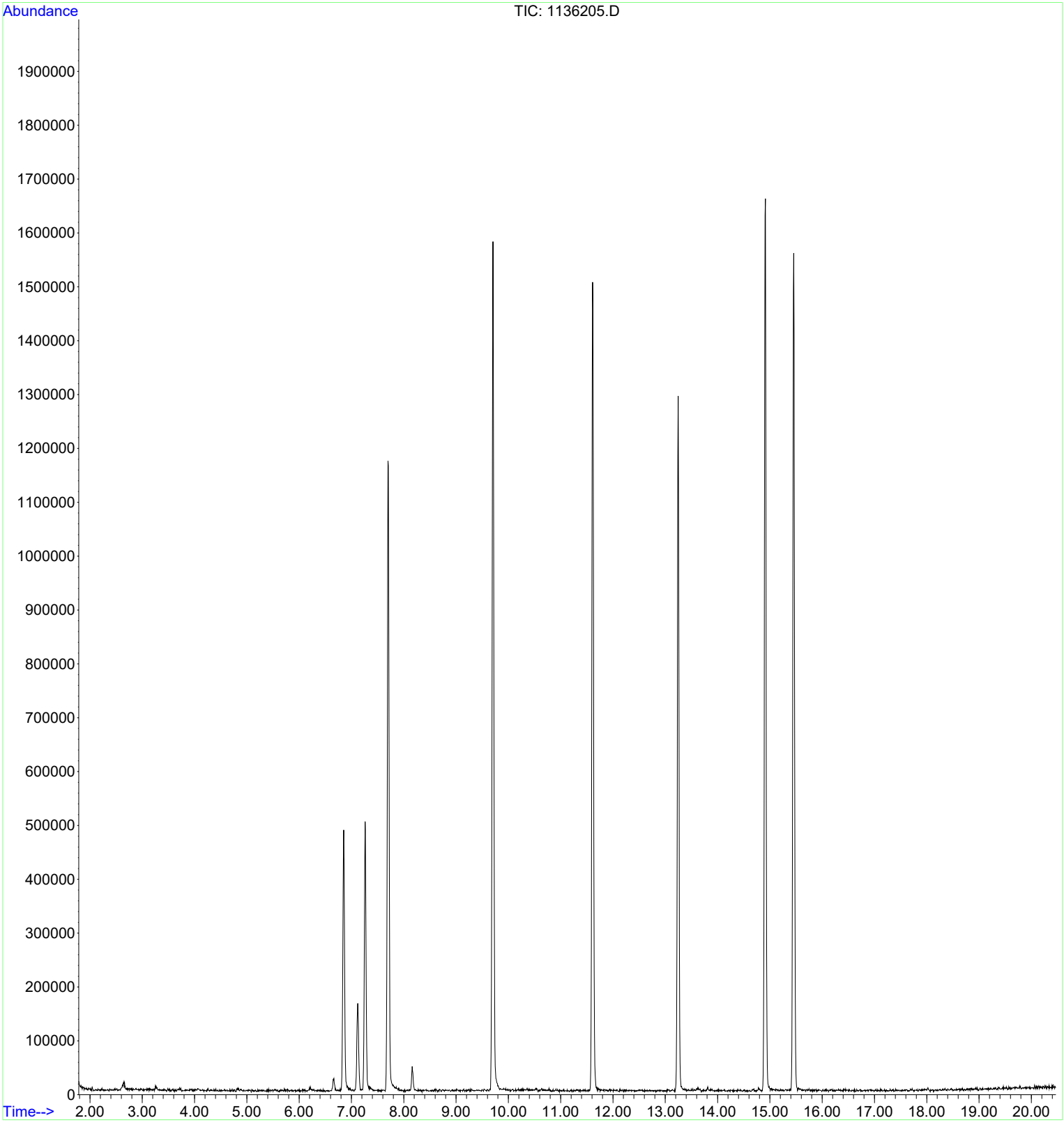
(#) = qualifier out of range (m) = manual integration

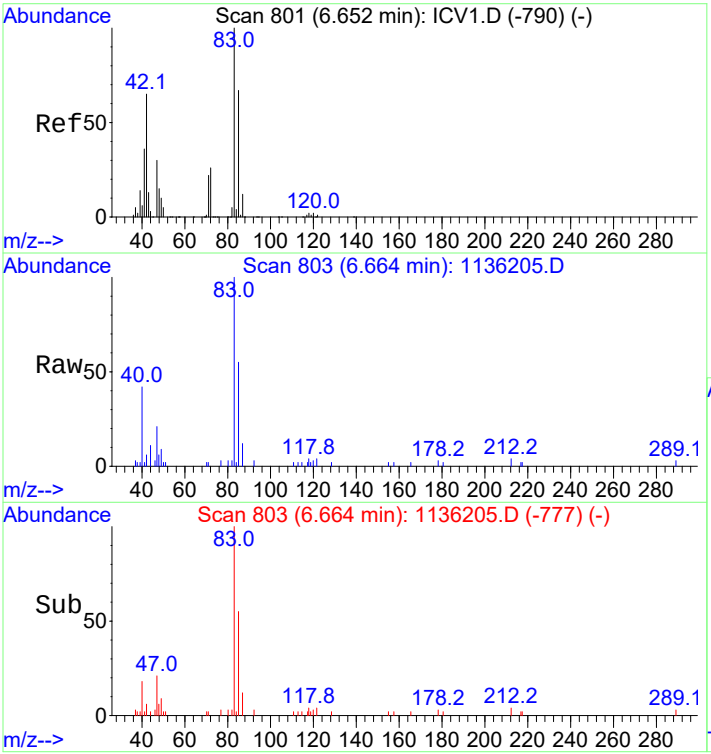
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136205.D Vial: 17
Acq On : 5 May 2022 14:24 Operator: DGS-RLD
Sample : 211603,1136205, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 14:45:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

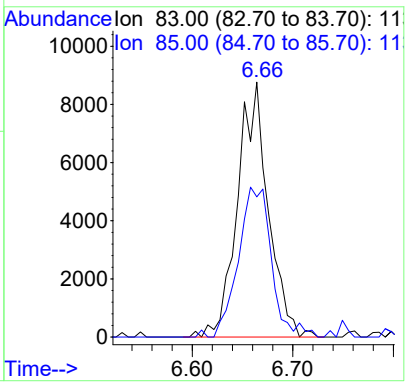


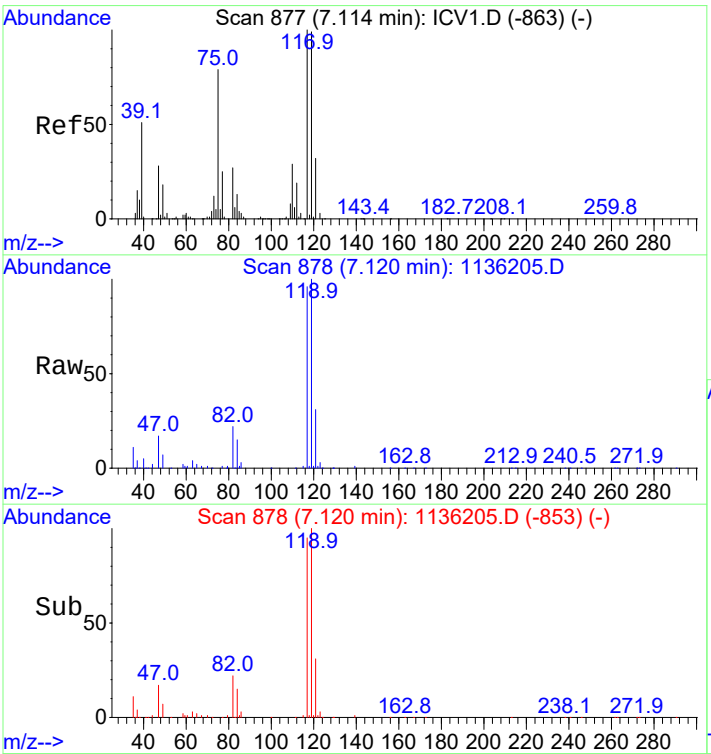


#39
Chloroform
Concen: 0.61 ug/L
RT: 6.66 min Scan# 803
Delta R.T. 0.01 min
Lab File: 1136205.D
Acq: 5 May 2022 14:24

Tgt Ion: 83 Resp: 18697

Ion	Ratio	Lower	Upper
83	100		
85	62.9	44.0	84.0

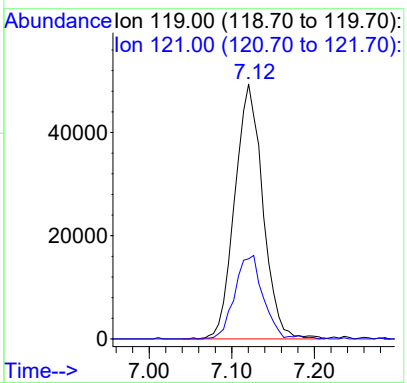


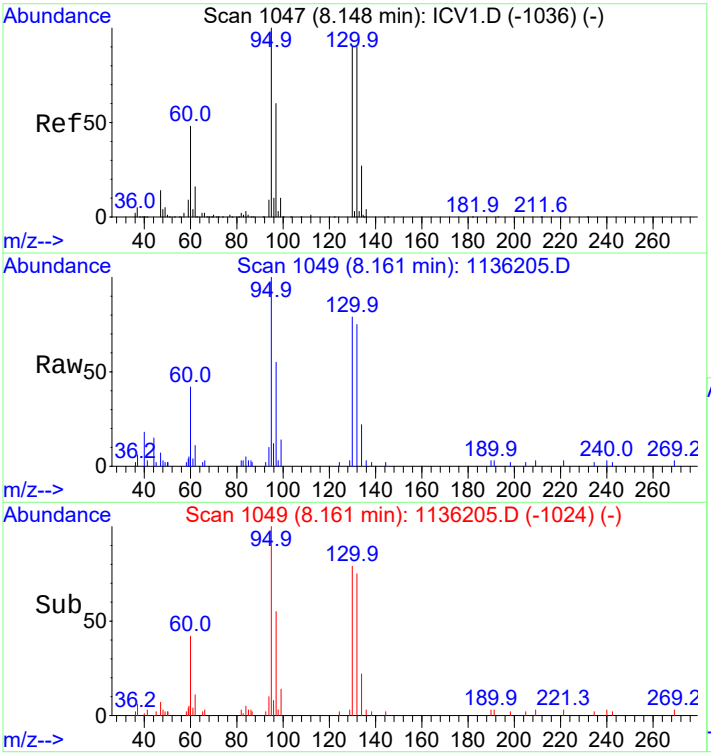


#43
Carbtetraclo
Concen: 6.03 ug/L
RT: 7.12 min Scan# 878
Delta R.T. -0.00 min
Lab File: 1136205.D
Acq: 5 May 2022 14:24

Tgt Ion:119 Resp: 116611

Ion	Ratio	Lower	Upper
119	100		
121	33.6	13.5	53.5

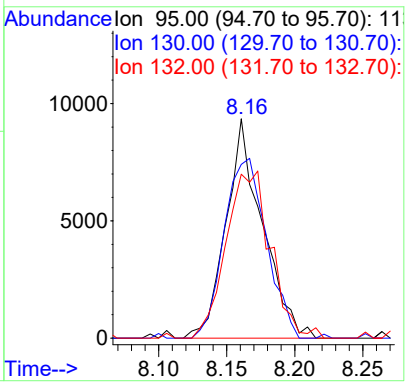




#49
trichloroete
Concen: 0.95 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. -0.00 min
Lab File: 1136205.D
Acq: 5 May 2022 14:24

Tgt Ion: 95 Resp: 17431

Ion	Ratio	Lower	Upper
95	100		
130	95.1	83.7	123.7
132	92.8	74.4	114.4



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136206.D Vial: 18
Acq On : 5 May 2022 14:53 Operator: DGS-RLD
Sample : 211603,1136206, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:14:17 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1234165	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1048729	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	564327	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	335400	20.445 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 102 %			
45) SURR12DCAd4	7.27	102	85528	19.542 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %			
61) SURRd8Tolule	9.71	98	1298401	20.114 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.25	95	570341	20.425 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	4669	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	2763	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136206.D Vial: 18
Acq On : 5 May 2022 14:53 Operator: DGS-RLD
Sample : 211603,1136206, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:14:17 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.12	119	14097	0.7362 ug/L	99
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3098	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.49	91	3634	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136206.D Vial: 18
Acq On : 5 May 2022 14:53 Operator: DGS-RLD
Sample : 211603,1136206, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:14:17 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

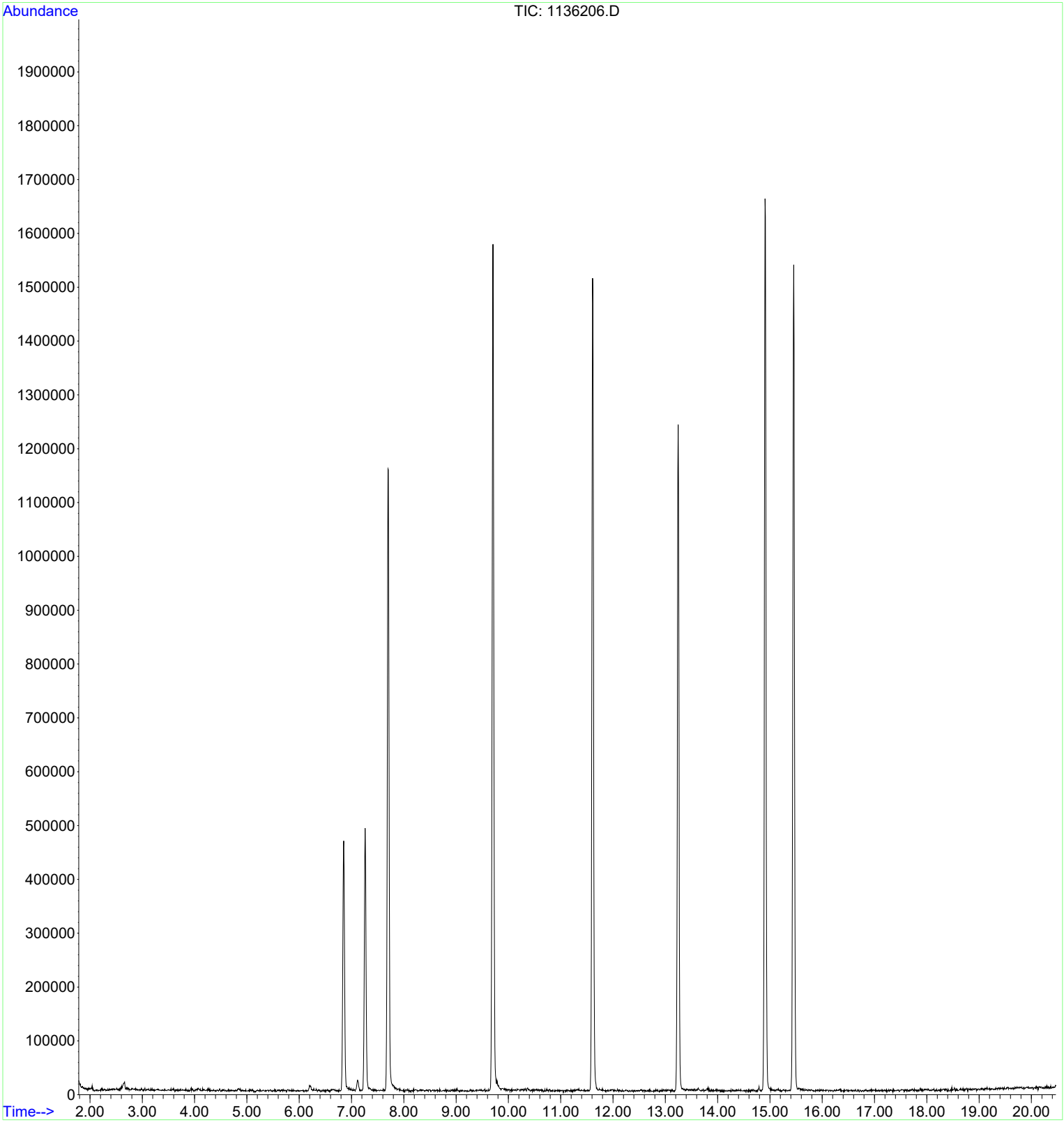
(#) = qualifier out of range (m) = manual integration

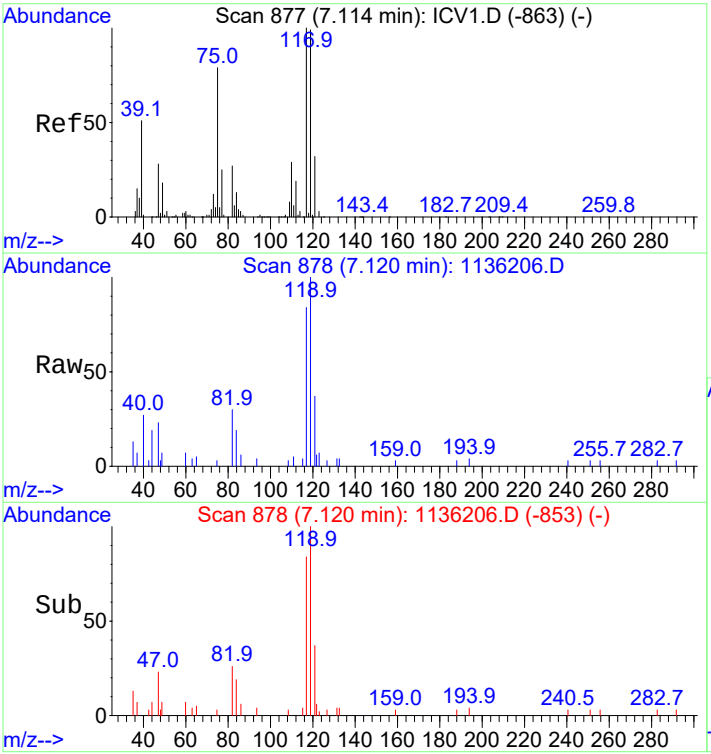
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136206.D Vial: 18
Acq On : 5 May 2022 14:53 Operator: DGS-RLD
Sample : 211603,1136206, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:14:17 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

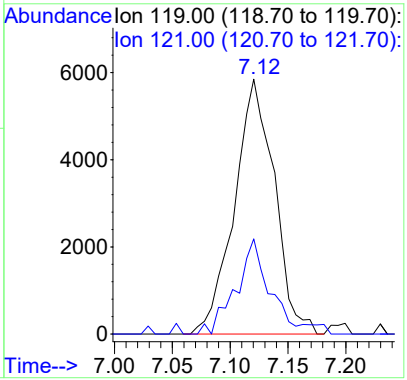




#43
Carbtetraclo
Concen: 0.74 ug/L
RT: 7.12 min Scan# 878
Delta R.T. -0.00 min
Lab File: 1136206.D
Acq: 5 May 2022 14:53

Tgt Ion:119 Resp: 14097

Ion	Ratio	Lower	Upper
119	100		
121	32.9	13.5	53.5



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136207.D Vial: 19
Acq On : 5 May 2022 15:22 Operator: DGS-RLD
Sample : 211603,1136207, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:43:15 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1222315	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1052667	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	570603	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	334660	20.597	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.26	102	85880	19.813	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1302520	20.374	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	558568	19.783	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	5072	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136207.D Vial: 19
Acq On : 5 May 2022 15:22 Operator: DGS-RLD
Sample : 211603,1136207, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:43:15 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.11	119	13186	0.6953 ug/L	98
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.61	91	2871	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136207.D Vial: 19
Acq On : 5 May 2022 15:22 Operator: DGS-RLD
Sample : 211603,1136207, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:43:15 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

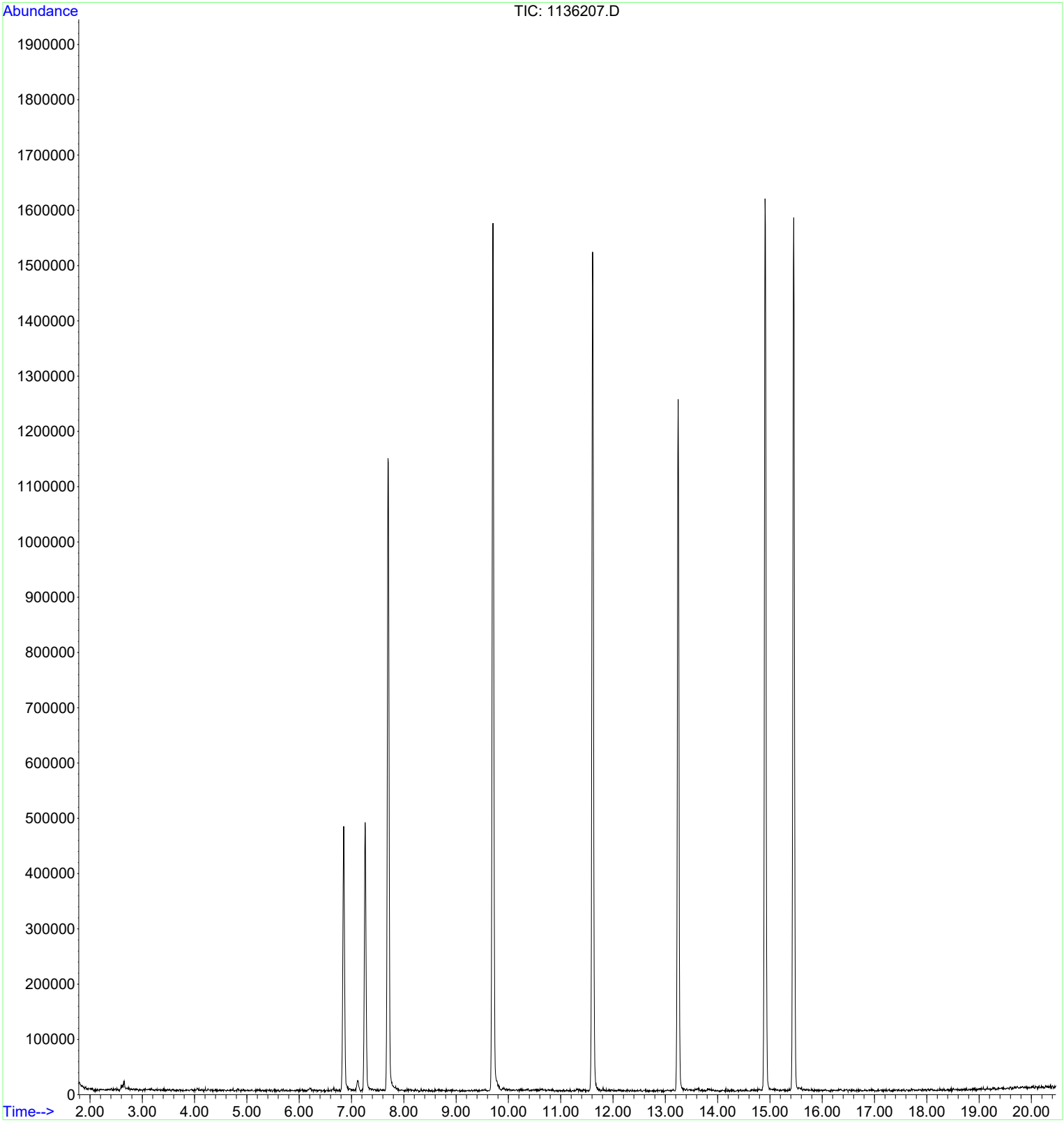
(#) = qualifier out of range (m) = manual integration

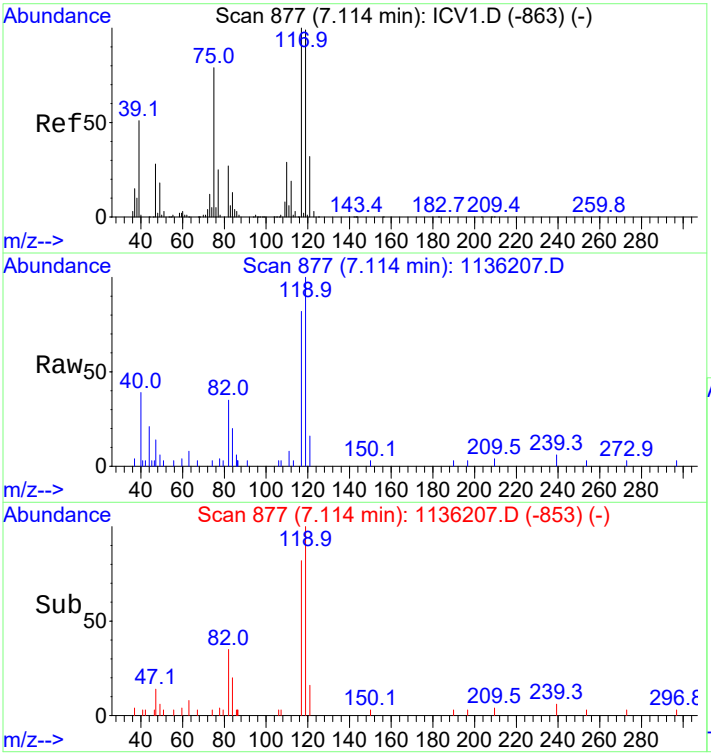
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136207.D Vial: 19
Acq On : 5 May 2022 15:22 Operator: DGS-RLD
Sample : 211603,1136207, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 15:43:15 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

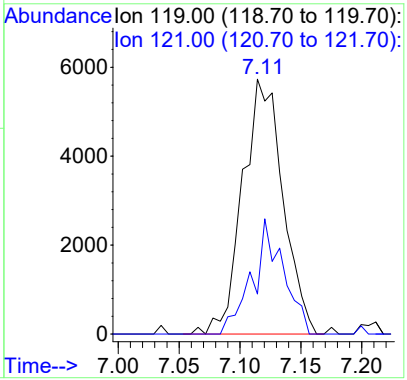




#43
Carbtetraclo
Concen: 0.70 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1136207.D
Acq: 5 May 2022 15:22

Tgt Ion:119 Resp: 13186

Ion	Ratio	Lower	Upper
119	100		
121	34.7	13.5	53.5



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136208.D Vial: 20
Acq On : 5 May 2022 15:51 Operator: DGS-RLD
Sample : 211603,1136208, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:12:23 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1245357	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1059701	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	575678	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	339419	20.504 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.26	102	89578	20.284 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1315912	20.202 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	567036	19.906 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	5325	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.24	76	2722	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.86	59	3574	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136208.D Vial: 20
Acq On : 5 May 2022 15:51 Operator: DGS-RLD
Sample : 211603,1136208, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:12:23 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.45	91	2804	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136208.D Vial: 20
Acq On : 5 May 2022 15:51 Operator: DGS-RLD
Sample : 211603,1136208, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:12:23 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

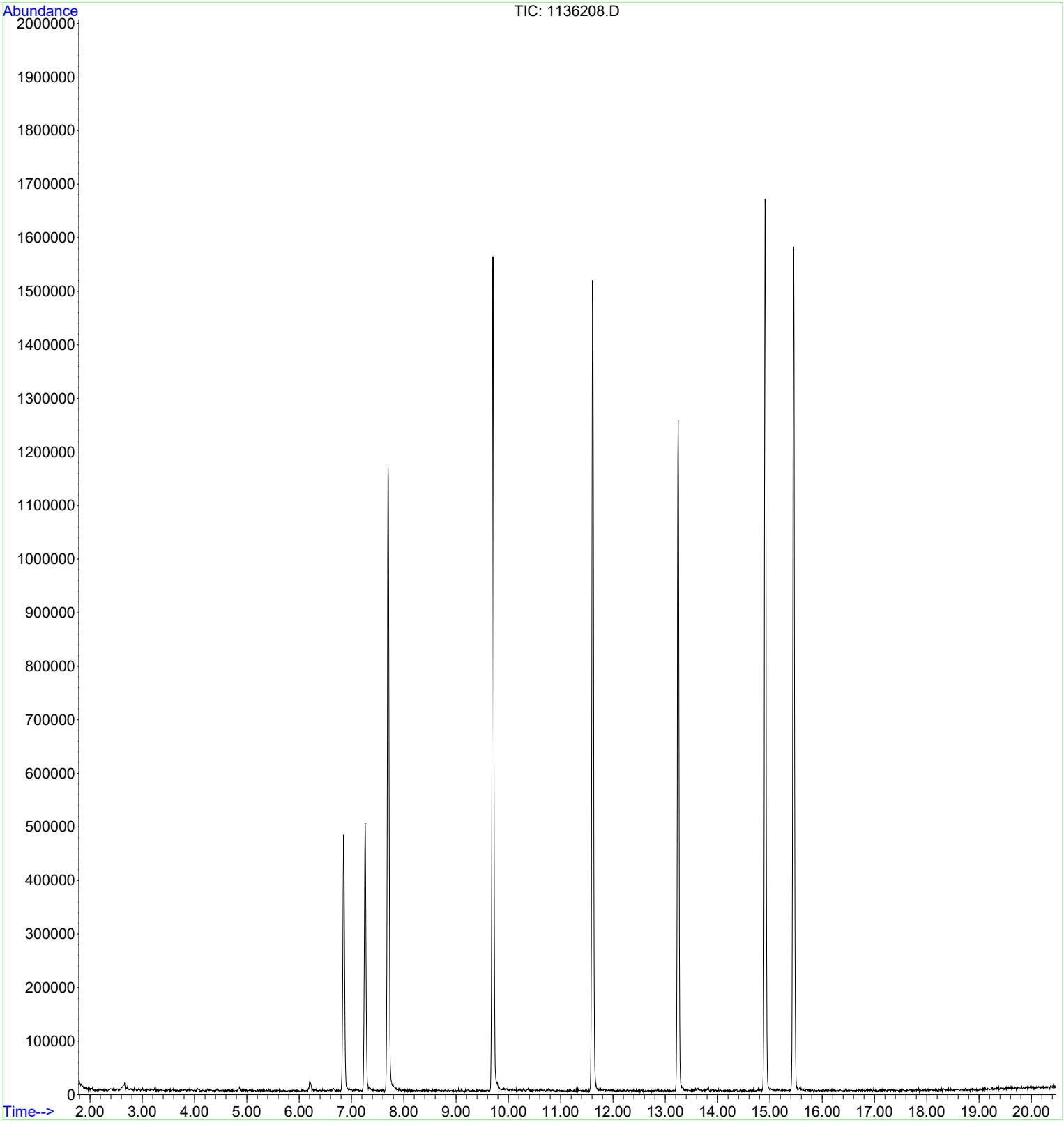
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136208.D Vial: 20
Acq On : 5 May 2022 15:51 Operator: DGS-RLD
Sample : 211603,1136208, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:12:23 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136213.D Vial: 21
Acq On : 5 May 2022 16:20 Operator: DGS-RLD
Sample : 211603,1136213, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:41:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1228717	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1049133	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	570058	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	335273	20.527 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.27	102	87090	19.987 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100 %		
61) SURRd8Tolule	9.71	98	1298761	20.209 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	551368	19.547 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	4876	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136213.D Vial: 21
Acq On : 5 May 2022 16:20 Operator: DGS-RLD
Sample : 211603,1136213, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:41:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.60	91	2673	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136213.D Vial: 21
Acq On : 5 May 2022 16:20 Operator: DGS-RLD
Sample : 211603,1136213, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:41:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

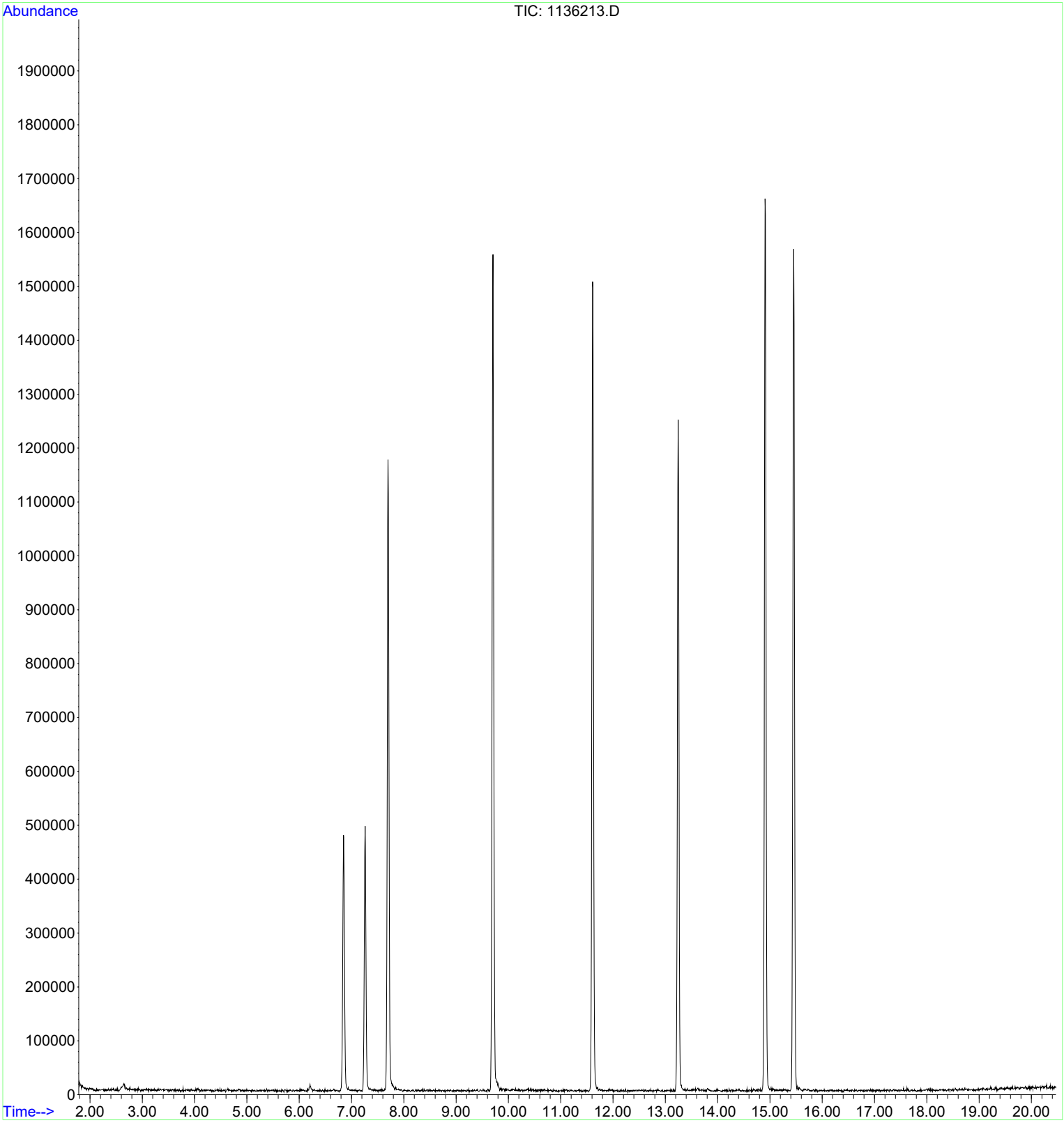
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136213.D Vial: 21
Acq On : 5 May 2022 16:20 Operator: DGS-RLD
Sample : 211603,1136213, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 16:41:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136214.D Vial: 22
Acq On : 5 May 2022 16:49 Operator: DGS-RLD
Sample : 211603,1136214, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:09:57 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1235756	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1070487	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	579684	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	339591	20.673 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %			
45) SURR12DCAd4	7.26	102	89036	20.318 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %			
61) SURRd8Tolule	9.71	98	1316476	20.368 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 102 %			
83) SURR4BrFBenz	13.25	95	562830	19.622 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	4548	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3097	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136214.D Vial: 22
Acq On : 5 May 2022 16:49 Operator: DGS-RLD
Sample : 211603,1136214, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:09:57 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	4257	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2884	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.46	91	2557	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136214.D Vial: 22
Acq On : 5 May 2022 16:49 Operator: DGS-RLD
Sample : 211603,1136214, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:09:57 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

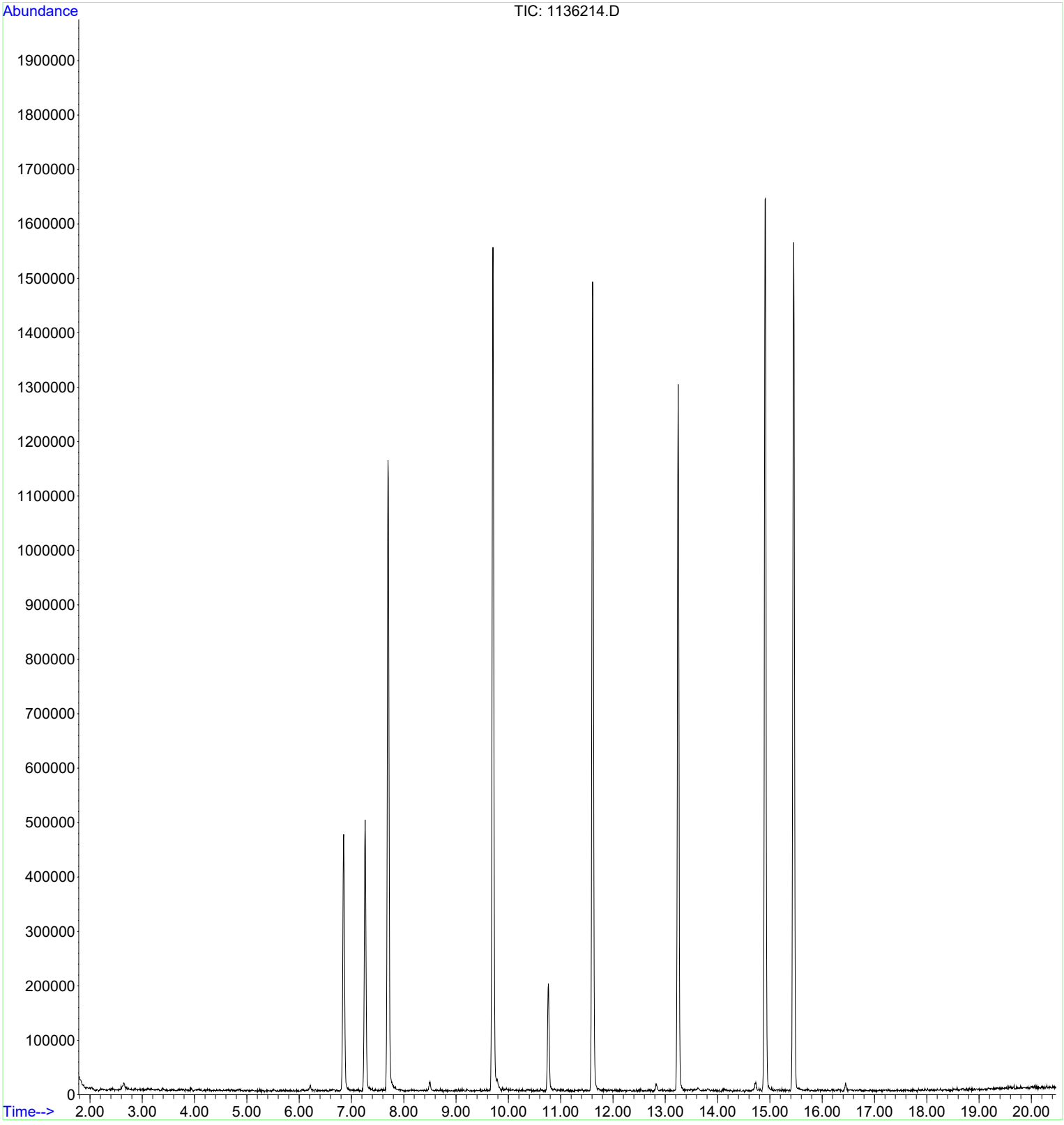
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136214.D Vial: 22
Acq On : 5 May 2022 16:49 Operator: DGS-RLD
Sample : 211603,1136214, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:09:57 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215.D Vial: 23
Acq On : 5 May 2022 17:18 Operator: DGS-RLD
Sample : 211603,1136215,5 Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

NOT USED

Quant Time: May 05 17:38:47 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1231706	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1049594	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	575670	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	338375	20.667 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.26	102	89360	20.459 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102 %		
61) SURRd8Tolule	9.71	98	1305262	20.261 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	566700	19.895 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	8030	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	2951	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	4.64	84	3493	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215.D Vial: 23
Acq On : 5 May 2022 17:18 Operator: DGS-RLD
Sample : 211603,1136215,5 Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:38:47 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	51766	1.7111	ug/L	99
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	227539	11.9073	ug/L	99
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	7.36	62	2635	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.16	95	39246	2.1677	ug/L	97
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.62	91	2981	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.45	91	3196	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215.D Vial: 23
Acq On : 5 May 2022 17:18 Operator: DGS-RLD
Sample : 211603,1136215,5 Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:38:47 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

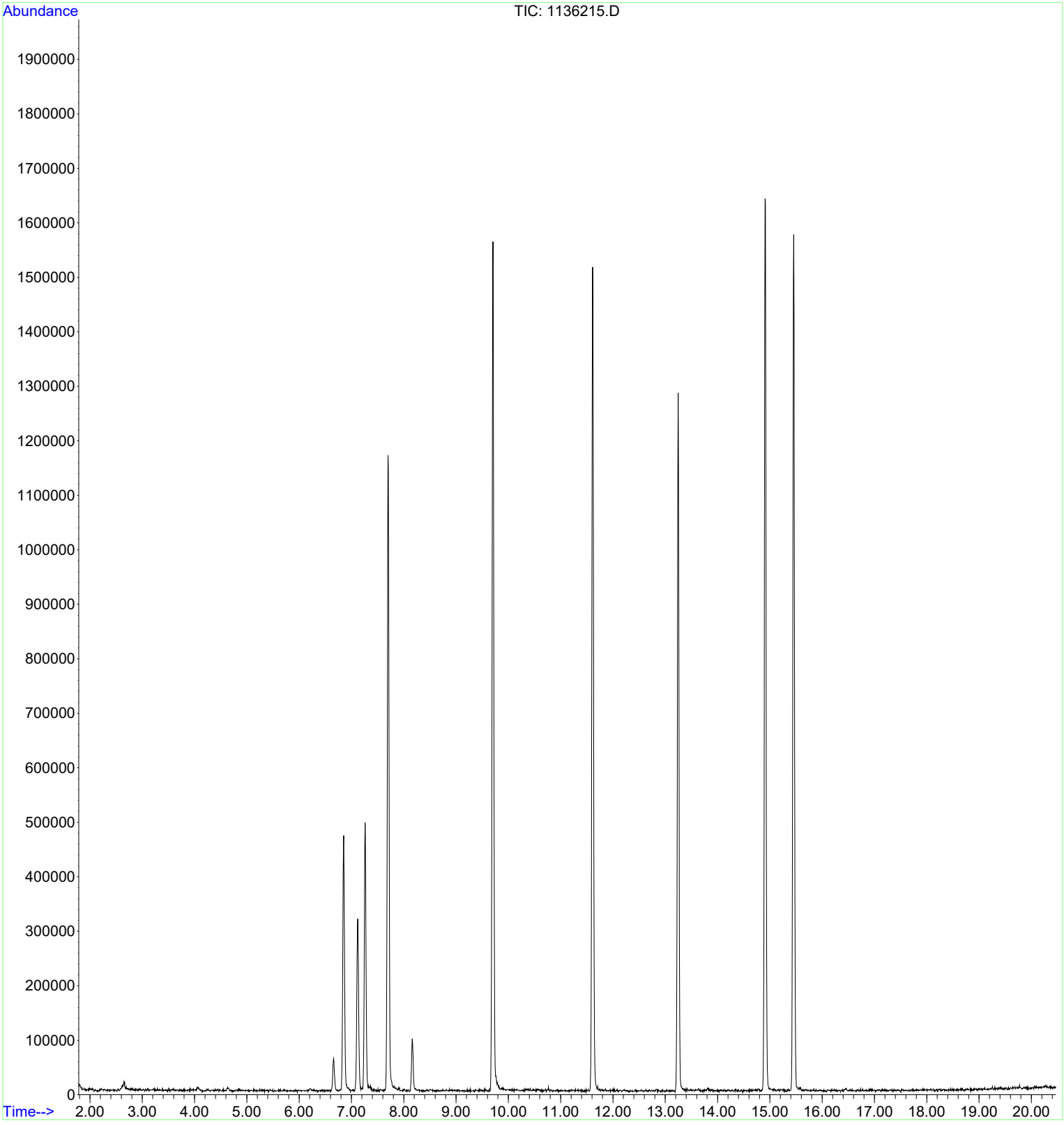
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215.D Vial: 23
Acq On : 5 May 2022 17:18 Operator: DGS-RLD
Sample : 211603,1136215,5 Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 17:38:47 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136216.D Vial: 24
Acq On : 5 May 2022 17:47 Operator: DGS-RLD
Sample : 211603,1136216, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:07:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1221702	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1060089	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	579493	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	334733	20.612 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.27	102	87354	20.163 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1298541	20.322 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102 %		
83) SURR4BrFBenz	13.25	95	571240	19.922 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	5236	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	3258	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136216.D Vial: 24
Acq On : 5 May 2022 17:47 Operator: DGS-RLD
Sample : 211603,1136216, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:07:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	100545	3.3506	ug/L	97
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.12	119	542943	28.6453	ug/L	99
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.17	95	31340	1.7452	ug/L	97
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.80	92	3494	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	2980	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136216.D Vial: 24
Acq On : 5 May 2022 17:47 Operator: DGS-RLD
Sample : 211603,1136216, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:07:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

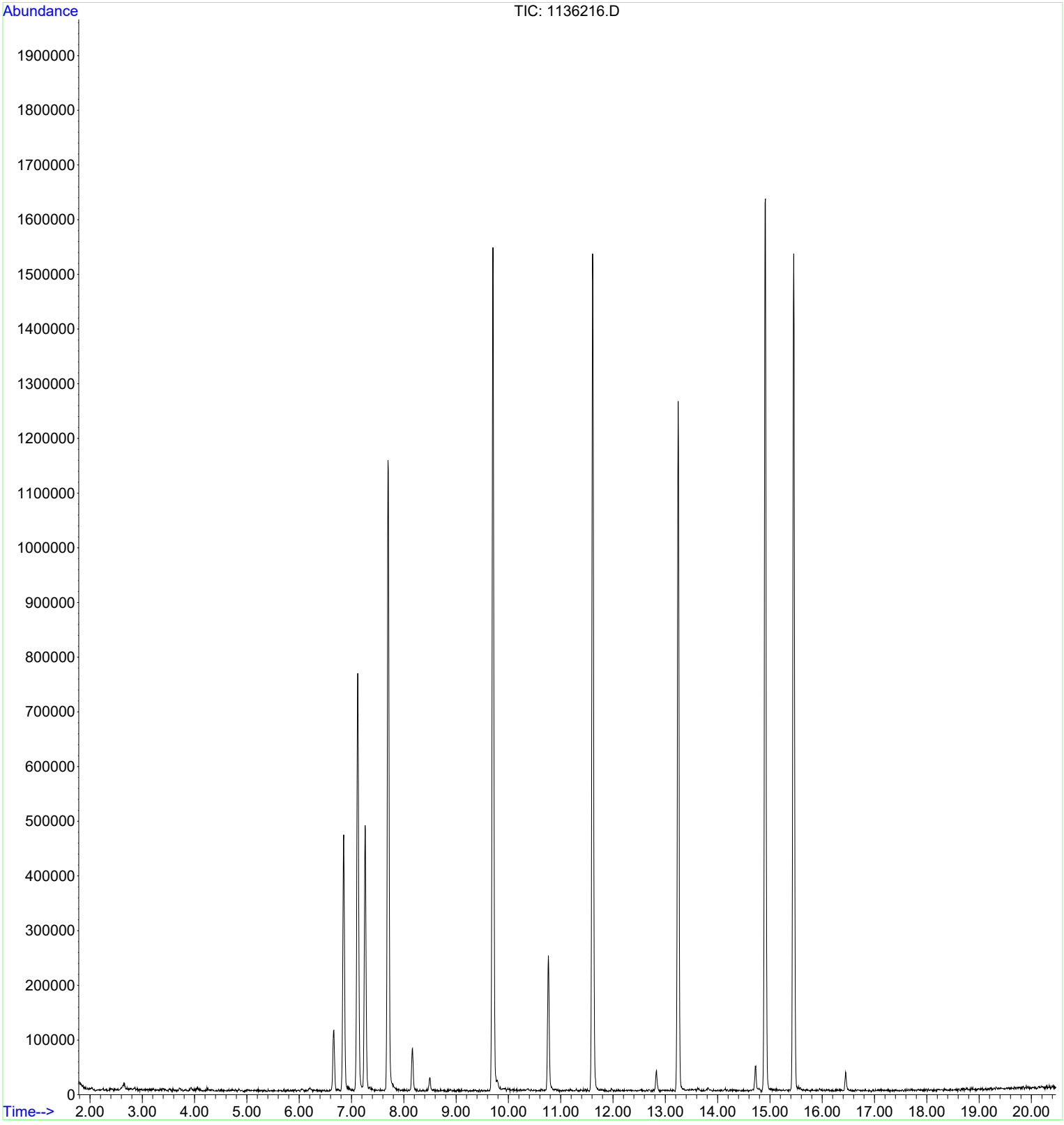
(#) = qualifier out of range (m) = manual integration

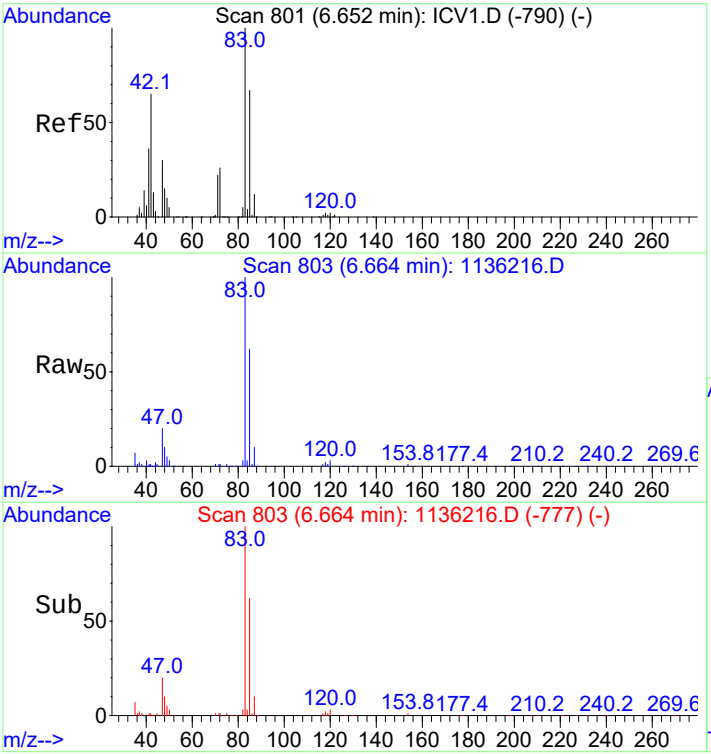
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136216.D Vial: 24
Acq On : 5 May 2022 17:47 Operator: DGS-RLD
Sample : 211603,1136216, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:07:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

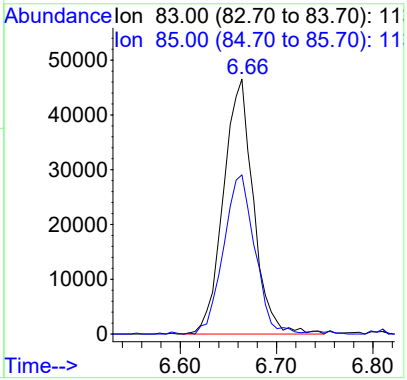


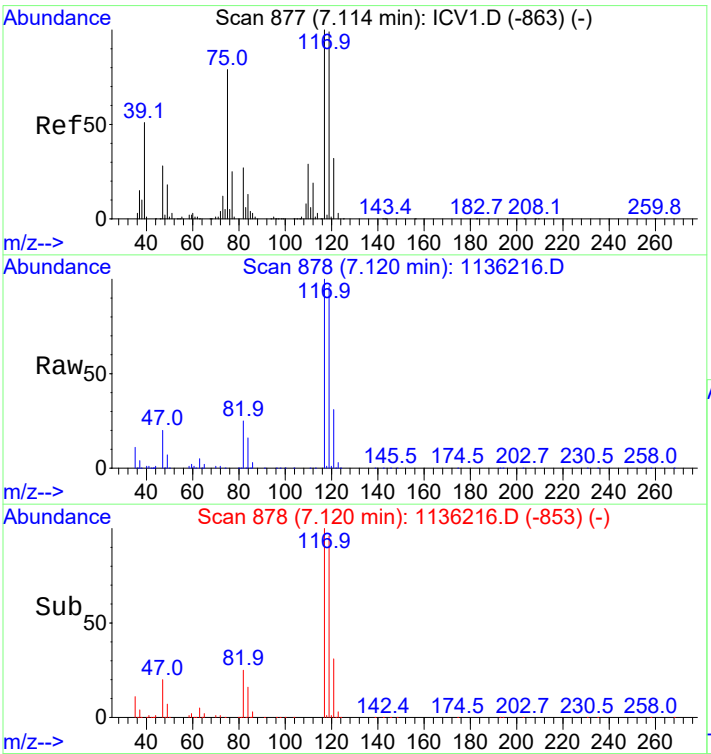


#39
Chloroform
Concen: 3.35 ug/L
RT: 6.66 min Scan# 803
Delta R.T. 0.01 min
Lab File: 1136216.D
Acq: 5 May 2022 17:47

Tgt Ion: 83 Resp: 100545

Ion	Ratio	Lower	Upper
83	100		
85	66.0	44.0	84.0

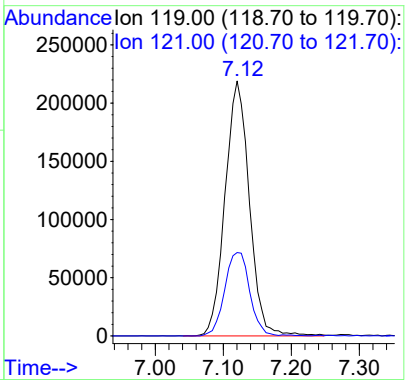


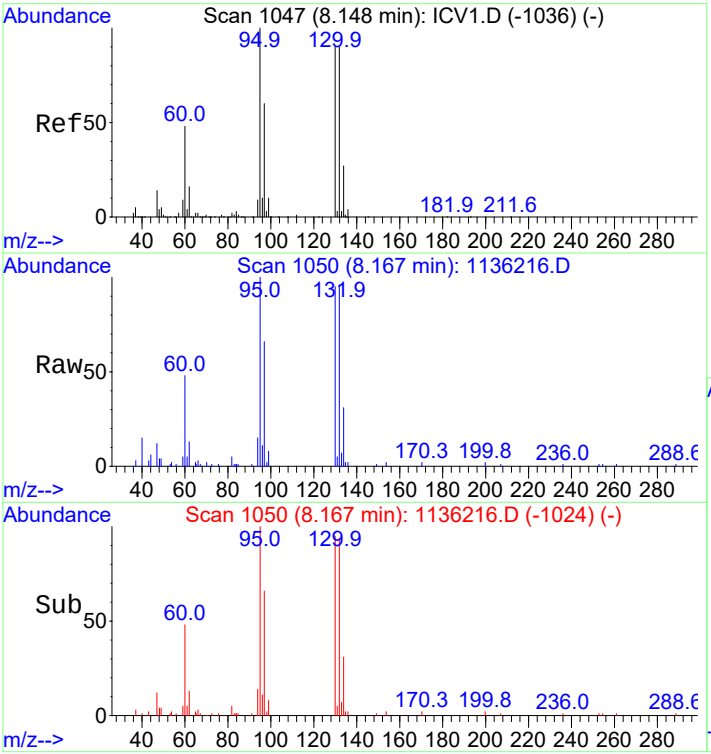


#43
Carbtetraclo
Concen: 28.65 ug/L
RT: 7.12 min Scan# 878
Delta R.T. -0.00 min
Lab File: 1136216.D
Acq: 5 May 2022 17:47

Tgt Ion:119 Resp: 542943

Ion	Ratio	Lower	Upper
119	100		
121	33.9	13.5	53.5

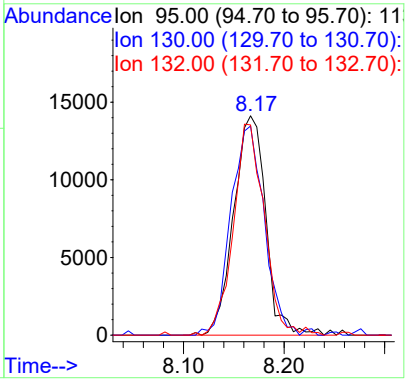




#49
trichloroete
Concen: 1.75 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1136216.D
Acq: 5 May 2022 17:47

Tgt Ion: 95 Resp: 31340

Ion	Ratio	Lower	Upper
95	100		
130	98.8	83.7	123.7
132	93.0	74.4	114.4



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136217.D Vial: 25
Acq On : 5 May 2022 18:15 Operator: DGS-RLD
Sample : 211603,1136217, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:36:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1245475	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1075295	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	591155	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	332124	20.061 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.27	102	91199	20.649 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.71	98	1320036	20.264 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	580929	19.860 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	4938	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	3052	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	32147	1.0280 ug/L	94
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.26	96	38110	1.9948 ug/L	90
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136217.D Vial: 25
Acq On : 5 May 2022 18:15 Operator: DGS-RLD
Sample : 211603,1136217, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:36:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	6.90	97	3029	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.17	95	26531	1.4492	ug/L	94
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	10.53	166	5090	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.60	91	2708	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136217.D Vial: 25
Acq On : 5 May 2022 18:15 Operator: DGS-RLD
Sample : 211603,1136217, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:36:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

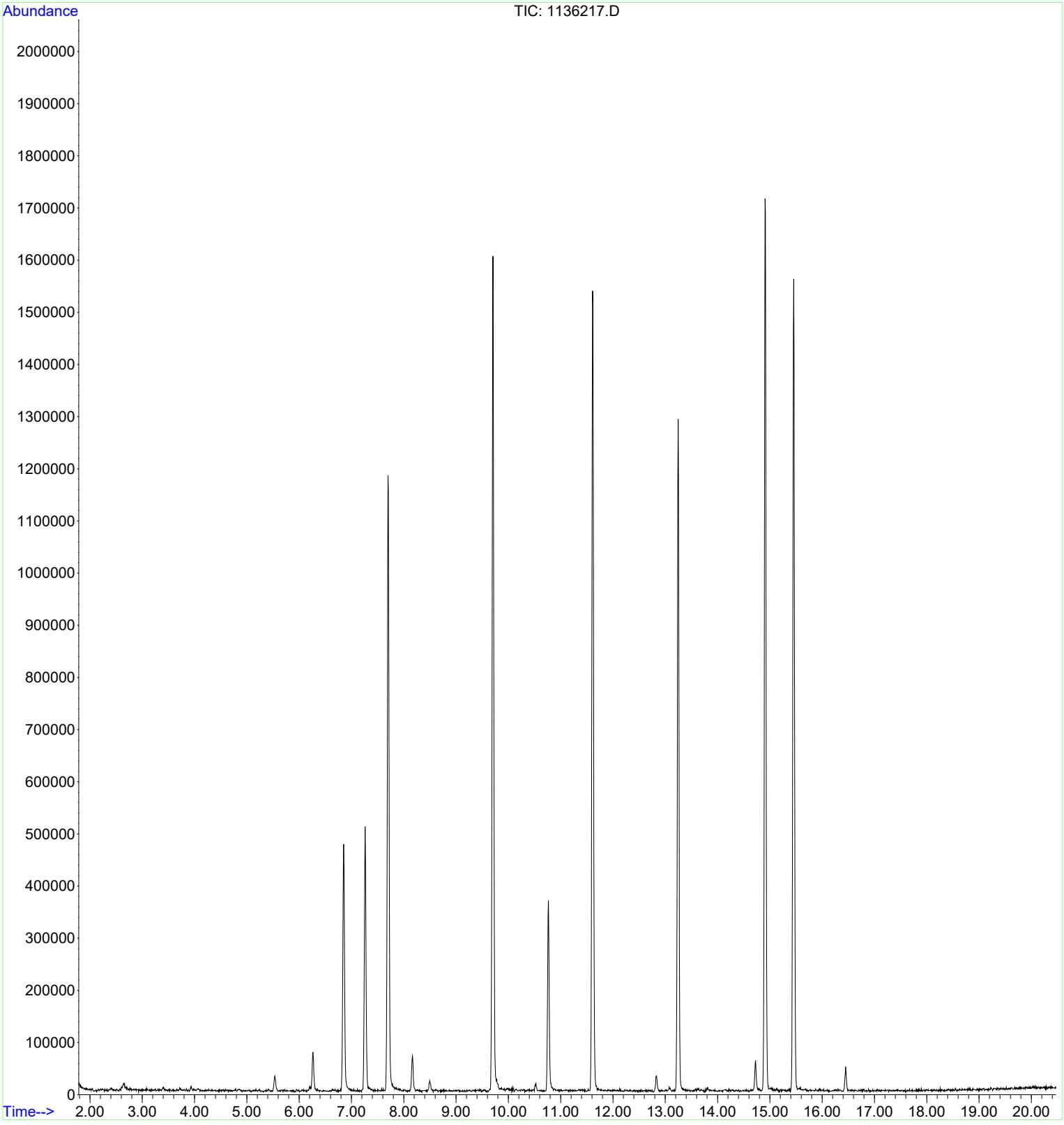
(#) = qualifier out of range (m) = manual integration

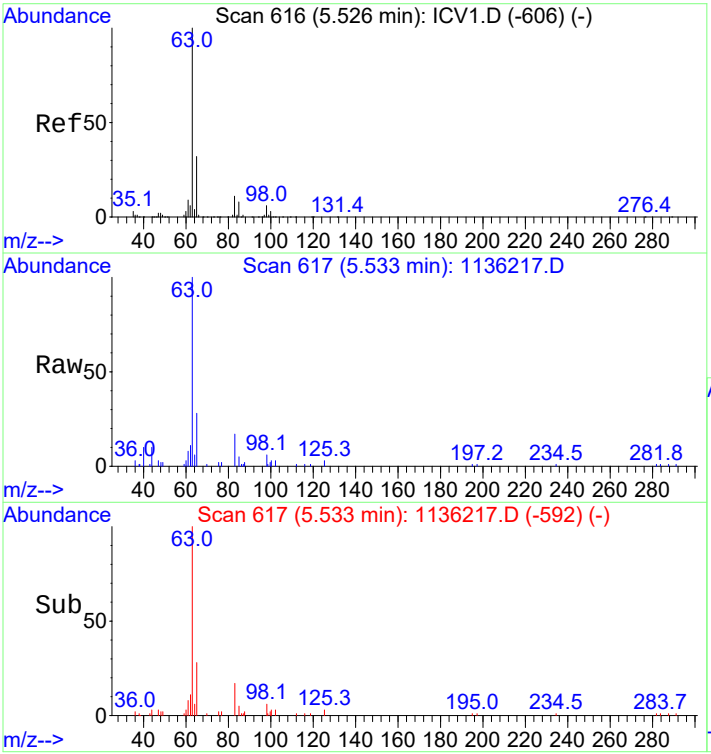
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136217.D Vial: 25
Acq On : 5 May 2022 18:15 Operator: DGS-RLD
Sample : 211603,1136217, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 18:36:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

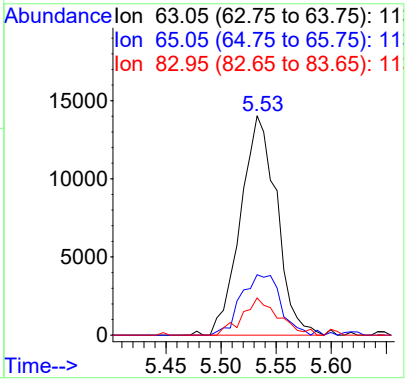


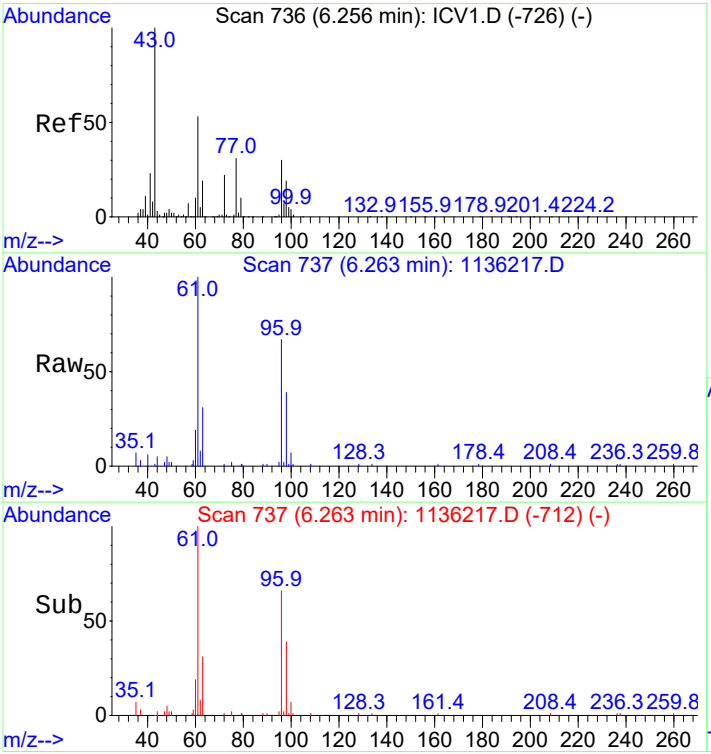


#26
11dichlorota
Concen: 1.03 ug/L
RT: 5.53 min Scan# 617
Delta R.T. 0.00 min
Lab File: 1136217.D
Acq: 5 May 2022 18:15

Tgt Ion: 63 Resp: 32147

Ion	Ratio	Lower	Upper
63	100		
65	30.0	12.9	52.9
83	16.8	0.0	33.6

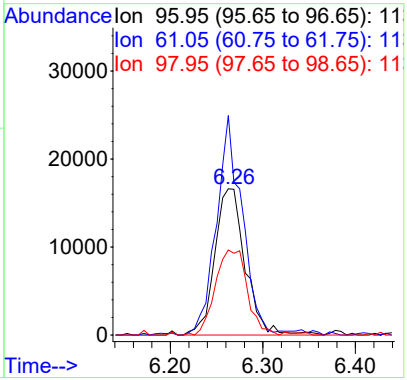


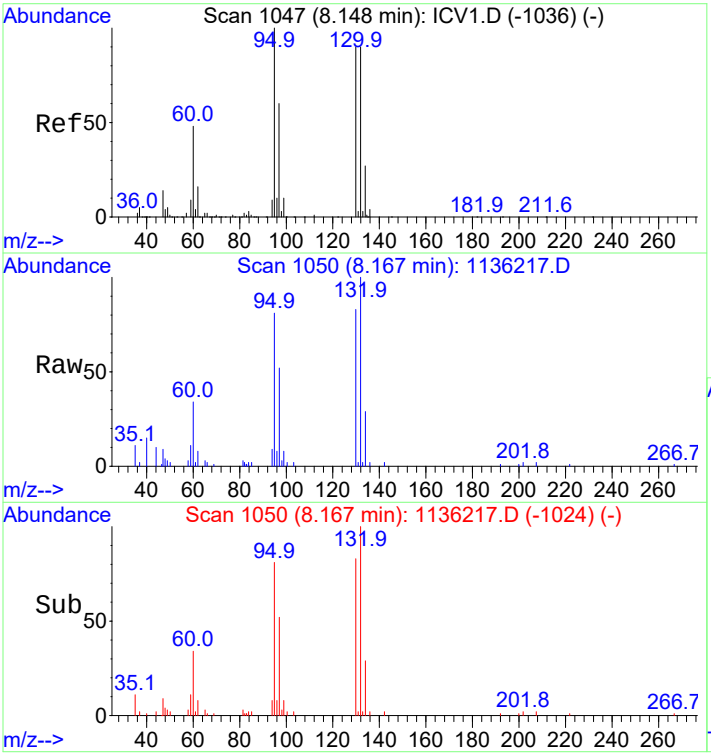


#32
c12dichlorte
Concen: 1.99 ug/L
RT: 6.26 min Scan# 737
Delta R.T. 0.00 min
Lab File: 1136217.D
Acq: 5 May 2022 18:15

Tgt Ion: 96 Resp: 38110

Ion	Ratio	Lower	Upper
96	100		
61	128.9	122.9	162.9
98	60.6	45.6	85.6

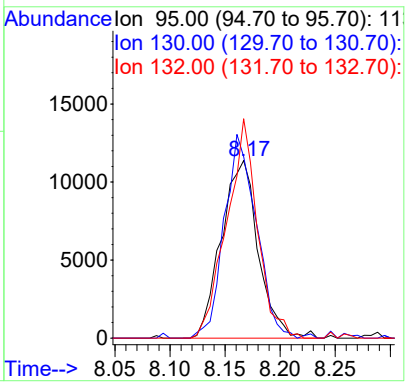




#49
trichloroete
Concen: 1.45 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1136217.D
Acq: 5 May 2022 18:15

Tgt Ion: 95 Resp: 26531

Ion	Ratio	Lower	Upper
95	100		
130	99.6	83.7	123.7
132	103.2	74.4	114.4



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136588.D Vial: 26
Acq On : 5 May 2022 18:45 Operator: DGS-RLD
Sample : 211603,1136588, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:05:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1262698	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1072817	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	596963	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	340354	20.278 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.26	102	90022	20.104 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1328289	20.112 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	589535	19.958 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	5353	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	5066	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.26	96	3644	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136588.D Vial: 26
Acq On : 5 May 2022 18:45 Operator: DGS-RLD
Sample : 211603,1136588, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:05:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	6083	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	7.11	119	13854	0.7072	ug/L	92
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.17	95	13291	0.7161	ug/L	98
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	10708	0.2351	ug/L	98
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	3184	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136588.D Vial: 26
Acq On : 5 May 2022 18:45 Operator: DGS-RLD
Sample : 211603,1136588, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:05:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

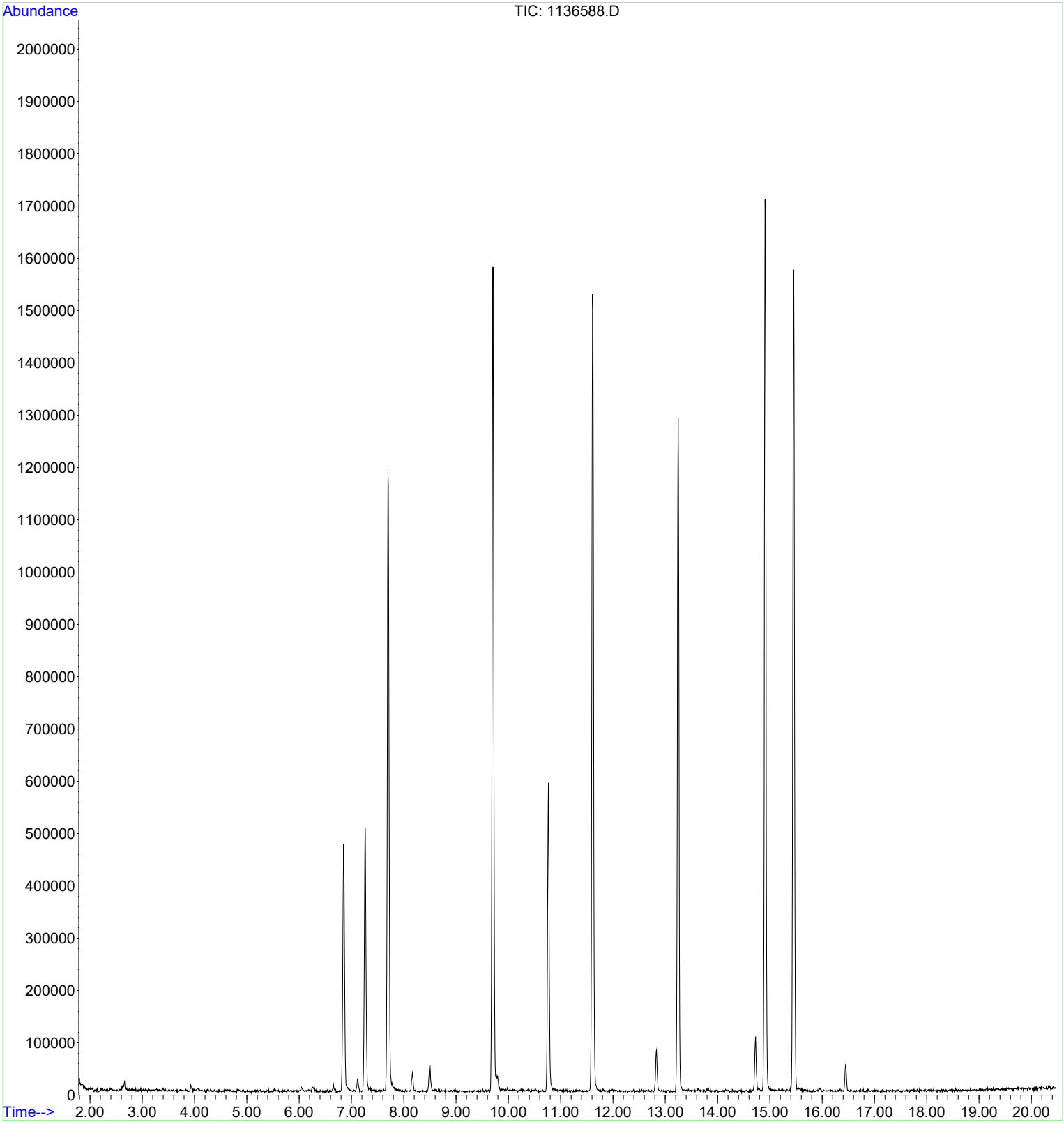
(#) = qualifier out of range (m) = manual integration

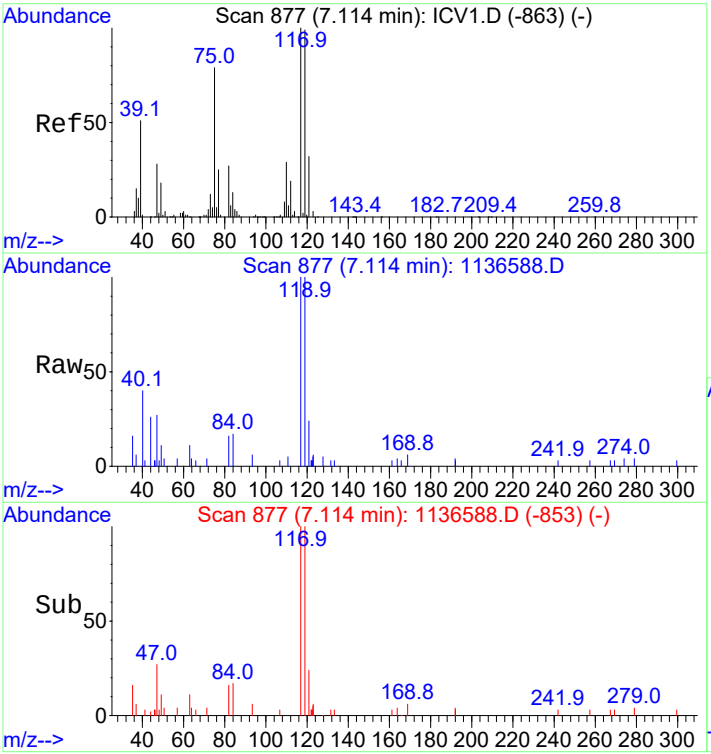
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136588.D Vial: 26
Acq On : 5 May 2022 18:45 Operator: DGS-RLD
Sample : 211603,1136588, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:05:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

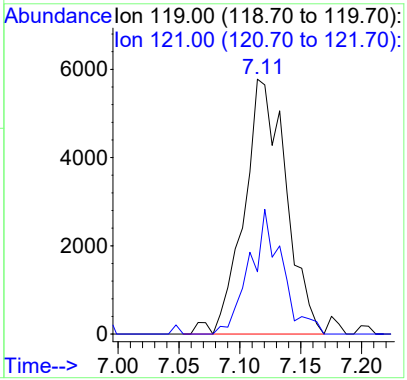


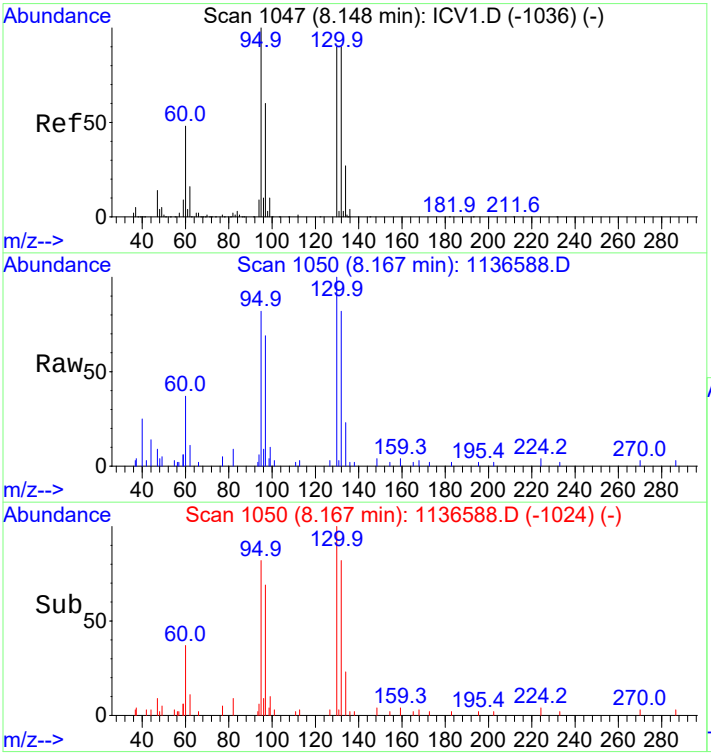


#43
Carbtetraclo
Concen: 0.71 ug/L
RT: 7.11 min Scan# 877
Delta R.T. -0.01 min
Lab File: 1136588.D
Acq: 5 May 2022 18:45

Tgt Ion:119 Resp: 13854

Ion	Ratio	Lower	Upper
119	100		
121	37.8	13.5	53.5

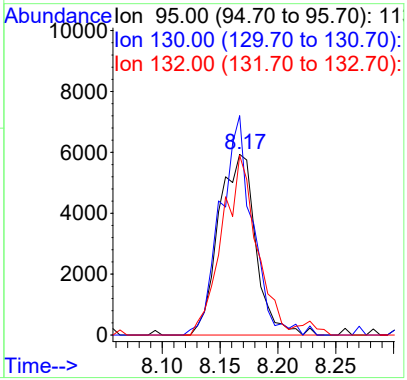


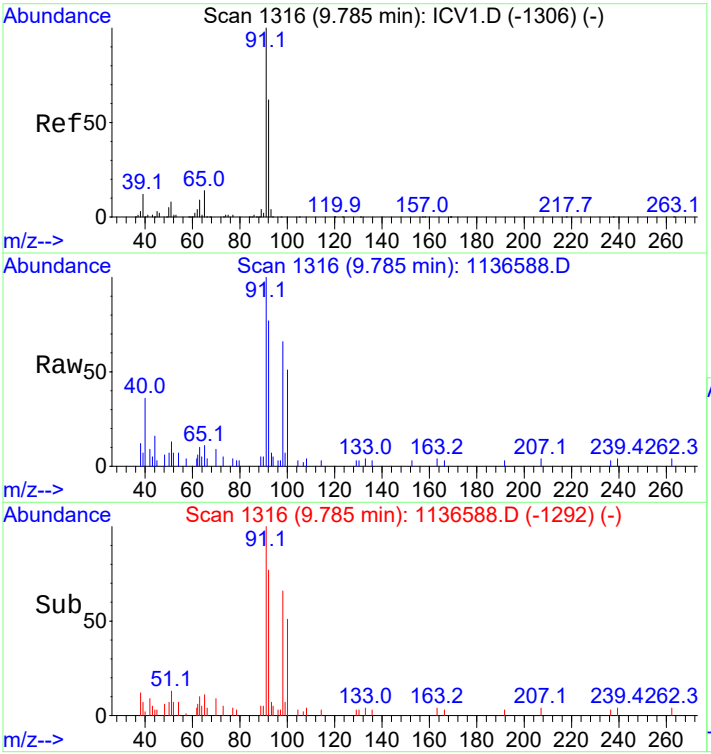


#49
trichloroete
Concen: 0.72 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1136588.D
Acq: 5 May 2022 18:45

Tgt Ion: 95 Resp: 13291

Ion	Ratio	Lower	Upper
95	100		
130	105.0	83.7	123.7
132	96.3	74.4	114.4

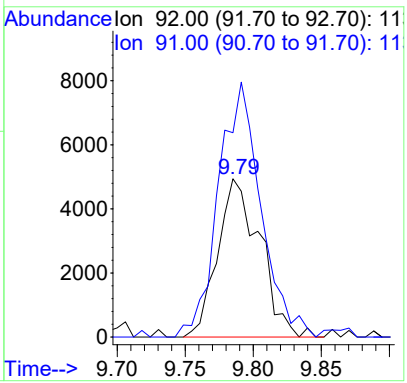




#62
Toluene
Concen: 0.24 ug/L
RT: 9.79 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 1136588.D
Acq: 5 May 2022 18:45

Tgt Ion: 92 Resp: 10708

Ion	Ratio	Lower	Upper
92	100		
91	161.4	143.7	183.7



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136671.D Vial: 27
Acq On : 5 May 2022 19:14 Operator: DGS-RLD
Sample : 211603,1136671, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:34:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1257693	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1078615	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	598934	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	348731	20.860 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 104 %		
45) SURR12DCAd4	7.26	102	90235	20.232 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101 %		
61) SURRd8Tolule	9.71	98	1327534	20.181 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	587585	19.827 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	5338	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	4383	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.27	96	2997	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136671.D Vial: 27
Acq On : 5 May 2022 19:14 Operator: DGS-RLD
Sample : 211603,1136671, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:34:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.67	83	5925	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.12	119	15273	0.7827 ug/L	93
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	8.16	95	12910	0.6983 ug/L	94
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.79	92	9884	0.2178 ug/L	95
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2570	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.46	91	2631	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136671.D Vial: 27
Acq On : 5 May 2022 19:14 Operator: DGS-RLD
Sample : 211603,1136671, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:34:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

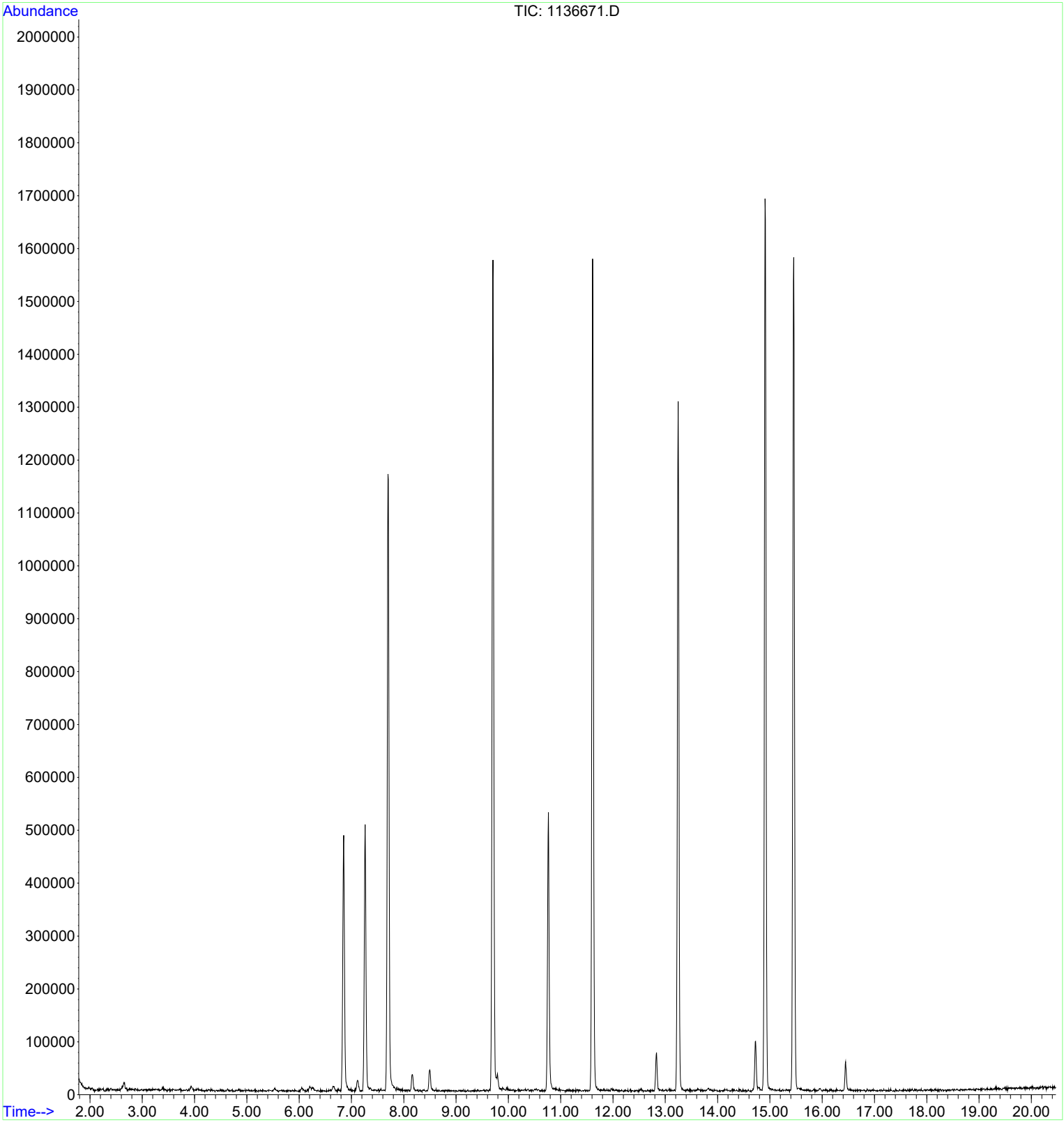
(#) = qualifier out of range (m) = manual integration

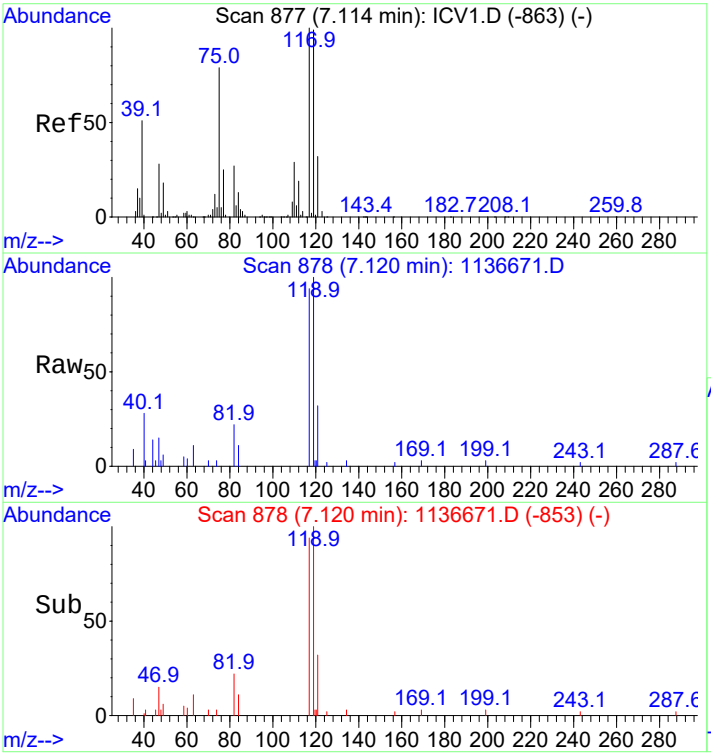
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136671.D Vial: 27
Acq On : 5 May 2022 19:14 Operator: DGS-RLD
Sample : 211603,1136671, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 19:34:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

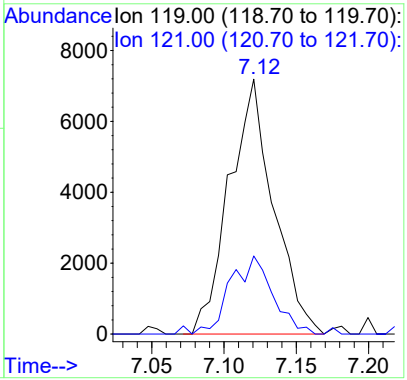


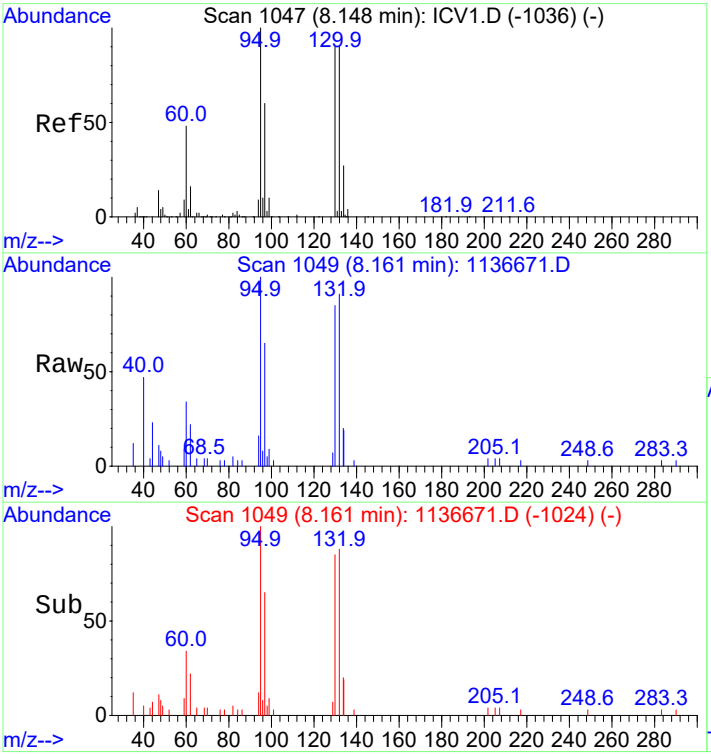


#43
Carbtetraclo
Concen: 0.78 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1136671.D
Acq: 5 May 2022 19:14

Tgt Ion:119 Resp: 15273

Ion	Ratio	Lower	Upper
119	100		
121	29.2	13.5	53.5

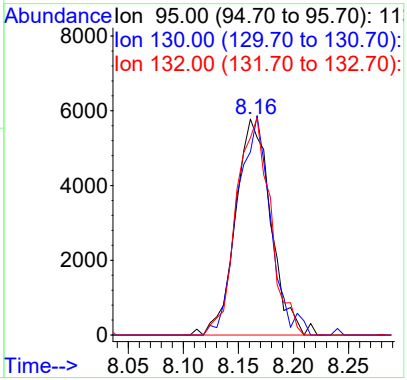


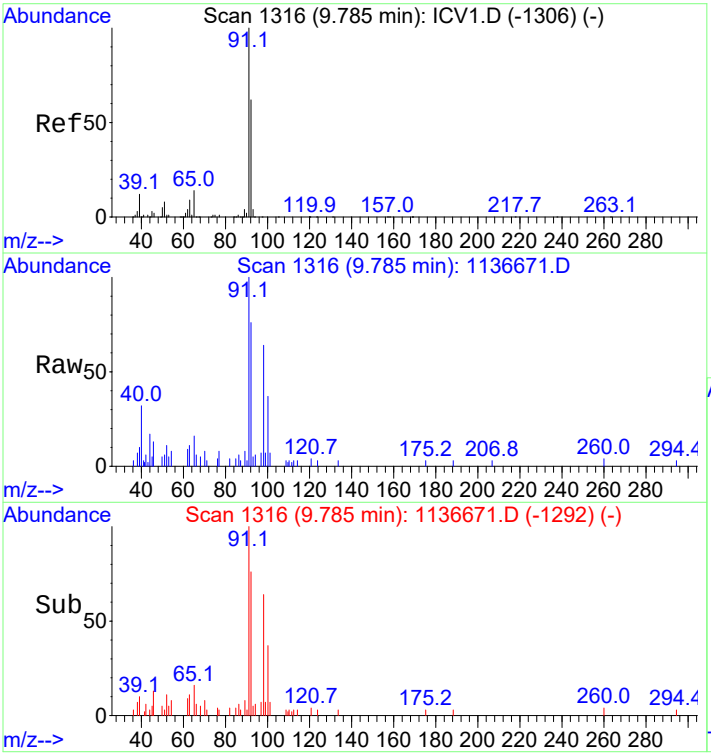


#49
trichloroete
Concen: 0.70 ug/L
RT: 8.16 min Scan# 1049
Delta R.T. 0.00 min
Lab File: 1136671.D
Acq: 5 May 2022 19:14

Tgt Ion: 95 Resp: 12910

Ion	Ratio	Lower	Upper
95	100		
130	95.4	83.7	123.7
132	97.2	74.4	114.4

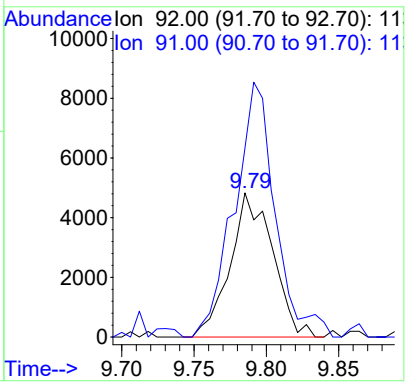




#62
Toluene
Concen: 0.22 ug/L
RT: 9.79 min Scan# 1316
Delta R.T. -0.01 min
Lab File: 1136671.D
Acq: 5 May 2022 19:14

Tgt Ion: 92 Resp: 9884

Ion	Ratio	Lower	Upper
92	100		
91	170.6	143.7	183.7



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136672.D Vial: 28
Acq On : 5 May 2022 19:43 Operator: DGS-RLD
Sample : 211603,1136672, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:04:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1208000	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1054940	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	588139	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	325927	20.297 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%	
45) SURR12DCAd4	7.26	102	87764	20.487 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%	
61) SURRd8Tolule	9.71	98	1286231	20.357 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%	
83) SURR4BrFBenz	13.25	95	558527	19.192 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 96	%	
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	3.72	67	19829	0.6635 ug/L	93
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	4.04	101	9362	0.7271 ug/L	95
15) Acetone	4.06	43	5585	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	2695	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136672.D Vial: 28
Acq On : 5 May 2022 19:43 Operator: DGS-RLD
Sample : 211603,1136672, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:04:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	12409	0.4182 ug/L	97
40)	111trichlota	6.90	97	3449	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	7.12	119	56451	3.0121 ug/L	97
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.80	92	3584	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136672.D Vial: 28
Acq On : 5 May 2022 19:43 Operator: DGS-RLD
Sample : 211603,1136672, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:04:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	0.00	128	0	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

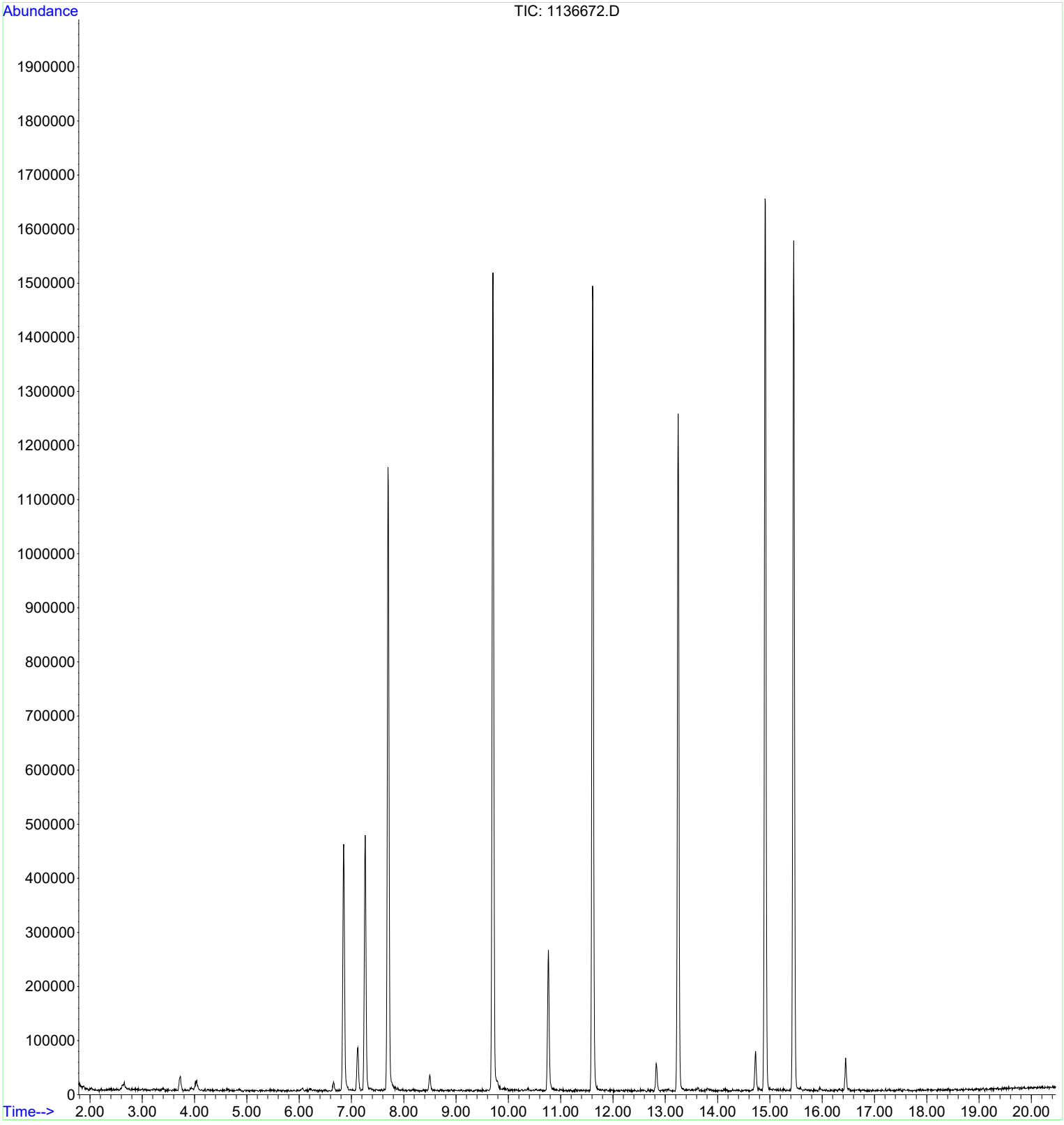
(#) = qualifier out of range (m) = manual integration

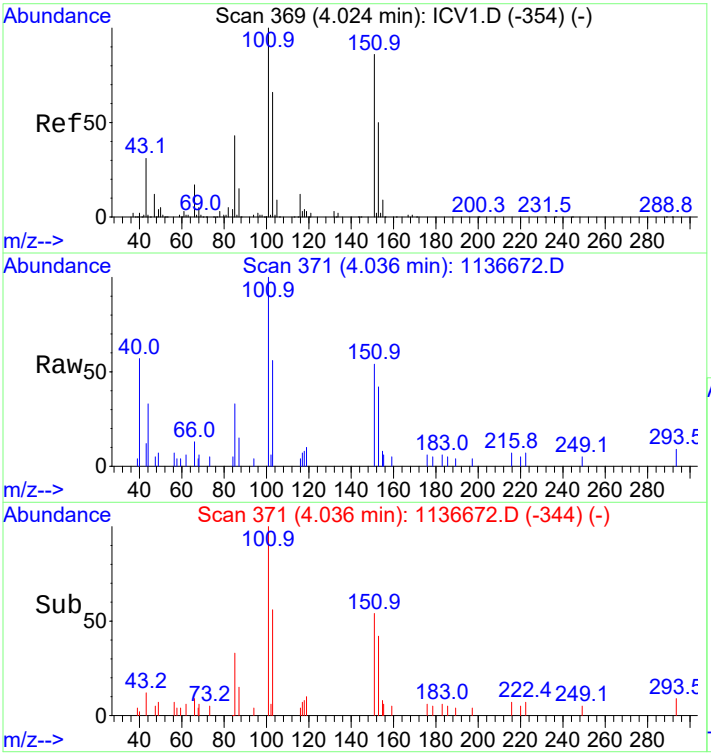
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136672.D Vial: 28
Acq On : 5 May 2022 19:43 Operator: DGS-RLD
Sample : 211603,1136672, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:04:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

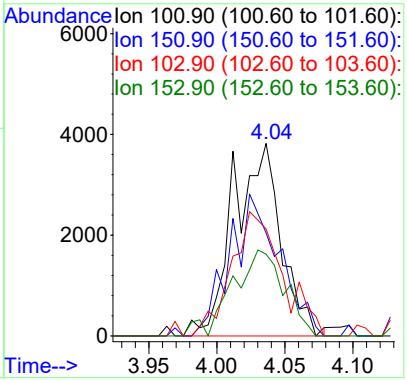


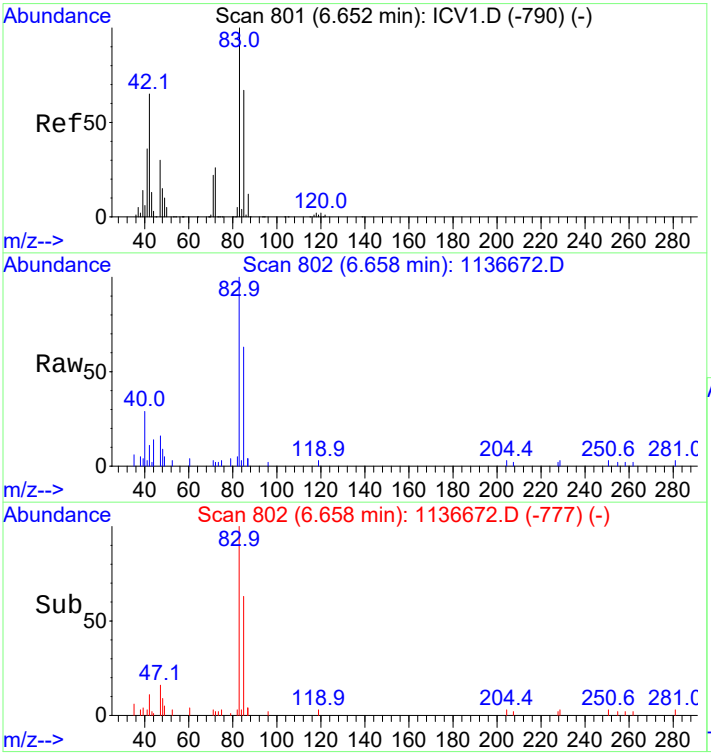


#14
Trichlorotfluoroeth
Concen: 0.73 ug/L
RT: 4.04 min Scan# 371
Delta R.T. 0.01 min
Lab File: 1136672.D
Acq: 5 May 2022 19:43

Tgt Ion:101 Resp: 9362

Ion	Ratio	Lower	Upper
101	100		
151	75.5	60.4	100.4
103	68.2	45.0	85.0
153	49.0	31.7	71.7

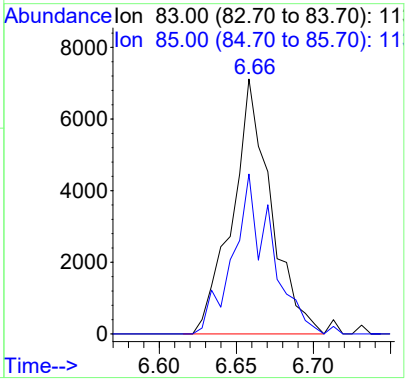


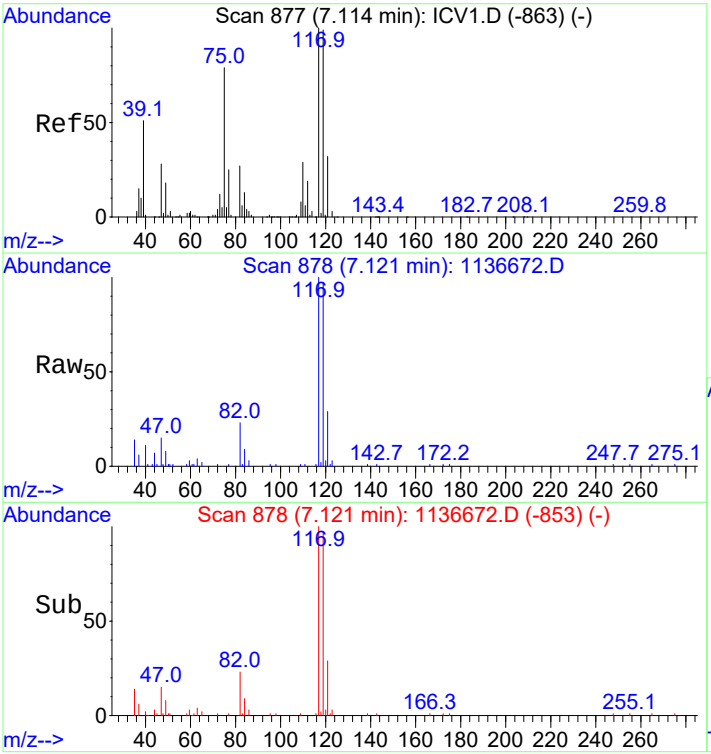


#39
Chloroform
Concen: 0.42 ug/L
RT: 6.66 min Scan# 802
Delta R.T. 0.00 min
Lab File: 1136672.D
Acq: 5 May 2022 19:43

Tgt Ion: 83 Resp: 12409

Ion	Ratio	Lower	Upper
83	100		
85	62.0	44.0	84.0

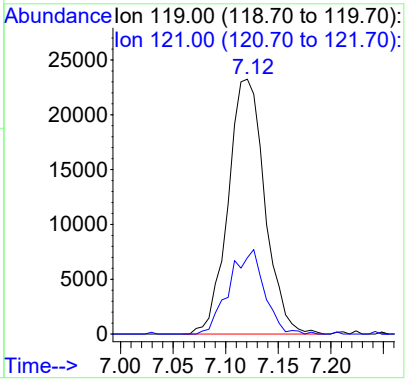




#43
Carbtetraclo
Concen: 3.01 ug/L
RT: 7.12 min Scan# 878
Delta R.T. 0.00 min
Lab File: 1136672.D
Acq: 5 May 2022 19:43

Tgt Ion:119 Resp: 56451

Ion	Ratio	Lower	Upper
119	100		
121	31.7	13.5	53.5



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136673.D Vial: 29
Acq On : 5 May 2022 20:13 Operator: DGS-RLD
Sample : 211603,1136673, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:33:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1220349	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1046257	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	576709	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	339517	20.930 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 105 %		
45) SURR12DCAd4	7.26	102	85767	19.819 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %		
61) SURRd8Tolule	9.71	98	1292157	20.244 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	557779	19.546 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %		

Target Compounds					Qvalue
2) Dichlorodi	1.84	85	2678	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	3.19	67	3323	N.D.	
8) Trichlorofma	3.27	101	5595	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	5179	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.86	59	5046	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136673.D Vial: 29
Acq On : 5 May 2022 20:13 Operator: DGS-RLD
Sample : 211603,1136673, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:33:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	9.78	92	2730	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	2906	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136673.D Vial: 29
Acq On : 5 May 2022 20:13 Operator: DGS-RLD
Sample : 211603,1136673, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:33:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

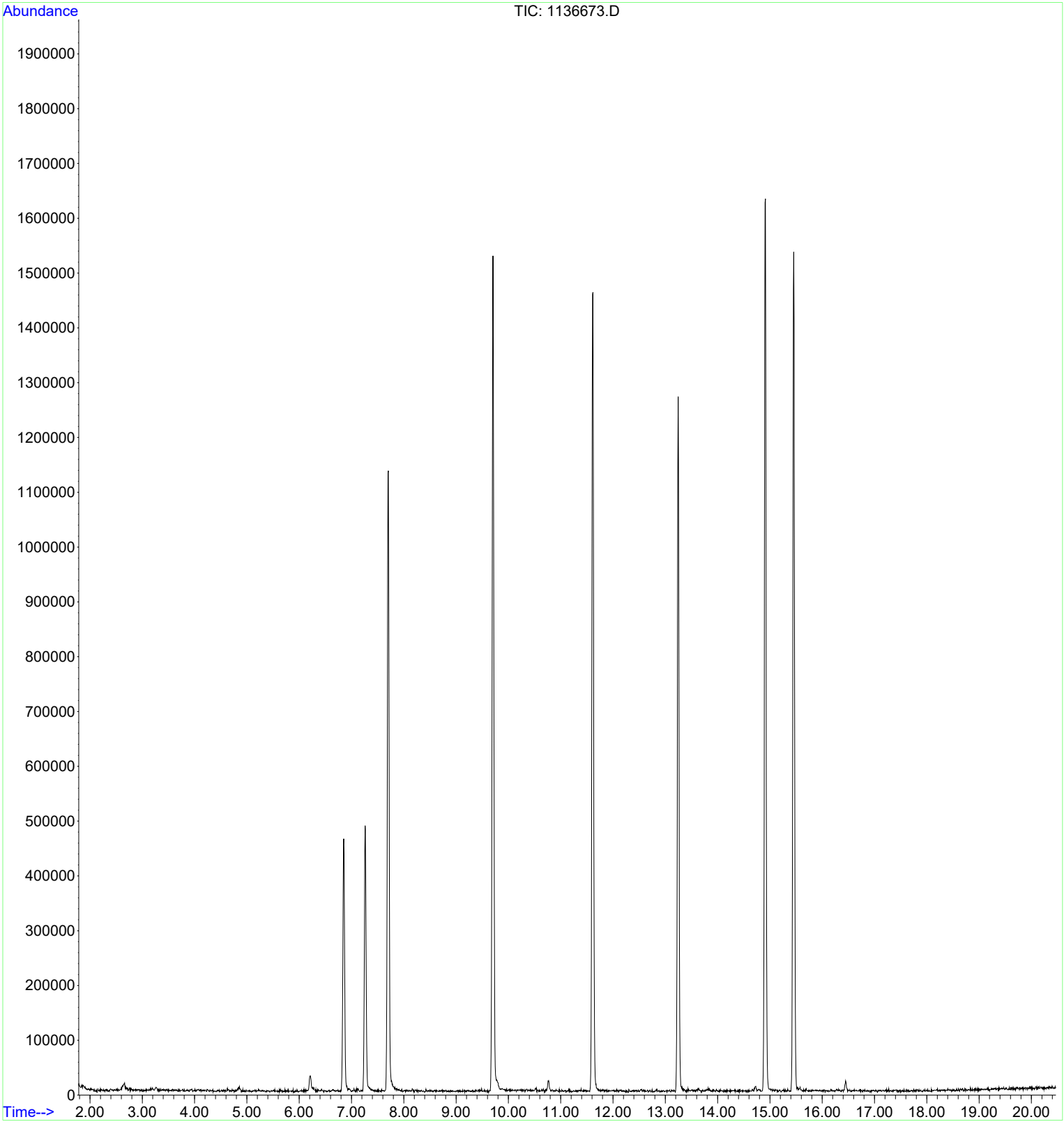
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136673.D Vial: 29
Acq On : 5 May 2022 20:13 Operator: DGS-RLD
Sample : 211603,1136673, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 20:33:55 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136674.D Vial: 30
Acq On : 5 May 2022 20:42 Operator: DGS-RLD
Sample : 211603,1136674, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:02:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1219084	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1046002	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	573842	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	333418	20.575 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103 %		
45) SURR12DCAd4	7.26	102	89327	20.663 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.71	98	1298638	20.367 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102 %		
83) SURR4BrFBenz	13.25	95	561362	19.770 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		
Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	4939	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	0.00	59	0	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136674.D Vial: 30
Acq On : 5 May 2022 20:42 Operator: DGS-RLD
Sample : 211603,1136674, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:02:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	0.00	43	0	N.D.	
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	0.00	43	0	N.D.	
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	0.00	91	0	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	0.00	91	0	N.D.	
89)	2chlorotolue	0.00	91	0	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	0.00	105	0	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	0.00	119	0	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	0.00	91	0	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136674.D Vial: 30
Acq On : 5 May 2022 20:42 Operator: DGS-RLD
Sample : 211603,1136674, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:02:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

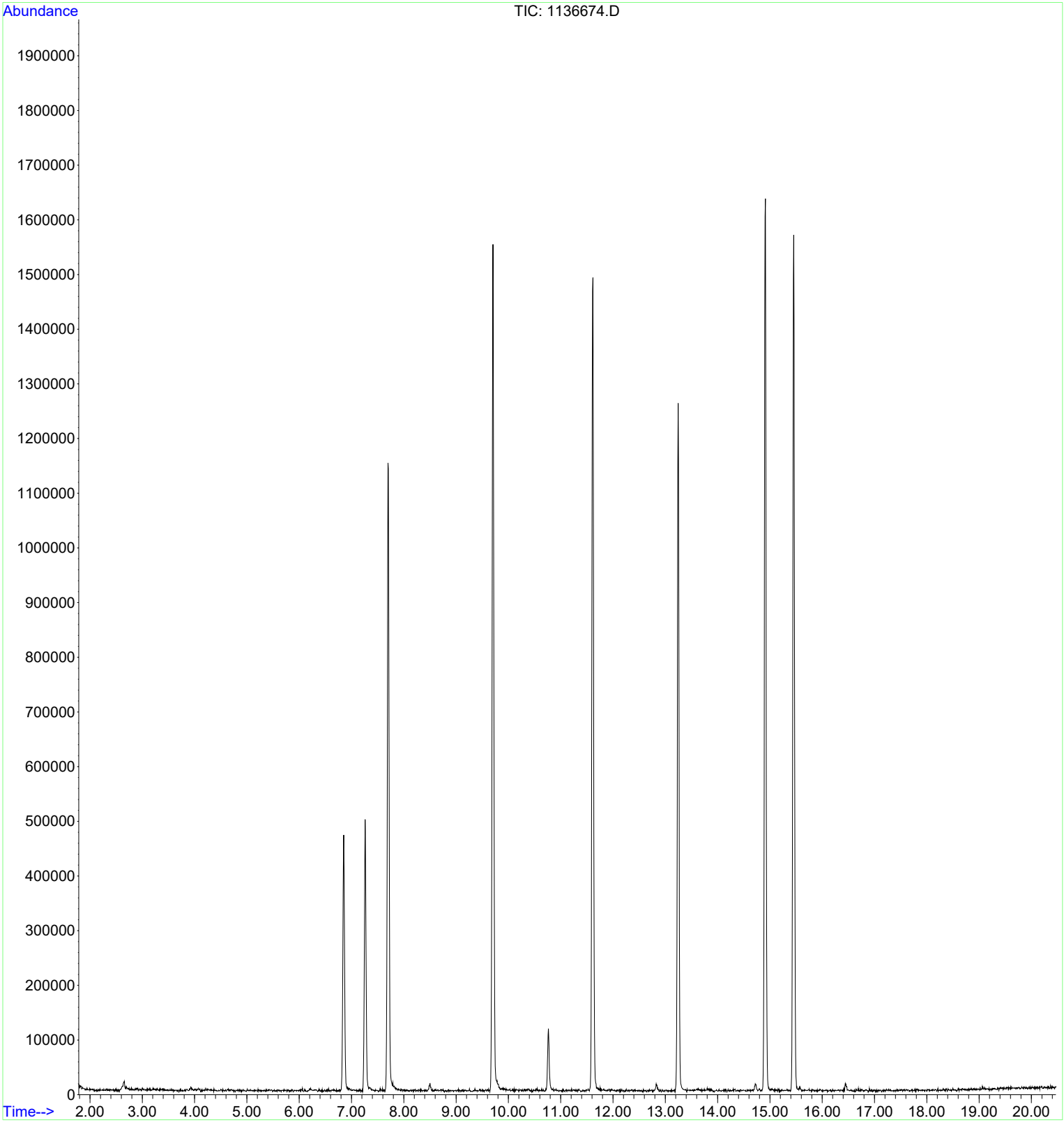
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136674.D Vial: 30
Acq On : 5 May 2022 20:42 Operator: DGS-RLD
Sample : 211603,1136674, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:02:37 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137438.D Vial: 31
Acq On : 5 May 2022 21:11 Operator: DGS-RLD
Sample : 211603,1137438, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:31:35 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1211102	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1021786	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	566726	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	324858	20.179 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%	
45) SURR12DCAd4	7.26	102	85940	20.010 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%	
61) SURRd8Tolule	9.71	98	1282112	20.240 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%	
83) SURR4BrFBenz	13.25	95	551411	19.663 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%	

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	3.99	96	2565	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	5207	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	0.00	76	0	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.84	59	2847	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	5.53	63	18646	0.6132 ug/L #	90
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	6.26	96	13497	0.7265 ug/L	95
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137438.D Vial: 31
Acq On : 5 May 2022 21:11 Operator: DGS-RLD
Sample : 211603,1137438, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:31:35 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	6.90	97	6850	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	8.17	95	43441	2.4402	ug/L	99
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	0.00	43	0	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	0.00	43	0	N.D.		
62)	Toluene	9.79	92	5412	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	10.53	166	4571	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	0.00	43	0	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	0.00	91	0	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	0.00	91	0	N.D.		
76)	m p-Xylene	0.00	106	0	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	0.00	105	0	N.D.		
81)	cyclohexanone	0.00	55	0	N.D.		
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	0.00	91	0	N.D.		
89)	2chlorotolue	0.00	91	0	N.D.		
90)	4chlorotolue	0.00	91	0	N.D.		
91)	135Trimebenz	0.00	105	0	N.D.		
92)	tbutylbenzen	0.00	119	0	N.D.		
93)	124Trimetben	0.00	105	0	N.D.		
94)	sbutylbenzen	0.00	105	0	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	0.00	119	0	N.D.		
97)	14dichlorobe	0.00	146	0	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	0.00	91	0	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	0.00	180	0	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137438.D Vial: 31
Acq On : 5 May 2022 21:11 Operator: DGS-RLD
Sample : 211603,1137438, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:31:35 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	0.00	128	0	N.D.		
105) 123Trichlben	0.00	180	0	N.D.		

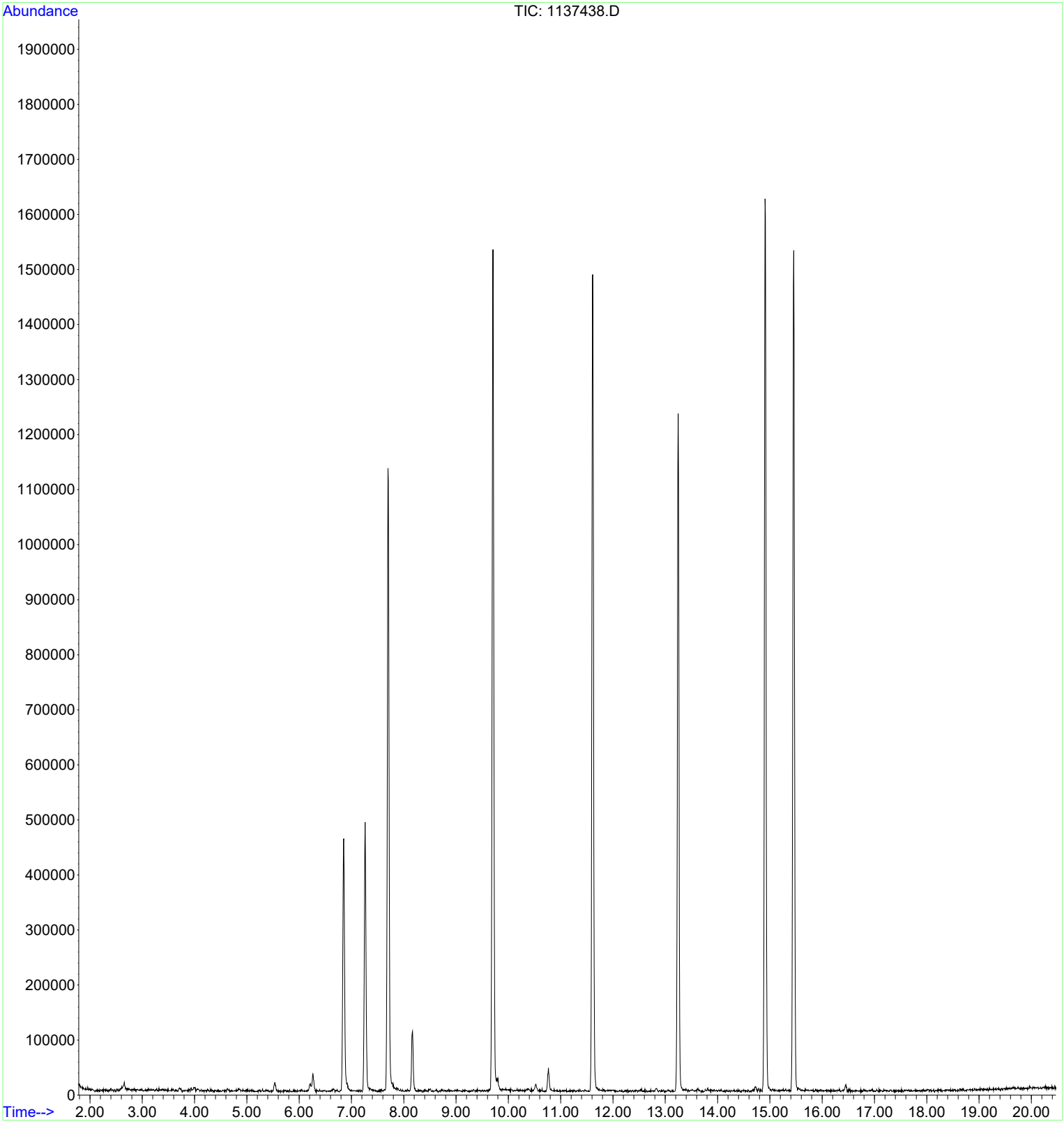
(#) = qualifier out of range (m) = manual integration

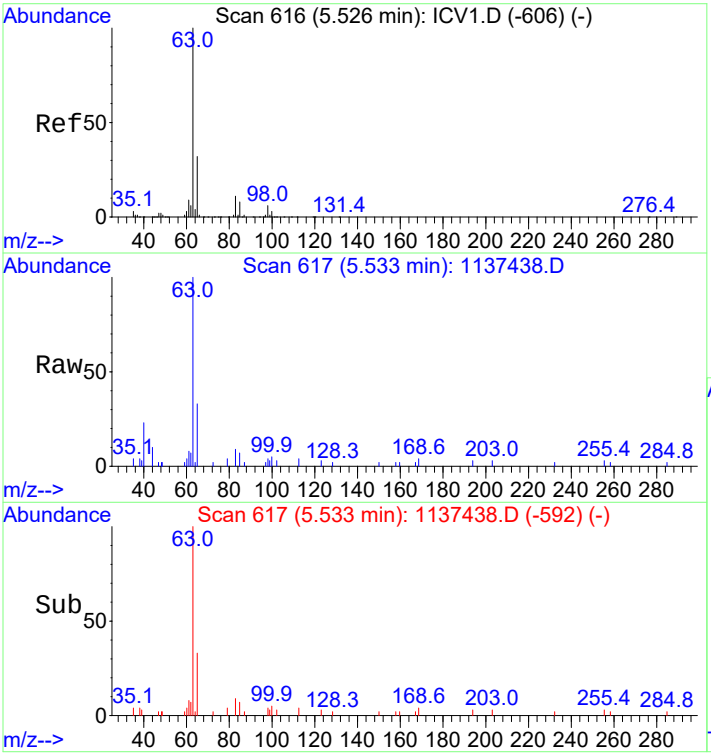
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1137438.D Vial: 31
Acq On : 5 May 2022 21:11 Operator: DGS-RLD
Sample : 211603,1137438, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 21:31:35 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

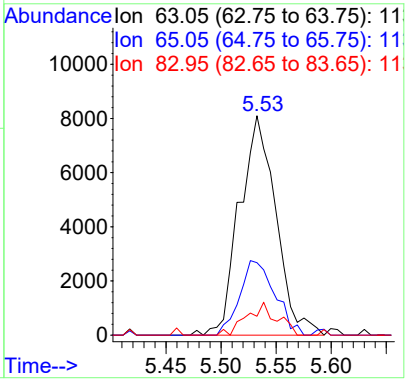


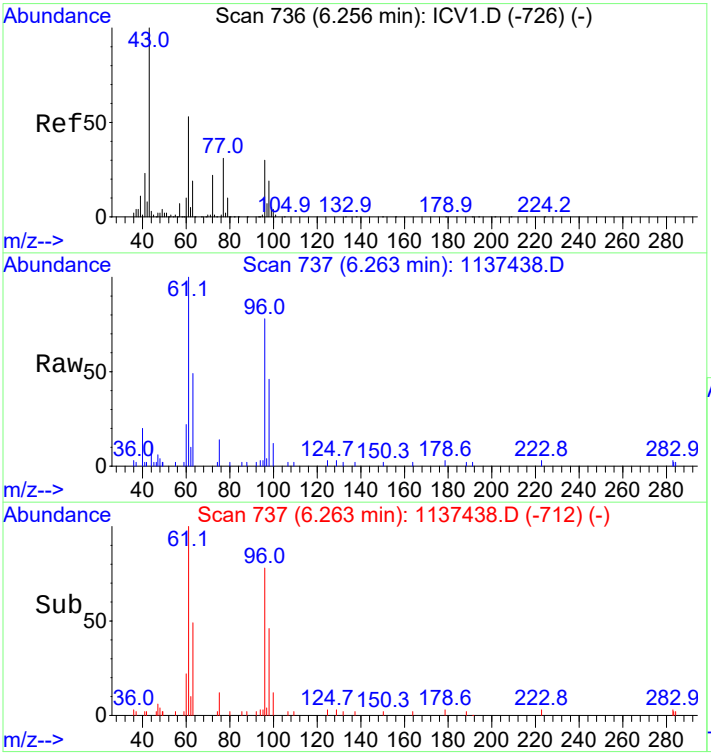


#26
11dichlorota
Concen: 0.61 ug/L
RT: 5.53 min Scan# 617
Delta R.T. 0.00 min
Lab File: 1137438.D
Acq: 5 May 2022 21:11

Tgt Ion: 63 Resp: 18646

Ion	Ratio	Lower	Upper
63	100		
65	32.8	12.9	52.9
83	0.0	0.0	33.6

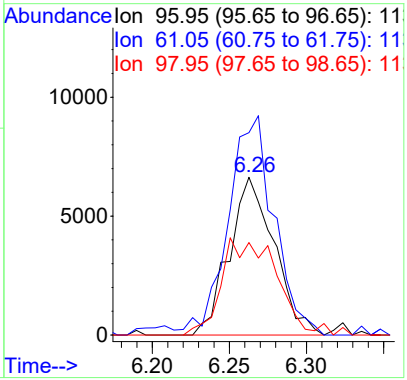


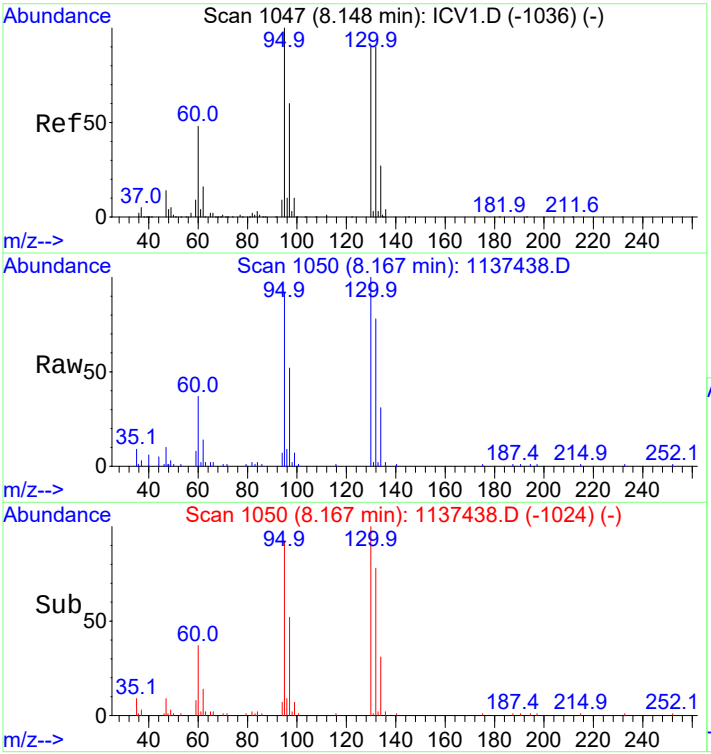


#32
c12dichlorte
Concen: 0.73 ug/L
RT: 6.26 min Scan# 737
Delta R.T. 0.00 min
Lab File: 1137438.D
Acq: 5 May 2022 21:11

Tgt Ion: 96 Resp: 13497

Ion	Ratio	Lower	Upper
96	100		
61	141.0	122.9	162.9
98	75.5	45.6	85.6

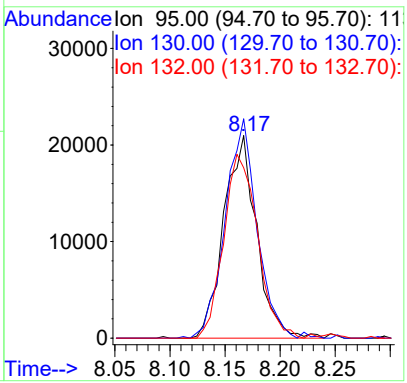




#49
trichloroete
Concen: 2.44 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1137438.D
Acq: 5 May 2022 21:11

Tgt Ion: 95 Resp: 43441

Ion	Ratio	Lower	Upper
95	100		
130	104.8	83.7	123.7
132	93.8	74.4	114.4



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215R.D Vial: 40
Acq On : 6 May 2022 9:24 Operator: DGS-RLD
Sample : 211603,1136215, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:45:06 2022 Results File: W042822.RES

Report

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1266562	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1092903	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	606269	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	344046	20.435 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102 %		
45) SURR12DCAd4	7.26	102	93042	20.715 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 104 %		
61) SURRd8Tolule	9.71	98	1358681	20.510 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103 %		
83) SURR4BrFBenz	13.25	95	593812	19.794 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.06	43	4523	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	4299	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.83	59	2834	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	6.64	42	2897	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215R.D Vial: 40
Acq On : 6 May 2022 9:24 Operator: DGS-RLD
Sample : 211603,1136215, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:45:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	317515	10.2063	ug/L		100
40)	111trichlota	0.00	97	0	N.D.			
42)	Cyclohexane	0.00	56	0	N.D.			
43)	Carbtetraclo	7.12	119	1464440	74.5262	ug/L		98
44)	11dicloprope	0.00	110	0	N.D.			
46)	Benzene	0.00	78	0	N.D.			
47)	12dichlorota	7.36	62	12913	0.5545	ug/L	#	94
48)	TAME	0.00	73	0	N.D.			
49)	trichloroete	8.17	95	235808	12.6662	ug/L		98
50)	methylcyclohexane	0.00	83	0	N.D.			
51)	12dicloropra	0.00	63	0	N.D.			
52)	23Dicl1propene	0.00	75	0	N.D.			
53)	Dibromometha	0.00	93	0	N.D.			
54)	methylmethacrylate	0.00	69	0	N.D.			
55)	14dioxane	0.00	88	0	N.D.			
56)	Bromodiclrma	0.00	83	0	N.D.			
57)	2Nitropropane	0.00	43	0	N.D.			
58)	2CLEVE	0.00	63	0	N.D.			
59)	c13dicloproe	0.00	75	0	N.D.			
60)	4Meth2Pentan	9.55	43	2605	Below	Cal	#	37
62)	Toluene	9.79	92	3397	N.D.			
63)	t13Dicloprop	0.00	75	0	N.D.			
64)	ethylmethacrylate	0.00	69	0	N.D.			
65)	112Triclotha	0.00	83	0	N.D.			
66)	Tetrachlorte	0.00	166	0	N.D.			
67)	13Diclorpropa	0.00	76	0	N.D.			
69)	2Hexanone	10.64	43	3752	Below	Cal	#	29
70)	Clorodibrmta	0.00	129	0	N.D.			
71)	12Dibrometha	0.00	107	0	N.D.			
72)	Chlorobenzen	0.00	112	0	N.D.			
73)	1Clhexane	11.62	91	2918	N.D.			
74)	1112Tetclota	0.00	131	0	N.D.			
75)	Ethylbenzene	0.00	91	0	N.D.			
76)	m p-Xylene	0.00	106	0	N.D.			
77)	o-Xylene	0.00	106	0	N.D.			
78)	Styrene	0.00	104	0	N.D.			
79)	Bromoform	0.00	173	0	N.D.			
80)	Isopropylben	0.00	105	0	N.D.			
81)	cyclohexanone	0.00	55	0	N.D.			
84)	Bromobenzene	0.00	156	0	N.D.			
85)	1122Tetrclta	0.00	83	0	N.D.			
86)	123Triclproa	0.00	75	0	N.D.			
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	0.00	91	0	N.D.			
89)	2chlorotolue	0.00	91	0	N.D.			
90)	4chlorotolue	0.00	91	0	N.D.			
91)	135Trimebenz	0.00	105	0	N.D.			
92)	tbutylbenzen	0.00	119	0	N.D.			
93)	124Trimetben	0.00	105	0	N.D.			
94)	sbutylbenzen	0.00	105	0	N.D.			
95)	13Diclorbenz	0.00	146	0	N.D.			
96)	pIsopropylto	14.90	119	2845	N.D.			
97)	14dichlorobe	0.00	146	0	N.D.			
98)	12dichlorobe	0.00	146	0	N.D.			
99)	nButylbenzen	15.49	91	2551	N.D.			
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	0.00	180	0	N.D.			

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215R.D Vial: 40
Acq On : 6 May 2022 9:24 Operator: DGS-RLD
Sample : 211603,1136215, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:45:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.03	128	3873	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

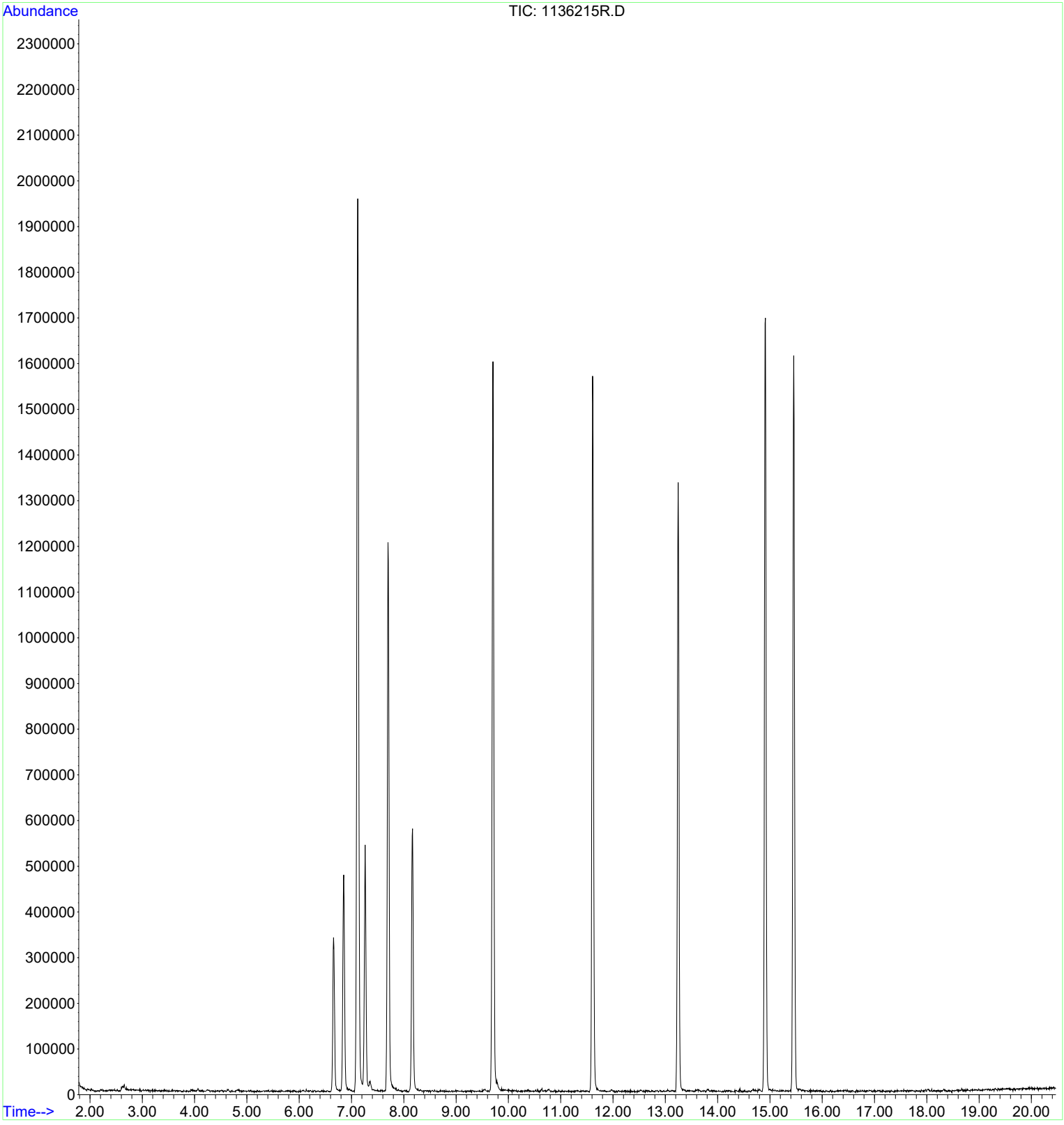
(#) = qualifier out of range (m) = manual integration

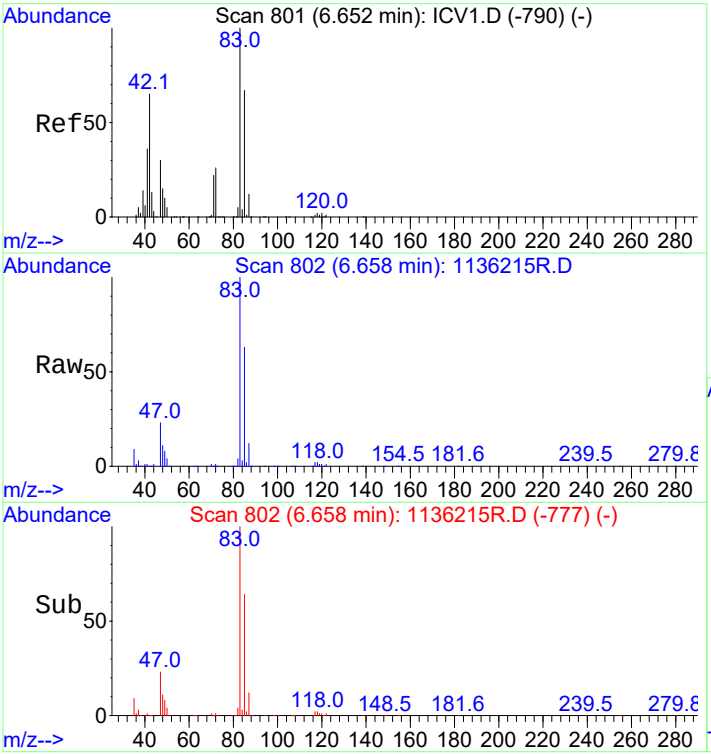
Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136215R.D Vial: 40
Acq On : 6 May 2022 9:24 Operator: DGS-RLD
Sample : 211603,1136215, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:45:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

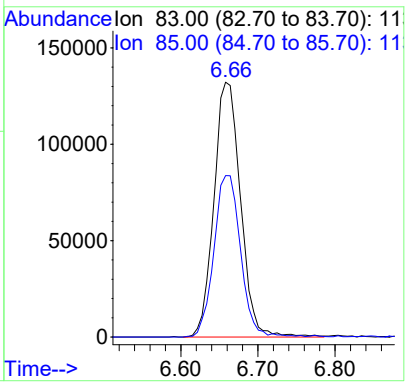


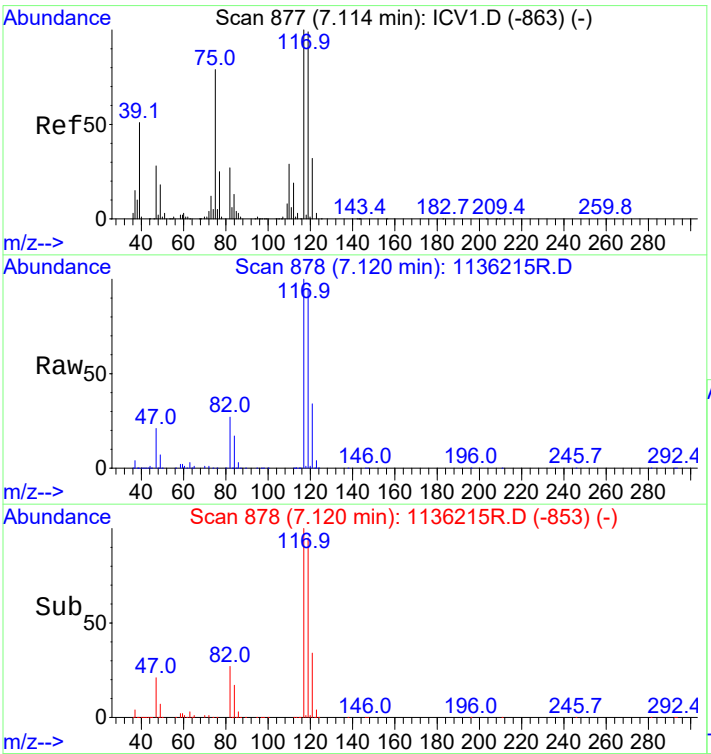


#39
Chloroform
Concen: 10.21 ug/L
RT: 6.66 min Scan# 802
Delta R.T. -0.00 min
Lab File: 1136215R.D
Acq: 6 May 2022 9:24

Tgt Ion: 83 Resp: 317515

Ion	Ratio	Lower	Upper
83	100		
85	63.6	44.0	84.0

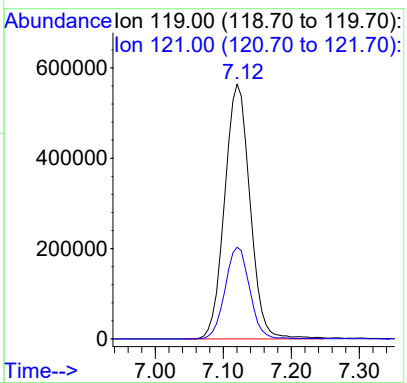


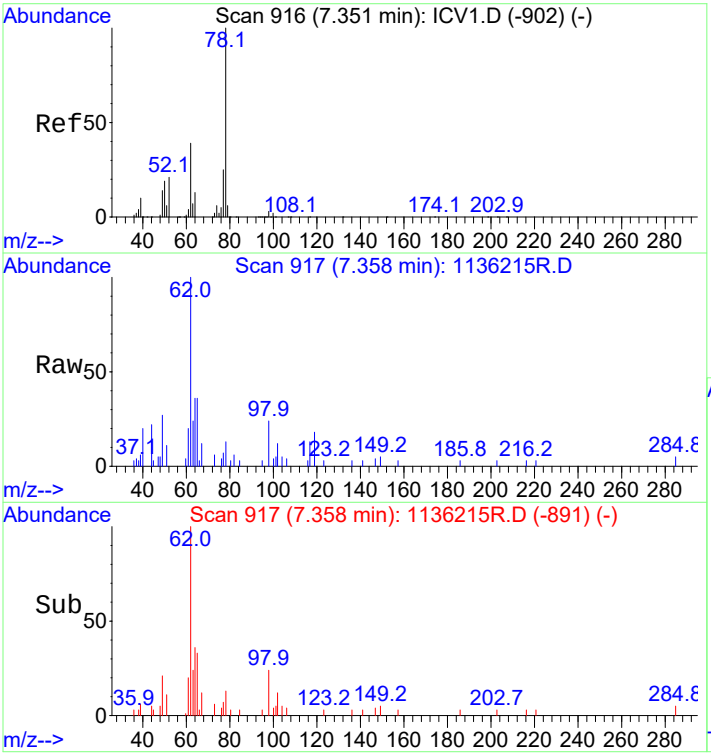


#43
Carbtetraclo
Concen: 74.53 ug/L
RT: 7.12 min Scan# 878
Delta R.T. -0.00 min
Lab File: 1136215R.D
Acq: 6 May 2022 9:24

Tgt Ion:119 Resp: 1464440

Ion	Ratio	Lower	Upper
119	100		
121	34.9	13.5	53.5

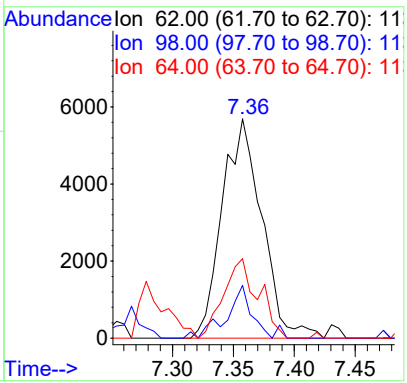


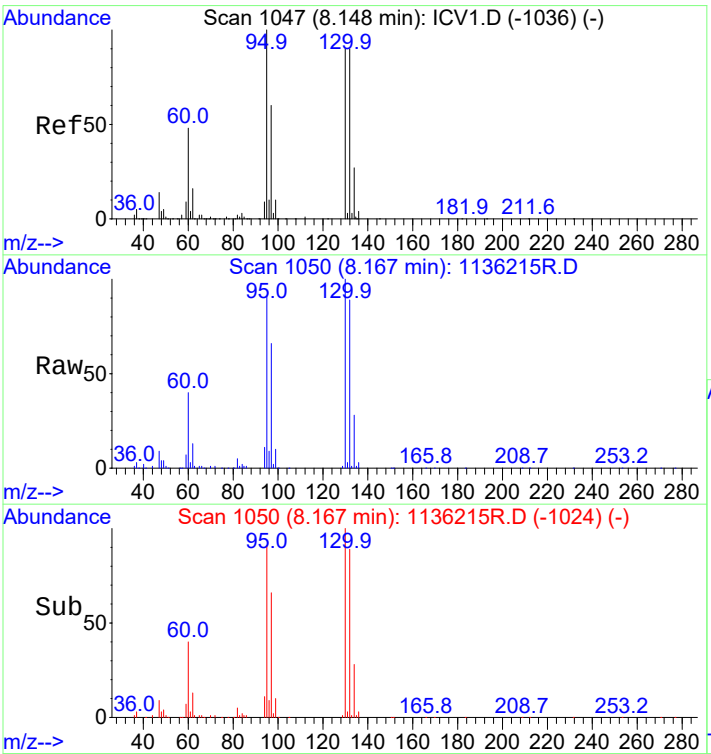


#47
12dichlorota
Concen: 0.55 ug/L
RT: 7.36 min Scan# 917
Delta R.T. 0.01 min
Lab File: 1136215R.D
Acq: 6 May 2022 9:24

Tgt Ion: 62 Resp: 12913

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	29.9
64	31.8	11.7	51.7

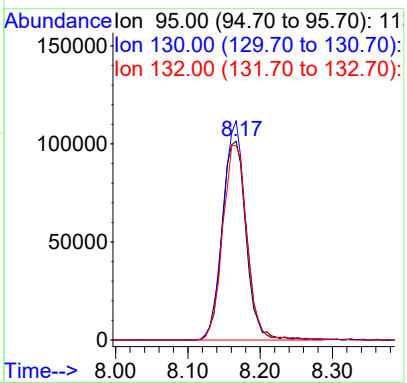




#49
trichloroete
Concen: 12.67 ug/L
RT: 8.17 min Scan# 1050
Delta R.T. 0.01 min
Lab File: 1136215R.D
Acq: 6 May 2022 9:24

Tgt Ion: 95 Resp: 235808

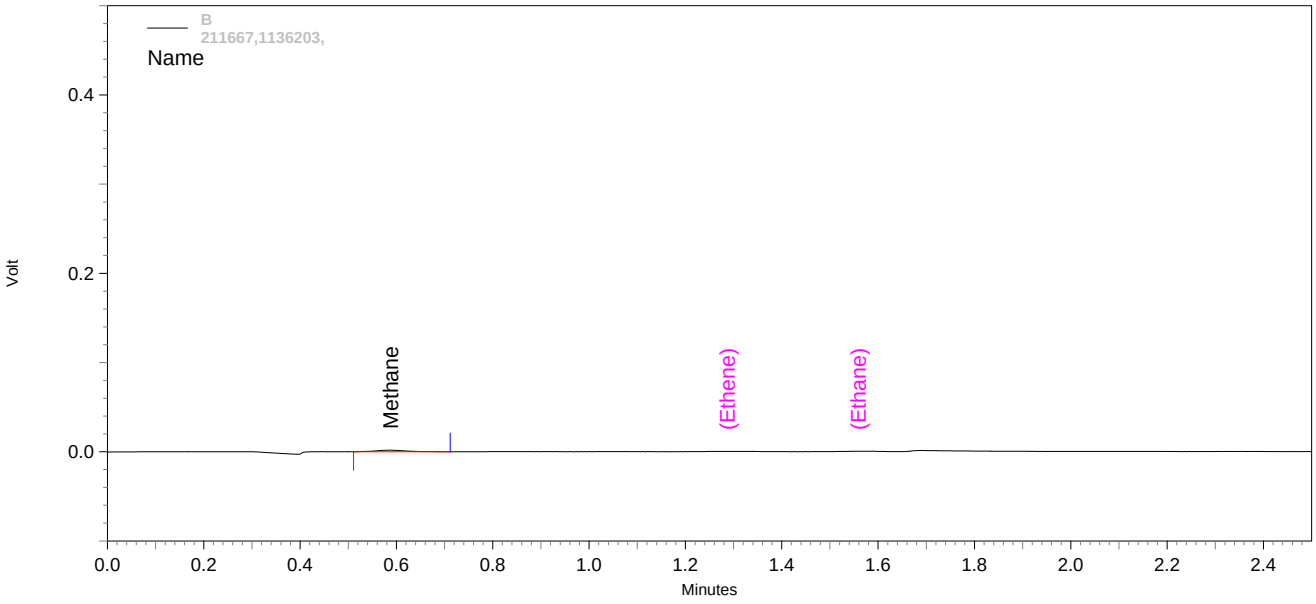
Ion	Ratio	Lower	Upper
95	100		
130	104.3	83.7	123.7
132	98.0	74.4	114.4



Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136203,
Acquired: May 04, 2022 09:05:58
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



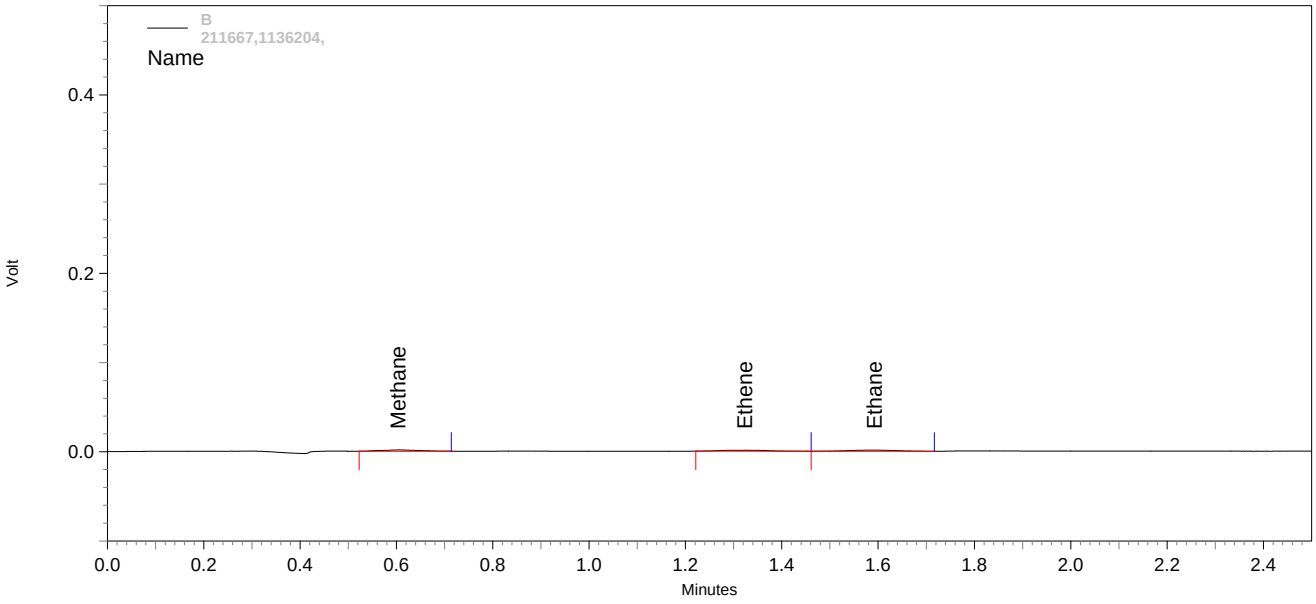
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.588**	**0.574**	**7400**	**1.759**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136204,
Acquired: May 04, 2022 09:26:30
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



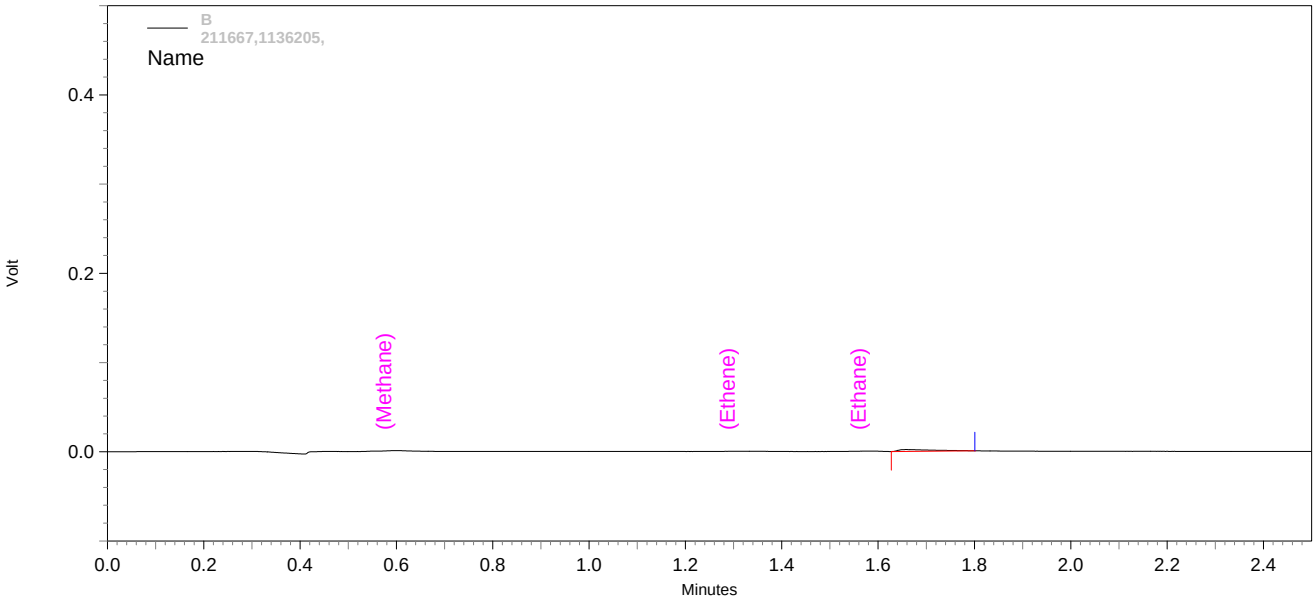
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.603	0.574	7509	1.787	ppmV
2	Ethene	1.323	1.287	7200	0.922	ppmV
3	Ethane	1.593	1.559	8001	0.811	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136205,
Acquired: May 04, 2022 09:30:19
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



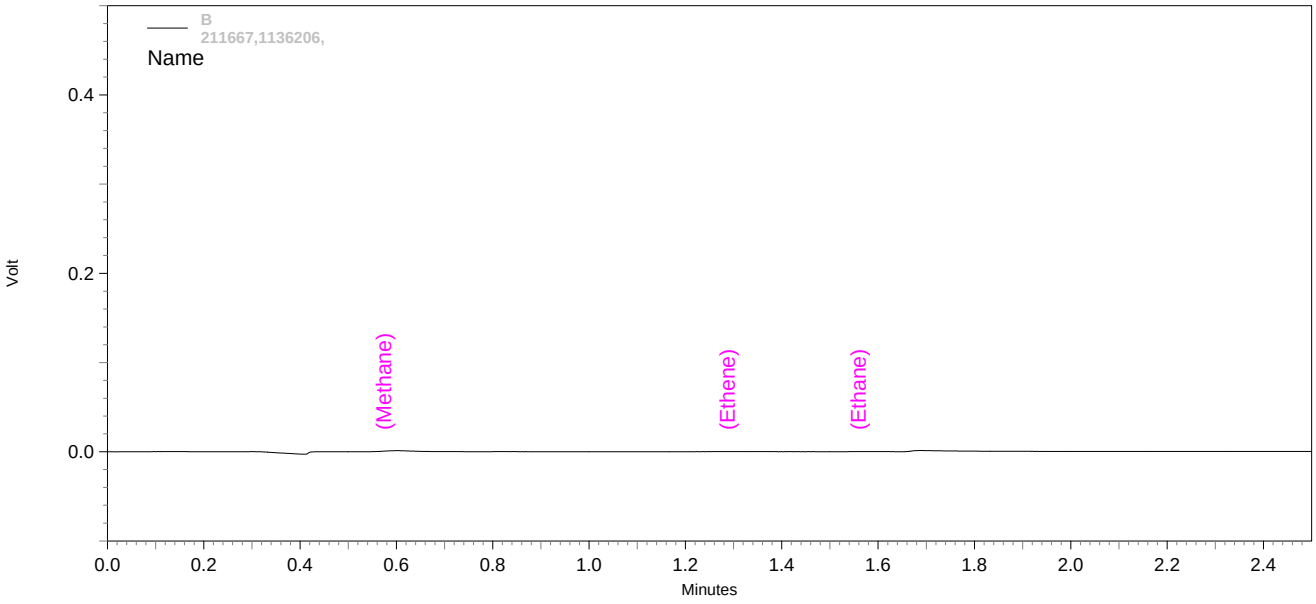
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**
1		**1.656**	**0.000**	**10224**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136206,
Acquired: May 04, 2022 09:42:02
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



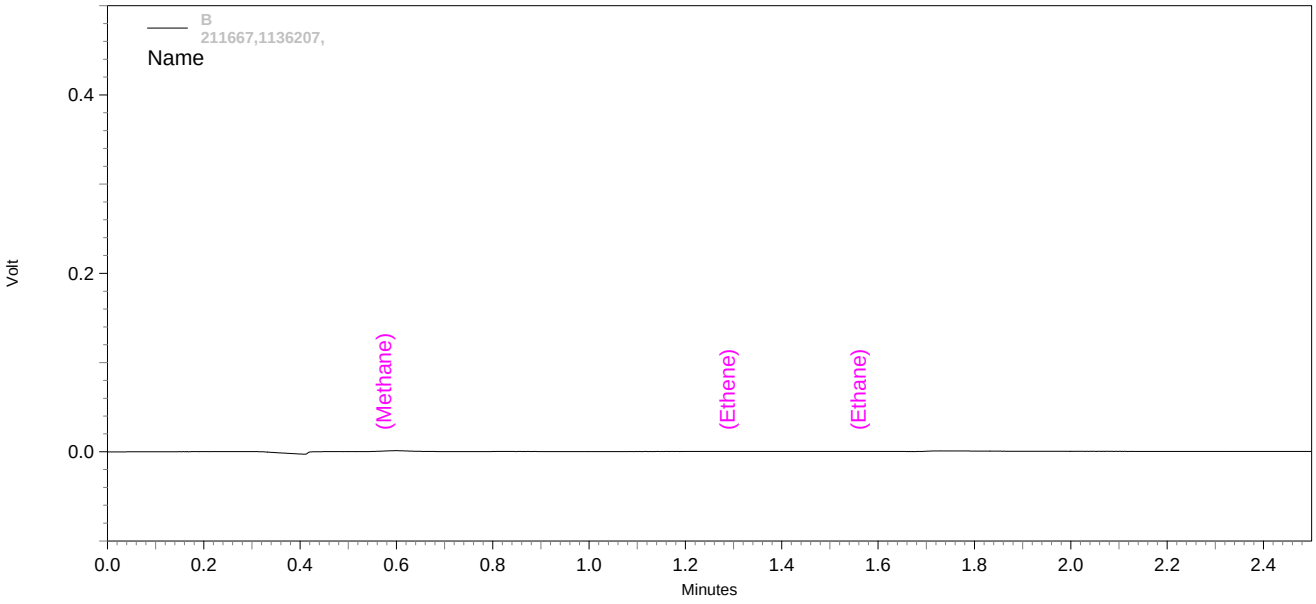
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136207,
Acquired: May 04, 2022 09:46:01
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



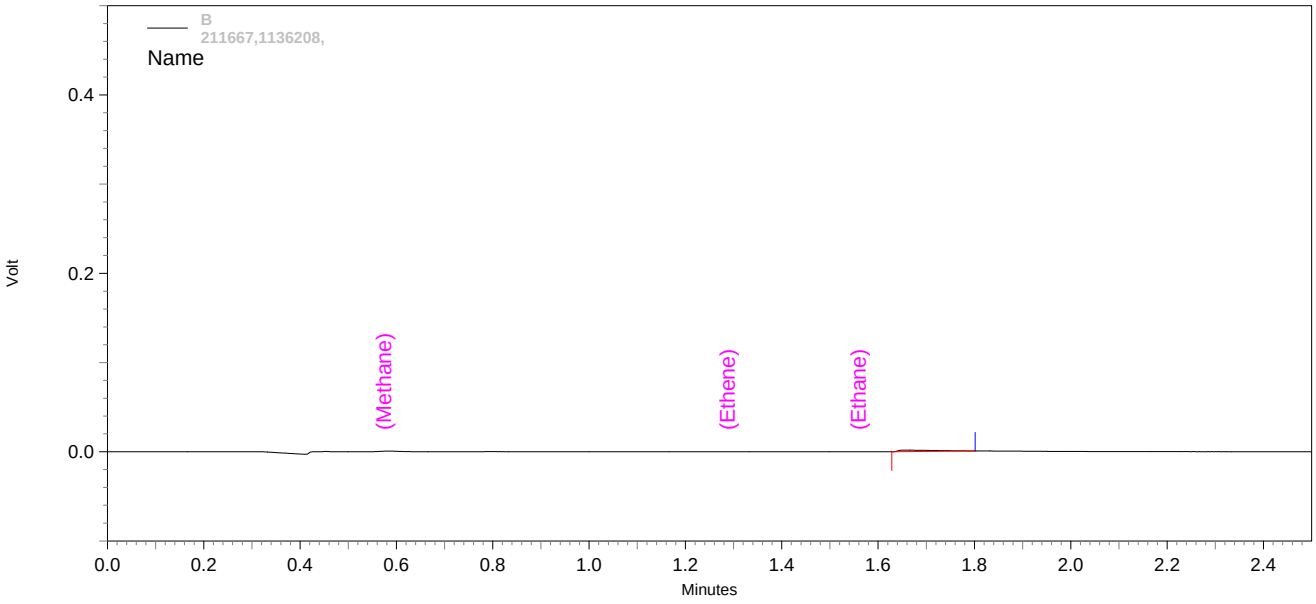
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\013.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136208,
Acquired: May 04, 2022 09:50:55
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



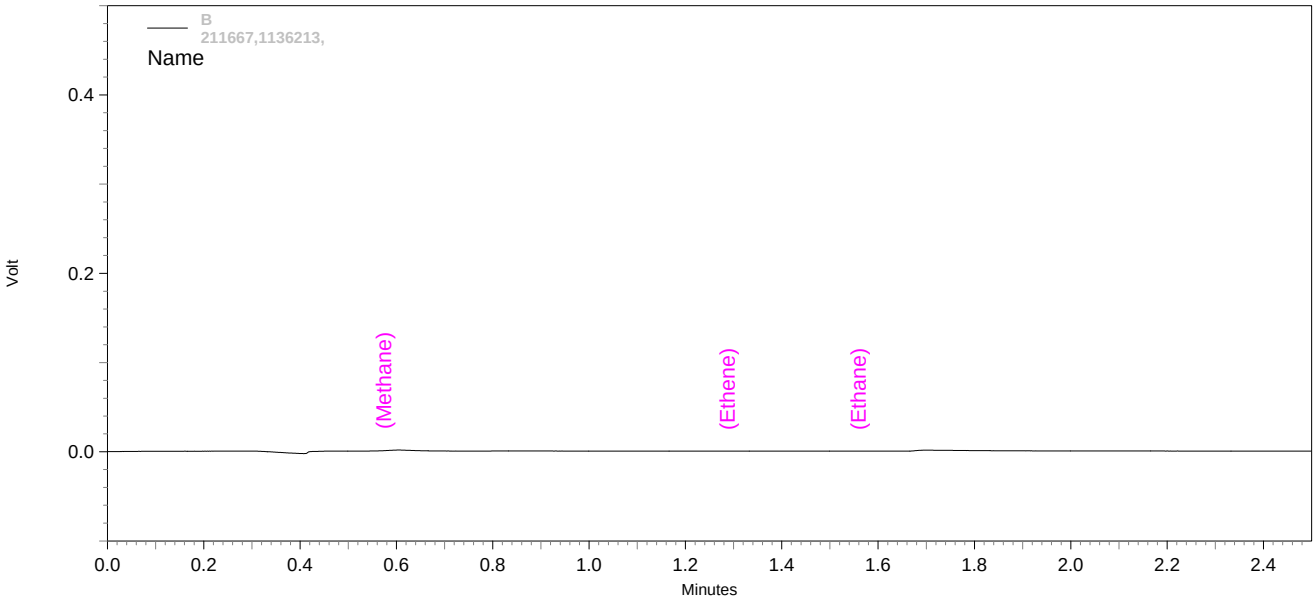
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**
1		**1.657**	**0.000**	**8893**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\014.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136213,
Acquired: May 04, 2022 09:55:20
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



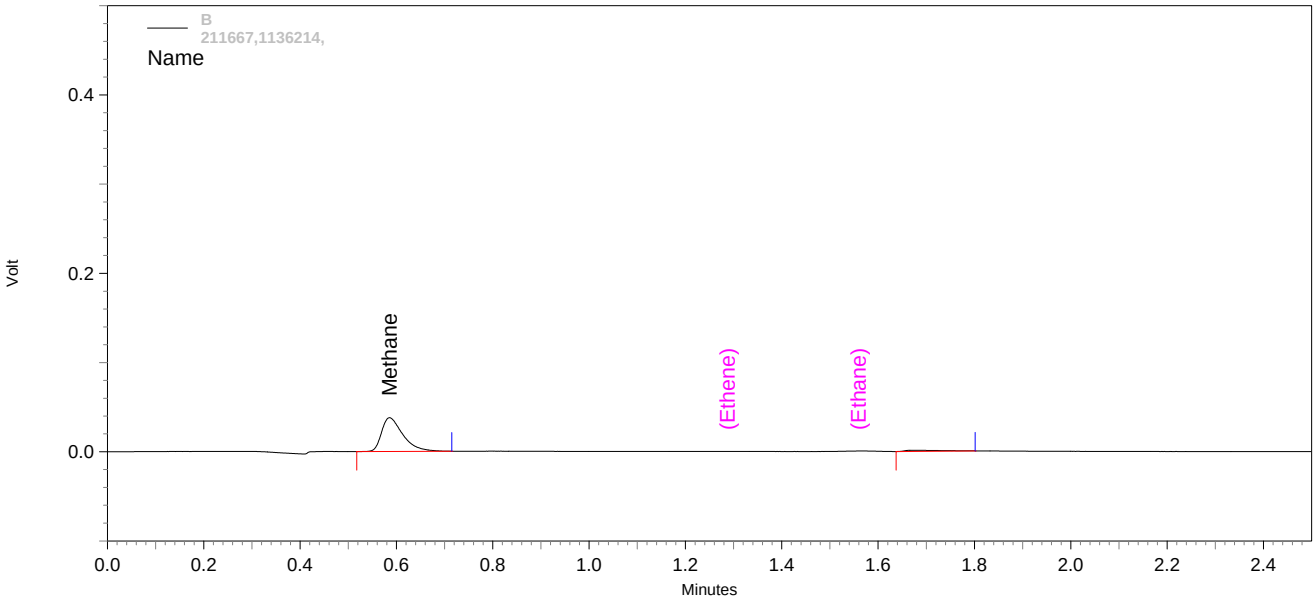
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\015.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136214,
Acquired: May 04, 2022 09:58:57
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



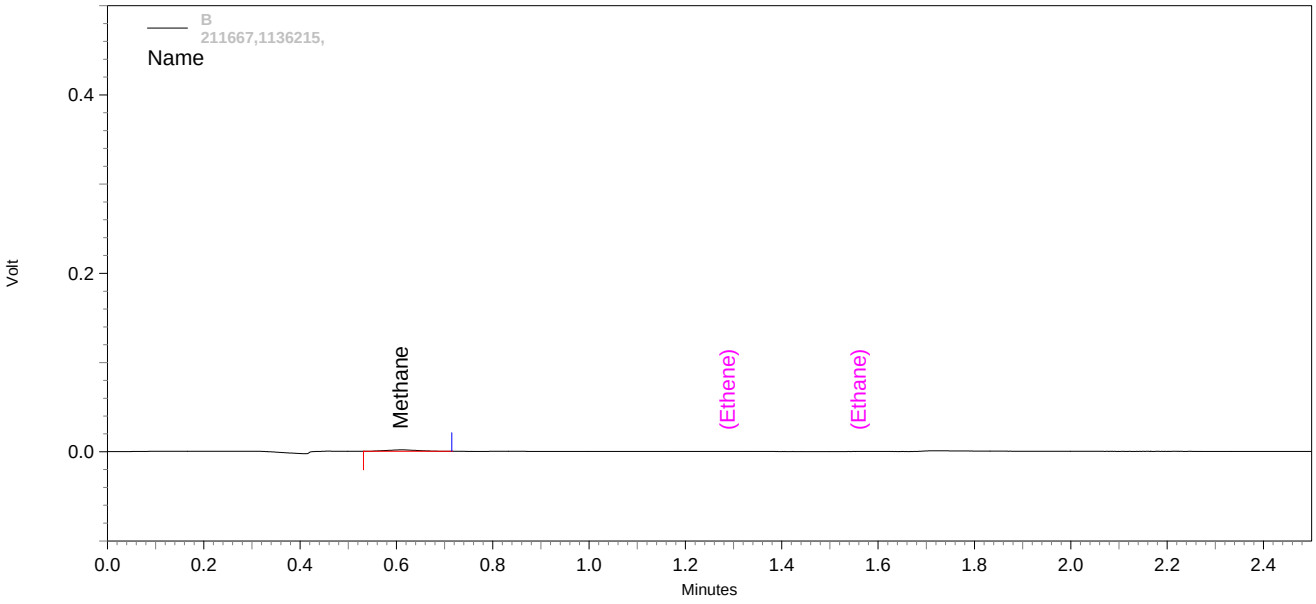
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.586	0.574	115610	29.758	ppmV
	Ethene		1.287		0.000 BDL	ppmV
	Ethane		1.559		0.000 BDL	ppmV
2		1.676	0.000	5946	0.000	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\016.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136215,
Acquired: May 04, 2022 10:03:20
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



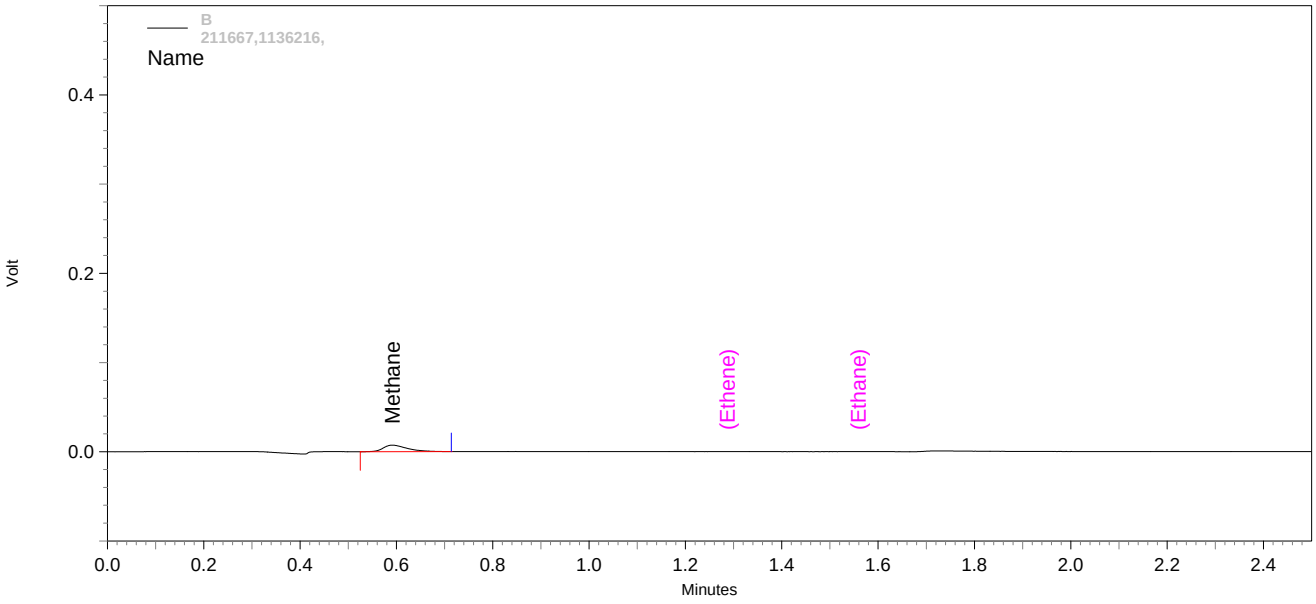
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.608**	**0.574**	**7507**	**1.786**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\017.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136216,
Acquired: May 04, 2022 10:07:14
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



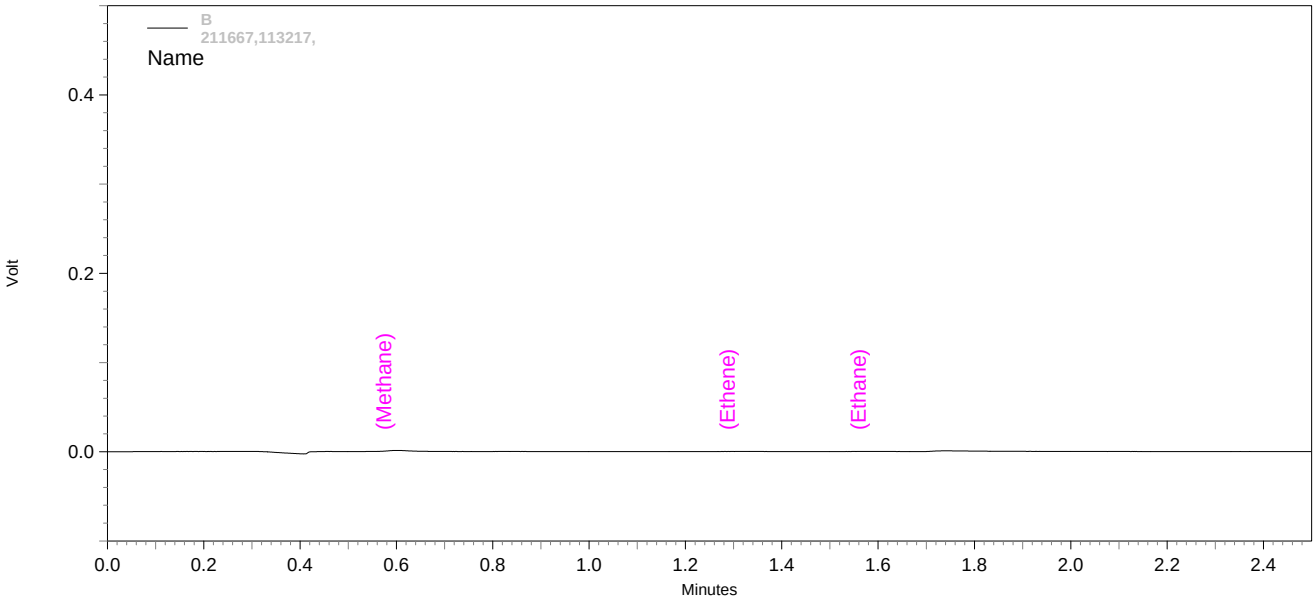
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.592**	**0.574**	**25219**	**6.369**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\020.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136217,
Acquired: May 04, 2022 10:38:20
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



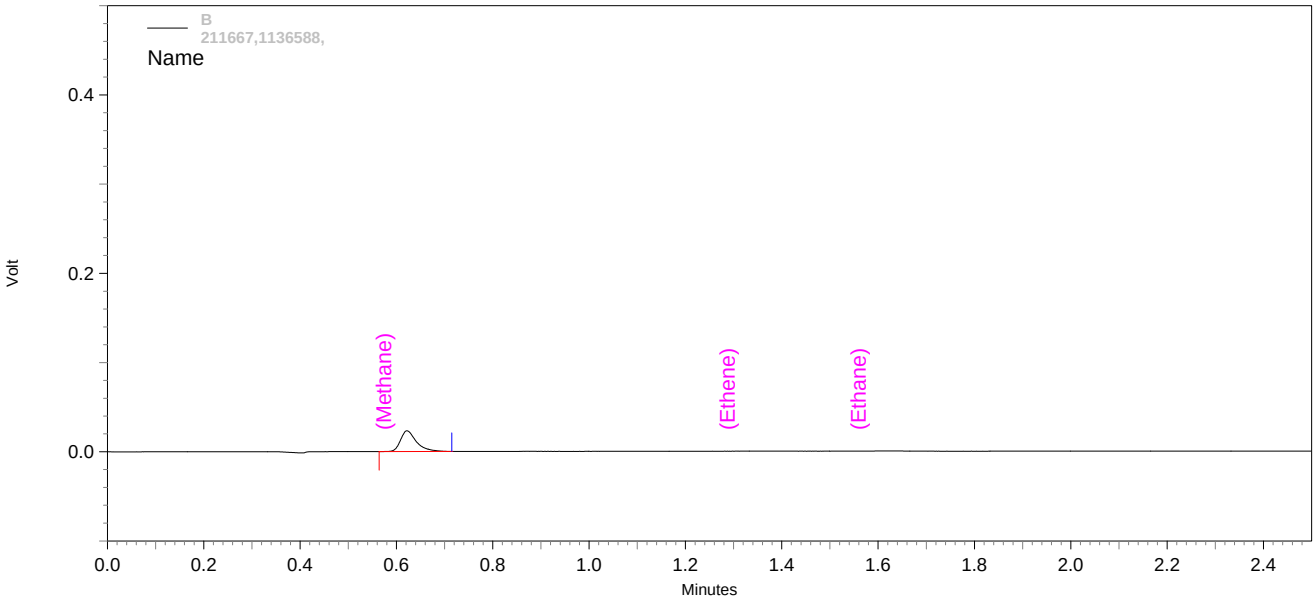
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\021.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136588,
Acquired: May 04, 2022 10:42:14
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



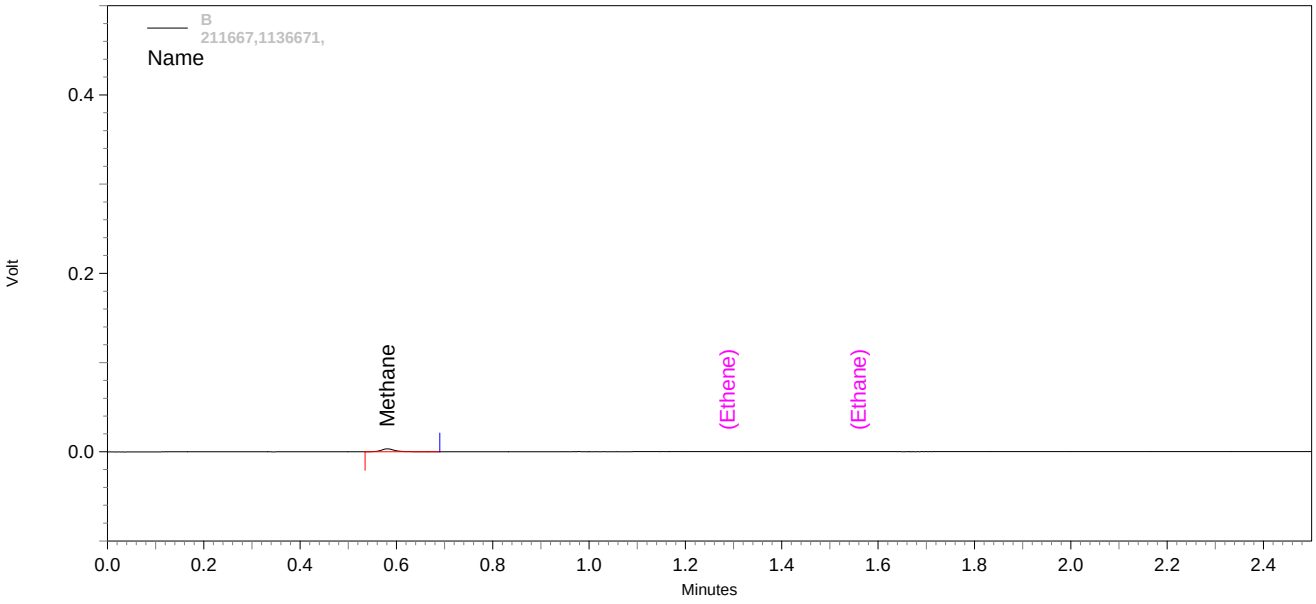
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
1		**0.622**	**0.000**	**53112**	**0.000**	
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\022.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136671,
Acquired: May 04, 2022 10:46:26
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



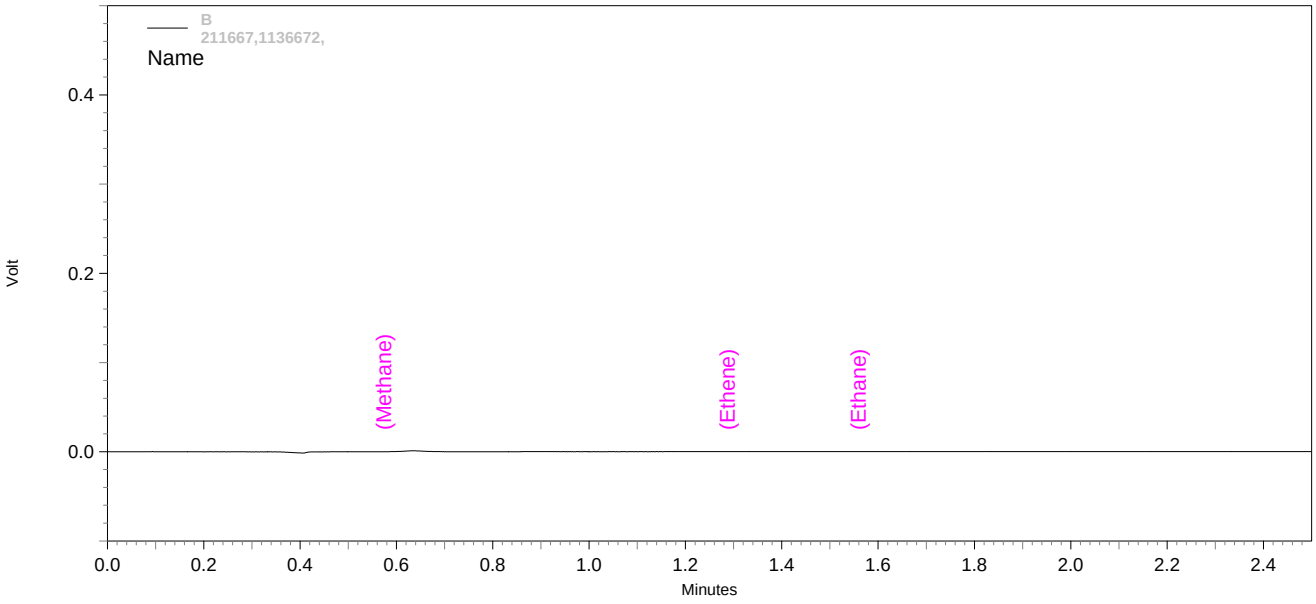
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.581**	**0.574**	**6136**	**1.432**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\023.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136672,
Acquired: May 04, 2022 10:50:59
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



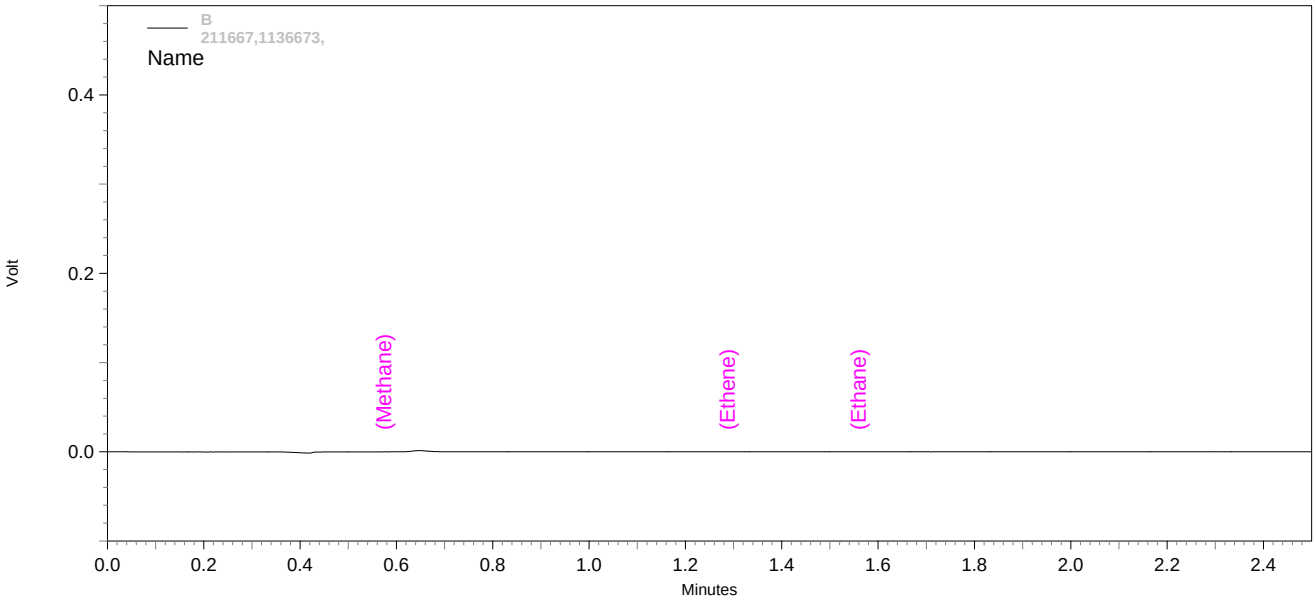
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\024.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136673,
Acquired: May 04, 2022 10:55:11
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



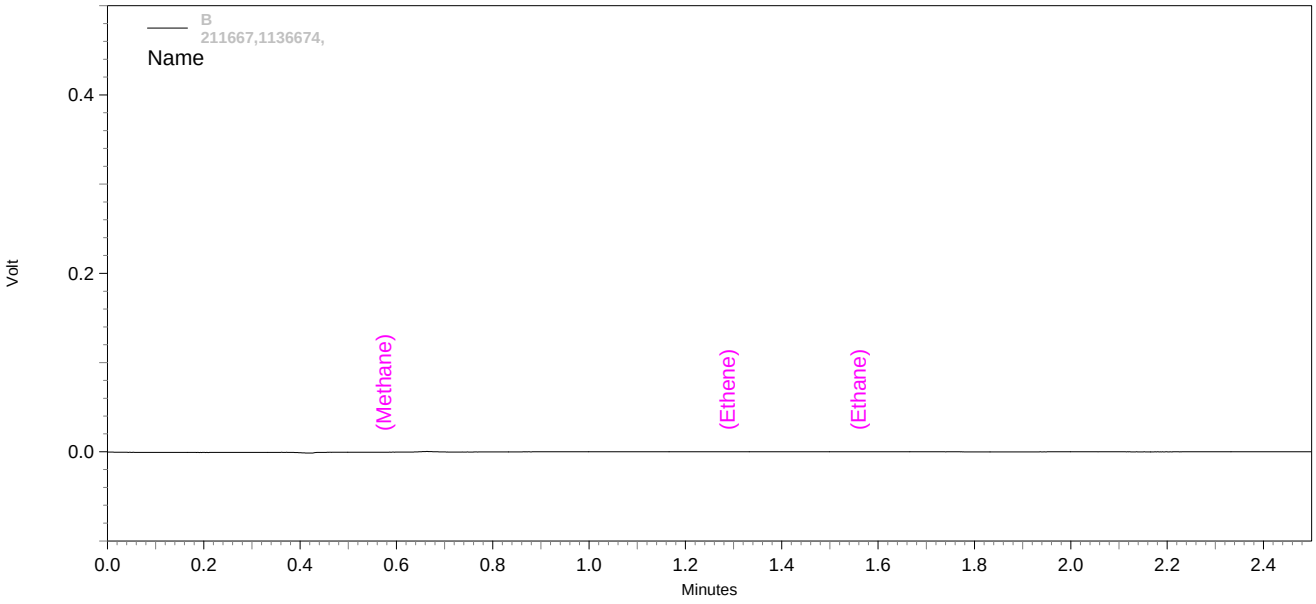
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\025.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1136674,
Acquired: May 04, 2022 10:59:00
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



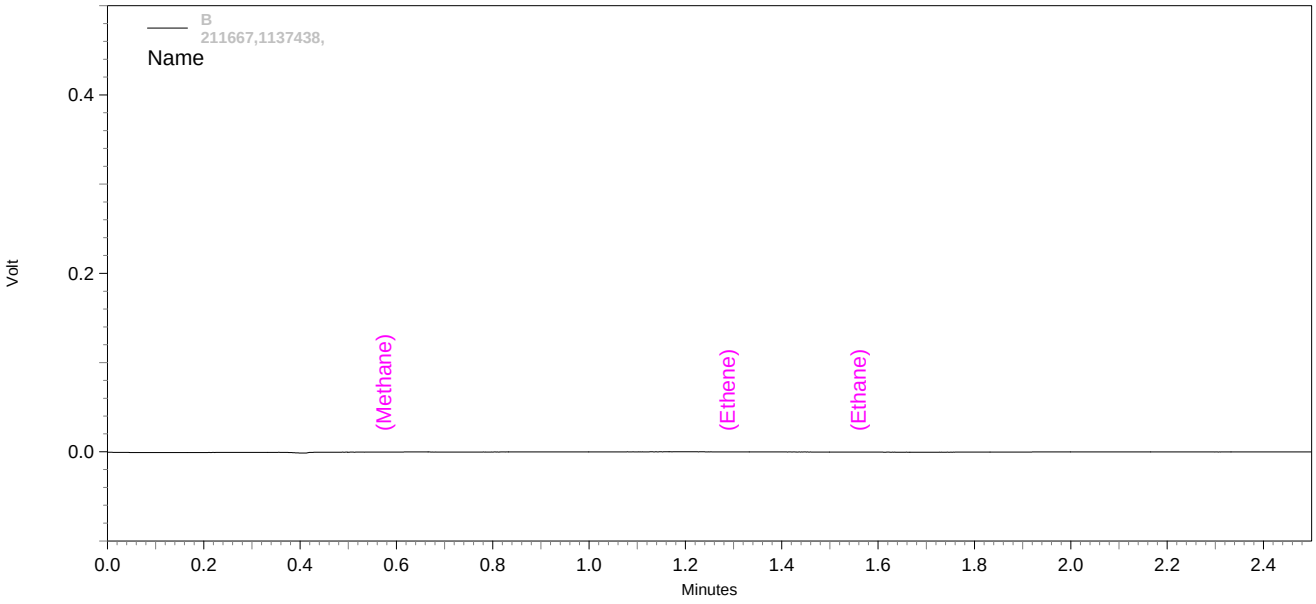
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\026.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,1137438,
Acquired: May 04, 2022 11:02:32
File Desc. Field Sample - 1.0 mL Injection (Methane, Ethene, Ethane,)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
	Methane		**0.574**		**0.000 BDL**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS

Method Path : C:\INSTARCH\METHODS\
Method File : W042822.M
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response Via : Initial Calibration

RJ 05/04/2022

Calibration Files ug/L
1 0.5/5.0 =WCAL1.D 2 1.0/10.0 =WCAL2.D 3 2.0/20.0 =WCAL3.D
4 5.0/50.0 =WCAL4.D 5 10.0/100.0 =WCAL5.D 6 20.0/200.0 =WCAL6.D
7 30.0/300.0 =WCAL7.D 8 40.0/400.0 =WCAL8.D 9 80.0/800.0 =WCAL9.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
			8	9							
1)	I	FLUOROBENZENE**ISTD**	----------ISTD----------								
2)	PT	Dichlorodi	0.196	0.266	0.279	0.261	0.272	0.279	0.264	0.258	9.95
			0.261	0.245							
3)	PT	Chloromethan	0.255	0.233	0.252	0.261	0.245	0.239	0.228	0.238	7.34
			0.226	0.205							
4)	PT	VinylChlorid	0.219	0.269	0.256	0.250	0.253	0.247	0.238	0.243	6.83
			0.236	0.220							
5)	PT	Bromomethane		0.173	0.150	0.144	0.137	0.134	0.132	0.140	11.39
			0.134	0.119							
6)	PT	Chloroethane		0.198	0.170	0.160	0.149	0.152	0.145	0.157	12.46
			0.145	0.135							
7)	T	Dichloroflmetha	0.530	0.575	0.547	0.563	0.534	0.534	0.512	0.529	6.37
			0.509	0.460							
8)	PT	Trichlorofma	0.321	0.407	0.413	0.401	0.420	0.416	0.385	0.388	8.50
			0.379	0.352							
9)	T	Ethylether	0.200	0.163	0.201	0.206	0.188	0.202	0.201	0.195	6.86
			0.202	0.191							
10)	T	dichlorotfluoro	0.403	0.516	0.552	0.518	0.525	0.522	0.496	0.495	9.52
			0.483	0.438							
11)	T	propyleneoxide		0.074	0.071	0.074	0.067	0.073	0.068	0.069	7.48
			0.068	0.058							
12)	T	Acrolein		0.062	0.062	0.060	0.056	0.056	0.056	0.057	8.75
			0.054	0.047							
13)	PT	11dichlorthe	0.228	0.252	0.261	0.261	0.263	0.272	0.263	0.256	5.15
			0.262	0.244							
14)	PT	Trichlorotfluor	0.161	0.223	0.220	0.218	0.228	0.230	0.219	0.213	9.84
			0.217	0.202							
15)	PT	Acetone	0.120	0.121	0.112	0.108	0.096	0.098	0.091	0.104	12.53
			0.086								
16)	T	Iodomethane		0.216	0.248	0.271	0.276	0.288	0.285	0.265	9.20
			0.282	0.257							
17)	PT	Carbon Dislf	0.502	0.545	0.534	0.505	0.501	0.492	0.464	0.488	9.16
			0.452	0.398							
18)	T	allylchloride	0.435	0.458	0.438	0.441	0.435	0.435	0.412	0.420	8.81
			0.396	0.333							
19)	PT	methylacetate		0.080	0.074	0.078	0.067	0.082	0.079	0.077#	6.32
			0.082	0.078							
20)	PT	Methylchlorid	0.400	0.357	0.332	0.320	0.302	0.299	0.293	0.317	12.77
			0.289	0.266							
21)	T	tbutylalcohol	0.026	0.029	0.032	0.030	0.028	0.030	0.029	0.028#	9.66
			0.028	0.022							
22)	T	Acrylonitrile		0.136	0.137	0.138	0.124	0.129	0.122	0.126	9.55
			0.118	0.102							
23)	PT	t12dichlorte	0.306	0.294	0.302	0.295	0.293	0.292	0.287	0.290	4.55
			0.284	0.260							
24)	PT	MtBE	0.659	0.684	0.675	0.657	0.645	0.669	0.656	0.653	4.88
			0.654	0.574							
25)	T	Hexane	0.300	0.420	0.458	0.454	0.497	0.493	0.460	0.432	14.47
			0.438	0.370							
26)	PT	11dichlorota	0.523	0.541	0.528	0.523	0.504	0.508	0.490	0.502	7.05
			0.479	0.423							
27)	T	Vinylacetate	0.469	0.468	0.462	0.456	0.406	0.296	0.305	-----	

			0.273	0.183							
									Q	A= -0.004	R=0.997
										B= 0.355	
										C= 0.131	
28)	T	chloroprene	0.369	0.418	0.459	0.461	0.461	0.458	0.429	0.424	9.93
			0.410	0.348							
29)	T	Diisopether	0.742	0.820	0.780	0.859	0.817	0.804	0.772	0.776	8.03
			0.754	0.641							
30)	T	ETBE	0.627	0.631	0.656	0.671	0.639	0.669	0.650	0.642	4.65
			0.658	0.574							
31)	T	22dichloropr	0.273	0.282	0.291	0.292	0.292	0.307	0.310	0.295	4.38
			0.312	0.295							
32)	PT	c12dichlorte	0.281	0.320	0.310	0.327	0.309	0.318	0.310	0.307	5.55
			0.310	0.276							
33)	PT	2Butanone		0.044	0.042	0.043	0.040	0.043	0.041	0.041#	6.46
			0.040	0.036							
34)	T	propionitrile		0.058	0.060	0.058	0.053	0.056	0.052	0.054	8.84
			0.051	0.045							
35)	T	Ethylacetate		0.012	0.012	0.013	0.012	0.014	0.014	0.013#	5.27
			0.014	0.013							
36)	T	methacrylonitri		0.157	0.161	0.159	0.150	0.159	0.151	0.153	5.14
			0.151	0.136							
37)	T	Bromochlorma	0.153	0.161	0.147	0.144	0.140	0.144	0.141	0.145	5.81
			0.141	0.132							
38)	T	Tetrahydofur	0.094	0.098	0.098	0.096	0.089	0.091	0.085	0.089	11.40
			0.081	0.067							
39)	PT	Chloroform	0.492	0.562	0.517	0.525	0.483	0.492	0.473	0.491	8.55
			0.466	0.412							
40)	PT	111trichlota	0.363	0.414	0.409	0.390	0.404	0.416	0.402	0.396	4.69
			0.400	0.371							
41)	S	SURRDibrflma	0.271	0.267	0.262	0.270	0.264	0.265	0.265	0.266	1.19
			0.267	0.263							
42)	PT	Cyclohexane	0.271	0.352	0.383	0.376	0.407	0.413	0.401	0.374	11.54
			0.394	0.367							
43)	PT	Carbtetraclo	0.243	0.296	0.311	0.311	0.319	0.337	0.333	0.310	9.05
			0.328	0.315							
44)	T	11dicloprope		0.139	0.133	0.144	0.143	0.143	0.147	0.142	3.08
			0.145	0.140							
45)	S	SURR12DCAd4	0.071	0.071	0.073	0.072	0.073	0.070	0.070	0.071	2.17
			0.069	0.070							
46)	PT	Benzene	1.189	1.235	1.225	1.220	1.174	1.127	1.061	1.120	11.69
			1.016	0.835							
47)	PT	12dichlorota	0.375	0.417	0.392	0.374	0.370	0.366	0.351	0.368	7.92
			0.351	0.312							
48)	T	TAME	0.558	0.579	0.579	0.610	0.599	0.635	0.623	0.598	5.05
			0.640	0.564							
49)	PT	trichloroete	0.298	0.297	0.297	0.302	0.291	0.310	0.292	0.294	3.74
			0.288	0.270							
50)	PT	methylcyclohexa	0.352	0.545	0.573	0.569	0.635	0.649	0.622	-----	
			0.612	0.546							
									Q	A= -0.034	R=1.000
										B= 0.685	
										C= -0.013	
51)	PT	12dicloropra	0.292	0.346	0.316	0.330	0.312	0.309	0.303	0.310	6.47
			0.305	0.277							
52)	T	23Dicl1propene		0.456	0.449	0.461	0.441	0.456	0.441	0.442	4.98
			0.439	0.391							
53)	T	Dibromometha		0.184	0.183	0.180	0.168	0.175	0.170	0.174	4.79
			0.173	0.160							
54)	T	methylmethacryl		0.188	0.212	0.222	0.209	0.235	0.225	0.218	6.99
			0.233	0.216							
55)	T	14dioxane		0.005	0.005	0.005	0.004	0.004	0.004	0.004#	6.82
			0.004	0.004							
56)	PT	Bromodiclrma	0.381	0.388	0.385	0.380	0.365	0.374	0.362	0.369	5.32
			0.359	0.324							
57)	T	2Nitropropane	0.072	0.078	0.079	0.083	0.080	0.084	0.082	0.078	7.18
			0.079	0.066							
58)	T	2CLEVE		0.081	0.088	0.096	0.092	0.105	0.104	0.096	9.36
			0.106	0.096							
59)	PT	c13dicloproe	0.413	0.402	0.403	0.437	0.414	0.431	0.431	0.416	4.23

```
                    0.430 0.385
60) PT  4Meth2Pentan    0.258 0.281 0.284 0.282 0.251 0.239 0.210 -----
                    0.190 0.134
                                                        Q  A= -0.003 R=0.999
                                                           B=  0.253
                                                           C=  0.049
61) S   SURRd8Tolule    1.046 1.050 1.053 1.054 1.059 1.042 1.036 1.046   1.02
                    1.051 1.024
62) PT  Toluene         0.727 0.785 0.793 0.760 0.738 0.732 0.704 0.722   9.11
                    0.679 0.575
63) PT  t13Dicloprop    0.345 0.311 0.323 0.338 0.334 0.361 0.354 0.340   5.12
                    0.362 0.329
64) T   ethylmethacryla       0.370 0.381 0.397 0.391 0.415 0.401 0.385   6.91
                    0.395 0.328
65) PT  112Triclotha          0.224 0.228 0.230 0.218 0.225 0.221 0.221   4.23
                    0.223 0.200
66) PT  Tetrachlorte    0.259 0.323 0.293 0.319 0.320 0.321 0.306 0.304   7.04
                    0.308 0.285
67) T   13Diclorpropa   0.468 0.509 0.481 0.497 0.445 0.458 0.441 0.457   8.29
                    0.435 0.382

68) I   d5-CHLOROBENZENE**IST ----------------ISTD--------------------
69) PT  2Hexanone             0.248 0.259 0.257 0.230 0.233 0.208 -----
                    0.190 0.139
                                                        Q  A= -0.003 R=0.999
                                                           B=  0.246
                                                           C=  0.025
70) PT  Clorodibrmta    0.362 0.333 0.339 0.344 0.334 0.345 0.342 0.341   3.18
                    0.343 0.323
71) PT  12Dibrometha    0.307 0.329 0.304 0.323 0.305 0.328 0.320 0.315   3.77
                    0.321 0.297
72) PT  Chlorobenzen    1.099 1.049 1.042 1.045 0.975 0.979 0.931 0.974  10.77
                    0.893 0.754
73) T   1Clhexane      0.489 0.476 0.458 0.478 0.492 0.517 0.508 0.484   4.55
                    0.492 0.448
74) T   1112Tetclota           0.290 0.318 0.319 0.307 0.319 0.319 0.310   3.80
                    0.316 0.295
75) PT  Ethylbenzene    1.551 1.765 1.682 1.702 1.634 1.600 1.491 1.551  12.43
                    1.402 1.131
76) PT  m p-Xylene      0.597 0.626 0.629 0.659 0.633 0.635 0.597 0.602   9.12
                    0.568 0.474
77) PT  o-Xylene        0.582 0.600 0.593 0.629 0.627 0.642 0.618 0.603   5.52
                    0.603 0.530
78) PT  Styrene         0.945 0.933 1.000 1.053 1.017 1.039 1.000 0.971   7.85
                    0.952 0.801
79) PT  Bromoform             0.219 0.211 0.225 0.216 0.239 0.242 0.228   5.07
                    0.238 0.231
80) PT  Isopropylben    1.427 1.491 1.511 1.583 1.540 1.530 1.443 1.443   9.98
                    1.358 1.104
81) T   cyclohexanone         0.017 0.018 0.018 0.017 0.020 0.019 ----- #
                    0.019 0.017
                                                        Q  A= -0.000 R=0.999
                                                           B=  0.022
                                                           C= -0.014

82) I   d4-1,4-DICHLOROBENZEN ----------------ISTD--------------------
83) S   SURR4BrFBenz    0.989 0.999 0.996 0.992 0.985 0.978 0.984 0.990   0.70
                    0.996 0.988
84) T   Bromobenzene    0.670 0.701 0.766 0.706 0.703 0.707 0.689 0.698   4.78
                    0.700 0.641
85) PT  1122Tetrclta    0.858 0.956 0.873 0.875 0.810 0.790 0.797 0.830   8.35
                    0.794 0.714
86) T   123Triclproa          1.040 1.021 1.013 0.986 1.028 1.026 1.013   2.52
                    1.027 0.964
87) T   14dichloro2bute       0.210 0.220 0.226 0.222 0.243 0.252 0.234   6.83
                    0.248 0.249
88) T   n-Propylbenz    3.107 3.390 3.380 3.283 3.318 3.148 2.937 3.065  12.12
                    2.785 2.238
89) T   2chlorotolue    2.081 2.188 2.004 2.074 1.967 1.932 1.857 1.940   9.72
                    1.812 1.544
```

90)	T	4chlorotolue	2.229	2.472	2.378	2.421	2.294	2.204	2.127	2.210	10.37
			2.043	1.723							
91)	T	135Trimebenz	2.107	2.276	2.364	2.369	2.353	2.291	2.162	2.197	8.94
			2.088	1.760							
92)	T	tbutylbenzen	1.711	1.875	1.935	1.942	1.980	1.955	1.886	1.857	6.95
			1.838	1.588							
93)	T	124Trimetben	2.103	2.255	2.224	2.291	2.265	2.217	2.119	2.138	8.25
			2.044	1.724							
94)	T	sbutylbenzen	2.395	2.703	2.789	2.877	2.879	2.790	2.653	2.631	10.15
			2.533	2.059							
95)	PT	13Diclorbenz	1.314	1.358	1.286	1.325	1.276	1.275	1.218	1.260	6.60
			1.211	1.078							
96)	T	pIsopropylto	2.097	2.309	2.440	2.416	2.420	2.363	2.244	2.254	8.98
			2.183	1.813							
97)	PT	14dichlorobe	1.353	1.385	1.380	1.385	1.300	1.298	1.250	1.297	7.40
			1.225	1.095							
98)	PT	12dichlorobe	1.356	1.355	1.284	1.266	1.205	1.198	1.163	1.221	8.86
			1.144	1.017							
99)	T	nButylbenzen	2.054	2.211	2.211	2.211	2.240	2.160	2.077	2.096	8.22
			2.011	1.691							
100)	PT	12dibromo3cl		0.152	0.139	0.155	0.145	0.162	0.164	0.157	7.20
			0.171	0.169							
101)	T	135Trichloroben	1.030	1.033	0.999	0.987	0.981	0.980	0.967	0.980	4.75
			0.969	0.873							
102)	PT	124Trichlobe	0.729	0.795	0.768	0.783	0.764	0.803	0.790	0.775	3.59
			0.805	0.737							
103)	T	Hexachlorobu	0.297	0.332	0.324	0.336	0.358	0.367	0.369	0.346	7.40
			0.368	0.367							
104)	T	Naphthalene	1.446	1.705	1.682	1.701	1.701	1.861	1.783	1.709	7.19
			1.791								
105)	T	123Trichlben	0.750	0.755	0.736	0.748	0.722	0.755	0.736	0.737	2.94
			0.746	0.687							

Total Average %RSD 7.22

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range

W042822.M Mon May 02 08:17:35 2022

Data File : C:\Instarch\Data\APR2822\BFB1.D Vial: 1
Acq On : 28 Apr 2022 13:26 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.669 to 4.681 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	15244	PASS
75	95	30	60	45.7	41194	PASS
95	95	100	100	100.0	90050	PASS
96	95	5	9	6.2	5584	PASS
173	174	0.00	2	0.8	543	PASS
174	95	50	100	79.3	71393	PASS
175	174	5	9	7.7	5521	PASS
176	174	95	101	95.1	67885	PASS
177	176	5	9	6.7	4548	PASS

W042822.M Mon May 02 08:14:16 2022

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL1.D Vial: 4
Acq On : 28 Apr 2022 14:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 14:59:43 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1303049	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1053630	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	571697	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	353661	20.660	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.26	102	92678	20.027	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.71	98	1362861	20.406	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	565447	20.024	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	6377	0.4145	ug/L #	41
3) Chloromethan	2.10	50	8305	0.5191	ug/L	89
4) VinylChlorid	2.24	62	7136	0.4615	ug/L	95
5) Bromomethane	2.70	94	5696	0.6548	ug/L	94
6) Chloroethane	2.87	64	4659	0.4779	ug/L #	42
7) Dichloroflmethane	3.20	67	17277	0.5181	ug/L #	92
8) Trichlorofma	3.27	101	10468	0.4558	ug/L #	95
9) Ethylether	3.71	59	6513	0.5148	ug/L	92
10) dichlorotfluoroethan	3.72	67	13129	0.4310	ug/L	96
11) propyleneoxide	3.76	58	20432	4.7796	ug/L	94
12) Acrolein	3.84	56	9080	2.5410	ug/L	96
13) 11dichlorthe	3.98	96	7416	0.4778	ug/L	96
14) Trichlorotfluoroeth	4.02	101	10521	0.7813	ug/L	93
15) Acetone	4.06	43	38979	6.2872	ug/L	96
16) Iodomethane	4.16	142	14157	0.8247	ug/L #	82
17) Carbon Dislf	4.25	76	32696	1.0472	ug/L	100
18) allylchloride	4.47	41	28363	1.0749	ug/L	99
19) methylacetate	4.53	74	3446	0.7029	ug/L #	37
20) Methylchlorid	4.63	84	13017	0.6824	ug/L	93
21) tbutylalcohol	4.84	59	43056	24.5116	ug/L	95
22) Acrylonitrile	4.94	53	20767	2.6116	ug/L	98
23) t12dichlorte	5.01	96	9976	0.5597	ug/L	87
24) MtBE	5.04	73	21454	0.5191	ug/L	96
25) Hexane	5.40	57	19555	0.7485	ug/L	98
26) 11dichlorota	5.54	63	17052	0.5632	ug/L #	90
27) Vinylacetate	5.62	43	152686	3.3202	ug/L	96
28) chloroprene	5.66	53	24051	0.9025	ug/L	95
29) Diisopether	5.68	45	24158	0.4854	ug/L	100
30) ETBE	6.13	59	20414	0.4977	ug/L	96
31) 22dichloropr	6.27	77	8887	0.4929	ug/L #	76
32) c12dichlorte	6.26	96	9160	0.4740	ug/L	91
33) 2Butanone	6.29	72	11404	4.3647	ug/L	85
34) propionitrile	6.32	54	16648	4.9231	ug/L	94
35) Ethylacetate	0.00	88	0	N.D.		
36) methacrylonitrile	6.53	67	9186	0.9613	ug/L	94
37) Bromochlorma	6.55	128	4989	0.5755	ug/L	94
38) Tetrahydofur	6.64	42	30467	5.4889	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL1.D Vial: 4
Acq On : 28 Apr 2022 14:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 14:59:43 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	16021	0.5378	ug/L		92
40)	111trichlota	6.91	97	11835	0.4885	ug/L		93
42)	Cyclohexane	6.99	56	8844	0.3856	ug/L	#	82
43)	Carbtetraclo	7.13	119	7925	0.4320	ug/L		89
44)	11dicloprope	7.11	110	3915	0.4644	ug/L		93
46)	Benzene	7.36	78	38721	0.5588	ug/L		96
47)	12dichlorota	7.35	62	12217	0.5385	ug/L	#	91
48)	TAME	7.52	73	18193	0.4851	ug/L		87
49)	trichloroete	8.16	95	9693	0.5328	ug/L		94
50)	methylcyclohexane	8.43	83	11475	0.5992	ug/L		94
51)	12dicloropra	8.42	63	9517	0.5078	ug/L	#	95
52)	23Dicl1propene	8.48	75	14273	0.5050	ug/L		94
53)	Dibromometha	8.56	93	5586	0.5240	ug/L		95
54)	methylmethacrylate	8.58	69	7018	0.5012	ug/L	#	43
55)	14dioxane	8.60	88	6790	25.4399	ug/L	#	86
56)	Bromodiclrma	8.76	83	12419	0.5559	ug/L	#	93
57)	2Nitropropane	9.02	43	23604	4.8997	ug/L		93
58)	2CLEVE	9.16	63	10910	1.7266	ug/L		97
59)	c13dicloproe	9.34	75	13456	0.5232	ug/L		93
60)	4Meth2Pentan	9.54	43	84051	2.0006	ug/L		96
62)	Toluene	9.78	92	23692	0.5326	ug/L		88
63)	t13Dicloprop	10.05	75	11241	0.5545	ug/L		96
64)	ethylmethacrylate	10.20	69	22773	0.9322	ug/L		97
65)	112Triclotha	10.28	83	6628	0.4859	ug/L		90
66)	Tetrachlorte	10.52	166	8437	0.4429	ug/L		91
67)	13Diclorpropa	10.51	76	15238	0.5471	ug/L		94
69)	2Hexanone	10.63	43	58046	4.7237	ug/L		97
70)	Clorodibrmta	10.81	129	9545	0.5531	ug/L	#	85
71)	12Dibrometha	10.97	107	8077	0.4958	ug/L		96
72)	Chlorobenzen	11.65	112	28957	0.5675	ug/L	#	70
73)	1Clhexane	11.63	91	12893	0.4839	ug/L	#	41
74)	1112Tetclota	11.76	131	7616	0.4883	ug/L		94
75)	Ethylbenzene	11.82	91	40864	0.5056	ug/L		97
76)	m p-Xylene	11.98	106	31475	0.9897	ug/L		93
77)	o-Xylene	12.52	106	15320	0.4911	ug/L	#	85
78)	Styrene	12.54	104	24889	0.4875	ug/L		97
79)	Bromoform	12.76	173	5370	0.4536	ug/L		89
80)	Isopropylben	13.05	105	37577	0.4934	ug/L		93
81)	cyclohexanone	13.13	55	8165	23.8751	ug/L	#	89
84)	Bromobenzene	13.45	156	9581	0.4659	ug/L	#	84
85)	1122Tetrclta	13.42	83	12263	0.5131	ug/L		96
86)	123Triclproa	13.49	75	14863	0.5194	ug/L		94
87)	14dichloro2butene	0.00	53	0	N.D.			
88)	n-Propylbenz	13.64	91	44405	0.5001	ug/L		98
89)	2chlorotolue	13.74	91	29744	0.5253	ug/L		100
90)	4chlorotolue	13.90	91	31854	0.5049	ug/L		98
91)	135Trimebenz	13.89	105	30108	0.4744	ug/L		93
92)	tbutylbenzen	14.36	119	24448	0.4482	ug/L		97
93)	124Trimetben	14.43	105	30060	0.4842	ug/L		97
94)	sbutylbenzen	14.68	105	34231	0.4454	ug/L		96
95)	13Diclorbenz	14.82	146	18777	0.5152	ug/L		97
96)	pIsopropylto	14.89	119	29967	0.4592	ug/L	#	98
97)	14dichlorobe	14.94	146	19331	0.5171	ug/L	#	62
98)	12dichlorobe	15.47	146	19384	0.5665	ug/L	#	70
99)	nButylbenzen	15.49	91	29355	0.4824	ug/L		96
100)	12dibromo3cl	0.00	157	0	N.D.			
101)	135Trichlorobenzene	16.91	180	14717	0.5166	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL1.D Vial: 4
Acq On : 28 Apr 2022 14:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 14:59:43 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
102) 124Trichlobe	17.72	180	10413	0.4698	ug/L		98
103) Hexachlorobu	17.96	225	4241	0.4206	ug/L		81
104) Naphthalene	18.02	128	20660	0.4124	ug/L	#	90
105) 123Trichlben	18.33	180	10716	0.5076	ug/L		89

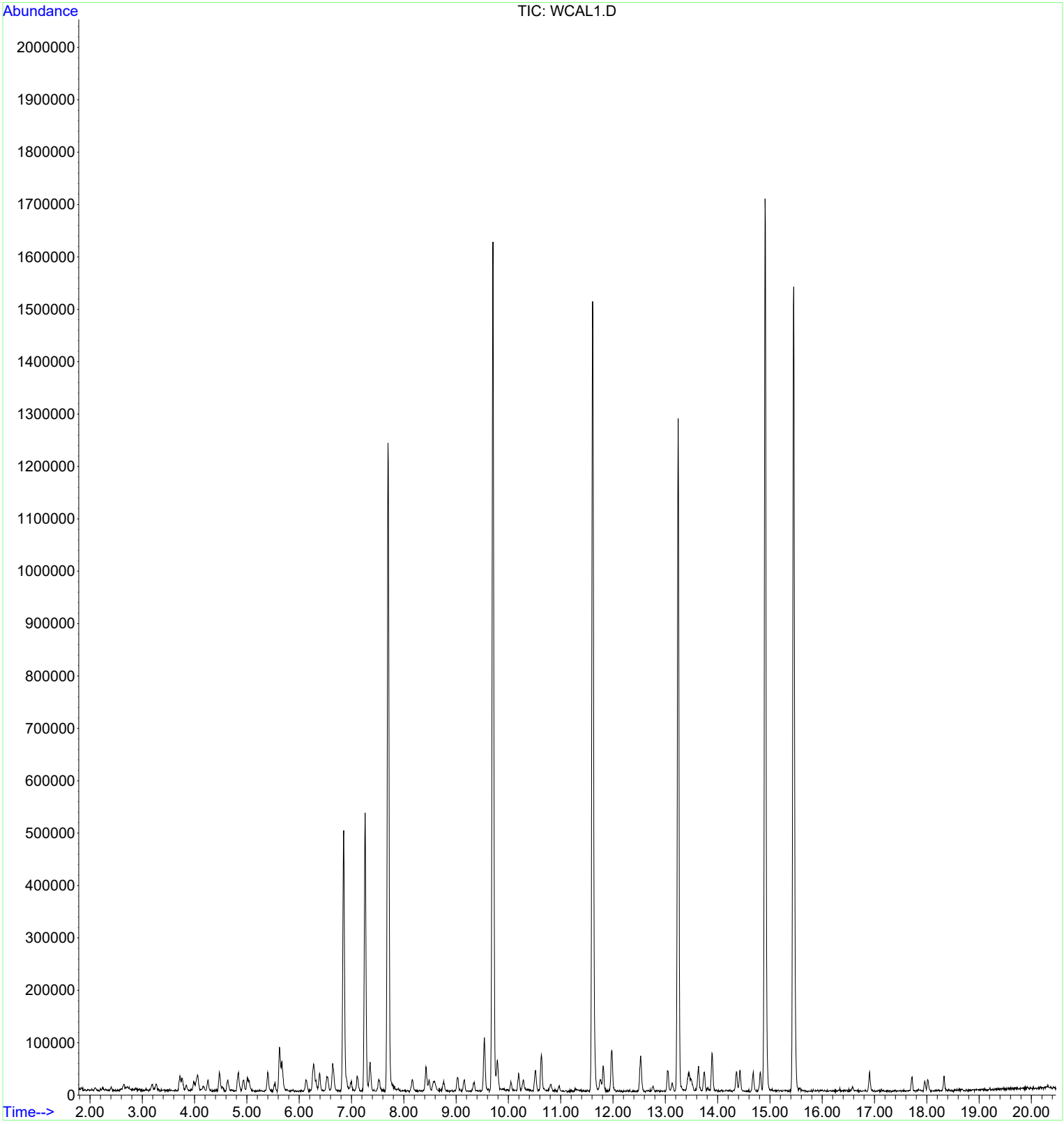
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL1.D Vial: 4
Acq On : 28 Apr 2022 14:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT1 Inst : VMS3
Misc : 0.5/5.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 14:59:43 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL2.D Vial: 5
Acq On : 28 Apr 2022 15:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 15:29:52 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1321574	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1070635	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	579343	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	352423	20.299	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	93704	19.965	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 100	%		
61) SURRd8Tolule	9.71	98	1387509	20.484	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	578866	20.228	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	17589	1.1272	ug/L	92
3) Chloromethan	2.11	50	15429	0.9508	ug/L	98
4) VinylChlorid	2.24	62	17800	1.1351	ug/L	98
5) Bromomethane	2.70	94	11459	1.2987	ug/L	96
6) Chloroethane	2.87	64	13066	1.3216	ug/L	85
7) Dichloroflmethane	3.18	67	38016	1.1241	ug/L	98
8) Trichlorofma	3.26	101	26905	1.1551	ug/L	96
9) Ethylether	3.71	59	10765	0.8390	ug/L #	82
10) dichlorotfluoroethan	3.73	67	34106	1.1040	ug/L	95
11) propyleneoxide	3.76	58	48695	11.2315	ug/L	98
12) Acrolein	3.84	56	20352	5.6155	ug/L	89
13) 11dichlorthe	3.98	96	16659	1.0584	ug/L	94
14) Trichlorotfluoroeth	4.03	101	29527	2.1620	ug/L	96
15) Acetone	4.06	43	80206	12.7556	ug/L	99
16) Iodomethane	4.16	142	28498	1.6369	ug/L	95
17) Carbon Dislf	4.26	76	71969	2.2726	ug/L	98
18) allylchloride	4.47	41	60463	2.2593	ug/L	98
19) methylacetate	4.53	74	5255	1.0569	ug/L #	37
20) Methylchlorid	4.63	84	23604	1.2200	ug/L	97
21) tbutylalcohol	4.83	59	96045	53.9115	ug/L	95
22) Acrylonitrile	4.93	53	45005	5.5804	ug/L	95
23) t12dichlorte	5.01	96	19396	1.0730	ug/L	92
24) MtBE	5.04	73	45192	1.0781	ug/L	97
25) Hexane	5.40	57	55523	2.0955	ug/L	97
26) 11dichlorota	5.53	63	35749	1.1642	ug/L	95
27) Vinylacetate	5.62	43	309287	9.4939	ug/L	96
28) chloroprene	5.66	53	55224	2.0431	ug/L	94
29) Diisopether	5.68	45	54173	1.0733	ug/L	94
30) ETBE	6.13	59	41689	1.0021	ug/L	98
31) 22dichloropr	6.27	77	18647	1.0198	ug/L	91
32) c12dichlorte	6.27	96	21143	1.0788	ug/L	93
33) 2Butanone	6.29	72	28873	10.8958	ug/L	100
34) propionitrile	6.32	54	38013	11.0836	ug/L	99
35) Ethylacetate	6.40	88	4012	4.8095	ug/L #	92
36) methacrylonitrile	6.53	67	20729	2.1389	ug/L	97
37) Bromochlorma	6.55	128	10651	1.2114	ug/L	90
38) Tetrahydofur	6.64	42	64756	11.5028	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL2.D Vial: 5
Acq On : 28 Apr 2022 15:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 15:29:52 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	37160	1.2299	ug/L		90
40)	111trichlota	6.91	97	27374	1.1141	ug/L		97
42)	Cyclohexane	6.99	56	23248	0.9995	ug/L		95
43)	Carbtetraclo	7.12	119	19549	1.0508	ug/L		96
44)	11dicloprope	7.11	110	9181	1.0738	ug/L		97
46)	Benzene	7.36	78	81609	1.1612	ug/L		99
47)	12dichlorota	7.35	62	27573	1.1984	ug/L	#	90
48)	TAME	7.53	73	38232	1.0051	ug/L		97
49)	trichloroete	8.17	95	19637	1.0643	ug/L		99
50)	methylcyclohexane	8.43	83	36014	1.1901	ug/L		97
51)	12dicloropra	8.42	63	22867	1.2031	ug/L		84
52)	23Dicl1propene	8.48	75	30151	1.0519	ug/L		93
53)	Dibromometha	8.56	93	12191	1.1276	ug/L		99
54)	methylmethacrylate	8.59	69	12410	0.8739	ug/L		96
55)	14dioxane	8.60	88	15946	58.9069	ug/L		99
56)	Bromodiclrma	8.76	83	25633	1.1314	ug/L	#	92
57)	2Nitropropane	9.02	43	51727	10.5868	ug/L		99
58)	2CLEVE	9.15	63	26631	4.1556	ug/L		96
59)	c13dicloproe	9.34	75	26544	1.0177	ug/L		98
60)	4Meth2Pentan	9.54	43	185801	8.2276	ug/L		94
62)	Toluene	9.79	92	51890	1.1502	ug/L		97
63)	t13Dicloprop	10.05	75	20550	0.9994	ug/L		97
64)	ethylmethacrylate	10.20	69	48931	1.9749	ug/L		99
65)	112Triclotha	10.28	83	14781	1.0683	ug/L		93
66)	Tetrachlorte	10.52	166	21348	1.1050	ug/L		97
67)	13Diclorpropa	10.52	76	33619	1.1901	ug/L		91
69)	2Hexanone	10.63	43	132504	10.6116	ug/L		95
70)	Clorodibrmta	10.81	129	17817	1.0160	ug/L		94
71)	12Dibrometha	10.97	107	17637	1.0654	ug/L		99
72)	Chlorobenzen	11.65	112	56141	1.0827	ug/L		88
73)	1Clhexane	11.63	91	25455	0.9403	ug/L	#	68
74)	1112Tetclota	11.76	131	15532	0.9801	ug/L		86
75)	Ethylbenzene	11.82	91	94476	1.1503	ug/L		96
76)	m p-Xylene	11.98	106	66983	2.0727	ug/L		91
77)	o-Xylene	12.53	106	32113	1.0132	ug/L		98
78)	Styrene	12.53	104	49948	0.9629	ug/L		99
79)	Bromoform	12.77	173	11707	0.9731	ug/L		94
80)	Isopropylben	13.05	105	79823	1.0316	ug/L		98
81)	cyclohexanone	13.12	55	18200	32.3432	ug/L	#	94
84)	Bromobenzene	13.45	156	20303	0.9742	ug/L	#	81
85)	1122Tetrclta	13.42	83	27702	1.1437	ug/L		99
86)	123Triclproa	13.49	75	30132	1.0391	ug/L		98
87)	14dichloro2butene	13.51	53	6087	0.9396	ug/L		97
88)	n-Propylbenz	13.64	91	98202	1.0914	ug/L		95
89)	2chlorotolue	13.74	91	63386	1.1047	ug/L		96
90)	4chlorotolue	13.90	91	71599	1.1198	ug/L		97
91)	135Trimebenz	13.89	105	65938	1.0252	ug/L		98
92)	tbutylbenzen	14.35	119	54325	0.9828	ug/L		96
93)	124Trimetben	14.43	105	65332	1.0384	ug/L		97
94)	sbutylbenzen	14.68	105	78309	1.0055	ug/L		98
95)	13Diclorbenz	14.82	146	39343	1.0653	ug/L		96
96)	pIsopropylto	14.90	119	66890	1.0114	ug/L	#	99
97)	14dichlorobe	14.94	146	40114	1.0590	ug/L		85
98)	12dichlorobe	15.49	146	39238	1.1317	ug/L		85
99)	nButylbenzen	15.49	91	64044	1.0385	ug/L		98
100)	12dibromo3cl	16.57	157	4412	0.9821	ug/L		99
101)	135Trichlorobenzene	16.90	180	29916	1.0363	ug/L		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL2.D Vial: 5
Acq On : 28 Apr 2022 15:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 15:29:52 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	23038	1.0257	ug/L	97
103) Hexachlorobu	17.96	225	9613	0.9408	ug/L	94
104) Naphthalene	18.02	128	49388	0.9729	ug/L	97
105) 123Trichlben	18.33	180	21878	1.0226	ug/L	98

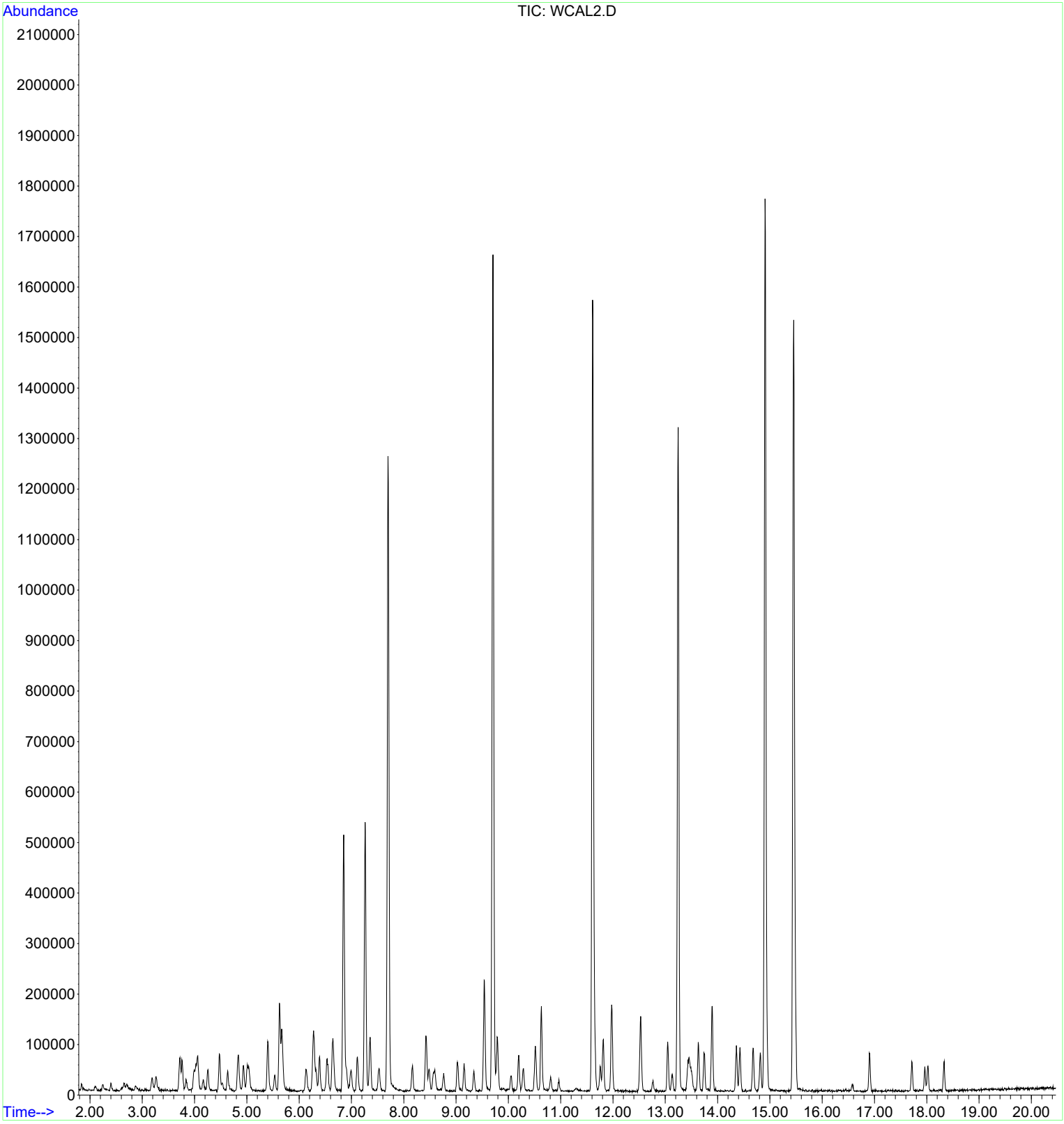
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL2.D Vial: 5
Acq On : 28 Apr 2022 15:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT2 Inst : VMS3
Misc : 1.00/10.00 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 15:29:52 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL3.D Vial: 6
Acq On : 28 Apr 2022 15:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:00:12 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1325013	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1082132	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	589362	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	347142	19.943 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.26	102	96664	20.542 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103 %		
61) SURRd8Tolule	9.70	98	1395213	20.544 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103 %		
83) SURR4BrFBenz	13.25	95	586903	20.161 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	37006	2.3655 ug/L	100
3) Chloromethan	2.10	50	33406	2.0533 ug/L	99
4) VinylChlorid	2.24	62	33918	2.1574 ug/L	90
5) Bromomethane	2.70	94	19813	2.2398 ug/L	99
6) Chloroethane	2.88	64	22461	2.2659 ug/L	98
7) Dichloroflmethane	3.19	67	72426	2.1359 ug/L	98
8) Trichlorofma	3.27	101	54724	2.3434 ug/L	94
9) Ethylether	3.71	59	26688	2.0746 ug/L	94
10) dichlorotfluoroethan	3.72	67	73080	2.3594 ug/L	93
11) propyleneoxide	3.76	58	93975	21.6191 ug/L	99
12) Acrolein	3.84	56	41275	11.3591 ug/L	97
13) 11dichlorthe	3.98	96	34551	2.1893 ug/L	96
14) Trichlorotfluoroeth	4.02	101	58341	4.2608 ug/L	98
15) Acetone	4.06	43	148778	23.5996 ug/L	96
16) Iodomethane	4.17	142	65638	3.7603 ug/L	99
17) Carbon Dislf	4.26	76	141423	4.4543 ug/L	97
18) allylchloride	4.48	41	116133	4.3282 ug/L	98
19) methylacetate	4.53	74	9869	1.9796 ug/L	91
20) Methylchlorid	4.63	84	43960	2.2662 ug/L	98
21) tbutylalcohol	4.83	59	211084	118.1772 ug/L	98
22) Acrylonitrile	4.94	53	90570	11.2010 ug/L	97
23) t12dichlorte	5.00	96	39959	2.2048 ug/L	98
24) MtBE	5.04	73	89388	2.1270 ug/L	97
25) Hexane	5.40	57	121315	4.5667 ug/L	99
26) 11dichlorota	5.54	63	69953	2.2721 ug/L	97
27) Vinylacetate	5.62	43	612715	21.7612 ug/L	96
28) chloroprene	5.67	53	121519	4.4841 ug/L	99
29) Diisopether	5.68	45	103385	2.0430 ug/L	97
30) ETBE	6.13	59	86889	2.0832 ug/L	98
31) 22dichloropr	6.27	77	38535	2.1020 ug/L	100
32) c12dichlorte	6.26	96	41133	2.0933 ug/L	89
33) 2Butanone	6.29	72	56291	21.1873 ug/L	98
34) propionitrile	6.32	54	78912	22.9490 ug/L	100
35) Ethylacetate	6.40	88	8231	9.8416 ug/L #	84
36) methacrylonitrile	6.52	67	42572	4.3814 ug/L	98
37) Bromochlorma	6.55	128	19466	2.2083 ug/L	95
38) Tetrahydofur	6.63	42	130119	23.0534 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL3.D Vial: 6
Acq On : 28 Apr 2022 15:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:00:12 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.65	83	68453	2.2597	ug/L	100
40)	111trichlota	6.90	97	54238	2.2018	ug/L	99
42)	Cyclohexane	6.99	56	50691	2.1737	ug/L	97
43)	Carbtetraclo	7.11	119	41255	2.2118	ug/L	97
44)	11dicloprope	7.11	110	17594	2.0525	ug/L	99
46)	Benzene	7.35	78	162299	2.3033	ug/L	97
47)	12dichlorota	7.36	62	51922	2.2509	ug/L	99
48)	TAME	7.52	73	76705	2.0113	ug/L	95
49)	trichloroete	8.17	95	39349	2.1271	ug/L	98
50)	methylcyclohexane	8.43	83	75880	2.1537	ug/L	97
51)	12dicloropra	8.42	63	41815	2.1943	ug/L	95
52)	23Dicl1propene	8.48	75	59525	2.0713	ug/L	98
53)	Dibromometha	8.56	93	24209	2.2333	ug/L	98
54)	methylmethacrylate	8.59	69	28084	1.9726	ug/L	99
55)	14dioxane	8.60	88	30181	111.2038	ug/L	96
56)	Bromodiclrma	8.76	83	50974	2.2440	ug/L	99
57)	2Nitropropane	9.04	43	104319	21.2953	ug/L	98
58)	2CLEVE	9.15	63	58222	9.0616	ug/L	96
59)	c13dicloproe	9.34	75	53344	2.0398	ug/L	98
60)	4Meth2Pentan	9.54	43	376031	20.0692	ug/L	95
62)	Toluene	9.79	92	105102	2.3237	ug/L	99
63)	t13Dicloprop	10.05	75	42806	2.0764	ug/L	99
64)	ethylmethacrylate	10.20	69	100944	4.0637	ug/L	96
65)	112Triclotha	10.28	83	30246	2.1804	ug/L	95
66)	Tetrachlorte	10.52	166	38857	2.0061	ug/L	95
67)	13Diclorpropa	10.51	76	63717	2.2498	ug/L	98
69)	2Hexanone	10.63	43	280414	22.2184	ug/L	97
70)	Clorodibrmta	10.81	129	36723	2.0718	ug/L	97
71)	12Dibrometha	10.97	107	32921	1.9675	ug/L	98
72)	Chlorobenzen	11.65	112	112724	2.1508	ug/L	94
73)	1Clhexane	11.63	91	49595	1.8125	ug/L	84
74)	1112Tetclota	11.76	131	34438	2.1499	ug/L	98
75)	Ethylbenzene	11.81	91	182019	2.1926	ug/L	98
76)	m p-Xylene	11.98	106	136149	4.1681	ug/L	92
77)	o-Xylene	12.52	106	64170	2.0031	ug/L	98
78)	Styrene	12.53	104	108255	2.0647	ug/L	95
79)	Bromoform	12.76	173	22872	1.8810	ug/L	96
80)	Isopropylben	13.05	105	163481	2.0902	ug/L	100
81)	cyclohexanone	13.13	55	39878	50.5591	ug/L	98
84)	Bromobenzene	13.45	156	45131	2.1286	ug/L	97
85)	1122Tetrclta	13.42	83	51444	2.0879	ug/L	97
86)	123Triclproa	13.48	75	60148	2.0390	ug/L	97
87)	14dichloro2butene	13.52	53	12986	1.9705	ug/L	91
88)	n-Propylbenz	13.63	91	199215	2.1765	ug/L	96
89)	2chlorotolue	13.75	91	118086	2.0230	ug/L	99
90)	4chlorotolue	13.90	91	140129	2.1544	ug/L	97
91)	135Trimebenz	13.89	105	139297	2.1290	ug/L	95
92)	tbutylbenzen	14.37	119	114033	2.0280	ug/L	95
93)	124Trimetben	14.43	105	131070	2.0478	ug/L	98
94)	sbutylbenzen	14.68	105	164366	2.0745	ug/L	99
95)	13Diclorbenz	14.82	146	75767	2.0166	ug/L	99
96)	pIsopropylto	14.90	119	143801	2.1374	ug/L	98
97)	14dichlorobe	14.94	146	81342	2.1108	ug/L	93
98)	12dichlorobe	15.48	146	75672	2.1454	ug/L	95
99)	nButylbenzen	15.49	91	130290	2.0768	ug/L	99
100)	12dibromo3cl	16.57	157	8203	1.7949	ug/L	95
101)	135Trichlorobenzene	16.90	180	58873	2.0048	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL3.D Vial: 6
Acq On : 28 Apr 2022 15:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:00:12 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	45285	1.9819	ug/L	96
103) Hexachlorobu	17.97	225	19088	1.8364	ug/L	94
104) Naphthalene	18.02	128	99132	1.9197	ug/L	99
105) 123Trichlben	18.33	180	43357	1.9920	ug/L	97

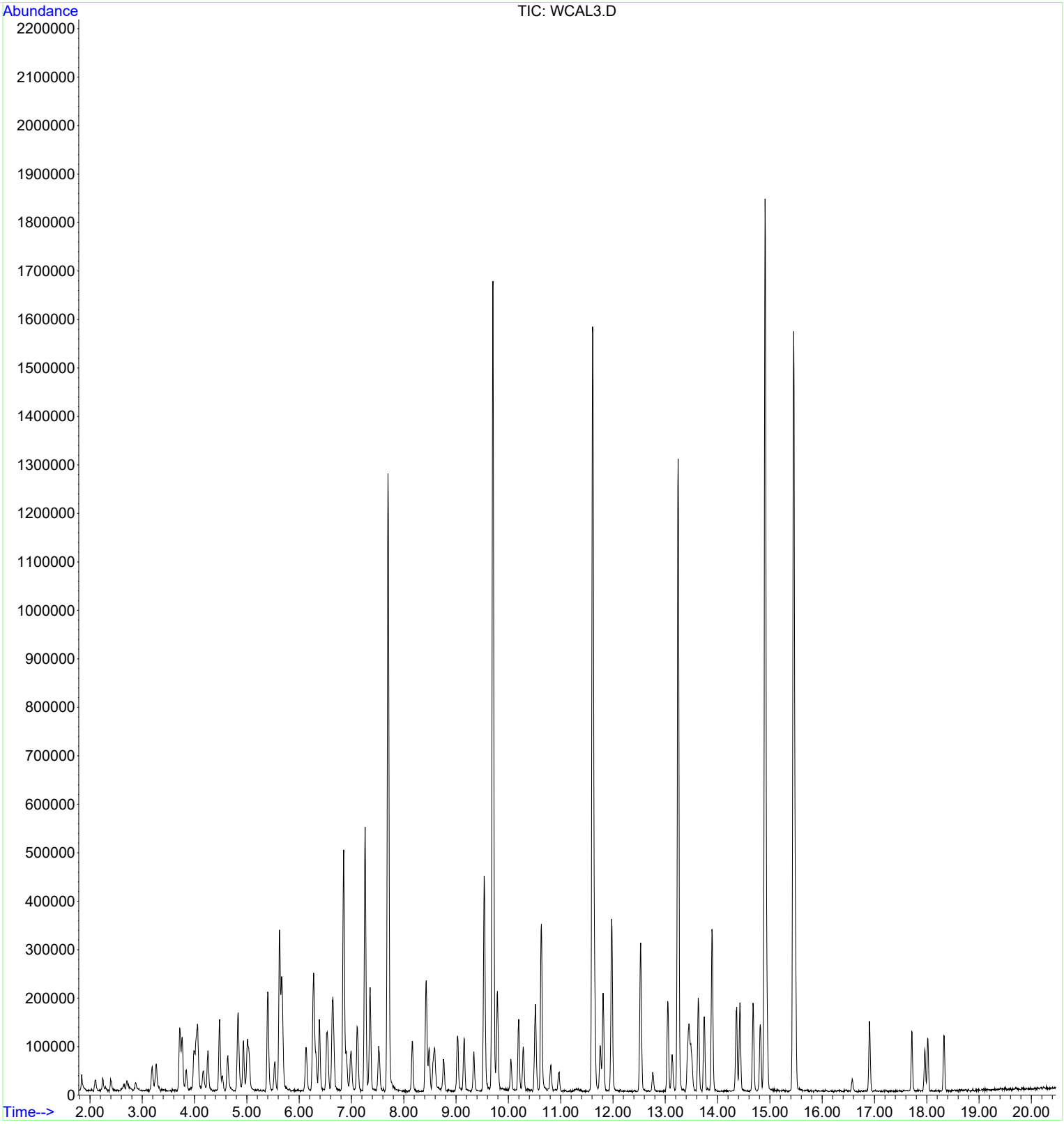
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL3.D Vial: 6
Acq On : 28 Apr 2022 15:39 Operator: DGS-RLD
Sample : INITIAL CALIB. PT3 Inst : VMS3
Misc : 2.00/20.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:00:12 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL4.D Vial: 7
Acq On : 28 Apr 2022 16:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:30:03 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1330321	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1072248	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	603467	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	359053	20.545	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.26	102	96020	20.324	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.70	98	1402623	20.571	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	598672	20.084	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	86765	5.5240	ug/L	95
3) Chloromethan	2.10	50	86957	5.3234	ug/L	96
4) VinylChlorid	2.24	62	83047	5.2611	ug/L	99
5) Bromomethane	2.70	94	47994	5.4038	ug/L	99
6) Chloroethane	2.87	64	53097	5.3351	ug/L	100
7) Dichloroflmethane	3.18	67	187107	5.4960	ug/L	99
8) Trichlorofma	3.27	101	133296	5.6853	ug/L	95
9) Ethylether	3.71	59	68582	5.3099	ug/L	98
10) dichlorotfluoroethan	3.72	67	172437	5.5449	ug/L	98
11) propyleneoxide	3.76	58	245214	56.1867	ug/L	95
12) Acrolein	3.84	56	100011	27.4136	ug/L	99
13) 11dichlorthe	3.98	96	86665	5.4697	ug/L	97
14) Trichlorotfluoroeth	4.02	101	145134	10.5571	ug/L	98
15) Acetone	4.05	43	359017	56.7210	ug/L	98
16) Iodomethane	4.16	142	179944	10.2677	ug/L	99
17) Carbon Dislf	4.26	76	335874	10.5365	ug/L	100
18) allylchloride	4.47	41	293110	10.8804	ug/L	99
19) methylacetate	4.53	74	25858	5.1662	ug/L	96
20) Methylchlorid	4.63	84	106268	5.4565	ug/L	100
21) tbutylalcohol	4.83	59	500230	278.9405	ug/L	98
22) Acrylonitrile	4.93	53	229181	28.2303	ug/L	99
23) t12dichlorte	5.00	96	98099	5.3912	ug/L	98
24) MtBE	5.04	73	218557	5.1798	ug/L	100
25) Hexane	5.40	57	301765	11.3140	ug/L	99
26) 11dichlorota	5.53	63	173918	5.6264	ug/L	98
27) Vinylacetate	5.62	43	1515549	59.8422	ug/L	98
28) chloroprene	5.66	53	306387	11.2608	ug/L	98
29) Diisopether	5.68	45	285523	5.6198	ug/L	100
30) ETBE	6.13	59	223288	5.3320	ug/L	99
31) 22dichloropr	6.27	77	97122	5.2767	ug/L	98
32) c12dichlorte	6.26	96	108680	5.5087	ug/L	99
33) 2Butanone	6.28	72	142430	53.3952	ug/L	97
34) propionitrile	6.32	54	193397	56.0188	ug/L	99
35) Ethylacetate	6.39	88	21122	25.1543	ug/L #	85
36) methacrylonitrile	6.53	67	105461	10.8105	ug/L	96
37) Bromochlorma	6.55	128	47928	5.4154	ug/L	96
38) Tetrahydofur	6.63	42	319936	56.4573	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL4.D Vial: 7
Acq On : 28 Apr 2022 16:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:30:03 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	174521	5.7382 ug/L	96
40)	111trichlota	6.90	97	129568	5.2387 ug/L	99
42)	Cyclohexane	6.99	56	125128	5.3443 ug/L	100
43)	Carbtetraclo	7.12	119	103305	5.5164 ug/L	96
44)	11dicloprope	7.11	110	47880	5.5634 ug/L	96
46)	Benzene	7.36	78	405845	5.7367 ug/L	99
47)	12dichlorota	7.36	62	124470	5.3744 ug/L	97
48)	TAME	7.52	73	202782	5.2960 ug/L	97
49)	trichloroete	8.16	95	100474	5.4097 ug/L	98
50)	methylcyclohexane	8.43	83	189170	4.8947 ug/L	100
51)	12dicloropra	8.42	63	109695	5.7334 ug/L	96
52)	23Dicl1propene	8.48	75	153347	5.3147 ug/L	96
53)	Dibromometha	8.56	93	59840	5.4984 ug/L	99
54)	methylmethacrylate	8.59	69	73737	5.1585 ug/L	96
55)	14dioxane	8.60	88	76082	279.2105 ug/L	97
56)	Bromodiclrma	8.76	83	126235	5.5351 ug/L	98
57)	2Nitropropane	9.02	43	276669	56.2529 ug/L	98
58)	2CLEVE	9.15	63	158865	24.6268 ug/L	96
59)	c13dicloproe	9.34	75	145446	5.5396 ug/L	97
60)	4Meth2Pentan	9.54	43	938651	55.9312 ug/L	97
62)	Toluene	9.79	92	252719	5.5651 ug/L	98
63)	t13Dicloprop	10.05	75	112410	5.4309 ug/L	99
64)	ethylmethacrylate	10.20	69	264011	10.5859 ug/L	98
65)	112Triclotha	10.28	83	76593	5.4996 ug/L	97
66)	Tetrachlorte	10.52	166	106154	5.4585 ug/L	98
67)	13Diclorpropa	10.51	76	165223	5.8105 ug/L	100
69)	2Hexanone	10.63	43	688678	55.0699 ug/L	99
70)	Clorodibrmta	10.81	129	92284	5.2543 ug/L	98
71)	12Dibrometha	10.96	107	86516	5.2181 ug/L	100
72)	Chlorobenzen	11.65	112	280129	5.3943 ug/L	100
73)	1Clhexane	11.63	91	128014	4.7215 ug/L	97
74)	1112Tetclota	11.76	131	85617	5.3943 ug/L	95
75)	Ethylbenzene	11.81	91	456354	5.5480 ug/L	98
76)	m p-Xylene	11.98	106	353321	10.9164 ug/L	96
77)	o-Xylene	12.52	106	168535	5.3093 ug/L	99
78)	Styrene	12.53	104	282286	5.4335 ug/L	99
79)	Bromoform	12.77	173	60325	5.0068 ug/L	95
80)	Isopropylben	13.05	105	424318	5.4753 ug/L	96
81)	cyclohexanone	13.13	55	99083	101.8421 ug/L	99
84)	Bromobenzene	13.45	156	106519	4.9065 ug/L	92
85)	1122Tetrclta	13.42	83	132007	5.2323 ug/L	98
86)	123Triclproa	13.49	75	152866	5.0610 ug/L	99
87)	14dichloro2butene	13.51	53	34067	5.0485 ug/L	95
88)	n-Propylbenz	13.64	91	495282	5.2847 ug/L	100
89)	2chlorotolue	13.75	91	312890	5.2351 ug/L	100
90)	4chlorotolue	13.90	91	365228	5.4838 ug/L	97
91)	135Trimebenz	13.89	105	357445	5.3354 ug/L	97
92)	tbutylbenzen	14.36	119	292964	5.0883 ug/L	99
93)	124Trimetben	14.43	105	345583	5.2732 ug/L	98
94)	sbutylbenzen	14.68	105	434096	5.3508 ug/L	98
95)	13Diclorbenz	14.82	146	199831	5.1944 ug/L	99
96)	pIsopropylto	14.90	119	364421	5.2899 ug/L	99
97)	14dichlorobe	14.94	146	208903	5.2943 ug/L	99
98)	12dichlorobe	15.49	146	191040	5.2896 ug/L	98
99)	nButylbenzen	15.49	91	333558	5.1925 ug/L	100
100)	12dibromo3cl	16.57	157	23442	5.0095 ug/L	84
101)	135Trichlorobenzene	16.90	180	148869	4.9508 ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL4.D Vial: 7
Acq On : 28 Apr 2022 16:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:30:03 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	118191	5.0516	ug/L	99
103) Hexachlorobu	17.96	225	50659	4.7599	ug/L	98
104) Naphthalene	18.02	128	256591	4.8526	ug/L	99
105) 123Trichlben	18.33	180	112808	5.0618	ug/L	97

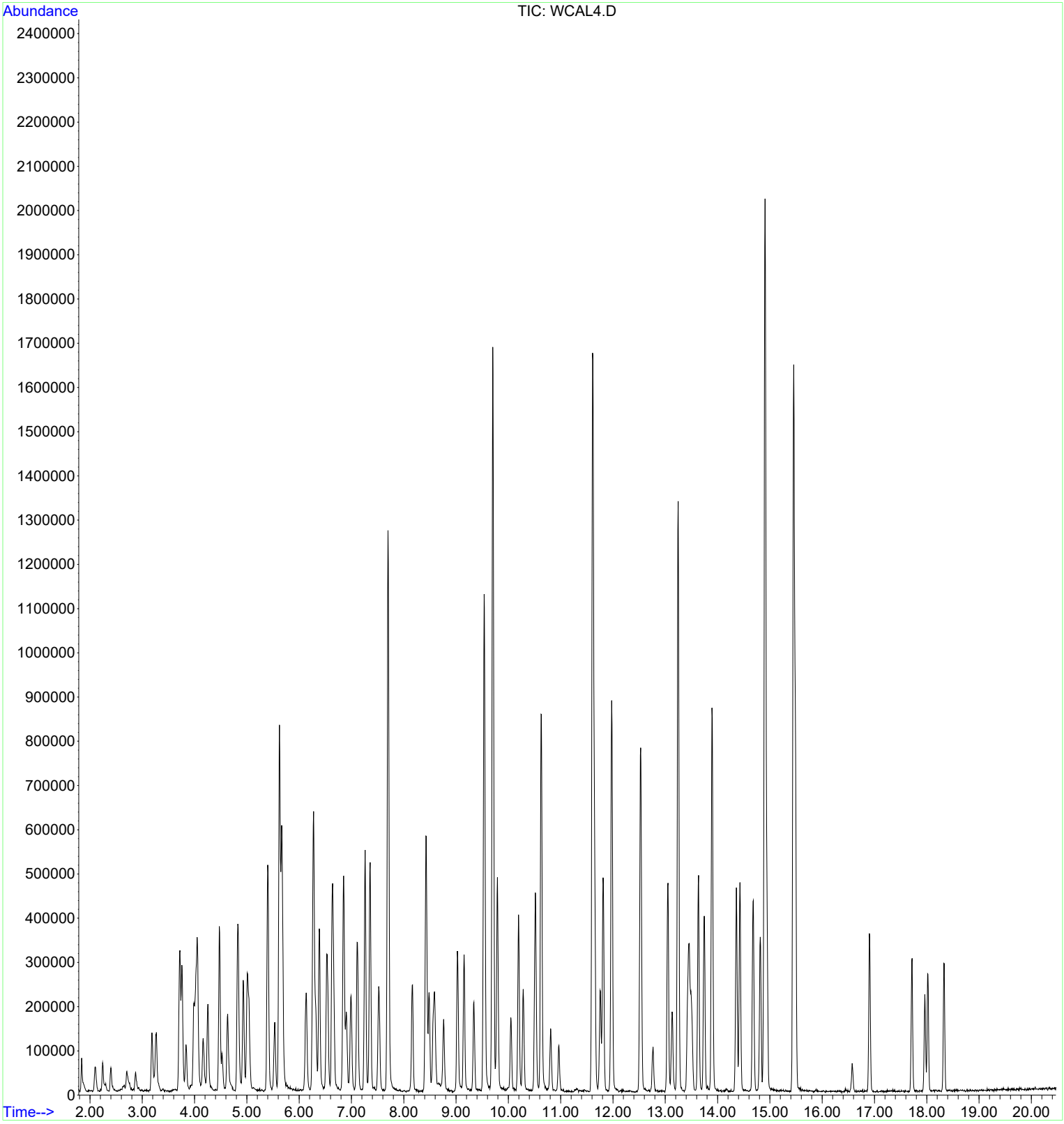
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL4.D Vial: 7
Acq On : 28 Apr 2022 16:09 Operator: DGS-RLD
Sample : INITIAL CALIB. PT4 Inst : VMS3
Misc : 5.00/50.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:30:03 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL5.D Vial: 8
Acq On : 28 Apr 2022 16:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:59:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1360561	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1103594	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	612993	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	359213	20.098	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	99281	20.547	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 103	%		
61) SURRd8Tolule	9.71	98	1440717	20.660	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	603746	19.940	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	185274	11.5334	ug/L	100
3) Chloromethan	2.10	50	166422	9.9617	ug/L	95
4) VinylChlorid	2.24	62	172011	10.6549	ug/L	98
5) Bromomethane	2.71	94	92938	10.2316	ug/L	95
6) Chloroethane	2.87	64	101504	9.9724	ug/L	96
7) Dichloroflmethane	3.18	67	363585	10.4424	ug/L	99
8) Trichlorofma	3.26	101	285402	11.9022	ug/L	97
9) Ethylether	3.71	59	127654	9.6637	ug/L	97
10) dichlorotfluoroethan	3.72	67	357226	11.2317	ug/L	98
11) propyleneoxide	3.76	58	457894	102.5868	ug/L	99
12) Acrolein	3.84	56	190175	50.9695	ug/L	97
13) 11dichlorthe	3.99	96	178803	11.0340	ug/L	99
14) Trichlorotfluoroeth	4.02	101	310589	22.0903	ug/L	98
15) Acetone	4.05	43	655693	101.2903	ug/L	97
16) Iodomethane	4.16	142	375245	20.9358	ug/L	100
17) Carbon Dislf	4.26	76	681714	20.9103	ug/L	100
18) allylchloride	4.48	41	591462	21.4673	ug/L	99
19) methylacetate	4.53	74	45340	8.8572	ug/L	94
20) Methylchlorid	4.63	84	205444	10.3143	ug/L	98
21) tbutylalcohol	4.83	59	941327	513.2404	ug/L	99
22) Acrylonitrile	4.93	53	420945	50.6991	ug/L	97
23) t12dichlorte	5.00	96	199249	10.7067	ug/L	98
24) MtBE	5.04	73	438964	10.1722	ug/L	99
25) Hexane	5.40	57	675827	24.7755	ug/L	99
26) 11dichlorota	5.53	63	342788	10.8431	ug/L	100
27) Vinylacetate	5.62	43	2758550	114.6261	ug/L	100
28) chloroprene	5.67	53	627891	22.5643	ug/L	100
29) Diisopether	5.68	45	555790	10.6961	ug/L	95
30) ETBE	6.13	59	434666	10.1488	ug/L	99
31) 22dichloropr	6.27	77	198938	10.5682	ug/L	98
32) c12dichlorte	6.26	96	210117	10.4136	ug/L	98
33) 2Butanone	6.28	72	269115	98.6454	ug/L	98
34) propionitrile	6.32	54	359593	101.8436	ug/L	99
35) Ethylacetate	6.38	88	42039	48.9518	ug/L	96
36) methacrylonitrile	6.53	67	204100	20.4568	ug/L	100
37) Bromochlorma	6.55	128	95155	10.5126	ug/L	99
38) Tetrahydofur	6.63	42	607819	104.8745	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL5.D Vial: 8
Acq On : 28 Apr 2022 16:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:59:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	328406	10.5579	ug/L	99
40)	111trichlota	6.90	97	274562	10.8544	ug/L	97
42)	Cyclohexane	6.99	56	277111	11.5726	ug/L	98
43)	Carbtetraclo	7.12	119	216984	11.3292	ug/L	100
44)	11dicloprope	7.11	110	97066	11.0278	ug/L	98
46)	Benzene	7.35	78	798479	11.0358	ug/L	99
47)	12dichlorota	7.35	62	251727	10.6275	ug/L	100
48)	TAME	7.52	73	407470	10.4053	ug/L	99
49)	trichloroete	8.16	95	198215	10.4351	ug/L	99
50)	methylcyclohexane	8.43	83	432112	10.6241	ug/L	98
51)	12dicloropra	8.42	63	212147	10.8418	ug/L	94
52)	23Dicl1propene	8.48	75	300044	10.1678	ug/L	98
53)	Dibromometha	8.56	93	114183	10.2584	ug/L	97
54)	methylmethacrylate	8.59	69	142116	9.7211	ug/L	98
55)	14dioxane	8.60	88	136049	488.1840	ug/L	99
56)	Bromodiclrma	8.76	83	248303	10.6454	ug/L	98
57)	2Nitropropane	9.02	43	545117	108.3708	ug/L	98
58)	2CLEVE	9.15	63	311952	47.2831	ug/L	99
59)	c13dicloproe	9.34	75	281964	10.5004	ug/L	100
60)	4Meth2Pentan	9.54	43	1710260	105.3062	ug/L	100
62)	Toluene	9.79	92	501885	10.8063	ug/L	100
63)	t13Dicloprop	10.05	75	227060	10.7262	ug/L	98
64)	ethylmethacrylate	10.19	69	531365	20.8322	ug/L	99
65)	112Triclotha	10.28	83	148119	10.3989	ug/L	99
66)	Tetrachlorte	10.52	166	217914	10.9563	ug/L	97
67)	13Diclorpropa	10.51	76	302781	10.4115	ug/L	99
69)	2Hexanone	10.63	43	1268727	98.5718	ug/L	99
70)	Clorodibrmta	10.81	129	184430	10.2024	ug/L	99
71)	12Dibrometha	10.96	107	168248	9.8594	ug/L	98
72)	Chlorobenzen	11.65	112	537779	10.0616	ug/L	99
73)	1Clhexane	11.63	91	271333	9.7233	ug/L	98
74)	1112Tetclota	11.76	131	169180	10.3564	ug/L	97
75)	Ethylbenzene	11.81	91	901555	10.6491	ug/L	99
76)	m p-Xylene	11.98	106	698797	20.9773	ug/L	100
77)	o-Xylene	12.52	106	346150	10.5949	ug/L	92
78)	Styrene	12.53	104	561036	10.4922	ug/L	100
79)	Bromoform	12.76	173	119257	9.6169	ug/L	98
80)	Isopropylben	13.05	105	849527	10.6506	ug/L	98
81)	cyclohexanone	13.13	55	189205	175.5990	ug/L	99
84)	Bromobenzene	13.46	156	215472	9.7710	ug/L	97
85)	1122Tetrclta	13.42	83	248213	9.6855	ug/L	97
86)	123Triclproa	13.49	75	302155	9.8481	ug/L	97
87)	14dichloro2butene	13.51	53	68181	9.9469	ug/L	98
88)	n-Propylbenz	13.64	91	1017090	10.6837	ug/L	100
89)	2chlorotolue	13.75	91	602845	9.9297	ug/L	99
90)	4chlorotolue	13.90	91	702981	10.3911	ug/L	99
91)	135Trimebenz	13.89	105	721171	10.5972	ug/L	98
92)	tbutylbenzen	14.36	119	606959	10.3780	ug/L	98
93)	124Trimetben	14.43	105	694362	10.4305	ug/L	99
94)	sbutylbenzen	14.68	105	882536	10.7094	ug/L	100
95)	13Diclorbenz	14.82	146	391158	10.0098	ug/L	98
96)	pIsopropylto	14.90	119	741774	10.6003	ug/L	99
97)	14dichlorobe	14.94	146	398331	9.9382	ug/L	98
98)	12dichlorobe	15.48	146	369362	10.0682	ug/L	97
99)	nButylbenzen	15.49	91	686632	10.5228	ug/L	99
100)	12dibromo3cl	16.57	157	44427	9.3465	ug/L	89
101)	135Trichlorobenzene	16.91	180	300577	9.8407	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL5.D Vial: 8
Acq On : 28 Apr 2022 16:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:59:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	234054	9.8483	ug/L	99
103) Hexachlorobu	17.96	225	109736	10.1505	ug/L	98
104) Naphthalene	18.02	128	521206	9.7039	ug/L	99
105) 123Trichlben	18.33	180	221277	9.7747	ug/L	99

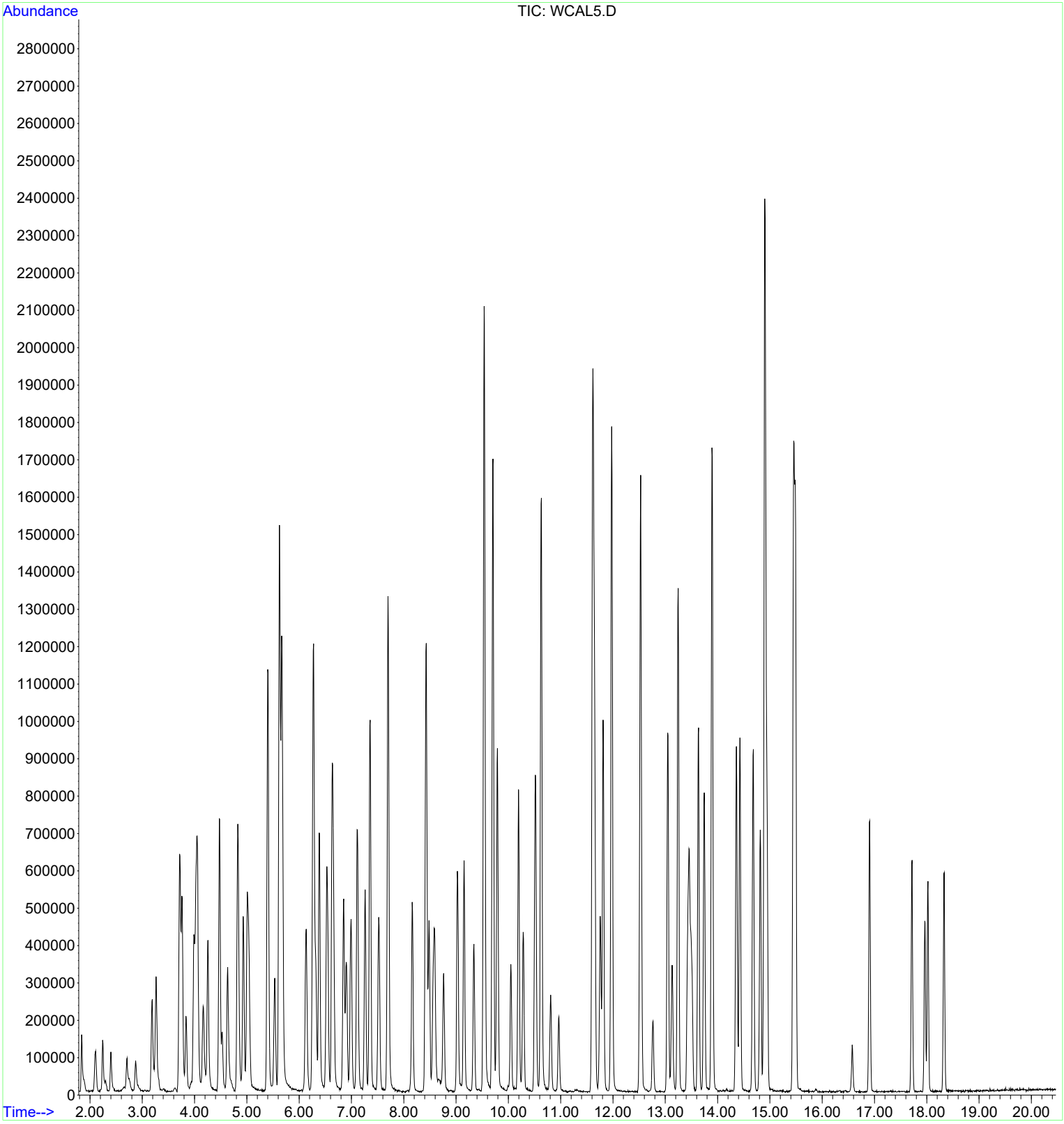
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL5.D Vial: 8
Acq On : 28 Apr 2022 16:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT5 Inst : VMS3
Misc : 10.0/100.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 16:59:06 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL6.D Vial: 9
Acq On : 28 Apr 2022 17:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:28:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1377834	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1099408	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	626982	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	364866	20.158	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	96480	19.717	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.70	98	1435775	20.331	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	612915	19.791	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	384591	23.6409	ug/L	100
3) Chloromethan	2.10	50	328900	19.4406	ug/L	97
4) VinylChlorid	2.25	62	340626	20.8349	ug/L	100
5) Bromomethane	2.70	94	184641	20.0725	ug/L	94
6) Chloroethane	2.87	64	209595	20.3337	ug/L	99
7) Dichloroflmethane	3.19	67	735208	20.8509	ug/L	99
8) Trichlorofma	3.26	101	572839	23.5898	ug/L	98
9) Ethylether	3.71	59	278737	20.8366	ug/L	100
10) dichlorotfluoroethan	3.72	67	719202	22.3293	ug/L	98
11) propyleneoxide	3.76	58	1007116	222.8062	ug/L	100
12) Acrolein	3.84	56	386622	102.3210	ug/L	94
13) 11dichlorthe	3.99	96	374912	22.8458	ug/L	99
14) Trichlorotfluoroeth	4.03	101	632891	44.4493	ug/L	98
15) Acetone	4.06	43	1349629	205.8746	ug/L	99
16) Iodomethane	4.16	142	792516	43.6620	ug/L	98
17) Carbon Dislf	4.26	76	1355427	41.0540	ug/L	99
18) allylchloride	4.47	41	1199892	43.0046	ug/L	99
19) methylacetate	4.53	74	112727	21.7453	ug/L	95
20) Methylchlorid	4.63	84	412000	20.4252	ug/L	98
21) tbutylalcohol	4.83	59	2061354	1109.8238	ug/L	99
22) Acrylonitrile	4.93	53	887361	105.5350	ug/L	98
23) t12dichlorte	5.01	96	402631	21.3643	ug/L	100
24) MtBE	5.03	73	921962	21.0970	ug/L	97
25) Hexane	5.40	57	1358504	49.1778	ug/L	99
26) 11dichlorota	5.53	63	699964	21.8637	ug/L	100
27) Vinylacetate	5.62	43	4074096	180.0952	ug/L	98
28) chloroprene	5.66	53	1261771	44.7754	ug/L	100
29) Diisopether	5.68	45	1107837	21.0529	ug/L	99
30) ETBE	6.13	59	921964	21.2567	ug/L	99
31) 22dichloropr	6.27	77	423551	22.2183	ug/L	99
32) c12dichlorte	6.26	96	438035	21.4374	ug/L	99
33) 2Butanone	6.28	72	596631	215.9564	ug/L	98
34) propionitrile	6.32	54	770995	215.6230	ug/L	99
35) Ethylacetate	6.38	88	93662	107.6964	ug/L	99
36) methacrylonitrile	6.52	67	437357	43.2864	ug/L	100
37) Bromochlorma	6.55	128	198745	21.6819	ug/L	97
38) Tetrahydofur	6.63	42	1253315	213.5390	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL6.D Vial: 9
Acq On : 28 Apr 2022 17:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:28:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	677679	21.5136	ug/L	98
40)	111trichlota	6.90	97	572706	22.3573	ug/L	98
42)	Cyclohexane	6.99	56	569203	23.4728	ug/L	100
43)	Carbtetraclo	7.12	119	463776	23.9112	ug/L	99
44)	11dicloprope	7.11	110	196681	22.0651	ug/L	98
46)	Benzene	7.36	78	1552938	21.1941	ug/L	99
47)	12dichlorota	7.35	62	504408	21.0284	ug/L	98
48)	TAME	7.53	73	875117	22.0672	ug/L	97
49)	trichloroete	8.16	95	427598	22.2288	ug/L	99
50)	methylcyclohexane	8.43	83	894319	21.7199	ug/L	98
51)	12dicloropra	8.42	63	425590	21.4772	ug/L	92
52)	23Dicl1propene	8.48	75	627663	21.0033	ug/L	99
53)	Dibromometha	8.56	93	241480	21.4231	ug/L	97
54)	methylmethacrylate	8.59	69	323506	21.8513	ug/L	99
55)	14dioxane	8.60	88	301953	1069.9135	ug/L	97
56)	Bromodiclrma	8.76	83	515008	21.8030	ug/L	99
57)	2Nitropropane	9.02	43	1160521	227.8225	ug/L	99
58)	2CLEVE	9.15	63	723367	108.2675	ug/L	100
59)	c13dicloproe	9.34	75	593613	21.8291	ug/L	100
60)	4Meth2Pentan	9.54	43	3290507	217.9553	ug/L	95
62)	Toluene	9.79	92	1008497	21.4422	ug/L	97
63)	t13Dicloprop	10.05	75	496889	23.1784	ug/L	99
64)	ethylmethacrylate	10.19	69	1143706	44.2770	ug/L	99
65)	112Triclotha	10.28	83	310401	21.5190	ug/L	98
66)	Tetrachlorte	10.53	166	442207	21.9546	ug/L	99
67)	13Diclorpropa	10.51	76	631263	21.4346	ug/L	100
69)	2Hexanone	10.62	43	2558305	199.5203	ug/L	96
70)	Clorodibrmta	10.81	129	379638	21.0810	ug/L	96
71)	12Dibrometha	10.97	107	360477	21.2046	ug/L	99
72)	Chlorobenzen	11.65	112	1076694	20.2211	ug/L	99
73)	1Clhexane	11.63	91	568036	20.4332	ug/L	96
74)	1112Tetclota	11.76	131	350627	21.5455	ug/L	93
75)	Ethylbenzene	11.81	91	1759560	20.8628	ug/L	98
76)	m p-Xylene	11.98	106	1396596	42.0842	ug/L	94
77)	o-Xylene	12.52	106	705395	21.6728	ug/L	89
78)	Styrene	12.53	104	1141961	21.4376	ug/L	99
79)	Bromoform	12.77	173	262391	21.2399	ug/L	98
80)	Isopropylben	13.05	105	1682321	21.1718	ug/L	97
81)	cyclohexanone	13.13	55	443826	398.0960	ug/L	99
84)	Bromobenzene	13.45	156	443188	19.6487	ug/L	96
85)	1122Tetrclta	13.43	83	495315	18.8964	ug/L	98
86)	123Triclproa	13.49	75	644458	20.5361	ug/L	100
87)	14dichloro2butene	13.51	53	152419	21.7402	ug/L	99
88)	n-Propylbenz	13.64	91	1973950	20.2721	ug/L	97
89)	2chlorotolue	13.75	91	1211170	19.5045	ug/L	98
90)	4chlorotolue	13.90	91	1381817	19.9696	ug/L	98
91)	135Trimebenz	13.89	105	1436139	20.6325	ug/L	99
92)	tbutylbenzen	14.36	119	1225617	20.4886	ug/L	98
93)	124Trimetben	14.43	105	1390077	20.4153	ug/L	98
94)	sbutylbenzen	14.68	105	1749493	20.7561	ug/L	98
95)	13Diclorbenz	14.82	146	799208	19.9955	ug/L	98
96)	pIsopropylto	14.90	119	1481632	20.7008	ug/L	98
97)	14dichlorobe	14.94	146	813789	19.8507	ug/L	99
98)	12dichlorobe	15.48	146	751373	20.0242	ug/L	98
99)	nButylbenzen	15.49	91	1354531	20.2953	ug/L	95
100)	12dibromo3cl	16.58	157	101533	20.8837	ug/L	93
101)	135Trichlorobenzene	16.91	180	614172	19.6590	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL6.D Vial: 9
Acq On : 28 Apr 2022 17:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:28:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	503671	20.7201	ug/L	100
103) Hexachlorobu	17.96	225	229938	20.7946	ug/L	97
104) Naphthalene	18.02	128	1166761	21.2382	ug/L	99
105) 123Trichlben	18.33	180	473069	20.4311	ug/L	99

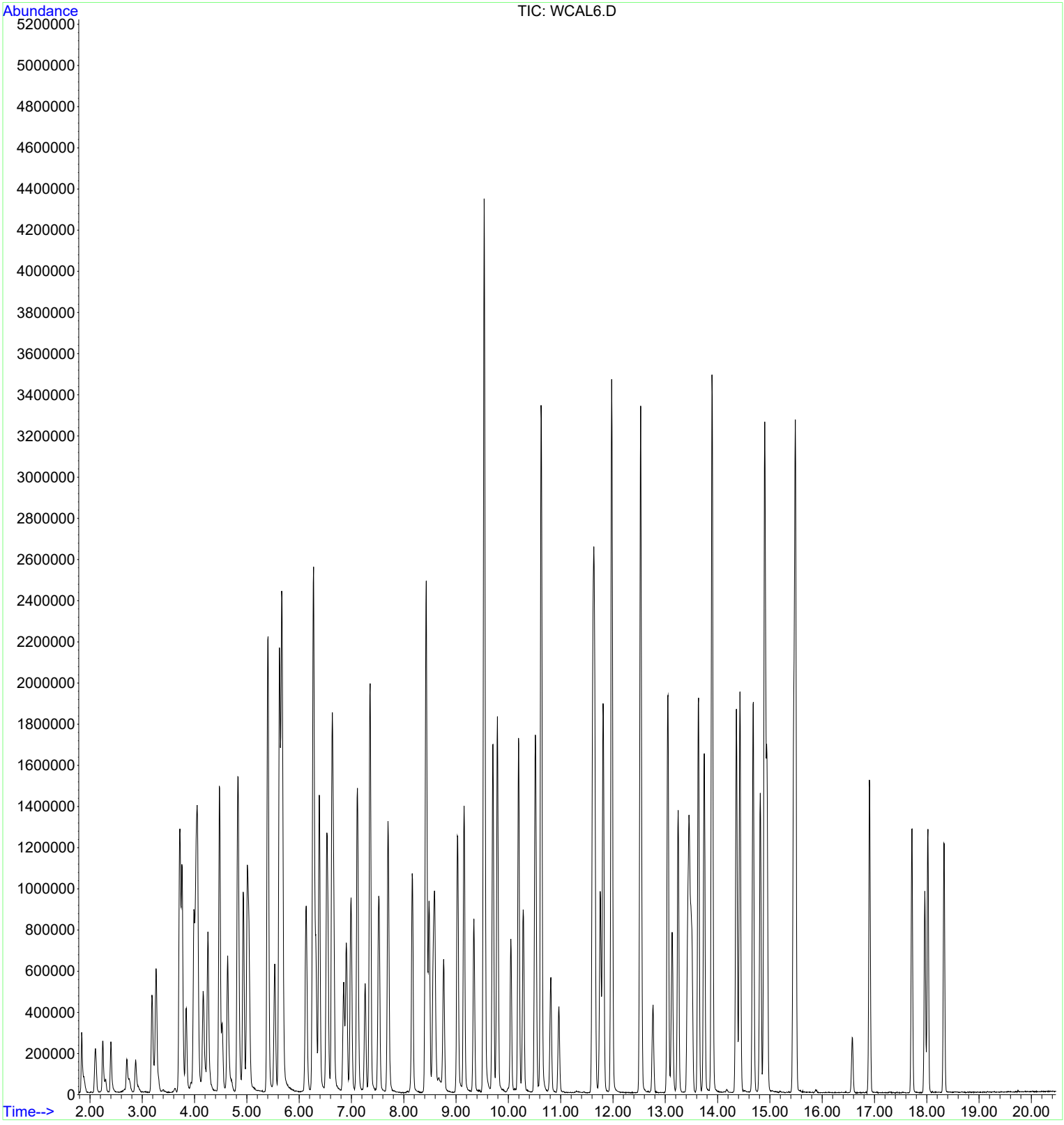
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL6.D Vial: 9
Acq On : 28 Apr 2022 17:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT6 Inst : VMS3
Misc : 20.0/200.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:28:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL7.D Vial: 10
Acq On : 28 Apr 2022 17:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:59:29 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1430492	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1137372	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	641098	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	378604	20.147	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	100268	19.737	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1481284	20.203	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	630685	19.916	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	565421	33.4772	ug/L	100
3) Chloromethan	2.10	50	489287	27.8561	ug/L	99
4) VinylChlorid	2.24	62	509685	30.0281	ug/L	100
5) Bromomethane	2.70	94	284231	29.7616	ug/L	96
6) Chloroethane	2.87	64	311282	29.0871	ug/L	97
7) Dichloroflmethane	3.18	67	1099644	30.0385	ug/L	97
8) Trichlorofma	3.26	101	825561	32.7456	ug/L	99
9) Ethylether	3.71	59	431095	31.0396	ug/L	98
10) dichlorotfluoroethan	3.72	67	1064234	31.8253	ug/L	99
11) propyleneoxide	3.76	58	1469002	313.0268	ug/L	97
12) Acrolein	3.84	56	603950	153.9539	ug/L	99
13) 11dichlorthe	3.99	96	563387	33.0671	ug/L	100
14) Trichlorotfluoroeth	4.03	101	937904	63.4462	ug/L	96
15) Acetone	4.05	43	1959766	287.9414	ug/L	98
16) Iodomethane	4.16	142	1224759	64.9917	ug/L	98
17) Carbon Dislf	4.25	76	1990941	58.0830	ug/L	96
18) allylchloride	4.47	41	1766181	60.9704	ug/L	97
19) methylacetate	4.52	74	168600	31.3261	ug/L	93
20) Methylchlorid	4.63	84	628183	29.9962	ug/L	97
21) tbutylalcohol	4.83	59	3063249	1588.5292	ug/L	99
22) Acrylonitrile	4.93	53	1313519	150.4679	ug/L	98
23) t12dichlorte	5.01	96	615020	31.4327	ug/L	98
24) MtBE	5.03	73	1407256	31.0165	ug/L	97
25) Hexane	5.40	57	1974336	68.8400	ug/L	98
26) 11dichlorota	5.53	63	1051887	31.6466	ug/L	99
27) Vinylacetate	5.62	43	6547307	334.2565	ug/L	91
28) chloroprene	5.67	53	1842132	62.9638	ug/L	98
29) Diisopether	5.68	45	1657189	30.3333	ug/L	96
30) ETBE	6.13	59	1394443	30.9666	ug/L	96
31) 22dichloropr	6.27	77	664666	33.5831	ug/L	98
32) c12dichlorte	6.26	96	665085	31.3510	ug/L	100
33) 2Butanone	6.28	72	886864	309.1923	ug/L	97
34) propionitrile	6.32	54	1124835	303.0008	ug/L	99
35) Ethylacetate	6.39	88	146808	162.5918	ug/L	95
36) methacrylonitrile	6.52	67	647577	61.7331	ug/L	99
37) Bromochlorma	6.55	128	303176	31.8572	ug/L	97
38) Tetrahydofur	6.63	42	1822087	299.0181	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL7.D Vial: 10
Acq On : 28 Apr 2022 17:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:59:29 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	1014234	31.0126	ug/L	96
40)	111trichlota	6.90	97	862400	32.4271	ug/L	98
42)	Cyclohexane	6.99	56	860235	34.1686	ug/L	99
43)	Carbtetraclo	7.12	119	714430	35.4784	ug/L	99
44)	11dicloprope	7.11	110	315136	34.0529	ug/L	95
46)	Benzene	7.36	78	2277692	29.9410	ug/L	97
47)	12dichlorota	7.36	62	754119	30.2813	ug/L	98
48)	TAME	7.52	73	1336678	32.4652	ug/L	96
49)	trichloroete	8.17	95	625753	31.3325	ug/L	99
50)	methylcyclohexane	8.43	83	1334397	31.5192	ug/L	98
51)	12dicloropra	8.42	63	650930	31.6397	ug/L	92
52)	23Dicl1propene	8.48	75	945823	30.4848	ug/L	99
53)	Dibromometha	8.56	93	364622	31.1570	ug/L	96
54)	methylmethacrylate	8.59	69	483834	31.4777	ug/L	98
55)	14dioxane	8.60	88	463997	1583.5652	ug/L	99
56)	Bromodiclrma	8.76	83	776937	31.6811	ug/L	98
57)	2Nitropropane	9.02	43	1750148	330.9252	ug/L	99
58)	2CLEVE	9.15	63	1113094	160.4659	ug/L	98
59)	c13dicloproe	9.34	75	925271	32.7727	ug/L	98
60)	4Meth2Pentan	9.54	43	4511634	306.5685	ug/L	91
62)	Toluene	9.79	92	1510313	30.9295	ug/L	93
63)	t13Dicloprop	10.05	75	759544	34.1263	ug/L	96
64)	ethylmethacrylate	10.19	69	1722703	64.2370	ug/L	99
65)	112Triclotha	10.28	83	473747	31.6343	ug/L	99
66)	Tetrachlorte	10.52	166	656008	31.3704	ug/L	98
67)	13Diclorpropa	10.51	76	946109	30.9427	ug/L	98
69)	2Hexanone	10.63	43	3551484	267.7324	ug/L	93
70)	Clorodibrmta	10.81	129	584089	31.3515	ug/L	96
71)	12Dibrometha	10.97	107	546134	31.0533	ug/L	99
72)	Chlorobenzen	11.65	112	1587910	28.8267	ug/L	98
73)	1Clhexane	11.63	91	866817	30.1401	ug/L	95
74)	1112Tetclota	11.76	131	543942	32.3088	ug/L	95
75)	Ethylbenzene	11.81	91	2543020	29.1458	ug/L	94
76)	m p-Xylene	11.98	106	2036206	59.3098	ug/L	91
77)	o-Xylene	12.52	106	1055073	31.3344	ug/L	88
78)	Styrene	12.53	104	1705805	30.9535	ug/L	98
79)	Bromoform	12.77	173	412684	32.2907	ug/L	98
80)	Isopropylben	13.05	105	2461494	29.9436	ug/L	95
81)	cyclohexanone	13.13	55	663962	577.0549	ug/L	98
84)	Bromobenzene	13.45	156	662824	28.7393	ug/L	97
85)	1122Tetrclta	13.43	83	766363	28.5932	ug/L	97
86)	123Triclproa	13.49	75	986646	30.7480	ug/L	99
87)	14dichloro2butene	13.51	53	242301	33.7995	ug/L	94
88)	n-Propylbenz	13.64	91	2824597	28.3694	ug/L	94
89)	2chlorotolue	13.75	91	1786236	28.1320	ug/L	95
90)	4chlorotolue	13.90	91	2045810	28.9144	ug/L	96
91)	135Trimebenz	13.89	105	2078929	29.2095	ug/L	96
92)	tbutylbenzen	14.36	119	1813684	29.6517	ug/L	95
93)	124Trimetben	14.43	105	2037830	29.2696	ug/L	95
94)	sbutylbenzen	14.68	105	2551111	29.6001	ug/L	96
95)	13Diclorbenz	14.82	146	1170876	28.6493	ug/L	96
96)	pIsopropylto	14.90	119	2157459	29.4795	ug/L	95
97)	14dichlorobe	14.94	146	1201957	28.6737	ug/L	98
98)	12dichlorobe	15.48	146	1118340	29.1477	ug/L	98
99)	nButylbenzen	15.49	91	1997402	29.2687	ug/L	94
100)	12dibromo3cl	16.58	157	157921	31.7666	ug/L	92
101)	135Trichlorobenzene	16.90	180	930219	29.1197	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL7.D Vial: 10
Acq On : 28 Apr 2022 17:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:59:29 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	760044	30.5784	ug/L	99
103) Hexachlorobu	17.96	225	354596	31.3621	ug/L	97
104) Naphthalene	18.02	128	1714277	30.5174	ug/L	97
105) 123Trichlben	18.33	180	707326	29.8756	ug/L	100

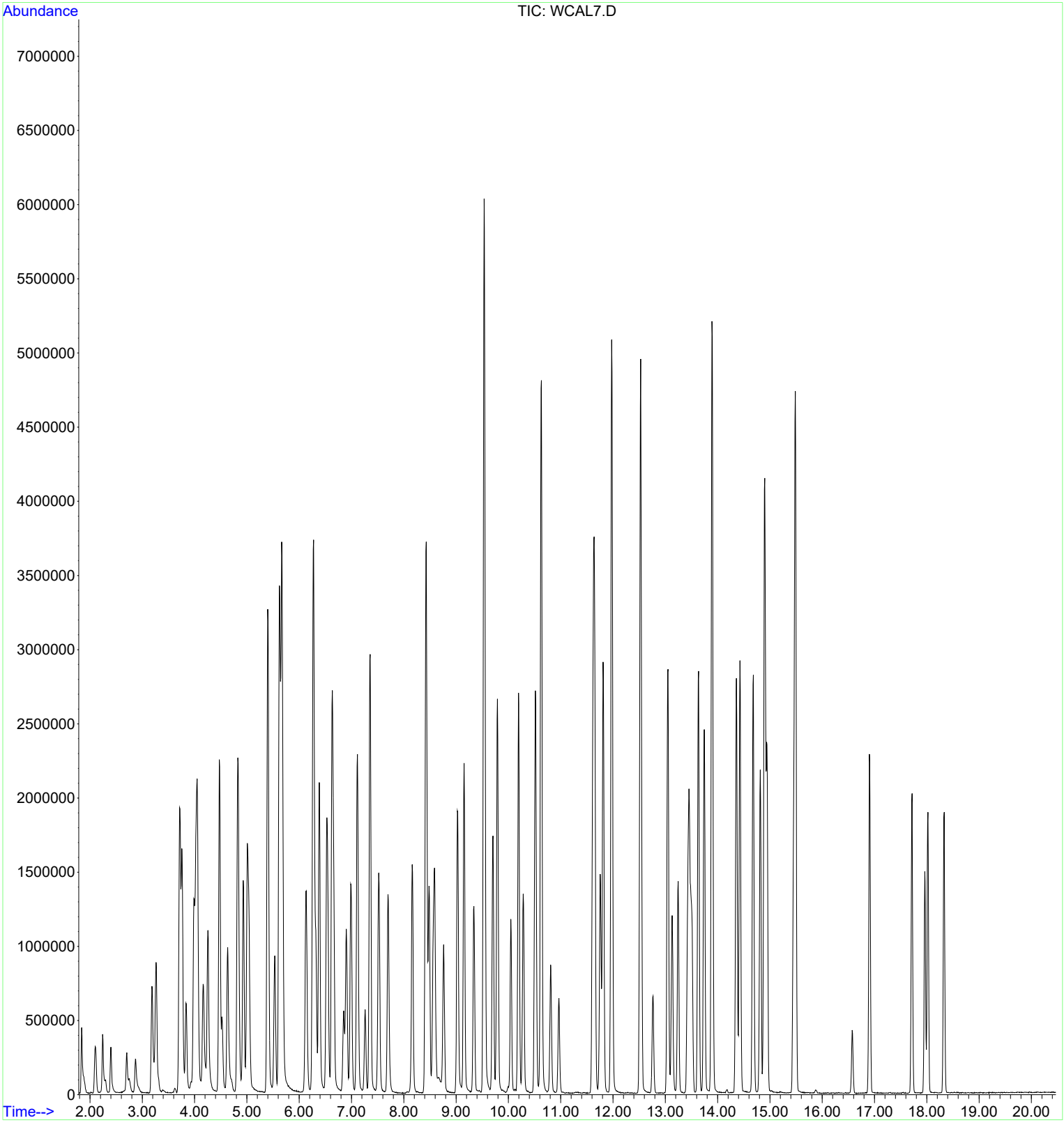
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL7.D Vial: 10
Acq On : 28 Apr 2022 17:38 Operator: DGS-RLD
Sample : INITIAL CALIB. PT7 Inst : VMS3
Misc : 30.0/300.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 17:59:29 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL8.D Vial: 11
Acq On : 28 Apr 2022 18:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:29:21 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1428511	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1150757	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	635406	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	380845	20.294 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %		
45) SURR12DCAd4	7.26	102	97929	19.303 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 97 %		
61) SURRd8Tolule	9.70	98	1500976	20.500 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102 %		
83) SURR4BrFBenz	13.25	95	633130	20.172 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %		
Target Compounds					Qvalue
2) Dichlorodi	1.84	85	745651	44.2094 ug/L	99
3) Chloromethan	2.10	50	644998	36.7719 ug/L	99
4) VinylChlorid	2.24	62	674617	39.8002 ug/L	100
5) Bromomethane	2.70	94	383076	40.1672 ug/L	96
6) Chloroethane	2.87	64	414680	38.8027 ug/L	99
7) Dichloroflmethane	3.18	67	1455248	39.8075 ug/L	98
8) Trichlorofma	3.26	101	1083863	43.0507 ug/L	98
9) Ethylether	3.71	59	577035	41.6052 ug/L	100
10) dichlorotfluoroethan	3.72	67	1380659	41.3451 ug/L	99
11) propyleneoxide	3.76	58	1930758	411.9921 ug/L	97
12) Acrolein	3.84	56	767971	196.0363 ug/L	95
13) 11dichlorthe	3.99	96	747984	43.9626 ug/L	98
14) Trichlorotfluoroeth	4.03	101	1238786	83.9161 ug/L	96
15) Acetone	4.05	43	2470282	363.4530 ug/L	95
16) Iodomethane	4.17	142	1609592	85.5312 ug/L	97
17) Carbon Dislf	4.25	76	2582040	75.4320 ug/L	97
18) allylchloride	4.47	41	2265586	78.3189 ug/L	96
19) methylacetate	4.53	74	232913	43.3355 ug/L	93
20) Methylchlorid	4.63	84	826687	39.5296 ug/L	98
21) tbutylalcohol	4.83	59	3928728	2040.1717 ug/L	100
22) Acrylonitrile	4.93	53	1688509	193.6925 ug/L	98
23) t12dichlorte	5.01	96	810363	41.4738 ug/L	98
24) MtBE	5.03	73	1869822	41.2688 ug/L	97
25) Hexane	5.40	57	2503371	87.4071 ug/L	95
26) 11dichlorota	5.53	63	1368183	41.2197 ug/L	97
27) Vinylacetate	5.62	43	7786047	509.9164 ug/L	87
28) chloroprene	5.67	53	2341614	80.1470 ug/L	96
29) Diisopether	5.68	45	2153583	39.4740 ug/L	94
30) ETBE	6.13	59	1879229	41.7903 ug/L	96
31) 22dichloropr	6.27	77	890136	45.0376 ug/L	99
32) c12dichlorte	6.27	96	884583	41.7556 ug/L	97
33) 2Butanone	6.28	72	1152351	402.3076 ug/L	95
34) propionitrile	6.32	54	1467576	395.8744 ug/L	99
35) Ethylacetate	6.39	88	199194	220.9160 ug/L #	92
36) methacrylonitrile	6.53	67	860162	82.1124 ug/L	98
37) Bromochlorma	6.55	128	401539	42.2515 ug/L	97
38) Tetrahydofur	6.63	42	2310762	379.7392 ug/L	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL8.D Vial: 11
Acq On : 28 Apr 2022 18:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:29:21 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
39)	Chloroform	6.66	83	1331519	40.7708	ug/L		97
40)	111trichlota	6.90	97	1142834	43.0313	ug/L		99
42)	Cyclohexane	6.99	56	1124450	44.7251	ug/L		98
43)	Carbtetraclo	7.12	119	936355	46.5636	ug/L		97
44)	11dicloprope	7.11	110	414071	44.8056	ug/L		96
46)	Benzene	7.36	78	2902656	38.2093	ug/L		95
47)	12dichlorota	7.35	62	1004046	40.3729	ug/L		97
48)	TAME	7.53	73	1827162	44.4396	ug/L		95
49)	trichloroete	8.16	95	823704	41.3014	ug/L		98
50)	methylcyclohexane	8.43	83	1748284	41.8875	ug/L		97
51)	12dicloropra	8.42	63	870276	42.3601	ug/L		98
52)	23Dicl1propene	8.48	75	1253565	40.4597	ug/L		99
53)	Dibromometha	8.56	93	493859	42.2588	ug/L		97
54)	methylmethacrylate	8.59	69	666605	43.4287	ug/L		98
55)	14dioxane	8.60	88	606048	2071.2362	ug/L		97
56)	Bromodiclrma	8.76	83	1024319	41.8264	ug/L		97
57)	2Nitropropane	9.03	43	2266441	429.1423	ug/L		99
58)	2CLEVE	9.15	63	1514971	218.7041	ug/L		96
59)	c13dicloproe	9.34	75	1227194	43.5270	ug/L		97
60)	4Meth2Pentan	9.54	43	5425352	393.3481	ug/L		86
62)	Toluene	9.79	92	1940939	39.8033	ug/L		92
63)	t13Dicloprop	10.05	75	1033966	46.5205	ug/L		95
64)	ethylmethacrylate	10.19	69	2259143	84.3569	ug/L		97
65)	112Triclotha	10.28	83	637898	42.6544	ug/L		99
66)	Tetrachlorte	10.52	166	878974	42.0909	ug/L		98
67)	13Diclorpropa	10.51	76	1242954	40.7075	ug/L		98
69)	2Hexanone	10.62	43	4367275	325.4023	ug/L		91
70)	Clorodibrmta	10.81	129	789899	41.9053	ug/L		97
71)	12Dibrometha	10.97	107	739356	41.5510	ug/L		100
72)	Chlorobenzen	11.65	112	2054904	36.8705	ug/L		97
73)	1Clhexane	11.63	91	1131630	38.8902	ug/L		95
74)	1112Tetclota	11.76	131	727606	42.7153	ug/L		93
75)	Ethylbenzene	11.81	91	3227626	36.5618	ug/L		91
76)	m p-Xylene	11.97	106	2616080	75.3138	ug/L		87
77)	o-Xylene	12.52	106	1386864	40.7091	ug/L	#	85
78)	Styrene	12.53	104	2191265	39.3002	ug/L		96
79)	Bromoform	12.77	173	548293	42.4025	ug/L		97
80)	Isopropylben	13.05	105	3126581	37.5919	ug/L		93
81)	cyclohexanone	13.13	55	895399	777.2472	ug/L		98
84)	Bromobenzene	13.46	156	889162	38.8984	ug/L		97
85)	1122Tetrclta	13.43	83	1008478	37.9637	ug/L		95
86)	123Triclproa	13.49	75	1305551	41.0508	ug/L		99
87)	14dichloro2butene	13.51	53	314922	44.3233	ug/L		90
88)	n-Propylbenz	13.64	91	3539175	35.8648	ug/L		91
89)	2chlorotolue	13.75	91	2302757	36.5917	ug/L		95
90)	4chlorotolue	13.90	91	2596878	37.0317	ug/L		94
91)	135Trimebenz	13.89	105	2653988	37.6233	ug/L		95
92)	tbutylbenzen	14.36	119	2335417	38.5234	ug/L		95
93)	124Trimetben	14.43	105	2597692	37.6452	ug/L		95
94)	sbutylbenzen	14.68	105	3219472	37.6896	ug/L		93
95)	13Diclorbenz	14.82	146	1538541	37.9827	ug/L		96
96)	pIsopropylto	14.90	119	2774666	38.2526	ug/L		94
97)	14dichlorobe	14.94	146	1557285	37.4831	ug/L		98
98)	12dichlorobe	15.48	146	1453718	38.2283	ug/L		98
99)	nButylbenzen	15.49	91	2555435	37.7812	ug/L		93
100)	12dibromo3cl	16.58	157	216823	44.0057	ug/L		92
101)	135Trichlorobenzene	16.91	180	1231993	38.9120	ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL8.D Vial: 11
Acq On : 28 Apr 2022 18:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:29:21 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	1022604	41.5104	ug/L	98
103) Hexachlorobu	17.97	225	467942	41.7576	ug/L	100
104) Naphthalene	18.02	128	2276585	40.8905	ug/L	96
105) 123Trichlben	18.33	180	948048	40.4018	ug/L	99

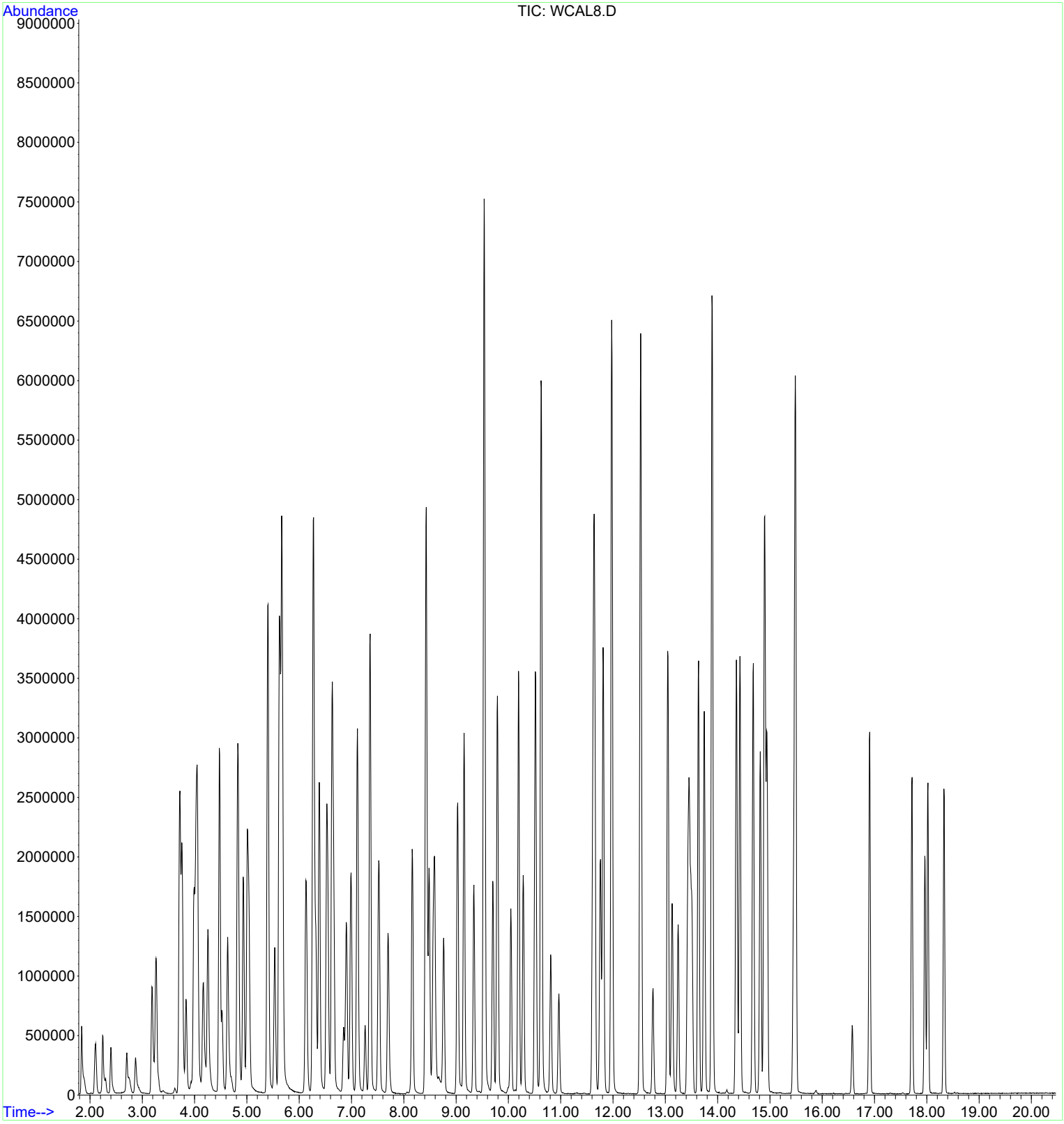
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL8.D Vial: 11
Acq On : 28 Apr 2022 18:08 Operator: DGS-RLD
Sample : INITIAL CALIB. PT8 Inst : VMS3
Misc : 40.0/400.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:29:21 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL9.D Vial: 12
Acq On : 28 Apr 2022 18:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:58:27 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1467335	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1165902	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	631593	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	385329	19.990	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	102000	19.573	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.71	98	1503109	19.986	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	623926	19.999	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	1436101	82.8930	ug/L	99
3) Chloromethan	2.10	50	1202752	66.7557	ug/L	98
4) VinylChlorid	2.25	62	1290995	74.1492	ug/L	100
5) Bromomethane	2.70	94	700295	71.4861	ug/L	97
6) Chloroethane	2.87	64	793083	72.2474	ug/L	99
7) Dichloroflmethane	3.18	67	2698579	71.8651	ug/L	96
8) Trichlorofma	3.27	101	2068176	79.9738	ug/L	98
9) Ethylether	3.71	59	1120054	78.6210	ug/L	98
10) dichlorotfluoroethan	3.72	67	2567991	74.8661	ug/L	97
11) propyleneoxide	3.76	58	3414347	709.2886	ug/L	93
12) Acrolein	3.84	56	1378185	342.4944	ug/L	94
13) 11dichlorthe	3.99	96	1431827	81.9287	ug/L	95
14) Trichlorotfluoroeth	4.03	101	2370685	156.3425	ug/L	95
15) Acetone	4.05	43	4232202	606.2090	ug/L	91
16) Iodomethane	4.16	142	3011715	155.8034	ug/L	95
17) Carbon Dislf	4.26	76	4669509	132.8062	ug/L	93
18) allylchloride	4.47	41	3913811	131.7165	ug/L	91
19) methylacetate	4.53	74	457340	82.8407	ug/L	95
20) Methylchlorid	4.63	84	1562044	72.7158	ug/L	96
21) tbutylalcohol	4.83	59	6552203	3312.5040	ug/L	98
22) Acrylonitrile	4.93	53	3000638	335.1022	ug/L	95
23) t12dichlorte	5.01	96	1526317	76.0489	ug/L	95
24) MtBE	5.03	73	3366444	72.3348	ug/L	93
25) Hexane	5.40	57	4339327	147.5021	ug/L #	91
26) 11dichlorota	5.53	63	2483077	72.8291	ug/L	94
27) Vinylacetate	5.62	43	10730269	Below	Cal	77
28) chloroprene	5.67	53	4084372	136.0979	ug/L	91
29) Diisopether	5.68	45	3762603	67.1417	ug/L	89
30) ETBE	6.13	59	3367688	72.9090	ug/L	92
31) 22dichloropr	6.27	77	1732171	85.3226	ug/L	96
32) c12dichlorte	6.26	96	1621811	74.5299	ug/L	96
33) 2Butanone	6.28	72	2091013	710.6971	ug/L	92
34) propionitrile	6.32	54	2628258	690.2066	ug/L	97
35) Ethylacetate	6.38	88	380411	410.7317	ug/L #	87
36) methacrylonitrile	6.52	67	1600813	148.7727	ug/L	94
37) Bromochlorma	6.55	128	773770	79.2648	ug/L	92
38) Tetrahydofur	6.63	42	3918180	626.8576	ug/L	87

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL9.D Vial: 12
Acq On : 28 Apr 2022 18:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:58:27 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
39)	Chloroform	6.66	83	2420285	72.1477 ug/L		94
40)	111trichlota	6.90	97	2174775	79.7204 ug/L		99
42)	Cyclohexane	6.99	56	2151829	83.3247 ug/L		96
43)	Carbtetraclo	7.12	119	1850337	89.5801 ug/L		97
44)	11dicloprope	7.11	110	823813	86.7842 ug/L	#	89
46)	Benzene	7.36	78	4903323	62.8374 ug/L		90
47)	12dichlorota	7.36	62	1831185	71.6841 ug/L		94
48)	TAME	7.52	73	3310896	78.3959 ug/L		94
49)	trichloroete	8.16	95	1586851	77.4612 ug/L		100
50)	methylcyclohexane	8.43	83	3206163	78.8735 ug/L		97
51)	12dicloropra	8.42	63	1625210	77.0129 ug/L		90
52)	23Dicl1propene	8.48	75	2297005	72.1758 ug/L		95
53)	Dibromometha	8.56	93	936379	78.0045 ug/L		97
54)	methylmethacrylate	8.59	69	1269178	80.4981 ug/L		97
55)	14dioxane	8.60	88	1158483	3854.4871 ug/L		99
56)	Bromodiclrma	8.76	83	1902662	75.6365 ug/L		95
57)	2Nitropropane	9.03	43	3891708	717.3836 ug/L		98
58)	2CLEVE	9.15	63	2825736	397.1354 ug/L		92
59)	c13dicloproe	9.34	75	2256774	77.9270 ug/L		95
60)	4Meth2Pentan	9.54	43	7842075	749.9658 ug/L		75
62)	Toluene	9.79	92	3375871	67.3981 ug/L		87
63)	t13Dicloprop	10.05	75	1930014	84.5382 ug/L		92
64)	ethylmethacrylate	10.19	69	3849391	139.9340 ug/L		94
65)	112Triclotha	10.28	83	1175128	76.4984 ug/L		99
66)	Tetrachlorte	10.52	166	1673582	78.0214 ug/L		98
67)	13Diclorpropa	10.51	76	2240693	71.4424 ug/L		93
69)	2Hexanone	10.62	43	6503702	478.2911 ug/L		82
70)	Clorodibrmta	10.81	129	1504938	78.8021 ug/L		96
71)	12Dibrometha	10.97	107	1383306	76.7304 ug/L		98
72)	Chlorobenzen	11.65	112	3514260	62.2362 ug/L		93
73)	1Clhexane	11.63	91	2088425	70.8396 ug/L		93
74)	1112Tetclota	11.76	131	1376741	79.7739 ug/L		93
75)	Ethylbenzene	11.81	91	5275103	58.9789 ug/L		84
76)	m p-Xylene	11.98	106	4423216	125.6849 ug/L	#	76
77)	o-Xylene	12.52	106	2472648	71.6377 ug/L	#	78
78)	Styrene	12.53	104	3735922	66.1331 ug/L		91
79)	Bromoform	12.77	173	1078401	82.3152 ug/L		97
80)	Isopropylben	13.05	105	5147026	61.0805 ug/L		87
81)	cyclohexanone	13.13	55	1602460	1447.9694 ug/L		95
84)	Bromobenzene	13.46	156	1618165	71.2176 ug/L		98
85)	1122Tetrclta	13.43	83	1804801	68.3511 ug/L		94
86)	123Triclproa	13.49	75	2434774	77.0195 ug/L		99
87)	14dichloro2butene	13.51	53	629710	89.1627 ug/L		85
88)	n-Propylbenz	13.64	91	5654510	57.6468 ug/L		82
89)	2chlorotolue	13.75	91	3900657	62.3571 ug/L		88
90)	4chlorotolue	13.90	91	4352472	62.4413 ug/L		89
91)	135Trimebenz	13.89	105	4447408	63.4277 ug/L		91
92)	tbutylbenzen	14.36	119	4012531	66.5875 ug/L		90
93)	124Trimetben	14.43	105	4355077	63.4938 ug/L		89
94)	sbutylbenzen	14.68	105	5202912	61.2769 ug/L		85
95)	13Diclorbenz	14.82	146	2722945	67.6285 ug/L		94
96)	pIsopropylto	14.90	119	4579372	63.5141 ug/L		87
97)	14dichlorobe	14.94	146	2765688	66.9707 ug/L		96
98)	12dichlorobe	15.49	146	2570432	68.0024 ug/L		98
99)	nButylbenzen	15.49	91	4272753	63.5526 ug/L		87
100)	12dibromo3cl	16.58	157	427339	87.2550 ug/L		92
101)	135Trichlorobenzene	16.91	180	2205921	70.0938 ug/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL9.D Vial: 12
Acq On : 28 Apr 2022 18:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:58:27 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	1861075	76.0024	ug/L	98
103) Hexachlorobu	17.97	225	927772	83.2912	ug/L	100
104) Naphthalene	18.02	128	3903145	70.5290	ug/L	92
105) 123Trichlben	18.33	180	1734692	74.3715	ug/L	98

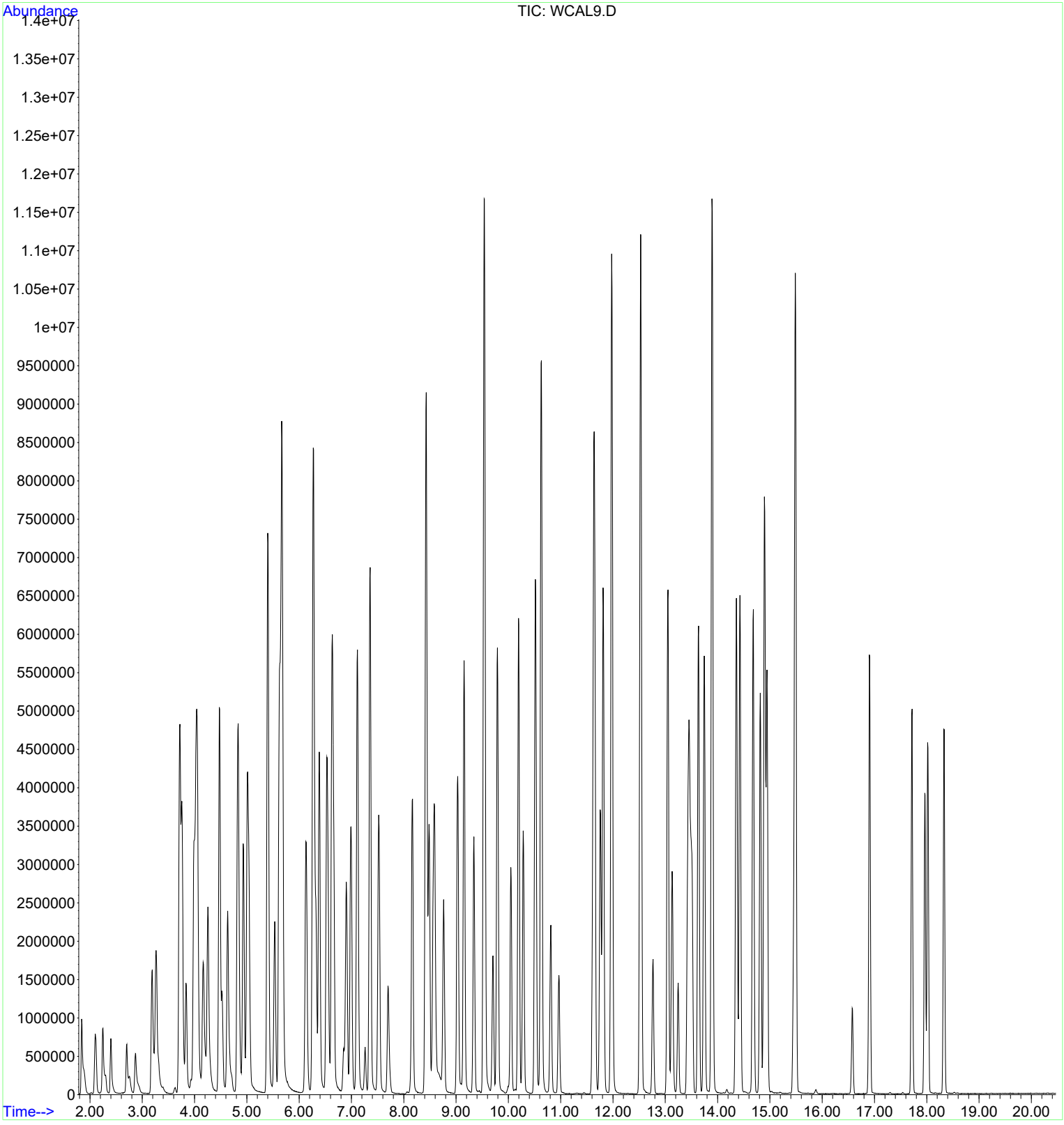
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\WCAL9.D Vial: 12
Acq On : 28 Apr 2022 18:37 Operator: DGS-RLD
Sample : INITIAL CALIB. PT9 Inst : VMS3
Misc : 80.0/800.0 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 18:58:27 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 29 09:21:20 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	106	0.00
2	PT	Dichlorodi	0.2581	0.2910	-12.75	113	0.00
3	PT	Chloromethan	0.2382	0.2351	1.30	102	0.00
4	PT	VinylChlorid	0.2431	0.2502	-2.92	105	0.00
5	PT	Bromomethane	0.1405	0.1557	-10.82	121	0.00
6	PT	Chloroethane	0.1567	0.1546	1.34	110	0.00
7	T	Dichloroflmethane	0.5294	0.5144	2.83	102	0.00
8	PT	Trichlorofma	0.3882	0.4207	-8.37	106	0.00
9	T	Ethylether	0.1949	0.2039	-4.62	115	0.00
10	T	dichlorotfluoroethan	0.4948	0.5196	-5.01	105	0.00
11	T	propyleneoxide	0.0691	0.0691	0.00	109	0.00
12	T	Acrolein	0.0566	0.0560	1.06	106	0.00
13	PT	11dichlorthe	0.2560	0.2754	-7.58	111	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2285	-7.18	106	0.00
15	PT	Acetone	0.1042	0.0990#	4.99	109	0.00
16	T	Iodomethane	0.2651	0.2449	7.62	94	0.00
17	PT	Carbon Dislf	0.4879	0.5112	-4.78	108	0.00
18	T	allylchloride	0.4204	0.4210	-0.14	102	0.00
19	PT	methylacetate	0.0773	0.0749#	3.10	119	0.00
20	PT	Methylchlorid	0.3175	0.3043	4.16	107	0.00
21	T	tbutylalcohol	0.0282	0.0312	-10.64	119	0.00
22	T	Acrylonitrile	0.1258	0.1304	-3.66	111	0.00
23	PT	t12dichlorte	0.2902	0.2971	-2.38	107	0.00
24	PT	MtBE	0.6525	0.6828	-4.64	112	0.00
25	T	Hexane	0.4321	0.4744	-9.79	101	0.00
26	PT	11dichlorota	0.5022	0.5110	-1.75	107	0.00
27	T	Vinylacetate	0.3685	0.3475	5.70	91	0.00
28	T	chloroprene	0.4236	0.4522	-6.75	104	0.00
29	T	Diisopether	0.7765	0.8368	-7.77	108	0.00
30	T	ETBE	0.6416	0.6906	-7.64	114	0.00
31	T	22dichloropr	0.2949	0.2878	2.41	104	0.00
32	PT	c12dichlorte	0.3068	0.3192	-4.04	109	0.00
33	PT	2Butanone	0.0411	0.0433#	-5.35	116	0.00
34	T	propionitrile	0.0541	0.0539	0.37	108	0.00
35	T	Ethylacetate	0.0130	0.0136#	-4.62	117	0.00
36	T	methacrylonitrile	0.1528	0.1536	-0.52	108	0.00
37	T	Bromochlorma	0.1448	0.1421	1.86	107	0.00
38	T	Tetrahydofur	0.0888	0.0925	-4.17	110	0.00
39	PT	Chloroform	0.4912	0.5031	-2.42	110	0.00
40	PT	111trichlota	0.3965	0.4137	-4.34	108	0.00
41	S	SURRDibrflma	0.2659	0.2613	1.73	105	0.00
42	PT	Cyclohexane	0.3737	0.4206	-12.55	109	0.00
43	PT	Carbtetraclo	0.3103	0.3269	-5.35	108	0.00
44	T	11dicloprope	0.1417	0.1469	-3.67	109	0.00
45	S	SURR12DCAd4	0.0709	0.0672	5.22	97	0.00
46	PT	Benzene	1.1203	1.1686	-4.31	105	0.00
47	PT	12dichlorota	0.3677	0.3691	-0.38	106	0.00
48	T	TAME	0.5985	0.6497	-8.55	115	0.00

49	PT	trichloroete	0.2940	0.3091	-5.14	112	0.00
50	PT	methylcyclohexane	0.5670	0.6139	-8.27	102	0.00
51	PT	12dicloropra	0.3099	0.3122	-0.74	106	0.00
52	T	23Dicl1propene	0.4418	0.4552	-3.03	109	0.00
53	T	Dibromometha	0.1741	0.1787	-2.64	113	0.00
54	T	methylmethacrylate	0.2175	0.2335	-7.36	118	0.00
55	T	14dioxane	0.0044	0.0043#	2.27	115	0.00
56	PT	Bromodiclrma	0.3686	0.3708	-0.60	107	0.00
57	T	2Nitropropane	0.0782	0.0807	-3.20	107	0.00
58	T	2CLEVE	0.0959	0.1059	-10.43	122	0.00
59	PT	c13dicloproe	0.4161	0.4355	-4.66	111	0.00
60	PT	4Meth2Pentan	0.2366	0.2655	-12.21	112	0.00
61	S	SURRd8Tolule	1.0461	1.0304	1.50	103	0.00
62	PT	Toluene	0.7215	0.7591	-5.21	109	0.00
63	PT	t13Dicloprop	0.3396	0.3571	-5.15	113	0.00
64	T	ethylmethacrylate	0.3848	0.4110	-6.81	111	0.00
65	PT	112Triclotha	0.2212	0.2240	-1.27	109	0.00
66	PT	Tetrachlorte	0.3038	0.3135	-3.19	104	0.00
67	T	13Diclorpropa	0.4572	0.4641	-1.51	110	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	0.00
69	PT	2Hexanone	0.2204	0.2578	-16.97	115	0.00
70	PT	Clorodibrmta	0.3407	0.3543	-3.99	109	0.00
71	PT	12Dibrometha	0.3149	0.3392	-7.72	115	0.00
72	PT	Chlorobenzen	0.9740	1.0176	-4.48	108	0.00
73	T	1Clhexane	0.4841	0.5422	-12.00	114	0.00
74	T	1112Tetclota	0.3104	0.3210	-3.41	108	0.00
75	PT	Ethylbenzene	1.5510	1.7074	-10.08	108	0.00
76	PT	m p-Xylene	0.6021	0.6709	-11.43	109	0.00
77	PT	o-Xylene	0.6026	0.6562	-8.89	108	0.00
78	PT	Styrene	0.9711	1.0820	-11.42	110	0.00
79	PT	Bromoform	0.2277	0.2413	-5.97	115	0.00
80	PT	Isopropylben	1.4429	1.6641	-15.33	111	0.00
81	T	cyclohexanone	0.0184	0.0221#	-20.11#	133	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	103	0.00
83	S	SURR4BrFBenz	0.9896	1.0035	-1.40	105	0.00
84	T	Bromobenzene	0.6980	0.7333	-5.06	108	0.00
85	PT	1122Tetrclta	0.8297	0.8516	-2.64	109	0.00
86	T	123Triclproa	1.0131	1.0322	-1.89	108	0.00
87	T	14dichloro2butene	0.2339	0.2357	-0.77	109	0.00
88	T	n-Propylbenz	3.0653	3.4971	-14.09	109	0.00
89	T	2chlorotolue	1.9399	2.1132	-8.93	111	0.00
90	T	4chlorotolue	2.2100	2.4384	-10.33	110	0.00
91	T	135Trimebenz	2.1966	2.4487	-11.48	107	0.00
92	T	tbutylbenzen	1.8566	2.1226	-14.33	111	0.00
93	T	124Trimetben	2.1381	2.4036	-12.42	110	0.00
94	T	sbutylbenzen	2.6311	3.1057	-18.04	111	0.00
95	PT	13Diclorbenz	1.2599	1.3275	-5.37	107	0.00
96	T	pIsopropylto	2.2538	2.6180	-16.16	112	0.00
97	PT	14dichlorobe	1.2966	1.3627	-5.10	108	0.00
98	PT	12dichlorobe	1.2210	1.2836	-5.13	110	0.00
99	T	nButylbenzen	2.0963	2.3982	-14.40	111	0.00
100	PT	12dibromo3cl	0.1572	0.1610	-2.42	115	0.00
101	T	135Trichlorobenzene	0.9798	1.0200	-4.10	107	0.00
102	PT	124Trichlobe	0.7749	0.8374	-8.07	113	0.00
103	T	Hexachlorobu	0.3464	0.3822	-10.33	110	0.00
104	T	Naphthalene	1.7086	2.0297	-18.79	123	0.00
105	T	123Trichlben	0.7370	0.7957	-7.96	114	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Mon May 02 08:15:47 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 29 09:21:20 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	106	0.00
2	PT	Dichlorodi	10.0000	11.2739	-12.74	113	0.00
3	PT	Chloromethan	10.0000	9.8670	1.33	102	0.00
4	PT	VinylChlorid	10.0000	10.2931	-2.93	105	0.00
5	PT	Bromomethane	10.0000	11.0876	-10.88	121	0.00
6	PT	Chloroethane	10.0000	9.8665	1.33	110	0.00
7	T	Dichloroflmethane	10.0000	9.7168	2.83	102	0.00
8	PT	Trichlorofma	10.0000	10.8364	-8.36	106	0.00
9	T	Ethylether	10.0000	10.4600	-4.60	115	0.00
10	T	dichlorotfluoroethan	10.0000	10.5020	-5.02	105	0.00
11	T	propyleneoxide	100.0000	99.9346	0.07	109	0.00
12	T	Acrolein	50.0000	49.4490	1.10	106	0.00
13	PT	11dichlorthe	10.0000	10.7543	-7.54	111	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.4367	-7.18	106	0.00
15	PT	Acetone	100.0000	95.0403	4.96	109	0.00
16	T	Iodomethane	20.0000	18.4787	7.61	94	0.00
17	PT	Carbon Dislf	20.0000	20.9543	-4.77	108	0.00
18	T	allylchloride	20.0000	20.0321	-0.16	102	0.00
19	PT	methylacetate	10.0000	9.6943	3.06	119	0.00
20	PT	Methylchlorid	10.0000	9.5861	4.14	107	0.00
21	T	tbutylalcohol	500.0000	553.3846	-10.68	119	0.00
22	T	Acrylonitrile	50.0000	51.8264	-3.65	111	0.00
23	PT	t12dichlorte	10.0000	10.2391	-2.39	107	0.00
24	PT	MtBE	10.0000	10.4639	-4.64	112	0.00
25	T	Hexane	20.0000	21.9541	-9.77	101	0.00
26	PT	11dichlorota	10.0000	10.1752	-1.75	107	0.00
27	T	Vinylacetate	100.0000	96.3568	3.64	91	0.00
28	T	chloroprene	20.0000	21.3479	-6.74	104	0.00
29	T	Diisopether	10.0000	10.7764	-7.76	108	0.00
30	T	ETBE	10.0000	10.7634	-7.63	114	0.00
31	T	22dichloropr	10.0000	9.7580	2.42	104	0.00
32	PT	c12dichlorte	10.0000	10.4039	-4.04	109	0.00
33	PT	2Butanone	100.0000	105.1965	-5.20	116	0.00
34	T	propionitrile	100.0000	99.5900	0.41	108	0.00
35	T	Ethylacetate	50.0000	52.4562	-4.91	117	0.00
36	T	methacrylonitrile	20.0000	20.0968	-0.48	108	0.00
37	T	Bromochlorma	10.0000	9.8134	1.87	107	0.00
38	T	Tetrahydofur	100.0000	104.1942	-4.19	110	0.00
39	PT	Chloroform	10.0000	10.2406	-2.41	110	0.00
40	PT	111trichlota	10.0000	10.4356	-4.36	108	0.00
41	S	SURRDibrflma	20.0000	19.6610	1.69	105	0.00
42	PT	Cyclohexane	10.0000	11.2534	-12.53	109	0.00
43	PT	Carbtetraclo	10.0000	10.5358	-5.36	108	0.00
44	T	11dicloprope	10.0000	10.3700	-3.70	109	0.00
45	S	SURR12DCAd4	20.0000	18.9397	5.30	97	0.00
46	PT	Benzene	10.0000	10.4312	-4.31	105	0.00
47	PT	12dichlorota	10.0000	10.0390	-0.39	106	0.00
48	T	TAME	10.0000	10.8561	-8.56	115	0.00

49	PT	trichloroete	10.0000	10.5127	-5.13	112	0.00
50	PT	methylcyclohexane	10.0000	9.5555	4.44	102	0.00
51	PT	12dicloropra	10.0000	10.0726	-0.73	106	0.00
52	T	23Dicl1propene	10.0000	10.3040	-3.04	109	0.00
53	T	Dibromometha	10.0000	10.2644	-2.64	113	0.00
54	T	methylmethacrylate	10.0000	10.7362	-7.36	118	0.00
55	T	14dioxane	500.0000	497.8570	0.43	115	0.00
56	PT	Bromodiclrma	10.0000	10.0613	-0.61	107	0.00
57	T	2Nitropropane	100.0000	103.1676	-3.17	107	0.00
58	T	2CLEVE	50.0000	55.2626	-10.53	122	0.00
59	PT	c13dicloproe	10.0000	10.4658	-4.66	111	0.00
60	PT	4Meth2Pentan	100.0000	108.2315	-8.23	112	0.00
61	S	SURRd8Tolule	20.0000	19.7007	1.50	103	0.00
62	PT	Toluene	10.0000	10.5204	-5.20	109	0.00
63	PT	t13Dicloprop	10.0000	10.5149	-5.15	113	0.00
64	T	ethylmethacrylate	20.0000	21.3637	-6.82	111	0.00
65	PT	112Triclotha	10.0000	10.1282	-1.28	109	0.00
66	PT	Tetrachlorte	10.0000	10.3196	-3.20	104	0.00
67	T	13Diclorpropa	10.0000	10.1490	-1.49	110	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	0.00
69	PT	2Hexanone	100.0000	109.1787	-9.18	115	0.00
70	PT	Clorodibrmta	10.0000	10.3988	-3.99	109	0.00
71	PT	12Dibrometha	10.0000	10.7723	-7.72	115	0.00
72	PT	Chlorobenzen	10.0000	10.4478	-4.48	108	0.00
73	T	1Clhexane	10.0000	11.2005	-12.00	114	0.00
74	T	1112Tetclota	10.0000	10.3399	-3.40	108	0.00
75	PT	Ethylbenzene	10.0000	11.0083	-10.08	108	0.00
76	PT	m p-Xylene	20.0000	22.2865	-11.43	109	0.00
77	PT	o-Xylene	10.0000	10.8902	-8.90	108	0.00
78	PT	Styrene	10.0000	11.1420	-11.42	110	0.00
79	PT	Bromoform	10.0000	10.5992	-5.99	115	0.00
80	PT	Isopropylben	10.0000	11.5328	-15.33	111	0.00
81	T	cyclohexanone	200.0000	222.6149	-11.31	133	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	103	0.00
83	S	SURR4BrFBenz	20.0000	20.2799	-1.40	105	0.00
84	T	Bromobenzene	10.0000	10.5051	-5.05	108	0.00
85	PT	1122Tetrclta	10.0000	10.2648	-2.65	109	0.00
86	T	123Triclproa	10.0000	10.1886	-1.89	108	0.00
87	T	14dichloro2butene	10.0000	10.0794	-0.79	109	0.00
88	T	n-Propylbenz	10.0000	11.4090	-14.09	109	0.00
89	T	2chlorotolue	10.0000	10.8932	-8.93	111	0.00
90	T	4chlorotolue	10.0000	11.0336	-10.34	110	0.00
91	T	135Trimebenz	10.0000	11.1473	-11.47	107	0.00
92	T	tbutylbenzen	10.0000	11.4323	-14.32	111	0.00
93	T	124Trimetben	10.0000	11.2416	-12.42	110	0.00
94	T	sbutylbenzen	10.0000	11.8035	-18.03	111	0.00
95	PT	13Diclorbenz	10.0000	10.5368	-5.37	107	0.00
96	T	pIsopropylto	10.0000	11.6160	-16.16	112	0.00
97	PT	14dichlorobe	10.0000	10.5093	-5.09	108	0.00
98	PT	12dichlorobe	10.0000	10.5125	-5.12	110	0.00
99	T	nButylbenzen	10.0000	11.4406	-14.41	111	0.00
100	PT	12dibromo3cl	10.0000	10.2413	-2.41	115	0.00
101	T	135Trichlorobenzene	10.0000	10.4099	-4.10	107	0.00
102	PT	124Trichlobe	10.0000	10.8059	-8.06	113	0.00
103	T	Hexachlorobu	10.0000	11.0336	-10.34	110	0.00
104	T	Naphthalene	10.0000	11.8796	-18.80	123	0.00
105	T	123Trichlben	10.0000	10.7961	-7.96	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Mon May 02 08:16:13 2022

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1439577	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1137009	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	633016	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	376228	19.661	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	96687	18.940	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 95 %			
61) SURRd8Tolule	9.71	98	1483371	19.701	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.25	95	635218	20.280	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	209431	11.2739	ug/L	99
3) Chloromethan	2.10	50	169194	9.8670	ug/L	96
4) VinylChlorid	2.24	62	180101	10.2931	ug/L	99
5) Bromomethane	2.70	94	112103	11.0876	ug/L	98
6) Chloroethane	2.87	64	111282	9.8665	ug/L	92
7) Dichloroflmethane	3.18	67	370261	9.7168	ug/L	100
8) Trichlorofma	3.26	101	302816	10.8364	ug/L	98
9) Ethylether	3.71	59	146743	10.4600	ug/L	97
10) dichlorotfluoroethan	3.72	67	374018	10.5020	ug/L	99
11) propyleneoxide	3.76	58	497196	99.9346	ug/L	97
12) Acrolein	3.84	56	201584	49.4490	ug/L	99
13) 11dichlorthe	3.99	96	198196	10.7543	ug/L	99
14) Trichlorotfluoroeth	4.03	101	328915	21.4367	ug/L	99
15) Acetone	4.05	43	712652	95.0403	ug/L	97
16) Iodomethane	4.16	142	352619	18.4787	ug/L	98
17) Carbon Dislf	4.25	76	735957	20.9543	ug/L	99
18) allylchloride	4.47	41	606127	20.0321	ug/L	97
19) methylacetate	4.53	74	53925	9.6943	ug/L	91
20) Methylchlorid	4.63	84	219062	9.5861	ug/L	99
21) tbutylalcohol	4.83	59	1121600	553.3846	ug/L	97
22) Acrylonitrile	4.93	53	469185	51.8264	ug/L	99
23) t12dichlorte	5.01	96	213872	10.2391	ug/L	99
24) MtBE	5.03	73	491454	10.4639	ug/L	99
25) Hexane	5.40	57	682883	21.9541	ug/L	99
26) 11dichlorota	5.53	63	367779	10.1752	ug/L	99
27) Vinylacetate	5.62	43	2501564	96.3568	ug/L	100
28) chloroprene	5.67	53	650932	21.3479	ug/L	99
29) Diisopether	5.68	45	602302	10.7764	ug/L	93
30) ETBE	6.13	59	497053	10.7634	ug/L	99
31) 22dichloropr	6.27	77	207131	9.7580	ug/L	97
32) c12dichlorte	6.26	96	229737	10.4039	ug/L	100
33) 2Butanone	6.28	72	311544	105.1965	ug/L	98
34) propionitrile	6.32	54	387646	99.5900	ug/L	100
35) Ethylacetate	6.39	88	48997	52.4562	ug/L #	92
36) methacrylonitrile	6.52	67	221064	20.0968	ug/L	98
37) Bromochlorma	6.55	128	102276	9.8134	ug/L	99
38) Tetrahydofur	6.63	42	665637	104.1942	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	362100	10.2406	ug/L	98
40)	111trichlota	6.91	97	297803	10.4356	ug/L	98
42)	Cyclohexane	6.99	56	302733	11.2534	ug/L	98
43)	Carbtetraclo	7.12	119	235310	10.5358	ug/L	98
44)	11dicloprope	7.11	110	105738	10.3700	ug/L	96
46)	Benzene	7.36	78	841139	10.4312	ug/L	99
47)	12dichlorota	7.36	62	265707	10.0390	ug/L	99
48)	TAME	7.53	73	467664	10.8561	ug/L	97
49)	trichloroete	8.16	95	222452	10.5127	ug/L	98
50)	methylcyclohexane	8.43	83	441867	9.5555	ug/L	98
51)	12dicloropra	8.43	63	224691	10.0726	ug/L	100
52)	23Dicl1propene	8.48	75	327645	10.3040	ug/L	99
53)	Dibromometha	8.56	93	128606	10.2644	ug/L	98
54)	methylmethacrylate	8.59	69	168100	10.7362	ug/L	97
55)	14dioxane	8.60	88	156129	497.8570	ug/L	98
56)	Bromodiclrma	8.76	83	266906	10.0613	ug/L	98
57)	2Nitropropane	9.03	43	581047	103.1676	ug/L	99
58)	2CLEVE	9.15	63	381278	55.2626	ug/L	100
59)	c13dicloproe	9.34	75	313483	10.4658	ug/L	99
60)	4Meth2Pentan	9.54	43	1910863	108.2315	ug/L	99
62)	Toluene	9.79	92	546375	10.5204	ug/L	99
63)	t13Dicloprop	10.05	75	257013	10.5149	ug/L	99
64)	ethylmethacrylate	10.20	69	591716	21.3637	ug/L	98
65)	112Triclotha	10.28	83	161253	10.1282	ug/L	97
66)	Tetrachlorte	10.52	166	225668	10.3196	ug/L	97
67)	13Diclorpropa	10.51	76	334021	10.1490	ug/L	99
69)	2Hexanone	10.62	43	1465379	109.1787	ug/L	98
70)	Clorodibrmta	10.81	129	201435	10.3988	ug/L	99
71)	12Dibrometha	10.97	107	192831	10.7723	ug/L	98
72)	Chlorobenzen	11.65	112	578510	10.4478	ug/L	99
73)	1Clhexane	11.63	91	308246	11.2005	ug/L	94
74)	1112Tetclota	11.76	131	182483	10.3399	ug/L	98
75)	Ethylbenzene	11.81	91	970667	11.0083	ug/L	98
76)	m p-Xylene	11.98	106	762857	22.2865	ug/L	99
77)	o-Xylene	12.53	106	373073	10.8902	ug/L	99
78)	Styrene	12.53	104	615119	11.1420	ug/L	100
79)	Bromoform	12.77	173	137179	10.5992	ug/L	98
80)	Isopropylben	13.05	105	946029	11.5328	ug/L	98
81)	cyclohexanone	13.14	55	250994	222.6149	ug/L	98
84)	Bromobenzene	13.46	156	232096	10.5051	ug/L	98
85)	1122Tetrclta	13.43	83	269548	10.2648	ug/L	99
86)	123Triclproa	13.49	75	326703	10.1886	ug/L	96
87)	14dichloro2butene	13.51	53	74606	10.0794	ug/L	95
88)	n-Propylbenz	13.64	91	1106873	11.4090	ug/L	99
89)	2chlorotolue	13.75	91	668833	10.8932	ug/L	98
90)	4chlorotolue	13.90	91	771785	11.0336	ug/L	99
91)	135Trimebenz	13.89	105	775026	11.1473	ug/L	98
92)	tbutylbenzen	14.36	119	671810	11.4323	ug/L	99
93)	124Trimetben	14.43	105	760745	11.2416	ug/L	100
94)	sbutylbenzen	14.68	105	982966	11.8035	ug/L	98
95)	13Diclorbenz	14.82	146	420172	10.5368	ug/L	98
96)	pIsopropylto	14.90	119	828620	11.6160	ug/L	98
97)	14dichlorobe	14.94	146	431302	10.5093	ug/L	99
98)	12dichlorobe	15.48	146	406259	10.5125	ug/L	99
99)	nButylbenzen	15.49	91	759061	11.4406	ug/L	99
100)	12dibromo3cl	16.58	157	50962	10.2413	ug/L	93
101)	135Trichlorobenzene	16.90	180	322832	10.4099	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	265036	10.8059	ug/L	99
103) Hexachlorobu	17.96	225	120956	11.0336	ug/L	98
104) Naphthalene	18.02	128	642431	11.8796	ug/L	99
105) 123Trichlben	18.33	180	251841	10.7961	ug/L	98

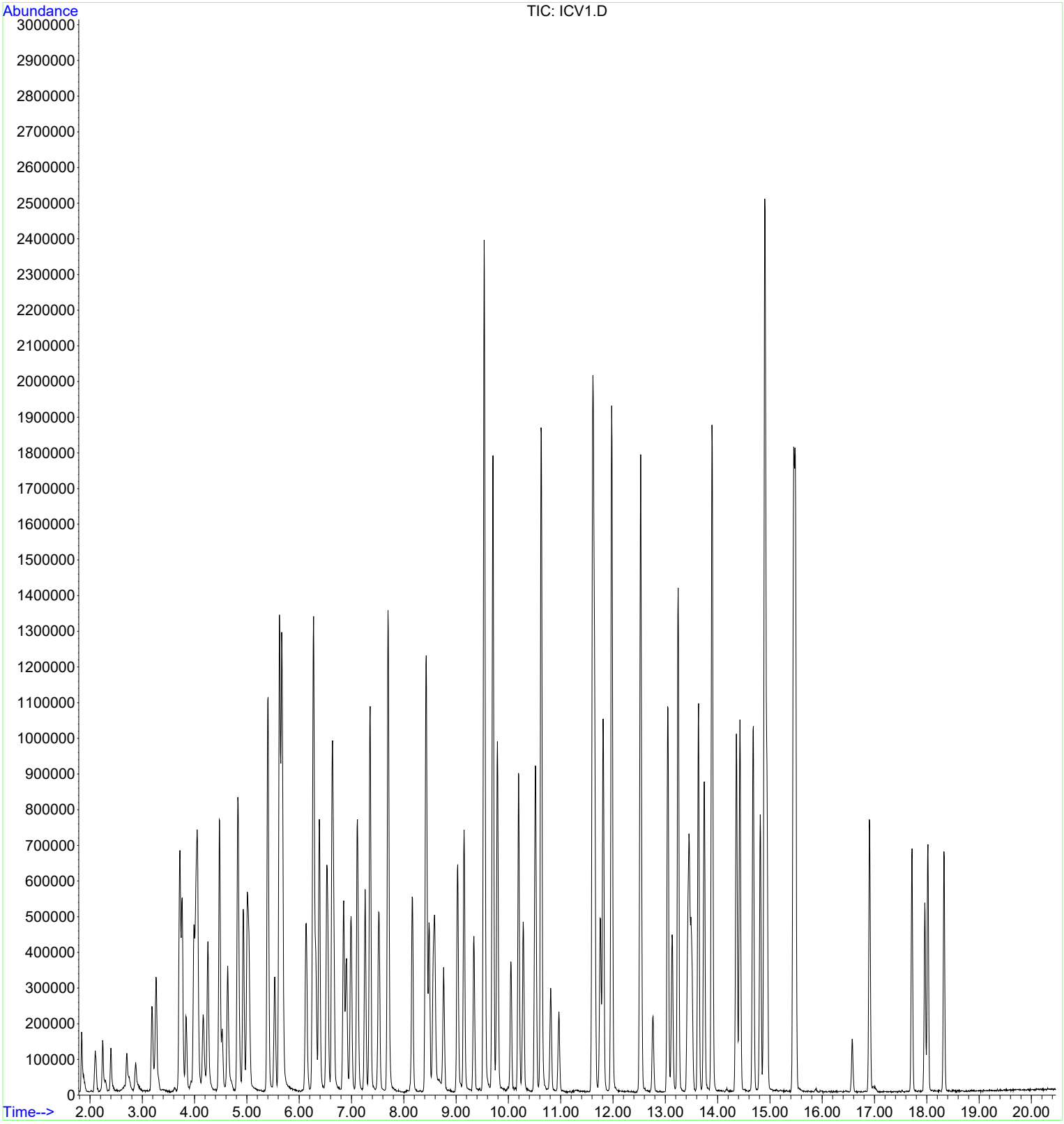
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 28 20:29:00 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00
2	PT	Dichlorodi	30.0000	37.0645	-23.55#	111	0.00
3	PT	Chloromethan	30.0000	28.0618	6.46	101	0.00
4	PT	VinylChlorid	30.0000	31.0784	-3.59	104	0.00
5	PT	Bromomethane	30.0000	29.7987	0.67	101	-0.01
6	PT	Chloroethane	30.0000	29.5794	1.40	102	0.00
7	T	Dichloroflmethane	30.0000	29.2800	2.40	98	0.00
8	PT	Trichlorofma	30.0000	34.5810	-15.27	106	0.00
9	T	Ethylether	30.0000	31.6949	-5.65	103	0.00
10	T	dichlorotfluoroethan	30.0000	31.7807	-5.94	100	0.00
11	T	propyleneoxide	300.0000	311.6794	-3.89	100	0.00
12	T	Acrolein	150.0000	148.4097	1.06	97	0.00
13	PT	11dichlorthe	30.0000	34.0860	-13.62	104	0.00
14	PT	Trichlorotfluoroeth	60.0000	65.4812	-9.14	104	0.00
15	PT	Acetone	300.0000	292.2127	2.60	102	0.00
16	T	Iodomethane	60.0000	63.4080	-5.68	98	0.00
17	PT	Carbon Dislf	60.0000	60.8723	-1.45	105	0.00
18	T	allylchloride	60.0000	58.8705	1.88	97	0.00
19	PT	methylacetate	30.0000	31.6417	-5.47	102	0.00
20	PT	Methylchlorid	30.0000	30.3371	-1.12	102	0.00
21	T	tbutylalcohol	1500.0000	1619.0083	-7.93	103	0.00
22	T	Acrylonitrile	150.0000	152.6713	-1.78	102	0.00
23	PT	t12dichlorte	30.0000	31.9904	-6.63	102	0.00
24	PT	MtBE	30.0000	31.6492	-5.50	103	0.00
25	T	Hexane	60.0000	66.6023	-11.00	97	0.00
26	PT	11dichlorota	30.0000	31.7750	-5.92	101	0.00
27	T	Vinylacetate	300.0000	312.8181	-4.27	97	0.00
28	T	chloroprene	60.0000	62.0681	-3.45	99	0.00
29	T	Diisopether	30.0000	30.2307	-0.77	100	0.00
30	T	ETBE	30.0000	31.9047	-6.35	104	0.00
31	T	22dichloropr	30.0000	32.8614	-9.54	98	0.00
32	PT	c12dichlorte	30.0000	31.2207	-4.07	100	0.00
33	PT	2Butanone	300.0000	319.7577	-6.59	104	0.00
34	T	propionitrile	300.0000	301.9681	-0.66	100	0.00
35	T	Ethylacetate	150.0000	169.2475	-12.83	105	0.00
36	T	methacrylonitrile	60.0000	61.1545	-1.92	100	0.00
37	T	Bromochlorma	30.0000	32.4201	-8.07	102	0.00
38	T	Tetrahydofur	300.0000	308.6403	-2.88	104	0.00
39	PT	Chloroform	30.0000	31.1858	-3.95	101	0.00
40	PT	111trichlota	30.0000	33.7187	-12.40	105	0.00
41	S	SURRDibrflma	20.0000	19.9952	0.02	100	0.00
42	PT	Cyclohexane	30.0000	35.0307	-16.77	103	0.00
43	PT	Carbtetraclo	30.0000	36.0553	-20.18#	102	0.00
44	T	11dicloprope	30.0000	33.5728	-11.91	99	0.00
45	S	SURR12DCAd4	20.0000	20.2204	-1.10	103	0.00
46	PT	Benzene	30.0000	29.9190	0.27	101	0.00
47	PT	12dichlorota	30.0000	30.3680	-1.23	101	0.00
48	T	TAME	30.0000	33.3505	-11.17	103	0.00

49	PT	trichloroete	30.0000	32.6413	-8.80	105	0.00	
50	PT	methylcyclohexane	30.0000	30.7857	-2.62	98	0.00	
51	PT	12dicloropra	30.0000	32.3859	-7.95	103	0.00	
52	T	23Dicl1propene	30.0000	31.5268	-5.09	104	0.00	
53	T	Dibromometha	30.0000	31.2862	-4.29	101	0.00	
54	T	methylmethacrylate	30.0000	33.1856	-10.62	106	0.00	
55	T	14dioxane	1500.0000	1596.0290	-6.40	101	0.00	
56	PT	Bromodiclrma	30.0000	31.7644	-5.88	101	0.00	
57	T	2Nitropropane	300.0000	325.0294	-8.34	99	0.00	
58	T	2CLEVE	150.0000	168.4786	-12.32	106	0.00	
59	PT	c13dicloproe	30.0000	32.4990	-8.33	100	0.00	
60	PT	4Meth2Pentan	300.0000	310.1742	-3.39	102	0.00	
61	S	SURRd8Tolule	20.0000	20.5105	-2.55	102	0.00	
62	PT	Toluene	30.0000	30.8979	-2.99	101	0.00	
63	PT	t13Dicloprop	30.0000	34.7496	-15.83	102	0.00	
64	T	ethylmethacrylate	60.0000	63.6626	-6.10	100	0.00	
65	PT	112Triclotha	30.0000	31.7745	-5.91	101	0.00	
66	PT	Tetrachlorte	30.0000	32.3157	-7.72	104	0.00	
67	T	13Diclorpropa	30.0000	31.0459	-3.49	101	0.00	
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00	
69	PT	2Hexanone	300.0000	272.1872	9.27	103	0.00	
70	PT	Clorodibrmta	30.0000	32.1499	-7.17	104	0.00	
71	PT	12Dibrometha	30.0000	31.8908	-6.30	104	0.00	
72	PT	Chlorobenzen	30.0000	28.6896	4.37	101	0.00	
73	T	1Clhexane	30.0000	30.2422	-0.81	101	0.00	
74	T	1112Tetclota	30.0000	31.6101	-5.37	99	0.00	
75	PT	Ethylbenzene	30.0000	29.1208	2.93	101	0.00	
76	PT	m p-Xylene	60.0000	59.3911	1.01	101	0.00	
77	PT	o-Xylene	30.0000	31.3303	-4.43	101	0.00	
78	PT	Styrene	30.0000	30.7989	-2.66	101	0.00	
79	PT	Bromoform	30.0000	32.4230	-8.08	101	0.00	
80	PT	Isopropylben	30.0000	30.1879	-0.63	102	0.00	
81	T	cyclohexanone	600.0000	628.6478	-4.77	110	0.00	
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00	
83	S	SURR4BrFBenz	20.0000	20.0131	-0.07	103	0.00	
84	T	Bromobenzene	30.0000	28.8641	3.79	103	0.00	
85	PT	1122Tetrclta	30.0000	28.3544	5.49	101	0.00	
86	T	123Triclproa	30.0000	30.5822	-1.94	102	0.00	
87	T	14dichloro2butene	30.0000	33.0951	-10.32	100	0.00	
88	T	n-Propylbenz	30.0000	27.9890	6.70	101	0.00	
89	T	2chlorotolue	30.0000	27.9519	6.83	101	0.00	
90	T	4chlorotolue	30.0000	28.2118	5.96	100	0.00	
91	T	135Trimebenz	30.0000	28.9973	3.34	101	0.00	
92	T	tbutylbenzen	30.0000	29.4989	1.67	102	0.00	
93	T	124Trimetben	30.0000	28.8175	3.94	100	0.00	
94	T	sbutylbenzen	30.0000	29.2703	2.43	101	0.00	
95	PT	13Diclorbenz	30.0000	28.6570	4.48	102	0.00	
96	T	pIsopropylto	30.0000	29.5244	1.59	102	0.00	
97	PT	14dichlorobe	30.0000	28.2423	5.86	101	0.00	
98	PT	12dichlorobe	30.0000	28.7089	4.30	101	0.00	
99	T	nButylbenzen	30.0000	28.6331	4.56	100	0.00	
100	PT	12dibromo3cl	30.0000	32.0957	-6.99	103	0.00	
101	T	135Trichlorobenzene	30.0000	28.0118	6.63	98	0.00	
102	PT	124Trichlobe	30.0000	30.2030	-0.68	101	0.00	
103	T	Hexachlorobu	30.0000	31.3109	-4.37	102	0.00	
104	T	Naphthalene	30.0000	31.4965	-4.99	105	0.00	
105	T	123Trichlben	30.0000	29.5853	1.38	101	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Mon May 02 08:16:54 2022

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1439164	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1149131	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	654334	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	378028	19.995	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	103349	20.220	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1512916	20.511	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	646838	20.013	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	629806	37.0645	ug/L	98
3) Chloromethan	2.10	50	495888	28.0618	ug/L	100
4) VinylChlorid	2.24	62	530710	31.0784	ug/L	98
5) Bromomethane	2.70	94	286311	29.7987	ug/L	97
6) Chloroethane	2.87	64	318469	29.5794	ug/L	99
7) Dichloroflmethane	3.18	67	1078375	29.2800	ug/L	98
8) Trichlorofma	3.26	101	877119	34.5810	ug/L	100
9) Ethylether	3.71	59	442865	31.6949	ug/L	99
10) dichlorotfluoroethan	3.72	67	1069185	31.7807	ug/L	99
11) propyleneoxide	3.76	58	1471546	311.6794	ug/L	99
12) Acrolein	3.84	56	585730	148.4097	ug/L	98
13) 11dichlorthe	3.99	96	584268	34.0860	ug/L	98
14) Trichlorotfluoroeth	4.03	101	973855	65.4812	ug/L	97
15) Acetone	4.05	43	2000894	292.2127	ug/L	98
16) Iodomethane	4.16	142	1202160	63.4080	ug/L	98
17) Carbon Dislf	4.26	76	2099200	60.8723	ug/L	98
18) allylchloride	4.47	41	1715688	58.8705	ug/L	97
19) methylacetate	4.53	74	171331	31.6417	ug/L	98
20) Methylchlorid	4.63	84	639175	30.3371	ug/L	96
21) tbutylalcohol	4.83	59	3140950	1619.0083	ug/L	97
22) Acrylonitrile	4.93	53	1340833	152.6713	ug/L	98
23) t12dichlorte	5.01	96	629726	31.9904	ug/L	98
24) MtBE	5.03	73	1444667	31.6492	ug/L	97
25) Hexane	5.40	57	1921740	66.6023	ug/L	98
26) 11dichlorota	5.53	63	1062557	31.7750	ug/L	98
27) Vinylacetate	5.62	43	6331497	312.8181	ug/L	91
28) chloroprene	5.66	53	1826935	62.0681	ug/L	97
29) Diisopether	5.68	45	1661597	30.2307	ug/L	100
30) ETBE	6.13	59	1445393	31.9047	ug/L	96
31) 22dichloropr	6.27	77	654326	32.8614	ug/L	98
32) c12dichlorte	6.26	96	666336	31.2207	ug/L	98
33) 2Butanone	6.28	72	922729	319.7577	ug/L	96
34) propionitrile	6.32	54	1127797	301.9681	ug/L	99
35) Ethylacetate	6.38	88	153744	169.2475	ug/L	94
36) methacrylonitrile	6.53	67	645397	61.1545	ug/L	98
37) Bromochlorma	6.55	128	310404	32.4201	ug/L	95
38) Tetrahydofur	6.63	42	1892122	308.6403	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	1026082	31.1858	ug/L	98
40)	111trichlota	6.90	97	902186	33.7187	ug/L	97
42)	Cyclohexane	6.99	56	887288	35.0307	ug/L	97
43)	Carbtetraclo	7.12	119	730448	36.0553	ug/L	100
44)	11dicloprope	7.11	110	312577	33.5728	ug/L	98
46)	Benzene	7.36	78	2289814	29.9190	ug/L	98
47)	12dichlorota	7.36	62	760862	30.3680	ug/L	98
48)	TAME	7.52	73	1381453	33.3505	ug/L	95
49)	trichloroete	8.16	95	655845	32.6413	ug/L	99
50)	methylcyclohexane	8.43	83	1312337	30.7857	ug/L	98
51)	12dicloropra	8.42	63	670320	32.3859	ug/L	93
52)	23Dicl1propene	8.48	75	984081	31.5268	ug/L	98
53)	Dibromometha	8.56	93	368354	31.2862	ug/L	97
54)	methylmethacrylate	8.59	69	513177	33.1856	ug/L	98
55)	14dioxane	8.60	88	470484	1596.0290	ug/L	98
56)	Bromodiclrma	8.76	83	783702	31.7644	ug/L	98
57)	2Nitropropane	9.03	43	1729388	325.0294	ug/L	99
58)	2CLEVE	9.15	63	1175760	168.4786	ug/L	98
59)	c13dicloproe	9.34	75	923106	32.4990	ug/L	98
60)	4Meth2Pentan	9.54	43	4580497	310.1742	ug/L	90
62)	Toluene	9.79	92	1517917	30.8979	ug/L	94
63)	t13Dicloprop	10.05	75	778106	34.7496	ug/L	98
64)	ethylmethacrylate	10.19	69	1717648	63.6626	ug/L	98
65)	112Triclotha	10.28	83	478732	31.7745	ug/L	98
66)	Tetrachlorte	10.52	166	679873	32.3157	ug/L	98
67)	13Diclorpropa	10.51	76	955018	31.0459	ug/L	99
69)	2Hexanone	10.62	43	3647906	272.1872	ug/L	93
70)	Clorodibrmta	10.81	129	605156	32.1499	ug/L	98
71)	12Dibrometha	10.97	107	566662	31.8908	ug/L	100
72)	Chlorobenzen	11.65	112	1596698	28.6896	ug/L	99
73)	1Clhexane	11.63	91	878746	30.2422	ug/L	94
74)	1112Tetclota	11.76	131	537681	31.6101	ug/L	92
75)	Ethylbenzene	11.81	91	2567112	29.1208	ug/L	94
76)	m p-Xylene	11.98	106	2060078	59.3911	ug/L	90
77)	o-Xylene	12.52	106	1065840	31.3303	ug/L	88
78)	Styrene	12.53	104	1714833	30.7989	ug/L	98
79)	Bromoform	12.77	173	418659	32.4230	ug/L	99
80)	Isopropylben	13.05	105	2507235	30.1879	ug/L	95
81)	cyclohexanone	13.13	55	729202	628.6478	ug/L	98
84)	Bromobenzene	13.46	156	679447	28.8641	ug/L	97
85)	1122Tetrclta	13.43	83	775653	28.3544	ug/L	96
86)	123Triclproa	13.49	75	1001587	30.5822	ug/L	99
87)	14dichloro2butene	13.51	53	242149	33.0951	ug/L	95
88)	n-Propylbenz	13.64	91	2844258	27.9890	ug/L	93
89)	2chlorotolue	13.75	91	1811448	27.9519	ug/L	97
90)	4chlorotolue	13.90	91	2037312	28.2118	ug/L	96
91)	135Trimebenz	13.89	105	2106431	28.9973	ug/L	97
92)	tbutylbenzen	14.36	119	1841593	29.4989	ug/L	96
93)	124Trimetben	14.43	105	2047778	28.8175	ug/L	95
94)	sbutylbenzen	14.68	105	2574772	29.2703	ug/L	95
95)	13Diclorbenz	14.82	146	1195371	28.6570	ug/L	98
96)	pIsopropylto	14.90	119	2205358	29.5244	ug/L	96
97)	14dichlorobe	14.94	146	1208315	28.2423	ug/L	99
98)	12dichlorobe	15.48	146	1124243	28.7089	ug/L	98
99)	nButylbenzen	15.49	91	1994369	28.6331	ug/L	94
100)	12dibromo3cl	16.57	157	162851	32.0957	ug/L	96
101)	135Trichlorobenzene	16.90	180	913302	28.0118	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	766211	30.2030	ug/L	97
103) Hexachlorobu	17.97	225	361327	31.3109	ug/L	99
104) Naphthalene	18.02	128	1805809	31.4965	ug/L	97
105) 123Trichlben	18.33	180	714913	29.5853	ug/L	99

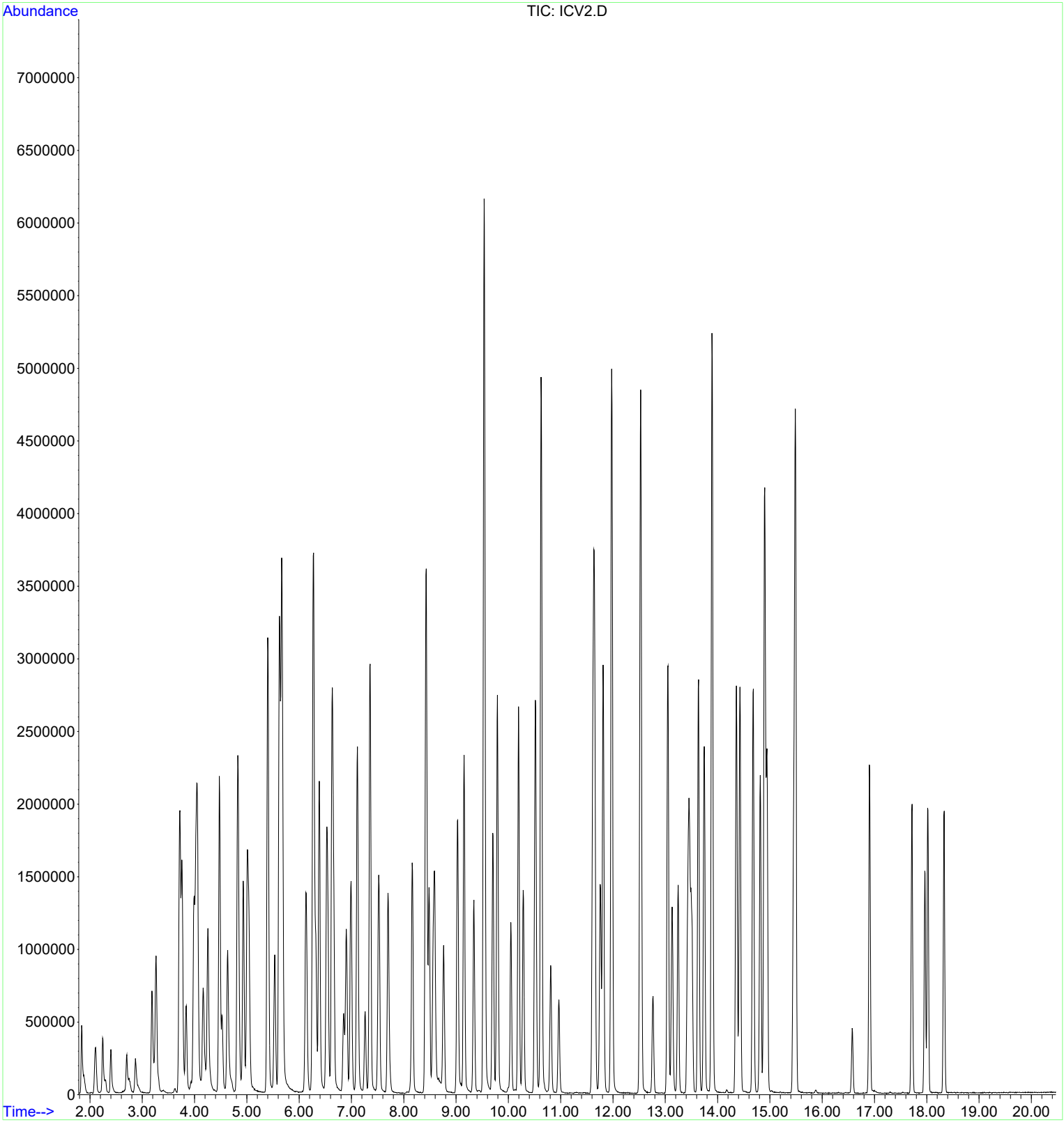
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1342168	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1085790	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	581690	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	352853	20.012 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.26	102	94383	19.801 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %		
61) SURRd8Tolule	9.71	98	1382857	20.102 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	588119	20.469 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	11922	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3900	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	7107	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	9.02	43	4215	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	9.54	43	9716	Below	Cal	93
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	10.63	43	11884	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	5339	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	11.81	91	6260	N.D.		
76)	m p-Xylene	11.98	106	4243	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	13.05	105	7332	N.D.		
81)	cyclohexanone	13.13	55	4544	20.6152	ug/L #	80
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	13.63	91	10706	N.D.		
89)	2chlorotolue	13.75	91	4210	N.D.		
90)	4chlorotolue	13.90	91	4172	N.D.		
91)	135Trimebenz	13.89	105	5278	N.D.		
92)	tbutylbenzen	14.36	119	8155	N.D.		
93)	124Trimetben	14.43	105	6409	N.D.		
94)	sbutylbenzen	14.68	105	11927	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	14.90	119	11796	N.D.		
97)	14dichlorobe	14.93	146	2580	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.50	91	14851	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	16.91	180	3160	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	3714	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.02	128	12000	N.D.		
105) 123Trichlben	18.34	180	3620	N.D.		

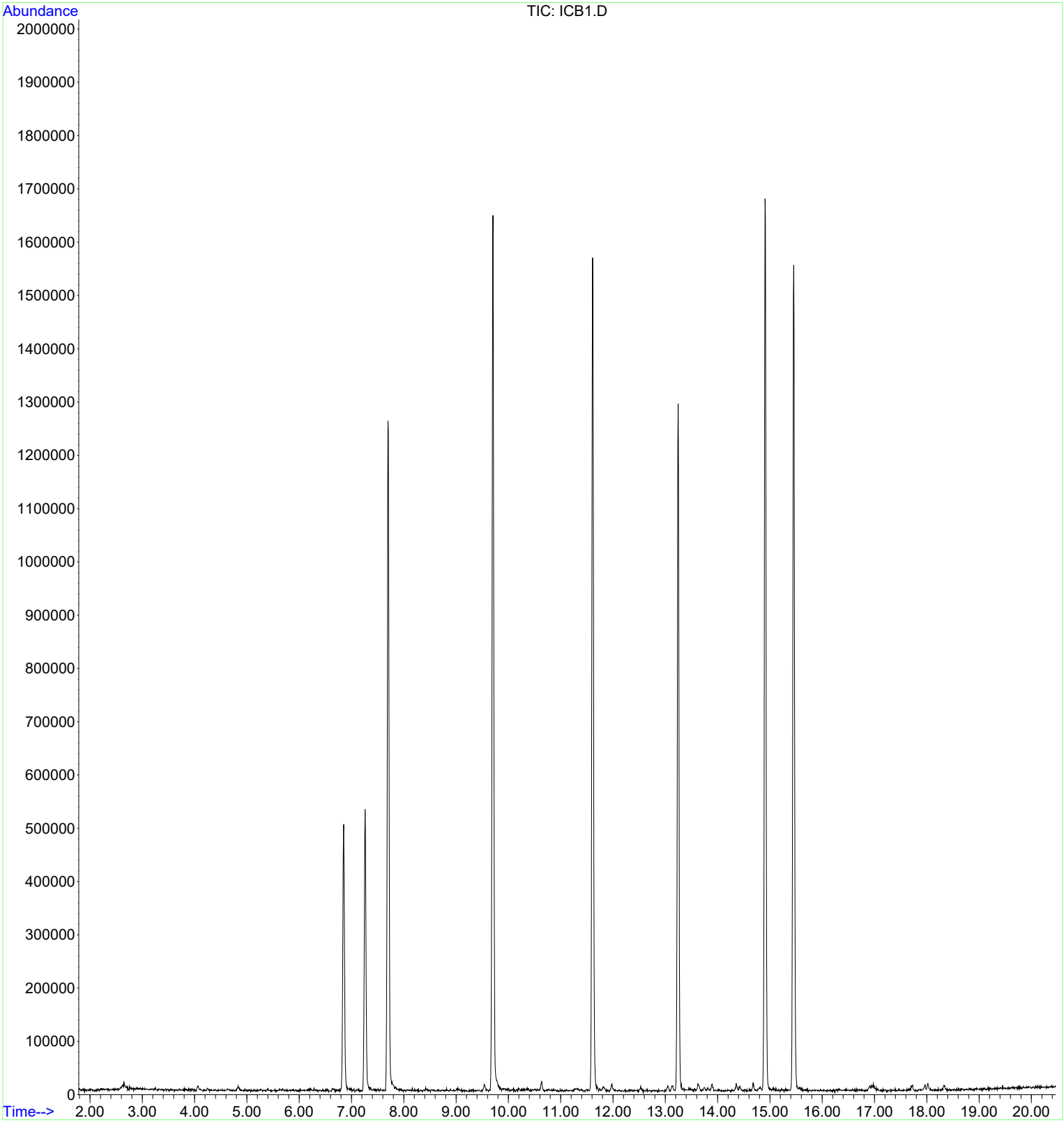
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 29 09:21:20 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	106	0.00
2	PT	Dichlorodi	0.2581	0.2910	-12.75	113	0.00
3	PT	Chloromethan	0.2382	0.2351	1.30	102	0.00
4	PT	VinylChlorid	0.2431	0.2502	-2.92	105	0.00
5	PT	Bromomethane	0.1405	0.1557	-10.82	121	0.00
6	PT	Chloroethane	0.1567	0.1546	1.34	110	0.00
7	T	Dichloroflmethane	0.5294	0.5144	2.83	102	0.00
8	PT	Trichlorofma	0.3882	0.4207	-8.37	106	0.00
9	T	Ethylether	0.1949	0.2039	-4.62	115	0.00
10	T	dichlorotfluoroethan	0.4948	0.5196	-5.01	105	0.00
11	T	propyleneoxide	0.0691	0.0691	0.00	109	0.00
12	T	Acrolein	0.0566	0.0560	1.06	106	0.00
13	PT	11dichlorthe	0.2560	0.2754	-7.58	111	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2285	-7.18	106	0.00
15	PT	Acetone	0.1042	0.0990#	4.99	109	0.00
16	T	Iodomethane	0.2651	0.2449	7.62	94	0.00
17	PT	Carbon Dislf	0.4879	0.5112	-4.78	108	0.00
18	T	allylchloride	0.4204	0.4210	-0.14	102	0.00
19	PT	methylacetate	0.0773	0.0749#	3.10	119	0.00
20	PT	Methylchlorid	0.3175	0.3043	4.16	107	0.00
21	T	tbutylalcohol	0.0282	0.0312	-10.64	119	0.00
22	T	Acrylonitrile	0.1258	0.1304	-3.66	111	0.00
23	PT	t12dichlorte	0.2902	0.2971	-2.38	107	0.00
24	PT	MtBE	0.6525	0.6828	-4.64	112	0.00
25	T	Hexane	0.4321	0.4744	-9.79	101	0.00
26	PT	11dichlorota	0.5022	0.5110	-1.75	107	0.00
27	T	Vinylacetate	0.3685	0.3475	5.70	91	0.00
28	T	chloroprene	0.4236	0.4522	-6.75	104	0.00
29	T	Diisopether	0.7765	0.8368	-7.77	108	0.00
30	T	ETBE	0.6416	0.6906	-7.64	114	0.00
31	T	22dichloropr	0.2949	0.2878	2.41	104	0.00
32	PT	c12dichlorte	0.3068	0.3192	-4.04	109	0.00
33	PT	2Butanone	0.0411	0.0433#	-5.35	116	0.00
34	T	propionitrile	0.0541	0.0539	0.37	108	0.00
35	T	Ethylacetate	0.0130	0.0136#	-4.62	117	0.00
36	T	methacrylonitrile	0.1528	0.1536	-0.52	108	0.00
37	T	Bromochlorma	0.1448	0.1421	1.86	107	0.00
38	T	Tetrahydofur	0.0888	0.0925	-4.17	110	0.00
39	PT	Chloroform	0.4912	0.5031	-2.42	110	0.00
40	PT	111trichlota	0.3965	0.4137	-4.34	108	0.00
41	S	SURRDibrflma	0.2659	0.2613	1.73	105	0.00
42	PT	Cyclohexane	0.3737	0.4206	-12.55	109	0.00
43	PT	Carbtetraclo	0.3103	0.3269	-5.35	108	0.00
44	T	11dicloprope	0.1417	0.1469	-3.67	109	0.00
45	S	SURR12DCAd4	0.0709	0.0672	5.22	97	0.00
46	PT	Benzene	1.1203	1.1686	-4.31	105	0.00
47	PT	12dichlorota	0.3677	0.3691	-0.38	106	0.00
48	T	TAME	0.5985	0.6497	-8.55	115	0.00

49	PT	trichloroete	0.2940	0.3091	-5.14	112	0.00
50	PT	methylcyclohexane	0.5670	0.6139	-8.27	102	0.00
51	PT	12dicloropra	0.3099	0.3122	-0.74	106	0.00
52	T	23Dicl1propene	0.4418	0.4552	-3.03	109	0.00
53	T	Dibromometha	0.1741	0.1787	-2.64	113	0.00
54	T	methylmethacrylate	0.2175	0.2335	-7.36	118	0.00
55	T	14dioxane	0.0044	0.0043#	2.27	115	0.00
56	PT	Bromodiclrma	0.3686	0.3708	-0.60	107	0.00
57	T	2Nitropropane	0.0782	0.0807	-3.20	107	0.00
58	T	2CLEVE	0.0959	0.1059	-10.43	122	0.00
59	PT	c13dicloproe	0.4161	0.4355	-4.66	111	0.00
60	PT	4Meth2Pentan	0.2366	0.2655	-12.21	112	0.00
61	S	SURRd8Tolule	1.0461	1.0304	1.50	103	0.00
62	PT	Toluene	0.7215	0.7591	-5.21	109	0.00
63	PT	t13Dicloprop	0.3396	0.3571	-5.15	113	0.00
64	T	ethylmethacrylate	0.3848	0.4110	-6.81	111	0.00
65	PT	112Triclotha	0.2212	0.2240	-1.27	109	0.00
66	PT	Tetrachlorte	0.3038	0.3135	-3.19	104	0.00
67	T	13Diclorpropa	0.4572	0.4641	-1.51	110	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	103	0.00
69	PT	2Hexanone	0.2204	0.2578	-16.97	115	0.00
70	PT	Clorodibrmta	0.3407	0.3543	-3.99	109	0.00
71	PT	12Dibrometha	0.3149	0.3392	-7.72	115	0.00
72	PT	Chlorobenzen	0.9740	1.0176	-4.48	108	0.00
73	T	1Clhexane	0.4841	0.5422	-12.00	114	0.00
74	T	1112Tetclota	0.3104	0.3210	-3.41	108	0.00
75	PT	Ethylbenzene	1.5510	1.7074	-10.08	108	0.00
76	PT	m p-Xylene	0.6021	0.6709	-11.43	109	0.00
77	PT	o-Xylene	0.6026	0.6562	-8.89	108	0.00
78	PT	Styrene	0.9711	1.0820	-11.42	110	0.00
79	PT	Bromoform	0.2277	0.2413	-5.97	115	0.00
80	PT	Isopropylben	1.4429	1.6641	-15.33	111	0.00
81	T	cyclohexanone	0.0184	0.0221#	-20.11#	133	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	103	0.00
83	S	SURR4BrFBenz	0.9896	1.0035	-1.40	105	0.00
84	T	Bromobenzene	0.6980	0.7333	-5.06	108	0.00
85	PT	1122Tetrclta	0.8297	0.8516	-2.64	109	0.00
86	T	123Triclproa	1.0131	1.0322	-1.89	108	0.00
87	T	14dichloro2butene	0.2339	0.2357	-0.77	109	0.00
88	T	n-Propylbenz	3.0653	3.4971	-14.09	109	0.00
89	T	2chlorotolue	1.9399	2.1132	-8.93	111	0.00
90	T	4chlorotolue	2.2100	2.4384	-10.33	110	0.00
91	T	135Trimebenz	2.1966	2.4487	-11.48	107	0.00
92	T	tbutylbenzen	1.8566	2.1226	-14.33	111	0.00
93	T	124Trimetben	2.1381	2.4036	-12.42	110	0.00
94	T	sbutylbenzen	2.6311	3.1057	-18.04	111	0.00
95	PT	13Diclorbenz	1.2599	1.3275	-5.37	107	0.00
96	T	pIsopropylto	2.2538	2.6180	-16.16	112	0.00
97	PT	14dichlorobe	1.2966	1.3627	-5.10	108	0.00
98	PT	12dichlorobe	1.2210	1.2836	-5.13	110	0.00
99	T	nButylbenzen	2.0963	2.3982	-14.40	111	0.00
100	PT	12dibromo3cl	0.1572	0.1610	-2.42	115	0.00
101	T	135Trichlorobenzene	0.9798	1.0200	-4.10	107	0.00
102	PT	124Trichlobe	0.7749	0.8374	-8.07	113	0.00
103	T	Hexachlorobu	0.3464	0.3822	-10.33	110	0.00
104	T	Naphthalene	1.7086	2.0297	-18.79	123	0.00
105	T	123Trichlben	0.7370	0.7957	-7.96	114	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Mon May 02 08:15:47 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 29 09:21:20 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	106	0.00
2	PT	Dichlorodi	10.0000	11.2739	-12.74	113	0.00
3	PT	Chloromethan	10.0000	9.8670	1.33	102	0.00
4	PT	VinylChlorid	10.0000	10.2931	-2.93	105	0.00
5	PT	Bromomethane	10.0000	11.0876	-10.88	121	0.00
6	PT	Chloroethane	10.0000	9.8665	1.33	110	0.00
7	T	Dichloroflmethane	10.0000	9.7168	2.83	102	0.00
8	PT	Trichlorofma	10.0000	10.8364	-8.36	106	0.00
9	T	Ethylether	10.0000	10.4600	-4.60	115	0.00
10	T	dichlorotfluoroethan	10.0000	10.5020	-5.02	105	0.00
11	T	propyleneoxide	100.0000	99.9346	0.07	109	0.00
12	T	Acrolein	50.0000	49.4490	1.10	106	0.00
13	PT	11dichlorthe	10.0000	10.7543	-7.54	111	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.4367	-7.18	106	0.00
15	PT	Acetone	100.0000	95.0403	4.96	109	0.00
16	T	Iodomethane	20.0000	18.4787	7.61	94	0.00
17	PT	Carbon Dislf	20.0000	20.9543	-4.77	108	0.00
18	T	allylchloride	20.0000	20.0321	-0.16	102	0.00
19	PT	methylacetate	10.0000	9.6943	3.06	119	0.00
20	PT	Methylchlorid	10.0000	9.5861	4.14	107	0.00
21	T	tbutylalcohol	500.0000	553.3846	-10.68	119	0.00
22	T	Acrylonitrile	50.0000	51.8264	-3.65	111	0.00
23	PT	t12dichlorte	10.0000	10.2391	-2.39	107	0.00
24	PT	MtBE	10.0000	10.4639	-4.64	112	0.00
25	T	Hexane	20.0000	21.9541	-9.77	101	0.00
26	PT	11dichlorota	10.0000	10.1752	-1.75	107	0.00
27	T	Vinylacetate	100.0000	96.3568	3.64	91	0.00
28	T	chloroprene	20.0000	21.3479	-6.74	104	0.00
29	T	Diisopether	10.0000	10.7764	-7.76	108	0.00
30	T	ETBE	10.0000	10.7634	-7.63	114	0.00
31	T	22dichloropr	10.0000	9.7580	2.42	104	0.00
32	PT	c12dichlorte	10.0000	10.4039	-4.04	109	0.00
33	PT	2Butanone	100.0000	105.1965	-5.20	116	0.00
34	T	propionitrile	100.0000	99.5900	0.41	108	0.00
35	T	Ethylacetate	50.0000	52.4562	-4.91	117	0.00
36	T	methacrylonitrile	20.0000	20.0968	-0.48	108	0.00
37	T	Bromochlorma	10.0000	9.8134	1.87	107	0.00
38	T	Tetrahydofur	100.0000	104.1942	-4.19	110	0.00
39	PT	Chloroform	10.0000	10.2406	-2.41	110	0.00
40	PT	111trichlota	10.0000	10.4356	-4.36	108	0.00
41	S	SURRDibrflma	20.0000	19.6610	1.69	105	0.00
42	PT	Cyclohexane	10.0000	11.2534	-12.53	109	0.00
43	PT	Carbtetraclo	10.0000	10.5358	-5.36	108	0.00
44	T	11dicloprope	10.0000	10.3700	-3.70	109	0.00
45	S	SURR12DCAd4	20.0000	18.9397	5.30	97	0.00
46	PT	Benzene	10.0000	10.4312	-4.31	105	0.00
47	PT	12dichlorota	10.0000	10.0390	-0.39	106	0.00
48	T	TAME	10.0000	10.8561	-8.56	115	0.00

49	PT	trichloroete	10.0000	10.5127	-5.13	112	0.00
50	PT	methylcyclohexane	10.0000	9.5555	4.44	102	0.00
51	PT	12dicloropra	10.0000	10.0726	-0.73	106	0.00
52	T	23Dicl1propene	10.0000	10.3040	-3.04	109	0.00
53	T	Dibromometha	10.0000	10.2644	-2.64	113	0.00
54	T	methylmethacrylate	10.0000	10.7362	-7.36	118	0.00
55	T	14dioxane	500.0000	497.8570	0.43	115	0.00
56	PT	Bromodiclrma	10.0000	10.0613	-0.61	107	0.00
57	T	2Nitropropane	100.0000	103.1676	-3.17	107	0.00
58	T	2CLEVE	50.0000	55.2626	-10.53	122	0.00
59	PT	c13dicloproe	10.0000	10.4658	-4.66	111	0.00
60	PT	4Meth2Pentan	100.0000	108.2315	-8.23	112	0.00
61	S	SURRd8Tolule	20.0000	19.7007	1.50	103	0.00
62	PT	Toluene	10.0000	10.5204	-5.20	109	0.00
63	PT	t13Dicloprop	10.0000	10.5149	-5.15	113	0.00
64	T	ethylmethacrylate	20.0000	21.3637	-6.82	111	0.00
65	PT	112Triclotha	10.0000	10.1282	-1.28	109	0.00
66	PT	Tetrachlorte	10.0000	10.3196	-3.20	104	0.00
67	T	13Diclorpropa	10.0000	10.1490	-1.49	110	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	103	0.00
69	PT	2Hexanone	100.0000	109.1787	-9.18	115	0.00
70	PT	Clorodibrmta	10.0000	10.3988	-3.99	109	0.00
71	PT	12Dibrometha	10.0000	10.7723	-7.72	115	0.00
72	PT	Chlorobenzen	10.0000	10.4478	-4.48	108	0.00
73	T	1Clhexane	10.0000	11.2005	-12.00	114	0.00
74	T	1112Tetclota	10.0000	10.3399	-3.40	108	0.00
75	PT	Ethylbenzene	10.0000	11.0083	-10.08	108	0.00
76	PT	m p-Xylene	20.0000	22.2865	-11.43	109	0.00
77	PT	o-Xylene	10.0000	10.8902	-8.90	108	0.00
78	PT	Styrene	10.0000	11.1420	-11.42	110	0.00
79	PT	Bromoform	10.0000	10.5992	-5.99	115	0.00
80	PT	Isopropylben	10.0000	11.5328	-15.33	111	0.00
81	T	cyclohexanone	200.0000	222.6149	-11.31	133	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	103	0.00
83	S	SURR4BrFBenz	20.0000	20.2799	-1.40	105	0.00
84	T	Bromobenzene	10.0000	10.5051	-5.05	108	0.00
85	PT	1122Tetrclta	10.0000	10.2648	-2.65	109	0.00
86	T	123Triclproa	10.0000	10.1886	-1.89	108	0.00
87	T	14dichloro2butene	10.0000	10.0794	-0.79	109	0.00
88	T	n-Propylbenz	10.0000	11.4090	-14.09	109	0.00
89	T	2chlorotolue	10.0000	10.8932	-8.93	111	0.00
90	T	4chlorotolue	10.0000	11.0336	-10.34	110	0.00
91	T	135Trimebenz	10.0000	11.1473	-11.47	107	0.00
92	T	tbutylbenzen	10.0000	11.4323	-14.32	111	0.00
93	T	124Trimetben	10.0000	11.2416	-12.42	110	0.00
94	T	sbutylbenzen	10.0000	11.8035	-18.03	111	0.00
95	PT	13Diclorbenz	10.0000	10.5368	-5.37	107	0.00
96	T	pIsopropylto	10.0000	11.6160	-16.16	112	0.00
97	PT	14dichlorobe	10.0000	10.5093	-5.09	108	0.00
98	PT	12dichlorobe	10.0000	10.5125	-5.12	110	0.00
99	T	nButylbenzen	10.0000	11.4406	-14.41	111	0.00
100	PT	12dibromo3cl	10.0000	10.2413	-2.41	115	0.00
101	T	135Trichlorobenzene	10.0000	10.4099	-4.10	107	0.00
102	PT	124Trichlobe	10.0000	10.8059	-8.06	113	0.00
103	T	Hexachlorobu	10.0000	11.0336	-10.34	110	0.00
104	T	Naphthalene	10.0000	11.8796	-18.80	123	0.00
105	T	123Trichlben	10.0000	10.7961	-7.96	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Mon May 02 08:16:13 2022

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1439577	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1137009	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	633016	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	376228	19.661	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 98 %			
45) SURR12DCAd4	7.26	102	96687	18.940	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 95 %			
61) SURRd8Tolule	9.71	98	1483371	19.701	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 99 %			
83) SURR4BrFBenz	13.25	95	635218	20.280	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	209431	11.2739	ug/L	99
3) Chloromethan	2.10	50	169194	9.8670	ug/L	96
4) VinylChlorid	2.24	62	180101	10.2931	ug/L	99
5) Bromomethane	2.70	94	112103	11.0876	ug/L	98
6) Chloroethane	2.87	64	111282	9.8665	ug/L	92
7) Dichloroflmethane	3.18	67	370261	9.7168	ug/L	100
8) Trichlorofma	3.26	101	302816	10.8364	ug/L	98
9) Ethylether	3.71	59	146743	10.4600	ug/L	97
10) dichlorotfluoroethan	3.72	67	374018	10.5020	ug/L	99
11) propyleneoxide	3.76	58	497196	99.9346	ug/L	97
12) Acrolein	3.84	56	201584	49.4490	ug/L	99
13) 11dichlorthe	3.99	96	198196	10.7543	ug/L	99
14) Trichlorotfluoroeth	4.03	101	328915	21.4367	ug/L	99
15) Acetone	4.05	43	712652	95.0403	ug/L	97
16) Iodomethane	4.16	142	352619	18.4787	ug/L	98
17) Carbon Dislf	4.25	76	735957	20.9543	ug/L	99
18) allylchloride	4.47	41	606127	20.0321	ug/L	97
19) methylacetate	4.53	74	53925	9.6943	ug/L	91
20) Methylchlorid	4.63	84	219062	9.5861	ug/L	99
21) tbutylalcohol	4.83	59	1121600	553.3846	ug/L	97
22) Acrylonitrile	4.93	53	469185	51.8264	ug/L	99
23) t12dichlorte	5.01	96	213872	10.2391	ug/L	99
24) MtBE	5.03	73	491454	10.4639	ug/L	99
25) Hexane	5.40	57	682883	21.9541	ug/L	99
26) 11dichlorota	5.53	63	367779	10.1752	ug/L	99
27) Vinylacetate	5.62	43	2501564	96.3568	ug/L	100
28) chloroprene	5.67	53	650932	21.3479	ug/L	99
29) Diisopether	5.68	45	602302	10.7764	ug/L	93
30) ETBE	6.13	59	497053	10.7634	ug/L	99
31) 22dichloropr	6.27	77	207131	9.7580	ug/L	97
32) c12dichlorte	6.26	96	229737	10.4039	ug/L	100
33) 2Butanone	6.28	72	311544	105.1965	ug/L	98
34) propionitrile	6.32	54	387646	99.5900	ug/L	100
35) Ethylacetate	6.39	88	48997	52.4562	ug/L #	92
36) methacrylonitrile	6.52	67	221064	20.0968	ug/L	98
37) Bromochlorma	6.55	128	102276	9.8134	ug/L	99
38) Tetrahydofur	6.63	42	665637	104.1942	ug/L	96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	362100	10.2406	ug/L	98
40)	111trichlota	6.91	97	297803	10.4356	ug/L	98
42)	Cyclohexane	6.99	56	302733	11.2534	ug/L	98
43)	Carbtetraclo	7.12	119	235310	10.5358	ug/L	98
44)	11dicloprope	7.11	110	105738	10.3700	ug/L	96
46)	Benzene	7.36	78	841139	10.4312	ug/L	99
47)	12dichlorota	7.36	62	265707	10.0390	ug/L	99
48)	TAME	7.53	73	467664	10.8561	ug/L	97
49)	trichloroete	8.16	95	222452	10.5127	ug/L	98
50)	methylcyclohexane	8.43	83	441867	9.5555	ug/L	98
51)	12dicloropra	8.43	63	224691	10.0726	ug/L	100
52)	23Dicl1propene	8.48	75	327645	10.3040	ug/L	99
53)	Dibromometha	8.56	93	128606	10.2644	ug/L	98
54)	methylmethacrylate	8.59	69	168100	10.7362	ug/L	97
55)	14dioxane	8.60	88	156129	497.8570	ug/L	98
56)	Bromodiclrma	8.76	83	266906	10.0613	ug/L	98
57)	2Nitropropane	9.03	43	581047	103.1676	ug/L	99
58)	2CLEVE	9.15	63	381278	55.2626	ug/L	100
59)	c13dicloproe	9.34	75	313483	10.4658	ug/L	99
60)	4Meth2Pentan	9.54	43	1910863	108.2315	ug/L	99
62)	Toluene	9.79	92	546375	10.5204	ug/L	99
63)	t13Dicloprop	10.05	75	257013	10.5149	ug/L	99
64)	ethylmethacrylate	10.20	69	591716	21.3637	ug/L	98
65)	112Triclotha	10.28	83	161253	10.1282	ug/L	97
66)	Tetrachlorte	10.52	166	225668	10.3196	ug/L	97
67)	13Diclorpropa	10.51	76	334021	10.1490	ug/L	99
69)	2Hexanone	10.62	43	1465379	109.1787	ug/L	98
70)	Clorodibrmta	10.81	129	201435	10.3988	ug/L	99
71)	12Dibrometha	10.97	107	192831	10.7723	ug/L	98
72)	Chlorobenzen	11.65	112	578510	10.4478	ug/L	99
73)	1Clhexane	11.63	91	308246	11.2005	ug/L	94
74)	1112Tetclota	11.76	131	182483	10.3399	ug/L	98
75)	Ethylbenzene	11.81	91	970667	11.0083	ug/L	98
76)	m p-Xylene	11.98	106	762857	22.2865	ug/L	99
77)	o-Xylene	12.53	106	373073	10.8902	ug/L	99
78)	Styrene	12.53	104	615119	11.1420	ug/L	100
79)	Bromoform	12.77	173	137179	10.5992	ug/L	98
80)	Isopropylben	13.05	105	946029	11.5328	ug/L	98
81)	cyclohexanone	13.14	55	250994	222.6149	ug/L	98
84)	Bromobenzene	13.46	156	232096	10.5051	ug/L	98
85)	1122Tetrclta	13.43	83	269548	10.2648	ug/L	99
86)	123Triclproa	13.49	75	326703	10.1886	ug/L	96
87)	14dichloro2butene	13.51	53	74606	10.0794	ug/L	95
88)	n-Propylbenz	13.64	91	1106873	11.4090	ug/L	99
89)	2chlorotolue	13.75	91	668833	10.8932	ug/L	98
90)	4chlorotolue	13.90	91	771785	11.0336	ug/L	99
91)	135Trimebenz	13.89	105	775026	11.1473	ug/L	98
92)	tbutylbenzen	14.36	119	671810	11.4323	ug/L	99
93)	124Trimetben	14.43	105	760745	11.2416	ug/L	100
94)	sbutylbenzen	14.68	105	982966	11.8035	ug/L	98
95)	13Diclorbenz	14.82	146	420172	10.5368	ug/L	98
96)	pIsopropylto	14.90	119	828620	11.6160	ug/L	98
97)	14dichlorobe	14.94	146	431302	10.5093	ug/L	99
98)	12dichlorobe	15.48	146	406259	10.5125	ug/L	99
99)	nButylbenzen	15.49	91	759061	11.4406	ug/L	99
100)	12dibromo3cl	16.58	157	50962	10.2413	ug/L	93
101)	135Trichlorobenzene	16.90	180	322832	10.4099	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	265036	10.8059	ug/L	99
103) Hexachlorobu	17.96	225	120956	11.0336	ug/L	98
104) Naphthalene	18.02	128	642431	11.8796	ug/L	99
105) 123Trichlben	18.33	180	251841	10.7961	ug/L	98

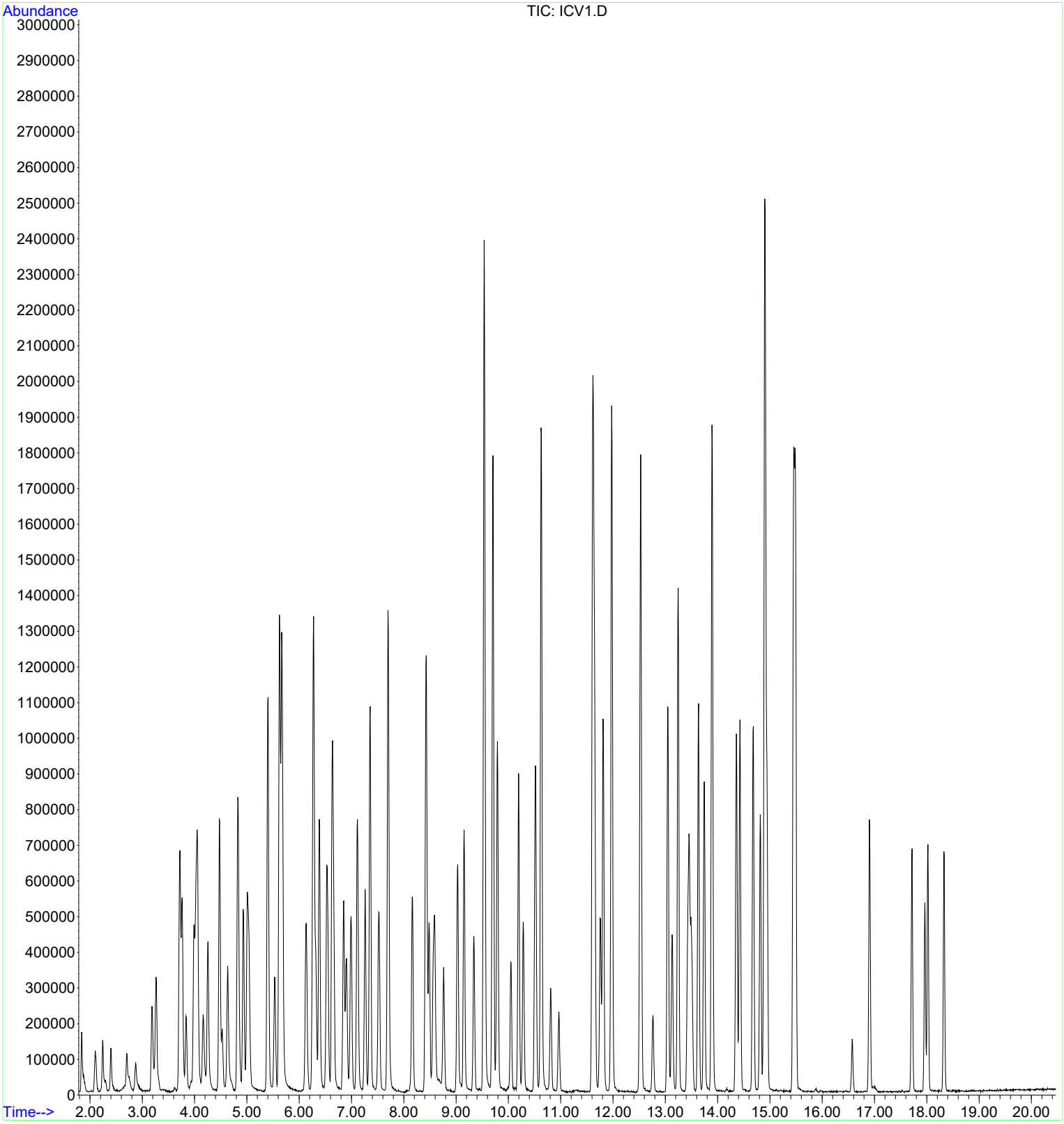
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV1.D Vial: 14
Acq On : 28 Apr 2022 19:37 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 29 09:21:20 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: Apr 28 20:29:00 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00
2	PT	Dichlorodi	30.0000	37.0645	-23.55#	111	0.00
3	PT	Chloromethan	30.0000	28.0618	6.46	101	0.00
4	PT	VinylChlorid	30.0000	31.0784	-3.59	104	0.00
5	PT	Bromomethane	30.0000	29.7987	0.67	101	-0.01
6	PT	Chloroethane	30.0000	29.5794	1.40	102	0.00
7	T	Dichloroflmethane	30.0000	29.2800	2.40	98	0.00
8	PT	Trichlorofma	30.0000	34.5810	-15.27	106	0.00
9	T	Ethylether	30.0000	31.6949	-5.65	103	0.00
10	T	dichlorotfluoroethan	30.0000	31.7807	-5.94	100	0.00
11	T	propyleneoxide	300.0000	311.6794	-3.89	100	0.00
12	T	Acrolein	150.0000	148.4097	1.06	97	0.00
13	PT	11dichlorthe	30.0000	34.0860	-13.62	104	0.00
14	PT	Trichlorotfluoroeth	60.0000	65.4812	-9.14	104	0.00
15	PT	Acetone	300.0000	292.2127	2.60	102	0.00
16	T	Iodomethane	60.0000	63.4080	-5.68	98	0.00
17	PT	Carbon Dislf	60.0000	60.8723	-1.45	105	0.00
18	T	allylchloride	60.0000	58.8705	1.88	97	0.00
19	PT	methylacetate	30.0000	31.6417	-5.47	102	0.00
20	PT	Methylchlorid	30.0000	30.3371	-1.12	102	0.00
21	T	tbutylalcohol	1500.0000	1619.0083	-7.93	103	0.00
22	T	Acrylonitrile	150.0000	152.6713	-1.78	102	0.00
23	PT	t12dichlorte	30.0000	31.9904	-6.63	102	0.00
24	PT	MtBE	30.0000	31.6492	-5.50	103	0.00
25	T	Hexane	60.0000	66.6023	-11.00	97	0.00
26	PT	11dichlorota	30.0000	31.7750	-5.92	101	0.00
27	T	Vinylacetate	300.0000	312.8181	-4.27	97	0.00
28	T	chloroprene	60.0000	62.0681	-3.45	99	0.00
29	T	Diisopether	30.0000	30.2307	-0.77	100	0.00
30	T	ETBE	30.0000	31.9047	-6.35	104	0.00
31	T	22dichloropr	30.0000	32.8614	-9.54	98	0.00
32	PT	c12dichlorte	30.0000	31.2207	-4.07	100	0.00
33	PT	2Butanone	300.0000	319.7577	-6.59	104	0.00
34	T	propionitrile	300.0000	301.9681	-0.66	100	0.00
35	T	Ethylacetate	150.0000	169.2475	-12.83	105	0.00
36	T	methacrylonitrile	60.0000	61.1545	-1.92	100	0.00
37	T	Bromochlorma	30.0000	32.4201	-8.07	102	0.00
38	T	Tetrahydofur	300.0000	308.6403	-2.88	104	0.00
39	PT	Chloroform	30.0000	31.1858	-3.95	101	0.00
40	PT	111trichlota	30.0000	33.7187	-12.40	105	0.00
41	S	SURRDibrflma	20.0000	19.9952	0.02	100	0.00
42	PT	Cyclohexane	30.0000	35.0307	-16.77	103	0.00
43	PT	Carbtetraclo	30.0000	36.0553	-20.18#	102	0.00
44	T	11dicloprope	30.0000	33.5728	-11.91	99	0.00
45	S	SURR12DCAd4	20.0000	20.2204	-1.10	103	0.00
46	PT	Benzene	30.0000	29.9190	0.27	101	0.00
47	PT	12dichlorota	30.0000	30.3680	-1.23	101	0.00
48	T	TAME	30.0000	33.3505	-11.17	103	0.00

49	PT	trichloroete	30.0000	32.6413	-8.80	105	0.00	
50	PT	methylcyclohexane	30.0000	30.7857	-2.62	98	0.00	
51	PT	12dicloropra	30.0000	32.3859	-7.95	103	0.00	
52	T	23Dicl1propene	30.0000	31.5268	-5.09	104	0.00	
53	T	Dibromometha	30.0000	31.2862	-4.29	101	0.00	
54	T	methylmethacrylate	30.0000	33.1856	-10.62	106	0.00	
55	T	14dioxane	1500.0000	1596.0290	-6.40	101	0.00	
56	PT	Bromodiclrma	30.0000	31.7644	-5.88	101	0.00	
57	T	2Nitropropane	300.0000	325.0294	-8.34	99	0.00	
58	T	2CLEVE	150.0000	168.4786	-12.32	106	0.00	
59	PT	c13dicloproe	30.0000	32.4990	-8.33	100	0.00	
60	PT	4Meth2Pentan	300.0000	310.1742	-3.39	102	0.00	
61	S	SURRd8Tolule	20.0000	20.5105	-2.55	102	0.00	
62	PT	Toluene	30.0000	30.8979	-2.99	101	0.00	
63	PT	t13Dicloprop	30.0000	34.7496	-15.83	102	0.00	
64	T	ethylmethacrylate	60.0000	63.6626	-6.10	100	0.00	
65	PT	112Triclotha	30.0000	31.7745	-5.91	101	0.00	
66	PT	Tetrachlorte	30.0000	32.3157	-7.72	104	0.00	
67	T	13Diclorpropa	30.0000	31.0459	-3.49	101	0.00	
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	101	0.00	
69	PT	2Hexanone	300.0000	272.1872	9.27	103	0.00	
70	PT	Clorodibrmta	30.0000	32.1499	-7.17	104	0.00	
71	PT	12Dibrometha	30.0000	31.8908	-6.30	104	0.00	
72	PT	Chlorobenzen	30.0000	28.6896	4.37	101	0.00	
73	T	1Clhexane	30.0000	30.2422	-0.81	101	0.00	
74	T	1112Tetclota	30.0000	31.6101	-5.37	99	0.00	
75	PT	Ethylbenzene	30.0000	29.1208	2.93	101	0.00	
76	PT	m p-Xylene	60.0000	59.3911	1.01	101	0.00	
77	PT	o-Xylene	30.0000	31.3303	-4.43	101	0.00	
78	PT	Styrene	30.0000	30.7989	-2.66	101	0.00	
79	PT	Bromoform	30.0000	32.4230	-8.08	101	0.00	
80	PT	Isopropylben	30.0000	30.1879	-0.63	102	0.00	
81	T	cyclohexanone	600.0000	628.6478	-4.77	110	0.00	
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00	
83	S	SURR4BrFBenz	20.0000	20.0131	-0.07	103	0.00	
84	T	Bromobenzene	30.0000	28.8641	3.79	103	0.00	
85	PT	1122Tetrclta	30.0000	28.3544	5.49	101	0.00	
86	T	123Triclproa	30.0000	30.5822	-1.94	102	0.00	
87	T	14dichloro2butene	30.0000	33.0951	-10.32	100	0.00	
88	T	n-Propylbenz	30.0000	27.9890	6.70	101	0.00	
89	T	2chlorotolue	30.0000	27.9519	6.83	101	0.00	
90	T	4chlorotolue	30.0000	28.2118	5.96	100	0.00	
91	T	135Trimebenz	30.0000	28.9973	3.34	101	0.00	
92	T	tbutylbenzen	30.0000	29.4989	1.67	102	0.00	
93	T	124Trimetben	30.0000	28.8175	3.94	100	0.00	
94	T	sbutylbenzen	30.0000	29.2703	2.43	101	0.00	
95	PT	13Diclorbenz	30.0000	28.6570	4.48	102	0.00	
96	T	pIsopropylto	30.0000	29.5244	1.59	102	0.00	
97	PT	14dichlorobe	30.0000	28.2423	5.86	101	0.00	
98	PT	12dichlorobe	30.0000	28.7089	4.30	101	0.00	
99	T	nButylbenzen	30.0000	28.6331	4.56	100	0.00	
100	PT	12dibromo3cl	30.0000	32.0957	-6.99	103	0.00	
101	T	135Trichlorobenzene	30.0000	28.0118	6.63	98	0.00	
102	PT	124Trichlobe	30.0000	30.2030	-0.68	101	0.00	
103	T	Hexachlorobu	30.0000	31.3109	-4.37	102	0.00	
104	T	Naphthalene	30.0000	31.4965	-4.99	105	0.00	
105	T	123Trichlben	30.0000	29.5853	1.38	101	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Mon May 02 08:16:54 2022

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1439164	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1149131	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	654334	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	378028	19.995	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	103349	20.220	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.70	98	1512916	20.511	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	646838	20.013	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	629806	37.0645	ug/L	98
3) Chloromethan	2.10	50	495888	28.0618	ug/L	100
4) VinylChlorid	2.24	62	530710	31.0784	ug/L	98
5) Bromomethane	2.70	94	286311	29.7987	ug/L	97
6) Chloroethane	2.87	64	318469	29.5794	ug/L	99
7) Dichloroflmethane	3.18	67	1078375	29.2800	ug/L	98
8) Trichlorofma	3.26	101	877119	34.5810	ug/L	100
9) Ethylether	3.71	59	442865	31.6949	ug/L	99
10) dichlorotfluoroethan	3.72	67	1069185	31.7807	ug/L	99
11) propyleneoxide	3.76	58	1471546	311.6794	ug/L	99
12) Acrolein	3.84	56	585730	148.4097	ug/L	98
13) 11dichlorthe	3.99	96	584268	34.0860	ug/L	98
14) Trichlorotfluoroeth	4.03	101	973855	65.4812	ug/L	97
15) Acetone	4.05	43	2000894	292.2127	ug/L	98
16) Iodomethane	4.16	142	1202160	63.4080	ug/L	98
17) Carbon Dislf	4.26	76	2099200	60.8723	ug/L	98
18) allylchloride	4.47	41	1715688	58.8705	ug/L	97
19) methylacetate	4.53	74	171331	31.6417	ug/L	98
20) Methylchlorid	4.63	84	639175	30.3371	ug/L	96
21) tbutylalcohol	4.83	59	3140950	1619.0083	ug/L	97
22) Acrylonitrile	4.93	53	1340833	152.6713	ug/L	98
23) t12dichlorte	5.01	96	629726	31.9904	ug/L	98
24) MtBE	5.03	73	1444667	31.6492	ug/L	97
25) Hexane	5.40	57	1921740	66.6023	ug/L	98
26) 11dichlorota	5.53	63	1062557	31.7750	ug/L	98
27) Vinylacetate	5.62	43	6331497	312.8181	ug/L	91
28) chloroprene	5.66	53	1826935	62.0681	ug/L	97
29) Diisopether	5.68	45	1661597	30.2307	ug/L	100
30) ETBE	6.13	59	1445393	31.9047	ug/L	96
31) 22dichloropr	6.27	77	654326	32.8614	ug/L	98
32) c12dichlorte	6.26	96	666336	31.2207	ug/L	98
33) 2Butanone	6.28	72	922729	319.7577	ug/L	96
34) propionitrile	6.32	54	1127797	301.9681	ug/L	99
35) Ethylacetate	6.38	88	153744	169.2475	ug/L	94
36) methacrylonitrile	6.53	67	645397	61.1545	ug/L	98
37) Bromochlorma	6.55	128	310404	32.4201	ug/L	95
38) Tetrahydofur	6.63	42	1892122	308.6403	ug/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	6.66	83	1026082	31.1858 ug/L	98
40)	111trichlota	6.90	97	902186	33.7187 ug/L	97
42)	Cyclohexane	6.99	56	887288	35.0307 ug/L	97
43)	Carbtetraclo	7.12	119	730448	36.0553 ug/L	100
44)	11dicloprope	7.11	110	312577	33.5728 ug/L	98
46)	Benzene	7.36	78	2289814	29.9190 ug/L	98
47)	12dichlorota	7.36	62	760862	30.3680 ug/L	98
48)	TAME	7.52	73	1381453	33.3505 ug/L	95
49)	trichloroete	8.16	95	655845	32.6413 ug/L	99
50)	methylcyclohexane	8.43	83	1312337	30.7857 ug/L	98
51)	12dicloropra	8.42	63	670320	32.3859 ug/L	93
52)	23Dicl1propene	8.48	75	984081	31.5268 ug/L	98
53)	Dibromometha	8.56	93	368354	31.2862 ug/L	97
54)	methylmethacrylate	8.59	69	513177	33.1856 ug/L	98
55)	14dioxane	8.60	88	470484	1596.0290 ug/L	98
56)	Bromodiclrma	8.76	83	783702	31.7644 ug/L	98
57)	2Nitropropane	9.03	43	1729388	325.0294 ug/L	99
58)	2CLEVE	9.15	63	1175760	168.4786 ug/L	98
59)	c13dicloproe	9.34	75	923106	32.4990 ug/L	98
60)	4Meth2Pentan	9.54	43	4580497	310.1742 ug/L	90
62)	Toluene	9.79	92	1517917	30.8979 ug/L	94
63)	t13Dicloprop	10.05	75	778106	34.7496 ug/L	98
64)	ethylmethacrylate	10.19	69	1717648	63.6626 ug/L	98
65)	112Triclotha	10.28	83	478732	31.7745 ug/L	98
66)	Tetrachlorte	10.52	166	679873	32.3157 ug/L	98
67)	13Diclorpropa	10.51	76	955018	31.0459 ug/L	99
69)	2Hexanone	10.62	43	3647906	272.1872 ug/L	93
70)	Clorodibrmta	10.81	129	605156	32.1499 ug/L	98
71)	12Dibrometha	10.97	107	566662	31.8908 ug/L	100
72)	Chlorobenzen	11.65	112	1596698	28.6896 ug/L	99
73)	1Clhexane	11.63	91	878746	30.2422 ug/L	94
74)	1112Tetclota	11.76	131	537681	31.6101 ug/L	92
75)	Ethylbenzene	11.81	91	2567112	29.1208 ug/L	94
76)	m p-Xylene	11.98	106	2060078	59.3911 ug/L	90
77)	o-Xylene	12.52	106	1065840	31.3303 ug/L	88
78)	Styrene	12.53	104	1714833	30.7989 ug/L	98
79)	Bromoform	12.77	173	418659	32.4230 ug/L	99
80)	Isopropylben	13.05	105	2507235	30.1879 ug/L	95
81)	cyclohexanone	13.13	55	729202	628.6478 ug/L	98
84)	Bromobenzene	13.46	156	679447	28.8641 ug/L	97
85)	1122Tetrclta	13.43	83	775653	28.3544 ug/L	96
86)	123Triclproa	13.49	75	1001587	30.5822 ug/L	99
87)	14dichloro2butene	13.51	53	242149	33.0951 ug/L	95
88)	n-Propylbenz	13.64	91	2844258	27.9890 ug/L	93
89)	2chlorotolue	13.75	91	1811448	27.9519 ug/L	97
90)	4chlorotolue	13.90	91	2037312	28.2118 ug/L	96
91)	135Trimebenz	13.89	105	2106431	28.9973 ug/L	97
92)	tbutylbenzen	14.36	119	1841593	29.4989 ug/L	96
93)	124Trimetben	14.43	105	2047778	28.8175 ug/L	95
94)	sbutylbenzen	14.68	105	2574772	29.2703 ug/L	95
95)	13Diclorbenz	14.82	146	1195371	28.6570 ug/L	98
96)	pIsopropylto	14.90	119	2205358	29.5244 ug/L	96
97)	14dichlorobe	14.94	146	1208315	28.2423 ug/L	99
98)	12dichlorobe	15.48	146	1124243	28.7089 ug/L	98
99)	nButylbenzen	15.49	91	1994369	28.6331 ug/L	94
100)	12dibromo3cl	16.57	157	162851	32.0957 ug/L	96
101)	135Trichlorobenzene	16.90	180	913302	28.0118 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	766211	30.2030	ug/L	97
103) Hexachlorobu	17.97	225	361327	31.3109	ug/L	99
104) Naphthalene	18.02	128	1805809	31.4965	ug/L	97
105) 123Trichlben	18.33	180	714913	29.5853	ug/L	99

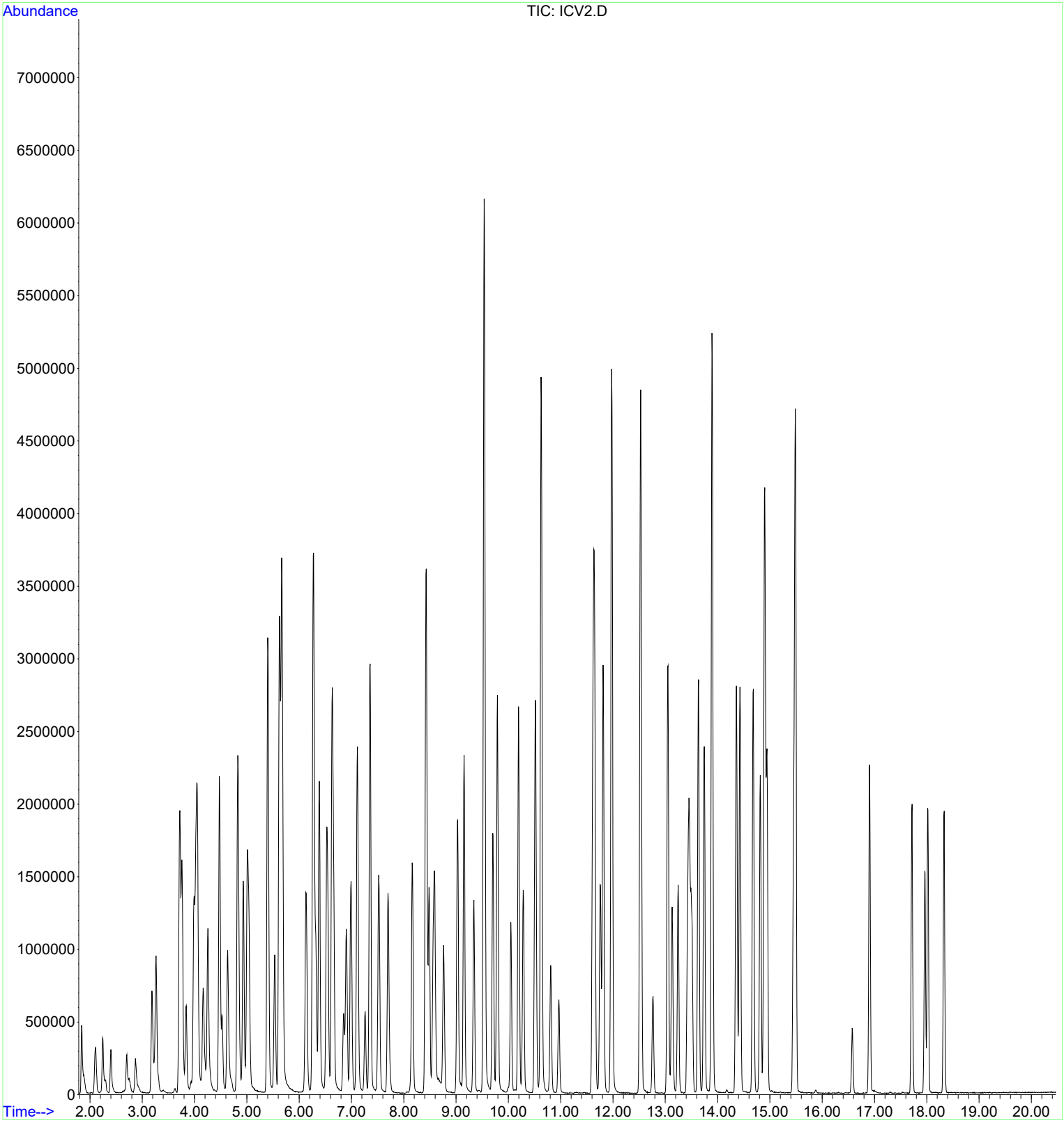
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\APR2822\ICV2.D Vial: 15
Acq On : 28 Apr 2022 20:08 Operator: DGS-RLD
Sample : INITIAL CALIB. VERIF. Inst : VMS3
Misc : 30.0/300 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 20:29:00 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1342168	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1085790	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	581690	20.00 ug/L	0.00 NA%
System Monitoring Compounds					
41) SURRDibrflma	6.85	113	352853	20.012 ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100 %		
45) SURR12DCAd4	7.26	102	94383	19.801 ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %		
61) SURRd8Tolule	9.71	98	1382857	20.102 ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %		
83) SURR4BrFBenz	13.25	95	588119	20.469 ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 102 %		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	11922	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3900	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	7107	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.		
40)	111trichlota	0.00	97	0	N.D.		
42)	Cyclohexane	0.00	56	0	N.D.		
43)	Carbtetraclo	0.00	119	0	N.D.		
44)	11dicloprope	0.00	110	0	N.D.		
46)	Benzene	0.00	78	0	N.D.		
47)	12dichlorota	0.00	62	0	N.D.		
48)	TAME	0.00	73	0	N.D.		
49)	trichloroete	0.00	95	0	N.D.		
50)	methylcyclohexane	0.00	83	0	N.D.		
51)	12dicloropra	0.00	63	0	N.D.		
52)	23Dicl1propene	0.00	75	0	N.D.		
53)	Dibromometha	0.00	93	0	N.D.		
54)	methylmethacrylate	0.00	69	0	N.D.		
55)	14dioxane	0.00	88	0	N.D.		
56)	Bromodiclrma	0.00	83	0	N.D.		
57)	2Nitropropane	9.02	43	4215	N.D.		
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	0.00	75	0	N.D.		
60)	4Meth2Pentan	9.54	43	9716	Below	Cal	93
62)	Toluene	0.00	92	0	N.D.		
63)	t13Dicloprop	0.00	75	0	N.D.		
64)	ethylmethacrylate	0.00	69	0	N.D.		
65)	112Triclotha	0.00	83	0	N.D.		
66)	Tetrachlorte	0.00	166	0	N.D.		
67)	13Diclorpropa	0.00	76	0	N.D.		
69)	2Hexanone	10.63	43	11884	N.D.		
70)	Clorodibrmta	0.00	129	0	N.D.		
71)	12Dibrometha	0.00	107	0	N.D.		
72)	Chlorobenzen	0.00	112	0	N.D.		
73)	1Clhexane	11.61	91	5339	N.D.		
74)	1112Tetclota	0.00	131	0	N.D.		
75)	Ethylbenzene	11.81	91	6260	N.D.		
76)	m p-Xylene	11.98	106	4243	N.D.		
77)	o-Xylene	0.00	106	0	N.D.		
78)	Styrene	0.00	104	0	N.D.		
79)	Bromoform	0.00	173	0	N.D.		
80)	Isopropylben	13.05	105	7332	N.D.		
81)	cyclohexanone	13.13	55	4544	20.6152	ug/L #	80
84)	Bromobenzene	0.00	156	0	N.D.		
85)	1122Tetrclta	0.00	83	0	N.D.		
86)	123Triclproa	0.00	75	0	N.D.		
87)	14dichloro2butene	0.00	53	0	N.D.		
88)	n-Propylbenz	13.63	91	10706	N.D.		
89)	2chlorotolue	13.75	91	4210	N.D.		
90)	4chlorotolue	13.90	91	4172	N.D.		
91)	135Trimebenz	13.89	105	5278	N.D.		
92)	tbutylbenzen	14.36	119	8155	N.D.		
93)	124Trimetben	14.43	105	6409	N.D.		
94)	sbutylbenzen	14.68	105	11927	N.D.		
95)	13Diclorbenz	0.00	146	0	N.D.		
96)	pIsopropylto	14.90	119	11796	N.D.		
97)	14dichlorobe	14.93	146	2580	N.D.		
98)	12dichlorobe	0.00	146	0	N.D.		
99)	nButylbenzen	15.50	91	14851	N.D.		
100)	12dibromo3cl	0.00	157	0	N.D.		
101)	135Trichlorobenzene	16.91	180	3160	N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.71	180	3714	N.D.		
103) Hexachlorobu	0.00	225	0	N.D.		
104) Naphthalene	18.02	128	12000	N.D.		
105) 123Trichlben	18.34	180	3620	N.D.		

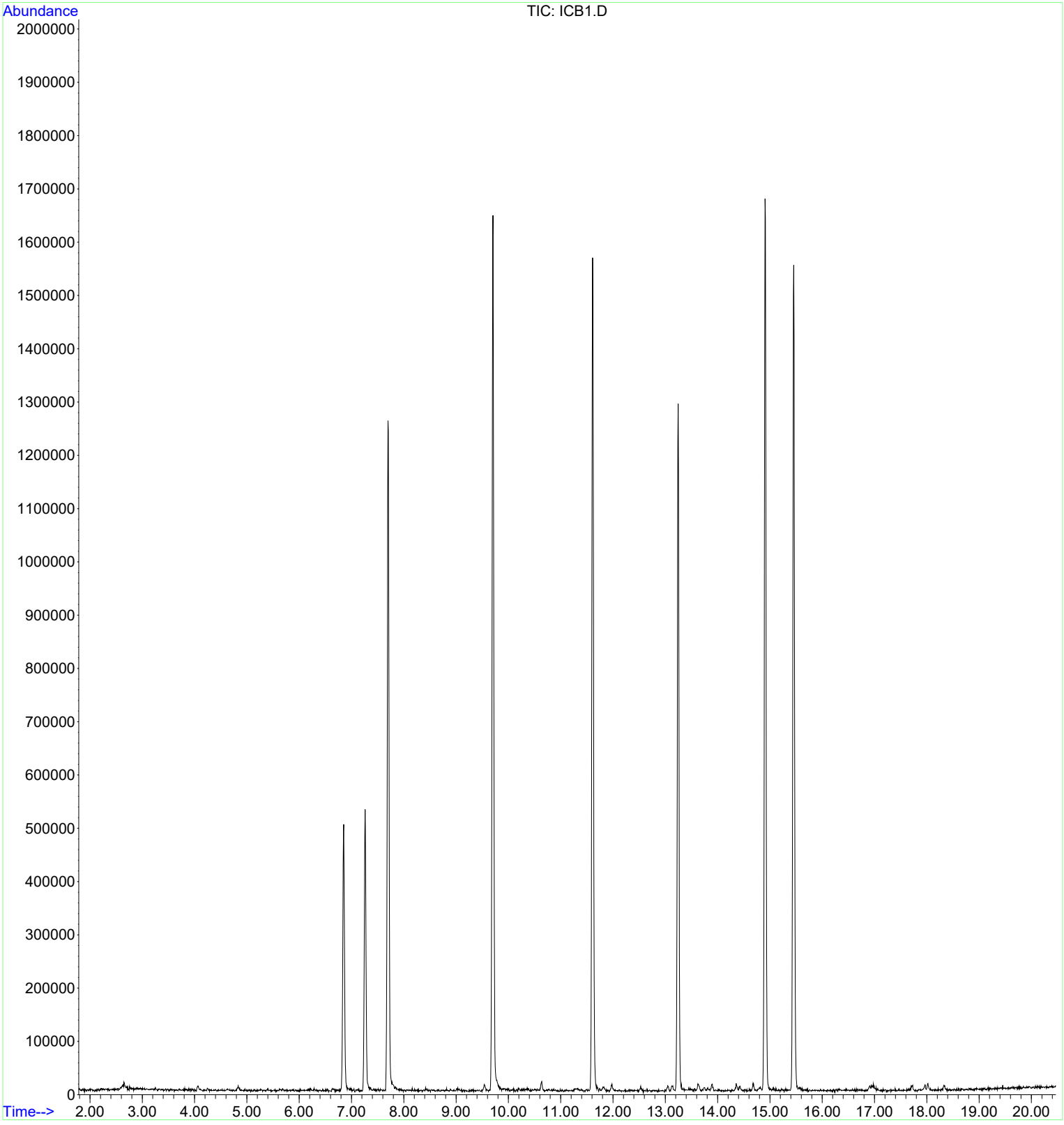
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\APR2822\ICB1.D Vial: 18
Acq On : 28 Apr 2022 21:36 Operator: DGS-RLD
Sample : INITIAL CALIB. BLANK. Inst : VMS3
Misc : 5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: Apr 28 21:57:02 2022 Results File: W042822.RES

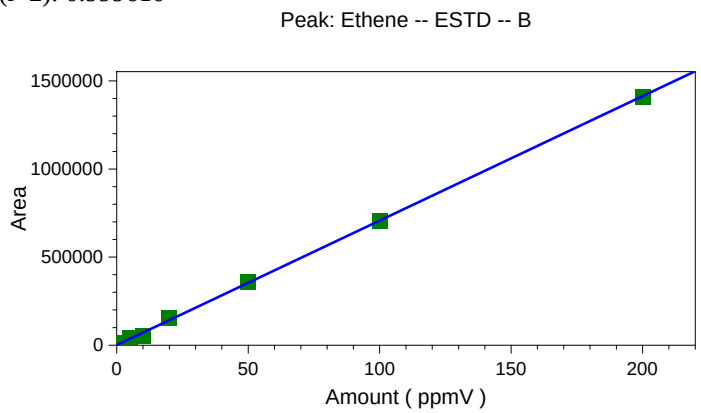
Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Wed Apr 20 10:41:55 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:01
User: KMT
Instrument: PVOC4

Ethene (B)
Average RF: 6995.06 RF StDev: 840.320 RF %RSD: 12.0131
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7067.11x + 680.644
Goodness of fit (r^2): 0.999610



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14156	37706	52014	156179	359851
RF	7078	7541.2	5201.4	7808.95	7197.02
Last Area					
Residual	0.0932302	-0.239107	2.7363	-2.0031	-0.822788
Rep StDev					
Rep %RSD					
Rep 1 Area	14156	37706	52014	156179	359851
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	707940	1411891
RF	7079.4	7059.455

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:01
User: KMT
Instrument: PVOC4

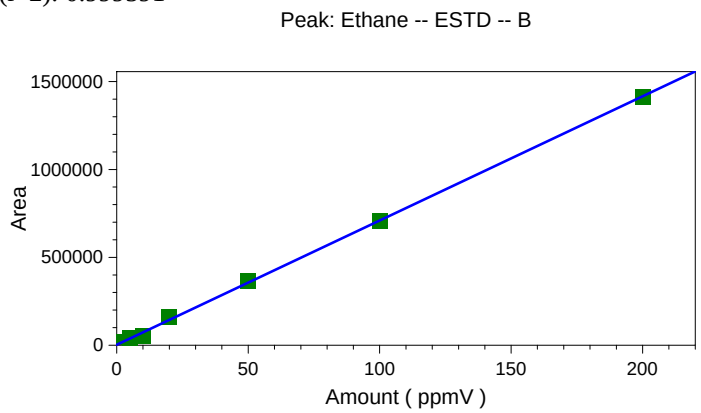
Last Area Residual	-0.0775589	0.313016
Rep StDev		
Rep %RSD		
Rep 1 Area	707940	1411891
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:53
User: KMT
Instrument: PVOC4

Ethane (B)
Average RF: 7151.52 RF StDev: 875.473 RF %RSD: 12.2418
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7073.40x + 2261.66
Goodness of fit (r^2): 0.999591



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	14561	40290	53831	158690	362395
RF	7280.5	8058	5383.1	7934.5	7247.9
Last Area					
Residual	0.261184	-0.376247	2.7094	-2.11502	-0.913761
Rep StDev					
Rep %RSD					
Rep 1 Area	14561	40290	53831	158690	362395
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	707859	1415611
RF	7078.59	7078.055

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:15:53
User: KMT
Instrument: PVOC4

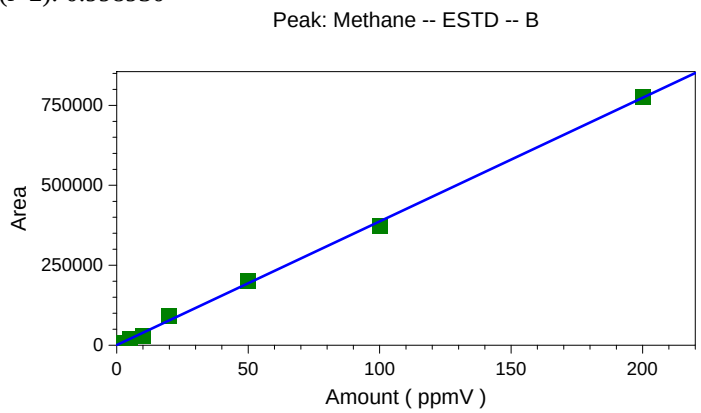
Last Area		
Residual	0.246352	0.18809
Rep StDev		
Rep %RSD		
Rep 1 Area	707859	1415611
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:14:11
User: KMT
Instrument: PVOC4

Methane (B)
Average RF: 3810.66 RF StDev: 470.853 RF %RSD: 12.3562
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3864.77x + 603.445
Goodness of fit (r^2): 0.998930



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	2	5	10	20	50
Area	7052	19674	30219	91189	200412
RF	3526	3934.8	3021.9	4559.45	4008.24
Last Area					
Residual	0.331453	0.0655425	2.33705	-3.43878	-1.69996
Rep StDev					
Rep %RSD					
Rep 1 Area	7052	19674	30219	91189	200412
Rep 1 User	TMG	TMG	TMG	RLD	TMG
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\001.dat	C:\Instarch\PVOC4\Data\070121icdg\002.dat	C:\Instarch\PVOC4\Data\070121icdg\003.dat	C:\Instarch\PVOC4\Data\070121icdg\008.dat	C:\Instarch\PVOC4\Data\070121icdg\005.dat
Rep 1 Sample ID	MEE PT1 - 2 ppmV	MEE PT2 - 5 ppmV	MEE PT3 - 10 ppmV	MEE PT4 - 20 ppmV	MEE PT5 - 50 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:52:15	Jul 01, 2021 09:52:48	Jul 01, 2021 09:53:03	Jul 01, 2021 10:02:51	Jul 01, 2021 09:54:05

	Level 6	Level 7
Amount	100	200
Area	373495	777850
RF	3734.95	3889.25

Calibration Report

Method: C:\Instarch\PVOC4\Methods\P4DG070121.met
Print Time: Jul 01, 2021 10:14:11
User: KMT
Instrument: PVOC4

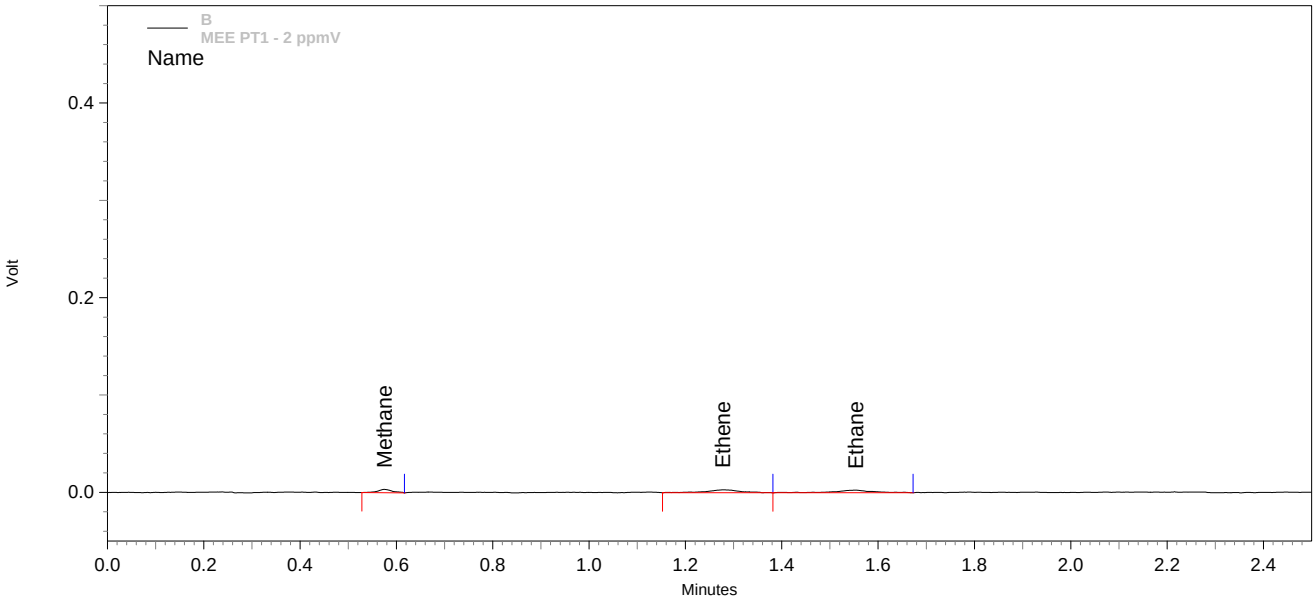
Last Area		
Residual	3.51526	-1.11057
Rep StDev		
Rep %RSD		
Rep 1 Area	373495	777850
Rep 1 User	TMG	RLD
Rep 1 Data File	C:\Instarch\PVOC4\Data\070121icdg\006.dat	C:\Instarch\PVOC4\Data\070121icdg\009.dat
Rep 1 Sample ID	MEE PT6 - 100 ppmV	MEE PT7 - 200 ppmV
Rep 1 Calib. Time	Jul 01, 2021 09:53:49	Jul 01, 2021 10:08:25

RJ 07/12/2021

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\001.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT1 - 2 ppmV
Acquired: Jul 01, 2021 09:09:22
File Desc. 0.01 mL injection (Methane, Ethene, Ethane)



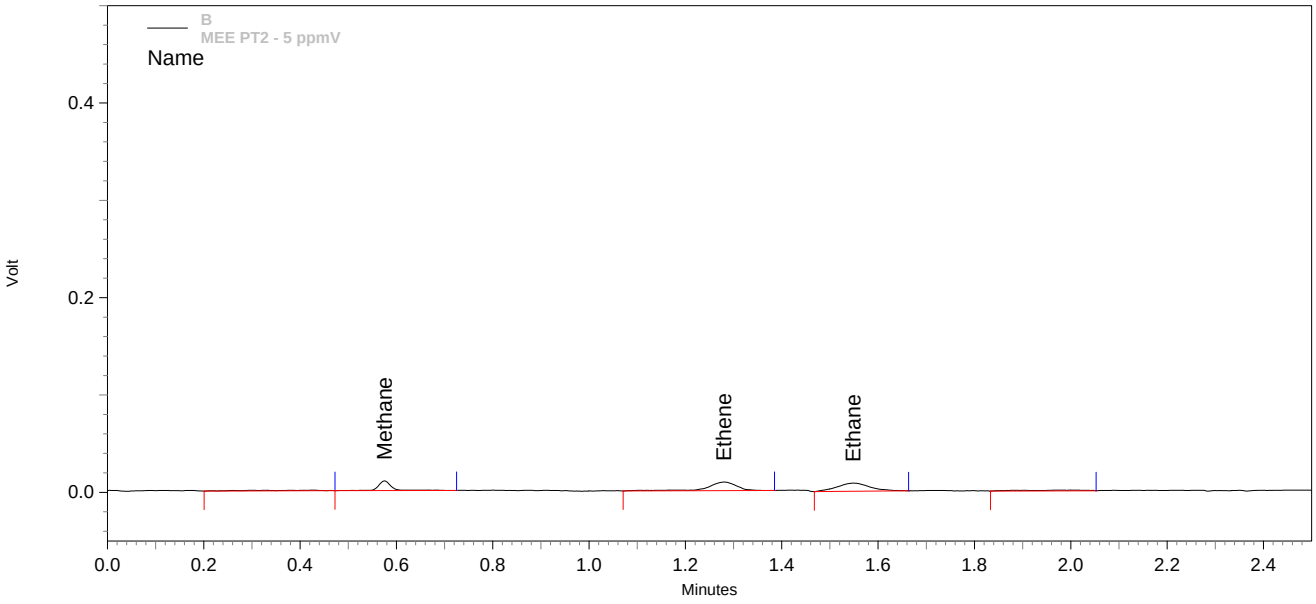
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.575**	**0.580**	**7052**	**2.000 CAL**	**ppmV**
2	**Ethene**	**1.278**	**1.300**	**14156**	**2.000 CAL**	**ppmV**
3	**Ethane**	**1.554**	**1.600**	**14561**	**2.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT2 - 5 ppmV
Acquired: Jul 01, 2021 09:19:07
File Desc. 0.025 mL injection (Methane, Ethene, Ethane)



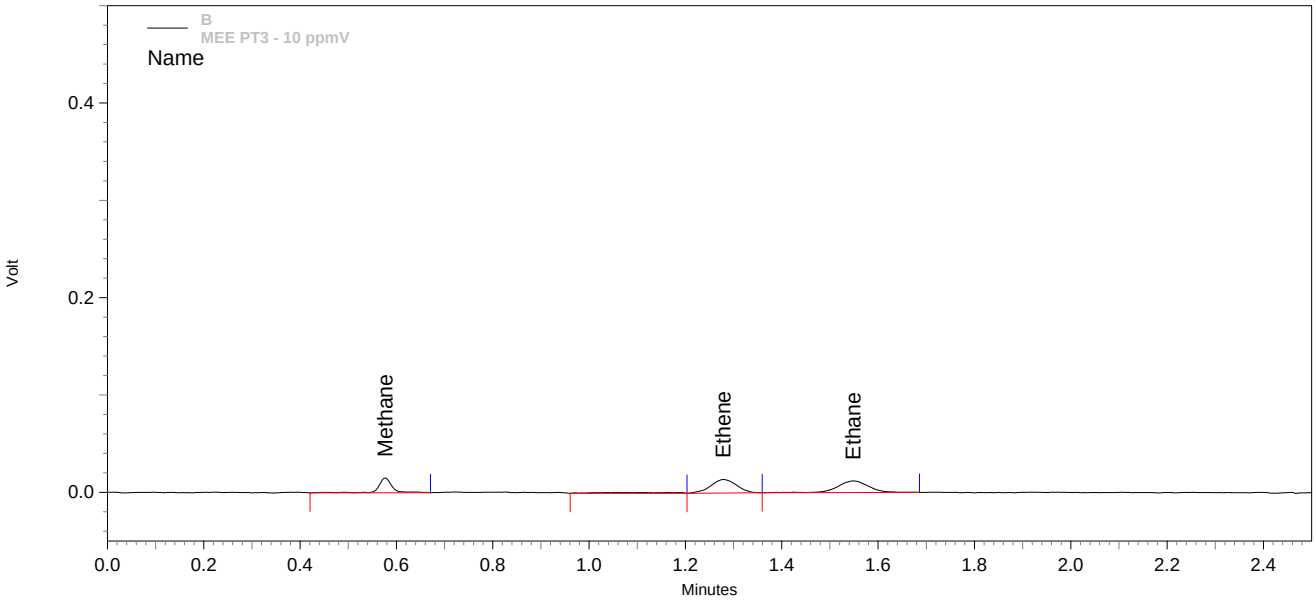
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.303**	**0.000**	**6196**	**0.000**	
2	**Methane**	**0.575**	**0.580**	**19674**	**5.000 CAL**	**ppmV**
3	**Ethene**	**1.280**	**1.300**	**37706**	**5.000 CAL**	**ppmV**
4	**Ethane**	**1.548**	**1.600**	**40290**	**5.000 CAL**	**ppmV**
5		**1.976**	**0.000**	**6841**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT3 - 10 ppmV
Acquired: Jul 01, 2021 09:24:05
File Desc. 0.05 mL injection (Methane, Ethene, Ethane)



B Results

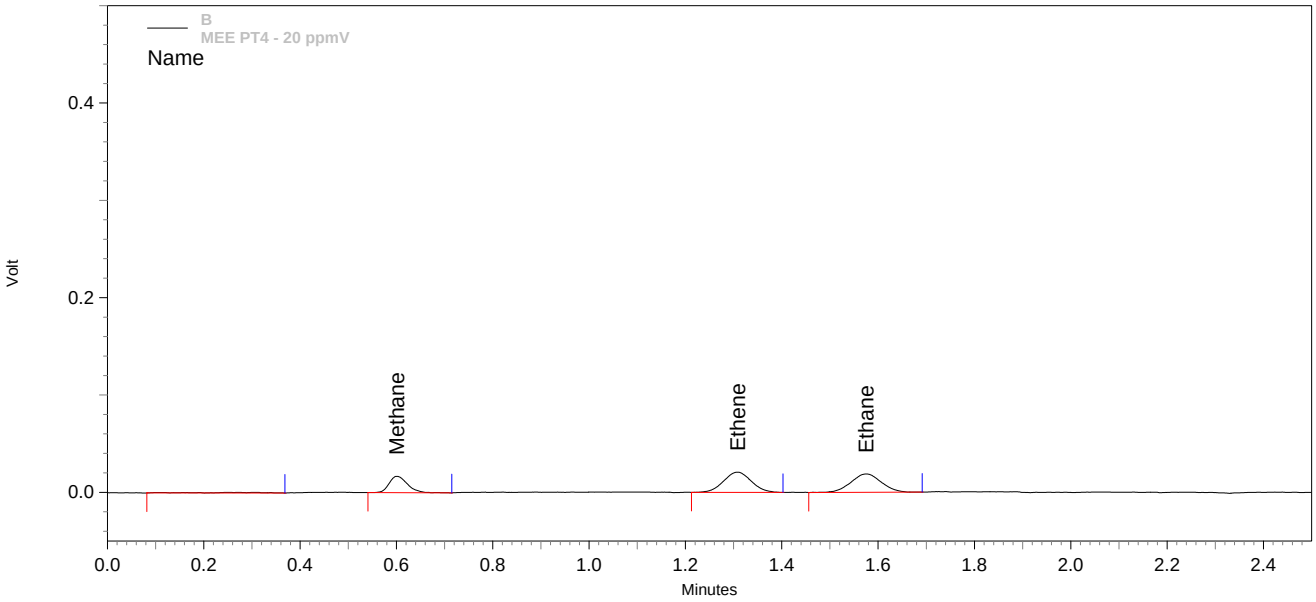
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.577**	**0.580**	**30219**	**10.000 CAL**	**ppmV**
2		**1.060**	**0.000**	**9781**	**0.000**	
3	**Ethene**	**1.278**	**1.300**	**52014**	**10.000 CAL**	**ppmV**
4	**Ethane**	**1.548**	**1.600**	**53831**	**10.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

NOT USED

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jul 01, 2021 09:38:00
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



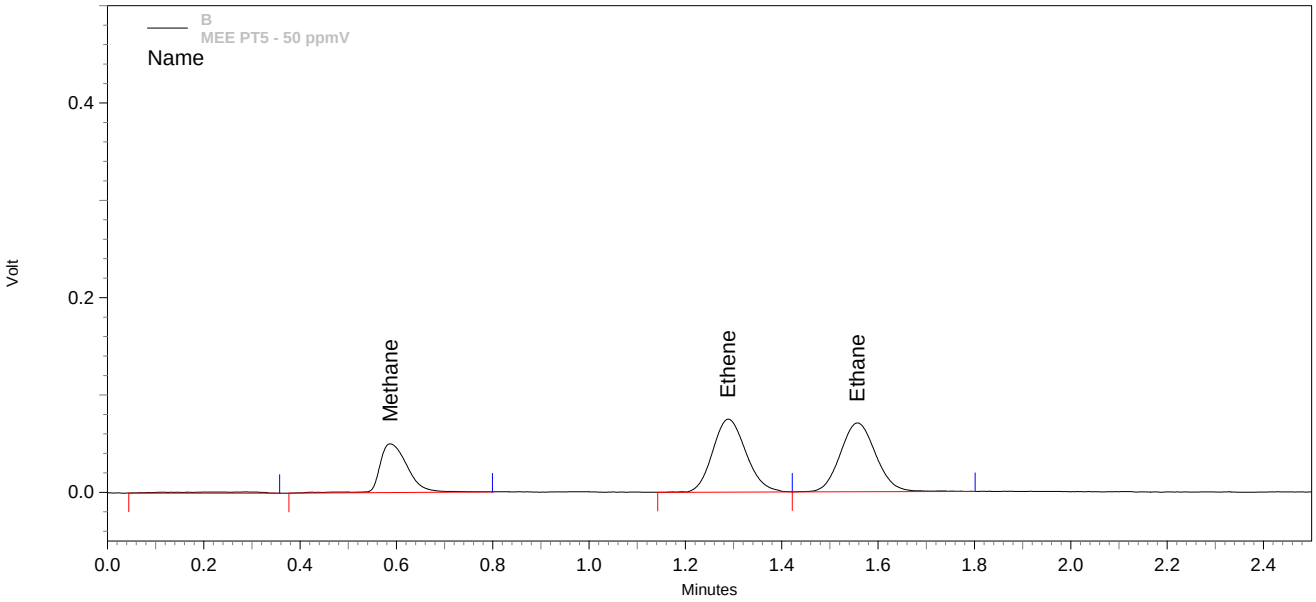
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.253**	**0.000**	**7117**	**0.000**	
2	**Methane**	**0.601**	**0.580**	**44488**	**20.000 CAL**	**ppmV**
3	**Ethene**	**1.308**	**1.300**	**83515**	**20.000 CAL**	**ppmV**
4	**Ethane**	**1.575**	**1.600**	**82881**	**20.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\005.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT5 - 50 ppmV
Acquired: Jul 01, 2021 09:41:21
File Desc. 0.25 mL injection (Methane, Ethene, Ethane)



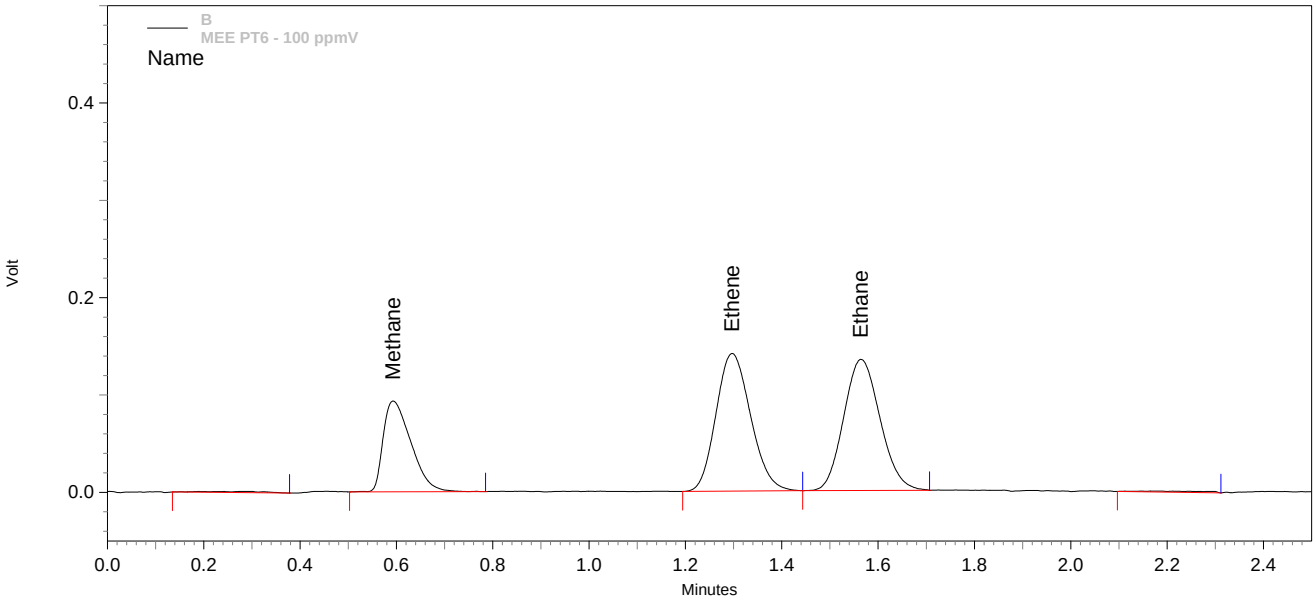
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.218**	**0.000**	**16192**	**0.000**	
2	**Methane**	**0.587**	**0.580**	**200412**	**50.000 CAL**	**ppmV**
3	**Ethene**	**1.288**	**1.300**	**359851**	**50.000 CAL**	**ppmV**
4	**Ethane**	**1.557**	**1.600**	**362395**	**50.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT6 - 100 ppmV
Acquired: Jul 01, 2021 09:45:28
File Desc. 0.5 mL injection (Methane, Ethene, Ethane)



B Results

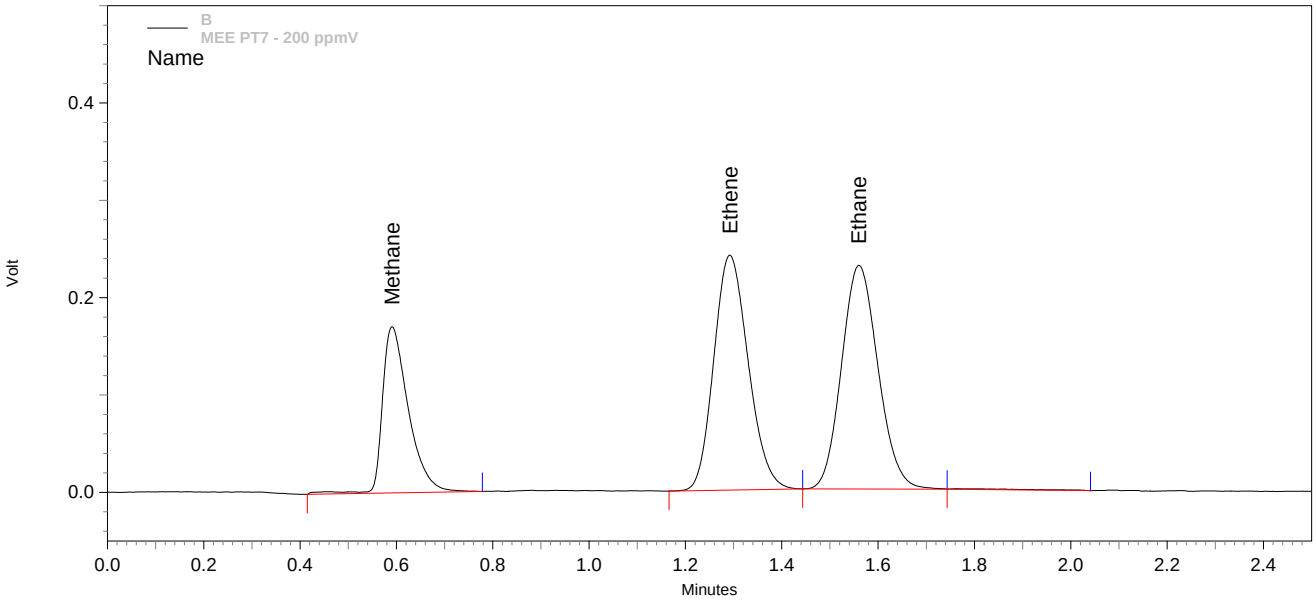
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.298**	**0.000**	**9802**	**0.000**	
2	**Methane**	**0.592**	**0.580**	**373495**	**100.000 CAL**	**ppmV**
3	**Ethene**	**1.297**	**1.300**	**707940**	**100.000 CAL**	**ppmV**
4	**Ethane**	**1.563**	**1.600**	**707859**	**100.000 CAL**	**ppmV**
5		**2.175**	**0.000**	**10216**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

NOT USED

Data File: C:\Instarch\PVOC4\Data\070121icdg\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT7 - 200 ppmV
Acquired: Jul 01, 2021 09:48:59
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



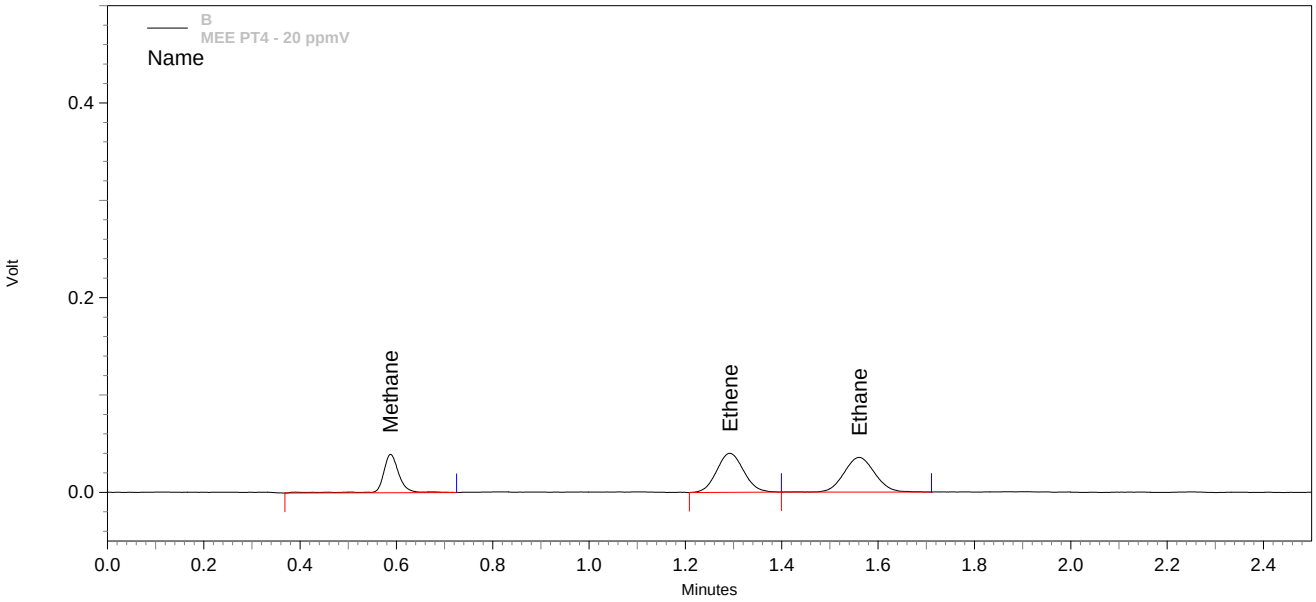
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.591**	**0.580**	**641532**	**200.000 CAL**	**ppmV**
2	**Ethene**	**1.293**	**1.300**	**1198307**	**200.000 CAL**	**ppmV**
3	**Ethane**	**1.560**	**1.600**	**1209201**	**200.000 CAL**	**ppmV**
4		**1.764**	**0.000**	**8808**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT4 - 20 ppmV
Acquired: Jul 01, 2021 09:59:16
File Desc. 0.1 mL injection (Methane, Ethene, Ethane)



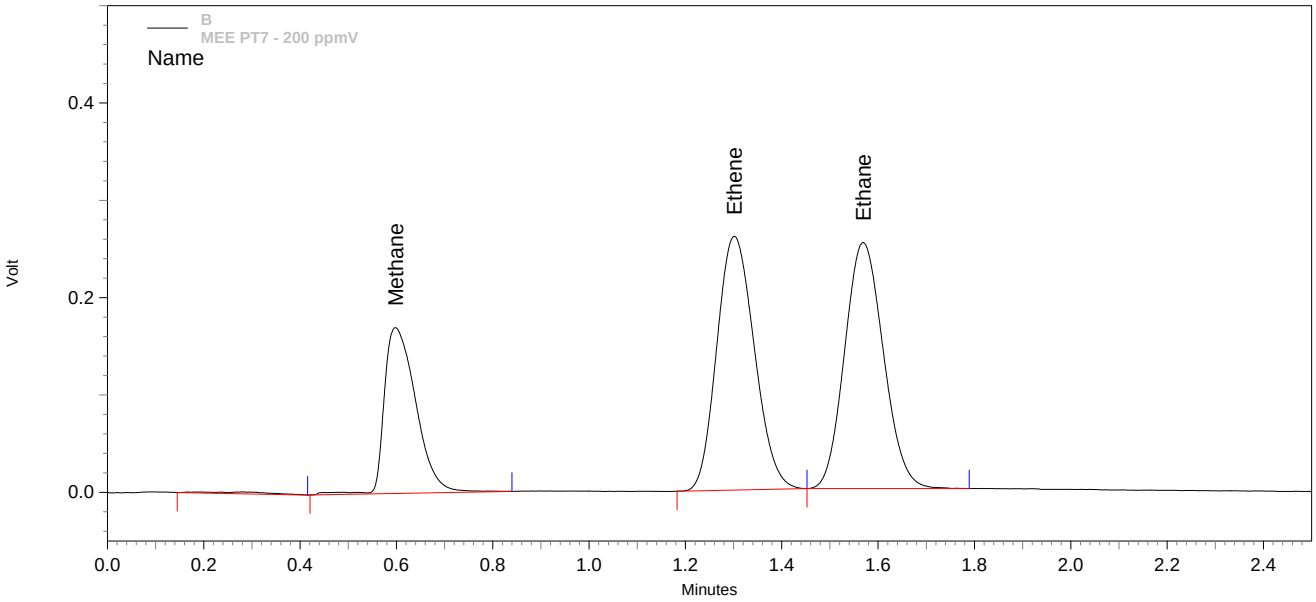
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.588**	**0.580**	**91189**	**20.000 CAL**	**ppmV**
2	**Ethene**	**1.293**	**1.300**	**156179**	**20.000 CAL**	**ppmV**
3	**Ethane**	**1.561**	**1.600**	**158690**	**20.000 CAL**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\009.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: MEE PT7 - 200 ppmV
Acquired: Jul 01, 2021 10:04:41
File Desc. 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.281**	**0.000**	**16527**	**0.000**	
2	**Methane**	**0.598**	**0.580**	**777850**	**200.000 CAL**	**ppmV**
3	**Ethene**	**1.302**	**1.300**	**1411891**	**200.000 CAL**	**ppmV**
4	**Ethane**	**1.569**	**1.600**	**1415611**	**200.000 CAL**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\070121 - MEE ICAL.seq
User : RLD
Printed : Jul 08, 2021 10:58:25

File	Sample ID	Acquired
C:\Instarch\PVOC4\Data\070121icdg\010.dat	ICV - 50 ppmV	Jul 08, 2021 10:58:25

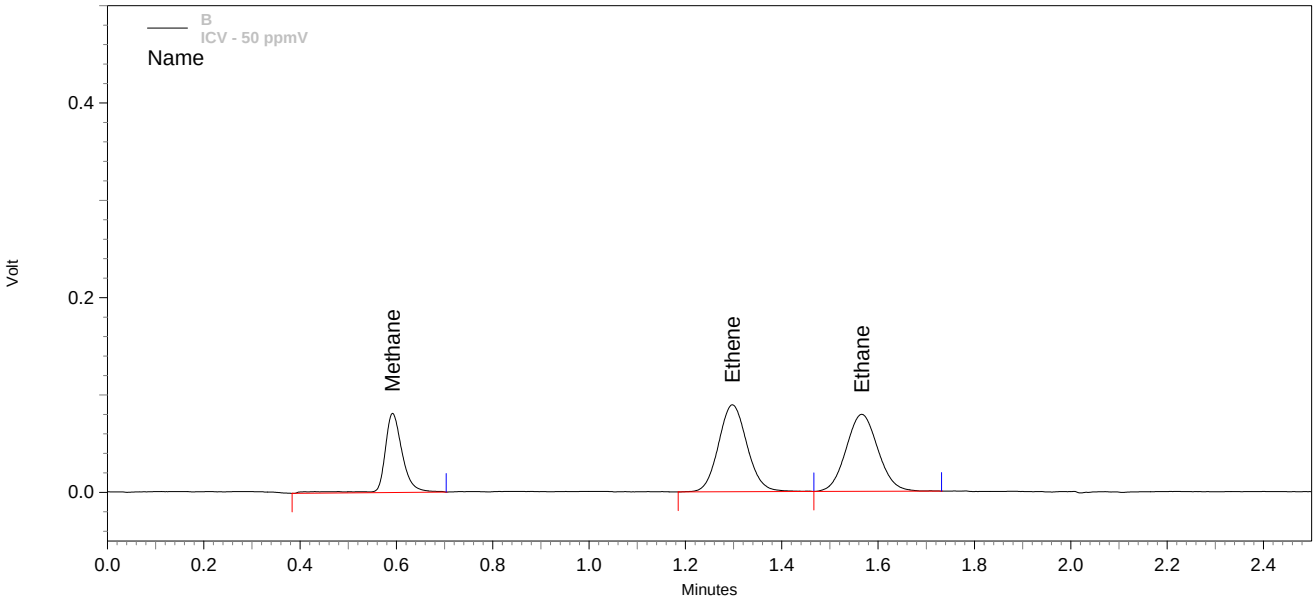
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	53.365	6.731	15.000	**Passed**
Ethene	50.000	51.970	3.941	15.000	**Passed**
Ethane	50.000	51.025	2.051	15.000	**Passed**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\010.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICV - 50 ppmV
Acquired: Jul 01, 2021 10:24:08
File Desc. INITIAL CALIB. VERIF. - 0.25 mL injection (Methane, Ethene, Ethane)



B Results

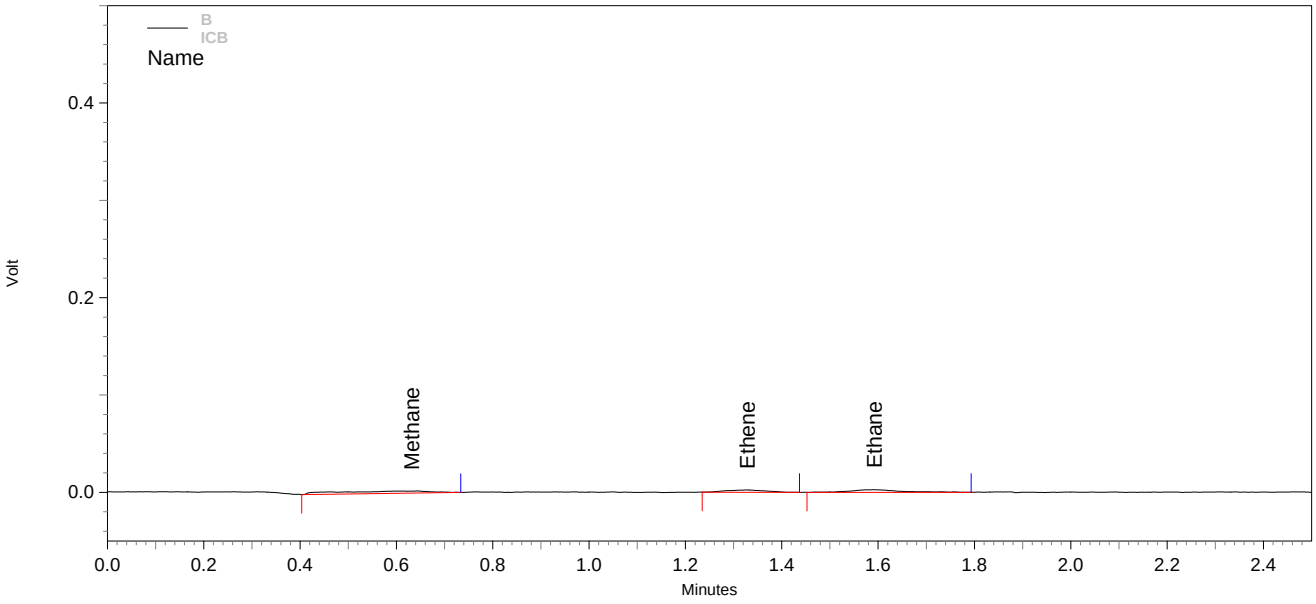
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.592**	**0.580**	**206848**	**53.365**	**ppmV**
2	**Ethene**	**1.297**	**1.300**	**367962**	**51.970**	**ppmV**
3	**Ethane**	**1.566**	**1.600**	**363184**	**51.025**	**ppmV**

Dissolved Gases External Standard Report

NOT USED

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\011.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICB
Acquired: Jul 01, 2021 10:29:15
File Desc. INITIAL CALIB. BLANK - 1.0 mL injection (Methane, Ethene, Ethane)



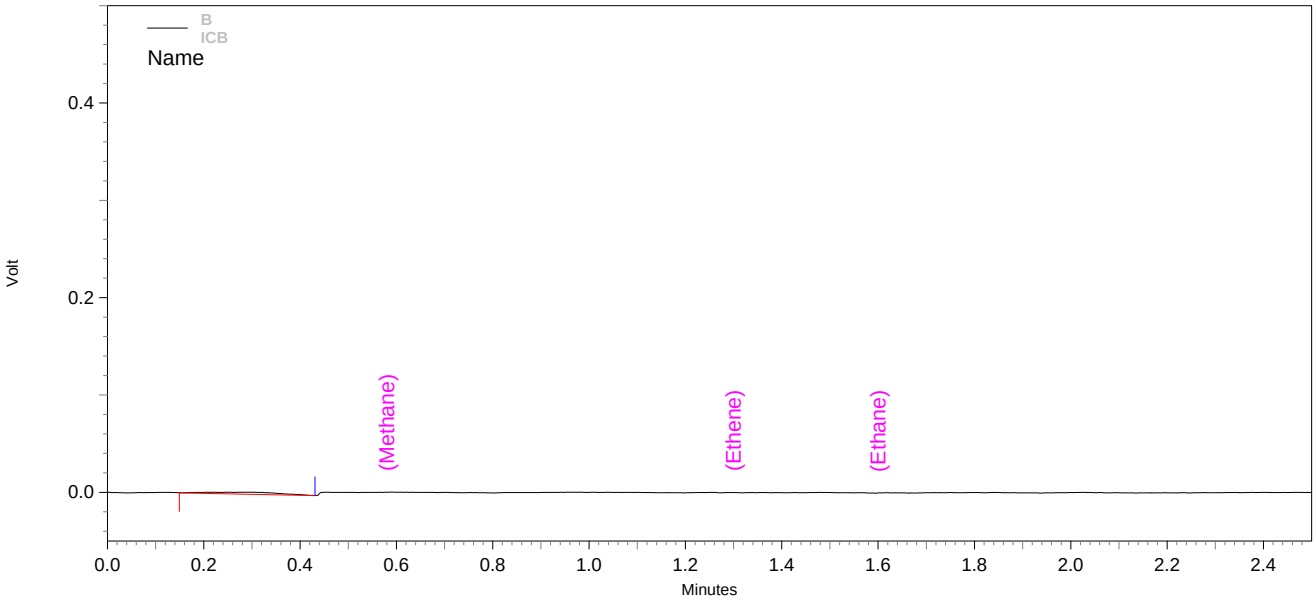
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.632**	**0.580**	**32868**	**8.348**	**ppmV**
2	**Ethene**	**1.329**	**1.300**	**13422**	**1.803**	**ppmV**
3	**Ethane**	**1.593**	**1.600**	**19513**	**2.439**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\Instarch\PVOC4\Data\070121icdg\012.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: ICB
Acquired: Jul 01, 2021 11:06:20
File Desc. INITIAL CALIB. BLANK - 1.0 mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1		**0.217**	**0.000**	**19676**	**0.000**	
	Methane		**0.580**		**0.000 BDL**	**ppmV**
	Ethene		**1.300**		**0.000 BDL**	**ppmV**
	Ethane		**1.600**		**0.000 BDL**	**ppmV**

VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS

Data File : C:\Instarch\Data\MAY0522\BFB1.D Vial: 1
Acq On : 5 May 2022 7:12 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	13111	PASS
75	95	30	60	47.7	36938	PASS
95	95	100	100	100.0	77434	PASS
96	95	5	9	6.6	5078	PASS
173	174	0.00	2	0.6	340	PASS
174	95	50	100	77.9	60288	PASS
175	174	5	9	7.1	4301	PASS
176	174	95	101	96.9	58394	PASS
177	176	5	9	6.5	3797	PASS

W042822.M Fri May 06 09:32:54 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 08:15:32 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	PT	Dichlorodi	0.2581	0.2829	-9.61	100	0.00
3	PT	Chloromethan	0.2382	0.2218	6.88	87	0.00
4	PT	VinylChlorid	0.2431	0.2456	-1.03	93	0.00
5	PT	Bromomethane	0.1405	0.1458	-3.77	102	0.00
6	PT	Chloroethane	0.1567	0.1484	5.30	95	0.00
7	T	Dichloroflmethane	0.5294	0.5257	0.70	94	0.00
8	PT	Trichlorofma	0.3882	0.4195	-8.06	96	0.00
9	T	Ethylether	0.1949	0.1971	-1.13	101	0.00
10	T	dichlorotfluoroethan	0.4948	0.5254	-6.18	96	0.00
11	T	propyleneoxide	0.0691	0.0685	0.87	98	0.00
12	T	Acrolein	0.0566	0.0512	9.54	88	0.00
13	PT	11dichlorthe	0.2560	0.2701	-5.51	99	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2309	-8.30	97	0.00
15	PT	Acetone	0.1042	0.0959#	7.97	95	0.00
16	T	Iodomethane	0.2651	0.2623	1.06	91	0.00
17	PT	Carbon Dislf	0.4879	0.5030	-3.09	96	0.00
18	T	allylchloride	0.4204	0.4232	-0.67	93	0.00
19	PT	methylacetate	0.0773	0.0656#	15.14	94	0.00
20	PT	Methylchlorid	0.3175	0.2936	7.53	93	0.00
21	T	tbutylalcohol	0.0282	0.0264#	6.38	91	0.00
22	T	Acrylonitrile	0.1258	0.1269	-0.87	98	0.00
23	PT	t12dichlorte	0.2902	0.2919	-0.59	96	0.00
24	PT	MtBE	0.6525	0.6386	2.13	95	0.00
25	T	Hexane	0.4321	0.4626	-7.06	89	0.00
26	PT	11dichlorota	0.5022	0.4984	0.76	95	0.00
27	T	Vinylacetate	0.3685	0.3387	8.09	80	0.00
28	T	chloroprene	0.4236	0.4559	-7.63	95	0.00
29	T	Diisopether	0.7765	0.7842	-0.99	92	0.00
30	T	ETBE	0.6416	0.6038	5.89	91	0.00
31	T	22dichloropr	0.2949	0.2867	2.78	94	0.00
32	PT	c12dichlorte	0.3068	0.3036	1.04	94	0.00
33	PT	2Butanone	0.0411	0.0391#	4.87	95	0.00
34	T	propionitrile	0.0541	0.0535	1.11	97	0.00
35	T	Ethylacetate	0.0130	0.0122#	6.15	95	0.00
36	T	methacrylonitrile	0.1528	0.1520	0.52	97	0.00
37	T	Bromochlorma	0.1448	0.1383	4.49	95	0.00
38	T	Tetrahydofur	0.0888	0.0871	1.91	93	0.00
39	PT	Chloroform	0.4912	0.4826	1.75	96	0.00
40	PT	111trichlota	0.3965	0.4070	-2.65	97	0.00
41	S	SURRDibrflma	0.2659	0.2687	-1.05	98	0.00
42	PT	Cyclohexane	0.3737	0.4037	-8.03	95	0.00
43	PT	Carbtetraclo	0.3103	0.3368	-8.54	101	0.00
44	T	11dicloprope	0.1417	0.1419	-0.14	95	0.00
45	S	SURR12DCAd4	0.0709	0.0717	-1.13	94	0.00
46	PT	Benzene	1.1203	1.1588	-3.44	95	0.00
47	PT	12dichlorota	0.3677	0.3702	-0.68	96	0.00
48	T	TAME	0.5985	0.5823	2.71	93	0.00

49	PT	trichloroete	0.2940	0.2916	0.82	96	0.00
50	PT	methylcyclohexane	0.5670	0.6399	-12.86	97	0.00
51	PT	12dicloropra	0.3099	0.2980	3.84	92	0.00
52	T	23Dicl1propene	0.4418	0.4308	2.49	94	0.00
53	T	Dibromometha	0.1741	0.1712	1.67	98	0.00
54	T	methylmethacrylate	0.2175	0.2092	3.82	96	0.00
55	T	14dioxane	0.0044	0.0041#	6.82	97	0.00
56	PT	Bromodiclrma	0.3686	0.3568	3.20	94	0.00
57	T	2Nitropropane	0.0782	0.0803	-2.69	96	0.00
58	T	2CLEVE	0.0959	0.0861	10.22	90	0.00
59	PT	c13dicloproe	0.4161	0.4094	1.61	95	0.00
60	PT	4Meth2Pentan	0.2366	0.2455	-3.76	94	0.00
61	S	SURRd8Tolule	1.0461	1.0590	-1.23	96	0.00
62	PT	Toluene	0.7215	0.7337	-1.69	95	0.00
63	PT	t13Dicloprop	0.3396	0.3316	2.36	95	0.00
64	T	ethylmethacrylate	0.3848	0.3862	-0.36	95	0.00
65	PT	112Triclotha	0.2212	0.2220	-0.36	98	0.00
66	PT	Tetrachlorte	0.3038	0.3178	-4.61	95	0.00
67	T	13Diclorpropa	0.4572	0.4526	1.01	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	98	0.00
69	PT	2Hexanone	0.2204	0.2215	-0.50	95	0.00
70	PT	Clorodibrmta	0.3407	0.3245	4.75	95	0.00
71	PT	12Dibrometha	0.3149	0.2953	6.22	95	0.01
72	PT	Chlorobenzen	0.9740	0.9402	3.47	95	0.00
73	T	1Clhexane	0.4841	0.4797	0.91	96	0.00
74	T	1112Tetclota	0.3104	0.2964	4.51	95	0.00
75	PT	Ethylbenzene	1.5510	1.5574	-0.41	94	0.00
76	PT	m p-Xylene	0.6021	0.6207	-3.09	96	0.00
77	PT	o-Xylene	0.6026	0.5861	2.74	92	0.00
78	PT	Styrene	0.9711	0.9730	-0.20	94	0.00
79	PT	Bromoform	0.2277	0.2206	3.12	100	0.00
80	PT	Isopropylben	1.4429	1.4998	-3.94	96	0.00
81	T	cyclohexanone	0.0184	0.0161#	12.50	92	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	101	0.00
83	S	SURR4BrFBenz	0.9896	0.9712	1.86	100	0.00
84	T	Bromobenzene	0.6980	0.6549	6.17	94	0.00
85	PT	1122Tetrclta	0.8297	0.7623	8.12	95	0.00
86	T	123Triclproa	1.0131	0.9098	10.20	93	0.00
87	T	14dichloro2butene	0.2339	0.2076	11.24	94	0.00
88	T	n-Propylbenz	3.0653	3.0769	-0.38	94	0.00
89	T	2chlorotolue	1.9399	1.8570	4.27	96	0.00
90	T	4chlorotolue	2.2100	2.1215	4.00	94	0.00
91	T	135Trimebenz	2.1966	2.1731	1.07	93	0.00
92	T	tbutylbenzen	1.8566	1.8685	-0.64	95	0.00
93	T	124Trimetben	2.1381	2.0961	1.96	94	0.00
94	T	sbutylbenzen	2.6311	2.7070	-2.88	95	0.00
95	PT	13Diclorbenz	1.2599	1.1939	5.24	95	0.00
96	T	pIsopropylto	2.2538	2.2767	-1.02	95	0.00
97	PT	14dichlorobe	1.2966	1.2317	5.01	96	0.00
98	PT	12dichlorobe	1.2210	1.1513	5.71	97	0.00
99	T	nButylbenzen	2.0963	2.0332	3.01	92	0.00
100	PT	12dibromo3cl	0.1572	0.1400	10.94	98	0.00
101	T	135Trichlorobenzene	0.9798	0.8880	9.37	92	0.00
102	PT	124Trichlobe	0.7749	0.7024	9.36	93	0.00
103	T	Hexachlorobu	0.3464	0.3422	1.21	97	0.00
104	T	Naphthalene	1.7086	1.5648	8.42	93	0.00
105	T	123Trichlben	0.7370	0.6637	9.95	93	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 09:36:42 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 08:15:32 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	96	0.00
2	PT	Dichlorodi	10.0000	10.9614	-9.61	100	0.00
3	PT	Chloromethan	10.0000	9.3095	6.91	87	0.00
4	PT	VinylChlorid	10.0000	10.1053	-1.05	93	0.00
5	PT	Bromomethane	10.0000	10.3821	-3.82	102	0.00
6	PT	Chloroethane	10.0000	9.4678	5.32	95	0.00
7	T	Dichloroflmethane	10.0000	9.9306	0.69	94	0.00
8	PT	Trichlorofma	10.0000	10.8047	-8.05	96	0.00
9	T	Ethylether	10.0000	10.1105	-1.11	101	0.00
10	T	dichlorotfluoroethan	10.0000	10.6188	-6.19	96	0.00
11	T	propyleneoxide	100.0000	99.0600	0.94	98	0.00
12	T	Acrolein	50.0000	45.2159	9.57	88	0.00
13	PT	11dichlorthe	10.0000	10.5501	-5.50	99	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.6655	-8.33	97	0.00
15	PT	Acetone	100.0000	92.0930	7.91	95	0.00
16	T	Iodomethane	20.0000	19.7867	1.07	91	0.00
17	PT	Carbon Dislf	20.0000	20.6169	-3.08	96	0.00
18	T	allylchloride	20.0000	20.1346	-0.67	93	0.00
19	PT	methylacetate	10.0000	8.4923	15.08	94	0.00
20	PT	Methylchlorid	10.0000	9.2478	7.52	93	0.00
21	T	tbutylalcohol	500.0000	468.2134	6.36	91	0.00
22	T	Acrylonitrile	50.0000	50.4425	-0.89	98	0.00
23	PT	t12dichlorte	10.0000	10.0599	-0.60	96	0.00
24	PT	MtBE	10.0000	9.7872	2.13	95	0.00
25	T	Hexane	20.0000	21.4095	-7.05	89	0.00
26	PT	11dichlorota	10.0000	9.9248	0.75	95	0.00
27	T	Vinylacetate	100.0000	93.5247	6.48	80	0.00
28	T	chloroprene	20.0000	21.5249	-7.62	95	0.00
29	T	Diisopether	10.0000	10.0994	-0.99	92	0.00
30	T	ETBE	10.0000	9.4115	5.88	91	0.00
31	T	22dichloropr	10.0000	9.7230	2.77	94	0.00
32	PT	c12dichlorte	10.0000	9.8972	1.03	94	0.00
33	PT	2Butanone	100.0000	95.1052	4.89	95	0.00
34	T	propionitrile	100.0000	98.8952	1.10	97	0.00
35	T	Ethylacetate	50.0000	47.0127	5.97	95	0.00
36	T	methacrylonitrile	20.0000	19.8885	0.56	97	0.00
37	T	Bromochlorma	10.0000	9.5482	4.52	95	0.00
38	T	Tetrahydofur	100.0000	98.1866	1.81	93	0.00
39	PT	Chloroform	10.0000	9.8237	1.76	96	0.00
40	PT	111trichlota	10.0000	10.2655	-2.65	97	0.00
41	S	SURRDibrflma	20.0000	20.2149	-1.07	98	0.00
42	PT	Cyclohexane	10.0000	10.8023	-8.02	95	0.00
43	PT	Carbtetraclo	10.0000	10.8546	-8.55	101	0.00
44	T	11dicloprope	10.0000	10.0163	-0.16	95	0.00
45	S	SURR12DCAd4	20.0000	20.2146	-1.07	94	0.00
46	PT	Benzene	10.0000	10.3434	-3.43	95	0.00
47	PT	12dichlorota	10.0000	10.0675	-0.68	96	0.00
48	T	TAME	10.0000	9.7293	2.71	93	0.00

49	PT	trichloroete	10.0000	9.9189	0.81	96	0.00
50	PT	methylcyclohexane	10.0000	9.9542	0.46	97	0.00
51	PT	12dicloropra	10.0000	9.6166	3.83	92	0.00
52	T	23Dicl1propene	10.0000	9.7509	2.49	94	0.00
53	T	Dibromometha	10.0000	9.8350	1.65	98	0.00
54	T	methylmethacrylate	10.0000	9.6194	3.81	96	0.00
55	T	14dioxane	500.0000	466.5810	6.68	97	0.00
56	PT	Bromodiclrma	10.0000	9.6805	3.19	94	0.00
57	T	2Nitropropane	100.0000	102.6703	-2.67	96	0.00
58	T	2CLEVE	50.0000	44.8868	10.23	90	0.00
59	PT	c13dicloproe	10.0000	9.8379	1.62	95	0.00
60	PT	4Meth2Pentan	100.0000	99.1889	0.81	94	0.00
61	S	SURRd8Tolule	20.0000	20.2479	-1.24	96	0.00
62	PT	Toluene	10.0000	10.1681	-1.68	95	0.00
63	PT	t13Dicloprop	10.0000	9.7662	2.34	95	0.00
64	T	ethylmethacrylate	20.0000	20.0749	-0.37	95	0.00
65	PT	112Triclotha	10.0000	10.0385	-0.39	98	0.00
66	PT	Tetrachlorte	10.0000	10.4601	-4.60	95	0.00
67	T	13Diclorpropa	10.0000	9.8989	1.01	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	98	0.00
69	PT	2Hexanone	100.0000	92.6215	7.38	95	0.00
70	PT	Clorodibrmta	10.0000	9.5245	4.76	95	0.00
71	PT	12Dibrometha	10.0000	9.3790	6.21	95	0.01
72	PT	Chlorobenzen	10.0000	9.6532	3.47	95	0.00
73	T	1Clhexane	10.0000	9.9094	0.91	96	0.00
74	T	1112Tetclota	10.0000	9.5489	4.51	95	0.00
75	PT	Ethylbenzene	10.0000	10.0410	-0.41	94	0.00
76	PT	m p-Xylene	20.0000	20.6184	-3.09	96	0.00
77	PT	o-Xylene	10.0000	9.7258	2.74	92	0.00
78	PT	Styrene	10.0000	10.0201	-0.20	94	0.00
79	PT	Bromoform	10.0000	9.6901	3.10	100	0.00
80	PT	Isopropylben	10.0000	10.3944	-3.94	96	0.00
81	T	cyclohexanone	200.0000	164.5907	17.70	92	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	101	0.00
83	S	SURR4BrFBenz	20.0000	19.6268	1.87	100	0.00
84	T	Bromobenzene	10.0000	9.3815	6.18	94	0.00
85	PT	1122Tetrclta	10.0000	9.1877	8.12	95	0.00
86	T	123Triclproa	10.0000	8.9799	10.20	93	0.00
87	T	14dichloro2butene	10.0000	8.8754	11.25	94	0.00
88	T	n-Propylbenz	10.0000	10.0381	-0.38	94	0.00
89	T	2chlorotolue	10.0000	9.5726	4.27	96	0.00
90	T	4chlorotolue	10.0000	9.5996	4.00	94	0.00
91	T	135Trimebenz	10.0000	9.8926	1.07	93	0.00
92	T	tbutylbenzen	10.0000	10.0638	-0.64	95	0.00
93	T	124Trimetben	10.0000	9.8035	1.97	94	0.00
94	T	sbutylbenzen	10.0000	10.2882	-2.88	95	0.00
95	PT	13Diclorbenz	10.0000	9.4762	5.24	95	0.00
96	T	pIsopropylto	10.0000	10.1016	-1.02	95	0.00
97	PT	14dichlorobe	10.0000	9.4992	5.01	96	0.00
98	PT	12dichlorobe	10.0000	9.4292	5.71	97	0.00
99	T	nButylbenzen	10.0000	9.6990	3.01	92	0.00
100	PT	12dibromo3cl	10.0000	8.9029	10.97	98	0.00
101	T	135Trichlorobenzene	10.0000	9.0630	9.37	92	0.00
102	PT	124Trichlobe	10.0000	9.0643	9.36	93	0.00
103	T	Hexachlorobu	10.0000	9.8796	1.20	97	0.00
104	T	Naphthalene	10.0000	9.1584	8.42	93	0.00
105	T	123Trichlben	10.0000	9.0060	9.94	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 09:37:04 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1304103	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1082679	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	620213	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	350424	20.215	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	93484	20.215	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1381105	20.248	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	602326	19.627	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.85	85	184464	10.9614	ug/L	96
3) Chloromethan	2.10	50	144612	9.3095	ug/L	97
4) VinylChlorid	2.25	62	160176	10.1053	ug/L	97
5) Bromomethane	2.71	94	95092	10.3821	ug/L	96
6) Chloroethane	2.87	64	96736	9.4678	ug/L	98
7) Dichloroflmethane	3.19	67	342796	9.9306	ug/L	98
8) Trichlorofma	3.26	101	273516	10.8047	ug/L	97
9) Ethylether	3.71	59	128491	10.1105	ug/L	92
10) dichlorotfluoroethan	3.72	67	342588	10.6188	ug/L	98
11) propyleneoxide	3.76	58	446465	99.0600	ug/L	99
12) Acrolein	3.84	56	166981	45.2159	ug/L	99
13) 11dichlorthe	3.99	96	176135	10.5501	ug/L	100
14) Trichlorotfluoroeth	4.03	101	301142	21.6655	ug/L	99
15) Acetone	4.05	43	625566	92.0930	ug/L	99
16) Iodomethane	4.16	142	342046	19.7867	ug/L	98
17) Carbon Dislf	4.25	76	655963	20.6169	ug/L	100
18) allylchloride	4.47	41	551898	20.1346	ug/L	99
19) methylacetate	4.53	74	42793	8.4923	ug/L	98
20) Methylchlorid	4.63	84	191444	9.2478	ug/L	99
21) tbutylalcohol	4.83	59	859670	468.2134	ug/L	100
22) Acrylonitrile	4.94	53	413682	50.4425	ug/L	96
23) t12dichlorte	5.00	96	190354	10.0599	ug/L	99
24) MtBE	5.04	73	416411	9.7872	ug/L	99
25) Hexane	5.40	57	603273	21.4095	ug/L	98
26) 11dichlorota	5.53	63	324968	9.9248	ug/L	98
27) Vinylacetate	5.62	43	2208329	93.5247	ug/L	99
28) chloroprene	5.66	53	594562	21.5249	ug/L	98
29) Diisopether	5.68	45	511344	10.0994	ug/L	99
30) ETBE	6.13	59	393723	9.4115	ug/L	100
31) 22dichloropr	6.27	77	186966	9.7230	ug/L	98
32) c12dichlorte	6.26	96	197982	9.8972	ug/L	100
33) 2Butanone	6.28	72	255152	95.1052	ug/L	97
34) propionitrile	6.32	54	348716	98.8952	ug/L	99
35) Ethylacetate	6.38	88	39780	47.0127	ug/L	96
36) methacrylonitrile	6.52	67	198184	19.8885	ug/L	99
37) Bromochlorma	6.55	128	90148	9.5482	ug/L	100
38) Tetrahydofur	6.63	42	568229	98.1866	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	314669	9.8237	ug/L	98
40)	111trichlota	6.90	97	265381	10.2655	ug/L	98
42)	Cyclohexane	6.99	56	263251	10.8023	ug/L	99
43)	Carbtetraclo	7.12	119	219614	10.8546	ug/L	100
44)	11dicloprope	7.11	110	92520	10.0163	ug/L	100
46)	Benzene	7.36	78	755569	10.3434	ug/L	100
47)	12dichlorota	7.36	62	241385	10.0675	ug/L	100
48)	TAME	7.52	73	379678	9.7293	ug/L	99
49)	trichloroete	8.17	95	190134	9.9189	ug/L	100
50)	methylcyclohexane	8.43	83	417234	9.9542	ug/L	97
51)	12dicloropra	8.42	63	194331	9.6166	ug/L	92
52)	23Dicl1propene	8.48	75	280878	9.7509	ug/L	99
53)	Dibromometha	8.56	93	111630	9.8350	ug/L	97
54)	methylmethacrylate	8.59	69	136441	9.6194	ug/L	98
55)	14dioxane	8.60	88	132551	466.5810	ug/L	99
56)	Bromodiclrma	8.76	83	232638	9.6805	ug/L	98
57)	2Nitropropane	9.02	43	523829	102.6703	ug/L	100
58)	2CLEVE	9.15	63	280547	44.8868	ug/L	98
59)	c13dicloproe	9.34	75	266944	9.8379	ug/L	98
60)	4Meth2Pentan	9.54	43	1600538	99.1889	ug/L	99
62)	Toluene	9.79	92	478380	10.1681	ug/L	100
63)	t13Dicloprop	10.05	75	216247	9.7662	ug/L	99
64)	ethylmethacrylate	10.19	69	503695	20.0749	ug/L	98
65)	112Triclotha	10.28	83	144785	10.0385	ug/L	97
66)	Tetrachlorte	10.53	166	207215	10.4601	ug/L	99
67)	13Diclorpropa	10.51	76	295132	9.8989	ug/L	100
69)	2Hexanone	10.63	43	1199078	92.6215	ug/L	100
70)	Clorodibrmta	10.81	129	175683	9.5245	ug/L	99
71)	12Dibrometha	10.97	107	159867	9.3790	ug/L	99
72)	Chlorobenzen	11.65	112	508972	9.6532	ug/L	98
73)	1Clhexane	11.63	91	259685	9.9094	ug/L	99
74)	1112Tetclota	11.76	131	160470	9.5489	ug/L	99
75)	Ethylbenzene	11.81	91	843063	10.0410	ug/L	100
76)	m p-Xylene	11.98	106	672035	20.6184	ug/L	98
77)	o-Xylene	12.52	106	317264	9.7258	ug/L	96
78)	Styrene	12.53	104	526747	10.0201	ug/L	99
79)	Bromoform	12.77	173	119420	9.6901	ug/L	98
80)	Isopropylben	13.05	105	811900	10.3944	ug/L	99
81)	cyclohexanone	13.13	55	174119	164.5907	ug/L	98
84)	Bromobenzene	13.45	156	203080	9.3815	ug/L	99
85)	1122Tetrclta	13.43	83	236384	9.1877	ug/L	99
86)	123Triclproa	13.49	75	282121	8.9799	ug/L	98
87)	14dichloro2butene	13.51	53	64365	8.8754	ug/L	100
88)	n-Propylbenz	13.64	91	954175	10.0381	ug/L	100
89)	2chlorotolue	13.75	91	575861	9.5726	ug/L	98
90)	4chlorotolue	13.90	91	657900	9.5996	ug/L	99
91)	135Trimebenz	13.89	105	673878	9.8926	ug/L	100
92)	tbutylbenzen	14.36	119	579432	10.0638	ug/L	99
93)	124Trimetben	14.43	105	650006	9.8035	ug/L	99
94)	sbutylbenzen	14.68	105	839443	10.2882	ug/L	99
95)	13Diclorbenz	14.82	146	370238	9.4762	ug/L	99
96)	pIsopropylto	14.90	119	706017	10.1016	ug/L	100
97)	14dichlorobe	14.94	146	381961	9.4992	ug/L	97
98)	12dichlorobe	15.48	146	357024	9.4292	ug/L	98
99)	nButylbenzen	15.49	91	630494	9.6990	ug/L	99
100)	12dibromo3cl	16.58	157	43406	8.9029	ug/L	98
101)	135Trichlorobenzene	16.91	180	275376	9.0630	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	217824	9.0643	ug/L	99
103) Hexachlorobu	17.97	225	106115	9.8796	ug/L	98
104) Naphthalene	18.02	128	485259	9.1584	ug/L	98
105) 123Trichlben	18.33	180	205833	9.0060	ug/L	99

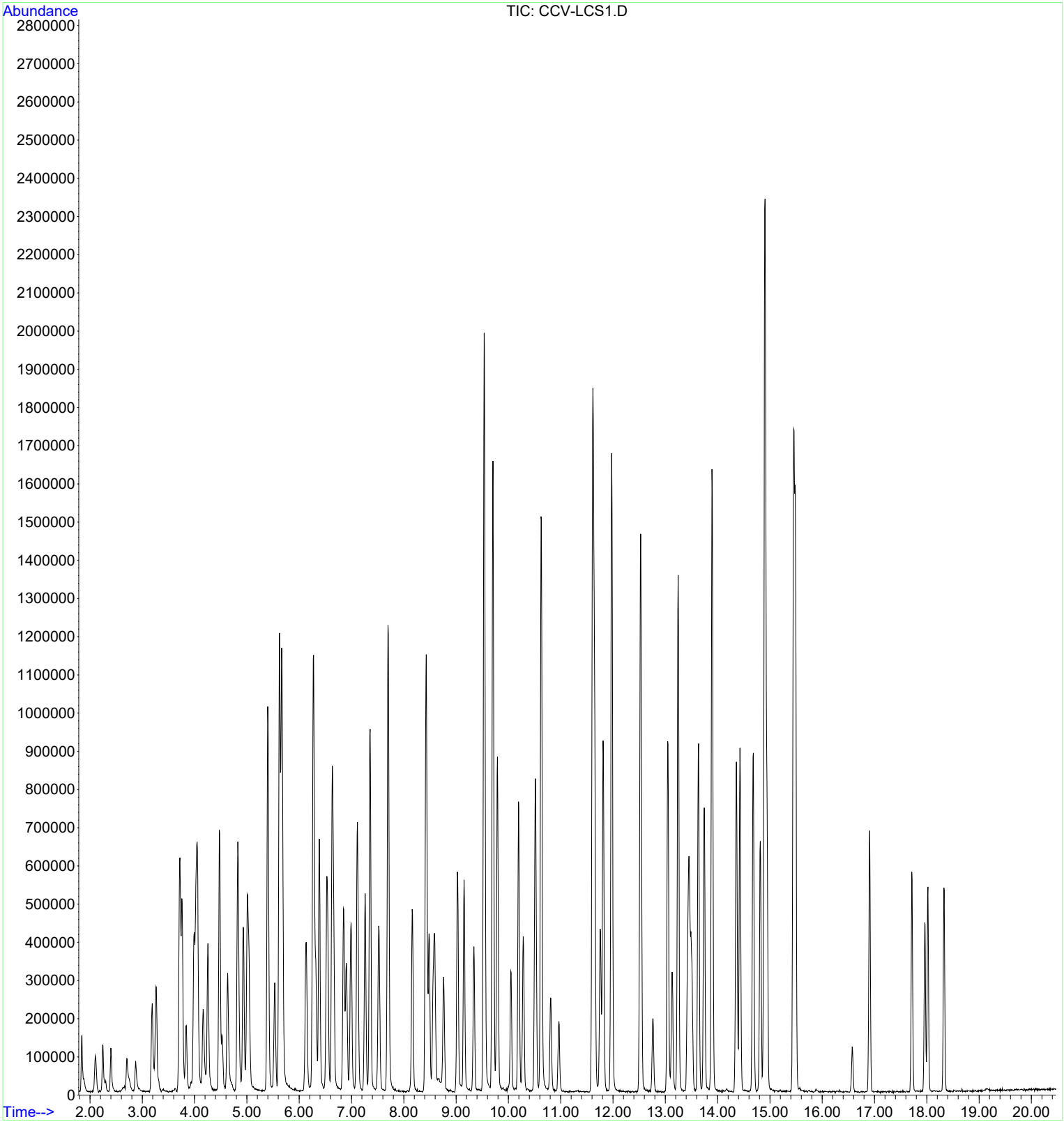
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 11:42:07 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	95	0.00
2	PT	Dichlorodi	0.2581	0.2748	-6.47	95	0.00
3	PT	Chloromethan	0.2382	0.2256	5.29	87	0.00
4	PT	VinylChlorid	0.2431	0.2385	1.89	89	0.00
5	PT	Bromomethane	0.1405	0.1479	-5.27	102	0.00
6	PT	Chloroethane	0.1567	0.1514	3.38	96	0.00
7	T	Dichloroflmethane	0.5294	0.5453	-3.00	96	0.00
8	PT	Trichlorofma	0.3882	0.4138	-6.59	93	0.00
9	T	Ethylether	0.1949	0.1997	-2.46	101	0.00
10	T	dichlorotfluoroethan	0.4948	0.5230	-5.70	94	0.00
11	T	propyleneoxide	0.0691	0.0728	-5.35	102	0.00
12	T	Acrolein	0.0566	0.0586	-3.53	99	0.00
13	PT	11dichlorthe	0.2560	0.2674	-4.45	96	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2297	-7.74	95	0.00
15	PT	Acetone	0.1042	0.0925#	11.23	91	0.00
16	T	Iodomethane	0.2651	0.2540	4.19	87	0.00
17	PT	Carbon Dislf	0.4879	0.4870	0.18	92	0.00
18	T	allylchloride	0.4204	0.4236	-0.76	92	0.00
19	PT	methylacetate	0.0773	0.0770#	0.39	109	0.00
20	PT	Methylchlorid	0.3175	0.2972	6.39	93	0.00
21	T	tbutylalcohol	0.0282	0.0291#	-3.19	99	0.00
22	T	Acrylonitrile	0.1258	0.1339	-6.44	102	0.00
23	PT	t12dichlorte	0.2902	0.2832	2.41	91	0.00
24	PT	MtBE	0.6525	0.6616	-1.39	97	0.00
25	T	Hexane	0.4321	0.4901	-13.42	93	0.00
26	PT	11dichlorota	0.5022	0.4997	0.50	94	0.00
27	T	Vinylacetate	0.3685	0.3955	-7.33	92	0.00
28	T	chloroprene	0.4236	0.4600	-8.59	94	0.00
29	T	Diisopether	0.7765	0.8160	-5.09	94	0.00
30	T	ETBE	0.6416	0.6123	4.57	91	0.00
31	T	22dichloropr	0.2949	0.2701	8.41	87	0.00
32	PT	c12dichlorte	0.3068	0.3060	0.26	94	0.00
33	PT	2Butanone	0.0411	0.0414#	-0.73	99	0.00
34	T	propionitrile	0.0541	0.0574	-6.10	103	0.00
35	T	Ethylacetate	0.0130	0.0130#	0.00	99	0.00
36	T	methacrylonitrile	0.1528	0.1573	-2.95	99	0.00
37	T	Bromochlorma	0.1448	0.1452	-0.28	98	0.00
38	T	Tetrahydofur	0.0888	0.0945	-6.42	100	0.00
39	PT	Chloroform	0.4912	0.4839	1.49	95	0.00
40	PT	111trichlota	0.3965	0.3903	1.56	91	0.00
41	S	SURRDibrflma	0.2659	0.2749	-3.38	98	0.00
42	PT	Cyclohexane	0.3737	0.3968	-6.18	92	0.00
43	PT	Carbtetraclo	0.3103	0.3159	-1.80	94	0.00
44	T	11dicloprope	0.1417	0.1406	0.78	93	0.00
45	S	SURR12DCAd4	0.0709	0.0694	2.12	90	0.00
46	PT	Benzene	1.1203	1.1432	-2.04	92	0.00
47	PT	12dichlorota	0.3677	0.3733	-1.52	95	0.00
48	T	TAME	0.5985	0.5945	0.67	94	0.00

49	PT	trichloroete	0.2940	0.2928	0.41	95	0.00
50	PT	methylcyclohexane	0.5670	0.6443	-13.63	96	0.00
51	PT	12dicloropra	0.3099	0.3109	-0.32	94	0.00
52	T	23Dicl1propene	0.4418	0.4547	-2.92	97	0.00
53	T	Dibromometha	0.1741	0.1771	-1.72	100	0.00
54	T	methylmethacrylate	0.2175	0.2208	-1.52	100	0.00
55	T	14dioxane	0.0044	0.0044#	0.00	104	0.00
56	PT	Bromodiclrma	0.3686	0.3619	1.82	94	0.00
57	T	2Nitropropane	0.0782	0.0846	-8.18	100	0.00
58	T	2CLEVE	0.0959	0.0966	-0.73	100	0.00
59	PT	c13dicloproe	0.4161	0.4107	1.30	94	0.00
60	PT	4Meth2Pentan	0.2366	0.2619	-10.69	98	0.00
61	S	SURRd8Tolule	1.0461	1.0773	-2.98	96	0.00
62	PT	Toluene	0.7215	0.7343	-1.77	94	0.00
63	PT	t13Dicloprop	0.3396	0.3233	4.80	92	0.00
64	T	ethylmethacrylate	0.3848	0.4071	-5.80	99	0.00
65	PT	112Triclotha	0.2212	0.2332	-5.42	101	0.00
66	PT	Tetrachlorte	0.3038	0.3155	-3.85	93	0.00
67	T	13Diclorpropa	0.4572	0.4572	0.00	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	98	0.00
69	PT	2Hexanone	0.2204	0.2295	-4.13	98	0.00
70	PT	Clorodibrmta	0.3407	0.3206	5.90	94	0.00
71	PT	12Dibrometha	0.3149	0.3096	1.68	100	0.00
72	PT	Chlorobenzen	0.9740	0.9566	1.79	96	0.00
73	T	1Clhexane	0.4841	0.4786	1.14	96	0.00
74	T	1112Tetclota	0.3104	0.2889	6.93	92	0.00
75	PT	Ethylbenzene	1.5510	1.5651	-0.91	94	0.00
76	PT	m p-Xylene	0.6021	0.6085	-1.06	94	0.00
77	PT	o-Xylene	0.6026	0.5938	1.46	93	0.00
78	PT	Styrene	0.9711	0.9789	-0.80	94	0.00
79	PT	Bromoform	0.2277	0.2206	3.12	100	0.00
80	PT	Isopropylben	1.4429	1.4904	-3.29	95	0.00
81	T	cyclohexanone	0.0184	0.0155#	15.76	89	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	101	0.00
83	S	SURR4BrFBenz	0.9896	0.9829	0.68	101	0.00
84	T	Bromobenzene	0.6980	0.6463	7.41	93	0.00
85	PT	1122Tetrclta	0.8297	0.7965	4.00	99	0.00
86	T	123Triclproa	1.0131	0.9471	6.51	97	0.00
87	T	14dichloro2butene	0.2339	0.2115	9.58	96	0.00
88	T	n-Propylbenz	3.0653	3.1138	-1.58	95	0.00
89	T	2chlorotolue	1.9399	1.8749	3.35	96	0.00
90	T	4chlorotolue	2.2100	2.1614	2.20	95	0.00
91	T	135Trimebenz	2.1966	2.1962	0.02	94	0.00
92	T	tbutylbenzen	1.8566	1.8678	-0.60	95	0.00
93	T	124Trimetben	2.1381	2.1226	0.72	95	0.00
94	T	sbutylbenzen	2.6311	2.7266	-3.63	96	0.00
95	PT	13Diclorbenz	1.2599	1.2073	4.17	96	0.00
96	T	pIsopropylto	2.2538	2.2981	-1.97	96	0.00
97	PT	14dichlorobe	1.2966	1.2280	5.29	95	0.00
98	PT	12dichlorobe	1.2210	1.1301	7.44	95	0.00
99	T	nButylbenzen	2.0963	2.0907	0.27	94	0.00
100	PT	12dibromo3cl	0.1572	0.1436	8.65	100	0.00
101	T	135Trichlorobenzene	0.9798	0.9148	6.63	94	0.00
102	PT	124Trichlobe	0.7749	0.7171	7.46	95	0.00
103	T	Hexachlorobu	0.3464	0.3354	3.18	95	0.00
104	T	Naphthalene	1.7086	1.6287	4.68	97	0.00
105	T	123Trichlben	0.7370	0.7067	4.11	99	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 09:44:13 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 11:42:07 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	95	0.00
2	PT	Dichlorodi	10.0000	10.6487	-6.49	95	0.00
3	PT	Chloromethan	10.0000	9.4706	5.29	87	0.00
4	PT	VinylChlorid	10.0000	9.8101	1.90	89	0.00
5	PT	Bromomethane	10.0000	10.5265	-5.27	102	0.00
6	PT	Chloroethane	10.0000	9.6649	3.35	96	0.00
7	T	Dichloroflmethane	10.0000	10.3013	-3.01	96	0.00
8	PT	Trichlorofma	10.0000	10.6590	-6.59	93	0.00
9	T	Ethylether	10.0000	10.2475	-2.48	101	0.00
10	T	dichlorotfluoroethan	10.0000	10.5706	-5.71	94	0.00
11	T	propyleneoxide	100.0000	105.2962	-5.30	102	0.00
12	T	Acrolein	50.0000	51.7546	-3.51	99	0.00
13	PT	11dichlorthe	10.0000	10.4436	-4.44	96	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.5544	-7.77	95	0.00
15	PT	Acetone	100.0000	88.7513	11.25	91	0.00
16	T	Iodomethane	20.0000	19.1638	4.18	87	0.00
17	PT	Carbon Dislf	20.0000	19.9609	0.20	92	0.00
18	T	allylchloride	20.0000	20.1544	-0.77	92	0.00
19	PT	methylacetate	10.0000	9.9638	0.36	109	0.00
20	PT	Methylchlorid	10.0000	9.3613	6.39	93	0.00
21	T	tbutylalcohol	500.0000	516.2468	-3.25	99	0.00
22	T	Acrylonitrile	50.0000	53.2501	-6.50	102	0.00
23	PT	t12dichlorte	10.0000	9.7607	2.39	91	0.00
24	PT	MtBE	10.0000	10.1390	-1.39	97	0.00
25	T	Hexane	20.0000	22.6829	-13.41	93	0.00
26	PT	11dichlorota	10.0000	9.9517	0.48	94	0.00
27	T	Vinylacetate	100.0000	111.8694	-11.87	92	0.00
28	T	chloroprene	20.0000	21.7186	-8.59	94	0.00
29	T	Diisopether	10.0000	10.5084	-5.08	94	0.00
30	T	ETBE	10.0000	9.5436	4.56	91	0.00
31	T	22dichloropr	10.0000	9.1595	8.41	87	0.00
32	PT	c12dichlorte	10.0000	9.9741	0.26	94	0.00
33	PT	2Butanone	100.0000	100.5191	-0.52	99	0.00
34	T	propionitrile	100.0000	106.2244	-6.22	103	0.00
35	T	Ethylacetate	50.0000	49.9852	0.03	99	0.00
36	T	methacrylonitrile	20.0000	20.5826	-2.91	99	0.00
37	T	Bromochlorma	10.0000	10.0294	-0.29	98	0.00
38	T	Tetrahydofur	100.0000	106.4781	-6.48	100	0.00
39	PT	Chloroform	10.0000	9.8513	1.49	95	0.00
40	PT	111trichlota	10.0000	9.8455	1.55	91	0.00
41	S	SURRDibrflma	20.0000	20.6786	-3.39	98	0.00
42	PT	Cyclohexane	10.0000	10.6168	-6.17	92	0.00
43	PT	Carbtetraclo	10.0000	10.1823	-1.82	94	0.00
44	T	11dicloprope	10.0000	9.9275	0.72	93	0.00
45	S	SURR12DCAd4	20.0000	19.5786	2.11	90	0.00
46	PT	Benzene	10.0000	10.2049	-2.05	92	0.00
47	PT	12dichlorota	10.0000	10.1513	-1.51	95	0.00
48	T	TAME	10.0000	9.9338	0.66	94	0.00

49	PT	trichloroete	10.0000	9.9615	0.39	95	0.00
50	PT	methylcyclohexane	10.0000	10.0216	-0.22	96	0.00
51	PT	12dicloropra	10.0000	10.0324	-0.32	94	0.00
52	T	23Dicl1propene	10.0000	10.2925	-2.93	97	0.00
53	T	Dibromometha	10.0000	10.1758	-1.76	100	0.00
54	T	methylmethacrylate	10.0000	10.1493	-1.49	100	0.00
55	T	14dioxane	500.0000	503.3973	-0.68	104	0.00
56	PT	Bromodiclrma	10.0000	9.8198	1.80	94	0.00
57	T	2Nitropropane	100.0000	108.1122	-8.11	100	0.00
58	T	2CLEVE	50.0000	50.3724	-0.74	100	0.00
59	PT	c13dicloproe	10.0000	9.8697	1.30	94	0.00
60	PT	4Meth2Pentan	100.0000	106.6278	-6.63	98	0.00
61	S	SURRd8Tolule	20.0000	20.5974	-2.99	96	0.00
62	PT	Toluene	10.0000	10.1766	-1.77	94	0.00
63	PT	t13Dicloprop	10.0000	9.5212	4.79	92	0.00
64	T	ethylmethacrylate	20.0000	21.1572	-5.79	99	0.00
65	PT	112Triclotha	10.0000	10.5408	-5.41	101	0.00
66	PT	Tetrachlorte	10.0000	10.3847	-3.85	93	0.00
67	T	13Diclorpropa	10.0000	9.9985	0.02	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	98	0.00
69	PT	2Hexanone	100.0000	96.2503	3.75	98	0.00
70	PT	Clorodibrmta	10.0000	9.4104	5.90	94	0.00
71	PT	12Dibrometha	10.0000	9.8337	1.66	100	0.00
72	PT	Chlorobenzen	10.0000	9.8211	1.79	96	0.00
73	T	1Clhexane	10.0000	9.8856	1.14	96	0.00
74	T	1112Tetclota	10.0000	9.3063	6.94	92	0.00
75	PT	Ethylbenzene	10.0000	10.0906	-0.91	94	0.00
76	PT	m p-Xylene	20.0000	20.2136	-1.07	94	0.00
77	PT	o-Xylene	10.0000	9.8540	1.46	93	0.00
78	PT	Styrene	10.0000	10.0801	-0.80	94	0.00
79	PT	Bromoform	10.0000	9.6898	3.10	100	0.00
80	PT	Isopropylben	10.0000	10.3293	-3.29	95	0.00
81	T	cyclohexanone	200.0000	159.0386	20.48	89	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	101	0.00
83	S	SURR4BrFBenz	20.0000	19.8642	0.68	101	0.00
84	T	Bromobenzene	10.0000	9.2588	7.41	93	0.00
85	PT	1122Tetrclta	10.0000	9.6002	4.00	99	0.00
86	T	123Triclproa	10.0000	9.3489	6.51	97	0.00
87	T	14dichloro2butene	10.0000	9.0457	9.54	96	0.00
88	T	n-Propylbenz	10.0000	10.1583	-1.58	95	0.00
89	T	2chlorotolue	10.0000	9.6648	3.35	96	0.00
90	T	4chlorotolue	10.0000	9.7799	2.20	95	0.00
91	T	135Trimebenz	10.0000	9.9978	0.02	94	0.00
92	T	tbutylbenzen	10.0000	10.0602	-0.60	95	0.00
93	T	124Trimetben	10.0000	9.9277	0.72	95	0.00
94	T	sbutylbenzen	10.0000	10.3629	-3.63	96	0.00
95	PT	13Diclorbenz	10.0000	9.5826	4.17	96	0.00
96	T	pIsopropylto	10.0000	10.1966	-1.97	96	0.00
97	PT	14dichlorobe	10.0000	9.4707	5.29	95	0.00
98	PT	12dichlorobe	10.0000	9.2558	7.44	95	0.00
99	T	nButylbenzen	10.0000	9.9737	0.26	94	0.00
100	PT	12dibromo3cl	10.0000	9.1317	8.68	100	0.00
101	T	135Trichlorobenzene	10.0000	9.3360	6.64	94	0.00
102	PT	124Trichlobe	10.0000	9.2535	7.46	95	0.00
103	T	Hexachlorobu	10.0000	9.6841	3.16	95	0.00
104	T	Naphthalene	10.0000	9.5321	4.68	97	0.00
105	T	123Trichlben	10.0000	9.5887	4.11	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 09:44:36 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:42:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1286028	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1083020	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	619399	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	353494	20.679	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.27	102	89288	19.579	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.71	98	1385472	20.597	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	608813	19.864	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	176717	10.6487	ug/L	96
3) Chloromethan	2.11	50	145076	9.4706	ug/L	95
4) VinylChlorid	2.24	62	153342	9.8101	ug/L	99
5) Bromomethane	2.70	94	95078	10.5265	ug/L	99
6) Chloroethane	2.87	64	97381	9.6649	ug/L	90
7) Dichloroflmethane	3.18	67	350663	10.3013	ug/L	99
8) Trichlorofma	3.27	101	266088	10.6590	ug/L	100
9) Ethylether	3.71	59	128428	10.2475	ug/L	94
10) dichlorotfluoroethan	3.72	67	336307	10.5706	ug/L	99
11) propyleneoxide	3.76	58	467994	105.2962	ug/L	99
12) Acrolein	3.84	56	188479	51.7546	ug/L	100
13) 11dichlorthe	3.98	96	171941	10.4436	ug/L	99
14) Trichlorotfluoroeth	4.03	101	295445	21.5544	ug/L	99
15) Acetone	4.06	43	594511	88.7513	ug/L	99
16) Iodomethane	4.17	142	326687	19.1638	ug/L	99
17) Carbon Dislf	4.26	76	626290	19.9609	ug/L	99
18) allylchloride	4.48	41	544782	20.1544	ug/L	99
19) methylacetate	4.53	74	49512	9.9638	ug/L	86
20) Methylchlorid	4.63	84	191109	9.3613	ug/L	100
21) tbutylalcohol	4.83	59	934725	516.2468	ug/L	98
22) Acrylonitrile	4.94	53	430654	53.2501	ug/L	97
23) t12dichlorte	5.01	96	182133	9.7607	ug/L	97
24) MtBE	5.03	73	425402	10.1390	ug/L	97
25) Hexane	5.40	57	630295	22.6829	ug/L	100
26) 11dichlorota	5.53	63	321335	9.9517	ug/L	99
27) Vinylacetate	5.62	43	2543051	111.8694	ug/L	99
28) chloroprene	5.66	53	591599	21.7186	ug/L	99
29) Diisopether	5.68	45	524676	10.5084	ug/L	94
30) ETBE	6.13	59	393713	9.5436	ug/L	99
31) 22dichloropr	6.27	77	173690	9.1595	ug/L	99
32) c12dichlorte	6.26	96	196755	9.9741	ug/L	99
33) 2Butanone	6.28	72	265939	100.5191	ug/L	98
34) propionitrile	6.32	54	369368	106.2244	ug/L	100
35) Ethylacetate	6.39	88	41709	49.9852	ug/L	95
36) methacrylonitrile	6.53	67	202258	20.5826	ug/L	98
37) Bromochlorma	6.55	128	93378	10.0294	ug/L	97
38) Tetrahydofur	6.63	42	607673	106.4781	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:42:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	311180	9.8513	ug/L	100
40)	111trichlota	6.90	97	250996	9.8455	ug/L	95
42)	Cyclohexane	6.99	56	255143	10.6168	ug/L	96
43)	Carbtetraclo	7.12	119	203158	10.1823	ug/L	99
44)	11dicloprope	7.11	110	90429	9.9275	ug/L	99
46)	Benzene	7.36	78	735121	10.2049	ug/L	99
47)	12dichlorota	7.36	62	240021	10.1513	ug/L	99
48)	TAME	7.53	73	382286	9.9338	ug/L	97
49)	trichloroete	8.16	95	188304	9.9615	ug/L	99
50)	methylcyclohexane	8.43	83	414274	10.0216	ug/L	97
51)	12dicloropra	8.42	63	199924	10.0324	ug/L	90
52)	23Dicl1propene	8.49	75	292372	10.2925	ug/L	99
53)	Dibromometha	8.56	93	113897	10.1758	ug/L	98
54)	methylmethacrylate	8.59	69	141961	10.1493	ug/L	98
55)	14dioxane	8.60	88	141028	503.3973	ug/L	98
56)	Bromodiclrma	8.76	83	232715	9.8198	ug/L	97
57)	2Nitropropane	9.03	43	543949	108.1122	ug/L	98
58)	2CLEVE	9.15	63	310469	50.3724	ug/L	98
59)	c13dicloproe	9.34	75	264097	9.8697	ug/L	99
60)	4Meth2Pentan	9.54	43	1684338	106.6278	ug/L	99
62)	Toluene	9.79	92	472147	10.1766	ug/L	100
63)	t13Dicloprop	10.05	75	207900	9.5212	ug/L	99
64)	ethylmethacrylate	10.20	69	523494	21.1572	ug/L	98
65)	112Triclotha	10.28	83	149922	10.5408	ug/L	96
66)	Tetrachlorte	10.53	166	202869	10.3847	ug/L	98
67)	13Diclorpropa	10.51	76	293968	9.9985	ug/L	99
69)	2Hexanone	10.63	43	1242830	96.2503	ug/L	100
70)	Clorodibrmta	10.81	129	173634	9.4104	ug/L	97
71)	12Dibrometha	10.97	107	167670	9.8337	ug/L	96
72)	Chlorobenzen	11.65	112	517984	9.8211	ug/L	99
73)	1Clhexane	11.63	91	259141	9.8856	ug/L	99
74)	1112Tetclota	11.76	131	156443	9.3063	ug/L	97
75)	Ethylbenzene	11.81	91	847498	10.0906	ug/L	99
76)	m p-Xylene	11.98	106	659048	20.2136	ug/L	99
77)	o-Xylene	12.53	106	321547	9.8540	ug/L	96
78)	Styrene	12.53	104	530071	10.0801	ug/L	99
79)	Bromoform	12.77	173	119454	9.6898	ug/L	98
80)	Isopropylben	13.05	105	807069	10.3293	ug/L	100
81)	cyclohexanone	13.13	55	167912	159.0386	ug/L	100
84)	Bromobenzene	13.46	156	200161	9.2588	ug/L	97
85)	1122Tetrclta	13.43	83	246671	9.6002	ug/L	98
86)	123Triclproa	13.49	75	293327	9.3489	ug/L	95
87)	14dichloro2butene	13.51	53	65514	9.0457	ug/L	98
88)	n-Propylbenz	13.64	91	964334	10.1583	ug/L	100
89)	2chlorotolue	13.75	91	580647	9.6648	ug/L	99
90)	4chlorotolue	13.90	91	669381	9.7799	ug/L	99
91)	135Trimebenz	13.89	105	680152	9.9978	ug/L	99
92)	tbutylbenzen	14.36	119	578463	10.0602	ug/L	100
93)	124Trimetben	14.43	105	657376	9.9277	ug/L	100
94)	sbutylbenzen	14.68	105	844431	10.3629	ug/L	99
95)	13Diclorbenz	14.82	146	373901	9.5826	ug/L	99
96)	pIsopropylto	14.90	119	711718	10.1966	ug/L	99
97)	14dichlorobe	14.94	146	380317	9.4707	ug/L	98
98)	12dichlorobe	15.49	146	349997	9.2558	ug/L	98
99)	nButylbenzen	15.49	91	647504	9.9737	ug/L	99
100)	12dibromo3cl	16.58	157	44463	9.1317	ug/L	95
101)	135Trichlorobenzene	16.90	180	283300	9.3360	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:42:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	222080	9.2535	ug/L	99
103) Hexachlorobu	17.96	225	103878	9.6841	ug/L	100
104) Naphthalene	18.02	128	504396	9.5321	ug/L	99
105) 123Trichlben	18.33	180	218863	9.5887	ug/L	98

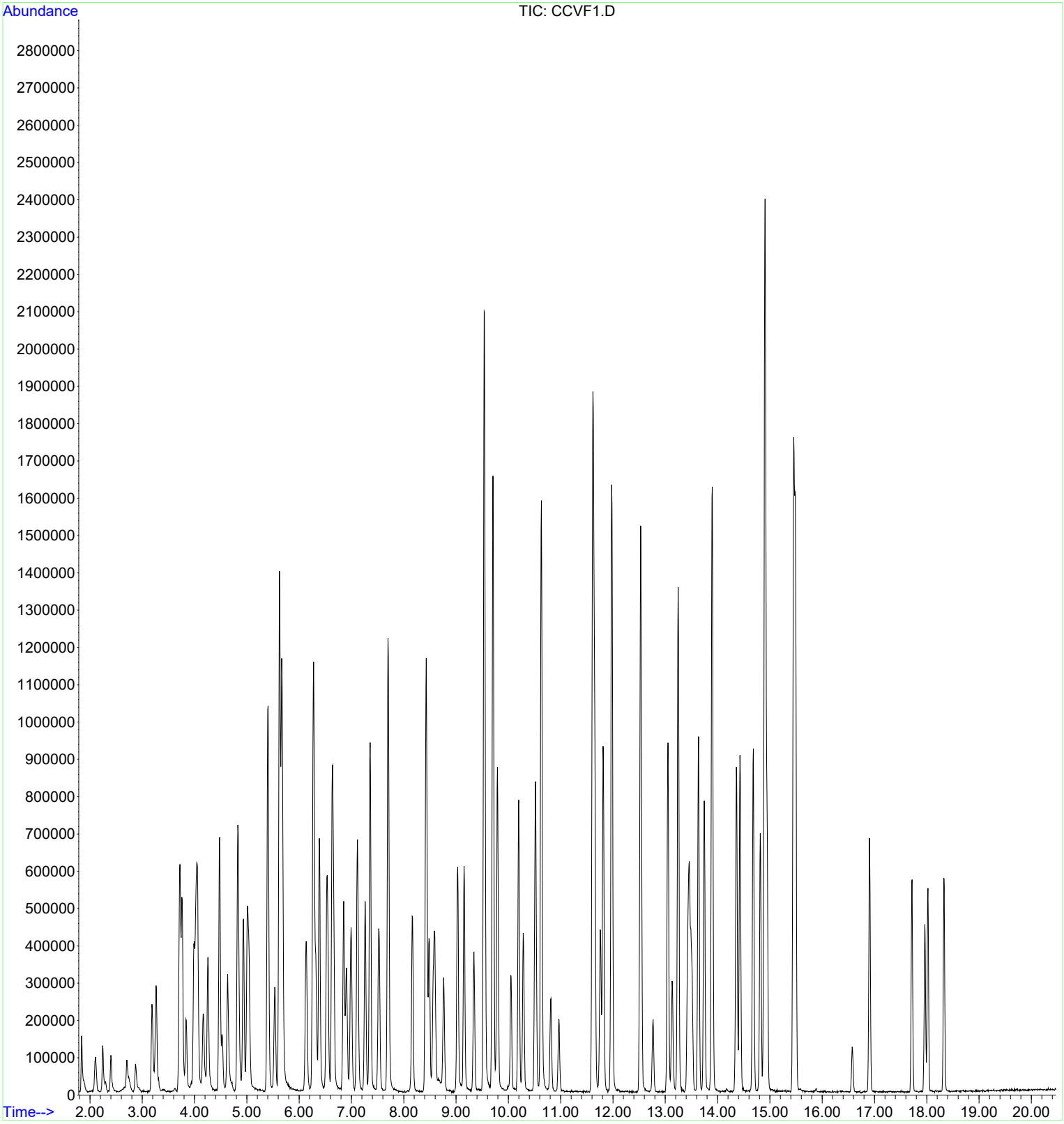
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF1.D Vial: 10
Acq On : 5 May 2022 11:21 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 11:42:07 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



BFB

Data File : C:\Instarch\Data\MAY0522\BFB2.D Vial: 11
Acq On : 5 May 2022 11:45 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	12354	PASS
75	95	30	60	48.1	34573	PASS
95	95	100	100	100.0	71890	PASS
96	95	5	9	6.7	4848	PASS
173	174	0.00	2	0.8	456	PASS
174	95	50	100	82.5	59322	PASS
175	174	5	9	6.6	3931	PASS
176	174	95	101	100.1	59378	PASS
177	176	5	9	7.4	4381	PASS

W042822.M Fri May 06 09:34:02 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 12:49:30 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	PT	Dichlorodi	0.2581	0.2807	-8.76	99	0.00
3	PT	Chloromethan	0.2382	0.2299	3.48	90	0.00
4	PT	VinylChlorid	0.2431	0.2432	-0.04	92	0.00
5	PT	Bromomethane	0.1405	0.1401	0.28	98	0.00
6	PT	Chloroethane	0.1567	0.1520	3.00	98	0.00
7	T	Dichloroflmethane	0.5294	0.5551	-4.85	100	0.00
8	PT	Trichlorofma	0.3882	0.4256	-9.63	97	0.00
9	T	Ethylether	0.1949	0.1885	3.28	96	0.00
10	T	dichlorotfluoroethan	0.4948	0.5475	-10.65	100	0.00
11	T	propyleneoxide	0.0691	0.0703	-1.74	100	0.00
12	T	Acrolein	0.0566	0.0576	-1.77	99	0.00
13	PT	11dichlorthe	0.2560	0.2707	-5.74	99	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2425	-13.74	102	0.00
15	PT	Acetone	0.1042	0.0980#	5.95	97	0.00
16	T	Iodomethane	0.2651	0.2771	-4.53	96	0.00
17	PT	Carbon Dislf	0.4879	0.5147	-5.49	98	0.00
18	T	allylchloride	0.4204	0.4425	-5.26	98	0.00
19	PT	methylacetate	0.0773	0.0724#	6.34	104	0.00
20	PT	Methylchlorid	0.3175	0.3011	5.17	96	0.00
21	T	tbutylalcohol	0.0282	0.0272#	3.55	94	0.00
22	T	Acrylonitrile	0.1258	0.1310	-4.13	101	0.00
23	PT	t12dichlorte	0.2902	0.2876	0.90	94	0.00
24	PT	MtBE	0.6525	0.6481	0.67	96	0.00
25	T	Hexane	0.4321	0.5222	-20.85#	101	0.00
26	PT	11dichlorota	0.5022	0.5083	-1.21	97	0.00
27	T	Vinylacetate	0.3685	0.4249	-15.31	100	0.00
28	T	chloroprene	0.4236	0.4742	-11.95	99	0.00
29	T	Diisopether	0.7765	0.8061	-3.81	95	0.00
30	T	ETBE	0.6416	0.6269	2.29	94	0.00
31	T	22dichloropr	0.2949	0.2995	-1.56	98	0.00
32	PT	c12dichlorte	0.3068	0.3162	-3.06	98	0.00
33	PT	2Butanone	0.0411	0.0411#	0.00	100	0.00
34	T	propionitrile	0.0541	0.0544	-0.55	99	0.00
35	T	Ethylacetate	0.0130	0.0129#	0.77	100	0.00
36	T	methacrylonitrile	0.1528	0.1543	-0.98	99	0.00
37	T	Bromochlorma	0.1448	0.1385	4.35	95	0.00
38	T	Tetrahydofur	0.0888	0.0887	0.11	95	0.00
39	PT	Chloroform	0.4912	0.4868	0.90	97	0.00
40	PT	111trichlota	0.3965	0.4066	-2.55	97	0.00
41	S	SURRDibrflma	0.2659	0.2713	-2.03	98	0.00
42	PT	Cyclohexane	0.3737	0.4209	-12.63	99	0.00
43	PT	Carbtetraclo	0.3103	0.3300	-6.35	99	0.00
44	T	11dicloprope	0.1417	0.1454	-2.61	98	0.00
45	S	SURR12DCAd4	0.0709	0.0697	1.69	92	0.00
46	PT	Benzene	1.1203	1.1588	-3.44	95	0.00
47	PT	12dichlorota	0.3677	0.3717	-1.09	96	0.00
48	T	TAME	0.5985	0.5842	2.39	94	0.00

49	PT	trichloroete	0.2940	0.2906	1.16	96	0.00
50	PT	methylcyclohexane	0.5670	0.6634	-17.00	100	0.00
51	PT	12dicloropra	0.3099	0.3115	-0.52	96	0.00
52	T	23Dicl1propene	0.4418	0.4434	-0.36	96	0.00
53	T	Dibromometha	0.1741	0.1745	-0.23	100	0.00
54	T	methylmethacrylate	0.2175	0.2153	1.01	99	0.00
55	T	14dioxane	0.0044	0.0039#	11.36	94	0.00
56	PT	Bromodiclrma	0.3686	0.3577	2.96	94	0.00
57	T	2Nitropropane	0.0782	0.0822	-5.12	98	0.00
58	T	2CLEVE	0.0959	0.0942	1.77	98	0.00
59	PT	c13dicloproe	0.4161	0.4165	-0.10	96	0.00
60	PT	4Meth2Pentan	0.2366	0.2495	-5.45	95	0.00
61	S	SURRd8Tolule	1.0461	1.0709	-2.37	97	0.00
62	PT	Toluene	0.7215	0.7479	-3.66	97	0.00
63	PT	t13Dicloprop	0.3396	0.3377	0.56	97	0.00
64	T	ethylmethacrylate	0.3848	0.3980	-3.43	98	0.00
65	PT	112Triclotha	0.2212	0.2236	-1.08	98	0.00
66	PT	Tetrachlorte	0.3038	0.3144	-3.49	94	0.00
67	T	13Diclorpropa	0.4572	0.4640	-1.49	100	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	100	0.00
69	PT	2Hexanone	0.2204	0.2192	0.54	95	0.00
70	PT	Clorodibrmta	0.3407	0.3230	5.20	96	0.00
71	PT	12Dibrometha	0.3149	0.2943	6.54	96	0.00
72	PT	Chlorobenzen	0.9740	0.9468	2.79	97	0.00
73	T	1Clhexane	0.4841	0.5047	-4.26	102	0.00
74	T	1112Tetclota	0.3104	0.2821	9.12	92	0.00
75	PT	Ethylbenzene	1.5510	1.5864	-2.28	97	0.00
76	PT	m p-Xylene	0.6021	0.6238	-3.60	98	0.00
77	PT	o-Xylene	0.6026	0.5956	1.16	95	0.00
78	PT	Styrene	0.9711	0.9873	-1.67	97	0.00
79	PT	Bromoform	0.2277	0.2112	7.25	97	0.00
80	PT	Isopropylben	1.4429	1.5182	-5.22	98	0.00
81	T	cyclohexanone	0.0184	0.0164#	10.87	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	102	0.00
83	S	SURR4BrFBenz	0.9896	0.9836	0.61	101	0.00
84	T	Bromobenzene	0.6980	0.6643	4.83	96	0.00
85	PT	1122Tetrclta	0.8297	0.8024	3.29	101	0.00
86	T	123Triclproa	1.0131	0.9274	8.46	96	0.00
87	T	14dichloro2butene	0.2339	0.2185	6.58	100	0.00
88	T	n-Propylbenz	3.0653	3.1438	-2.56	96	0.00
89	T	2chlorotolue	1.9399	1.8829	2.94	97	0.00
90	T	4chlorotolue	2.2100	2.2177	-0.35	98	0.00
91	T	135Trimebenz	2.1966	2.2191	-1.02	96	0.00
92	T	tbutylbenzen	1.8566	1.8858	-1.57	97	0.00
93	T	124Trimetben	2.1381	2.1428	-0.22	96	0.00
94	T	sbutylbenzen	2.6311	2.7542	-4.68	97	0.00
95	PT	13Diclorbenz	1.2599	1.2079	4.13	96	0.00
96	T	pIsopropylto	2.2538	2.3539	-4.44	99	0.00
97	PT	14dichlorobe	1.2966	1.2573	3.03	98	0.00
98	PT	12dichlorobe	1.2210	1.1493	5.87	97	0.00
99	T	nButylbenzen	2.0963	2.1397	-2.07	97	0.00
100	PT	12dibromo3cl	0.1572	0.1335	15.08	94	0.00
101	T	135Trichlorobenzene	0.9798	0.9273	5.36	96	0.00
102	PT	124Trichlobe	0.7749	0.7361	5.01	98	0.00
103	T	Hexachlorobu	0.3464	0.3568	-3.00	101	0.00
104	T	Naphthalene	1.7086	1.6200	5.19	97	0.00
105	T	123Trichlben	0.7370	0.6778	8.03	95	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 09:38:09 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 12:49:30 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	96	0.00
2	PT	Dichlorodi	10.0000	10.8779	-8.78	99	0.00
3	PT	Chloromethan	10.0000	9.6483	3.52	90	0.00
4	PT	VinylChlorid	10.0000	10.0031	-0.03	92	0.00
5	PT	Bromomethane	10.0000	9.9741	0.26	98	0.00
6	PT	Chloroethane	10.0000	9.6995	3.00	98	0.00
7	T	Dichloroflmethane	10.0000	10.4853	-4.85	100	0.00
8	PT	Trichlorofma	10.0000	10.9613	-9.61	97	0.00
9	T	Ethylether	10.0000	9.6730	3.27	96	0.00
10	T	dichlorotfluoroethan	10.0000	11.0664	-10.66	100	0.00
11	T	propyleneoxide	100.0000	101.6899	-1.69	100	0.00
12	T	Acrolein	50.0000	50.8898	-1.78	99	0.00
13	PT	11dichlorthe	10.0000	10.5728	-5.73	99	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.7522	-13.76	102	0.00
15	PT	Acetone	100.0000	94.0908	5.91	97	0.00
16	T	Iodomethane	20.0000	20.9041	-4.52	96	0.00
17	PT	Carbon Dislf	20.0000	21.0950	-5.47	98	0.00
18	T	allylchloride	20.0000	21.0505	-5.25	98	0.00
19	PT	methylacetate	10.0000	9.3683	6.32	104	0.00
20	PT	Methylchlorid	10.0000	9.4835	5.17	96	0.00
21	T	tbutylalcohol	500.0000	483.7076	3.26	94	0.00
22	T	Acrylonitrile	50.0000	52.0744	-4.15	101	0.00
23	PT	t12dichlorte	10.0000	9.9101	0.90	94	0.00
24	PT	MtBE	10.0000	9.9327	0.67	96	0.00
25	T	Hexane	20.0000	24.1667	-20.83#	101	0.00
26	PT	11dichlorota	10.0000	10.1230	-1.23	97	0.00
27	T	Vinylacetate	100.0000	121.5457	-21.55#	100	0.00
28	T	chloroprene	20.0000	22.3886	-11.94	99	0.00
29	T	Diisopether	10.0000	10.3817	-3.82	95	0.00
30	T	ETBE	10.0000	9.7708	2.29	94	0.00
31	T	22dichloropr	10.0000	10.1563	-1.56	98	0.00
32	PT	c12dichlorte	10.0000	10.3057	-3.06	98	0.00
33	PT	2Butanone	100.0000	99.8523	0.15	100	0.00
34	T	propionitrile	100.0000	100.6026	-0.60	99	0.00
35	T	Ethylacetate	50.0000	49.6767	0.65	100	0.00
36	T	methacrylonitrile	20.0000	20.1945	-0.97	99	0.00
37	T	Bromochlorma	10.0000	9.5669	4.33	95	0.00
38	T	Tetrahydofur	100.0000	99.8970	0.10	95	0.00
39	PT	Chloroform	10.0000	9.9094	0.91	97	0.00
40	PT	111trichlota	10.0000	10.2551	-2.55	97	0.00
41	S	SURRDibrflma	20.0000	20.4065	-2.03	98	0.00
42	PT	Cyclohexane	10.0000	11.2623	-12.62	99	0.00
43	PT	Carbtetraclo	10.0000	10.6350	-6.35	99	0.00
44	T	11dicloprope	10.0000	10.2608	-2.61	98	0.00
45	S	SURR12DCAd4	20.0000	19.6415	1.79	92	0.00
46	PT	Benzene	10.0000	10.3436	-3.44	95	0.00
47	PT	12dichlorota	10.0000	10.1091	-1.09	96	0.00
48	T	TAME	10.0000	9.7612	2.39	94	0.00

49	PT	trichloroete	10.0000	9.8840	1.16	96	0.00
50	PT	methylcyclohexane	10.0000	10.3157	-3.16	100	0.00
51	PT	12dicloropra	10.0000	10.0499	-0.50	96	0.00
52	T	23Dicl1propene	10.0000	10.0360	-0.36	96	0.00
53	T	Dibromometha	10.0000	10.0236	-0.24	100	0.00
54	T	methylmethacrylate	10.0000	9.8960	1.04	99	0.00
55	T	14dioxane	500.0000	448.1054	10.38	94	0.00
56	PT	Bromodiclrma	10.0000	9.7056	2.94	94	0.00
57	T	2Nitropropane	100.0000	105.0151	-5.02	98	0.00
58	T	2CLEVE	50.0000	49.1359	1.73	98	0.00
59	PT	c13dicloproe	10.0000	10.0090	-0.09	96	0.00
60	PT	4Meth2Pentan	100.0000	101.0139	-1.01	95	0.00
61	S	SURRd8Tolule	20.0000	20.4754	-2.38	97	0.00
62	PT	Toluene	10.0000	10.3657	-3.66	97	0.00
63	PT	t13Dicloprop	10.0000	9.9460	0.54	97	0.00
64	T	ethylmethacrylate	20.0000	20.6838	-3.42	98	0.00
65	PT	112Triclotha	10.0000	10.1078	-1.08	98	0.00
66	PT	Tetrachlorte	10.0000	10.3498	-3.50	94	0.00
67	T	13Diclorpropa	10.0000	10.1484	-1.48	100	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	100	0.00
69	PT	2Hexanone	100.0000	91.5737	8.43	95	0.00
70	PT	Clorodibrmta	10.0000	9.4793	5.21	96	0.00
71	PT	12Dibrometha	10.0000	9.3474	6.53	96	0.00
72	PT	Chlorobenzen	10.0000	9.7206	2.79	97	0.00
73	T	1Clhexane	10.0000	10.4258	-4.26	102	0.00
74	T	1112Tetclota	10.0000	9.0860	9.14	92	0.00
75	PT	Ethylbenzene	10.0000	10.2284	-2.28	97	0.00
76	PT	m p-Xylene	20.0000	20.7201	-3.60	98	0.00
77	PT	o-Xylene	10.0000	9.8841	1.16	95	0.00
78	PT	Styrene	10.0000	10.1671	-1.67	97	0.00
79	PT	Bromoform	10.0000	9.2787	7.21	97	0.00
80	PT	Isopropylben	10.0000	10.5218	-5.22	98	0.00
81	T	cyclohexanone	200.0000	167.6771	16.16	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00
83	S	SURR4BrFBenz	20.0000	19.8782	0.61	101	0.00
84	T	Bromobenzene	10.0000	9.5164	4.84	96	0.00
85	PT	1122Tetrclta	10.0000	9.6715	3.29	101	0.00
86	T	123Triclproa	10.0000	9.1537	8.46	96	0.00
87	T	14dichloro2butene	10.0000	9.3423	6.58	100	0.00
88	T	n-Propylbenz	10.0000	10.2561	-2.56	96	0.00
89	T	2chlorotolue	10.0000	9.7060	2.94	97	0.00
90	T	4chlorotolue	10.0000	10.0348	-0.35	98	0.00
91	T	135Trimebenz	10.0000	10.1023	-1.02	96	0.00
92	T	tbutylbenzen	10.0000	10.1570	-1.57	97	0.00
93	T	124Trimetben	10.0000	10.0223	-0.22	96	0.00
94	T	sbutylbenzen	10.0000	10.4677	-4.68	97	0.00
95	PT	13Diclorbenz	10.0000	9.5875	4.12	96	0.00
96	T	pIsopropylto	10.0000	10.4444	-4.44	99	0.00
97	PT	14dichlorobe	10.0000	9.6963	3.04	98	0.00
98	PT	12dichlorobe	10.0000	9.4130	5.87	97	0.00
99	T	nButylbenzen	10.0000	10.2074	-2.07	97	0.00
100	PT	12dibromo3cl	10.0000	8.4889	15.11	94	0.00
101	T	135Trichlorobenzene	10.0000	9.4640	5.36	96	0.00
102	PT	124Trichlobe	10.0000	9.4984	5.02	98	0.00
103	T	Hexachlorobu	10.0000	10.3018	-3.02	101	0.00
104	T	Naphthalene	10.0000	9.4816	5.18	97	0.00
105	T	123Trichlben	10.0000	9.1963	8.04	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 09:38:35 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 12:49:30 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1304377	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1100048	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	622966	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	353820	20.406	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.27	102	90853	19.642	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.71	98	1396917	20.475	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	612749	19.878	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	183097	10.8779	ug/L	100
3) Chloromethan	2.10	50	149907	9.6483	ug/L	97
4) VinylChlorid	2.24	62	158590	10.0031	ug/L	97
5) Bromomethane	2.70	94	91374	9.9741	ug/L	93
6) Chloroethane	2.87	64	99124	9.6995	ug/L	98
7) Dichloroflmethane	3.18	67	362019	10.4853	ug/L	99
8) Trichlorofma	3.26	101	277540	10.9613	ug/L	98
9) Ethylether	3.71	59	122957	9.6730	ug/L	98
10) dichlorotfluoroethan	3.72	67	357103	11.0664	ug/L	99
11) propyleneoxide	3.76	58	458414	101.6899	ug/L	98
12) Acrolein	3.84	56	187974	50.8898	ug/L	100
13) 11dichlorthe	3.99	96	176552	10.5728	ug/L	99
14) Trichlorotfluoroeth	4.03	101	316313	22.7522	ug/L	99
15) Acetone	4.05	43	639271	94.0908	ug/L	99
16) Iodomethane	4.16	142	361438	20.9041	ug/L	100
17) Carbon Dislf	4.25	76	671317	21.0950	ug/L	99
18) allylchloride	4.47	41	577123	21.0505	ug/L	99
19) methylacetate	4.53	74	47217	9.3683	ug/L	90
20) Methylchlorid	4.63	84	196365	9.4835	ug/L	99
21) tbutylalcohol	4.83	59	888305	483.7076	ug/L	100
22) Acrylonitrile	4.94	53	427155	52.0744	ug/L	95
23) t12dichlorte	5.01	96	187559	9.9101	ug/L	96
24) MtBE	5.04	73	422691	9.9327	ug/L	99
25) Hexane	5.40	57	681108	24.1667	ug/L	99
26) 11dichlorota	5.53	63	331528	10.1230	ug/L	99
27) Vinylacetate	5.62	43	2770912	121.5457	ug/L	99
28) chloroprene	5.67	53	618550	22.3886	ug/L	98
29) Diisopether	5.68	45	525745	10.3817	ug/L	99
30) ETBE	6.13	59	408840	9.7708	ug/L	99
31) 22dichloropr	6.27	77	195340	10.1563	ug/L	99
32) c12dichlorte	6.26	96	206197	10.3057	ug/L	98
33) 2Butanone	6.28	72	267944	99.8523	ug/L	98
34) propionitrile	6.32	54	354811	100.6026	ug/L	99
35) Ethylacetate	6.38	88	42043	49.6767	ug/L #	91
36) methacrylonitrile	6.53	67	201276	20.1945	ug/L	97
37) Bromochlorma	6.55	128	90343	9.5669	ug/L	98
38) Tetrahydofur	6.63	42	578249	99.8970	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 12:49:30 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	317482	9.9094	ug/L	99
40)	111trichlota	6.90	97	265168	10.2551	ug/L	97
42)	Cyclohexane	6.99	56	274518	11.2623	ug/L	98
43)	Carbtetraclo	7.12	119	215216	10.6350	ug/L	98
44)	11dicloprope	7.11	110	94798	10.2608	ug/L	98
46)	Benzene	7.36	78	755739	10.3436	ug/L	99
47)	12dichlorota	7.36	62	242434	10.1091	ug/L	98
48)	TAME	7.53	73	381005	9.7612	ug/L	97
49)	trichloroete	8.17	95	189506	9.8840	ug/L	98
50)	methylcyclohexane	8.43	83	432660	10.3157	ug/L	98
51)	12dicloropra	8.42	63	203130	10.0499	ug/L	98
52)	23Dicl1propene	8.48	75	289153	10.0360	ug/L	99
53)	Dibromometha	8.56	93	113794	10.0236	ug/L	98
54)	methylmethacrylate	8.59	69	140393	9.8960	ug/L	97
55)	14dioxane	8.60	88	127329	448.1054	ug/L	98
56)	Bromodiclrma	8.76	83	233289	9.7056	ug/L	97
57)	2Nitropropane	9.03	43	535905	105.0151	ug/L	99
58)	2CLEVE	9.15	63	307169	49.1359	ug/L	99
59)	c13dicloproe	9.34	75	271645	10.0090	ug/L	99
60)	4Meth2Pentan	9.54	43	1627348	101.0139	ug/L	99
62)	Toluene	9.79	92	487781	10.3657	ug/L	99
63)	t13Dicloprop	10.05	75	220276	9.9460	ug/L	99
64)	ethylmethacrylate	10.20	69	519081	20.6838	ug/L	99
65)	112Triclotha	10.28	83	145814	10.1078	ug/L	98
66)	Tetrachlorte	10.52	166	205072	10.3498	ug/L	96
67)	13Diclorpropa	10.51	76	302634	10.1484	ug/L	98
69)	2Hexanone	10.62	43	1205558	91.5737	ug/L	99
70)	Clorodibrmta	10.81	129	177655	9.4793	ug/L	98
71)	12Dibrometha	10.97	107	161885	9.3474	ug/L	100
72)	Chlorobenzen	11.65	112	520744	9.7206	ug/L	100
73)	1Clhexane	11.63	91	277600	10.4258	ug/L	95
74)	1112Tetclota	11.76	131	155141	9.0860	ug/L	97
75)	Ethylbenzene	11.82	91	872575	10.2284	ug/L	98
76)	m p-Xylene	11.98	106	686183	20.7201	ug/L	98
77)	o-Xylene	12.52	106	327599	9.8841	ug/L	97
78)	Styrene	12.53	104	543054	10.1671	ug/L	99
79)	Bromoform	12.76	173	116184	9.2787	ug/L	97
80)	Isopropylben	13.05	105	835042	10.5218	ug/L	99
81)	cyclohexanone	13.13	55	180444	167.6771	ug/L	98
84)	Bromobenzene	13.46	156	206913	9.5164	ug/L	100
85)	1122Tetrclta	13.43	83	249934	9.6715	ug/L	99
86)	123Triclproa	13.49	75	288858	9.1537	ug/L	99
87)	14dichloro2butene	13.51	53	68052	9.3423	ug/L	98
88)	n-Propylbenz	13.64	91	979230	10.2561	ug/L	99
89)	2chlorotolue	13.75	91	586479	9.7060	ug/L	100
90)	4chlorotolue	13.90	91	690779	10.0348	ug/L	100
91)	135Trimebenz	13.89	105	691217	10.1023	ug/L	100
92)	tbutylbenzen	14.36	119	587390	10.1570	ug/L	99
93)	124Trimetben	14.43	105	667461	10.0223	ug/L	99
94)	sbutylbenzen	14.68	105	857883	10.4677	ug/L	100
95)	13Diclorbenz	14.82	146	376249	9.5875	ug/L	98
96)	pIsopropylto	14.90	119	733213	10.4444	ug/L	99
97)	14dichlorobe	14.94	146	391618	9.6963	ug/L	97
98)	12dichlorobe	15.49	146	357992	9.4130	ug/L	97
99)	nButylbenzen	15.49	91	666492	10.2074	ug/L	99
100)	12dibromo3cl	16.58	157	41571	8.4889	ug/L	88
101)	135Trichlorobenzene	16.91	180	288837	9.4640	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 12:49:30 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	229268	9.4984	ug/L	99
103) Hexachlorobu	17.97	225	111140	10.3018	ug/L	96
104) Naphthalene	18.02	128	504614	9.4816	ug/L	99
105) 123Trichlben	18.33	180	211115	9.1963	ug/L	100

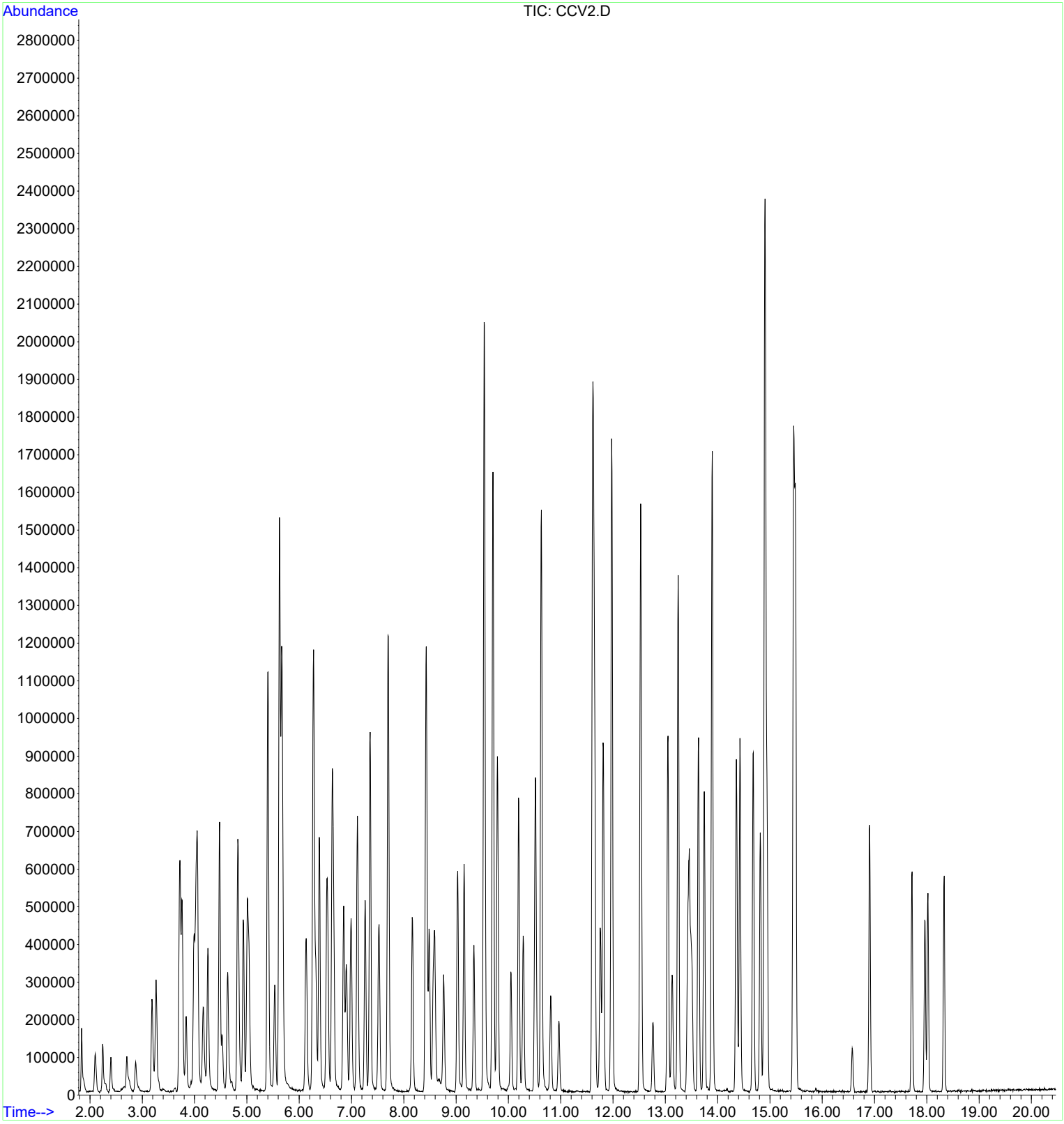
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV2.D Vial: 13
Acq On : 5 May 2022 12:28 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 12:49:30 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB1.D Vial: 15
Acq On : 5 May 2022 13:26 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 13:47:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1255693	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1060285	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	572748	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	343801	20.597	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 103	%		
45) SURR12DCAd4	7.27	102	87829	19.724	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1324543	20.167	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	565802	19.965	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 100	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	7206	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.27	76	3500	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.83	59	5289	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB1.D Vial: 15
Acq On : 5 May 2022 13:26 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 13:47:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.54	43	5601	Below Cal #	37
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.63	43	5894	Below Cal #	86
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3188	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	13.63	91	4594	N.D.	
89)	2chlorotolue	13.63	91	4333	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.68	105	3250	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	3544	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.48	91	3846	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB1.D Vial: 15
Acq On : 5 May 2022 13:26 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 13:47:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	6435	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

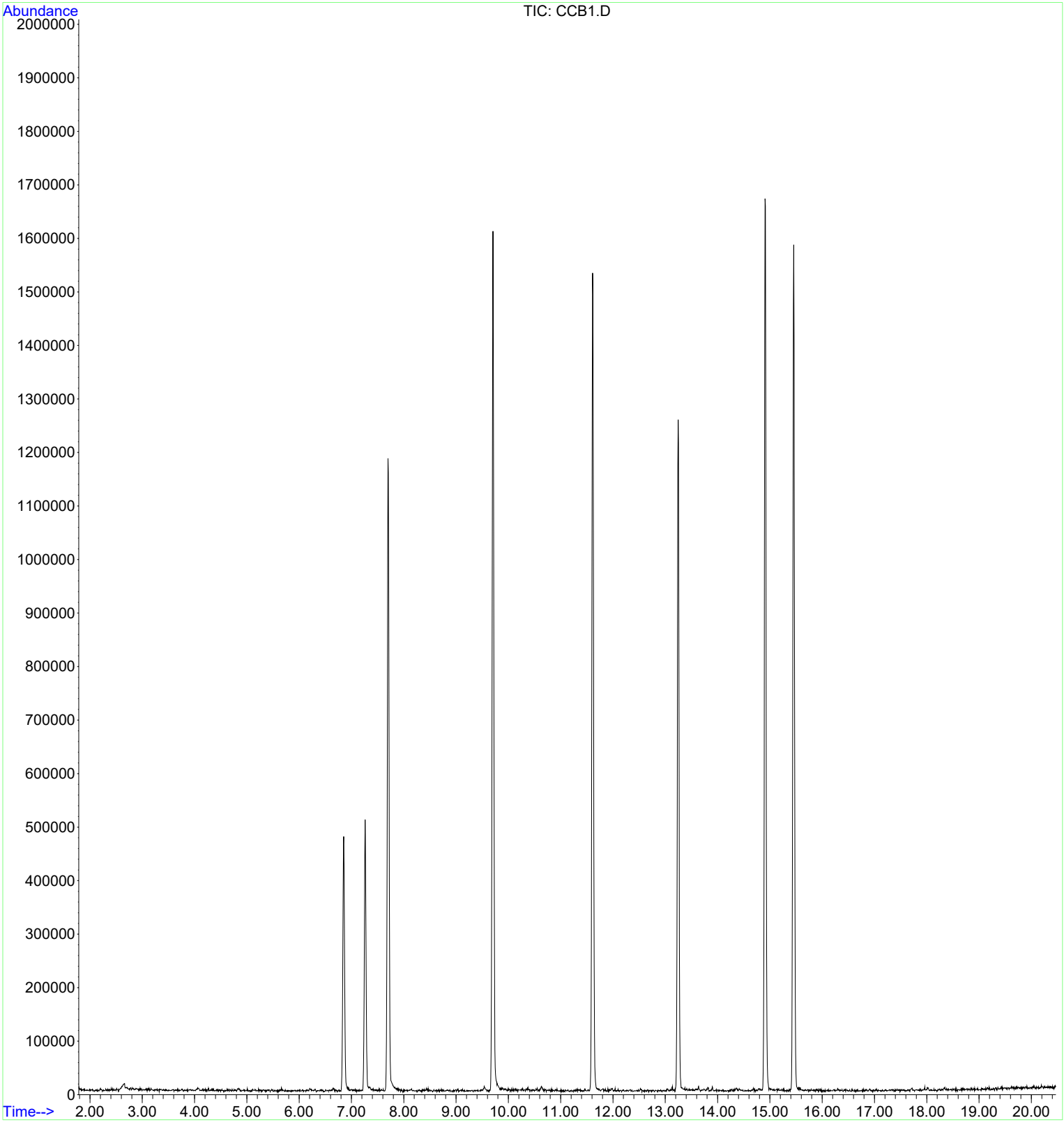
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB1.D Vial: 15
Acq On : 5 May 2022 13:26 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 13:47:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 23:00:22 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	PT	Dichlorodi	0.2581	0.2851	-10.46	100	0.00
3	PT	Chloromethan	0.2382	0.2253	5.42	88	0.00
4	PT	VinylChlorid	0.2431	0.2513	-3.37	95	0.00
5	PT	Bromomethane	0.1405	0.1443	-2.70	101	0.00
6	PT	Chloroethane	0.1567	0.1538	1.85	99	0.00
7	T	Dichloroflmethane	0.5294	0.5475	-3.42	98	0.00
8	PT	Trichlorofma	0.3882	0.4268	-9.94	97	0.00
9	T	Ethylether	0.1949	0.1977	-1.44	101	0.00
10	T	dichlorotfluoroethan	0.4948	0.5489	-10.93	100	0.00
11	T	propyleneoxide	0.0691	0.0715	-3.47	102	0.00
12	T	Acrolein	0.0566	0.0509	10.07	87	0.00
13	PT	11dichlorthe	0.2560	0.2726	-6.48	99	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2342	-9.85	98	0.00
15	PT	Acetone	0.1042	0.0928#	10.94	92	0.00
16	T	Iodomethane	0.2651	0.2820	-6.37	98	0.00
17	PT	Carbon Dislf	0.4879	0.5112	-4.78	98	0.00
18	T	allylchloride	0.4204	0.4307	-2.45	95	0.00
19	PT	methylacetate	0.0773	0.0784#	-1.42	113	0.00
20	PT	Methylchlorid	0.3175	0.3123	1.64	99	0.00
21	T	tbutylalcohol	0.0282	0.0307	-8.87	106	0.00
22	T	Acrylonitrile	0.1258	0.1328	-5.56	103	0.00
23	PT	t12dichlorte	0.2902	0.3022	-4.14	99	0.00
24	PT	MtBE	0.6525	0.6686	-2.47	99	0.00
25	T	Hexane	0.4321	0.4755	-10.04	92	0.00
26	PT	11dichlorota	0.5022	0.5172	-2.99	98	0.00
27	T	Vinylacetate	0.3685	0.3121	15.31	74	0.00
28	T	chloroprene	0.4236	0.4721	-11.45	98	0.00
29	T	Diisopether	0.7765	0.8206	-5.68	96	0.00
30	T	ETBE	0.6416	0.6626	-3.27	99	0.00
31	T	22dichloropr	0.2949	0.2573	12.75	84	0.00
32	PT	c12dichlorte	0.3068	0.3295	-7.40	102	0.00
33	PT	2Butanone	0.0411	0.0422#	-2.68	102	0.00
34	T	propionitrile	0.0541	0.0562	-3.88	102	0.00
35	T	Ethylacetate	0.0130	0.0133#	-2.31	103	0.00
36	T	methacrylonitrile	0.1528	0.1554	-1.70	99	0.00
37	T	Bromochlorma	0.1448	0.1478	-2.07	101	0.00
38	T	Tetrahydofur	0.0888	0.0927	-4.39	99	0.00
39	PT	Chloroform	0.4912	0.5039	-2.59	100	0.00
40	PT	111trichlota	0.3965	0.4140	-4.41	98	0.00
41	S	SURRDibrflma	0.2659	0.2661	-0.08	97	0.00
42	PT	Cyclohexane	0.3737	0.4114	-10.09	97	0.00
43	PT	Carbtetraclo	0.3103	0.3428	-10.47	103	0.00
44	T	11dicloprope	0.1417	0.1465	-3.39	98	0.00
45	S	SURR12DCAd4	0.0709	0.0727	-2.54	95	0.00
46	PT	Benzene	1.1203	1.1959	-6.75	98	0.00
47	PT	12dichlorota	0.3677	0.3746	-1.88	97	0.00
48	T	TAME	0.5985	0.6088	-1.72	97	0.00

49	PT	trichloroete	0.2940	0.3054	-3.88	100	0.00
50	PT	methylcyclohexane	0.5670	0.6481	-14.30	98	0.00
51	PT	12dicloropra	0.3099	0.3157	-1.87	97	0.00
52	T	23Dicl1propene	0.4418	0.4500	-1.86	98	0.00
53	T	Dibromometha	0.1741	0.1743	-0.11	99	0.00
54	T	methylmethacrylate	0.2175	0.2232	-2.62	102	0.00
55	T	14dioxane	0.0044	0.0043#	2.27	102	0.00
56	PT	Bromodiclrma	0.3686	0.3778	-2.50	99	0.00
57	T	2Nitropropane	0.0782	0.0802	-2.56	96	0.00
58	T	2CLEVE	0.0959	0.1011	-5.42	106	0.00
59	PT	c13dicloproe	0.4161	0.4206	-1.08	97	0.00
60	PT	4Meth2Pentan	0.2366	0.2587	-9.34	99	0.00
61	S	SURRd8Tolule	1.0461	1.0645	-1.76	96	0.00
62	PT	Toluene	0.7215	0.7539	-4.49	98	0.00
63	PT	t13Dicloprop	0.3396	0.3336	1.77	96	0.00
64	T	ethylmethacrylate	0.3848	0.4166	-8.26	102	0.00
65	PT	112Triclotha	0.2212	0.2262	-2.26	100	0.00
66	PT	Tetrachlorte	0.3038	0.3297	-8.53	99	0.00
67	T	13Diclorpropa	0.4572	0.4627	-1.20	100	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	97	0.00
69	PT	2Hexanone	0.2204	0.2360	-7.08	100	0.00
70	PT	Clorodibrmta	0.3407	0.3417	-0.29	99	0.00
71	PT	12Dibrometha	0.3149	0.3150	-0.03	100	0.00
72	PT	Chlorobenzen	0.9740	0.9685	0.56	96	0.00
73	T	1Clhexane	0.4841	0.5073	-4.79	100	0.00
74	T	1112Tetclota	0.3104	0.3064	1.29	97	0.00
75	PT	Ethylbenzene	1.5510	1.6303	-5.11	97	0.00
76	PT	m p-Xylene	0.6021	0.6369	-5.78	98	0.00
77	PT	o-Xylene	0.6026	0.6234	-3.45	96	0.00
78	PT	Styrene	0.9711	1.0207	-5.11	97	0.00
79	PT	Bromoform	0.2277	0.2242	1.54	101	0.00
80	PT	Isopropylben	1.4429	1.5515	-7.53	98	0.00
81	T	cyclohexanone	0.0184	0.0168#	8.70	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	104	0.00
83	S	SURR4BrFBenz	0.9896	0.9456	4.45	100	0.00
84	T	Bromobenzene	0.6980	0.6495	6.95	96	0.00
85	PT	1122Tetrclta	0.8297	0.7428	10.47	95	0.00
86	T	123Triclproa	1.0131	0.8964	11.52	95	0.00
87	T	14dichloro2butene	0.2339	0.2064	11.76	97	0.00
88	T	n-Propylbenz	3.0653	3.0900	-0.81	97	0.00
89	T	2chlorotolue	1.9399	1.8640	3.91	99	0.00
90	T	4chlorotolue	2.2100	2.1437	3.00	97	0.00
91	T	135Trimebenz	2.1966	2.1922	0.20	97	0.00
92	T	tbutylbenzen	1.8566	1.9040	-2.55	100	0.00
93	T	124Trimetben	2.1381	2.1635	-1.19	99	0.00
94	T	sbutylbenzen	2.6311	2.7379	-4.06	99	0.00
95	PT	13Diclorbenz	1.2599	1.2312	2.28	100	0.00
96	T	pIsopropylto	2.2538	2.3251	-3.16	100	0.00
97	PT	14dichlorobe	1.2966	1.2254	5.49	98	0.00
98	PT	12dichlorobe	1.2210	1.1284	7.58	97	0.00
99	T	nButylbenzen	2.0963	2.0839	0.59	97	0.00
100	PT	12dibromo3cl	0.1572	0.1375	12.53	99	0.00
101	T	135Trichlorobenzene	0.9798	0.9160	6.51	97	0.00
102	PT	124Trichlobe	0.7749	0.7338	5.30	100	0.00
103	T	Hexachlorobu	0.3464	0.3433	0.89	100	0.00
104	T	Naphthalene	1.7086	1.7430	-2.01	107	0.00
105	T	123Trichlben	0.7370	0.6892	6.49	99	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 09:45:59 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 05 23:00:22 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	96	0.00
2	PT	Dichlorodi	10.0000	11.0469	-10.47	100	0.00
3	PT	Chloromethan	10.0000	9.4583	5.42	88	0.00
4	PT	VinylChlorid	10.0000	10.3362	-3.36	95	0.00
5	PT	Bromomethane	10.0000	10.2715	-2.71	101	0.00
6	PT	Chloroethane	10.0000	9.8169	1.83	99	0.00
7	T	Dichloroflmethane	10.0000	10.3414	-3.41	98	0.00
8	PT	Trichlorofma	10.0000	10.9937	-9.94	97	0.00
9	T	Ethylether	10.0000	10.1443	-1.44	101	0.00
10	T	dichlorotfluoroethan	10.0000	11.0933	-10.93	100	0.00
11	T	propyleneoxide	100.0000	103.4334	-3.43	102	0.00
12	T	Acrolein	50.0000	44.9423	10.12	87	0.00
13	PT	11dichlorthe	10.0000	10.6481	-6.48	99	0.00
14	PT	Trichlorotfluoroeth	20.0000	21.9692	-9.85	98	0.00
15	PT	Acetone	100.0000	89.0664	10.93	92	0.00
16	T	Iodomethane	20.0000	21.2743	-6.37	98	0.00
17	PT	Carbon Dislf	20.0000	20.9514	-4.76	98	0.00
18	T	allylchloride	20.0000	20.4906	-2.45	95	0.00
19	PT	methylacetate	10.0000	10.1422	-1.42	113	0.00
20	PT	Methylchlorid	10.0000	9.8374	1.63	99	0.00
21	T	tbutylalcohol	500.0000	544.8038	-8.96	106	0.00
22	T	Acrylonitrile	50.0000	52.8012	-5.60	103	0.00
23	PT	t12dichlorte	10.0000	10.4132	-4.13	99	0.00
24	PT	MtBE	10.0000	10.2463	-2.46	99	0.00
25	T	Hexane	20.0000	22.0088	-10.04	92	0.00
26	PT	11dichlorota	10.0000	10.2989	-2.99	98	0.00
27	T	Vinylacetate	100.0000	85.1048	14.90	74	0.00
28	T	chloroprene	20.0000	22.2910	-11.46	98	0.00
29	T	Diisopether	10.0000	10.5679	-5.68	96	0.00
30	T	ETBE	10.0000	10.3276	-3.28	99	0.00
31	T	22dichloropr	10.0000	8.7244	12.76	84	0.00
32	PT	c12dichlorte	10.0000	10.7393	-7.39	102	0.00
33	PT	2Butanone	100.0000	102.6254	-2.63	102	0.00
34	T	propionitrile	100.0000	104.0089	-4.01	102	0.00
35	T	Ethylacetate	50.0000	51.2520	-2.50	103	0.00
36	T	methacrylonitrile	20.0000	20.3352	-1.68	99	0.00
37	T	Bromochlorma	10.0000	10.2077	-2.08	101	0.00
38	T	Tetrahydofur	100.0000	104.4130	-4.41	99	0.00
39	PT	Chloroform	10.0000	10.2574	-2.57	100	0.00
40	PT	111trichlota	10.0000	10.4419	-4.42	98	0.00
41	S	SURRDibrflma	20.0000	20.0154	-0.08	97	0.00
42	PT	Cyclohexane	10.0000	11.0084	-10.08	97	0.00
43	PT	Carbtetraclo	10.0000	11.0479	-10.48	103	0.00
44	T	11dicloprope	10.0000	10.3448	-3.45	98	0.00
45	S	SURR12DCAd4	20.0000	20.4969	-2.48	95	0.00
46	PT	Benzene	10.0000	10.6751	-6.75	98	0.00
47	PT	12dichlorota	10.0000	10.1880	-1.88	97	0.00
48	T	TAME	10.0000	10.1730	-1.73	97	0.00

49	PT	trichloroete	10.0000	10.3892	-3.89	100	0.00
50	PT	methylcyclohexane	10.0000	10.0800	-0.80	98	0.00
51	PT	12dicloropra	10.0000	10.1862	-1.86	97	0.00
52	T	23Dicl1propene	10.0000	10.1872	-1.87	98	0.00
53	T	Dibromometha	10.0000	10.0118	-0.12	99	0.00
54	T	methylmethacrylate	10.0000	10.2624	-2.62	102	0.00
55	T	14dioxane	500.0000	489.2264	2.15	102	0.00
56	PT	Bromodiclrma	10.0000	10.2498	-2.50	99	0.00
57	T	2Nitropropane	100.0000	102.4569	-2.46	96	0.00
58	T	2CLEVE	50.0000	52.7179	-5.44	106	0.00
59	PT	c13dicloproe	10.0000	10.1074	-1.07	97	0.00
60	PT	4Meth2Pentan	100.0000	105.1645	-5.16	99	0.00
61	S	SURRd8Tolule	20.0000	20.3523	-1.76	96	0.00
62	PT	Toluene	10.0000	10.4484	-4.48	98	0.00
63	PT	t13Dicloprop	10.0000	9.8239	1.76	96	0.00
64	T	ethylmethacrylate	20.0000	21.6551	-8.28	102	0.00
65	PT	112Triclotha	10.0000	10.2273	-2.27	100	0.00
66	PT	Tetrachlorte	10.0000	10.8522	-8.52	99	0.00
67	T	13Diclorpropa	10.0000	10.1184	-1.18	100	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	97	0.00
69	PT	2Hexanone	100.0000	99.1796	0.82	100	0.00
70	PT	Clorodibrmta	10.0000	10.0289	-0.29	99	0.00
71	PT	12Dibrometha	10.0000	10.0052	-0.05	100	0.00
72	PT	Chlorobenzen	10.0000	9.9441	0.56	96	0.00
73	T	1Clhexane	10.0000	10.4793	-4.79	100	0.00
74	T	1112Tetclota	10.0000	9.8699	1.30	97	0.00
75	PT	Ethylbenzene	10.0000	10.5114	-5.11	97	0.00
76	PT	m p-Xylene	20.0000	21.1569	-5.78	98	0.00
77	PT	o-Xylene	10.0000	10.3450	-3.45	96	0.00
78	PT	Styrene	10.0000	10.5109	-5.11	97	0.00
79	PT	Bromoform	10.0000	9.8478	1.52	101	0.00
80	PT	Isopropylben	10.0000	10.7530	-7.53	98	0.00
81	T	cyclohexanone	200.0000	171.8748	14.06	95	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	104	0.00
83	S	SURR4BrFBenz	20.0000	19.1100	4.45	100	0.00
84	T	Bromobenzene	10.0000	9.3051	6.95	96	0.00
85	PT	1122Tetrclta	10.0000	8.9534	10.47	95	0.00
86	T	123Triclproa	10.0000	8.8478	11.52	95	0.00
87	T	14dichloro2butene	10.0000	8.8274	11.73	97	0.00
88	T	n-Propylbenz	10.0000	10.0808	-0.81	97	0.00
89	T	2chlorotolue	10.0000	9.6089	3.91	99	0.00
90	T	4chlorotolue	10.0000	9.7001	3.00	97	0.00
91	T	135Trimebenz	10.0000	9.9799	0.20	97	0.00
92	T	tbutylbenzen	10.0000	10.2549	-2.55	100	0.00
93	T	124Trimetben	10.0000	10.1189	-1.19	99	0.00
94	T	sbutylbenzen	10.0000	10.4058	-4.06	99	0.00
95	PT	13Diclorbenz	10.0000	9.7722	2.28	100	0.00
96	T	pIsopropylto	10.0000	10.3165	-3.16	100	0.00
97	PT	14dichlorobe	10.0000	9.4509	5.49	98	0.00
98	PT	12dichlorobe	10.0000	9.2418	7.58	97	0.00
99	T	nButylbenzen	10.0000	9.9409	0.59	97	0.00
100	PT	12dibromo3cl	10.0000	8.7485	12.52	99	0.00
101	T	135Trichlorobenzene	10.0000	9.3488	6.51	97	0.00
102	PT	124Trichlobe	10.0000	9.4690	5.31	100	0.00
103	T	Hexachlorobu	10.0000	9.9118	0.88	100	0.00
104	T	Naphthalene	10.0000	10.2014	-2.01	107	0.00
105	T	123Trichlben	10.0000	9.3507	6.49	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 09:46:28 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 23:00:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1303077	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1071450	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	637939	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	346693	20.015	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	94715	20.497	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 102	%		
61) SURRd8Tolule	9.71	98	1387134	20.352	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	603227	19.110	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 96	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	185756	11.0469	ug/L	96
3) Chloromethan	2.11	50	146808	9.4583	ug/L	95
4) VinylChlorid	2.25	62	163707	10.3362	ug/L	99
5) Bromomethane	2.71	94	94005	10.2715	ug/L	97
6) Chloroethane	2.87	64	100224	9.8169	ug/L	96
7) Dichloroflmethane	3.18	67	356695	10.3414	ug/L	99
8) Trichlorofma	3.26	101	278083	10.9937	ug/L	98
9) Ethylether	3.71	59	128819	10.1443	ug/L	96
10) dichlorotfluoroethan	3.72	67	357615	11.0933	ug/L	99
11) propyleneoxide	3.76	58	465809	103.4334	ug/L	99
12) Acrolein	3.84	56	165840	44.9423	ug/L	98
13) 11dichlorthe	3.99	96	177632	10.6481	ug/L	99
14) Trichlorotfluoroeth	4.03	101	305122	21.9692	ug/L	99
15) Acetone	4.05	43	604531	89.0664	ug/L	98
16) Iodomethane	4.16	142	367473	21.2743	ug/L	99
17) Carbon Dislf	4.25	76	666083	20.9514	ug/L	99
18) allylchloride	4.47	41	561214	20.4906	ug/L	99
19) methylacetate	4.53	74	51067	10.1422	ug/L	86
20) Methylchlorid	4.63	84	203489	9.8374	ug/L	97
21) tbutylalcohol	4.83	59	999508	544.8038	ug/L	100
22) Acrylonitrile	4.93	53	432685	52.8012	ug/L	98
23) t12dichlorte	5.01	96	196884	10.4132	ug/L	99
24) MtBE	5.04	73	435603	10.2463	ug/L	98
25) Hexane	5.40	57	619673	22.0088	ug/L	99
26) 11dichlorota	5.53	63	336955	10.2989	ug/L	98
27) Vinylacetate	5.62	43	2033471	85.1048	ug/L	98
28) chloroprene	5.67	53	615240	22.2910	ug/L	100
29) Diisopether	5.68	45	534644	10.5679	ug/L	95
30) ETBE	6.13	59	431707	10.3276	ug/L	99
31) 22dichloropr	6.27	77	167631	8.7244	ug/L	99
32) c12dichlorte	6.26	96	214658	10.7393	ug/L	96
33) 2Butanone	6.28	72	275111	102.6254	ug/L	99
34) propionitrile	6.32	54	366459	104.0089	ug/L	100
35) Ethylacetate	6.38	88	43333	51.2520	ug/L	94
36) methacrylonitrile	6.53	67	202476	20.3352	ug/L	99
37) Bromochlorma	6.55	128	96298	10.2077	ug/L	96
38) Tetrahydofur	6.63	42	603787	104.4130	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 23:00:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	328303	10.2574	ug/L	99
40)	111trichlota	6.90	97	269729	10.4419	ug/L	99
42)	Cyclohexane	6.99	56	268062	11.0084	ug/L	97
43)	Carbtetraclo	7.12	119	223349	11.0479	ug/L	98
44)	11dicloprope	7.11	110	95479	10.3448	ug/L	96
46)	Benzene	7.36	78	779182	10.6751	ug/L	100
47)	12dichlorota	7.36	62	244082	10.1880	ug/L	99
48)	TAME	7.53	73	396681	10.1730	ug/L	98
49)	trichloroete	8.16	95	198994	10.3892	ug/L	98
50)	methylcyclohexane	8.43	83	422244	10.0800	ug/L	99
51)	12dicloropra	8.42	63	205681	10.1862	ug/L	99
52)	23Dicl1propene	8.48	75	293216	10.1872	ug/L	99
53)	Dibromometha	8.56	93	113547	10.0118	ug/L	98
54)	methylmethacrylate	8.59	69	145447	10.2624	ug/L	99
55)	14dioxane	8.60	88	138875	489.2264	ug/L	99
56)	Bromodiclrma	8.76	83	246125	10.2498	ug/L	99
57)	2Nitropropane	9.03	43	522329	102.4569	ug/L	98
58)	2CLEVE	9.15	63	329233	52.7179	ug/L	99
59)	c13dicloproe	9.34	75	274042	10.1074	ug/L	98
60)	4Meth2Pentan	9.54	43	1685628	105.1645	ug/L	99
62)	Toluene	9.79	92	491183	10.4484	ug/L	100
63)	t13Dicloprop	10.05	75	217354	9.8239	ug/L	98
64)	ethylmethacrylate	10.19	69	542916	21.6551	ug/L	98
65)	112Triclotha	10.28	83	147391	10.2273	ug/L	98
66)	Tetrachlorte	10.53	166	214814	10.8522	ug/L	98
67)	13Diclorpropa	10.51	76	301439	10.1184	ug/L	100
69)	2Hexanone	10.63	43	1264053	99.1796	ug/L	100
70)	Clorodibrmta	10.81	129	183068	10.0289	ug/L	99
71)	12Dibrometha	10.97	107	168773	10.0052	ug/L	98
72)	Chlorobenzen	11.65	112	518870	9.9441	ug/L	98
73)	1Clhexane	11.63	91	271770	10.4793	ug/L	97
74)	1112Tetclota	11.76	131	164144	9.8699	ug/L	96
75)	Ethylbenzene	11.81	91	873407	10.5114	ug/L	97
76)	m p-Xylene	11.98	106	682436	21.1569	ug/L	99
77)	o-Xylene	12.52	106	333964	10.3450	ug/L	99
78)	Styrene	12.53	104	546820	10.5109	ug/L	99
79)	Bromoform	12.77	173	120105	9.8478	ug/L	100
80)	Isopropylben	13.05	105	831201	10.7530	ug/L	98
81)	cyclohexanone	13.13	55	180427	171.8748	ug/L	98
84)	Bromobenzene	13.46	156	207181	9.3051	ug/L	100
85)	1122Tetrclta	13.43	83	236940	8.9534	ug/L	98
86)	123Triclproa	13.50	75	285916	8.8478	ug/L	94
87)	14dichloro2butene	13.51	53	65847	8.8274	ug/L	96
88)	n-Propylbenz	13.64	91	985624	10.0808	ug/L	99
89)	2chlorotolue	13.75	91	594564	9.6089	ug/L	99
90)	4chlorotolue	13.90	91	683786	9.7001	ug/L	99
91)	135Trimebenz	13.89	105	699252	9.9799	ug/L	99
92)	tbutylbenzen	14.36	119	607307	10.2549	ug/L	99
93)	124Trimetben	14.43	105	690095	10.1189	ug/L	99
94)	sbutylbenzen	14.68	105	873305	10.4058	ug/L	97
95)	13Diclorbenz	14.82	146	392714	9.7722	ug/L	97
96)	pIsopropylto	14.90	119	741642	10.3165	ug/L	99
97)	14dichlorobe	14.94	146	390881	9.4509	ug/L	98
98)	12dichlorobe	15.49	146	359928	9.2418	ug/L	97
99)	nButylbenzen	15.49	91	664688	9.9409	ug/L	99
100)	12dibromo3cl	16.57	157	43872	8.7485	ug/L	93
101)	135Trichlorobenzene	16.91	180	292178	9.3488	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 23:00:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	234054	9.4690	ug/L	99
103) Hexachlorobu	17.96	225	109503	9.9118	ug/L	99
104) Naphthalene	18.02	128	555970	10.2014	ug/L	99
105) 123Trichlben	18.33	180	219819	9.3507	ug/L	98

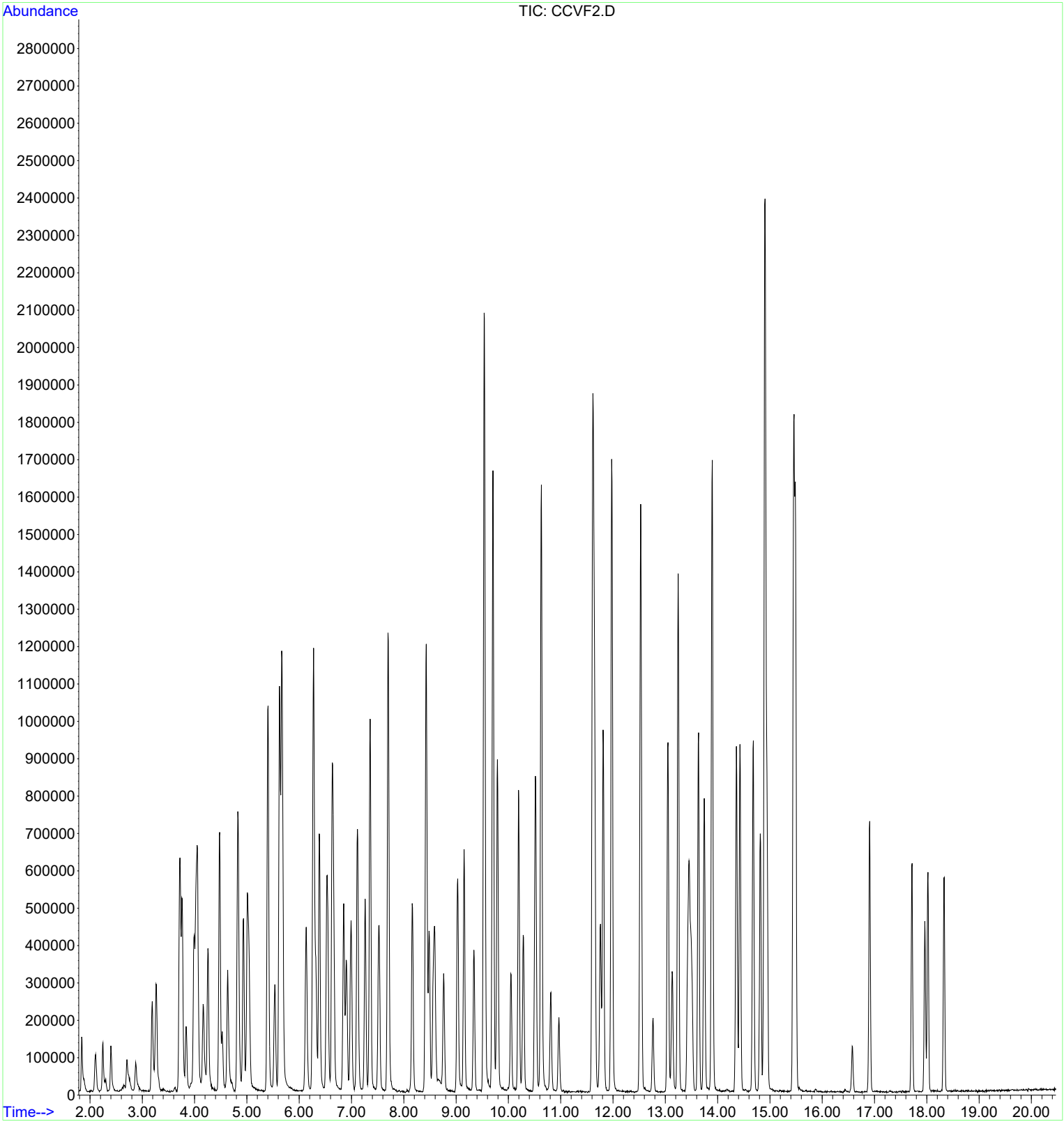
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF2.D Vial: 34
Acq On : 5 May 2022 22:39 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 23:00:22 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Data File : C:\Instarch\Data\MAY0522\BFB3.D Vial: 35
Acq On : 6 May 2022 7:12 Operator: DGS-RLD
Sample : BFB DIRECT INJ. Inst : VMS3
Misc : 50 ng Inj. Multiplr: 1.00
Integration File: VOC.P

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method

Spectrum Information: Average of 4.663 to 4.675 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.7	10205	PASS
75	95	30	60	46.4	30237	PASS
95	95	100	100	100.0	65162	PASS
96	95	5	9	7.5	4913	PASS
173	174	0.00	2	1.2	670	PASS
174	95	50	100	85.6	55786	PASS
175	174	5	9	7.0	3921	PASS
176	174	95	101	95.7	53360	PASS
177	176	5	9	6.1	3278	PASS

W042822.M Fri May 06 09:34:23 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 06 08:14:41 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	96	0.00
2	PT	Dichlorodi	0.2581	0.2766	-7.17	97	0.00
3	PT	Chloromethan	0.2382	0.2275	4.49	89	0.00
4	PT	VinylChlorid	0.2431	0.2414	0.70	91	0.00
5	PT	Bromomethane	0.1405	0.1402	0.21	98	0.00
6	PT	Chloroethane	0.1567	0.1502	4.15	96	0.00
7	T	Dichloroflmethane	0.5294	0.5453	-3.00	98	0.00
8	PT	Trichlorofma	0.3882	0.4261	-9.76	97	0.00
9	T	Ethylether	0.1949	0.1935	0.72	99	0.00
10	T	dichlorotfluoroethan	0.4948	0.5532	-11.80	101	0.00
11	T	propyleneoxide	0.0691	0.0681	1.45	97	0.00
12	T	Acrolein	0.0566	0.0543	4.06	93	0.00
13	PT	11dichlorthe	0.2560	0.2679	-4.65	98	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2370	-11.16	99	0.00
15	PT	Acetone	0.1042	0.0954#	8.45	95	0.00
16	T	Iodomethane	0.2651	0.2790	-5.24	97	0.00
17	PT	Carbon Dislf	0.4879	0.5201	-6.60	99	0.00
18	T	allylchloride	0.4204	0.4320	-2.76	95	0.00
19	PT	methylacetate	0.0773	0.0738#	4.53	106	0.00
20	PT	Methylchlorid	0.3175	0.3049	3.97	97	0.00
21	T	tbutylalcohol	0.0282	0.0262#	7.09	91	0.00
22	T	Acrylonitrile	0.1258	0.1275	-1.35	99	0.00
23	PT	t12dichlorte	0.2902	0.2888	0.48	94	0.00
24	PT	MtBE	0.6525	0.6386	2.13	95	0.00
25	T	Hexane	0.4321	0.5028	-16.36	97	0.00
26	PT	11dichlorota	0.5022	0.5091	-1.37	97	0.00
27	T	Vinylacetate	0.3685	0.3888	-5.51	92	0.00
28	T	chloroprene	0.4236	0.4686	-10.62	97	0.00
29	T	Diisopether	0.7765	0.8053	-3.71	94	0.00
30	T	ETBE	0.6416	0.6273	2.23	94	0.00
31	T	22dichloropr	0.2949	0.3111	-5.49	102	0.00
32	PT	c12dichlorte	0.3068	0.3089	-0.68	96	0.00
33	PT	2Butanone	0.0411	0.0396#	3.65	96	0.00
34	T	propionitrile	0.0541	0.0521	3.70	94	0.00
35	T	Ethylacetate	0.0130	0.0117#	10.00	90	0.00
36	T	methacrylonitrile	0.1528	0.1470	3.80	94	0.00
37	T	Bromochlorma	0.1448	0.1449	-0.07	99	0.00
38	T	Tetrahydofur	0.0888	0.0876	1.35	94	0.00
39	PT	Chloroform	0.4912	0.4761	3.07	94	0.00
40	PT	111trichlota	0.3965	0.4146	-4.56	98	0.00
41	S	SURRDibrflma	0.2659	0.2683	-0.90	97	0.00
42	PT	Cyclohexane	0.3737	0.4198	-12.34	99	0.00
43	PT	Carbtetraclo	0.3103	0.3279	-5.67	98	0.00
44	T	11dicloprope	0.1417	0.1427	-0.71	96	0.00
45	S	SURR12DCAd4	0.0709	0.0744	-4.94	98	0.00
46	PT	Benzene	1.1203	1.1728	-4.69	96	0.00
47	PT	12dichlorota	0.3677	0.3627	1.36	94	0.00
48	T	TAME	0.5985	0.5882	1.72	94	0.00

49	PT	trichloroete	0.2940	0.2999	-2.01	99	0.00
50	PT	methylcyclohexane	0.5670	0.6583	-16.10	99	0.00
51	PT	12dicloropra	0.3099	0.3088	0.35	95	0.00
52	T	23Dicl1propene	0.4418	0.4467	-1.11	97	0.00
53	T	Dibromometha	0.1741	0.1686	3.16	96	0.00
54	T	methylmethacrylate	0.2175	0.2117	2.67	97	0.00
55	T	14dioxane	0.0044	0.0039#	11.36	94	0.00
56	PT	Bromodiclrma	0.3686	0.3558	3.47	93	0.00
57	T	2Nitropropane	0.0782	0.0803	-2.69	96	0.00
58	T	2CLEVE	0.0959	0.0905	5.63	95	0.00
59	PT	c13dicloproe	0.4161	0.4210	-1.18	97	0.00
60	PT	4Meth2Pentan	0.2366	0.2437	-3.00	93	0.00
61	S	SURRd8Tolule	1.0461	1.0711	-2.39	97	0.00
62	PT	Toluene	0.7215	0.7512	-4.12	98	0.00
63	PT	t13Dicloprop	0.3396	0.3362	1.00	97	0.00
64	T	ethylmethacrylate	0.3848	0.3893	-1.17	96	0.00
65	PT	112Triclotha	0.2212	0.2170	1.90	95	0.00
66	PT	Tetrachlorte	0.3038	0.3181	-4.71	95	0.00
67	T	13Diclorpropa	0.4572	0.4526	1.01	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	99	0.00
69	PT	2Hexanone	0.2204	0.2170	1.54	93	0.00
70	PT	Clorodibrmta	0.3407	0.3270	4.02	96	0.00
71	PT	12Dibrometha	0.3149	0.2964	5.87	96	0.00
72	PT	Chlorobenzen	0.9740	0.9521	2.25	96	0.00
73	T	1Clhexane	0.4841	0.4920	-1.63	99	0.00
74	T	1112Tetclota	0.3104	0.2911	6.22	94	0.00
75	PT	Ethylbenzene	1.5510	1.6005	-3.19	97	0.00
76	PT	m p-Xylene	0.6021	0.6205	-3.06	97	0.00
77	PT	o-Xylene	0.6026	0.5964	1.03	94	0.00
78	PT	Styrene	0.9711	0.9956	-2.52	97	0.00
79	PT	Bromoform	0.2277	0.2261	0.70	103	0.00
80	PT	Isopropylben	1.4429	1.4983	-3.84	96	0.00
81	T	cyclohexanone	0.0184	0.0163#	11.41	94	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	102	0.00
83	S	SURR4BrFBenz	0.9896	0.9805	0.92	101	0.00
84	T	Bromobenzene	0.6980	0.6710	3.87	97	0.00
85	PT	1122Tetrclta	0.8297	0.7671	7.54	97	0.00
86	T	123Triclproa	1.0131	0.9215	9.04	95	0.00
87	T	14dichloro2butene	0.2339	0.2127	9.06	97	0.00
88	T	n-Propylbenz	3.0653	3.0788	-0.44	95	0.00
89	T	2chlorotolue	1.9399	1.8787	3.15	97	0.00
90	T	4chlorotolue	2.2100	2.1299	3.62	95	0.00
91	T	135Trimebenz	2.1966	2.1613	1.61	94	0.00
92	T	tbutylbenzen	1.8566	1.8660	-0.51	96	0.00
93	T	124Trimetben	2.1381	2.1009	1.74	94	0.00
94	T	sbutylbenzen	2.6311	2.7337	-3.90	97	0.00
95	PT	13Diclorbenz	1.2599	1.1824	6.15	94	0.00
96	T	pIsopropylto	2.2538	2.2663	-0.55	95	0.00
97	PT	14dichlorobe	1.2966	1.2162	6.20	95	0.00
98	PT	12dichlorobe	1.2210	1.1436	6.34	97	0.00
99	T	nButylbenzen	2.0963	2.0539	2.02	93	0.00
100	PT	12dibromo3cl	0.1572	0.1362	13.36	96	0.00
101	T	135Trichlorobenzene	0.9798	0.9014	8.00	94	0.00
102	PT	124Trichlobe	0.7749	0.7169	7.48	96	0.00
103	T	Hexachlorobu	0.3464	0.3395	1.99	97	0.00
104	T	Naphthalene	1.7086	1.5432	9.68	92	0.00
105	T	123Trichlben	0.7370	0.6661	9.62	94	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 09:40:25 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 06 08:14:41 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	96	0.00
2	PT	Dichlorodi	10.0000	10.7192	-7.19	97	0.00
3	PT	Chloromethan	10.0000	9.5507	4.49	89	0.00
4	PT	VinylChlorid	10.0000	9.9315	0.69	91	0.00
5	PT	Bromomethane	10.0000	9.9824	0.18	98	0.00
6	PT	Chloroethane	10.0000	9.5851	4.15	96	0.00
7	T	Dichloroflmethane	10.0000	10.3003	-3.00	98	0.00
8	PT	Trichlorofma	10.0000	10.9758	-9.76	97	0.00
9	T	Ethylether	10.0000	9.9264	0.74	99	0.00
10	T	dichlorotfluoroethan	10.0000	11.1812	-11.81	101	0.00
11	T	propyleneoxide	100.0000	98.4658	1.53	97	0.00
12	T	Acrolein	50.0000	47.9466	4.11	93	0.00
13	PT	11dichlorthe	10.0000	10.4615	-4.61	98	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.2331	-11.17	99	0.00
15	PT	Acetone	100.0000	91.6214	8.38	95	0.00
16	T	Iodomethane	20.0000	21.0499	-5.25	97	0.00
17	PT	Carbon Dislf	20.0000	21.3163	-6.58	99	0.00
18	T	allylchloride	20.0000	20.5523	-2.76	95	0.00
19	PT	methylacetate	10.0000	9.5520	4.48	106	0.00
20	PT	Methylchlorid	10.0000	9.6047	3.95	97	0.00
21	T	tbutylalcohol	500.0000	464.3503	7.13	91	0.00
22	T	Acrylonitrile	50.0000	50.6852	-1.37	99	0.00
23	PT	t12dichlorte	10.0000	9.9535	0.46	94	0.00
24	PT	MtBE	10.0000	9.7874	2.13	95	0.00
25	T	Hexane	20.0000	23.2710	-16.36	97	0.00
26	PT	11dichlorota	10.0000	10.1382	-1.38	97	0.00
27	T	Vinylacetate	100.0000	109.6734	-9.67	92	0.00
28	T	chloroprene	20.0000	22.1241	-10.62	97	0.00
29	T	Diisopether	10.0000	10.3706	-3.71	94	0.00
30	T	ETBE	10.0000	9.7779	2.22	94	0.00
31	T	22dichloropr	10.0000	10.5487	-5.49	102	0.00
32	PT	c12dichlorte	10.0000	10.0703	-0.70	96	0.00
33	PT	2Butanone	100.0000	96.3373	3.66	96	0.00
34	T	propionitrile	100.0000	96.2895	3.71	94	0.00
35	T	Ethylacetate	50.0000	44.9205	10.16	90	0.00
36	T	methacrylonitrile	20.0000	19.2417	3.79	94	0.00
37	T	Bromochlorma	10.0000	10.0090	-0.09	99	0.00
38	T	Tetrahydofur	100.0000	98.7112	1.29	94	0.00
39	PT	Chloroform	10.0000	9.6911	3.09	94	0.00
40	PT	111trichlota	10.0000	10.4570	-4.57	98	0.00
41	S	SURRDibrflma	20.0000	20.1877	-0.94	97	0.00
42	PT	Cyclohexane	10.0000	11.2318	-12.32	99	0.00
43	PT	Carbtetraclo	10.0000	10.5675	-5.68	98	0.00
44	T	11dicloprope	10.0000	10.0748	-0.75	96	0.00
45	S	SURR12DCAd4	20.0000	20.9744	-4.87	98	0.00
46	PT	Benzene	10.0000	10.4685	-4.69	96	0.00
47	PT	12dichlorota	10.0000	9.8626	1.37	94	0.00
48	T	TAME	10.0000	9.8287	1.71	94	0.00

49	PT	trichloroete	10.0000	10.2009	-2.01	99	0.00
50	PT	methylcyclohexane	10.0000	10.2380	-2.38	99	0.00
51	PT	12dicloropra	10.0000	9.9642	0.36	95	0.00
52	T	23Dicl1propene	10.0000	10.1121	-1.12	97	0.00
53	T	Dibromometha	10.0000	9.6857	3.14	96	0.00
54	T	methylmethacrylate	10.0000	9.7325	2.68	97	0.00
55	T	14dioxane	500.0000	451.0921	9.78	94	0.00
56	PT	Bromodiclrma	10.0000	9.6534	3.47	93	0.00
57	T	2Nitropropane	100.0000	102.6862	-2.69	96	0.00
58	T	2CLEVE	50.0000	47.2337	5.53	95	0.00
59	PT	c13dicloproe	10.0000	10.1163	-1.16	97	0.00
60	PT	4Meth2Pentan	100.0000	98.4006	1.60	93	0.00
61	S	SURRd8Tolule	20.0000	20.4789	-2.39	97	0.00
62	PT	Toluene	10.0000	10.4109	-4.11	98	0.00
63	PT	t13Dicloprop	10.0000	9.9014	0.99	97	0.00
64	T	ethylmethacrylate	20.0000	20.2363	-1.18	96	0.00
65	PT	112Triclotha	10.0000	9.8101	1.90	95	0.00
66	PT	Tetrachlorte	10.0000	10.4704	-4.70	95	0.00
67	T	13Diclorpropa	10.0000	9.8983	1.02	97	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	99	0.00
69	PT	2Hexanone	100.0000	90.5726	9.43	93	0.00
70	PT	Clorodibrmta	10.0000	9.5964	4.04	96	0.00
71	PT	12Dibrometha	10.0000	9.4131	5.87	96	0.00
72	PT	Chlorobenzen	10.0000	9.7754	2.25	96	0.00
73	T	1Clhexane	10.0000	10.1629	-1.63	99	0.00
74	T	1112Tetclota	10.0000	9.3787	6.21	94	0.00
75	PT	Ethylbenzene	10.0000	10.3194	-3.19	97	0.00
76	PT	m p-Xylene	20.0000	20.6125	-3.06	97	0.00
77	PT	o-Xylene	10.0000	9.8965	1.04	94	0.00
78	PT	Styrene	10.0000	10.2528	-2.53	97	0.00
79	PT	Bromoform	10.0000	9.9328	0.67	103	0.00
80	PT	Isopropylben	10.0000	10.3841	-3.84	96	0.00
81	T	cyclohexanone	200.0000	166.4084	16.80	94	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00
83	S	SURR4BrFBenz	20.0000	19.8162	0.92	101	0.00
84	T	Bromobenzene	10.0000	9.6129	3.87	97	0.00
85	PT	1122Tetrclta	10.0000	9.2463	7.54	97	0.00
86	T	123Triclproa	10.0000	9.0956	9.04	95	0.00
87	T	14dichloro2butene	10.0000	9.0970	9.03	97	0.00
88	T	n-Propylbenz	10.0000	10.0443	-0.44	95	0.00
89	T	2chlorotolue	10.0000	9.6843	3.16	97	0.00
90	T	4chlorotolue	10.0000	9.6375	3.63	95	0.00
91	T	135Trimebenz	10.0000	9.8389	1.61	94	0.00
92	T	tbutylbenzen	10.0000	10.0502	-0.50	96	0.00
93	T	124Trimetben	10.0000	9.8261	1.74	94	0.00
94	T	sbutylbenzen	10.0000	10.3900	-3.90	97	0.00
95	PT	13Diclorbenz	10.0000	9.3849	6.15	94	0.00
96	T	pIsopropylto	10.0000	10.0556	-0.56	95	0.00
97	PT	14dichlorobe	10.0000	9.3794	6.21	95	0.00
98	PT	12dichlorobe	10.0000	9.3666	6.33	97	0.00
99	T	nButylbenzen	10.0000	9.7978	2.02	93	0.00
100	PT	12dibromo3cl	10.0000	8.6605	13.39	96	0.00
101	T	135Trichlorobenzene	10.0000	9.1996	8.00	94	0.00
102	PT	124Trichlobe	10.0000	9.2507	7.49	96	0.00
103	T	Hexachlorobu	10.0000	9.8024	1.98	97	0.00
104	T	Naphthalene	10.0000	9.0319	9.68	92	0.00
105	T	123Trichlben	10.0000	9.0380	9.62	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 09:40:52 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 08:14:41 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1303393	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1087796	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	624527	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	349763	20.188	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.25	102	96945	20.974	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 105	%		
61) SURRd8Tolule	9.70	98	1396101	20.479	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 102	%		
83) SURR4BrFBenz	13.25	95	612368	19.816	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 99	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	180290	10.7192	ug/L	99
3) Chloromethan	2.10	50	148278	9.5507	ug/L	97
4) VinylChlorid	2.24	62	157336	9.9315	ug/L	99
5) Bromomethane	2.70	94	91381	9.9824	ug/L	96
6) Chloroethane	2.87	64	97881	9.5851	ug/L	93
7) Dichloroflmethane	3.18	67	355363	10.3003	ug/L	100
8) Trichlorofma	3.26	101	277696	10.9758	ug/L	99
9) Ethylether	3.70	59	126083	9.9264	ug/L	99
10) dichlorotfluoroethan	3.71	67	360534	11.1812	ug/L	98
11) propyleneoxide	3.76	58	443545	98.4658	ug/L	98
12) Acrolein	3.84	56	176969	47.9466	ug/L	96
13) 11dichlorthe	3.99	96	174561	10.4615	ug/L	97
14) Trichlorotfluoroeth	4.02	101	308863	22.2331	ug/L	99
15) Acetone	4.05	43	622024	91.6214	ug/L	98
16) Iodomethane	4.16	142	363684	21.0499	ug/L	100
17) Carbon Dislf	4.26	76	677846	21.3163	ug/L	99
18) allylchloride	4.47	41	563040	20.5523	ug/L	99
19) methylacetate	4.53	74	48107	9.5520	ug/L	97
20) Methylchlorid	4.63	84	198724	9.6047	ug/L	97
21) tbutylalcohol	4.83	59	852113	464.3503	ug/L	99
22) Acrylonitrile	4.93	53	415446	50.6852	ug/L	97
23) t12dichlorte	5.00	96	188238	9.9535	ug/L	96
24) MtBE	5.03	73	416195	9.7874	ug/L	99
25) Hexane	5.40	57	655370	23.2710	ug/L	99
26) 11dichlorota	5.53	63	331775	10.1382	ug/L	99
27) Vinylacetate	5.62	43	2533573	109.6734	ug/L	100
28) chloroprene	5.66	53	610780	22.1241	ug/L	99
29) Diisopether	5.68	45	524788	10.3706	ug/L	100
30) ETBE	6.13	59	408825	9.7779	ug/L	98
31) 22dichloropr	6.27	77	202733	10.5487	ug/L	99
32) c12dichlorte	6.26	96	201335	10.0703	ug/L	99
33) 2Butanone	6.29	72	258317	96.3373	ug/L	99
34) propionitrile	6.32	54	339343	96.2895	ug/L	99
35) Ethylacetate	6.38	88	37989	44.9205	ug/L #	94
36) methacrylonitrile	6.53	67	191635	19.2417	ug/L	98
37) Bromochlorma	6.55	128	94447	10.0090	ug/L	97
38) Tetrahydofur	6.63	42	570954	98.7112	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 08:14:41 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	310254	9.6911	ug/L	99
40)	111trichlota	6.90	97	270184	10.4570	ug/L	100
42)	Cyclohexane	6.99	56	273569	11.2318	ug/L	98
43)	Carbtetraclo	7.12	119	213690	10.5675	ug/L	98
44)	11dicloprope	7.11	110	93010	10.0748	ug/L	98
46)	Benzene	7.36	78	764290	10.4685	ug/L	100
47)	12dichlorota	7.35	62	236345	9.8626	ug/L	100
48)	TAME	7.52	73	383351	9.8287	ug/L	98
49)	trichloroete	8.16	95	195434	10.2009	ug/L	99
50)	methylcyclohexane	8.43	83	429043	10.2380	ug/L	98
51)	12dicloropra	8.42	63	201246	9.9642	ug/L	93
52)	23Dicl1propene	8.48	75	291125	10.1121	ug/L	99
53)	Dibromometha	8.56	93	109875	9.6857	ug/L	98
54)	methylmethacrylate	8.59	69	137969	9.7325	ug/L	98
55)	14dioxane	8.60	88	128081	451.0921	ug/L	98
56)	Bromodiclrma	8.76	83	231859	9.6534	ug/L	96
57)	2Nitropropane	9.02	43	523625	102.6862	ug/L	99
58)	2CLEVE	9.15	63	295055	47.2337	ug/L	99
59)	c13dicloproe	9.34	75	274349	10.1163	ug/L	99
60)	4Meth2Pentan	9.54	43	1588221	98.4006	ug/L	99
62)	Toluene	9.79	92	489540	10.4109	ug/L	98
63)	t13Dicloprop	10.05	75	219122	9.9014	ug/L	99
64)	ethylmethacrylate	10.20	69	507467	20.2363	ug/L	98
65)	112Triclotha	10.28	83	141414	9.8101	ug/L	97
66)	Tetrachlorte	10.52	166	207306	10.4704	ug/L	99
67)	13Diclorpropa	10.51	76	294953	9.8983	ug/L	98
69)	2Hexanone	10.62	43	1180063	90.5726	ug/L	99
70)	Clorodibrmta	10.81	129	177846	9.5964	ug/L	98
71)	12Dibrometha	10.97	107	161207	9.4131	ug/L	100
72)	Chlorobenzen	11.65	112	517850	9.7754	ug/L	99
73)	1Clhexane	11.63	91	267585	10.1629	ug/L	97
74)	1112Tetclota	11.76	131	158355	9.3787	ug/L	97
75)	Ethylbenzene	11.81	91	870534	10.3194	ug/L	99
76)	m p-Xylene	11.98	106	675017	20.6125	ug/L	99
77)	o-Xylene	12.52	106	324358	9.8965	ug/L	97
78)	Styrene	12.53	104	541528	10.2528	ug/L	98
79)	Bromoform	12.76	173	122990	9.9328	ug/L	96
80)	Isopropylben	13.05	105	814930	10.3841	ug/L	98
81)	cyclohexanone	13.13	55	176999	166.4084	ug/L	100
84)	Bromobenzene	13.46	156	209536	9.6129	ug/L	98
85)	1122Tetrclta	13.43	83	239546	9.2463	ug/L	99
86)	123Triclproa	13.49	75	287744	9.0956	ug/L	96
87)	14dichloro2butene	13.51	53	66431	9.0970	ug/L	96
88)	n-Propylbenz	13.63	91	961403	10.0443	ug/L	99
89)	2chlorotolue	13.75	91	586635	9.6843	ug/L	99
90)	4chlorotolue	13.90	91	665092	9.6375	ug/L	99
91)	135Trimebenz	13.89	105	674881	9.8389	ug/L	99
92)	tbutylbenzen	14.36	119	582674	10.0502	ug/L	99
93)	124Trimetben	14.43	105	656039	9.8261	ug/L	100
94)	sbutylbenzen	14.68	105	853649	10.3900	ug/L	99
95)	13Diclorbenz	14.82	146	369222	9.3849	ug/L	99
96)	pIsopropylto	14.90	119	707687	10.0556	ug/L	100
97)	14dichlorobe	14.94	146	379768	9.3794	ug/L	99
98)	12dichlorobe	15.49	146	357118	9.3666	ug/L	98
99)	nButylbenzen	15.49	91	641346	9.7978	ug/L	99
100)	12dibromo3cl	16.57	157	42518	8.6605	ug/L	95
101)	135Trichlorobenzene	16.90	180	281472	9.1996	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 08:14:41 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	223849	9.2507	ug/L	99
103) Hexachlorobu	17.96	225	106018	9.8024	ug/L	98
104) Naphthalene	18.02	128	481885	9.0319	ug/L	98
105) 123Trichlben	18.33	180	208002	9.0380	ug/L	99

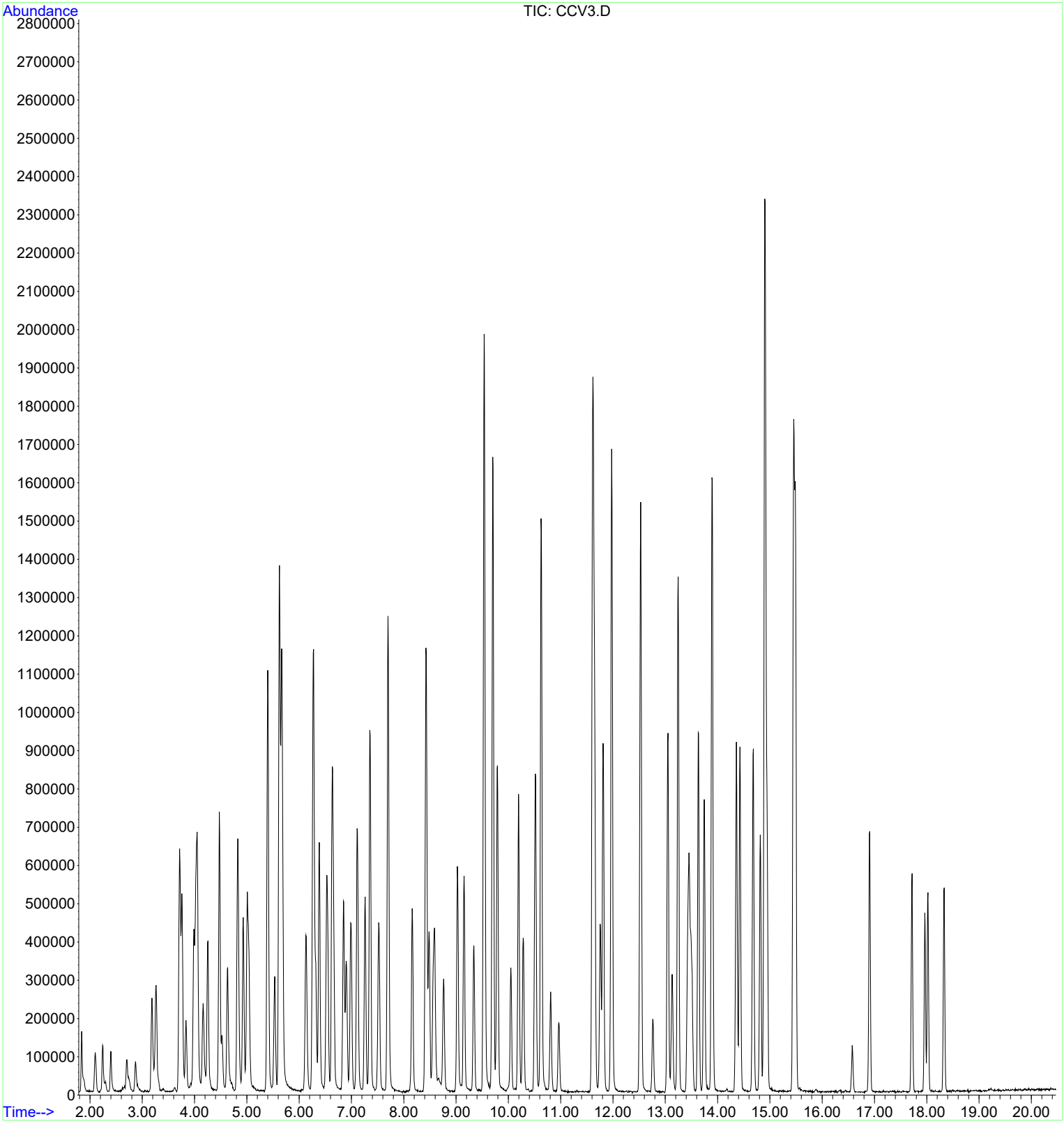
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV3.D Vial: 37
Acq On : 6 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,CCV, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 08:14:41 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB2.D Vial: 39
Acq On : 6 May 2022 8:54 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:14:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1250976	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1054853	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	580325	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	339637	20.425	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 102	%		
45) SURR12DCAd4	7.26	102	87769	19.785	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 99	%		
61) SURRd8Tolule	9.71	98	1313389	20.073	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 100	%		
83) SURR4BrFBenz	13.25	95	578835	20.158	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 101	%		

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.07	43	7367	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.25	76	3183	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.85	59	4695	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB2.D Vial: 39
Acq On : 6 May 2022 8:54 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:14:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.54	43	4883	Below Cal #	37
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.62	43	6235	Below Cal #	81
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.63	91	3244	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	13.04	105	2554	N.D.	
81)	cyclohexanone	13.14	55	2734	15.4245 ug/L #	39
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	13.63	91	3928	N.D.	
89)	2chlorotolue	13.63	91	3679	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.68	105	4166	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	5342	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.48	91	6515	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB2.D Vial: 39
Acq On : 6 May 2022 8:54 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:14:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.02	128	6554	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

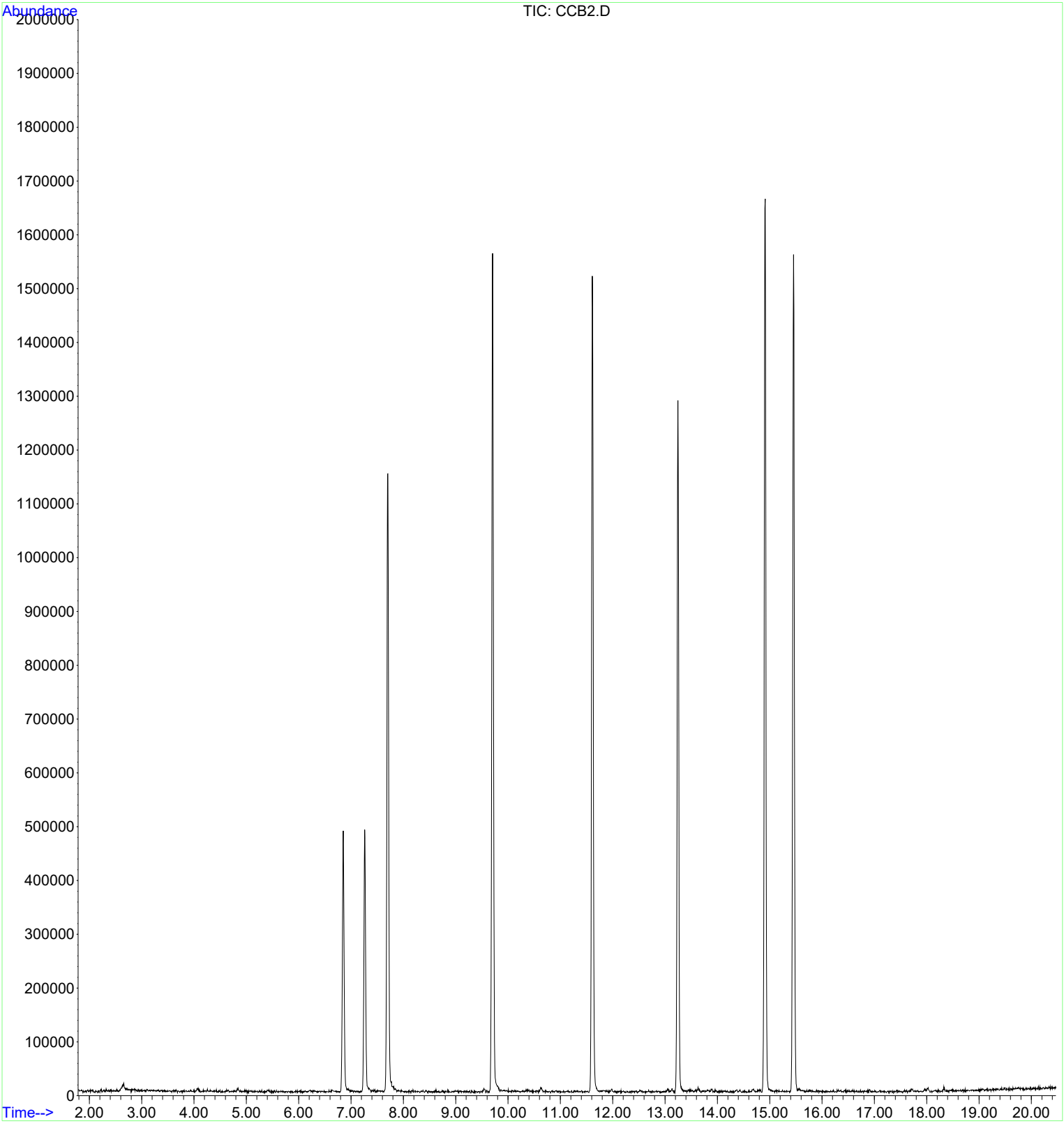
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\CCB2.D Vial: 39
Acq On : 6 May 2022 8:54 Operator: DGS-RLD
Sample : 211603,CCB, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 09:14:48 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 06 10:13:56 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	1.0000	1.0000	0.00	93	0.00
2	PT	Dichlorodi	0.2581	0.2821	-9.30	97	0.00
3	PT	Chloromethan	0.2382	0.2234	6.21	85	0.00
4	PT	VinylChlorid	0.2431	0.2475	-1.81	91	0.00
5	PT	Bromomethane	0.1405	0.1454	-3.49	99	0.00
6	PT	Chloroethane	0.1567	0.1525	2.68	95	0.00
7	T	Dichloroflmethane	0.5294	0.5515	-4.17	96	0.00
8	PT	Trichlorofma	0.3882	0.4284	-10.36	95	0.00
9	T	Ethylether	0.1949	0.2030	-4.16	101	0.00
10	T	dichlorotfluoroethan	0.4948	0.5513	-11.42	98	0.00
11	T	propyleneoxide	0.0691	0.0731	-5.79	101	0.00
12	T	Acrolein	0.0566	0.0584	-3.18	98	0.00
13	PT	11dichlorthe	0.2560	0.2784	-8.75	99	0.00
14	PT	Trichlorotfluoroeth	0.2132	0.2414	-13.23	99	0.00
15	PT	Acetone	0.1042	0.0996#	4.41	96	0.00
16	T	Iodomethane	0.2651	0.2741	-3.39	93	0.00
17	PT	Carbon Dislf	0.4879	0.5123	-5.00	95	0.00
18	T	allylchloride	0.4204	0.4465	-6.21	96	0.00
19	PT	methylacetate	0.0773	0.0758#	1.94	106	0.00
20	PT	Methylchlorid	0.3175	0.3110	2.05	96	0.00
21	T	tbutylalcohol	0.0282	0.0285#	-1.06	96	0.00
22	T	Acrylonitrile	0.1258	0.1304	-3.66	98	0.00
23	PT	t12dichlorte	0.2902	0.2951	-1.69	94	0.00
24	PT	MtBE	0.6525	0.6601	-1.16	96	0.00
25	T	Hexane	0.4321	0.5253	-21.57	99	0.00
26	PT	11dichlorota	0.5022	0.5193	-3.41	96	0.00
27	T	Vinylacetate	0.3685	0.4541	-23.23	105	0.00
28	T	chloroprene	0.4236	0.4712	-11.24	95	0.00
29	T	Diisopether	0.7765	0.8245	-6.18	94	0.00
30	T	ETBE	0.6416	0.6453	-0.58	94	0.00
31	T	22dichloropr	0.2949	0.3201	-8.55	102	0.00
32	PT	c12dichlorte	0.3068	0.3229	-5.25	98	0.00
33	PT	2Butanone	0.0411	0.0428#	-4.14	101	0.00
34	T	propionitrile	0.0541	0.0554	-2.40	98	0.00
35	T	Ethylacetate	0.0130	0.0125#	3.85	95	0.00
36	T	methacrylonitrile	0.1528	0.1536	-0.52	96	0.00
37	T	Bromochlorma	0.1448	0.1490	-2.90	99	0.00
38	T	Tetrahydofur	0.0888	0.0917	-3.27	96	0.00
39	PT	Chloroform	0.4912	0.5022	-2.24	97	0.00
40	PT	111trichlota	0.3965	0.4118	-3.86	95	0.00
41	S	SURRDibrflma	0.2659	0.2687	-1.05	95	0.00
42	PT	Cyclohexane	0.3737	0.4164	-11.43	95	0.00
43	PT	Carbtetraclo	0.3103	0.3376	-8.80	99	0.00
44	T	11dicloprope	0.1417	0.1460	-3.03	96	0.00
45	S	SURR12DCAd4	0.0709	0.0697	1.69	89	0.00
46	PT	Benzene	1.1203	1.1801	-5.34	94	0.00
47	PT	12dichlorota	0.3677	0.3661	0.44	92	0.00
48	T	TAME	0.5985	0.6131	-2.44	96	0.00

49	PT	trichloroete	0.2940	0.3105	-5.61	100	0.00
50	PT	methylcyclohexane	0.5670	0.6634	-17.00	98	0.00
51	PT	12dicloropra	0.3099	0.3177	-2.52	95	0.00
52	T	23Dicl1propene	0.4418	0.4435	-0.38	94	0.00
53	T	Dibromometha	0.1741	0.1718	1.32	96	0.00
54	T	methylmethacrylate	0.2175	0.2241	-3.03	100	0.00
55	T	14dioxane	0.0044	0.0042#	4.55	98	0.00
56	PT	Bromodiclrma	0.3686	0.3640	1.25	93	0.00
57	T	2Nitropropane	0.0782	0.0832	-6.39	97	0.00
58	T	2CLEVE	0.0959	0.0981	-2.29	100	0.00
59	PT	c13dicloproe	0.4161	0.4319	-3.80	97	0.00
60	PT	4Meth2Pentan	0.2366	0.2576	-8.88	96	0.00
61	S	SURRd8Tolule	1.0461	1.0733	-2.60	95	0.00
62	PT	Toluene	0.7215	0.7566	-4.86	96	0.00
63	PT	t13Dicloprop	0.3396	0.3414	-0.53	96	0.00
64	T	ethylmethacrylate	0.3848	0.4077	-5.95	97	0.00
65	PT	112Triclotha	0.2212	0.2312	-4.52	99	0.00
66	PT	Tetrachlorte	0.3038	0.3279	-7.93	96	0.00
67	T	13Diclorpropa	0.4572	0.4666	-2.06	98	0.00
68	I	d5-CHLOROBENZENE**ISTD**	1.0000	1.0000	0.00	97	0.00
69	PT	2Hexanone	0.2204	0.2303	-4.49	97	0.00
70	PT	Clorodibrmta	0.3407	0.3273	3.93	95	0.00
71	PT	12Dibrometha	0.3149	0.3061	2.79	98	0.00
72	PT	Chlorobenzen	0.9740	0.9595	1.49	96	0.00
73	T	1Clhexane	0.4841	0.4865	-0.50	96	0.00
74	T	1112Tetclota	0.3104	0.2860	7.86	91	0.00
75	PT	Ethylbenzene	1.5510	1.5933	-2.73	95	0.00
76	PT	m p-Xylene	0.6021	0.6225	-3.39	96	0.00
77	PT	o-Xylene	0.6026	0.6008	0.30	93	0.00
78	PT	Styrene	0.9711	1.0099	-4.00	97	0.00
79	PT	Bromoform	0.2277	0.2207	3.07	99	0.00
80	PT	Isopropylben	1.4429	1.5147	-4.98	96	0.00
81	T	cyclohexanone	0.0184	0.0172#	6.52	98	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	1.0000	1.0000	0.00	102	0.00
83	S	SURR4BrFBenz	0.9896	0.9745	1.53	101	0.00
84	T	Bromobenzene	0.6980	0.6391	8.44	93	0.00
85	PT	1122Tetrclta	0.8297	0.7959	4.07	101	0.00
86	T	123Triclproa	1.0131	0.9166	9.53	95	0.00
87	T	14dichloro2butene	0.2339	0.2172	7.14	100	0.00
88	T	n-Propylbenz	3.0653	3.1124	-1.54	96	0.00
89	T	2chlorotolue	1.9399	1.8714	3.53	97	0.00
90	T	4chlorotolue	2.2100	2.1362	3.34	95	0.00
91	T	135Trimebenz	2.1966	2.1792	0.79	95	0.00
92	T	tbutylbenzen	1.8566	1.8516	0.27	96	0.00
93	T	124Trimetben	2.1381	2.1227	0.72	96	0.00
94	T	sbutylbenzen	2.6311	2.7314	-3.81	97	0.00
95	PT	13Diclorbenz	1.2599	1.2093	4.02	97	0.00
96	T	pIsopropylto	2.2538	2.3186	-2.88	98	0.00
97	PT	14dichlorobe	1.2966	1.2126	6.48	95	0.00
98	PT	12dichlorobe	1.2210	1.1583	5.14	98	0.00
99	T	nButylbenzen	2.0963	2.1145	-0.87	97	0.00
100	PT	12dibromo3cl	0.1572	0.1416	9.92	100	0.00
101	T	135Trichlorobenzene	0.9798	0.9147	6.64	95	0.00
102	PT	124Trichlobe	0.7749	0.7291	5.91	98	0.00
103	T	Hexachlorobu	0.3464	0.3548	-2.42	101	0.00
104	T	Naphthalene	1.7086	1.5985	6.44	96	0.00
105	T	123Trichlben	0.7370	0.6888	6.54	98	0.00

(#) = Out of Range SPCC's out = 3 CCC's out = 0

W042822.M Fri May 06 10:14:45 2022

Evaluate Continuing Calibration Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
Integrator: RTE

Quant Time: May 06 10:13:56 2022

Quant Method : C:\INSTARCH\METHODS\W042822.M
Quant Title : 8260C Waters Method
Response via : Initial Calibration
DataAcq Meth:W042822.M

Min. RRF : 0.030 Min. Rel. Area : 50% Max. R.T. Dev 0.15min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	FLUOROBENZENE**ISTD**	20.0000	20.0000	0.00	93	0.00
2	PT	Dichlorodi	10.0000	10.9291	-9.29	97	0.00
3	PT	Chloromethan	10.0000	9.3756	6.24	85	0.00
4	PT	VinylChlorid	10.0000	10.1830	-1.83	91	0.00
5	PT	Bromomethane	10.0000	10.3486	-3.49	99	0.00
6	PT	Chloroethane	10.0000	9.7302	2.70	95	0.00
7	T	Dichloroflmethane	10.0000	10.4174	-4.17	96	0.00
8	PT	Trichlorofma	10.0000	11.0351	-10.35	95	0.00
9	T	Ethylether	10.0000	10.4177	-4.18	101	0.00
10	T	dichlorotfluoroethan	10.0000	11.1416	-11.42	98	0.00
11	T	propyleneoxide	100.0000	105.7782	-5.78	101	0.00
12	T	Acrolein	50.0000	51.5533	-3.11	98	0.00
13	PT	11dichlorthe	10.0000	10.8738	-8.74	99	0.00
14	PT	Trichlorotfluoroeth	20.0000	22.6506	-13.25	99	0.00
15	PT	Acetone	100.0000	95.6056	4.39	96	0.00
16	T	Iodomethane	20.0000	20.6814	-3.41	93	0.00
17	PT	Carbon Dislf	20.0000	20.9969	-4.98	95	0.00
18	T	allylchloride	20.0000	21.2435	-6.22	96	0.00
19	PT	methylacetate	10.0000	9.8059	1.94	106	0.00
20	PT	Methylchlorid	10.0000	9.7953	2.05	96	0.00
21	T	tbutylalcohol	500.0000	506.4967	-1.30	96	0.00
22	T	Acrylonitrile	50.0000	51.8379	-3.68	98	0.00
23	PT	t12dichlorte	10.0000	10.1691	-1.69	94	0.00
24	PT	MtBE	10.0000	10.1171	-1.17	96	0.00
25	T	Hexane	20.0000	24.3095	-21.55	99	0.00
26	PT	11dichlorota	10.0000	10.3421	-3.42	96	0.00
27	T	Vinylacetate	100.0000	131.3129	-31.31	105	0.00
28	T	chloroprene	20.0000	22.2480	-11.24	95	0.00
29	T	Diisopether	10.0000	10.6190	-6.19	94	0.00
30	T	ETBE	10.0000	10.0575	-0.57	94	0.00
31	T	22dichloropr	10.0000	10.8546	-8.55	102	0.00
32	PT	c12dichlorte	10.0000	10.5256	-5.26	98	0.00
33	PT	2Butanone	100.0000	103.9601	-3.96	101	0.00
34	T	propionitrile	100.0000	102.4004	-2.40	98	0.00
35	T	Ethylacetate	50.0000	48.2865	3.43	95	0.00
36	T	methacrylonitrile	20.0000	20.1030	-0.52	96	0.00
37	T	Bromochlorma	10.0000	10.2921	-2.92	99	0.00
38	T	Tetrahydofur	100.0000	103.3733	-3.37	96	0.00
39	PT	Chloroform	10.0000	10.2222	-2.22	97	0.00
40	PT	111trichlota	10.0000	10.3864	-3.86	95	0.00
41	S	SURRDibrflma	20.0000	20.2177	-1.09	95	0.00
42	PT	Cyclohexane	10.0000	11.1405	-11.40	95	0.00
43	PT	Carbtetraclo	10.0000	10.8787	-8.79	99	0.00
44	T	11dicloprope	10.0000	10.3098	-3.10	96	0.00
45	S	SURR12DCAd4	20.0000	19.6513	1.74	89	0.00
46	PT	Benzene	10.0000	10.5336	-5.34	94	0.00
47	PT	12dichlorota	10.0000	9.9568	0.43	92	0.00
48	T	TAME	10.0000	10.2438	-2.44	96	0.00

49	PT	trichloroete	10.0000	10.5605	-5.60	100	0.00
50	PT	methylcyclohexane	10.0000	10.3150	-3.15	98	0.00
51	PT	12dicloropra	10.0000	10.2508	-2.51	95	0.00
52	T	23Dicl1propene	10.0000	10.0383	-0.38	94	0.00
53	T	Dibromometha	10.0000	9.8685	1.32	96	0.00
54	T	methylmethacrylate	10.0000	10.2999	-3.00	100	0.00
55	T	14dioxane	500.0000	482.8489	3.43	98	0.00
56	PT	Bromodiclrma	10.0000	9.8763	1.24	93	0.00
57	T	2Nitropropane	100.0000	106.3767	-6.38	97	0.00
58	T	2CLEVE	50.0000	51.1652	-2.33	100	0.00
59	PT	c13dicloproe	10.0000	10.3797	-3.80	97	0.00
60	PT	4Meth2Pentan	100.0000	104.6783	-4.68	96	0.00
61	S	SURRd8Tolule	20.0000	20.5202	-2.60	95	0.00
62	PT	Toluene	10.0000	10.4859	-4.86	96	0.00
63	PT	t13Dicloprop	10.0000	10.0543	-0.54	96	0.00
64	T	ethylmethacrylate	20.0000	21.1887	-5.94	97	0.00
65	PT	112Triclotha	10.0000	10.4519	-4.52	99	0.00
66	PT	Tetrachlorte	10.0000	10.7928	-7.93	96	0.00
67	T	13Diclorpropa	10.0000	10.2041	-2.04	98	0.00
68	I	d5-CHLOROBENZENE**ISTD**	20.0000	20.0000	0.00	97	0.00
69	PT	2Hexanone	100.0000	96.6155	3.38	97	0.00
70	PT	Clorodibrmta	10.0000	9.6053	3.95	95	0.00
71	PT	12Dibrometha	10.0000	9.7210	2.79	98	0.00
72	PT	Chlorobenzen	10.0000	9.8513	1.49	96	0.00
73	T	1Clhexane	10.0000	10.0496	-0.50	96	0.00
74	T	1112Tetclota	10.0000	9.2129	7.87	91	0.00
75	PT	Ethylbenzene	10.0000	10.2725	-2.73	95	0.00
76	PT	m p-Xylene	20.0000	20.6791	-3.40	96	0.00
77	PT	o-Xylene	10.0000	9.9699	0.30	93	0.00
78	PT	Styrene	10.0000	10.4001	-4.00	97	0.00
79	PT	Bromoform	10.0000	9.6964	3.04	99	0.00
80	PT	Isopropylben	10.0000	10.4977	-4.98	96	0.00
81	T	cyclohexanone	200.0000	175.8067	12.10	98	0.00
82	I	d4-1,4-DICHLOROBENZENE**IS	20.0000	20.0000	0.00	102	0.00
83	S	SURR4BrFBenz	20.0000	19.6946	1.53	101	0.00
84	T	Bromobenzene	10.0000	9.1551	8.45	93	0.00
85	PT	1122Tetrclta	10.0000	9.5928	4.07	101	0.00
86	T	123Triclproa	10.0000	9.0472	9.53	95	0.00
87	T	14dichloro2butene	10.0000	9.2875	7.13	100	0.00
88	T	n-Propylbenz	10.0000	10.1538	-1.54	96	0.00
89	T	2chlorotolue	10.0000	9.6472	3.53	97	0.00
90	T	4chlorotolue	10.0000	9.6659	3.34	95	0.00
91	T	135Trimebenz	10.0000	9.9204	0.80	95	0.00
92	T	tbutylbenzen	10.0000	9.9726	0.27	96	0.00
93	T	124Trimetben	10.0000	9.9281	0.72	96	0.00
94	T	sbutylbenzen	10.0000	10.3809	-3.81	97	0.00
95	PT	13Diclorbenz	10.0000	9.5987	4.01	97	0.00
96	T	pIsopropylto	10.0000	10.2874	-2.87	98	0.00
97	PT	14dichlorobe	10.0000	9.3516	6.48	95	0.00
98	PT	12dichlorobe	10.0000	9.4870	5.13	98	0.00
99	T	nButylbenzen	10.0000	10.0869	-0.87	97	0.00
100	PT	12dibromo3cl	10.0000	9.0056	9.94	100	0.00
101	T	135Trichlorobenzene	10.0000	9.3357	6.64	95	0.00
102	PT	124Trichlobe	10.0000	9.4080	5.92	98	0.00
103	T	Hexachlorobu	10.0000	10.2433	-2.43	101	0.00
104	T	Naphthalene	10.0000	9.3555	6.45	96	0.00
105	T	123Trichlben	10.0000	9.3465	6.53	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

W042822.M Fri May 06 10:15:14 2022

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 10:13:56 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1270595	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.62	117	1074033	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	626930	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	341468	20.218	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %			
45) SURR12DCAd4	7.27	102	88544	19.651	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98 %			
61) SURRd8Tolule	9.71	98	1363712	20.520	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103 %			
83) SURR4BrFBenz	13.25	95	610952	19.695	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98 %			
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	179194	10.9291	ug/L	97
3) Chloromethan	2.10	50	141896	9.3756	ug/L	95
4) VinylChlorid	2.25	62	157261	10.1830	ug/L	99
5) Bromomethane	2.71	94	92349	10.3486	ug/L	94
6) Chloroethane	2.87	64	96863	9.7302	ug/L	97
7) Dichloroflmethane	3.18	67	350359	10.4174	ug/L	99
8) Trichlorofma	3.27	101	272173	11.0351	ug/L	98
9) Ethylether	3.71	59	128994	10.4177	ug/L	96
10) dichlorotfluoroethan	3.73	67	350219	11.1416	ug/L	100
11) propyleneoxide	3.76	58	464494	105.7782	ug/L	98
12) Acrolein	3.84	56	185493	51.5533	ug/L	98
13) 11dichlorthe	3.99	96	176875	10.8738	ug/L	98
14) Trichlorotfluoroeth	4.03	101	306745	22.6506	ug/L	100
15) Acetone	4.06	43	632740	95.6056	ug/L	96
16) Iodomethane	4.17	142	348326	20.6814	ug/L	99
17) Carbon Dislf	4.26	76	650888	20.9969	ug/L	99
18) allylchloride	4.48	41	567331	21.2435	ug/L	99
19) methylacetate	4.53	74	48143	9.8059	ug/L	91
20) Methylchlorid	4.64	84	197569	9.7953	ug/L	100
21) tbutylalcohol	4.83	59	906066	506.4967	ug/L	98
22) Acrylonitrile	4.93	53	414202	51.8379	ug/L	98
23) t12dichlorte	5.01	96	187475	10.1691	ug/L	97
24) MtBE	5.04	73	419390	10.1171	ug/L	99
25) Hexane	5.40	57	667388	24.3095	ug/L	98
26) 11dichlorota	5.53	63	329933	10.3421	ug/L	98
27) Vinylacetate	5.62	43	2884875	131.3129	ug/L	98
28) chloroprene	5.66	53	598747	22.2480	ug/L	100
29) Diisopether	5.68	45	523833	10.6190	ug/L	94
30) ETBE	6.13	59	409937	10.0575	ug/L	98
31) 22dichloropr	6.27	77	203363	10.8546	ug/L	99
32) c12dichlorte	6.26	96	205142	10.5256	ug/L	98
33) 2Butanone	6.28	72	271742	103.9601	ug/L	99
34) propionitrile	6.32	54	351798	102.4004	ug/L	100
35) Ethylacetate	6.38	88	39808	48.2865	ug/L	98
36) methacrylonitrile	6.53	67	195175	20.1030	ug/L	97
37) Bromochlorma	6.55	128	94674	10.2921	ug/L	95
38) Tetrahydofur	6.63	42	582874	103.3733	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 10:13:56 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	319022	10.2222	ug/L	99
40)	111trichlota	6.90	97	261607	10.3864	ug/L	98
42)	Cyclohexane	6.99	56	264517	11.1405	ug/L	98
43)	Carbtetraclo	7.12	119	214448	10.8787	ug/L	99
44)	11dicloprope	7.11	110	92784	10.3098	ug/L	96
46)	Benzene	7.36	78	749688	10.5336	ug/L	98
47)	12dichlorota	7.36	62	232597	9.9568	ug/L	99
48)	TAME	7.53	73	389486	10.2438	ug/L	99
49)	trichloroete	8.16	95	197233	10.5605	ug/L	95
50)	methylcyclohexane	8.43	83	421427	10.3150	ug/L	99
51)	12dicloropra	8.42	63	201824	10.2508	ug/L	90
52)	23Dicl1propene	8.49	75	281729	10.0383	ug/L	98
53)	Dibromometha	8.56	93	109132	9.8685	ug/L	96
54)	methylmethacrylate	8.59	69	142339	10.2999	ug/L	97
55)	14dioxane	8.60	88	133648	482.8489	ug/L	99
56)	Bromodiclrma	8.76	83	231244	9.8763	ug/L	96
57)	2Nitropropane	9.03	43	528794	106.3767	ug/L	98
58)	2CLEVE	9.15	63	311571	51.1652	ug/L	99
59)	c13dicloproe	9.34	75	274410	10.3797	ug/L	99
60)	4Meth2Pentan	9.54	43	1636786	104.6783	ug/L	100
62)	Toluene	9.79	92	480655	10.4859	ug/L	100
63)	t13Dicloprop	10.05	75	216907	10.0543	ug/L	98
64)	ethylmethacrylate	10.20	69	517980	21.1887	ug/L	99
65)	112Triclotha	10.29	83	146873	10.4519	ug/L	100
66)	Tetrachlorte	10.52	166	208312	10.7928	ug/L	99
67)	13Diclorpropa	10.51	76	296413	10.2041	ug/L	99
69)	2Hexanone	10.63	43	1236835	96.6155	ug/L	100
70)	Clorodibrmta	10.81	129	175760	9.6053	ug/L	98
71)	12Dibrometha	10.97	107	164373	9.7210	ug/L	98
72)	Chlorobenzen	11.65	112	515265	9.8513	ug/L	99
73)	1Clhexane	11.63	91	261255	10.0496	ug/L	99
74)	1112Tetclota	11.76	131	153588	9.2129	ug/L	92
75)	Ethylbenzene	11.82	91	855617	10.2725	ug/L	99
76)	m p-Xylene	11.98	106	668630	20.6791	ug/L	100
77)	o-Xylene	12.53	106	322629	9.9699	ug/L	97
78)	Styrene	12.53	104	542359	10.4001	ug/L	99
79)	Bromoform	12.77	173	118543	9.6964	ug/L	99
80)	Isopropylben	13.05	105	813422	10.4977	ug/L	98
81)	cyclohexanone	13.13	55	185246	175.8067	ug/L	98
84)	Bromobenzene	13.46	156	200325	9.1551	ug/L	94
85)	1122Tetrclta	13.43	83	249479	9.5928	ug/L	99
86)	123Triclproa	13.49	75	287314	9.0472	ug/L	98
87)	14dichloro2butene	13.51	53	68083	9.2875	ug/L	94
88)	n-Propylbenz	13.64	91	975623	10.1538	ug/L	98
89)	2chlorotolue	13.75	91	586633	9.6472	ug/L	99
90)	4chlorotolue	13.90	91	669620	9.6659	ug/L	100
91)	135Trimebenz	13.89	105	683088	9.9204	ug/L	100
92)	tbutylbenzen	14.36	119	580399	9.9726	ug/L	99
93)	124Trimetben	14.43	105	665396	9.9281	ug/L	100
94)	sbutylbenzen	14.68	105	856184	10.3809	ug/L	99
95)	13Diclorbenz	14.82	146	379086	9.5987	ug/L	98
96)	pIsopropylto	14.90	119	726790	10.2874	ug/L	99
97)	14dichlorobe	14.94	146	380098	9.3516	ug/L	99
98)	12dichlorobe	15.49	146	363101	9.4870	ug/L	98
99)	nButylbenzen	15.49	91	662816	10.0869	ug/L	99
100)	12dibromo3cl	16.57	157	44382	9.0056	ug/L	92
101)	135Trichlorobenzene	16.90	180	286736	9.3357	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 10:13:56 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	228532	9.4080	ug/L	100
103) Hexachlorobu	17.97	225	111213	10.2433	ug/L	99
104) Naphthalene	18.02	128	501069	9.3555	ug/L	99
105) 123Trichlben	18.33	180	215929	9.3465	ug/L	100

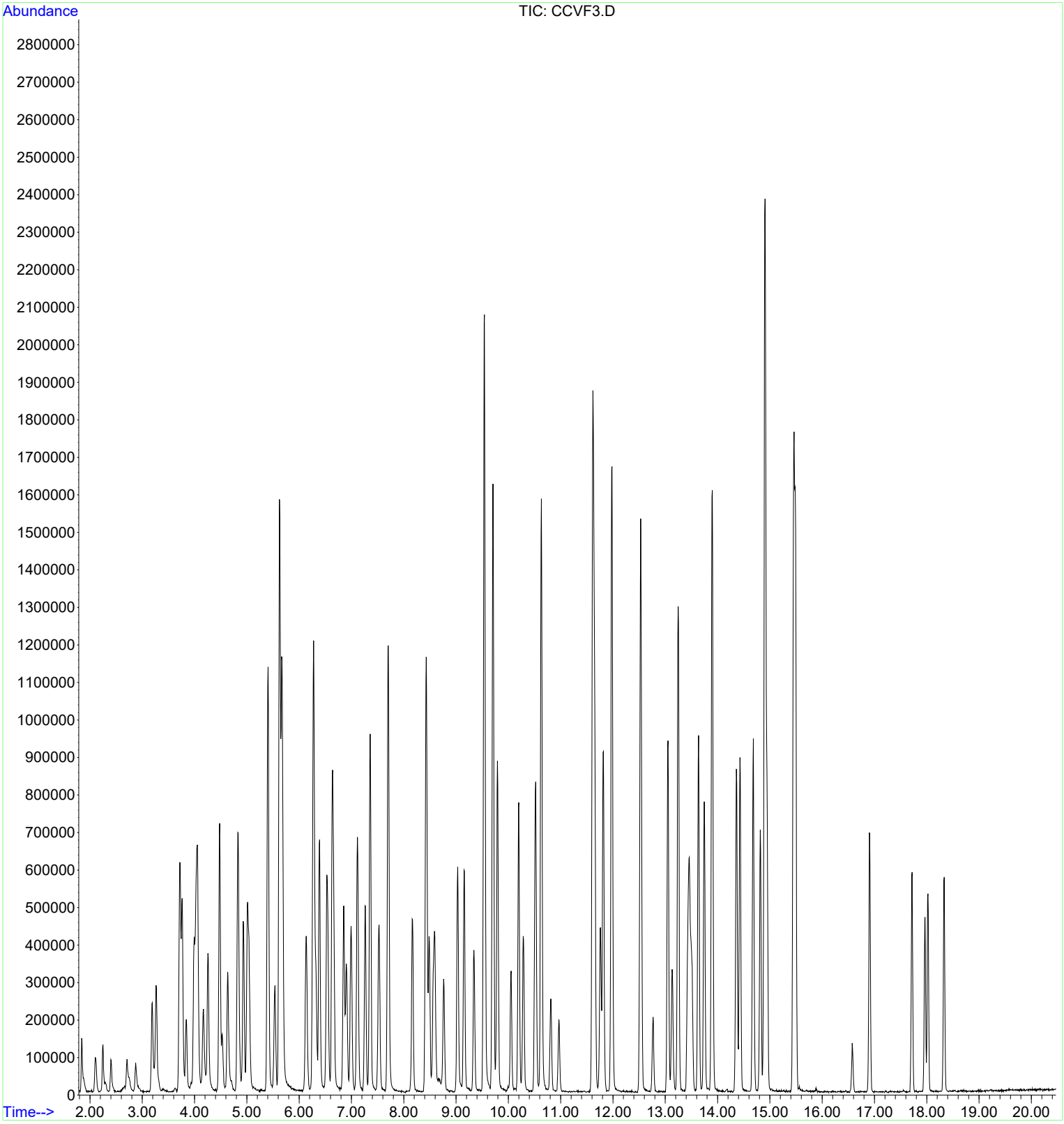
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCVF3.D Vial: 41
Acq On : 6 May 2022 9:53 Operator: DGS-RLD
Sample : 211603,CCVF, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 06 10:13:56 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\050422 - 211667.seq
User : dgs
Printed : May 04, 2022 11:32:24

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\050422 -\002.dat	211667,CCV,	May 04, 2022 11:32:24

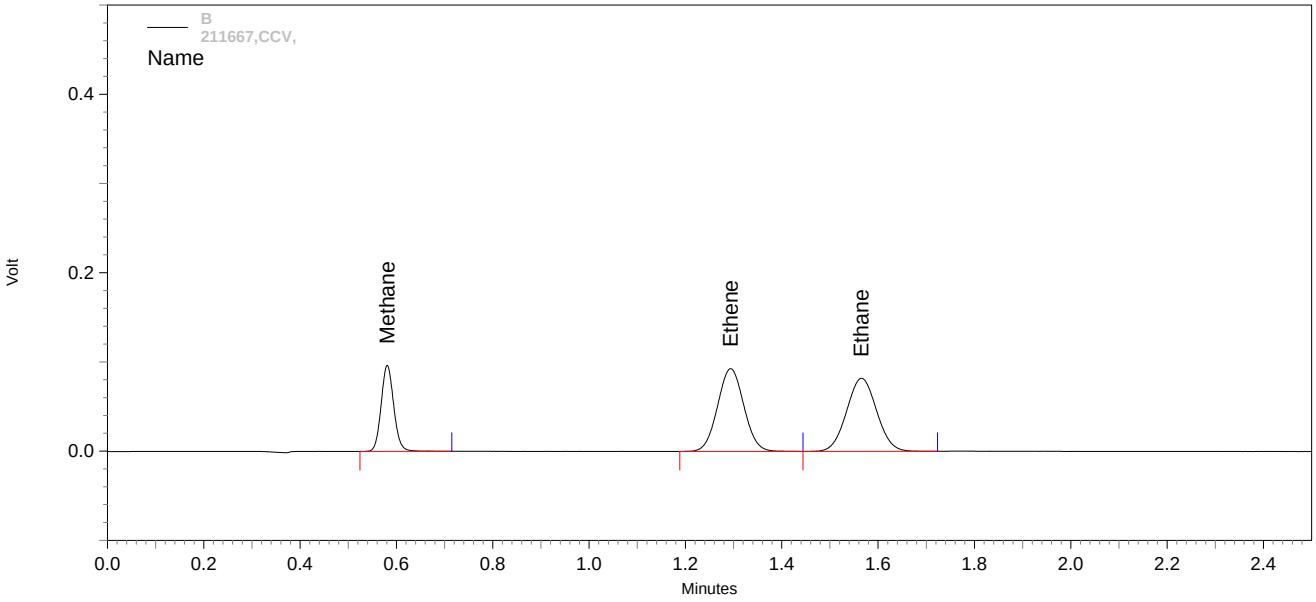
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	45.333	9.333	15.000	Passed
Ethene	50.000	49.600	0.801	15.000	Passed
Ethane	50.000	49.908	0.185	15.000	Passed

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\002.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,CCV,
Acquired: May 04, 2022 08:47:08
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.581	0.574	175807	45.333	ppmV
2	Ethene	1.293	1.287	351206	49.600	ppmV
3	Ethane	1.565	1.559	355278	49.908	ppmV

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\050422 - 211667.seq
User : dgs
Printed : May 04, 2022 11:35:55

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\050422 -\018.dat	211667,CCV,	May 04, 2022 11:35:54

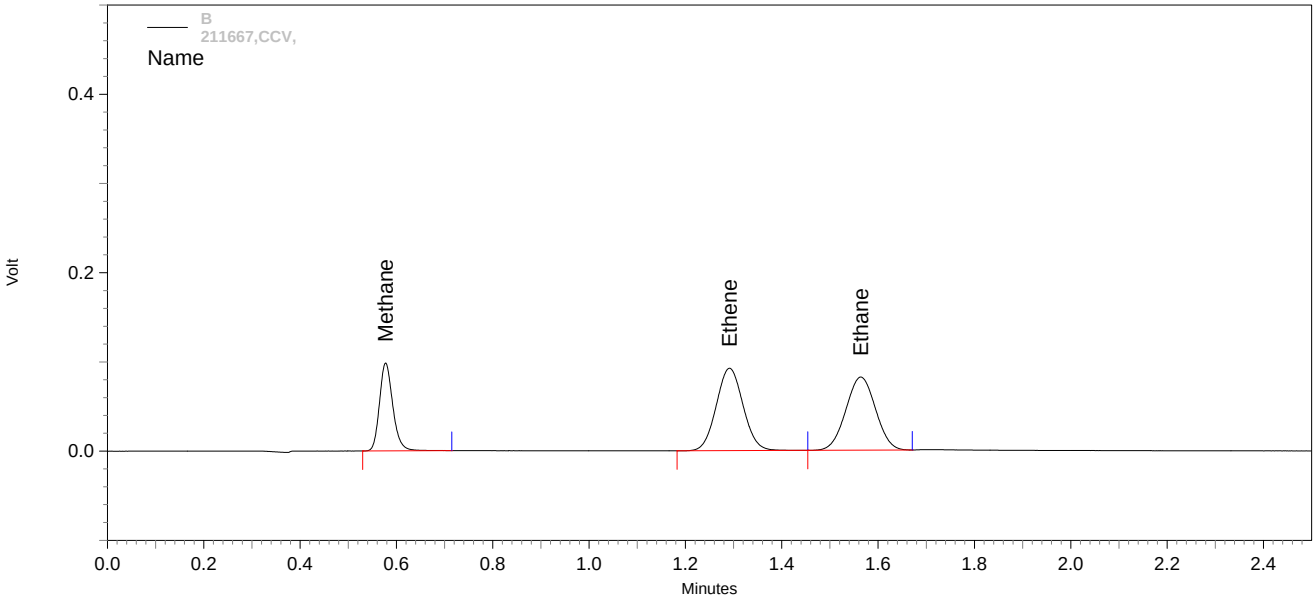
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	48.863	2.275	15.000	Passed
Ethene	50.000	50.411	0.823	15.000	Passed
Ethane	50.000	49.348	1.304	15.000	Passed

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\018.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,CCV,
Acquired: May 04, 2022 10:10:58
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



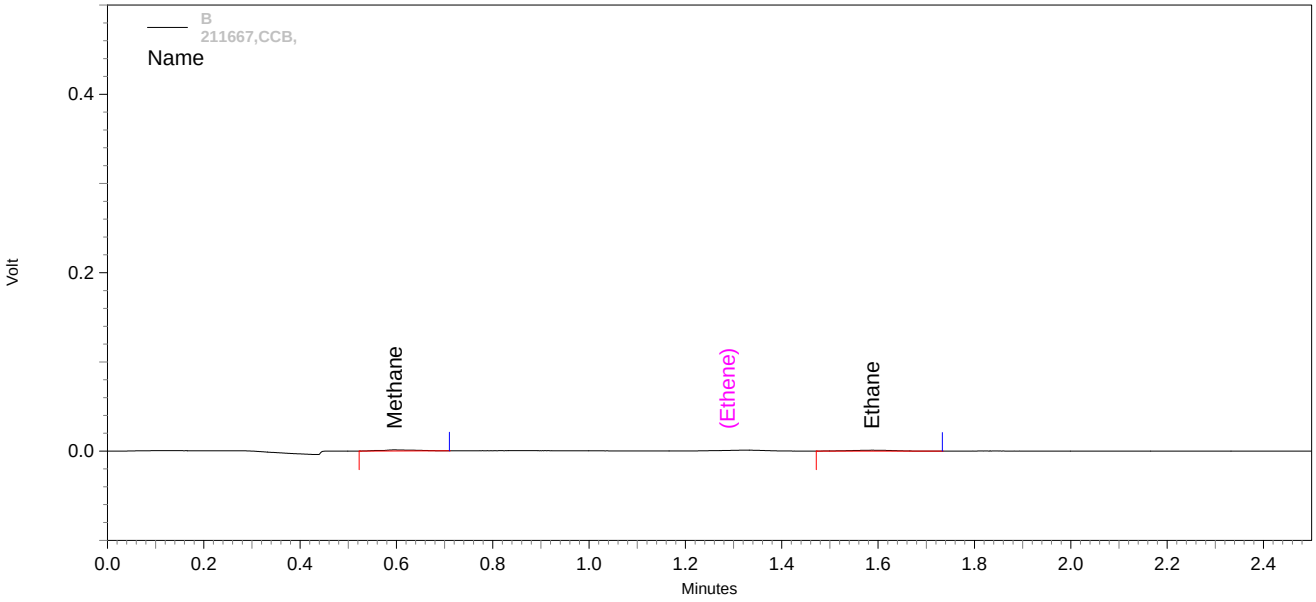
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.578	0.574	189446	48.863	ppmV
2	Ethene	1.292	1.287	356943	50.411	ppmV
3	Ethane	1.564	1.559	351319	49.348	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\019.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,CCB,
Acquired: May 04, 2022 10:14:39
File Desc. MEE Continuing Calibration Blank
1.0 mL injection Helium



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.596**	**0.574**	**5725**	**1.325**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
2	**Ethane**	**1.587**	**1.559**	**6155**	**0.550**	**ppmV**

QC Check Standard Report

Sequence : C:\INSTARCH\PVOC4\Sequence\050422 - 211667.seq
User : dgs
Printed : May 04, 2022 11:36:47

File	Sample ID	Acquired
C:\InStarch\PVOC4\Data\050422 -\027.dat	211667,CCV,	May 04, 2022 11:36:47

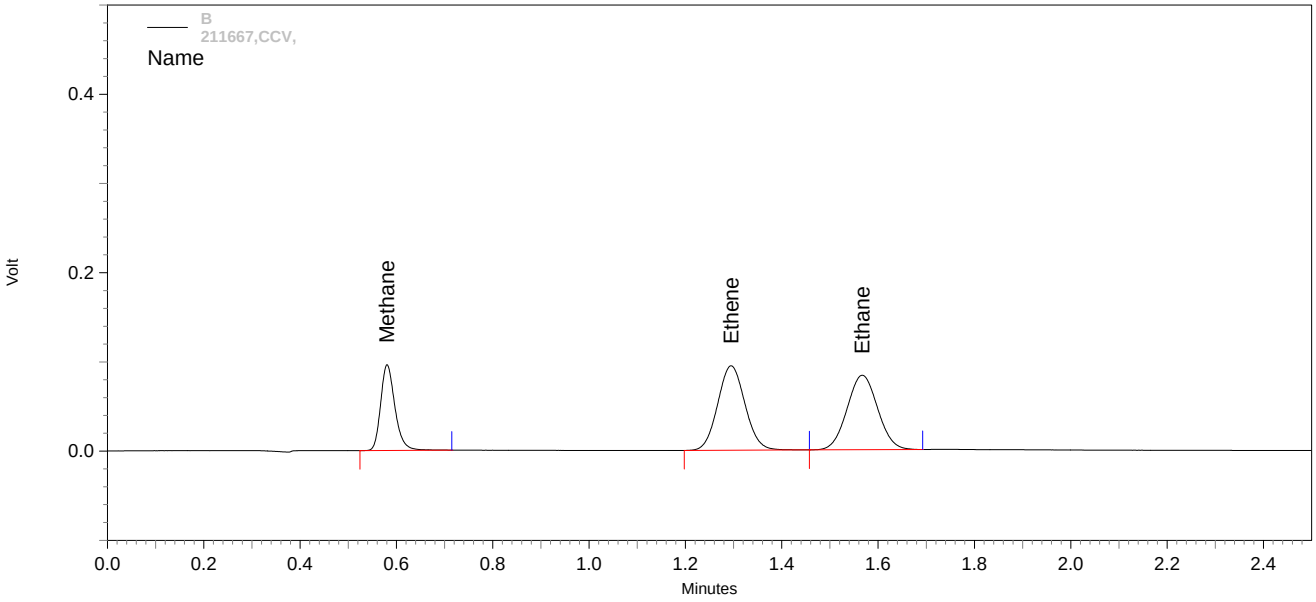
B

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
Methane	50.000	51.027	2.055	15.000	Passed
Ethene	50.000	52.634	5.268	15.000	Passed
Ethane	50.000	51.720	3.439	15.000	Passed

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\027.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,CCV,
Acquired: May 04, 2022 11:06:18
File Desc. MEE Continuing Calibration Verification - 50 ppmV - 250 uL of 200 ppmV Methane/Ethene/Ethane Gas Std Injected



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.580	0.574	197813	51.027	ppmV
2	Ethene	1.295	1.287	372650	52.634	ppmV
3	Ethane	1.567	1.559	368095	51.720	ppmV

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1304103	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1082679	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	620213	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	350424	20.215	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	93484	20.215	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 101	%		
61) SURRd8Tolule	9.71	98	1381105	20.248	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	602326	19.627	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.85	85	184464	10.9614	ug/L	96
3) Chloromethan	2.10	50	144612	9.3095	ug/L	97
4) VinylChlorid	2.25	62	160176	10.1053	ug/L	97
5) Bromomethane	2.71	94	95092	10.3821	ug/L	96
6) Chloroethane	2.87	64	96736	9.4678	ug/L	98
7) Dichloroflmethane	3.19	67	342796	9.9306	ug/L	98
8) Trichlorofma	3.26	101	273516	10.8047	ug/L	97
9) Ethylether	3.71	59	128491	10.1105	ug/L	92
10) dichlorotfluoroethan	3.72	67	342588	10.6188	ug/L	98
11) propyleneoxide	3.76	58	446465	99.0600	ug/L	99
12) Acrolein	3.84	56	166981	45.2159	ug/L	99
13) 11dichlorthe	3.99	96	176135	10.5501	ug/L	100
14) Trichlorotfluoroeth	4.03	101	301142	21.6655	ug/L	99
15) Acetone	4.05	43	625566	92.0930	ug/L	99
16) Iodomethane	4.16	142	342046	19.7867	ug/L	98
17) Carbon Dislf	4.25	76	655963	20.6169	ug/L	100
18) allylchloride	4.47	41	551898	20.1346	ug/L	99
19) methylacetate	4.53	74	42793	8.4923	ug/L	98
20) Methylchlorid	4.63	84	191444	9.2478	ug/L	99
21) tbutylalcohol	4.83	59	859670	468.2134	ug/L	100
22) Acrylonitrile	4.94	53	413682	50.4425	ug/L	96
23) t12dichlorte	5.00	96	190354	10.0599	ug/L	99
24) MtBE	5.04	73	416411	9.7872	ug/L	99
25) Hexane	5.40	57	603273	21.4095	ug/L	98
26) 11dichlorota	5.53	63	324968	9.9248	ug/L	98
27) Vinylacetate	5.62	43	2208329	93.5247	ug/L	99
28) chloroprene	5.66	53	594562	21.5249	ug/L	98
29) Diisopether	5.68	45	511344	10.0994	ug/L	99
30) ETBE	6.13	59	393723	9.4115	ug/L	100
31) 22dichloropr	6.27	77	186966	9.7230	ug/L	98
32) c12dichlorte	6.26	96	197982	9.8972	ug/L	100
33) 2Butanone	6.28	72	255152	95.1052	ug/L	97
34) propionitrile	6.32	54	348716	98.8952	ug/L	99
35) Ethylacetate	6.38	88	39780	47.0127	ug/L	96
36) methacrylonitrile	6.52	67	198184	19.8885	ug/L	99
37) Bromochlorma	6.55	128	90148	9.5482	ug/L	100
38) Tetrahydofur	6.63	42	568229	98.1866	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	314669	9.8237	ug/L	98
40)	111trichlota	6.90	97	265381	10.2655	ug/L	98
42)	Cyclohexane	6.99	56	263251	10.8023	ug/L	99
43)	Carbtetraclo	7.12	119	219614	10.8546	ug/L	100
44)	11dicloprope	7.11	110	92520	10.0163	ug/L	100
46)	Benzene	7.36	78	755569	10.3434	ug/L	100
47)	12dichlorota	7.36	62	241385	10.0675	ug/L	100
48)	TAME	7.52	73	379678	9.7293	ug/L	99
49)	trichloroete	8.17	95	190134	9.9189	ug/L	100
50)	methylcyclohexane	8.43	83	417234	9.9542	ug/L	97
51)	12dicloropra	8.42	63	194331	9.6166	ug/L	92
52)	23Dicl1propene	8.48	75	280878	9.7509	ug/L	99
53)	Dibromometha	8.56	93	111630	9.8350	ug/L	97
54)	methylmethacrylate	8.59	69	136441	9.6194	ug/L	98
55)	14dioxane	8.60	88	132551	466.5810	ug/L	99
56)	Bromodiclrma	8.76	83	232638	9.6805	ug/L	98
57)	2Nitropropane	9.02	43	523829	102.6703	ug/L	100
58)	2CLEVE	9.15	63	280547	44.8868	ug/L	98
59)	c13dicloproe	9.34	75	266944	9.8379	ug/L	98
60)	4Meth2Pentan	9.54	43	1600538	99.1889	ug/L	99
62)	Toluene	9.79	92	478380	10.1681	ug/L	100
63)	t13Dicloprop	10.05	75	216247	9.7662	ug/L	99
64)	ethylmethacrylate	10.19	69	503695	20.0749	ug/L	98
65)	112Triclotha	10.28	83	144785	10.0385	ug/L	97
66)	Tetrachlorte	10.53	166	207215	10.4601	ug/L	99
67)	13Diclorpropa	10.51	76	295132	9.8989	ug/L	100
69)	2Hexanone	10.63	43	1199078	92.6215	ug/L	100
70)	Clorodibrmta	10.81	129	175683	9.5245	ug/L	99
71)	12Dibrometha	10.97	107	159867	9.3790	ug/L	99
72)	Chlorobenzen	11.65	112	508972	9.6532	ug/L	98
73)	1Clhexane	11.63	91	259685	9.9094	ug/L	99
74)	1112Tetclota	11.76	131	160470	9.5489	ug/L	99
75)	Ethylbenzene	11.81	91	843063	10.0410	ug/L	100
76)	m p-Xylene	11.98	106	672035	20.6184	ug/L	98
77)	o-Xylene	12.52	106	317264	9.7258	ug/L	96
78)	Styrene	12.53	104	526747	10.0201	ug/L	99
79)	Bromoform	12.77	173	119420	9.6901	ug/L	98
80)	Isopropylben	13.05	105	811900	10.3944	ug/L	99
81)	cyclohexanone	13.13	55	174119	164.5907	ug/L	98
84)	Bromobenzene	13.45	156	203080	9.3815	ug/L	99
85)	1122Tetrclta	13.43	83	236384	9.1877	ug/L	99
86)	123Triclproa	13.49	75	282121	8.9799	ug/L	98
87)	14dichloro2butene	13.51	53	64365	8.8754	ug/L	100
88)	n-Propylbenz	13.64	91	954175	10.0381	ug/L	100
89)	2chlorotolue	13.75	91	575861	9.5726	ug/L	98
90)	4chlorotolue	13.90	91	657900	9.5996	ug/L	99
91)	135Trimebenz	13.89	105	673878	9.8926	ug/L	100
92)	tbutylbenzen	14.36	119	579432	10.0638	ug/L	99
93)	124Trimetben	14.43	105	650006	9.8035	ug/L	99
94)	sbutylbenzen	14.68	105	839443	10.2882	ug/L	99
95)	13Diclorbenz	14.82	146	370238	9.4762	ug/L	99
96)	pIsopropylto	14.90	119	706017	10.1016	ug/L	100
97)	14dichlorobe	14.94	146	381961	9.4992	ug/L	97
98)	12dichlorobe	15.48	146	357024	9.4292	ug/L	98
99)	nButylbenzen	15.49	91	630494	9.6990	ug/L	99
100)	12dibromo3cl	16.58	157	43406	8.9029	ug/L	98
101)	135Trichlorobenzene	16.91	180	275376	9.0630	ug/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report
Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	217824	9.0643	ug/L	99
103) Hexachlorobu	17.97	225	106115	9.8796	ug/L	98
104) Naphthalene	18.02	128	485259	9.1584	ug/L	98
105) 123Trichlben	18.33	180	205833	9.0060	ug/L	99

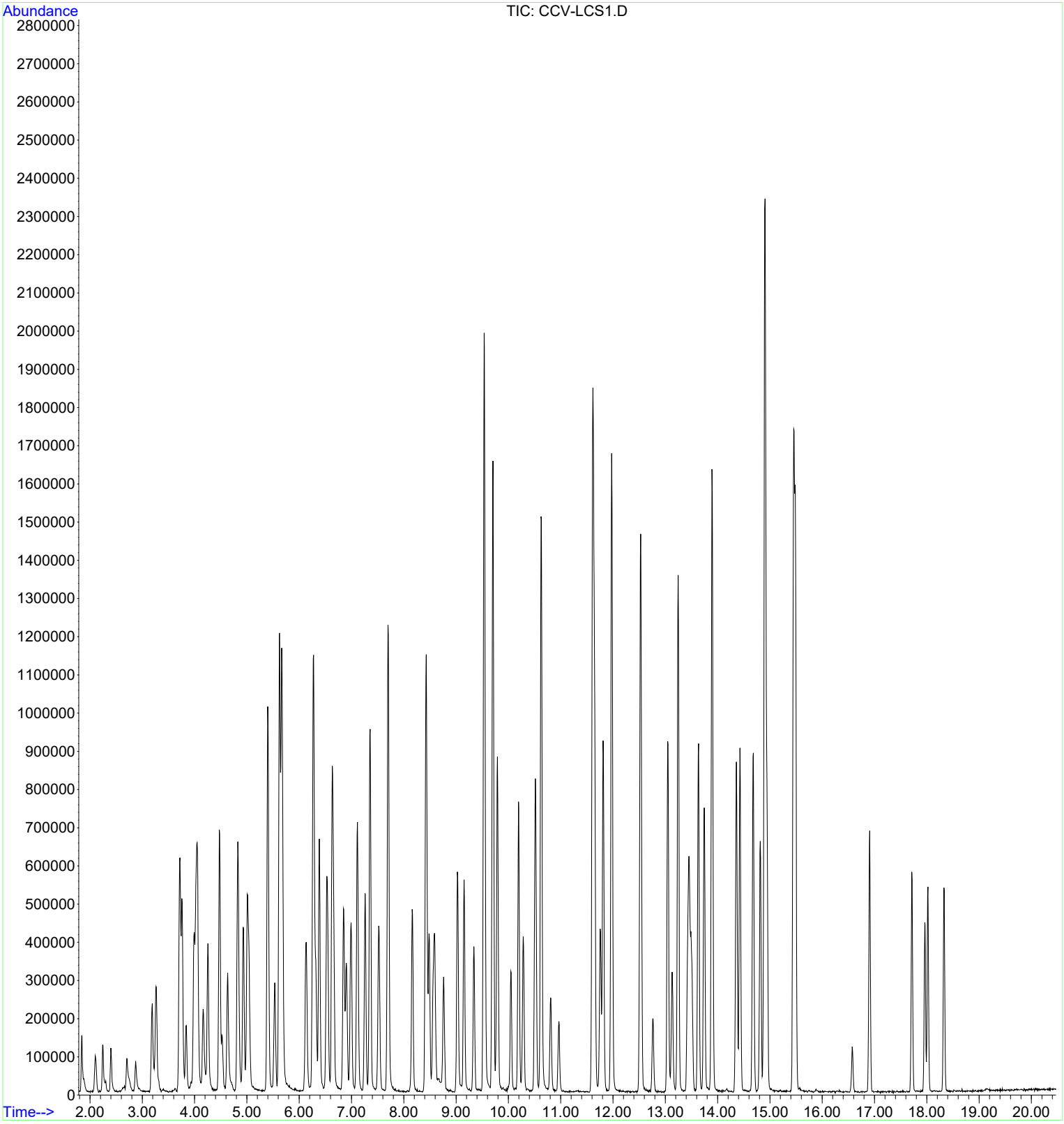
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\Instarch\Data\MAY0522\CCV-LCS1.D Vial: 3
Acq On : 5 May 2022 7:54 Operator: DGS-RLD
Sample : 211603,LCSW, Inst : VMS3
Misc : 10.0/100 ug/L, 5.0 mL Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 08:15:32 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\MB1.D Vial: 5
Acq On : 5 May 2022 8:55 Operator: DGS-RLD
Sample : 211603,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:15:38 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1260344	20.00 ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1051959	20.00 ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	583749	20.00 ug/L	0.00 NA%

System Monitoring Compounds						
41) SURRDibrflma	6.85	113	339603	20.271 ug/L	0.00	
Spiked Amount 20.000	Range 90 - 110		Recovery = 101 %			
45) SURR12DCAd4	7.26	102	88640	19.833 ug/L	0.00	
Spiked Amount 20.000	Range 89 - 111		Recovery = 99 %			
61) SURRd8Tolule	9.71	98	1338018	20.297 ug/L	0.00	
Spiked Amount 20.000	Range 93 - 107		Recovery = 101 %			
83) SURR4BrFBenz	13.25	95	574915	19.904 ug/L	0.00	
Spiked Amount 20.000	Range 83 - 111		Recovery = 100 %			

Target Compounds					Qvalue
2) Dichlorodi	0.00	85	0	N.D.	
3) Chloromethan	0.00	50	0	N.D.	
4) VinylChlorid	0.00	62	0	N.D.	
5) Bromomethane	0.00	94	0	N.D.	
6) Chloroethane	0.00	64	0	N.D.	
7) Dichloroflmethane	0.00	67	0	N.D.	
8) Trichlorofma	0.00	101	0	N.D.	
9) Ethylether	0.00	59	0	N.D.	
10) dichlorotfluoroethan	0.00	67	0	N.D.	
11) propyleneoxide	0.00	58	0	N.D.	
12) Acrolein	0.00	56	0	N.D.	
13) 11dichlorthe	0.00	96	0	N.D.	
14) Trichlorotfluoroeth	0.00	101	0	N.D.	
15) Acetone	4.05	43	2976	N.D.	
16) Iodomethane	0.00	142	0	N.D.	
17) Carbon Dislf	4.26	76	3457	N.D.	
18) allylchloride	0.00	41	0	N.D.	
19) methylacetate	0.00	74	0	N.D.	
20) Methylchlorid	0.00	84	0	N.D.	
21) tbutylalcohol	4.84	59	4189	N.D.	
22) Acrylonitrile	0.00	53	0	N.D.	
23) t12dichlorte	0.00	96	0	N.D.	
24) MtBE	0.00	73	0	N.D.	
25) Hexane	0.00	57	0	N.D.	
26) 11dichlorota	0.00	63	0	N.D.	
27) Vinylacetate	0.00	43	0	N.D.	
28) chloroprene	0.00	53	0	N.D.	
29) Diisopether	0.00	45	0	N.D.	
30) ETBE	0.00	59	0	N.D.	
31) 22dichloropr	0.00	77	0	N.D.	
32) c12dichlorte	0.00	96	0	N.D.	
33) 2Butanone	0.00	72	0	N.D.	
34) propionitrile	0.00	54	0	N.D.	
35) Ethylacetate	0.00	88	0	N.D.	
36) methacrylonitrile	0.00	67	0	N.D.	
37) Bromochlorma	0.00	128	0	N.D.	
38) Tetrahydofur	0.00	42	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\MB1.D Vial: 5
Acq On : 5 May 2022 8:55 Operator: DGS-RLD
Sample : 211603,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:15:38 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
39)	Chloroform	0.00	83	0	N.D.	
40)	111trichlota	0.00	97	0	N.D.	
42)	Cyclohexane	0.00	56	0	N.D.	
43)	Carbtetraclo	0.00	119	0	N.D.	
44)	11dicloprope	0.00	110	0	N.D.	
46)	Benzene	0.00	78	0	N.D.	
47)	12dichlorota	0.00	62	0	N.D.	
48)	TAME	0.00	73	0	N.D.	
49)	trichloroete	0.00	95	0	N.D.	
50)	methylcyclohexane	0.00	83	0	N.D.	
51)	12dicloropra	0.00	63	0	N.D.	
52)	23Dicl1propene	0.00	75	0	N.D.	
53)	Dibromometha	0.00	93	0	N.D.	
54)	methylmethacrylate	0.00	69	0	N.D.	
55)	14dioxane	0.00	88	0	N.D.	
56)	Bromodiclrma	0.00	83	0	N.D.	
57)	2Nitropropane	0.00	43	0	N.D.	
58)	2CLEVE	0.00	63	0	N.D.	
59)	c13dicloproe	0.00	75	0	N.D.	
60)	4Meth2Pentan	9.56	43	4993	Below Cal #	37
62)	Toluene	0.00	92	0	N.D.	
63)	t13Dicloprop	0.00	75	0	N.D.	
64)	ethylmethacrylate	0.00	69	0	N.D.	
65)	112Triclotha	0.00	83	0	N.D.	
66)	Tetrachlorte	0.00	166	0	N.D.	
67)	13Diclorpropa	0.00	76	0	N.D.	
69)	2Hexanone	10.62	43	5916	Below Cal #	87
70)	Clorodibrmta	0.00	129	0	N.D.	
71)	12Dibrometha	0.00	107	0	N.D.	
72)	Chlorobenzen	0.00	112	0	N.D.	
73)	1Clhexane	11.62	91	3655	N.D.	
74)	1112Tetclota	0.00	131	0	N.D.	
75)	Ethylbenzene	0.00	91	0	N.D.	
76)	m p-Xylene	0.00	106	0	N.D.	
77)	o-Xylene	0.00	106	0	N.D.	
78)	Styrene	0.00	104	0	N.D.	
79)	Bromoform	0.00	173	0	N.D.	
80)	Isopropylben	0.00	105	0	N.D.	
81)	cyclohexanone	0.00	55	0	N.D.	
84)	Bromobenzene	0.00	156	0	N.D.	
85)	1122Tetrclta	0.00	83	0	N.D.	
86)	123Triclproa	0.00	75	0	N.D.	
87)	14dichloro2butene	0.00	53	0	N.D.	
88)	n-Propylbenz	13.64	91	2829	N.D.	
89)	2chlorotolue	13.64	91	2595	N.D.	
90)	4chlorotolue	0.00	91	0	N.D.	
91)	135Trimebenz	0.00	105	0	N.D.	
92)	tbutylbenzen	0.00	119	0	N.D.	
93)	124Trimetben	0.00	105	0	N.D.	
94)	sbutylbenzen	14.68	105	3408	N.D.	
95)	13Diclorbenz	0.00	146	0	N.D.	
96)	pIsopropylto	14.90	119	3207	N.D.	
97)	14dichlorobe	0.00	146	0	N.D.	
98)	12dichlorobe	0.00	146	0	N.D.	
99)	nButylbenzen	15.49	91	3051	N.D.	
100)	12dibromo3cl	0.00	157	0	N.D.	
101)	135Trichlorobenzene	0.00	180	0	N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\MB1.D Vial: 5
Acq On : 5 May 2022 8:55 Operator: DGS-RLD
Sample : 211603,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:15:38 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
102) 124Trichlobe	0.00	180	0	N.D.	
103) Hexachlorobu	0.00	225	0	N.D.	
104) Naphthalene	18.01	128	6300	N.D.	
105) 123Trichlben	0.00	180	0	N.D.	

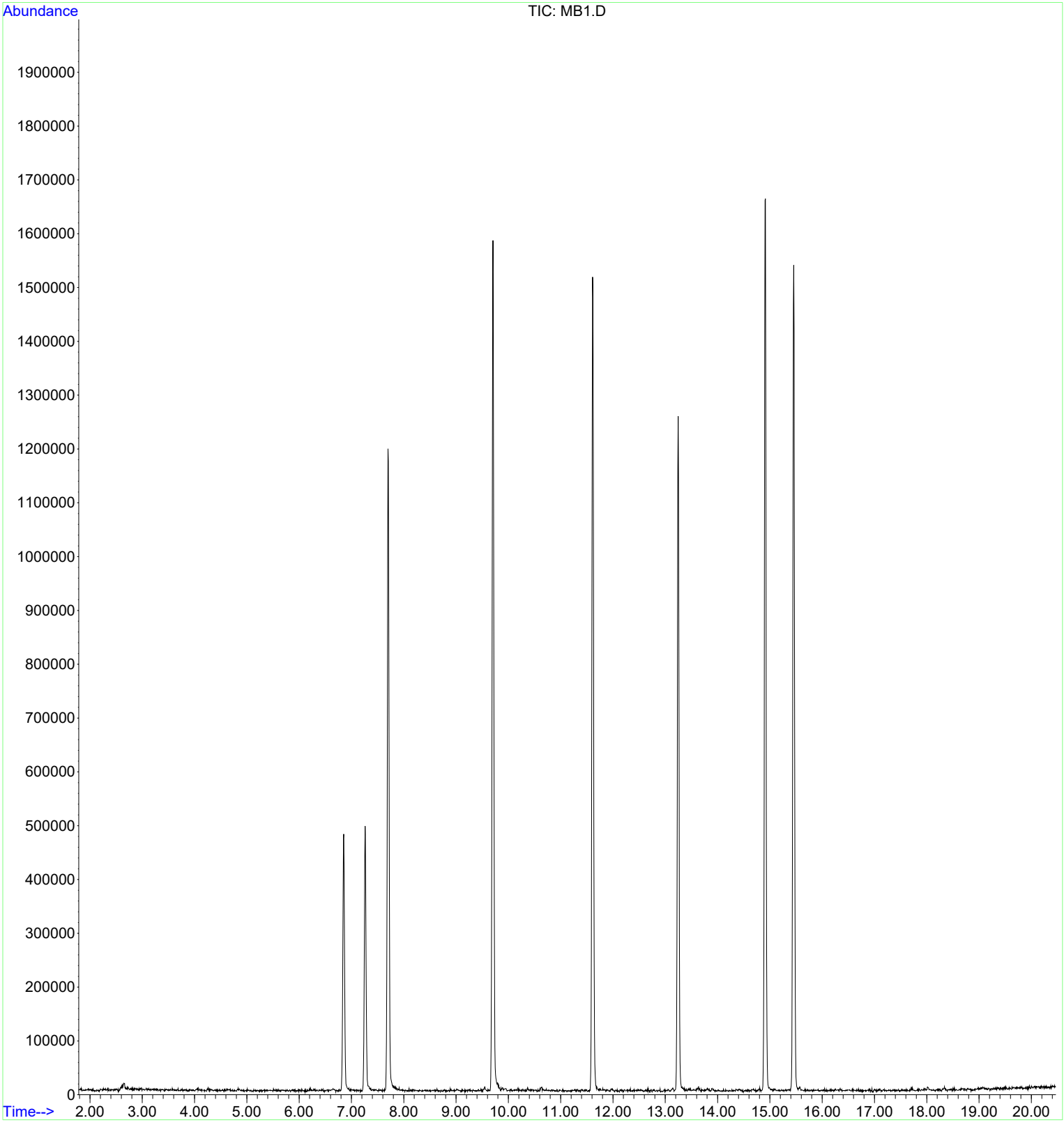
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\MB1.D Vial: 5
Acq On : 5 May 2022 8:55 Operator: DGS-RLD
Sample : 211603,MBW, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 09:15:38 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203M.D Vial: 32
Acq On : 5 May 2022 21:40 Operator: DGS-RLD
Sample : 211603,MSW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:01:09 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1276393	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1080209	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	617675	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	342825	20.206	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 101	%		
45) SURR12DCAd4	7.26	102	88531	19.559	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.71	98	1373780	20.578	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 103	%		
83) SURR4BrFBenz	13.25	95	601473	19.680	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 98	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	187468	11.3818	ug/L	96
3) Chloromethan	2.11	50	154666	10.1729	ug/L	95
4) VinylChlorid	2.25	62	168792	10.8801	ug/L	100
5) Bromomethane	2.70	94	95175	10.6168	ug/L	97
6) Chloroethane	2.87	64	101666	10.1663	ug/L	97
7) Dichloroflmethane	3.18	67	348631	10.3189	ug/L	99
8) Trichlorofma	3.26	101	284598	11.4865	ug/L	98
9) Ethylether	3.71	59	107715	8.6597	ug/L	93
10) dichlorotfluoroethan	3.72	67	357795	11.3309	ug/L	98
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	166824	46.1541	ug/L	99
13) 11dichlorthe	3.99	96	182744	11.1836	ug/L	99
14) Trichlorotfluoroeth	4.03	101	286826	21.0836	ug/L	99
15) Acetone	4.06	43	532772	80.1350	ug/L	99
16) Iodomethane	4.16	142	338560	20.0102	ug/L	99
17) Carbon Dislf	4.25	76	680307	21.8462	ug/L	100
18) allylchloride	4.48	41	539420	20.1066	ug/L	99
19) methylacetate	4.53	74	43236	8.7665	ug/L	93
20) Methylchlorid	4.63	84	187288	9.2434	ug/L	97
21) tbutylalcohol	4.83	59	822095	457.4689	ug/L	98
22) Acrylonitrile	4.94	53	395049	49.2163	ug/L	100
23) t12dichlorte	5.00	96	193215	10.4328	ug/L	98
24) MtBE	5.03	73	402571	9.6673	ug/L	98
25) Hexane	5.40	57	545275	19.7713	ug/L	99
26) 11dichlorota	5.53	63	328125	10.2387	ug/L	99
27) Vinylacetate	5.62	43	2618696	116.7404	ug/L	100
28) chloroprene	5.67	53	600668	22.2180	ug/L	98
29) Diisopether	5.68	45	519319	10.4796	ug/L	99
30) ETBE	6.13	59	391385	9.5588	ug/L	99
31) 22dichloropr	6.27	77	162258	8.6213	ug/L	97
32) c12dichlorte	6.26	96	202107	10.3228	ug/L	99
33) 2Butanone	6.28	72	252876	96.3031	ug/L	99
34) propionitrile	6.32	54	327900	95.0106	ug/L	99
35) Ethylacetate	6.39	88	38502	46.4902	ug/L #	89
36) methacrylonitrile	6.53	67	183843	18.8498	ug/L	98
37) Bromochlorma	6.55	128	93271	10.0935	ug/L	97
38) Tetrahydofur	6.63	42	570350	100.6927	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203M.D Vial: 32
Acq On : 5 May 2022 21:40 Operator: DGS-RLD
Sample : 211603,MSW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:01:09 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	326981	10.4296	ug/L	100
40)	111trichlota	6.91	97	266306	10.5249	ug/L	98
42)	Cyclohexane	6.99	56	266722	11.1823	ug/L	96
43)	Carbtetraclo	7.12	119	220078	11.1136	ug/L	95
44)	11dicloprope	7.11	110	97353	10.7683	ug/L	97
46)	Benzene	7.36	78	764273	10.6897	ug/L	99
47)	12dichlorota	7.36	62	238423	10.1598	ug/L	99
48)	TAME	7.52	73	367444	9.6202	ug/L	96
49)	trichloroete	8.16	95	192508	10.2607	ug/L	99
50)	methylcyclohexane	8.43	83	386505	9.4289	ug/L	97
51)	12dicloropra	8.42	63	198444	10.0333	ug/L	93
52)	23Dicl1propene	8.48	75	279397	9.9100	ug/L	100
53)	Dibromometha	8.56	93	110520	9.9486	ug/L	98
54)	methylmethacrylate	8.59	69	137119	9.8771	ug/L	96
55)	14dioxane	8.60	88	125749	452.2474	ug/L	97
56)	Bromodiclrma	8.76	83	233536	9.9289	ug/L	99
57)	2Nitropropane	9.03	43	482918	96.7066	ug/L	97
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	257085	9.6802	ug/L	99
60)	4Meth2Pentan	9.54	43	1567506	99.2576	ug/L	100
62)	Toluene	9.79	92	486872	10.5732	ug/L	99
63)	t13Dicloprop	10.05	75	196712	9.0768	ug/L	99
64)	ethylmethacrylate	10.20	69	465569	18.9582	ug/L	99
65)	112Triclotha	10.28	83	142750	10.1123	ug/L	98
66)	Tetrachlorte	10.53	166	209273	10.7933	ug/L	98
67)	13Diclorpropa	10.51	76	285225	9.7743	ug/L	100
69)	2Hexanone	10.63	43	1142232	88.1050	ug/L	99
70)	Clorodibrmta	10.81	129	163796	8.9003	ug/L	97
71)	12Dibrometha	10.97	107	159728	9.3923	ug/L	98
72)	Chlorobenzen	11.65	112	513235	9.7563	ug/L	99
73)	1Clhexane	11.63	91	250932	9.5973	ug/L	99
74)	1112Tetclota	11.76	131	154053	9.1880	ug/L	97
75)	Ethylbenzene	11.82	91	854768	10.2037	ug/L	98
76)	m p-Xylene	11.97	106	664942	20.4474	ug/L	98
77)	o-Xylene	12.52	106	323448	9.9381	ug/L	97
78)	Styrene	12.53	104	515773	9.8337	ug/L	100
79)	Bromoform	12.77	173	114001	9.2715	ug/L	98
80)	Isopropylben	13.05	105	807830	10.3659	ug/L	99
81)	cyclohexanone	13.14	55	124542	121.0858	ug/L	99
84)	Bromobenzene	13.46	156	205121	9.5148	ug/L	98
85)	1122Tetrclta	13.43	83	239194	9.3352	ug/L	100
86)	123Triclproa	13.49	75	271102	8.6646	ug/L	95
87)	14dichloro2butene	13.51	53	58377	8.0827	ug/L	96
88)	n-Propylbenz	13.64	91	956643	10.1054	ug/L	99
89)	2chlorotolue	13.75	91	572780	9.5605	ug/L	99
90)	4chlorotolue	13.90	91	656998	9.6258	ug/L	99
91)	135Trimebenz	13.89	105	674844	9.9475	ug/L	99
92)	tbutylbenzen	14.36	119	578877	10.0955	ug/L	99
93)	124Trimetben	14.43	105	648521	9.8213	ug/L	99
94)	sbutylbenzen	14.68	105	847324	10.4275	ug/L	100
95)	13Diclorbenz	14.82	146	372267	9.5673	ug/L	98
96)	pIsopropylto	14.90	119	711731	10.2252	ug/L	99
97)	14dichlorobe	14.94	146	377015	9.4147	ug/L	97
98)	12dichlorobe	15.49	146	340468	9.0289	ug/L	98
99)	nButylbenzen	15.49	91	646020	9.9787	ug/L	98
100)	12dibromo3cl	16.58	157	39612	8.1581	ug/L	91
101)	135Trichlorobenzene	16.91	180	273928	9.0524	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203M.D Vial: 32
Acq On : 5 May 2022 21:40 Operator: DGS-RLD
Sample : 211603,MSW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:01:09 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	211793	8.8495	ug/L	98
103) Hexachlorobu	17.96	225	107060	10.0086	ug/L	97
104) Naphthalene	18.02	128	470938	8.9247	ug/L	99
105) 123Trichlben	18.33	180	203960	8.9607	ug/L	99

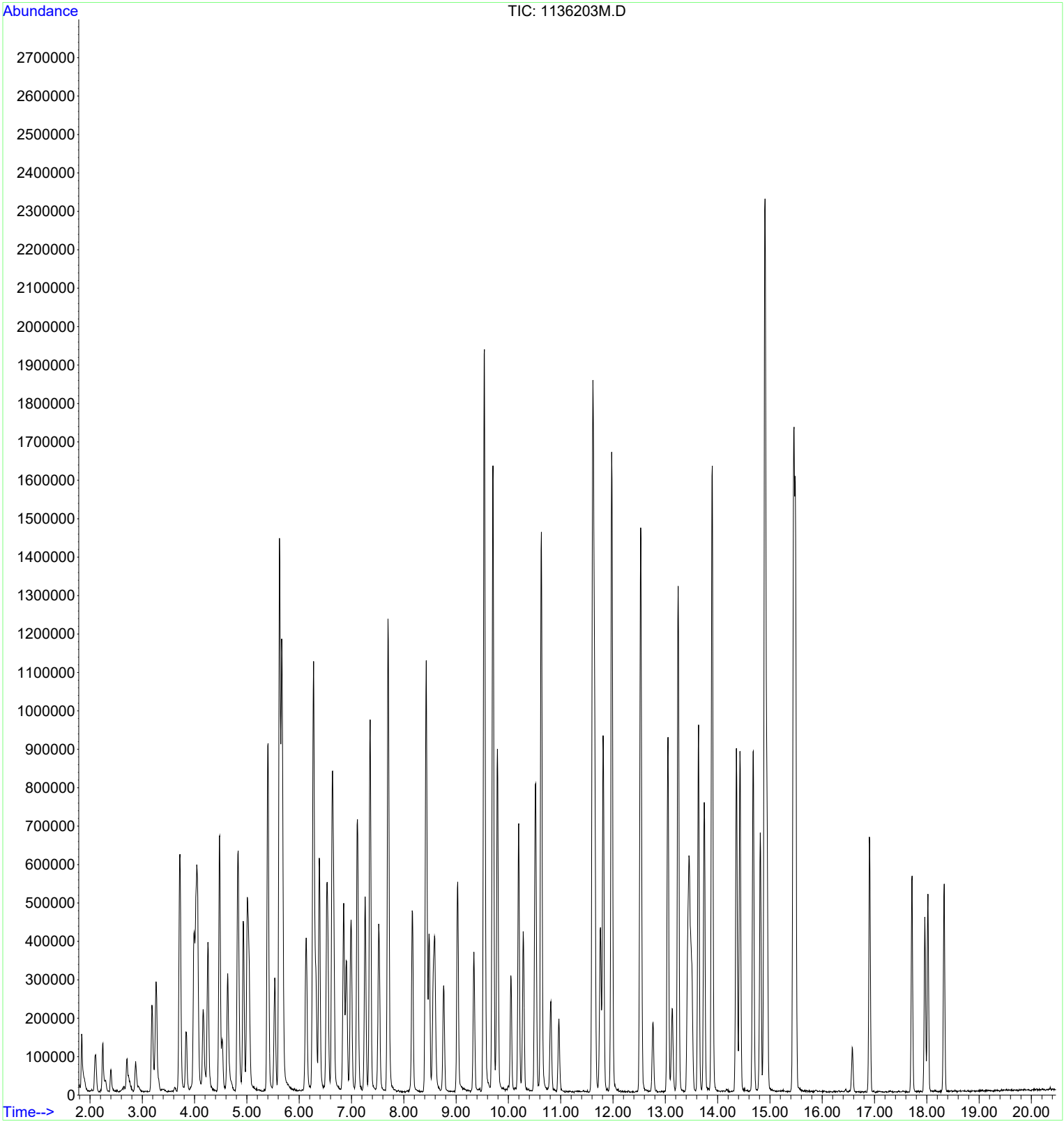
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203M.D Vial: 32
Acq On : 5 May 2022 21:40 Operator: DGS-RLD
Sample : 211603,MSW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:01:09 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M



Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203S.D Vial: 33
Acq On : 5 May 2022 22:10 Operator: DGS-RLD
Sample : 211603,MSDW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:31:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M
IS QA File : 50 level for IS QA unknown. No recoveries calculated.

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min) Rcv(Ar)
1) FLUOROBENZENE**ISTD**	7.70	96	1301854	20.00	ug/L	0.00 NA%
68) d5-CHLOROBENZENE**ISTD**	11.61	117	1079764	20.00	ug/L	0.00 NA%
82) d4-1,4-DICHLOROBENZENE**IS	14.91	152	624415	20.00	ug/L	0.00 NA%
System Monitoring Compounds						
41) SURRDibrflma	6.85	113	346486	20.022	ug/L	0.00
Spiked Amount 20.000	Range 90 - 110		Recovery = 100	%		
45) SURR12DCAd4	7.26	102	90574	19.619	ug/L	0.00
Spiked Amount 20.000	Range 89 - 111		Recovery = 98	%		
61) SURRd8Tolule	9.71	98	1380151	20.269	ug/L	0.00
Spiked Amount 20.000	Range 93 - 107		Recovery = 101	%		
83) SURR4BrFBenz	13.25	95	599045	19.389	ug/L	0.00
Spiked Amount 20.000	Range 83 - 111		Recovery = 97	%		
Target Compounds						Qvalue
2) Dichlorodi	1.84	85	202815	12.0727	ug/L	100
3) Chloromethan	2.11	50	174384	11.2455	ug/L	100
4) VinylChlorid	2.25	62	180404	11.4011	ug/L	100
5) Bromomethane	2.70	94	105745	11.5652	ug/L	97
6) Chloroethane	2.87	64	109140	10.7003	ug/L	96
7) Dichloroflmethane	3.18	67	378687	10.9893	ug/L	99
8) Trichlorofma	3.26	101	313745	12.4152	ug/L	99
9) Ethylether	3.71	59	123514	9.7356	ug/L	96
10) dichlorotfluoroethan	3.73	67	381116	11.8334	ug/L	99
11) propyleneoxide	0.00	58	0	N.D.		
12) Acrolein	3.84	56	177015	48.0158	ug/L	99
13) 11dichlorthe	3.99	96	201091	12.0657	ug/L	99
14) Trichlorotfluoroeth	4.03	101	318975	22.9882	ug/L	99
15) Acetone	4.06	43	574428	84.7107	ug/L	96
16) Iodomethane	4.16	142	393618	22.8094	ug/L	99
17) Carbon Dislf	4.26	76	753846	23.7343	ug/L	100
18) allylchloride	4.48	41	594093	21.7115	ug/L	100
19) methylacetate	4.53	74	46084	9.1612	ug/L	92
20) Methylchlorid	4.64	84	211433	10.2310	ug/L	99
21) tbutylalcohol	4.83	59	952653	519.7523	ug/L	99
22) Acrylonitrile	4.93	53	432751	52.8589	ug/L	97
23) t12dichlorte	5.00	96	213463	11.3007	ug/L	98
24) MtBE	5.04	73	449939	10.5935	ug/L	98
25) Hexane	5.40	57	622015	22.1128	ug/L	98
26) 11dichlorota	5.53	63	358997	10.9830	ug/L	100
27) Vinylacetate	5.62	43	2820830	124.3685	ug/L	98
28) chloroprene	5.66	53	645722	23.4174	ug/L	98
29) Diisopether	5.68	45	566315	11.2045	ug/L	96
30) ETBE	6.13	59	441106	10.5624	ug/L	99
31) 22dichloropr	6.27	77	182155	9.4892	ug/L	97
32) c12dichlorte	6.26	96	223919	11.2132	ug/L	99
33) 2Butanone	6.28	72	272866	101.8836	ug/L	99
34) propionitrile	6.32	54	357443	101.5453	ug/L	98
35) Ethylacetate	6.39	88	40997	48.5347	ug/L	93
36) methacrylonitrile	6.53	67	201692	20.2755	ug/L	96
37) Bromochlorma	6.55	128	102354	10.8598	ug/L	97
38) Tetrahydofur	6.63	42	605070	104.7332	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203S.D Vial: 33
Acq On : 5 May 2022 22:10 Operator: DGS-RLD
Sample : 211603,MSDW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:31:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
39)	Chloroform	6.66	83	355336	11.1124	ug/L	98
40)	111trichlota	6.90	97	295157	11.4371	ug/L	97
42)	Cyclohexane	6.99	56	290967	11.9602	ug/L	97
43)	Carbtetraclo	7.12	119	246512	12.2051	ug/L	97
44)	11dicloprope	7.11	110	103168	11.1884	ug/L	97
46)	Benzene	7.36	78	830075	11.3830	ug/L	100
47)	12dichlorota	7.36	62	258591	10.8037	ug/L	99
48)	TAME	7.53	73	410242	10.5306	ug/L	100
49)	trichloroete	8.16	95	209219	10.9333	ug/L	99
50)	methylcyclohexane	8.43	83	417972	9.9886	ug/L	100
51)	12dicloropra	8.42	63	214598	10.6378	ug/L	93
52)	23Dicl1propene	8.48	75	313933	10.9172	ug/L	97
53)	Dibromometha	8.56	93	121115	10.6891	ug/L	97
54)	methylmethacrylate	8.59	69	146480	10.3450	ug/L	98
55)	14dioxane	8.60	88	135928	479.2946	ug/L	98
56)	Bromodiclrma	8.76	83	254187	10.5955	ug/L	99
57)	2Nitropropane	9.03	43	529282	103.9183	ug/L	98
58)	2CLEVE	0.00	63	0	N.D.		
59)	c13dicloproe	9.34	75	284365	10.4980	ug/L	100
60)	4Meth2Pentan	9.54	43	1713546	107.2191	ug/L	99
62)	Toluene	9.79	92	526933	11.2194	ug/L	100
63)	t13Dicloprop	10.05	75	221085	10.0019	ug/L	99
64)	ethylmethacrylate	10.20	69	516253	20.6110	ug/L	99
65)	112Triclotha	10.28	83	150343	10.4419	ug/L	97
66)	Tetrachlorte	10.53	166	230787	11.6701	ug/L	99
67)	13Diclorpropa	10.51	76	311358	10.4612	ug/L	99
69)	2Hexanone	10.63	43	1262225	98.1981	ug/L	99
70)	Clorodibrmta	10.81	129	190749	10.3692	ug/L	99
71)	12Dibrometha	10.97	107	174124	10.2430	ug/L	95
72)	Chlorobenzen	11.65	112	555742	10.5687	ug/L	100
73)	1Clhexane	11.63	91	294005	11.2494	ug/L	97
74)	1112Tetclota	11.76	131	169994	10.1429	ug/L	97
75)	Ethylbenzene	11.82	91	939794	11.2233	ug/L	99
76)	m p-Xylene	11.98	106	729422	22.4395	ug/L	99
77)	o-Xylene	12.52	106	352525	10.8359	ug/L	95
78)	Styrene	12.53	104	574563	10.9591	ug/L	100
79)	Bromoform	12.76	173	121506	9.8860	ug/L	99
80)	Isopropylben	13.05	105	896109	11.5034	ug/L	98
81)	cyclohexanone	13.13	55	143426	137.7853	ug/L	99
84)	Bromobenzene	13.46	156	224175	10.2864	ug/L	99
85)	1122Tetrclta	13.43	83	261719	10.1040	ug/L	99
86)	123Triclproa	13.49	75	295691	9.3485	ug/L	96
87)	14dichloro2butene	13.51	53	66034	9.0442	ug/L	98
88)	n-Propylbenz	13.64	91	1061062	11.0874	ug/L	100
89)	2chlorotolue	13.75	91	633620	10.4619	ug/L	100
90)	4chlorotolue	13.90	91	721477	10.4564	ug/L	98
91)	135Trimebenz	13.89	105	750887	10.9489	ug/L	99
92)	tbutylbenzen	14.36	119	644650	11.1212	ug/L	100
93)	124Trimetben	14.43	105	712011	10.6664	ug/L	99
94)	sbutylbenzen	14.68	105	948614	11.5480	ug/L	99
95)	13Diclorbenz	14.82	146	401899	10.2174	ug/L	98
96)	pIsopropylto	14.90	119	782705	11.1235	ug/L	100
97)	14dichlorobe	14.94	146	410192	10.1326	ug/L	98
98)	12dichlorobe	15.49	146	377043	9.8909	ug/L	97
99)	nButylbenzen	15.49	91	721610	11.0259	ug/L	99
100)	12dibromo3cl	16.57	157	47849	9.7482	ug/L	97
101)	135Trichlorobenzene	16.91	180	299952	9.8054	ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203S.D Vial: 33
Acq On : 5 May 2022 22:10 Operator: DGS-RLD
Sample : 211603,MSDW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:31:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
102) 124Trichlobe	17.72	180	237101	9.8001	ug/L	99
103) Hexachlorobu	17.97	225	119444	11.0458	ug/L	97
104) Naphthalene	18.02	128	546852	10.2515	ug/L	99
105) 123Trichlben	18.33	180	233231	10.1361	ug/L	99

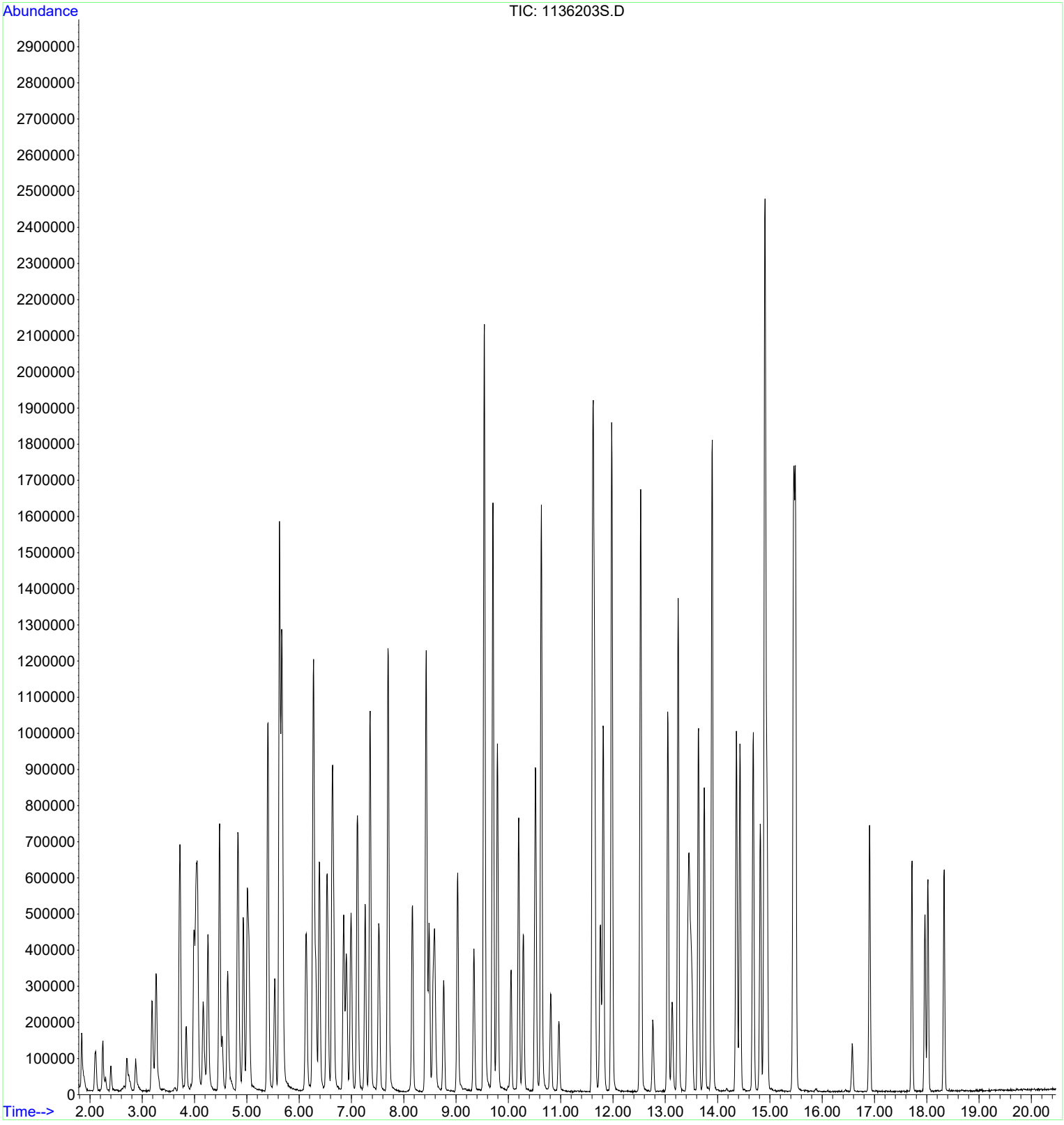
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\INSTARCH\DATA\MAY0522\1136203S.D Vial: 33
Acq On : 5 May 2022 22:10 Operator: DGS-RLD
Sample : 211603,MSDW1136203, Inst : VMS3
Misc : pH<2,5.0 mL DI H20 Purged + IS/SS Multiplr: 1.00
MS Integration Params: VOC.P

Quant Time: May 05 22:31:24 2022 Results File: W042822.RES

Quant Method : C:\INSTARCH\METHODS\W042822.M (RTE Integrator)
Title : 8260C Waters Method
Last Update : Fri Apr 29 09:21:12 2022
Response via : Initial Calibration
DataAcq Meth : W042822.M

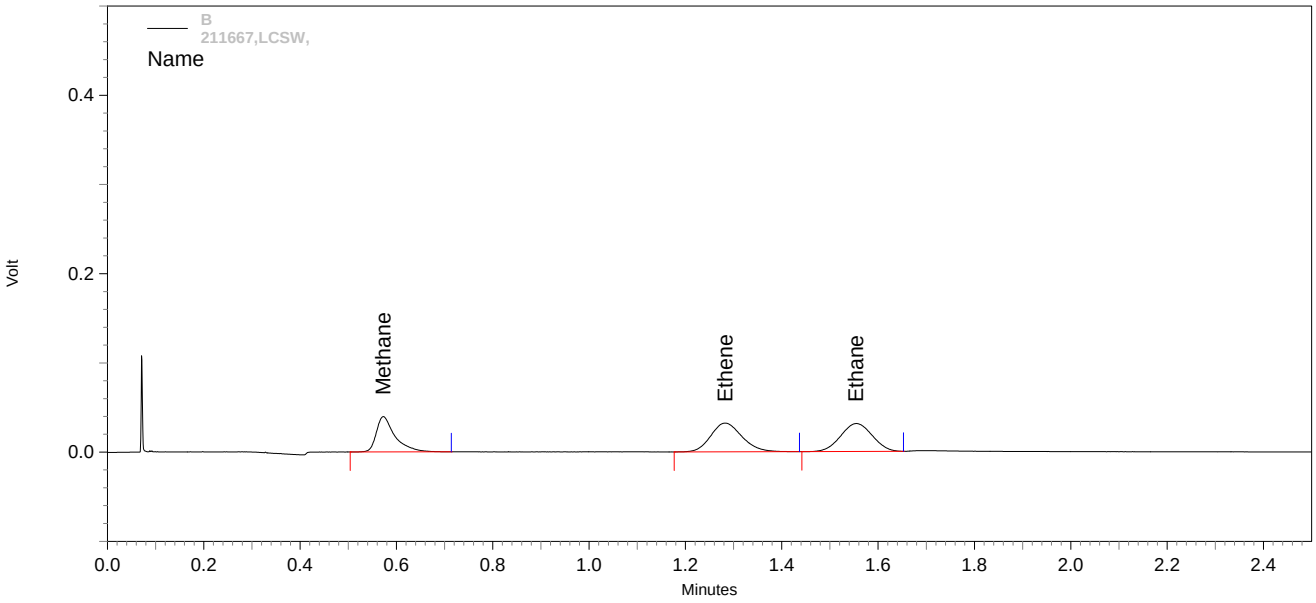


Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\003.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,LCSW,
Acquired: May 04, 2022 08:57:22
File Desc. Laboratory Control Sample - 25 ppmV -

500 uL of the 200 ppmV MEE Std. into 4 mL of headspace. 1.0 mL injection (Methane, Ethene, Ethane,)



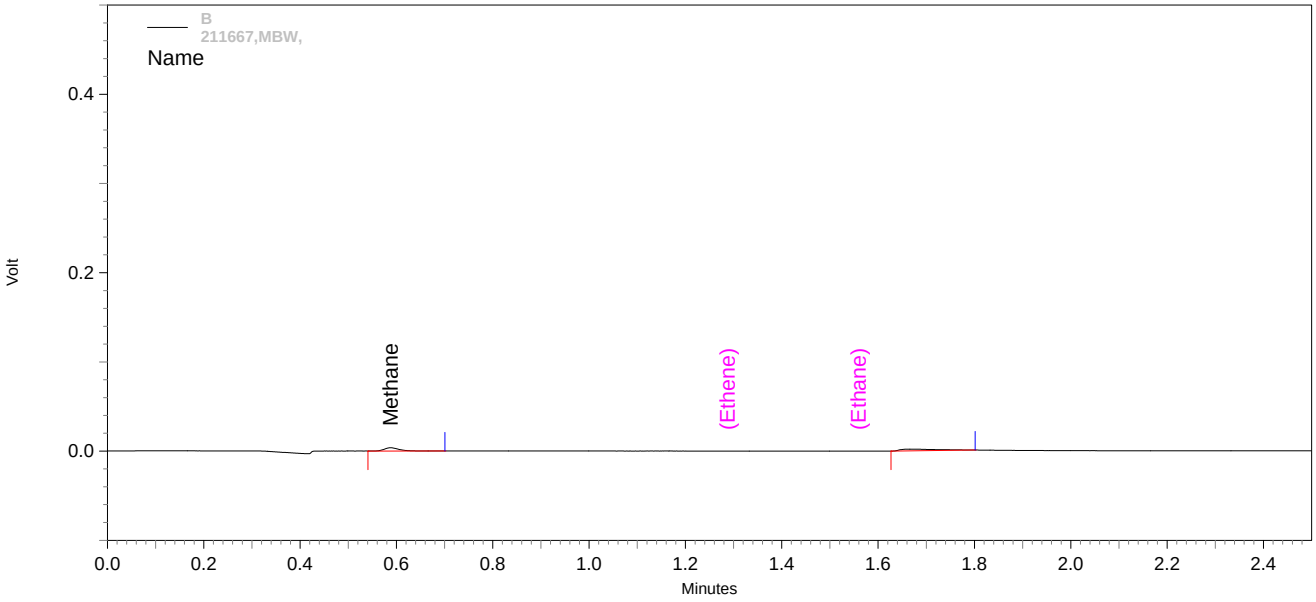
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.573	0.574	106265	27.340	ppmV
2	Ethene	1.283	1.287	144737	20.384	ppmV
3	Ethane	1.554	1.559	142790	19.867	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\004.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,MBW,
Acquired: May 04, 2022 09:02:23
File Desc. Method Blank
1.0 mL injection (Methane, Ethene, Ethane)



B Results

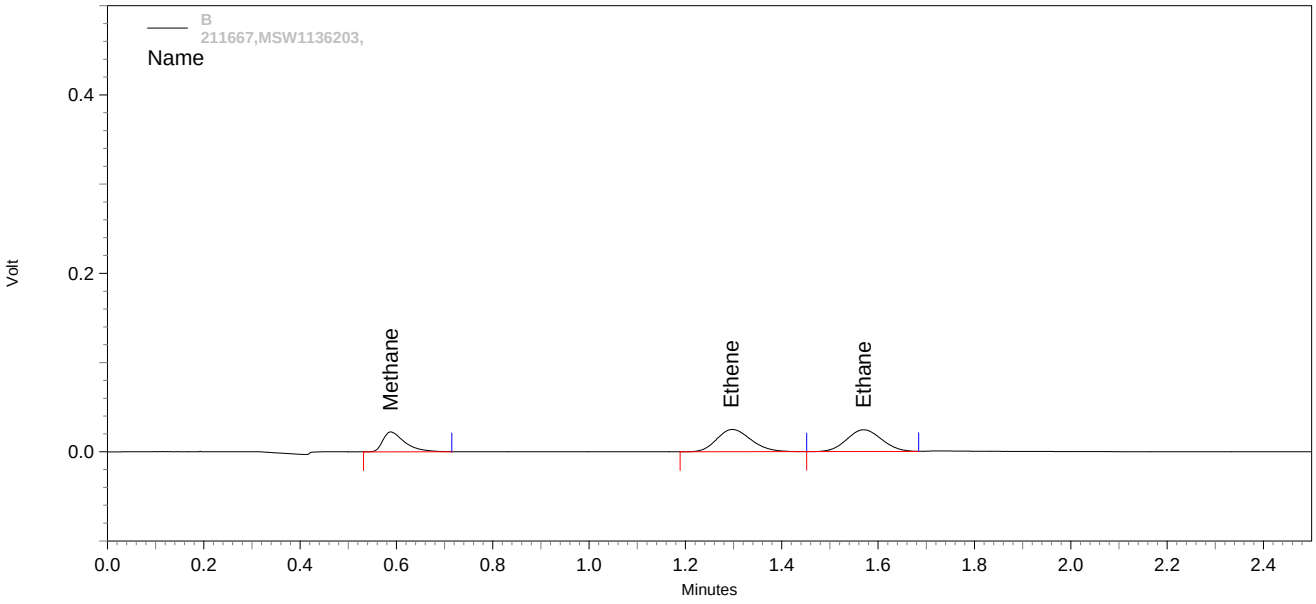
Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.588**	**0.574**	**7735**	**1.845**	**ppmV**
	Ethene		**1.287**		**0.000 BDL**	**ppmV**
	Ethane		**1.559**		**0.000 BDL**	**ppmV**
2		**1.663**	**0.000**	**10269**	**0.000**	

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\006.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,MSW1136203,
Acquired: May 04, 2022 09:11:04
File Desc. MATRIX SPIKE 1mL injection (Methane, Ethene, Ethane)

NOT USED



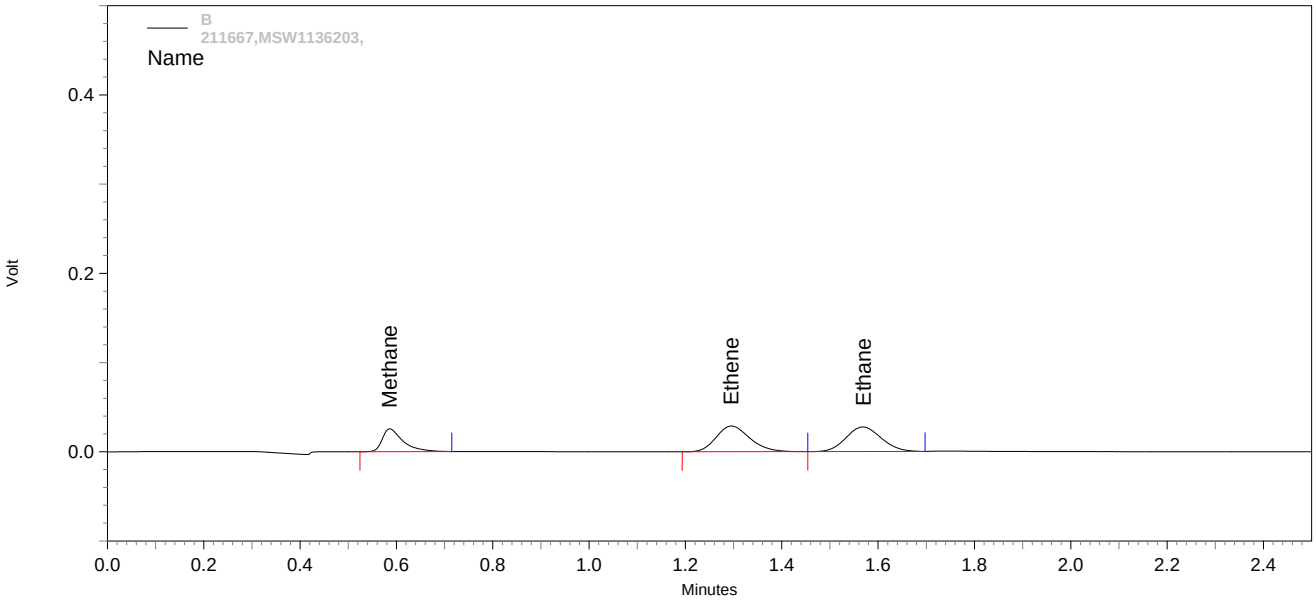
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.588	0.574	70159	17.997	ppmV
2	Ethene	1.295	1.287	124094	17.463	ppmV
3	Ethane	1.569	1.559	122388	16.983	ppmV

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\007.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,MSW1136203,
Acquired: May 04, 2022 09:15:58
File Desc. MATRIX SPIKE 1mL injection (Methane, Ethene, Ethane)



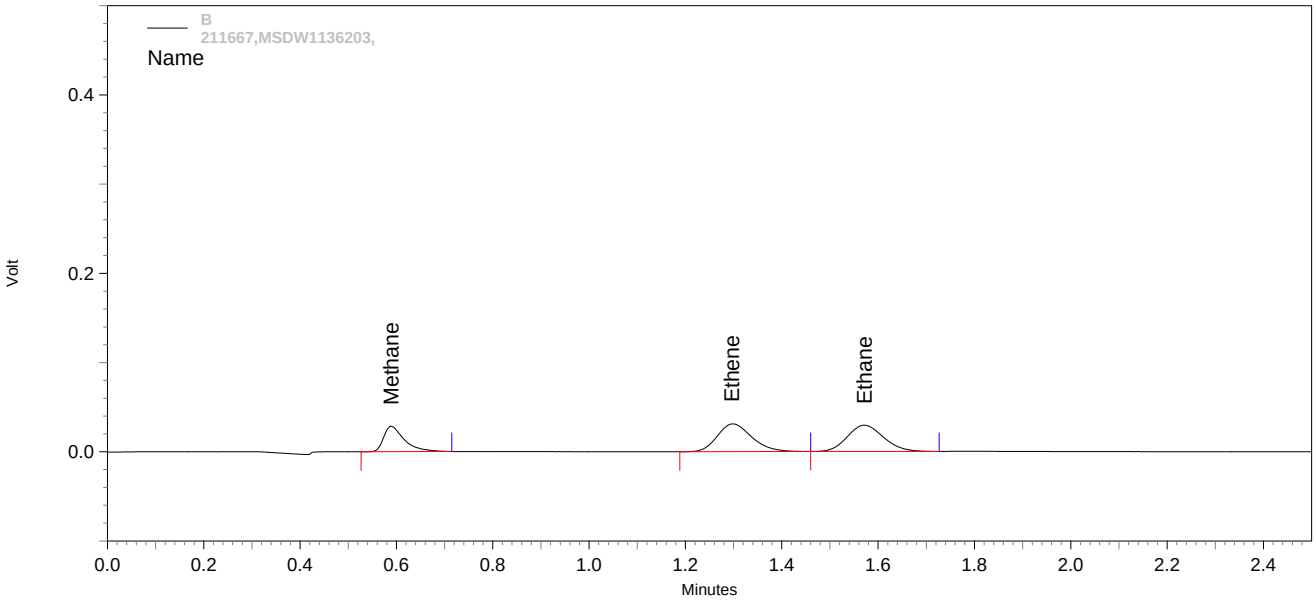
B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	**Methane**	**0.586**	**0.574**	**76310**	**19.589**	**ppmV**
2	**Ethene**	**1.295**	**1.287**	**140298**	**19.756**	**ppmV**
3	**Ethane**	**1.569**	**1.559**	**139754**	**19.438**	**ppmV**

Dissolved Gases External Standard Report

PVOC4

Data File: C:\InStarch\PVOC4\Data\050422 -\008.dat
Method Name: C:\Instarch\PVOC4\Methods\P4DG070121.met
Sample ID: 211667,MSDW1136203,
Acquired: May 04, 2022 09:22:28
File Desc. MATRIX SPIKE DUPLICATE 1mL injection (Methane, Ethene, Ethane)



B Results

Pk #	*Name*	*Retention Time*	*Expected RT*	*Area*	*Concentration*	*Units*
1	Methane	0.589	0.574	84744	21.771	ppmV
2	Ethene	1.297	1.287	154399	21.751	ppmV
3	Ethane	1.572	1.559	153717	21.412	ppmV

VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS

VOC 8260 QSM WATER 5.0 Analytical Run
211603 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139501						VOC 8260 QSM WATER 5.0				
				BFB				0			
	1138907						VOC 8260 QSM WATER 5.0				
				LCSW				0			
	1138908						VOC 8260 QSM WATER 5.0				
				CCV				0			
	1139090						VOC 8260 QSM WATER 5.0				
				MBW				0			
169156	1136202		4/26/2022 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		M	4	
		TB1									
169199	1136587		4/28/2022 00:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		M	4	
		TB2									
169227	1137437		4/29/2022 08:00		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		M	4	
		TB3									
169156	1136203		4/26/2022 08:21		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		13MW5		Designated MS/MSD							
	1139347						VOC 8260 QSM WATER 5.0				
				CCVF				0			
	1139502						VOC 8260 QSM WATER 5.0				
				BFB				0			
	1139500						VOC 8260 QSM WATER 5.0				
				CCV				0			
	1139717						VOC 8260 QSM WATER 5.0				
				CCB				0			
169156	1136204		4/26/2022 09:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		13MW4									
169156	1136205		4/26/2022 10:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		13MW3									
169156	1136206		4/26/2022 11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49MW04									
169156	1136207		4/26/2022 11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49TW04									
169156	1136208		4/26/2022 12:47		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		13MW2									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Volatiles C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp41DF.tmp Page 1 of 1

VOC 8260 QSM WATER 5.0 Analytical Run
211603 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136213		4/27/2022	08:32			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49MW05											
169156	1136214		4/27/2022	11:32			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49MW02											
169156	1136216		4/27/2022	14:04			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		48MW2											
169156	1136217		4/27/2022	15:37			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		48MW6											
169199	1136588		4/28/2022	09:48			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		50MW2											
169199	1136671		4/28/2022	09:48			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		50TW2											
169199	1136672		4/28/2022	12:26			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49MW01											
169199	1136673		4/28/2022	13:56			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		49MW03											
169199	1136674		4/28/2022	15:20			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		48MW7											
169227	1137438		4/29/2022	08:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	4	
		48MW1											
	1139722		4/26/2022	08:21					VOC 8260 QSM 5.0				
		13MW5			MSW	1136203				0			
	1139723		4/26/2022	08:21					VOC 8260 QSM 5.0				
		13MW5			MSDW	1139722				0			
	1139724								VOC 8260 QSM WATER 5.0				
					CCVF					0			
	1140447								VOC 8260 QSM WATER 5.0				
					BFB					0			
	1139733								VOC 8260 QSM WATER 5.0				
					CCV					0			
	1140062								VOC 8260 QSM WATER 5.0				
					CCB					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp41DF.tmp Page 1 of 1

VOC 8260 QSM WATER 5.0 Analytical Run
211603 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136215		4/27/2022	12:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	VOC 8260 QSM 5.0		GW	**4**	
		48MW3										
	1140124							VOC 8260 QSM WATER 5.0				
					CCVF				0			

35 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\MAY0522\BFB1.D
Injection Date : 5 May 2022 Log Time Period (hrs) : ALL
Injection Time : 07:12 Total files within period : 40
Sample Directory : C:\INSTARCH\DATA\MAY0522\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
IB1	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	5 May 2022	07:26
CCV-LCS1	1.00	1.00	1.00	211603,LCSW, 10.0/100 ug/L, 5.0 m	5 May 2022	07:54
IB2	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	5 May 2022	08:24
MB1	1.00	1.00	1.00	211603,MBW, pH<2,5.0 mL DI H20 P	5 May 2022	08:55
1136202	1.00	1.00	1.00	211603,1136202, pH<2,5.0 mL DI H20 P	5 May 2022	09:23
1136587	1.00	1.00	1.00	211603,1136587, pH<2,5.0 mL DI H20 P	5 May 2022	09:53
1137437	1.00	1.00	1.00	211603,1137437, pH<2,5.0 mL DI H20 P	5 May 2022	10:22
1136203	1.00	1.00	1.00	211603,1136203, pH<2,5.0 mL DI H20 P	5 May 2022	10:52
CCVF1	1.00	1.00	1.00	211603,CCVF, 10.0/100 ug/L, 5.0 m	5 May 2022	11:21
BFB2	1.00	1.00	1.00	BFB DIRECT INJ. 50 ng Inj.	5 May 2022	11:45
IB3	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	5 May 2022	11:59
CCV2	1.00	1.00	1.00	211603,CCV, 10.0/100 ug/L, 5.0 m	5 May 2022	12:28
IB4	1.00	1.00	1.00	INSTRUMENT BLANK 5.0 mL DI H20 Purged	5 May 2022	12:57
CCB1	1.00	1.00	1.00	211603,CCB, pH<2,5.0 mL DI H20 P	5 May 2022	13:26
1136204	1.00	1.00	1.00	211603,1136204, pH<2,5.0 mL DI H20 P	5 May 2022	13:55
1136205	1.00	1.00	1.00	211603,1136205, pH<2,5.0 mL DI H20 P	5 May 2022	14:24
1136206	1.00	1.00	1.00	211603,1136206, pH<2,5.0 mL DI H20 P	5 May 2022	14:53
1136207	1.00	1.00	1.00	211603,1136207, pH<2,5.0 mL DI H20 P	5 May 2022	15:22
1136208	1.00	1.00	1.00	211603,1136208,	5 May 2022	15:51

				pH<2,5.0 mL DI H20 P	
1136213	1.00	1.00	1.00	211603,1136213,	5 May 2022 16:20
				pH<2,5.0 mL DI H20 P	
1136214	1.00	1.00	1.00	211603,1136214,	5 May 2022 16:49
				pH<2,5.0 mL DI H20 P	
1136215	1.00	1.00	1.00	211603,1136215,5	5 May 2022 17:18
				pH<2,5.0 mL DI H20 P	
1136216	1.00	1.00	1.00	211603,1136216,	5 May 2022 17:47
				pH<2,5.0 mL DI H20 P	
1136217	1.00	1.00	1.00	211603,1136217,	5 May 2022 18:15
				pH<2,5.0 mL DI H20 P	
1136588	1.00	1.00	1.00	211603,1136588,	5 May 2022 18:45
				pH<2,5.0 mL DI H20 P	
1136671	1.00	1.00	1.00	211603,1136671,	5 May 2022 19:14
				pH<2,5.0 mL DI H20 P	
1136672	1.00	1.00	1.00	211603,1136672,	5 May 2022 19:43
				pH<2,5.0 mL DI H20 P	
1136673	1.00	1.00	1.00	211603,1136673,	5 May 2022 20:13
				pH<2,5.0 mL DI H20 P	
1136674	1.00	1.00	1.00	211603,1136674,	5 May 2022 20:42
				pH<2,5.0 mL DI H20 P	
1137438	1.00	1.00	1.00	211603,1137438,	5 May 2022 21:11
				pH<2,5.0 mL DI H20 P	
1136203M	1.00	1.00	1.00	211603,MSW1136203,	5 May 2022 21:40
				pH<2,5.0 mL DI H20 P	
1136203S	1.00	1.00	1.00	211603,MSDW1136203,	5 May 2022 22:10
				pH<2,5.0 mL DI H20 P	
CCVF2	1.00	1.00	1.00	211603,CCVF,	5 May 2022 22:39
				10.0/100 ug/L, 5.0 m	
BFB3	1.00	1.00	1.00	BFB DIRECT INJ.	6 May 2022 07:12
				50 ng Inj.	
IB5	1.00	1.00	1.00	INSTRUMENT BLANK	6 May 2022 07:25
				5.0 mL DI H20 Purged	
CCV3	1.00	1.00	1.00	211603,CCV,	6 May 2022 07:54
				10.0/100 ug/L, 5.0 m	
IB6	1.00	1.00	1.00	INSTRUMENT BLANK	6 May 2022 08:24
				5.0 mL DI H20 Purged	
CCB2	1.00	1.00	1.00	211603,CCB,	6 May 2022 08:54
				pH<2,5.0 mL DI H20 P	
1136215R	1.00	1.00	1.00	211603,1136215,	6 May 2022 09:24
				pH<2,5.0 mL DI H20 P	
CCVF3	1.00	1.00	1.00	211603,CCVF,	6 May 2022 09:53
				10.0/100 ug/L, 5.0 m	

8260 ISTD/SSTD 20ug/ml VOC0945
8260 BFB STD. 50ug/ml VOC0944
8260 ICV STD. 100ug/ml VOC0950
8260 CCV/CALIB. 100ug/ml VOC0951

Injection Log Summary Report

Method : C:\INSTARCH\METHODS\W042822.M
Title : 8260C Waters Method
Start (Tune) File ID : C:\INSTARCH\DATA\APR2822\BFB1.D
Injection Date : 28 Apr 2022 Log Time Period (hrs) : ALL
Injection Time : 13:26 Total files within period : 17
Sample Directory : C:\INSTARCH\DATA\APR2822\

Injection Log Summary Table

File ID	Multiplier I	S	T	Sample Name / Misc Info	Date	Time
WCAL1	1.00	1.00	1.00	INITIAL CALIB. PT1 0.5/5.0 ug/L, 5.0 mL	28 Apr 2022	14:39
WCAL2	1.00	1.00	1.00	INITIAL CALIB. PT2 1.00/10.00 ug/L, 5.0	28 Apr 2022	15:09
WCAL3	1.00	1.00	1.00	INITIAL CALIB. PT3 2.00/20.0 ug/L, 5.0	28 Apr 2022	15:39
WCAL4	1.00	1.00	1.00	INITIAL CALIB. PT4 5.00/50.0 ug/L, 5.0	28 Apr 2022	16:09
WCAL5	1.00	1.00	1.00	INITIAL CALIB. PT5 10.0/100.0 ug/L, 5.0	28 Apr 2022	16:38
WCAL6	1.00	1.00	1.00	INITIAL CALIB. PT6 20.0/200.0 ug/L, 5.0	28 Apr 2022	17:08
WCAL7	1.00	1.00	1.00	INITIAL CALIB. PT7 30.0/300.0 ug/L, 5.0	28 Apr 2022	17:38
WCAL8	1.00	1.00	1.00	INITIAL CALIB. PT8 40.0/400.0 ug/L, 5.0	28 Apr 2022	18:08
WCAL9	1.00	1.00	1.00	INITIAL CALIB. PT9 80.0/800.0 ug/L, 5.0	28 Apr 2022	18:37
ICV1	1.00	1.00	1.00	INITIAL CALIB. VERIF 10.0/100 ug/L, 5.0 m	28 Apr 2022	19:37
ICV2	1.00	1.00	1.00	INITIAL CALIB. VERIF 30.0/300 ug/L, 5.0 m	28 Apr 2022	20:08
ICB1	1.00	1.00	1.00	INITIAL CALIB. BLANK 5.0 mL DI H20 Purged	28 Apr 2022	21:36

8260 ISTD/SSTD 20ug/ml VOC0945
8260 BFB STD. 50ug/ml VOC0944
8260 ICV STD. 100ug/ml VOC0950
8260 CCV/CALIB. 100ug/ml VOC0951

FVO4-01 Data Review Checklist

FORM #: FVO4-01
Rev. #: 2.2
Effective Date: 08/05/19

INDEPENDENT DATA REVIEW CHECKLIST			Method: GCMS (EPA SW-846 8260C)					
Analysis Date	**LIMS Run #(s):**	**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved?**			**Instrument**
					Yes	No		
05/05/2022	211603	DGS	RLD	05/06/2022				VMS3

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	
I. BFB Tune Check						
Was a BFB tune check analyzed with acceptable results?	Relative abundance criteria met?	Yes		Yes		
II. Initial Calibration Verification (ICV)						
Was initial calibration performed using a minimum of five standard concentration levels (minimum of 6 levels for quadratic curves)?	Lowest standard at or below RL?	Yes		Yes		
Were the Average Relative Response Factors (ARRF) acceptable?	ARRF<or= specified limits (<15%D.)see SOP)	Yes		Yes		
Was a second-source ICV(s) analyzed (for Quadratic Curve)?	Required before sample analyses.	Yes		Yes		
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
Was Initial Calibration Blank (ICB) analyzed?	Required before sample analyses.	Yes		Yes		
Were the ICB results for all target analytes less than the limit of detection (LOD).	<LOD or < project/program specific limits	Yes		Yes		
III. Continuing Calibration Verification (CCV)						
Was an acceptable BFB tune check run at the beginning of every twelve hour shift?	Relative abundance criteria met?	Yes		Yes		
Was a CCV analyzed after every 12 hour tune check?	Required before sample analyses.	Yes		Yes		
Was a second CCV (CCV2) for compounds calibrated using quadratic curves analyzed after every 12 hour tune check?	Required before analyses of WI samples (above the inflection point of the curve).					
Were all target compound %Deviation or %Drift acceptable?	%D < 20% or project/program specific	Yes		Yes		
If necessary, were the results for outlying compounds qualified?						

IV. Blanks						
Was a Method Blank (MB) analyzed prior to analysis of samples?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MB results for all target analytes less than the limit of detection (LOD)?	*All target analytes <LOD or < project/program specific limits (<1/2 RL for DoD-QSM)	Yes		Yes		
If analytes were detected in the MB with no associated positives in the samples, no further action is needed. If the analyte detects in the MB were greater than the acceptance criteria and there were detects in the samples, was the data qualified.?						
V. Laboratory Control Spike (LCS)						
Was a LCS (and LCSD if needed) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the LCS (LCSD) recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
If applicable, were associated sample detects (and non-detects for low recoveries) qualified?						
Is the relative percent difference (RPD) for each analyte between the LCS and LSCD (if applicable) acceptable?	Default 20%, or see internally generated limits, or client specific limits.					
VI. Matrix Spike/Matrix Spike Duplicate (MS/MSD)						
Was a Martrix Spike (MS) and a Matrix Spike Duplicate (MSD) analyzed at the required frequency?	1 per 20 samples or project/program specific.	Yes		Yes		
Were the MS/MSD recoveries for all analytes within acceptance criteria?	Default 70-130%, or see internally generated limits, or project/program specified limits.	Yes		Yes		
Is the relative percent difference (RPD) for each analyte between the MS and MSD acceptable?	Default 20%, or see internally generated limits, or client specific limits.	Yes		Yes		
VII. Sample Analyses						
Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
Were surrogate recoveries for all samples and QC within acceptance criteria?	Default 70-130%, or see internally generated program limits, or client specified limits.	Yes		Yes		
If possible, were the affected samples reanalyzed?						
**Were reported sample results with failing surrogate recoveries qualified?						
Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed? If not qualify (X).	Target upper middle range of calibration curve.					
Did all samples meet hold time and preservation criteria as defined by method/program?	H2O sample: pH < 2 = 14 days, pH >2 = 7 days. Soil samples: 14 days (other criteria may apply)	Yes		Yes		
Were all samples and QC injected within 12 hours of BFB tune check?		Yes		Yes		
Were internal standard recoveries acceptable relevant to associated ICAL?	Response = -50 to +200%; Ret. time = +/- 30 sec.	Yes		Yes		

VIII. Records and Reporting						
Is sequence file / injection log present in the data package?		Yes		Yes		
Were all data, calculations, and values verified in LIMS (including removal of non-detections) upon completion of data capture?		Yes		Yes		
Were manual integrations performed correctly?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms.	Yes		Yes		
Was the rational for the manual integration verified?		Yes		Yes		
Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

ᵏNon-Applicable Yes/No Cells Are Left Blank*

Comments:

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0956	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0984 into 2925uL of MeOH.	MeOH / B&J / DZ880-U	50 ug/mL	05/09/2022	06/09/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0957	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0997 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0978 into 25mL of MeOH.	MeOH / B&J / DZ880-U	20 ug/mL	05/09/2022	06/09/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0958	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1015, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1012 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	05/09/2022	05/16/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC959	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1016, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1013 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	05/09/2022	05/16/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0950	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1015, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1012 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/26/2022	05/03/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0951	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1016, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1013 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/26/2022	05/03/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0948	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1015, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1012 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/14/2022	04/22/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0949	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1016, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1013 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/14/2022	04/22/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0944	8260 BFB Std.	75uL of 2,000 ug/mL 4-Bromofluorobenzene Std. V0984 into 2925uL of MeOH.	MeOH / B&J / DZ880-U	50 ug/mL	04/05/2022	05/05/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0945	8260 ISTD/SSTD	200uL of 2,500 ug/mL 8260 Istd./Sstd. Mix V0991 and 250uL of 2000 ug/mL 1,2-Dichlorobenzene-$_{d4}$ Std. V0978 into 25mL of MeOH.	MeOH / B&J / DZ880-U	20 ug/mL	04/05/2022	05/05/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0946	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1015, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1012 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/05/2022	04/12/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0947	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1016, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1013 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	04/05/2022	04/12/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0942	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1015, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1012 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	03/27/2022	04/01/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0943	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1016, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1013 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	03/27/2022	04/01/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0940	8260 ICV/Spiking Std.	150uL of 2,000 ug/mL VOC Mix V1008, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1006, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1004 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	03/17/2022	03/24/2022	RLD

Standard ID #	Standard Prepped	Prep	Solvent / Lot #	Final Concentration	Prep Date	Expiration Date	Analyst
VOC0941	8260 CCV/Calib. Std.	150uL of 2,000 ug/mL VOC Mix V1003, 300uL of 1,000/10,000 ug/mL VOC 8260 Additions Std. V1007, and 300uL of 1,000/10,000 ug/mL 8260 Special Additions Std. V1005 into 2250uL of MeOH.	MeOH / B&J / DZ880-U	100 ug/mL	03/17/2022	03/24/2022	RLD

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1015	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	AA220214013
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	05/15/2022	03/22/2022	RLD
# of Ampules/Units:	2	Comments:	Used to prepare 8260 ICV/Spiking standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1016	VOC 8260 Additions	SPEX CertiPrep	VO-CTWI-12	
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 10,000 ug/mL	MeOH	06/09/2022	03/25/2022	RLD
# of Ampules/Units:	2	Comments:	Used to prepare 8260 CCV/Calib. standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1012	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	MP220215014
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	08/14/2022	02/25/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 ICV/Spiking standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1013	VOC 8260 Special Additions	SPEX CertiPrep	VO-CTWI-5	SM220222017
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
1,000 - 50,000 ug/mL	MeOH	08/21/2022	02/25/2022	RLD
# of Ampules/Units:	2	Comments:	Used for 8260 CCV/Calib. standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1008	8260 VOC Mix	AccuStandard	M-502-10X-PAK	221071133
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	07/13/2024	12/14/2021	RLD
# of Ampules/Units:	5	Comments:	Used for 8260 ICV/Spking Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1002	4-Bromofluorobenzene	Agilent	STS-110N	0006629793
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	09/30/2028	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 BFB Std. and PVOC/GRO SSTD. preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V1003	8260 VOC Mix	Agilent	DWM-588-1	0006602588
Concentration	Neat (% purity) or Solvent	Expiration Date	Date Received	Analyst
2,000 ug/mL	MeOH	05/31/2024	11/05/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 CCV/Calib. Standard preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0991	8260 ISTD/SSTD Mix	Agilent	STM-540	0006595713
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,500 ug/mL	MeOH	04/30/2024	05/24/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8260 IS/SS standard mix preparation.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0984	4-Bromofluorobenzene	Agilent	STS-110N	0006476760
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	07/31/2022	03/18/2021	RLD
# of Ampules/Units:	4	Comments:	Used to prepare 8260 tuning standard and 8021 surrogate standard.	

Standard ID #	Compound/Standard Name	Supplier/Manufacturer	Standard Part #	Standard Lot #
V0978	1,2-Dichlorobenzene-$_{d4}$	Agilent	STS-210-1	0006552847
Concentration	**Neat (% purity) or Solvent**	**Expiration Date**	**Date Received**	**Analyst**
2,000 ug/mL	MeOH	09/30/2024	01/14/2021	RLD
# of Ampules/Units:	4	Comments:	Used for 8015/8260 SSTD preparation.	

V METH, ETH, ETHENE QSM 5.0 Analytical Run
211667 on 5/4/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138464						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			
	1138361						METH,ETH,ETHE QSM 5.0				
				LCSW				95280			
	1138360						METH,ETH,ETHE QSM 5.0				
				MBW				95280			
169156	1136203		4/26/2022 08:21		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW5		Designated MS/MSD				95280			
	1138358		4/26/2022 08:21				METH,ETH,ETHE QSM 5.0				
		13MW5		MSW 1136203				95280			
	1138359		4/26/2022 08:21				METH,ETH,ETHE QSM 5.0				
		13MW5		MSDW 1138359				95280			
169156	1136204		4/26/2022 09:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW4						95280			
169156	1136205		4/26/2022 10:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW3						95280			
169156	1136206		4/26/2022 11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW04						95280			
169156	1136207		4/26/2022 11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49TW04						95280			
169156	1136208		4/26/2022 12:47		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		13MW2						95280			
169156	1136213		4/27/2022 08:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW05						95280			
169156	1136214		4/27/2022 11:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW02						95280			
169156	1136215		4/27/2022 12:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW3						95280			
169156	1136216		4/27/2022 14:04		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW2						95280			
	1138465						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			

Page 459

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

V METH, ETH, ETHENE QSM 5.0 Analytical Run
211667 on 5/4/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136217		4/27/2022 15:37		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW6						95280			
169199	1136588		4/28/2022 09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		50MW2						95280			
169199	1136671		4/28/2022 09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		50TW2						95280			
169199	1136672		4/28/2022 12:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW01						95280			
169199	1136673		4/28/2022 13:56		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		49MW03						95280			
169199	1136674		4/28/2022 15:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW7						95280			
169227	1137438		4/29/2022 08:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	METH,ETH,ETHE QSM 5.0		GW	4	
		48MW1						95280			
	1138466						V METH, ETH, ETHENE QSM 5.0				
				CCV				0			

24 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PrepWrkSht
on 5/4/2022

Prep Batch **95,280** Date Prepped: 5/4/2022 Prepped By:: DGS

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	1138360	MBW		METH,ETH,ETHE QSM 5.0	LIQUID	22.5				
	1138361	LCSW		METH,ETH,ETHE QSM 5.0	LIQUID	22.5				
169156	1136203	sample designated for QC		METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136204			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136205			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136206			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136207			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136208			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136213			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136214			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136215			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136216			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136217			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
169199	1136588			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136671			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136672			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136673			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1136674			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
169227	1137438			METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5			4	
	1138358	MSW	1136203	METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5				
	1138359	MSDW	1138358	METH,ETH,ETHE QSM 5.0	GROUND WATER	22.5				

Notes:_____

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 5/4/2022 **Instrument:** PVOC 4

Calibration Date: 7/01/2022 **Analyst:** DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	1.0	43	22.5	/
2	CCV	0.25	43	22.5	/
3	LCS	1.0	43	22.5	/
4	MB	1.0	43	22.5	/
5	1136203	1.0	43	22.5	<2
6	MS1136203	1.0	43	22.5	<2
7	MS1136203	1.0	43	22.5	<2
8	MSD1136203	1.0	43	22.5	<2
9	1136204	1.0	43	22.5	<2
10	1136205	1.0	43	22.5	<2
11	1136206	1.0	43	22.5	<2
12	1136207	1.0	43	22.5	<2
13	1136208	1.0	43	22.5	<2
14	1136213	1.0	43	22.5	<2
15	1136214	1.0	43	22.5	<2
16	1136215	1.0	43	22.5	<2
17	1136216	1.0	43	22.5	<2
18	CCV	0.25	43	22.5	/
19	CCB	1.0	43	22.5	/
20	1136217	1.0	43	22.5	<2
21	1136588	1.0	43	22.5	<2
22	1136671	1.0	43	22.5	<2
23	1136672	1.0	43	22.5	<2
24	1136673	1.0	43	22.5	<2
25	1136674	1.0	43	22.5	<2

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0846

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 5/4/2022 **Instrument:** AVOC4

Calibration Date: 7/01/2022 **Analyst:** DGS

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
26	1137438	1.0	43	22.5	<2
27	CCV	0.25	43	22.5	/
28			43		
29			43		
30			43		
31			43		
32			43		
33			43		
34			43		
35			43		
36			43		
37			43		
38			43		
39			43		
40			43		
41			43		
42			43		
43			43		
44			43		
45			43		
46			43		
47			43		
48			43		
49			43		
50			43		

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0846

Page 1

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\050422 - 211667.seq
Instrument: PVOC4
Processing Date: May 04, 2022 11:06:18

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
2	211667,CCV,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 08:47:08
3	211667,LCSW,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 08:57:22
4	211667,MBW,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:02:23
5	211667,1136203,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:05:58
6	211667,MSW1136203,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:11:04
7	211667,MSW1136203,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:15:58
8	211667,MSDW1136203,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:22:28
9	211667,1136204,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:26:30
10	211667,1136205,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:30:19
11	211667,1136206,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:42:02
12	211667,1136207,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:46:01
13	211667,1136208,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:50:55
14	211667,1136213,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:55:20
15	211667,1136214,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 09:58:57
16	211667,1136215,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:03:20
17	211667,1136216,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:07:14
18	199558,CCV,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:10:58
19	211667,CCB,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:14:39
20	211667,1136217,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:38:20
21	211667,1136588,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:42:14
22	211667,1136671,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:46:26
23	211667,1136672,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:50:59
24	211667,1136673,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:55:11
25	211667,1136674,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 10:59:00
26	211667,1137438,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 11:02:32
27	211667,CCV,	C:\InStarch\PVOC4\Data\050422 ...	C:\Instarch\PVOC4\Methods\P4...	May 04, 2022 11:06:18

FVO1-01 Data Review Checklist

	FVO1-01 Method: Dissolved Gases (EPA SW-846 8015 / RSK 175 Modified)					
LIMS Run #(s)	**Analysis Date (s)**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**	**Instrument**
211667	05/04/2022	DGS	RLD	05/05/2022	Yes	PVOC4

Instructions: Complete one checklist per *analytical sequence*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
1. INITIAL CALIBRATION (ICAL)		**Yes**	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
a. Was the initial calibration performed using a minimum of five concentration levels?	Lowest standard at or below RL	Yes		Yes		
b. For each analyte/component is the variation between calibration response factors for all concentration levels <20% RSD or is $r^2 \geq .99$ or $r \geq .995$ for the regression line?	RSD <20% or $r^2 \geq .99$ or $r \geq .995$ or program/project specific	Yes		Yes		
c. Are the identification and date of the ICAL listed on the printout (or PDF) of the analytical run and in the method file?	ID# and date of ICAL listed	Yes		Yes		
d. Was an Initial Calibration Verification (ICV) analyzed after the ICAL?	Analyzed prior to sample analyses	Yes		Yes		
e. Were the recoveries for each analyte in the ICV within required limits?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
f. Was an Initial Calibration Blank (ICB) analyzed?		Yes		Yes		
g. Were the ICB results for all target analytes/components less than the reporting limit (RL)?	<RL or < program/project specific	Yes		Yes		
2. CONTINUING CALIBRATION VERIFICATION (CCV)						
a . Was a CCV analyzed at the beginning and end of a sequential analysis run, as well as after ever 10 samples?		Yes		Yes		
b. Were the recoveries for each analyte/component in the CCV within acceptance criteria?	Recoveries 85 - 115% or within program/project specific limits	Yes		Yes		
3. METHOD BLANKS (MB)						
a. Was a method blank (MB) analyzed?	1 / 20 or program/project specific	Yes		Yes		
b. Were the MB results for all analytes/components less than reporting limit?	All target analytes/components <RL or within program/project specific limits (DoD-QSM: <1/2 the RL)	Yes		Yes		
4. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at the required frequency?	1 / 20 or program/project specific	Yes		Yes		
b. Were LCS recoveries for all analytes within the acceptance criteria?	Default = 70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
c. If LCS recoveries exceed acceptance criteria, was the LCS reanalyzed in an effort to eliminate the possibility of a preparation error?		Yes		Yes		

5. MATRIX SPIKE (MS)/ MATRIX SPIKE DUPLICATES (MSD) and DUPLICATE						
a. Was a MS, MSD, and/or Duplicate (if valid) Vial analyzed with each batch of 20 samples (or program-specified frequency)?	1 / 20 or program/project specific frequency (QSM samples, duplicate only valid if sample result ≥ 5x the LOQ)	Yes		Yes		
b. Were MS/MSD recoveries for all analytes within acceptance criteria?	Default =70-130%, or within In-house generated or program/project specific limits	Yes		Yes		
6. PRECISION						
a. Is the relative percent difference (RPD) for each analyte between duplicate QC samples (i.e. parent sample / Duplicate vial), or for each MS/MSD within the acceptance criteria?	Default = 20 % RPD, or within In-house generated or program/project specific limits	Yes		Yes		
7. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed or reanalyzed using a smaller sample aliquot? Affected analyte detects should remain above the limit of quantitation (LOQ) after reanalysis.		Yes		Yes		
c. Was the correct ambient temperature recorded on sample spreadsheets?		Yes		Yes		
d. Were all samples adequately preserved and analyzed within holding time?	CO_2 samples received unpreserved (analyze within 7 days or program/project specific) Methane, Ethene, Ethane samples received preserved to <2 (analyze within 14 days or program/project specific)	Yes		Yes		
8. RECORDS AND REPORTING						
a. Is a sequence run file present in the raw data file?		Yes		Yes		
b. Is the data initialed and dated by analyst?	Analysis Run sheet is initialed & dated by the analyst processing the raw data.	Yes		Yes		
c. Do all values, units, etc. listed match the raw data and associated calculations and records?		Yes		Yes		
e. Has the data been electronically transferred to the LIMS and were the applicable qualifiers assigned?		Yes		Yes		
f. Were manual integrations addressed properly and were the audit trails turned on (where applicable)?	Manual integration must be initialed, dated, and reason given, along with before & after chromatograms. Audit trail must be on (if available).	Yes		Yes		
g. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, were any non-matrix related nonconformities documented in the NCR spreadsheet?		Yes		Yes		

* Non-Applicable Yes/No Cells Are Left Blank*

Comments:

Sequence Summary Report

Sequence Filename: C:\INSTARCH\PVOC4\Sequence\070121 - MEE ICAL.seq
Instrument: PVOC4
Processing Date: Jul 01, 2021 11:06:20

'Run Number	Sample ID	Data Filename	Method Filename	Run Time
1	MEE PT1 - 2 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:09:22
2	MEE PT2 - 5 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:19:07
3	MEE PT3 - 10 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:24:05
4	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:38:00
5	MEE PT5 - 50 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:41:21
6	MEE PT6 - 100 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:45:28
7	MEE PT7 - 200 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\INSTARCH\PVOC4\Method...	Jul 01, 2021 09:48:59
8	MEE PT4 - 20 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 09:59:16
9	MEE PT7 - 200 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:04:41
10	ICV - 50 ppmV	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:24:08
11	ICB	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 10:29:15
12	ICB	C:\Instarch\PVOC4\Data\070121i...	C:\Instarch\PVOC4\Methods\P4...	Jul 01, 2021 11:06:20

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 7/1/2021 **Instrument:** PVOC4

Calibration Date: 7/1/2021 **Analyst:** KMT

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PT 1	0.01	43		
2	PT 2	0.025	43		
3	PT 3	0.05	43		
4	PT 4	0.1	43		
5	PT 5	0.25	43		
6	PT 6	0.5	43		
7	PT 7	1.0	43		
8	PT 4	0.1	43		
9	PT 7	1.0	43		
10	ICV	0.25	43		
11	ICB	1.0	43	20.1	
12	ICB	1.0	43	20.1	
13			43	~~20.1~~ KMT 7/1/21	
14			43		
15			43		
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

N/A KMT 7/1/21

Calibration Standard Ref. #: VOC 0845

Second Source Ref. #: VOC 0846

① N/A KMT 7/1/21

Dissolved Gases (Injection)

(Sequence Log)

Sequence Date: 5/19/2021 **Instrument:** PVOC4

Calibration Date: 5/19/2021 **Analyst:** KMT

Injection #	Sample #	Injection Vol. (ml)	Sample Vol. (ml)	Sample Temp. (°C)	pH
1	PS	0.25	43	①	
2	CCV	0.25	43		
3	LCSW	1	43	23.6	①
4	MBW	1	43	23.6	
5	RECERT 1	0.25	43		
6	RECERT 2	0.25	43		
7	RECERT 3	0.25	43	①	
8	RECERT 4	0.25	43		
9	CCV	0.25	43		
10			43		
11			43		
12			43		
13			43		
14			43		
15		①	43		
16			43		
17			43		
18			43		
19			43		
20			43		
21			43		
22			43		
23			43		
24			43		
25			43		

Calibration Standard Ref. #: VOC0845

Second Source Ref. #: VOC0846

① N/A KMT 5/19/21

Page 1

LSVO1-01
Volatiles Standards Logbook
Logbook Created: 12/08/2015

NOTEBOOK VIEW: LTN_LSVO1_01_VOC_Default, NOTEBOOK: LSVO1_01_VOC, PAGE: 64
Page is Locked
Author: rdigmann on: 5/25/2018 7:47:52 AM
Witness: akurth on: 7/31/2018 9:54:19 AM
Project: Unassigned
Page Title: 05/24/18

Standard Log #:	VO886	Standard/Reagent:	Methane Ethene Ethane STI
Analyst:	AGK	Final Concentration:	200.0 PPM
Prep Date:	05/24/18	Expiration Date:	05/17/21
Prep:	Airgas Methane, Ethene, Ethane Standard Received 05/24/18 LOT# 54-401204472-1 REF# 54-401204472-1 Cylinder # P180959		

Standard Log #:	VOC0845	Standard/Reagent:	MEE GAS STANDARD
Analyst:	KMT	Final Concentration:	200 ppmV
Prep Date:	05/19/2021	Expiration Date:	04/14/2024
Prep:	AIRGAS PART: X04HE99C353Q80 LOT: 54-402075924-1		

Standard Log #:	VOC0846	Standard/Reagent:	MEE RECERTIFICATION O
Analyst:	KMT	Final Concentration:	N/A
Prep Date:	05/19/2021	Expiration Date:	05/19/2022
Prep:	Recertification of methane, ethane, ethane tank (V0886). Ran 4 consecutive CCV's with acceptable recoveries.		

Airgas
an Air Liquide company

Recert VOC0846 5/19/2022 EXP: 5/19/2022 KMT

Expires 5/17/21 VO 886 AGK 5/24/18

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-401204472-1
Cylinder Number:	P180959	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	May 17, 2018	Valve Outlet:	350
Lot Number:	54-401204472-1		

Expiration Date: May 17, 2021

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	198.9 PPM	+/- 2%
ETHYLENE	200.0 PPM	198.3 PPM	+/- 2%
METHANE	200.0 PPM	198.3 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

VOC0845 Expires: 7/17/2024
KMT
5/19/2021

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04HE99C353Q80	Reference Number:	54-402075924-1
Cylinder Number:	N698768	Cylinder Volume:	31.6 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2013 PSIG
Analysis Date:	Apr 14, 2021	Valve Outlet:	350
Lot Number:	54-402075924-1		

Expiration Date: Apr 14, 2024

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	200.0 PPM	199.8 PPM	+/- 2%
ETHYLENE	200.0 PPM	207.3 PPM	+/- 2%
METHANE	200.0 PPM	200.2 PPM	+/- 2%
HELIUM	Balance		

Approved for Release

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 7470A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211699	Analysis Date/Time	05/04/2022 10:41
Analytical Prep Batch #:	95243	Prep. Date/Time:	05/03/2022 14:15
ICAL Calibration #:	05042022	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 6010C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211628	Analysis Date/Time	05/09/2022 12:34
Analytical Prep Batch #:	95267	Prep. Date/Time:	05/02/2022 09:24
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 6010C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211628	Analysis Date/Time	05/03/2022 22:11
Analytical Prep Batch #:	95267	Prep. Date/Time:	05/02/2022 09:24
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	329	Y	29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	34.9		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	67800		17	50	100	100
7440-47-3	Total Chromium	3.4	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	0.67	J	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	5.3	J	5.2	20	40	40
7439-89-6	Total Iron	678		11	40	80	80
7439-92-1	Total Lead	3.1	J	1.4	2.0	4.0	4.0
7439-95-4	Total Magnesium	32800		10	25	40	40
7439-96-5	Total Manganese	81.2		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	1810		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-23-5	Total Sodium	27100		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	51.2		4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 7470A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211699	Analysis Date/Time	05/04/2022 10:38
Analytical Prep Batch #:	95243	Prep. Date/Time:	05/03/2022 14:15
ICAL Calibration #:	05042022	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers		DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	M,Y	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 6010C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211581	Analysis Date/Time	05/09/2022 13:18
Analytical Prep Batch #:	95236	Prep. Date/Time:	04/29/2022 10:19
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 6010C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211581	Analysis Date/Time	05/03/2022 15:57
Analytical Prep Batch #:	95236	Prep. Date/Time:	04/29/2022 10:19
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	171		29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	78.5		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	58700		17	50	100	100
7440-47-3	Total Chromium	3.1	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.5	U	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	8.7	J	5.2	20	40	40
7439-89-6	Total Iron	209		11	40	80	80
7439-92-1	Total Lead	2.0	U	1.4	2.0	4.0	4.0
7439-95-4	Total Magnesium	24500		10	25	40	40
7439-96-5	Total Manganese	8.6		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	828		120	250	500	500
7440-23-5	Total Sodium	25800		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	51.6		4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211699

Lab Sample ID: 1139472

ICAL Calibration #: 05042022

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	5/4/22	10:19	3.0	3.02	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211699

Lab Sample ID: 1139484

ICAL Calibration #: 05042022

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	5/4/22	12:22	3.0	3.13	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1138569

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	14:26	12000	12000	100	90	110
Antimony	5/3/22	14:26	500.0	510.0	102	90	110
Arsenic	5/3/22	14:26	2000	2050	102	90	110
Barium	5/3/22	14:26	2000	2040	102	90	110
Beryllium	5/3/22	14:26	50.0	49.80	100	90	110
Cadmium	5/3/22	14:26	50.0	47.60	95	90	110
Calcium	5/3/22	14:26	10000	10300	103	90	110
Chromium	5/3/22	14:26	200.0	202.0	101	90	110
Cobalt	5/3/22	14:26	500.0	516.0	103	90	110
Copper	5/3/22	14:26	250.0	246.0	98	90	110
Iron	5/3/22	14:26	5000	5170	103	90	110
Lead	5/3/22	14:26	500.0	474.0	95	90	110
Magnesium	5/3/22	14:26	10000	10400	104	90	110
Manganese	5/3/22	14:26	500.0	507.0	101	90	110
Nickel	5/3/22	14:26	500.0	512.0	102	90	110
Selenium	5/3/22	14:26	2000	1970	98	90	110
Silver	5/3/22	14:26	50.0	45.60	91	90	110
Thallium	5/3/22	14:26	2000	2010	100	90	110
Vanadium	5/3/22	14:26	500.0	487.0	97	90	110
Zinc	5/3/22	14:26	500.0	503.0	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1138570

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)	
Aluminum	5/3/22	14:40	400.0	401.0	100	80	120	
Antimony	5/3/22	14:40	20.0	20.90	104	80	120	
Arsenic	5/3/22	14:40	20.0	20.70	104	80	120	
Barium	5/3/22	14:40	10.0	10.70	107	80	120	
Beryllium	5/3/22	14:40	4.0	4.06	102	80	120	
Cadmium	5/3/22	14:40	5.0	5.06	101	80	120	
Calcium	5/3/22	14:40	500.0	511.0	102	80	120	
Chromium	5/3/22	14:40	10.0	9.93	99	80	120	
Cobalt	5/3/22	14:40	10.0	10.60	106	80	120	
Copper	5/3/22	14:40	10.0	11.00	110	80	120	
Iron	5/3/22	14:40	300.0	307.0	102	80	120	
Lead	5/3/22	14:40	10.0	9.07	91	80	120	
Magnesium	5/3/22	14:40	500.0	548.0	110	80	120	
Manganese	5/3/22	14:40	10.0	10.30	103	80	120	
Nickel	5/3/22	14:40	10.0	10.40	104	80	120	
Selenium	5/3/22	14:40	20.0	25.00	125	80	120	FAIL
Silver	5/3/22	14:40	10.0	8.79	88	80	120	
Thallium	5/3/22	14:40	20.0	22.20	111	80	120	
Vanadium	5/3/22	14:40	10.0	9.53	95	80	120	
Zinc	5/3/22	14:40	10.0	10.30	103	80	120	

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581

Lab Sample ID: 1138574

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	5/3/22	15:34	10.0	8.04	80	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138666

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	14:26	12000	12000	100	90	110
Antimony	5/3/22	14:26	500.0	510.0	102	90	110
Arsenic	5/3/22	14:26	2000	2050	102	90	110
Barium	5/3/22	14:26	2000	2040	102	90	110
Beryllium	5/3/22	14:26	50.0	49.80	100	90	110
Cadmium	5/3/22	14:26	50.0	47.60	95	90	110
Calcium	5/3/22	14:26	10000	10300	103	90	110
Chromium	5/3/22	14:26	200.0	202.0	101	90	110
Cobalt	5/3/22	14:26	500.0	516.0	103	90	110
Copper	5/3/22	14:26	250.0	246.0	98	90	110
Iron	5/3/22	14:26	5000	5170	103	90	110
Lead	5/3/22	14:26	500.0	474.0	95	90	110
Magnesium	5/3/22	14:26	10000	10400	104	90	110
Manganese	5/3/22	14:26	500.0	507.0	101	90	110
Nickel	5/3/22	14:26	500.0	512.0	102	90	110
Selenium	5/3/22	14:26	2000	1970	98	90	110
Silver	5/3/22	14:26	50.0	45.60	91	90	110
Thallium	5/3/22	14:26	2000	2010	100	90	110
Vanadium	5/3/22	14:26	500.0	487.0	97	90	110
Zinc	5/3/22	14:26	500.0	503.0	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628

Lab Sample ID: 1138667

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	5/3/22	14:40	10.0	8.79	88	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628

Lab Sample ID: 1138671

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	5/3/22	15:34	10.0	8.04	80	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629

Lab Sample ID: 1138680

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	14:26	100000	99100	99	90	110
Sodium	5/3/22	14:26	100000	98200	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629

Lab Sample ID: 1138681

ICAL Calibration #:

Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	14:40	1000	1020	102	80	120
Sodium	5/3/22	14:40	2000	2020	101	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140978

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	09:31	12000	12300	102	90	110
Antimony	5/9/22	09:31	500.0	524.0	105	90	110
Arsenic	5/9/22	09:31	2000	2110	106	90	110
Barium	5/9/22	09:31	2000	2050	102	90	110
Beryllium	5/9/22	09:31	50.0	51.60	103	90	110
Cadmium	5/9/22	09:31	50.0	48.50	97	90	110
Calcium	5/9/22	09:31	10000	9550	96	90	110
Chromium	5/9/22	09:31	200.0	208.0	104	90	110
Cobalt	5/9/22	09:31	500.0	520.0	104	90	110
Copper	5/9/22	09:31	250.0	248.0	99	90	110
Iron	5/9/22	09:31	5000	5320	106	90	110
Lead	5/9/22	09:31	500.0	478.0	96	90	110
Magnesium	5/9/22	09:31	10000	10700	107	90	110
Manganese	5/9/22	09:31	500.0	522.0	104	90	110
Nickel	5/9/22	09:31	500.0	514.0	103	90	110
Selenium	5/9/22	09:31	2000	1980	99	90	110
Silver	5/9/22	09:31	50.0	45.30	91	90	110
Thallium	5/9/22	09:31	2000	2010	100	90	110
Vanadium	5/9/22	09:31	500.0	516.0	103	90	110
Zinc	5/9/22	09:31	500.0	512.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140979

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	09:46	1200	1330	111	80	120
Antimony	5/9/22	09:46	60.0	61.00	102	80	120
Arsenic	5/9/22	09:46	60.0	57.50	96	80	120
Barium	5/9/22	09:46	30.0	33.30	111	80	120
Beryllium	5/9/22	09:46	12.00	12.80	107	80	120
Cadmium	5/9/22	09:46	15.00	15.90	106	80	120
Calcium	5/9/22	09:46	1500	1590	106	80	120
Chromium	5/9/22	09:46	30.0	31.70	106	80	120
Cobalt	5/9/22	09:46	30.0	33.20	111	80	120
Copper	5/9/22	09:46	30.0	34.00	113	80	120
Iron	5/9/22	09:46	900.0	985.0	109	80	120
Lead	5/9/22	09:46	30.0	28.70	96	80	120
Magnesium	5/9/22	09:46	1500	1700	113	80	120
Manganese	5/9/22	09:46	30.0	32.70	109	80	120
Nickel	5/9/22	09:46	30.0	32.80	109	80	120
Selenium	5/9/22	09:46	60.0	67.40	112	80	120
Thallium	5/9/22	09:46	60.0	59.80	100	80	120
Vanadium	5/9/22	09:46	30.0	31.50	105	80	120
Zinc	5/9/22	09:46	30.0	32.80	109	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140983

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	5/9/22	10:37	10.0	9.87	99	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141002

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	09:31	12000	12300	102	90	110
Antimony	5/9/22	09:31	500.0	524.0	105	90	110
Arsenic	5/9/22	09:31	2000	2110	106	90	110
Barium	5/9/22	09:31	2000	2050	102	90	110
Beryllium	5/9/22	09:31	50.0	51.60	103	90	110
Cadmium	5/9/22	09:31	50.0	48.50	97	90	110
Calcium	5/9/22	09:31	10000	9550	96	90	110
Chromium	5/9/22	09:31	200.0	208.0	104	90	110
Cobalt	5/9/22	09:31	500.0	520.0	104	90	110
Copper	5/9/22	09:31	250.0	248.0	99	90	110
Iron	5/9/22	09:31	5000	5320	106	90	110
Lead	5/9/22	09:31	500.0	478.0	96	90	110
Magnesium	5/9/22	09:31	10000	10700	107	90	110
Manganese	5/9/22	09:31	500.0	522.0	104	90	110
Nickel	5/9/22	09:31	500.0	514.0	103	90	110
Selenium	5/9/22	09:31	2000	1980	99	90	110
Silver	5/9/22	09:31	50.0	45.30	91	90	110
Thallium	5/9/22	09:31	2000	2010	100	90	110
Vanadium	5/9/22	09:31	500.0	516.0	103	90	110
Zinc	5/9/22	09:31	500.0	512.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141003

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	09:46	1200	1330	111	80	120
Antimony	5/9/22	09:46	60.0	61.00	102	80	120
Arsenic	5/9/22	09:46	60.0	57.50	96	80	120
Barium	5/9/22	09:46	30.0	33.30	111	80	120
Beryllium	5/9/22	09:46	12.00	12.80	107	80	120
Cadmium	5/9/22	09:46	15.00	15.90	106	80	120
Calcium	5/9/22	09:46	1500	1590	106	80	120
Chromium	5/9/22	09:46	30.0	31.70	106	80	120
Cobalt	5/9/22	09:46	30.0	33.20	111	80	120
Copper	5/9/22	09:46	30.0	34.00	113	80	120
Iron	5/9/22	09:46	900.0	985.0	109	80	120
Lead	5/9/22	09:46	30.0	28.70	96	80	120
Magnesium	5/9/22	09:46	1500	1700	113	80	120
Manganese	5/9/22	09:46	30.0	32.70	109	80	120
Nickel	5/9/22	09:46	30.0	32.80	109	80	120
Selenium	5/9/22	09:46	60.0	67.40	112	80	120
Thallium	5/9/22	09:46	60.0	59.80	100	80	120
Vanadium	5/9/22	09:46	30.0	31.50	105	80	120
Zinc	5/9/22	09:46	30.0	32.80	109	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141007

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	5/9/22	10:37	10.0	9.87	99	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211582

Lab Sample ID: 1141417

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	14:26	100000	99100	99	90	110
Sodium	5/3/22	14:26	100000	98200	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211582

Lab Sample ID: 1141418

ICAL Calibration #:

Concentration Units:

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	14:40	1000	1020	102	80	120
Sodium	5/3/22	14:40	2000	2020	101	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138686

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	21:42	100000	96300	96	90	110
Sodium	5/3/22	21:42	100000	93100	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138687

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	21:49	10000	9930	99	90	110
Sodium	5/3/22	21:49	10000	9660	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138691

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	23:19	100000	94500	94	90	110
Sodium	5/3/22	23:19	100000	91700	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138692

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	23:26	10000	9920	99	90	110
Sodium	5/3/22	23:26	10000	9740	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138697

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	20:03	100000	95700	96	90	110
Sodium	5/3/22	20:03	100000	95000	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138698

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	20:10	10000	9720	97	90	110
Sodium	5/3/22	20:10	10000	9630	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211582 Lab Sample ID: 1141425

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	16:49	100000	96100	96	90	110
Sodium	5/3/22	16:49	100000	94900	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211582 Lab Sample ID: 1141426

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Potassium	5/3/22	16:56	10000	9630	96	90	110
Sodium	5/3/22	16:56	10000	9630	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581

Lab Sample ID: 1138577

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	16:49	5000	4850	97	90	110
Antimony	5/3/22	16:49	5000	4690	94	90	110
Arsenic	5/3/22	16:49	5000	4900	98	90	110
Barium	5/3/22	16:49	5000	4760	95	90	110
Beryllium	5/3/22	16:49	500.0	475.0	95	90	110
Cadmium	5/3/22	16:49	500.0	468.0	94	90	110
Calcium	5/3/22	16:49	5000	4900	98	90	110
Chromium	5/3/22	16:49	5000	4600	92	90	110
Cobalt	5/3/22	16:49	5000	4800	96	90	110
Copper	5/3/22	16:49	5000	4860	97	90	110
Iron	5/3/22	16:49	5000	4760	95	90	110
Lead	5/3/22	16:49	5000	4730	95	90	110
Magnesium	5/3/22	16:49	5000	4990	100	90	110
Manganese	5/3/22	16:49	5000	4850	97	90	110
Nickel	5/3/22	16:49	5000	4820	96	90	110
Selenium	5/3/22	16:49	5000	4780	96	90	110
Silver	5/3/22	16:49	500.0	512.0	102	90	110
Thallium	5/3/22	16:49	5000	4830	97	90	110
Vanadium	5/3/22	16:49	5000	4780	96	90	110
Zinc	5/3/22	16:49	5000	5140	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1138578

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	16:56	500.0	484.0	97	90	110
Antimony	5/3/22	16:56	500.0	498.0	100	90	110
Arsenic	5/3/22	16:56	500.0	470.0	94	90	110
Barium	5/3/22	16:56	500.0	506.0	101	90	110
Beryllium	5/3/22	16:56	50.0	47.60	95	90	110
Cadmium	5/3/22	16:56	50.0	47.80	96	90	110
Calcium	5/3/22	16:56	500.0	500.0	100	90	110
Chromium	5/3/22	16:56	500.0	478.0	96	90	110
Cobalt	5/3/22	16:56	500.0	500.0	100	90	110
Copper	5/3/22	16:56	500.0	507.0	101	90	110
Iron	5/3/22	16:56	500.0	492.0	98	90	110
Lead	5/3/22	16:56	500.0	469.0	94	90	110
Magnesium	5/3/22	16:56	500.0	519.0	104	90	110
Manganese	5/3/22	16:56	500.0	493.0	99	90	110
Nickel	5/3/22	16:56	500.0	500.0	100	90	110
Selenium	5/3/22	16:56	500.0	506.0	101	90	110
Silver	5/3/22	16:56	50.0	45.00	90	90	110
Thallium	5/3/22	16:56	500.0	519.0	104	90	110
Vanadium	5/3/22	16:56	500.0	474.0	95	90	110
Zinc	5/3/22	16:56	500.0	478.0	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138672

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	21:42	5000	4630	93	90	110
Antimony	5/3/22	21:42	5000	4490	90	90	110
Arsenic	5/3/22	21:42	5000	4640	93	90	110
Barium	5/3/22	21:42	5000	4610	92	90	110
Beryllium	5/3/22	21:42	500.0	464.0	93	90	110
Cadmium	5/3/22	21:42	500.0	476.0	95	90	110
Calcium	5/3/22	21:42	5000	4860	97	90	110
Chromium	5/3/22	21:42	5000	4560	91	90	110
Cobalt	5/3/22	21:42	5000	4830	97	90	110
Copper	5/3/22	21:42	5000	4650	93	90	110
Iron	5/3/22	21:42	5000	4750	95	90	110
Lead	5/3/22	21:42	5000	4630	93	90	110
Magnesium	5/3/22	21:42	5000	4730	95	90	110
Manganese	5/3/22	21:42	5000	4620	92	90	110
Nickel	5/3/22	21:42	5000	4610	92	90	110
Selenium	5/3/22	21:42	5000	4710	94	90	110
Silver	5/3/22	21:42	500.0	508.0	102	90	110
Thallium	5/3/22	21:42	5000	4930	99	90	110
Vanadium	5/3/22	21:42	5000	4700	94	90	110
Zinc	5/3/22	21:42	5000	5300	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138673

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	21:49	500.0	479.0	96	90	110
Antimony	5/3/22	21:49	500.0	476.0	95	90	110
Arsenic	5/3/22	21:49	500.0	465.0	93	90	110
Barium	5/3/22	21:49	500.0	506.0	101	90	110
Beryllium	5/3/22	21:49	50.0	47.50	95	90	110
Cadmium	5/3/22	21:49	50.0	44.90	90	90	110
Calcium	5/3/22	21:49	500.0	471.0	94	90	110
Chromium	5/3/22	21:49	500.0	484.0	97	90	110
Cobalt	5/3/22	21:49	500.0	490.0	98	90	110
Copper	5/3/22	21:49	500.0	486.0	97	90	110
Iron	5/3/22	21:49	500.0	492.0	98	90	110
Lead	5/3/22	21:49	500.0	467.0	93	90	110
Magnesium	5/3/22	21:49	500.0	532.0	106	90	110
Manganese	5/3/22	21:49	500.0	494.0	99	90	110
Nickel	5/3/22	21:49	500.0	495.0	99	90	110
Selenium	5/3/22	21:49	500.0	491.0	98	90	110
Silver	5/3/22	21:49	50.0	45.10	90	90	110
Thallium	5/3/22	21:49	500.0	535.0	107	90	110
Vanadium	5/3/22	21:49	500.0	463.0	93	90	110
Zinc	5/3/22	21:49	500.0	462.0	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628

Lab Sample ID: 1138677

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	23:19	5000	4860	97	90	110
Antimony	5/3/22	23:19	5000	4570	91	90	110
Arsenic	5/3/22	23:19	5000	4760	95	90	110
Barium	5/3/22	23:19	5000	4630	93	90	110
Beryllium	5/3/22	23:19	500.0	470.0	94	90	110
Cadmium	5/3/22	23:19	500.0	470.0	94	90	110
Calcium	5/3/22	23:19	5000	4880	98	90	110
Chromium	5/3/22	23:19	5000	4570	91	90	110
Cobalt	5/3/22	23:19	5000	4750	95	90	110
Copper	5/3/22	23:19	5000	4750	95	90	110
Iron	5/3/22	23:19	5000	4910	98	90	110
Lead	5/3/22	23:19	5000	4650	93	90	110
Magnesium	5/3/22	23:19	5000	4890	98	90	110
Manganese	5/3/22	23:19	5000	4740	95	90	110
Nickel	5/3/22	23:19	5000	4720	94	90	110
Selenium	5/3/22	23:19	5000	4740	95	90	110
Silver	5/3/22	23:19	500.0	504.0	101	90	110
Thallium	5/3/22	23:19	5000	4860	97	90	110
Vanadium	5/3/22	23:19	5000	4700	94	90	110
Zinc	5/3/22	23:19	5000	5210	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138678

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	23:26	500.0	482.0	96	90	110
Antimony	5/3/22	23:26	500.0	483.0	97	90	110
Arsenic	5/3/22	23:26	500.0	465.0	93	90	110
Barium	5/3/22	23:26	500.0	502.0	100	90	110
Beryllium	5/3/22	23:26	50.0	47.50	95	90	110
Cadmium	5/3/22	23:26	50.0	45.80	92	90	110
Calcium	5/3/22	23:26	500.0	476.0	95	90	110
Chromium	5/3/22	23:26	500.0	483.0	97	90	110
Cobalt	5/3/22	23:26	500.0	490.0	98	90	110
Copper	5/3/22	23:26	500.0	493.0	99	90	110
Iron	5/3/22	23:26	500.0	491.0	98	90	110
Lead	5/3/22	23:26	500.0	465.0	93	90	110
Magnesium	5/3/22	23:26	500.0	527.0	105	90	110
Manganese	5/3/22	23:26	500.0	493.0	99	90	110
Nickel	5/3/22	23:26	500.0	492.0	98	90	110
Selenium	5/3/22	23:26	500.0	493.0	99	90	110
Silver	5/3/22	23:26	50.0	45.40	91	90	110
Thallium	5/3/22	23:26	500.0	521.0	104	90	110
Vanadium	5/3/22	23:26	500.0	468.0	94	90	110
Zinc	5/3/22	23:26	500.0	467.0	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138694

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	20:03	5000	4710	94	90	110
Antimony	5/3/22	20:03	5000	4510	90	90	110
Arsenic	5/3/22	20:03	5000	4680	94	90	110
Barium	5/3/22	20:03	5000	4640	93	90	110
Beryllium	5/3/22	20:03	500.0	467.0	93	90	110
Cadmium	5/3/22	20:03	500.0	474.0	95	90	110
Calcium	5/3/22	20:03	5000	4880	98	90	110
Chromium	5/3/22	20:03	5000	4570	91	90	110
Cobalt	5/3/22	20:03	5000	4820	96	90	110
Copper	5/3/22	20:03	5000	4680	94	90	110
Iron	5/3/22	20:03	5000	4780	96	90	110
Lead	5/3/22	20:03	5000	4650	93	90	110
Magnesium	5/3/22	20:03	5000	4770	95	90	110
Manganese	5/3/22	20:03	5000	4640	93	90	110
Nickel	5/3/22	20:03	5000	4640	93	90	110
Selenium	5/3/22	20:03	5000	4700	94	90	110
Silver	5/3/22	20:03	500.0	506.0	101	90	110
Thallium	5/3/22	20:03	5000	4920	98	90	110
Vanadium	5/3/22	20:03	5000	4710	94	90	110
Zinc	5/3/22	20:03	5000	5280	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138695

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/3/22	20:10	500.0	475.0	95	90	110
Antimony	5/3/22	20:10	500.0	480.0	96	90	110
Arsenic	5/3/22	20:10	500.0	465.0	93	90	110
Barium	5/3/22	20:10	500.0	505.0	101	90	110
Beryllium	5/3/22	20:10	50.0	47.50	95	90	110
Cadmium	5/3/22	20:10	50.0	45.30	91	90	110
Calcium	5/3/22	20:10	500.0	479.0	96	90	110
Chromium	5/3/22	20:10	500.0	485.0	97	90	110
Cobalt	5/3/22	20:10	500.0	490.0	98	90	110
Copper	5/3/22	20:10	500.0	490.0	98	90	110
Iron	5/3/22	20:10	500.0	491.0	98	90	110
Lead	5/3/22	20:10	500.0	467.0	93	90	110
Magnesium	5/3/22	20:10	500.0	529.0	106	90	110
Manganese	5/3/22	20:10	500.0	494.0	99	90	110
Nickel	5/3/22	20:10	500.0	495.0	99	90	110
Selenium	5/3/22	20:10	500.0	492.0	98	90	110
Silver	5/3/22	20:10	50.0	45.00	90	90	110
Thallium	5/3/22	20:10	500.0	526.0	105	90	110
Vanadium	5/3/22	20:10	500.0	467.0	93	90	110
Zinc	5/3/22	20:10	500.0	463.0	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1139474

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	5/4/22	11:00	3.0	2.77	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211699

Lab Sample ID: 1139486

ICAL Calibration #: 05042022

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	5/4/22	13:03	3.0	3.06	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140984

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	11:52	5000	5120	102	90	110
Antimony	5/9/22	11:52	5000	5140	103	90	110
Arsenic	5/9/22	11:52	5000	5210	104	90	110
Barium	5/9/22	11:52	5000	4930	99	90	110
Beryllium	5/9/22	11:52	500.0	460.0	92	90	110
Cadmium	5/9/22	11:52	500.0	481.0	96	90	110
Calcium	5/9/22	11:52	5000	4870	97	90	110
Chromium	5/9/22	11:52	5000	4950	99	90	110
Cobalt	5/9/22	11:52	5000	5090	102	90	110
Copper	5/9/22	11:52	5000	5100	102	90	110
Iron	5/9/22	11:52	5000	4920	98	90	110
Lead	5/9/22	11:52	5000	5030	101	90	110
Magnesium	5/9/22	11:52	5000	5070	101	90	110
Manganese	5/9/22	11:52	5000	5100	102	90	110
Nickel	5/9/22	11:52	5000	5130	103	90	110
Selenium	5/9/22	11:52	5000	5020	100	90	110
Silver	5/9/22	11:52	500.0	482.0	96	90	110
Thallium	5/9/22	11:52	5000	5000	100	90	110
Vanadium	5/9/22	11:52	5000	5160	103	90	110
Zinc	5/9/22	11:52	5000	5000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140985

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	11:58	500.0	506.0	101	90	110
Antimony	5/9/22	11:58	500.0	527.0	105	90	110
Arsenic	5/9/22	11:58	500.0	507.0	101	90	110
Barium	5/9/22	11:58	500.0	531.0	106	90	110
Beryllium	5/9/22	11:58	50.0	50.90	102	90	110
Cadmium	5/9/22	11:58	50.0	50.30	101	90	110
Calcium	5/9/22	11:58	500.0	504.0	101	90	110
Chromium	5/9/22	11:58	500.0	508.0	102	90	110
Cobalt	5/9/22	11:58	500.0	528.0	106	90	110
Copper	5/9/22	11:58	500.0	537.0	107	90	110
Iron	5/9/22	11:58	500.0	508.0	102	90	110
Lead	5/9/22	11:58	500.0	492.0	98	90	110
Magnesium	5/9/22	11:58	500.0	550.0	110	90	110
Manganese	5/9/22	11:58	500.0	527.0	105	90	110
Nickel	5/9/22	11:58	500.0	526.0	105	90	110
Selenium	5/9/22	11:58	500.0	526.0	105	90	110
Silver	5/9/22	11:58	50.0	46.20	92	90	110
Thallium	5/9/22	11:58	500.0	535.0	107	90	110
Vanadium	5/9/22	11:58	500.0	515.0	103	90	110
Zinc	5/9/22	11:58	500.0	510.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628

Lab Sample ID: 1140987

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	13:26	5000	5000	100	90	110
Antimony	5/9/22	13:26	5000	5150	103	90	110
Arsenic	5/9/22	13:26	5000	5190	104	90	110
Barium	5/9/22	13:26	5000	4940	99	90	110
Beryllium	5/9/22	13:26	500.0	495.0	99	90	110
Cadmium	5/9/22	13:26	500.0	492.0	98	90	110
Calcium	5/9/22	13:26	5000	4880	98	90	110
Chromium	5/9/22	13:26	5000	4990	100	90	110
Cobalt	5/9/22	13:26	5000	5020	100	90	110
Copper	5/9/22	13:26	5000	5090	102	90	110
Iron	5/9/22	13:26	5000	4800	96	90	110
Lead	5/9/22	13:26	5000	5090	102	90	110
Magnesium	5/9/22	13:26	5000	4890	98	90	110
Manganese	5/9/22	13:26	5000	5060	101	90	110
Nickel	5/9/22	13:26	5000	5060	101	90	110
Selenium	5/9/22	13:26	5000	5100	102	90	110
Silver	5/9/22	13:26	500.0	479.0	96	90	110
Thallium	5/9/22	13:26	5000	5100	102	90	110
Vanadium	5/9/22	13:26	5000	5080	102	90	110
Zinc	5/9/22	13:26	5000	5050	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140988

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	13:32	500.0	489.0	98	90	110
Antimony	5/9/22	13:32	500.0	525.0	105	90	110
Arsenic	5/9/22	13:32	500.0	511.0	102	90	110
Barium	5/9/22	13:32	500.0	534.0	107	90	110
Beryllium	5/9/22	13:32	50.0	49.90	100	90	110
Cadmium	5/9/22	13:32	50.0	50.70	101	90	110
Calcium	5/9/22	13:32	500.0	499.0	100	90	110
Chromium	5/9/22	13:32	500.0	498.0	100	90	110
Cobalt	5/9/22	13:32	500.0	527.0	105	90	110
Copper	5/9/22	13:32	500.0	532.0	106	90	110
Iron	5/9/22	13:32	500.0	493.0	99	90	110
Lead	5/9/22	13:32	500.0	496.0	99	90	110
Magnesium	5/9/22	13:32	500.0	541.0	108	90	110
Manganese	5/9/22	13:32	500.0	516.0	103	90	110
Nickel	5/9/22	13:32	500.0	528.0	106	90	110
Selenium	5/9/22	13:32	500.0	531.0	106	90	110
Silver	5/9/22	13:32	50.0	45.60	91	90	110
Thallium	5/9/22	13:32	500.0	544.0	109	90	110
Vanadium	5/9/22	13:32	500.0	502.0	100	90	110
Zinc	5/9/22	13:32	500.0	508.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141008

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	11:52	5000	5120	102	90	110
Antimony	5/9/22	11:52	5000	5140	103	90	110
Arsenic	5/9/22	11:52	5000	5210	104	90	110
Barium	5/9/22	11:52	5000	4930	99	90	110
Beryllium	5/9/22	11:52	500.0	460.0	92	90	110
Cadmium	5/9/22	11:52	500.0	481.0	96	90	110
Calcium	5/9/22	11:52	5000	4870	97	90	110
Chromium	5/9/22	11:52	5000	4950	99	90	110
Cobalt	5/9/22	11:52	5000	5090	102	90	110
Copper	5/9/22	11:52	5000	5100	102	90	110
Iron	5/9/22	11:52	5000	4920	98	90	110
Lead	5/9/22	11:52	5000	5030	101	90	110
Magnesium	5/9/22	11:52	5000	5070	101	90	110
Manganese	5/9/22	11:52	5000	5100	102	90	110
Nickel	5/9/22	11:52	5000	5130	103	90	110
Selenium	5/9/22	11:52	5000	5020	100	90	110
Silver	5/9/22	11:52	500.0	482.0	96	90	110
Thallium	5/9/22	11:52	5000	5000	100	90	110
Vanadium	5/9/22	11:52	5000	5160	103	90	110
Zinc	5/9/22	11:52	5000	5000	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141009

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	11:58	500.0	506.0	101	90	110
Antimony	5/9/22	11:58	500.0	527.0	105	90	110
Arsenic	5/9/22	11:58	500.0	507.0	101	90	110
Barium	5/9/22	11:58	500.0	531.0	106	90	110
Beryllium	5/9/22	11:58	50.0	50.90	102	90	110
Cadmium	5/9/22	11:58	50.0	50.30	101	90	110
Calcium	5/9/22	11:58	500.0	504.0	101	90	110
Chromium	5/9/22	11:58	500.0	508.0	102	90	110
Cobalt	5/9/22	11:58	500.0	528.0	106	90	110
Copper	5/9/22	11:58	500.0	537.0	107	90	110
Iron	5/9/22	11:58	500.0	508.0	102	90	110
Lead	5/9/22	11:58	500.0	492.0	98	90	110
Magnesium	5/9/22	11:58	500.0	550.0	110	90	110
Manganese	5/9/22	11:58	500.0	527.0	105	90	110
Nickel	5/9/22	11:58	500.0	526.0	105	90	110
Selenium	5/9/22	11:58	500.0	526.0	105	90	110
Silver	5/9/22	11:58	50.0	46.20	92	90	110
Thallium	5/9/22	11:58	500.0	535.0	107	90	110
Vanadium	5/9/22	11:58	500.0	515.0	103	90	110
Zinc	5/9/22	11:58	500.0	510.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141011

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	13:26	5000	5000	100	90	110
Antimony	5/9/22	13:26	5000	5150	103	90	110
Arsenic	5/9/22	13:26	5000	5190	104	90	110
Barium	5/9/22	13:26	5000	4940	99	90	110
Beryllium	5/9/22	13:26	500.0	495.0	99	90	110
Cadmium	5/9/22	13:26	500.0	492.0	98	90	110
Calcium	5/9/22	13:26	5000	5270	105	90	110
Chromium	5/9/22	13:26	5000	4990	100	90	110
Cobalt	5/9/22	13:26	5000	5020	100	90	110
Copper	5/9/22	13:26	5000	5090	102	90	110
Iron	5/9/22	13:26	5000	4800	96	90	110
Lead	5/9/22	13:26	5000	5090	102	90	110
Magnesium	5/9/22	13:26	5000	4890	98	90	110
Manganese	5/9/22	13:26	5000	5060	101	90	110
Nickel	5/9/22	13:26	5000	5060	101	90	110
Selenium	5/9/22	13:26	5000	5100	102	90	110
Silver	5/9/22	13:26	500.0	482.0	96	90	110
Thallium	5/9/22	13:26	5000	5100	102	90	110
Vanadium	5/9/22	13:26	5000	5080	102	90	110
Zinc	5/9/22	13:26	5000	5050	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141012

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	5/9/22	13:32	500.0	489.0	98	90	110
Antimony	5/9/22	13:32	500.0	525.0	105	90	110
Arsenic	5/9/22	13:32	500.0	511.0	102	90	110
Barium	5/9/22	13:32	500.0	534.0	107	90	110
Beryllium	5/9/22	13:32	50.0	49.90	100	90	110
Cadmium	5/9/22	13:32	50.0	50.70	101	90	110
Calcium	5/9/22	13:32	500.0	499.0	100	90	110
Chromium	5/9/22	13:32	500.0	498.0	100	90	110
Cobalt	5/9/22	13:32	500.0	527.0	105	90	110
Copper	5/9/22	13:32	500.0	532.0	106	90	110
Iron	5/9/22	13:32	500.0	493.0	99	90	110
Lead	5/9/22	13:32	500.0	496.0	99	90	110
Magnesium	5/9/22	13:32	500.0	541.0	108	90	110
Manganese	5/9/22	13:32	500.0	516.0	103	90	110
Nickel	5/9/22	13:32	500.0	528.0	106	90	110
Selenium	5/9/22	13:32	500.0	531.0	106	90	110
Silver	5/9/22	13:32	50.0	45.60	91	90	110
Thallium	5/9/22	13:32	500.0	544.0	109	90	110
Vanadium	5/9/22	13:32	500.0	502.0	100	90	110
Zinc	5/9/22	13:32	500.0	508.0	102	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1139473

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	05/04/2022 10:25	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1139485

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	05/04/2022 12:29	0.003	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1138571

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 14:56	-0.109	U	29	60
Antimony	05/03/2022 14:56	-2.65	U	4.4	10
Arsenic	05/03/2022 14:56	-0.569	U	7.7	20
Barium	05/03/2022 14:56	0.197	U	0.71	2.0
Beryllium	05/03/2022 14:56	0.002	U	0.95	4.0
Cadmium	05/03/2022 14:56	-0.064	U	0.41	1.0
Calcium	05/03/2022 14:56	0.083	U	17	50
Chromium	05/03/2022 14:56	0.016	U	1.1	2.5
Cobalt	05/03/2022 14:56	-0.073	U	0.55	2.5
Copper	05/03/2022 14:56	0.607	U	5.2	20
Iron	05/03/2022 14:56	0.617	U	11	40
Lead	05/03/2022 14:56	-0.331	U	1.4	2.0
Magnesium	05/03/2022 14:56	0.037	U	10	20
Manganese	05/03/2022 14:56	-0.066	U	1.4	2.5
Nickel	05/03/2022 14:56	-0.123	U	1.5	2.5
Selenium	05/03/2022 14:56	0.54	U	10	20
Silver	05/03/2022 14:56	0.209	U	1.1	2.5
Thallium	05/03/2022 14:56	-0.737	U	6.8	20
Vanadium	05/03/2022 14:56	-0.169	U	1.3	2.5
Zinc	05/03/2022 14:56	-0.027	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138668

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 14:56	-0.109	U	29	60
Antimony	05/03/2022 14:56	-2.65	U	4.4	10
Arsenic	05/03/2022 14:56	-0.569	U	7.7	20
Barium	05/03/2022 14:56	0.197	U	0.71	2.0
Beryllium	05/03/2022 14:56	0.002	U	0.95	4.0
Cadmium	05/03/2022 14:56	-0.064	U	0.41	1.0
Calcium	05/03/2022 14:56	0.083	U	17	50
Chromium	05/03/2022 14:56	0.016	U	1.1	2.5
Cobalt	05/03/2022 14:56	-0.073	U	0.55	2.5
Copper	05/03/2022 14:56	0.607	U	5.2	20
Iron	05/03/2022 14:56	0.617	U	11	40
Lead	05/03/2022 14:56	-0.331	U	1.4	2.0
Magnesium	05/03/2022 14:56	0.037	U	10	20
Manganese	05/03/2022 14:56	-0.066	U	1.4	2.5
Nickel	05/03/2022 14:56	-0.123	U	1.5	2.5
Selenium	05/03/2022 14:56	0.54	U	10	20
Silver	05/03/2022 14:56	0.209	U	1.1	2.5
Thallium	05/03/2022 14:56	-0.737	U	6.8	20
Vanadium	05/03/2022 14:56	-0.169	U	1.3	2.5
Zinc	05/03/2022 14:56	-0.027	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211629

Lab Sample ID: 1138682

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 14:56	-83.0	U	120	250
Sodium	05/03/2022 14:56	5.00	U	200	350

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140980

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 10:00	-0.325	U	29	60
Antimony	05/09/2022 10:00	-0.648	U	4.4	10
Arsenic	05/09/2022 10:00	-2.12	U	7.7	20
Barium	05/09/2022 10:00	0.015	U	0.71	2.0
Beryllium	05/09/2022 10:00	0.011	U	0.95	4.0
Cadmium	05/09/2022 10:00	0.09	U	0.41	1.0
Calcium	05/09/2022 10:00	0.75	U	17	50
Chromium	05/09/2022 10:00	0.236	U	1.1	2.5
Cobalt	05/09/2022 10:00	0.192	U	0.55	2.5
Copper	05/09/2022 10:00	-0.187	U	5.2	20
Iron	05/09/2022 10:00	0.879	U	11	40
Lead	05/09/2022 10:00	0.842	U	1.4	2.0
Magnesium	05/09/2022 10:00	0.248	U	10	20
Manganese	05/09/2022 10:00	0.001	U	1.4	2.5
Nickel	05/09/2022 10:00	0.04	U	1.5	2.5
Selenium	05/09/2022 10:00	1.28	U	10	20
Silver	05/09/2022 10:00	0.723	U	1.1	2.5
Thallium	05/09/2022 10:00	-2.37	U	6.8	20
Vanadium	05/09/2022 10:00	-0.061	U	1.3	2.5
Zinc	05/09/2022 10:00	0.34	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141004

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 10:00	-0.325	U	29	60
Antimony	05/09/2022 10:00	-0.648	U	4.4	10
Arsenic	05/09/2022 10:00	-2.12	U	7.7	20
Barium	05/09/2022 10:00	0.015	U	0.71	2.0
Beryllium	05/09/2022 10:00	0.011	U	0.95	4.0
Cadmium	05/09/2022 10:00	0.09	U	0.41	1.0
Calcium	05/09/2022 10:00	0.75	U	17	50
Chromium	05/09/2022 10:00	0.236	U	1.1	2.5
Cobalt	05/09/2022 10:00	0.192	U	0.55	2.5
Copper	05/09/2022 10:00	-0.187	U	5.2	20
Iron	05/09/2022 10:00	0.879	U	11	40
Lead	05/09/2022 10:00	0.842	U	1.4	2.0
Magnesium	05/09/2022 10:00	0.248	U	10	20
Manganese	05/09/2022 10:00	0.001	U	1.4	2.5
Nickel	05/09/2022 10:00	0.04	U	1.5	2.5
Selenium	05/09/2022 10:00	1.28	U	10	20
Silver	05/09/2022 10:00	0.723	U	1.1	2.5
Thallium	05/09/2022 10:00	-2.37	U	6.8	20
Vanadium	05/09/2022 10:00	-0.061	U	1.3	2.5
Zinc	05/09/2022 10:00	0.34	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211582

Lab Sample ID: 1141419

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 14:56	-83.0	U	120	250
Sodium	05/03/2022 14:56	5.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1139475

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	05/04/2022 11:06	0.002	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1139487

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	05/04/2022 13:10	0	U	0.020	0.080

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1138579

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 17:03	-0.185	U	29	60
Antimony	05/03/2022 17:03	-0.173	U	4.4	10
Arsenic	05/03/2022 17:03	0.252	U	7.7	20
Barium	05/03/2022 17:03	-0.073	U	0.71	2.0
Beryllium	05/03/2022 17:03	-0.011	U	0.95	4.0
Cadmium	05/03/2022 17:03	-0.064	U	0.41	1.0
Calcium	05/03/2022 17:03	1.72	U	17	50
Chromium	05/03/2022 17:03	-0.092	U	1.1	2.5
Cobalt	05/03/2022 17:03	-0.001	U	0.55	2.5
Copper	05/03/2022 17:03	1.52	U	5.2	20
Iron	05/03/2022 17:03	-0.422	U	11	40
Lead	05/03/2022 17:03	0.47	U	1.4	2.0
Magnesium	05/03/2022 17:03	0.522	U	10	20
Manganese	05/03/2022 17:03	0	U	1.4	2.5
Nickel	05/03/2022 17:03	-0.207	U	1.5	2.5
Selenium	05/03/2022 17:03	1.84	U	10	20
Silver	05/03/2022 17:03	-0.396	U	1.1	2.5
Thallium	05/03/2022 17:03	0.139	U	6.8	20
Vanadium	05/03/2022 17:03	-0.211	U	1.3	2.5
Zinc	05/03/2022 17:03	0.049	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138674

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 21:56	-0.128	U	29	60
Antimony	05/03/2022 21:56	-2.12	U	4.4	10
Arsenic	05/03/2022 21:56	-1.50	U	7.7	20
Barium	05/03/2022 21:56	0.243	U	0.71	2.0
Beryllium	05/03/2022 21:56	0.035	U	0.95	4.0
Cadmium	05/03/2022 21:56	0.011	U	0.41	1.0
Calcium	05/03/2022 21:56	1.63	U	17	50
Chromium	05/03/2022 21:56	-0.264	U	1.1	2.5
Cobalt	05/03/2022 21:56	-0.008	U	0.55	2.5
Copper	05/03/2022 21:56	0.688	U	5.2	20
Iron	05/03/2022 21:56	0.702	U	11	40
Lead	05/03/2022 21:56	-0.706	U	1.4	2.0
Magnesium	05/03/2022 21:56	0.632	U	10	20
Manganese	05/03/2022 21:56	-0.01	U	1.4	2.5
Nickel	05/03/2022 21:56	0.178	U	1.5	2.5
Selenium	05/03/2022 21:56	0.144	U	10	20
Silver	05/03/2022 21:56	1.20		1.1	2.5
Thallium	05/03/2022 21:56	-0.435	U	6.8	20
Vanadium	05/03/2022 21:56	-0.09	U	1.3	2.5
Zinc	05/03/2022 21:56	0.141	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138679

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 23:33	-0.099	U	29	60
Antimony	05/03/2022 23:33	-1.14	U	4.4	10
Arsenic	05/03/2022 23:33	1.45	U	7.7	20
Barium	05/03/2022 23:33	0.077	U	0.71	2.0
Beryllium	05/03/2022 23:33	0.001	U	0.95	4.0
Cadmium	05/03/2022 23:33	0.092	U	0.41	1.0
Calcium	05/03/2022 23:33	2.01	U	17	50
Chromium	05/03/2022 23:33	-0.025	U	1.1	2.5
Cobalt	05/03/2022 23:33	0.028	U	0.55	2.5
Copper	05/03/2022 23:33	0.595	U	5.2	20
Iron	05/03/2022 23:33	-0.60	U	11	40
Lead	05/03/2022 23:33	-0.024	U	1.4	2.0
Magnesium	05/03/2022 23:33	0.736	U	10	20
Manganese	05/03/2022 23:33	0.071	U	1.4	2.5
Nickel	05/03/2022 23:33	0.214	U	1.5	2.5
Selenium	05/03/2022 23:33	2.22	U	10	20
Silver	05/03/2022 23:33	0.286	U	1.1	2.5
Thallium	05/03/2022 23:33	-0.938	U	6.8	20
Vanadium	05/03/2022 23:33	0.01	U	1.3	2.5
Zinc	05/03/2022 23:33	1.52	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138688

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 21:56	119.0	U	120	250
Sodium	05/03/2022 21:56	181.0	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211629 Lab Sample ID: 1138693

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 23:33	57.00	U	120	250
Sodium	05/03/2022 23:33	125.0	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

3-2

CCB

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1138696

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/03/2022 20:17	-0.035	U	29	60
Antimony	05/03/2022 20:17	-2.35	U	4.4	10
Arsenic	05/03/2022 20:17	1.59	U	7.7	20
Barium	05/03/2022 20:17	-0.262	U	0.71	2.0
Beryllium	05/03/2022 20:17	0.031	U	0.95	4.0
Cadmium	05/03/2022 20:17	0.093	U	0.41	1.0
Calcium	05/03/2022 20:17	1.56	U	17	50
Chromium	05/03/2022 20:17	-0.056	U	1.1	2.5
Cobalt	05/03/2022 20:17	0.074	U	0.55	2.5
Copper	05/03/2022 20:17	0.939	U	5.2	20
Iron	05/03/2022 20:17	0.943	U	11	40
Lead	05/03/2022 20:17	1.21	U	1.4	2.0
Magnesium	05/03/2022 20:17	0.587	U	10	20
Manganese	05/03/2022 20:17	0.025	U	1.4	2.5
Nickel	05/03/2022 20:17	0.181	U	1.5	2.5
Selenium	05/03/2022 20:17	0.393	U	10	20
Silver	05/03/2022 20:17	0.948	U	1.1	2.5
Thallium	05/03/2022 20:17	-0.156	U	6.8	20
Vanadium	05/03/2022 20:17	-0.052	U	1.3	2.5
Zinc	05/03/2022 20:17	0.116	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211629

Lab Sample ID: 1138699

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 20:17	-19.0	U	120	250
Sodium	05/03/2022 20:17	36.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140986

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 12:05	-0.337	U	29	60
Antimony	05/09/2022 12:05	-0.106	U	4.4	10
Arsenic	05/09/2022 12:05	-5.0	U	7.7	20
Barium	05/09/2022 12:05	0.20	U	0.71	2.0
Beryllium	05/09/2022 12:05	-0.003	U	0.95	4.0
Cadmium	05/09/2022 12:05	-0.012	U	0.41	1.0
Calcium	05/09/2022 12:05	-0.107	U	17	50
Chromium	05/09/2022 12:05	-0.031	U	1.1	2.5
Cobalt	05/09/2022 12:05	0.175	U	0.55	2.5
Copper	05/09/2022 12:05	-1.24	U	5.2	20
Iron	05/09/2022 12:05	-0.36	U	11	40
Lead	05/09/2022 12:05	-0.162	U	1.4	2.0
Magnesium	05/09/2022 12:05	-0.064	U	10	20
Manganese	05/09/2022 12:05	0.009	U	1.4	2.5
Nickel	05/09/2022 12:05	0.234	U	1.5	2.5
Selenium	05/09/2022 12:05	1.96	U	10	20
Silver	05/09/2022 12:05	-0.002	U	1.1	2.5
Thallium	05/09/2022 12:05	-1.35	U	6.8	20
Vanadium	05/09/2022 12:05	-0.079	U	1.3	2.5
Zinc	05/09/2022 12:05	0.217	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1140989

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 13:39	-0.139	U	29	60
Antimony	05/09/2022 13:39	-2.64	U	4.4	10
Arsenic	05/09/2022 13:39	-3.42	U	7.7	20
Barium	05/09/2022 13:39	0.321	U	0.71	2.0
Beryllium	05/09/2022 13:39	0.007	U	0.95	4.0
Cadmium	05/09/2022 13:39	0.021	U	0.41	1.0
Calcium	05/09/2022 13:39	0.494	U	17	50
Chromium	05/09/2022 13:39	0.078	U	1.1	2.5
Cobalt	05/09/2022 13:39	0.219	U	0.55	2.5
Copper	05/09/2022 13:39	-0.227	U	5.2	20
Iron	05/09/2022 13:39	-0.12	U	11	40
Lead	05/09/2022 13:39	-0.76	U	1.4	2.0
Magnesium	05/09/2022 13:39	0.015	U	10	20
Manganese	05/09/2022 13:39	0.052	U	1.4	2.5
Nickel	05/09/2022 13:39	0.158	U	1.5	2.5
Selenium	05/09/2022 13:39	1.96	U	10	20
Silver	05/09/2022 13:39	0.096	U	1.1	2.5
Thallium	05/09/2022 13:39	-0.06	U	6.8	20
Vanadium	05/09/2022 13:39	-0.468	U	1.3	2.5
Zinc	05/09/2022 13:39	0.416	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581

Lab Sample ID: 1141010

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 12:05	-0.337	U	29	60
Antimony	05/09/2022 12:05	-0.106	U	4.4	10
Arsenic	05/09/2022 12:05	-5.0	U	7.7	20
Barium	05/09/2022 12:05	0.20	U	0.71	2.0
Beryllium	05/09/2022 12:05	-0.003	U	0.95	4.0
Cadmium	05/09/2022 12:05	-0.012	U	0.41	1.0
Calcium	05/09/2022 12:05	-0.107	U	17	50
Chromium	05/09/2022 12:05	-0.031	U	1.1	2.5
Cobalt	05/09/2022 12:05	0.175	U	0.55	2.5
Copper	05/09/2022 12:05	-1.24	U	5.2	20
Iron	05/09/2022 12:05	-0.36	U	11	40
Lead	05/09/2022 12:05	-0.162	U	1.4	2.0
Magnesium	05/09/2022 12:05	-0.064	U	10	20
Manganese	05/09/2022 12:05	0.009	U	1.4	2.5
Nickel	05/09/2022 12:05	0.234	U	1.5	2.5
Selenium	05/09/2022 12:05	1.96	U	10	20
Silver	05/09/2022 12:05	-0.002	U	1.1	2.5
Thallium	05/09/2022 12:05	-1.35	U	6.8	20
Vanadium	05/09/2022 12:05	-0.079	U	1.3	2.5
Zinc	05/09/2022 12:05	0.217	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1141013

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	05/09/2022 13:39	-0.139	U	29	60
Antimony	05/09/2022 13:39	-2.64	U	4.4	10
Arsenic	05/09/2022 13:39	-3.42	U	7.7	20
Barium	05/09/2022 13:39	0.321	U	0.71	2.0
Beryllium	05/09/2022 13:39	0.007	U	0.95	4.0
Cadmium	05/09/2022 13:39	0.021	U	0.41	1.0
Calcium	05/09/2022 13:39	0.494	U	17	50
Chromium	05/09/2022 13:39	0.078	U	1.1	2.5
Cobalt	05/09/2022 13:39	0.219	U	0.55	2.5
Copper	05/09/2022 13:39	-0.227	U	5.2	20
Iron	05/09/2022 13:39	-0.12	U	11	40
Lead	05/09/2022 13:39	-0.76	U	1.4	2.0
Magnesium	05/09/2022 13:39	0.015	U	10	20
Manganese	05/09/2022 13:39	0.052	U	1.4	2.5
Nickel	05/09/2022 13:39	0.158	U	1.5	2.5
Selenium	05/09/2022 13:39	1.96	U	10	20
Silver	05/09/2022 13:39	0.096	U	1.1	2.5
Thallium	05/09/2022 13:39	-0.06	U	6.8	20
Vanadium	05/09/2022 13:39	-0.468	U	1.3	2.5
Zinc	05/09/2022 13:39	0.416	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211582 Lab Sample ID: 1141427

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	05/03/2022 17:03	-100	U	120	250
Sodium	05/03/2022 17:03	11.00	U	200	350

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211699 Lab Sample ID: 1136565

Analytical Prep Batch # 95243 Preparation Date/Time: 05/03/2022 14:15

ICAL Calibration #: 05042022 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Mercury	05/04/2022 10:35	0.00700	U	0.020	0.06

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1136455

Analytical Prep Batch # 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 15:49	2.50	U	29	60
Total Antimony	05/03/2022 15:49	-1.88	U	4.4	10
Total Arsenic	05/03/2022 15:49	1.35	U	7.7	20
Total Barium	05/03/2022 15:49	0.0660	U	0.71	2.0
Total Beryllium	05/03/2022 15:49	0.00300	U	0.95	4.0
Total Cadmium	05/03/2022 15:49	0.138	U	0.41	1.0
Total Calcium	05/03/2022 15:49	10.80	U	19	50
Total Chromium	05/03/2022 15:49	0.144	U	1.1	2.5
Total Cobalt	05/03/2022 15:49	-0.0220	U	0.55	2.5
Total Copper	05/03/2022 15:49	2.07	U	5.2	20
Total Iron	05/03/2022 15:49	10.10	U	11	40
Total Lead	05/03/2022 15:49	-1.03	U	1.4	2.0
Total Magnesium	05/03/2022 15:49	1.68	U	10	20
Total Manganese	05/03/2022 15:49	-0.00400	U	1.4	2.5
Total Nickel	05/03/2022 15:49	-0.207	U	1.5	2.5
Total Potassium	05/03/2022 15:49	-0.0680	U	120	250
Total Sodium	05/03/2022 15:49	0.0240	U	200	350
Total Thallium	05/03/2022 15:49	-0.718	U	6.8	20
Total Vanadium	05/03/2022 15:49	-0.298	U	1.3	2.5
Total Zinc	05/03/2022 15:49	0.355	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1136455

Analytical Prep Batch # 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 15:49	2.50	U	29	60
Total Antimony	05/03/2022 15:49	-1.88	U	4.4	10
Total Arsenic	05/03/2022 15:49	1.35	U	7.7	20
Total Barium	05/03/2022 15:49	0.0660	U	0.71	2.0
Total Beryllium	05/03/2022 15:49	0.00300	U	0.95	4.0
Total Cadmium	05/03/2022 15:49	0.138	U	0.41	1.0
Total Calcium	05/03/2022 15:49	10.80	U	19	50
Total Chromium	05/03/2022 15:49	0.144	U	1.1	2.5
Total Cobalt	05/03/2022 15:49	-0.0220	U	0.55	2.5
Total Copper	05/03/2022 15:49	2.07	U	5.2	20
Total Iron	05/03/2022 15:49	10.10	U	11	40
Total Lead	05/03/2022 15:49	-1.03	U	1.4	2.0
Total Magnesium	05/03/2022 15:49	1.68	U	10	20
Total Manganese	05/03/2022 15:49	-0.00400	U	1.4	2.5
Total Nickel	05/03/2022 15:49	-0.207	U	1.5	2.5
Total Potassium	05/03/2022 15:49	-0.0680	U	120	250
Total Sodium	05/03/2022 15:49	0.0240	U	200	350
Total Thallium	05/03/2022 15:49	-0.718	U	6.8	20
Total Vanadium	05/03/2022 15:49	-0.298	U	1.3	2.5
Total Zinc	05/03/2022 15:49	0.355	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1136455

Analytical Prep Batch # 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Selenium	05/09/2022 13:11	0.325	U	10	20
Total Silver	05/09/2022 13:11	0.121	U	1.1	2.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211581 Lab Sample ID: 1136455

Analytical Prep Batch # 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 15:49	2.50	U	29	60
Total Antimony	05/03/2022 15:49	-1.88	U	4.4	10
Total Arsenic	05/03/2022 15:49	1.35	U	7.7	20
Total Barium	05/03/2022 15:49	0.0660	U	0.71	2.0
Total Beryllium	05/03/2022 15:49	0.00300	U	0.95	4.0
Total Cadmium	05/03/2022 15:49	0.138	U	0.41	1.0
Total Calcium	05/03/2022 15:49	10.80	U	19	50
Total Chromium	05/03/2022 15:49	0.144	U	1.1	2.5
Total Cobalt	05/03/2022 15:49	-0.0220	U	0.55	2.5
Total Copper	05/03/2022 15:49	2.07	U	5.2	20
Total Iron	05/03/2022 15:49	10.10	U	11	40
Total Lead	05/03/2022 15:49	-1.03	U	1.4	2.0
Total Magnesium	05/03/2022 15:49	1.68	U	10	20
Total Manganese	05/03/2022 15:49	-0.00400	U	1.4	2.5
Total Nickel	05/03/2022 15:49	-0.207	U	1.5	2.5
Total Potassium	05/03/2022 15:49	-0.0680	U	120	250
Total Sodium	05/03/2022 15:49	0.0240	U	200	350
Total Thallium	05/03/2022 15:49	-0.718	U	6.8	20
Total Vanadium	05/03/2022 15:49	-0.298	U	1.3	2.5
Total Zinc	05/03/2022 15:49	0.355	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1137453

Analytical Prep Batch # 95267 Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 22:04	2.23	U	29	60
Total Antimony	05/03/2022 22:04	-1.88	U	4.4	10
Total Arsenic	05/03/2022 22:04	-0.230	U	7.7	20
Total Barium	05/03/2022 22:04	-0.0590	U	0.71	2.0
Total Beryllium	05/03/2022 22:04	0.0370	U	0.95	4.0
Total Cadmium	05/03/2022 22:04	-0.0190	U	0.41	1.0
Total Calcium	05/03/2022 22:04	3.69	U	19	50
Total Chromium	05/03/2022 22:04	-0.0390	U	1.1	2.5
Total Cobalt	05/03/2022 22:04	-0.050	U	0.55	2.5
Total Copper	05/03/2022 22:04	2.21	U	5.2	20
Total Iron	05/03/2022 22:04	3.44	U	11	40
Total Lead	05/03/2022 22:04	-0.606	U	1.4	2.0
Total Magnesium	05/03/2022 22:04	0.616	U	10	20
Total Manganese	05/03/2022 22:04	0.0200	U	1.4	2.5
Total Nickel	05/03/2022 22:04	-0.169	U	1.5	2.5
Total Potassium	05/03/2022 22:04	0.0510	U	120	250
Total Selenium	05/03/2022 22:04	0.300	U	10	20
Total Sodium	05/03/2022 22:04	0.155	U	200	350
Total Thallium	05/03/2022 22:04	0.205	U	6.8	20
Total Vanadium	05/03/2022 22:04	-0.0180	U	1.3	2.5
Total Zinc	05/03/2022 22:04	0.376	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1137453

Analytical Prep Batch # 95267 Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 22:04	2.23	U	29	60
Total Antimony	05/03/2022 22:04	-1.88	U	4.4	10
Total Arsenic	05/03/2022 22:04	-0.230	U	7.7	20
Total Barium	05/03/2022 22:04	-0.0590	U	0.71	2.0
Total Beryllium	05/03/2022 22:04	0.0370	U	0.95	4.0
Total Cadmium	05/03/2022 22:04	-0.0190	U	0.41	1.0
Total Calcium	05/03/2022 22:04	3.69	U	19	50
Total Chromium	05/03/2022 22:04	-0.0390	U	1.1	2.5
Total Cobalt	05/03/2022 22:04	-0.050	U	0.55	2.5
Total Copper	05/03/2022 22:04	2.21	U	5.2	20
Total Iron	05/03/2022 22:04	3.44	U	11	40
Total Lead	05/03/2022 22:04	-0.606	U	1.4	2.0
Total Magnesium	05/03/2022 22:04	0.616	U	10	20
Total Manganese	05/03/2022 22:04	0.0200	U	1.4	2.5
Total Nickel	05/03/2022 22:04	-0.169	U	1.5	2.5
Total Potassium	05/03/2022 22:04	0.0510	U	120	250
Total Selenium	05/03/2022 22:04	0.300	U	10	20
Total Sodium	05/03/2022 22:04	0.155	U	200	350
Total Thallium	05/03/2022 22:04	0.205	U	6.8	20
Total Vanadium	05/03/2022 22:04	-0.0180	U	1.3	2.5
Total Zinc	05/03/2022 22:04	0.376	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1137453

Analytical Prep Batch # 95267 Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Silver	05/09/2022 12:27	0.100	U	1.1	2.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211628 Lab Sample ID: 1137453

Analytical Prep Batch # 95267 Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Aluminum	05/03/2022 22:04	2.23	U	29	60
Total Antimony	05/03/2022 22:04	-1.88	U	4.4	10
Total Arsenic	05/03/2022 22:04	-0.230	U	7.7	20
Total Barium	05/03/2022 22:04	-0.0590	U	0.71	2.0
Total Beryllium	05/03/2022 22:04	0.0370	U	0.95	4.0
Total Cadmium	05/03/2022 22:04	-0.0190	U	0.41	1.0
Total Calcium	05/03/2022 22:04	3.69	U	19	50
Total Chromium	05/03/2022 22:04	-0.0390	U	1.1	2.5
Total Cobalt	05/03/2022 22:04	-0.050	U	0.55	2.5
Total Copper	05/03/2022 22:04	2.21	U	5.2	20
Total Iron	05/03/2022 22:04	3.44	U	11	40
Total Lead	05/03/2022 22:04	-0.606	U	1.4	2.0
Total Magnesium	05/03/2022 22:04	0.616	U	10	20
Total Manganese	05/03/2022 22:04	0.0200	U	1.4	2.5
Total Nickel	05/03/2022 22:04	-0.169	U	1.5	2.5
Total Potassium	05/03/2022 22:04	0.0510	U	120	250
Total Selenium	05/03/2022 22:04	0.300	U	10	20
Total Sodium	05/03/2022 22:04	0.155	U	200	350
Total Thallium	05/03/2022 22:04	0.205	U	6.8	20
Total Vanadium	05/03/2022 22:04	-0.0180	U	1.3	2.5
Total Zinc	05/03/2022 22:04	0.376	U	4.5	10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211581
Lab Sample ID: 1138572
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:11	500000	494000	99	80	120
Antimony	05/03/2022 15:11	0	0	0	-10	10
Arsenic	05/03/2022 15:11	0	-0.784	0	-20	20
Barium	05/03/2022 15:11	0	0.022	0	-1.7	1.7
Beryllium	05/03/2022 15:11	0	-0.14	0	-.7	.7
Cadmium	05/03/2022 15:11	0	0	0	-1.3	1.3
Calcium	05/03/2022 15:11	500000	487000	97	80	120
Chromium	05/03/2022 15:11	0	-7.72	0	-13	13
Cobalt	05/03/2022 15:11	0	0.376	0	-2	2
Copper	05/03/2022 15:11	0	2.31	0	-7	7
Iron	05/03/2022 15:11	500000	452000	90	80	120
Lead	05/03/2022 15:11	0	0	0	-4.7	4.7
Magnesium	05/03/2022 15:11	500000	522000	104	80	120
Manganese	05/03/2022 15:11	0	-0.877	0	-7.3	7.3
Nickel	05/03/2022 15:11	0	4.63	0	-7	7
Selenium	05/03/2022 15:11	0	-0.008	0	-13	13
Silver	05/03/2022 15:11	0	0	0	-7.3	7.3
Thallium	05/03/2022 15:11	0	-0.016	0	-7.3	7.3
Vanadium	05/03/2022 15:11	10000	9410	0	8000	12000
Zinc	05/03/2022 15:11	0	4.83	0	-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211628
Lab Sample ID: 1138669
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:11	500000	494000	99	80	120
Antimony	05/03/2022 15:11	0	0	0	-10	10
Arsenic	05/03/2022 15:11	0	-0.784	0	-20	20
Barium	05/03/2022 15:11	0	0.022	0	-1.7	1.7
Beryllium	05/03/2022 15:11	0	-0.14	0	-.7	.7
Cadmium	05/03/2022 15:11	0	0	0	-1.3	1.3
Calcium	05/03/2022 15:11	500000	487000	97	80	120
Chromium	05/03/2022 15:11	0	-7.72	0	-13	13
Cobalt	05/03/2022 15:11	0	0.376	0	-2	2
Copper	05/03/2022 15:11	0	2.31	0	-7	7
Iron	05/03/2022 15:11	500000	452000	90	80	120
Lead	05/03/2022 15:11	0	0	0	-4.7	4.7
Magnesium	05/03/2022 15:11	500000	522000	104	80	120
Manganese	05/03/2022 15:11	0	-0.877	0	-7.3	7.3
Nickel	05/03/2022 15:11	0	4.63	0	-7	7
Selenium	05/03/2022 15:11	0	-0.008	0	-13	13
Silver	05/03/2022 15:11	0	0	0	-7.3	7.3
Thallium	05/03/2022 15:11	0	-0.016	0	-7.3	7.3
Vanadium	05/03/2022 15:11	10000	9410	0	8000	12000
Zinc	05/03/2022 15:11	0	4.83	0	-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211629
Lab Sample ID: 1138683
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:11	500000	494000	99	80	120
Calcium	05/03/2022 15:11	500000	487000	97	80	120
Iron	05/03/2022 15:11	500000	452000	90	80	120
Magnesium	05/03/2022 15:11	500000	522000	104	80	120
Potassium	05/03/2022 15:11	0	-308	0	-500	500
Sodium	05/03/2022 15:11	0	-316	0	-500	500

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211628
Lab Sample ID: 1140981
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/09/2022 10:15	500000	491000	98	80	120
Antimony	05/09/2022 10:15	0	-3.66	0	-10	10
Arsenic	05/09/2022 10:15	0	-0.026	0	-20	20
Barium	05/09/2022 10:15	0	0.627	0	-1.7	1.7
Beryllium	05/09/2022 10:15	0	0.201	0	-.7	.7
Cadmium	05/09/2022 10:15	0	0.998	0	-1.3	1.3
Calcium	05/09/2022 10:15	500000	528000	106	80	120
Chromium	05/09/2022 10:15	0	-8.45	0	-13	13
Cobalt	05/09/2022 10:15	0	-0.329	0	-2	2
Copper	05/09/2022 10:15	0	-1.43	0	-7	7
Iron	05/09/2022 10:15	500000	479000	96	80	120
Lead	05/09/2022 10:15	0	0	0	-4.7	4.7
Magnesium	05/09/2022 10:15	500000	527000	105	80	120
Manganese	05/09/2022 10:15	0	-5.06	0	-7.3	7.3
Nickel	05/09/2022 10:15	0	5.40	0	-7	7
Selenium	05/09/2022 10:15	0	-2.63	0	-13	13
Silver	05/09/2022 10:15	0	-0.093	0	-7.3	7.3
Thallium	05/09/2022 10:15	0	-0.733	0	-7.3	7.3
Vanadium	05/09/2022 10:15	10000	10000	0	8000	12000
Zinc	05/09/2022 10:15	0	-6.08	0	-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211581
Lab Sample ID: 1141005
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/09/2022 10:15	500000	491000	98	80	120
Antimony	05/09/2022 10:15	0	-3.66	0	-10	10
Arsenic	05/09/2022 10:15	0	-0.026	0	-20	20
Barium	05/09/2022 10:15	0	0.627	0	-1.7	1.7
Beryllium	05/09/2022 10:15	0	0.201	0	-.7	.7
Cadmium	05/09/2022 10:15	0	0.998	0	-1.3	1.3
Calcium	05/09/2022 10:15	500000	528000	106	80	120
Chromium	05/09/2022 10:15	0	-8.45	0	-13	13
Cobalt	05/09/2022 10:15	0	-0.329	0	-2	2
Copper	05/09/2022 10:15	0	-1.43	0	-7	7
Iron	05/09/2022 10:15	500000	479000	96	80	120
Lead	05/09/2022 10:15	0	0	0	-4.7	4.7
Magnesium	05/09/2022 10:15	500000	527000	105	80	120
Manganese	05/09/2022 10:15	0	-5.06	0	-7.3	7.3
Nickel	05/09/2022 10:15	0	5.40	0	-7	7
Selenium	05/09/2022 10:15	0	-2.63	0	-13	13
Silver	05/09/2022 10:15	0	-0.093	0	-7.3	7.3
Thallium	05/09/2022 10:15	0	-0.733	0	-7.3	7.3
Vanadium	05/09/2022 10:15	10000	10000	0	8000	12000
Zinc	05/09/2022 10:15	0	-6.08	0	-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX

Analytical Run #: 211582
Lab Sample ID: 1141420
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:11	500000	494000	99	80	120
Calcium	05/03/2022 15:11	500000	487000	97	80	120
Iron	05/03/2022 15:11	500000	452000	90	80	120
Magnesium	05/03/2022 15:11	500000	522000	104	80	120
Potassium	05/03/2022 15:11	0	-308	0	-500	500
Sodium	05/03/2022 15:11	0	-316	0	-500	500

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211581
Lab Sample ID: 1138573
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Antimony	05/03/2022 15:19	500.0	510.0	102	80	120
Arsenic	05/03/2022 15:19	500.0	504.0	101	80	120
Barium	05/03/2022 15:19	500.0	528.0	106	80	120
Beryllium	05/03/2022 15:19	500.0	502.0	100	80	120
Cadmium	05/03/2022 15:19	500.0	510.0	102	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Chromium	05/03/2022 15:19	500.0	482.0	96	80	120
Cobalt	05/03/2022 15:19	500.0	496.0	99	80	120
Copper	05/03/2022 15:19	500.0	538.0	108	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Lead	05/03/2022 15:19	500.0	443.0	89	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Manganese	05/03/2022 15:19	500.0	499.0	100	80	120
Nickel	05/03/2022 15:19	500.0	491.0	98	80	120
Selenium	05/03/2022 15:19	500.0	507.0	101	80	120
Silver	05/03/2022 15:19	500.0	453.0	91	80	120
Thallium	05/03/2022 15:19	500.0	526.0	105	80	120
Vanadium	05/03/2022 15:19	500.0	478.0	96	80	120
Zinc	05/03/2022 15:19	500.0	508.0	102	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211628
Lab Sample ID: 1138670
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Antimony	05/03/2022 15:19	500.0	510.0	102	80	120
Arsenic	05/03/2022 15:19	500.0	504.0	101	80	120
Barium	05/03/2022 15:19	500.0	528.0	106	80	120
Beryllium	05/03/2022 15:19	500.0	502.0	100	80	120
Cadmium	05/03/2022 15:19	500.0	510.0	102	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Chromium	05/03/2022 15:19	500.0	482.0	96	80	120
Cobalt	05/03/2022 15:19	500.0	496.0	99	80	120
Copper	05/03/2022 15:19	500.0	538.0	108	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Lead	05/03/2022 15:19	500.0	443.0	89	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Manganese	05/03/2022 15:19	500.0	499.0	100	80	120
Nickel	05/03/2022 15:19	500.0	491.0	98	80	120
Selenium	05/03/2022 15:19	500.0	507.0	101	80	120
Silver	05/03/2022 15:19	500.0	453.0	91	80	120
Thallium	05/03/2022 15:19	500.0	526.0	105	80	120
Vanadium	05/03/2022 15:19	500.0	478.0	96	80	120
Zinc	05/03/2022 15:19	500.0	508.0	102	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

ICP ID Number: TJA 6000

SDG No.: 169098

ICS Source: SPEX, Ultra

Analytical Run #: 211629

Lab Sample ID: 1138684

Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt

ICAL Calibration #:

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Potassium	05/03/2022 15:19	50000	51100	102	80	120
Sodium	05/03/2022 15:19	50000	49900	100	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211629
Lab Sample ID: 1138684
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Potassium	05/03/2022 15:19	50000	51100	102	80	120
Sodium	05/03/2022 15:19	50000	49900	100	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211628
Lab Sample ID: 1140982
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/09/2022 10:22	500000	486000	97	80	120
Antimony	05/09/2022 10:22	500.0	507.0	101	80	120
Arsenic	05/09/2022 10:22	500.0	524.0	105	80	120
Barium	05/09/2022 10:22	500.0	527.0	105	80	120
Beryllium	05/09/2022 10:22	500.0	486.0	97	80	120
Cadmium	05/09/2022 10:22	500.0	504.0	101	80	120
Calcium	05/09/2022 10:22	500000	530000	106	80	120
Chromium	05/09/2022 10:22	500.0	490.0	98	80	120
Cobalt	05/09/2022 10:22	500.0	504.0	101	80	120
Copper	05/09/2022 10:22	500.0	538.0	108	80	120
Iron	05/09/2022 10:22	500000	480000	96	80	120
Lead	05/09/2022 10:22	500.0	450.0	90	80	120
Magnesium	05/09/2022 10:22	500000	524000	105	80	120
Manganese	05/09/2022 10:22	500.0	509.0	102	80	120
Nickel	05/09/2022 10:22	500.0	497.0	99	80	120
Selenium	05/09/2022 10:22	500.0	516.0	103	80	120
Silver	05/09/2022 10:22	500.0	456.0	91	80	120
Thallium	05/09/2022 10:22	500.0	494.0	99	80	120
Vanadium	05/09/2022 10:22	500.0	504.0	101	80	120
Zinc	05/09/2022 10:22	500.0	507.0	101	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211581
Lab Sample ID: 1141006
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/09/2022 10:22	500000	486000	97	80	120
Antimony	05/09/2022 10:22	500.0	507.0	101	80	120
Arsenic	05/09/2022 10:22	500.0	524.0	105	80	120
Barium	05/09/2022 10:22	500.0	527.0	105	80	120
Beryllium	05/09/2022 10:22	500.0	486.0	97	80	120
Cadmium	05/09/2022 10:22	500.0	504.0	101	80	120
Calcium	05/09/2022 10:22	500000	530000	106	80	120
Chromium	05/09/2022 10:22	500.0	490.0	98	80	120
Cobalt	05/09/2022 10:22	500.0	504.0	101	80	120
Copper	05/09/2022 10:22	500.0	538.0	108	80	120
Iron	05/09/2022 10:22	500000	480000	96	80	120
Lead	05/09/2022 10:22	500.0	450.0	90	80	120
Magnesium	05/09/2022 10:22	500000	524000	105	80	120
Manganese	05/09/2022 10:22	500.0	509.0	102	80	120
Nickel	05/09/2022 10:22	500.0	497.0	99	80	120
Selenium	05/09/2022 10:22	500.0	516.0	103	80	120
Silver	05/09/2022 10:22	500.0	456.0	91	80	120
Thallium	05/09/2022 10:22	500.0	494.0	99	80	120
Vanadium	05/09/2022 10:22	500.0	504.0	101	80	120
Zinc	05/09/2022 10:22	500.0	507.0	101	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211582
Lab Sample ID: 1141421
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Potassium	05/03/2022 15:19	50000	51100	102	80	120
Sodium	05/03/2022 15:19	50000	49900	100	80	120

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
ICP ID Number: TJA 6000
SDG No.: 169098
ICS Source: SPEX, Ultra

Analytical Run #: 211582
Lab Sample ID: 1141421
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	05/03/2022 15:19	500000	502000	100	80	120
Calcium	05/03/2022 15:19	500000	495000	99	80	120
Iron	05/03/2022 15:19	500000	458000	92	80	120
Magnesium	05/03/2022 15:19	500000	527000	105	80	120
Potassium	05/03/2022 15:19	50000	51100	102	80	120
Sodium	05/03/2022 15:19	50000	49900	100	80	120

CT LABORATORIES
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5A

SPIKE SAMPLE RECOVERY

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1136568	Parent Sample No.:	1136212
Analytical Prep Batch #	95243	Analytical Preparation Date/Time:	05/03/2022 14:15
Analytical Run #:	211699	ICAL Calibration #:	05042022

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/04/2022	Analysis Time: --------	12:54

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Mercury	82-119	0.095	J	BDL	U	2.0	5		CV	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
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5A

SPIKE SAMPLE RECOVERY

Sample Description: **54IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1136458
Parent Sample No.: 1136212
Analytical Prep Batch #: 95236
Analytical Preparation Date/Time: 04/29/2022 10:19
Analytical Run #: 211581
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 16:21

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	86-115	962		171		800	99		P
Total Antimony	88-113	222		BDL	U	200	111		P
Total Arsenic	87-113	845		BDL	U	800	106		P
Total Barium	88-113	932		78.5		800	107		P
Total Beryllium	89-112	20.8		BDL	U	20.0	104		P
Total Cadmium	88-113	19.7		BDL	U	20.0	98		P
Total Calcium	87-113	267000		58700		200000	104		P
Total Chromium	90-113	86.7		3.1	J	80.0	104		P
Total Cobalt	89-114	208		BDL	U	200	104		P
Total Copper	86-114	113		8.7	J	100	104		P
Total Iron	87-115	626		209		400	104		P
Total Lead	86-113	195		BDL	U	200	98		P
Total Magnesium	85-113	131000		24500		100000	106		P
Total Manganese	90-114	216		8.6		200	104		P
Total Nickel	88-113	209		BDL	U	200	104		P
Total Selenium	83-114	872		BDL	U	800	109		P
Total Silver	84-115	18.0		BDL	U	20.0	90		P
Total Thallium	85-114	810		BDL	U	800	101		P
Total Vanadium	90-111	204		BDL	U	200	102		P
Total Zinc	87-115	263		51.6		200	106		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1136458	Parent Sample No.:	1136212
Analytical Prep Batch #	95236	Analytical Preparation Date/Time:	04/29/2022 10:19
Analytical Run #:	211582	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/03/2022	Analysis Time: --------	16:21

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	101000		828		100000	100		P
Total Sodium	87-115	124000		25800		100000	98		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1137456
Parent Sample No.: 1137439
Analytical Prep Batch #: 95267
Analytical Preparation Date/Time: 05/02/2022 09:24
Analytical Run #: 211628
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:35

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	2110		329		800	223		P	*FAIL*
Total Antimony	88-113	209		BDL	U	200	104		P	
Total Arsenic	87-113	826		BDL	U	800	103		P	
Total Barium	88-113	884		34.9		800	106		P	
Total Beryllium	89-112	20.7		BDL	U	20.0	104		P	
Total Cadmium	88-113	18.5		BDL	U	20.0	92		P	
Total Calcium	87-113	267000		67800		200000	100		P	
Total Chromium	90-113	87.0		3.4	J	80.0	104		P	
Total Cobalt	89-114	204		0.67	J	200	102		P	
Total Copper	86-114	107		5.3	J	100	102		P	
Total Iron	87-115	1480		678		400	200		P	*FAIL*
Total Lead	86-113	194		3.1	J	200	95		P	
Total Magnesium	85-113	132000		32800		100000	99		P	
Total Manganese	90-114	289		81.2		200	104		P	
Total Nickel	88-113	205		BDL	U	200	102		P	
Total Selenium	83-114	845		BDL	U	800	106		P	
Total Silver	84-115	19.9		BDL	U	20.0	100		P	
Total Thallium	85-114	824		BDL	U	800	103		P	
Total Vanadium	90-111	201		BDL	U	200	100		P	
Total Zinc	87-115	258		51.2		200	103		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1137456	Parent Sample No.:	1137439
Analytical Prep Batch #	95267	Analytical Preparation Date/Time:	05/02/2022 09:24
Analytical Run #:	211629	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:35

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	103000		1810		100000	101		P
Total Sodium	87-115	124000		27100		100000	97		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1138676
Parent Sample No.: 1137439
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211628
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:49

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Aluminum	80-120	4420		329		4000	102		P
Iron	80-120	2420		678		2000	87		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1141391
Parent Sample No.: 1137439
Analytical Prep Batch #:
Analytical Preparation Date/Time:
Analytical Run #: 211629
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:49

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Potassium	80-120	186000		1810		200000	92		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5B

POST DIGESTION SPIKE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: ug/L
Sample No: 1141392
Parent Sample No.: 1137439
Analytical Prep Batch #:
Analytical Preparation Date/Time:
Analytical Run #: 211629
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:49

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sodium	80-120	200000		27100		200000	86		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **54IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1136569	Parent Sample No.:	1136568
Analytical Prep Batch #	95243	Analytical Preparation Date/Time:	05/03/2022 14:15
Analytical Run #:	211699	ICAL Calibration #:	05042022

Analysis Type *Initial Analysis* Analysis Date: ----- 05/04/2022 Analysis Time: -------- 12:57

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Mercury	82-119	0.51		BDL	U	2.0	26		CV	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **54IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1136459	Parent Sample No.:	1136458
Analytical Prep Batch #	95236	Analytical Preparation Date/Time:	04/29/2022 10:19
Analytical Run #:	211581	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 16:28

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Aluminum	86-115	978		171		800	101		P
Total Antimony	88-113	221		BDL	U	200	110		P
Total Arsenic	87-113	852		BDL	U	800	106		P
Total Barium	88-113	946		78.5		800	108		P
Total Beryllium	89-112	20.9		BDL	U	20.0	104		P
Total Cadmium	88-113	19.9		BDL	U	20.0	100		P
Total Calcium	87-113	268000		58700		200000	105		P
Total Chromium	90-113	87.4		3.1	J	80.0	105		P
Total Cobalt	89-114	211		BDL	U	200	106		P
Total Copper	86-114	116		8.7	J	100	107		P
Total Iron	87-115	648		209		400	110		P
Total Lead	86-113	196		BDL	U	200	98		P
Total Magnesium	85-113	131000		24500		100000	106		P
Total Manganese	90-114	218		8.6		200	105		P
Total Nickel	88-113	211		BDL	U	200	106		P
Total Selenium	83-114	884		BDL	U	800	110		P
Total Silver	84-115	18.6		BDL	U	20.0	93		P
Total Thallium	85-114	824		BDL	U	800	103		P
Total Vanadium	90-111	206		BDL	U	200	103		P
Total Zinc	87-115	266		51.6		200	107		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1136459	Parent Sample No.:	1136458
Analytical Prep Batch #	95236	Analytical Preparation Date/Time:	04/29/2022 10:19
Analytical Run #:	211582	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/03/2022	Analysis Time: --------	16:28

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	102000		828		100000	101		P
Total Sodium	87-115	125000		25800		100000	99		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1137457	Parent Sample No.:	1137456
Analytical Prep Batch #	95267	Analytical Preparation Date/Time:	05/02/2022 09:24
Analytical Run #:	211628	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 22:42

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Total Aluminum	86-115	3130		329		800	350		P	*FAIL*
Total Antimony	88-113	207		BDL	U	200	104		P	
Total Arsenic	87-113	814		BDL	U	800	102		P	
Total Barium	88-113	886		34.9		800	106		P	
Total Beryllium	89-112	20.5		BDL	U	20.0	102		P	
Total Cadmium	88-113	18.6		BDL	U	20.0	93		P	
Total Calcium	87-113	267000		67800		200000	100		P	
Total Chromium	90-113	86.5		3.4	J	80.0	104		P	
Total Cobalt	89-114	203		0.67	J	200	101		P	
Total Copper	86-114	109		5.3	J	100	104		P	
Total Iron	87-115	2130		678		400	363		P	*FAIL*
Total Lead	86-113	193		3.1	J	200	95		P	
Total Magnesium	85-113	133000		32800		100000	100		P	
Total Manganese	90-114	291		81.2		200	105		P	
Total Nickel	88-113	205		BDL	U	200	102		P	
Total Selenium	83-114	839		BDL	U	800	105		P	
Total Silver	84-115	19.3		BDL	U	20.0	96		P	
Total Thallium	85-114	817		BDL	U	800	102		P	
Total Vanadium	90-111	200		BDL	U	200	100		P	
Total Zinc	87-115	262		51.2		200	105		P	

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	ug/L
Sample No	1137457	Parent Sample No.:	1137456
Analytical Prep Batch #	95267	Analytical Preparation Date/Time:	05/02/2022 09:24
Analytical Run #:	211629	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/03/2022	Analysis Time: --------	22:42

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Potassium	86-114	101000		1810		100000	99		P
Total Sodium	87-115	122000		27100		100000	95		P

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95243

Analytical Run #: 211699

ICAL Calibration #: 05042022

Sample #: 1136567

Parent Sample #: 1136212

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Mercury	05/04/2022	12:48	20	0.020	U	0.020	U	0		CV

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95236

Analytical Run #: 211581

ICAL Calibration #:

Sample #: 1136457

Parent Sample #: 1136212

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	05/03/2022	16:13	20	171		172		1		P	
Total Antimony	05/03/2022	16:13	20	4.4	U	4.4	U	0		P	
Total Arsenic	05/03/2022	16:13	20	7.7	U	7.7	U	0		P	
Total Barium	05/03/2022	16:13	20	78.5		78.4		0		P	
Total Beryllium	05/03/2022	16:13	20	0.95	U	0.95	U	0		P	
Total Cadmium	05/03/2022	16:13	20	0.41	U	0.41	U	0		P	
Total Calcium	05/03/2022	16:13	20	58700		59600		2		P	
Total Chromium	05/03/2022	16:13	20	3.1	J	3.4	J	9		P	
Total Cobalt	05/03/2022	16:13	20	0.55	U	0.55	U	0		P	
Total Copper	05/03/2022	16:13	20	8.7	J	6.7	J	26		P	*FAIL*
Total Iron	05/03/2022	16:13	20	209		211		1		P	
Total Lead	05/03/2022	16:13	20	1.4	U	1.4	U	0		P	
Total Magnesium	05/03/2022	16:13	20	24500		24800		1		P	
Total Manganese	05/03/2022	16:13	20	8.6		8.5		1		P	
Total Nickel	05/03/2022	16:13	20	1.5	U	1.5	U	0		P	
Total Selenium	05/03/2022	16:13	20	10	U	10	U	0		P	
Total Silver	05/03/2022	16:13	20	1.1	U	1.1	U	0		P	
Total Thallium	05/03/2022	16:13	20	6.8	U	6.8	U	0		P	
Total Vanadium	05/03/2022	16:13	20	1.3	U	1.3	U	0		P	
Total Zinc	05/03/2022	16:13	20	51.6		51.5		0		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95236

Analytical Run #: 211582

ICAL Calibration #:

Sample #: 1136457

Parent Sample #: 1136212

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	05/03/2022	16:13	20	828		777		6		P
Total Sodium	05/03/2022	16:13	20	25800		25600		1		P

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95267

Analytical Run #: 211628

ICAL Calibration #:

Sample #: 1137455

Parent Sample #: 1137439

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	05/03/2022	22:27	20	329		351		6		P	
Total Antimony	05/03/2022	22:27	20	4.4	U	4.4	U	0		P	
Total Arsenic	05/03/2022	22:27	20	7.7	U	7.7	U	0		P	
Total Barium	05/03/2022	22:27	20	34.9		35.7		2		P	
Total Beryllium	05/03/2022	22:27	20	0.95	U	0.95	U	0		P	
Total Cadmium	05/03/2022	22:27	20	0.41	U	0.41	U	0		P	
Total Calcium	05/03/2022	22:27	20	67800		68500		1		P	
Total Chromium	05/03/2022	22:27	20	3.4	J	3.5	J	3		P	
Total Cobalt	05/03/2022	22:27	20	0.67	J	0.87	J	26		P	*FAIL*
Total Copper	05/03/2022	22:27	20	5.3	J	6.3	J	17		P	
Total Iron	05/03/2022	22:27	20	678		699		3		P	
Total Lead	05/03/2022	22:27	20	3.1	J	2.0	J	43		P	*FAIL*
Total Magnesium	05/03/2022	22:27	20	32800		33400		2		P	
Total Manganese	05/03/2022	22:27	20	81.2		82.1		1		P	
Total Nickel	05/03/2022	22:27	20	1.5	U	1.5	U	0		P	
Total Selenium	05/03/2022	22:27	20	10	U	10	U	0		P	
Total Silver	05/03/2022	22:27	20	1.1	U	1.1	J	200		P	*FAIL*
Total Thallium	05/03/2022	22:27	20	6.8	U	6.8	U	0		P	
Total Vanadium	05/03/2022	22:27	20	1.3	U	1.3	U	0		P	
Total Zinc	05/03/2022	22:27	20	51.2		52.6		3		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: ug/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95267

Analytical Run #: 211629

ICAL Calibration #:

Sample #: 1137455

Parent Sample #: 1137439

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	05/03/2022	22:27	20	1810		1720		5		P
Total Sodium	05/03/2022	22:27	20	27100		27100		0		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **54IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 95243
Analytical Preparation Date/Time: 05/03/2022 14:15
Analytical Run #: 211699
ICAL Calibration #: 05042022
Sample #: 1136569
Parent Sample #: 1136568

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M	
Total Mercury	05/04/2022	12:57	20	0.095	J	0.51		137		CV	*FAIL*

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **54IDW**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID | SDG No.: 169098

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 95236 | Analytical Preparation Date/Time: 04/29/2022 10:19

Analytical Run #: 211581 | ICAL Calibration #:

Sample #: 1136459 | Parent Sample #: 1136458

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Aluminum	05/03/2022	16:28	20	962		978		2		P
Total Antimony	05/03/2022	16:28	20	222		221		0		P
Total Arsenic	05/03/2022	16:28	20	845		852		1		P
Total Barium	05/03/2022	16:28	20	932		946		1		P
Total Beryllium	05/03/2022	16:28	20	20.8		20.9		0		P
Total Cadmium	05/03/2022	16:28	20	19.7		19.9		1		P
Total Calcium	05/03/2022	16:28	20	267000		268000		0		P
Total Chromium	05/03/2022	16:28	20	86.7		87.4		1		P
Total Cobalt	05/03/2022	16:28	20	208		211		1		P
Total Copper	05/03/2022	16:28	20	113		116		3		P
Total Iron	05/03/2022	16:28	20	626		648		3		P
Total Lead	05/03/2022	16:28	20	195		196		1		P
Total Magnesium	05/03/2022	16:28	20	131000		131000		0		P
Total Manganese	05/03/2022	16:28	20	216		218		1		P
Total Nickel	05/03/2022	16:28	20	209		211		1		P
Total Selenium	05/03/2022	16:28	20	872		884		1		P
Total Silver	05/03/2022	16:28	20	18.0		18.6		3		P
Total Thallium	05/03/2022	16:28	20	810		824		2		P
Total Vanadium	05/03/2022	16:28	20	204		206		1		P
Total Zinc	05/03/2022	16:28	20	263		266		1		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID
SDG No.: 169098

% Solid for Sample:
Concentration Units: ug/L

Analytical Prep Batch # 95236
Analytical Preparation Date/Time 04/29/2022 10:19

Analytical Run #: 211582
ICAL Calibration #:

Sample #: 1136459
Parent Sample #: 1136458

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	05/03/2022	16:28	20	101000		102000		1		P
Total Sodium	05/03/2022	16:28	20	124000		125000		1		P

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID | SDG No.: 169098

% Solid for Sample: | Concentration Units: ug/L

Analytical Prep Batch #: 95267 | Analytical Preparation Date/Time: 05/02/2022 09:24

Analytical Run #: 211628 | ICAL Calibration #:

Sample #: 1137457 | Parent Sample #: 1137456

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M	
Total Aluminum	05/03/2022	22:42	20	2110		3130		39		P	*FAIL*
Total Antimony	05/03/2022	22:42	20	209		207		1		P	
Total Arsenic	05/03/2022	22:42	20	826		814		1		P	
Total Barium	05/03/2022	22:42	20	884		886		0		P	
Total Beryllium	05/03/2022	22:42	20	20.7		20.5		1		P	
Total Cadmium	05/03/2022	22:42	20	18.5		18.6		1		P	
Total Calcium	05/03/2022	22:42	20	267000		267000		0		P	
Total Chromium	05/03/2022	22:42	20	87.0		86.5		1		P	
Total Cobalt	05/03/2022	22:42	20	204		203		0		P	
Total Copper	05/03/2022	22:42	20	107		109		2		P	
Total Iron	05/03/2022	22:42	20	1480		2130		36		P	*FAIL*
Total Lead	05/03/2022	22:42	20	194		193		1		P	
Total Magnesium	05/03/2022	22:42	20	132000		133000		1		P	
Total Manganese	05/03/2022	22:42	20	289		291		1		P	
Total Nickel	05/03/2022	22:42	20	205		205		0		P	
Total Selenium	05/03/2022	22:42	20	845		839		1		P	
Total Silver	05/03/2022	22:42	20	19.9		19.3		3		P	
Total Thallium	05/03/2022	22:42	20	824		817		1		P	
Total Vanadium	05/03/2022	22:42	20	201		200		0		P	
Total Zinc	05/03/2022	22:42	20	258		262		2		P	

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: ug/L
Analytical Prep Batch #: 95267
Analytical Preparation Date/Time: 05/02/2022 09:24
Analytical Run #: 211629
ICAL Calibration #:
Sample #: 1137457
Parent Sample #: 1137456

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Potassium	05/03/2022	22:42	20	103000		101000		2		P
Total Sodium	05/03/2022	22:42	20	124000		122000		2		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: ug/L

Analytical Run #: 211699

Sample No.:#: 1136566

Analytical Prep Batch #: 95243

Preparation Date/Time: 05/03/2022 14:15

ICAL Calibration #: 05042022

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Mercury	05/04/2022 10:28	82-119	1.91		2.00	96		CV

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra SDG No.: 169098

Concentration Units: ug/L

Analytical Run #: 211581 Sample No.:#: 1136456

Analytical Prep Batch #: 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	05/03/2022 15:42	86-115	793.0		800.0	99		P
Total Antimony	05/03/2022 15:42	88-113	218.0		200.0	109		P
Total Arsenic	05/03/2022 15:42	87-113	835.0		800.0	104		P
Total Barium	05/03/2022 15:42	88-113	855.0		800.0	107		P
Total Beryllium	05/03/2022 15:42	89-112	20.60		20.0	103		P
Total Cadmium	05/03/2022 15:42	88-113	19.60		20.0	98		P
Total Calcium	05/03/2022 15:42	87-113	204000		200000	102		P
Total Chromium	05/03/2022 15:42	90-113	83.60		80.0	104		P
Total Cobalt	05/03/2022 15:42	89-114	209.0		200.0	104		P
Total Copper	05/03/2022 15:42	86-114	108.0		100.0	108		P
Total Iron	05/03/2022 15:42	87-115	420.0		400.0	105		P
Total Lead	05/03/2022 15:42	86-113	195.0		200.0	98		P
Total Magnesium	05/03/2022 15:42	85-113	104000		100000	104		P
Total Manganese	05/03/2022 15:42	90-114	209.0		200.0	104		P
Total Nickel	05/03/2022 15:42	88-113	210.0		200.0	105		P
Total Potassium	05/03/2022 15:42	86-114	100.0		100.0	100		P
Total Sodium	05/03/2022 15:42	87-115	98.20		100.0	98		P
Total Thallium	05/03/2022 15:42	85-114	814.0		800.0	102		P
Total Vanadium	05/03/2022 15:42	90-111	204.0		200.0	102		P
Total Zinc	05/03/2022 15:42	87-115	211.0		200.0	106		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra SDG No.: 169098

Concentration Units: ug/L

Analytical Run #: 211581 Sample No.:#: 1136456

Analytical Prep Batch #: 95236 Preparation Date/Time: 04/29/2022 10:19

ICAL Calibration #:

ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Selenium	05/09/2022 13:04	83-114	916.0		800.0	114		P
Total Silver	05/09/2022 13:04	84-115	19.80		20.0	99		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra SDG No.: 169098

Concentration Units: ug/L

Analytical Run #: 211628 Sample No.:#: 1137454

Analytical Prep Batch #: 95267 Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Aluminum	05/03/2022 21:35	86-115	752.0		800.0	94		P
Total Antimony	05/03/2022 21:35	88-113	200.0		200.0	100		P
Total Arsenic	05/03/2022 21:35	87-113	799.0		800.0	100		P
Total Barium	05/03/2022 21:35	88-113	825.0		800.0	103		P
Total Beryllium	05/03/2022 21:35	89-112	19.70		20.0	98		P
Total Cadmium	05/03/2022 21:35	88-113	17.70		20.0	88		P
Total Calcium	05/03/2022 21:35	87-113	196000		200000	98		P
Total Chromium	05/03/2022 21:35	90-113	81.30		80.0	102		P
Total Cobalt	05/03/2022 21:35	89-114	198.0		200.0	99		P
Total Copper	05/03/2022 21:35	86-114	97.20		100.0	97		P
Total Iron	05/03/2022 21:35	87-115	403.0		400.0	101		P
Total Lead	05/03/2022 21:35	86-113	188.0		200.0	94		P
Total Magnesium	05/03/2022 21:35	85-113	95400		100000	95		P
Total Manganese	05/03/2022 21:35	90-114	201.0		200.0	100		P
Total Nickel	05/03/2022 21:35	88-113	201.0		200.0	100		P
Total Potassium	05/03/2022 21:35	86-114	96.20		100.0	96		P
Total Selenium	05/03/2022 21:35	83-114	821.0		800.0	103		P
Total Sodium	05/03/2022 21:35	87-115	91.50		100.0	92		P
Total Thallium	05/03/2022 21:35	85-114	820.0		800.0	102		P
Total Vanadium	05/03/2022 21:35	90-111	193.0		200.0	96		P
Total Zinc	05/03/2022 21:35	87-115	197.0		200.0	98		P

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: ug/L

Analytical Run #: 211628

Sample No.:#: 1137454

Analytical Prep Batch #: 95267

Preparation Date/Time: 05/02/2022 09:24

ICAL Calibration #:

ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Silver	05/09/2022 12:20	84-115	19.00		20.0	95		P

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID SDG No.: 169098

Concentration Units: ug/L

Sample No.: 1138675 Parent Sample No.: 1137439

LIMS Run #: 211628 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Aluminum	05/03/2022	22:19	329	J	258.5	J	21		P	*INVALID*
Iron	05/03/2022	22:19	678		725		7		P	*INVALID*

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID SDG No.: 169098

Concentration Units: mg/L

Sample No.: 1141389 Parent Sample No.: 1137439

LIMS Run #: 211629 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Potassium	05/03/2022 22:19	1.81	U	600	U	100		P	*INVALID*

CT LABORATORIES
delivering more than data from your environmental analyses

9

ICP SERIAL DILUTION

Sample Description

49IDW

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID SDG No.: 169098

Concentration Units: mg/L

Sample No.: 1141390 Parent Sample No.: 1137439

LIMS Run #: 211629 ICAL Calibration #:.:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M	
Sodium	05/03/2022 22:19	27.1	U	1000	U	100		P	*INVALID*

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

ICP ID Number: TA SDG No.: 169098

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Method: EPA 3010A

SDG No.: 169098

Preparation Batch #: 95236

Preparation Date/Time: 04/29/2022 / 10:19

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1136212	Normal Sample	54IDW	GROUND WATER	
1136455	Method Blank		LIQUID	
1136456	Lab Control Spike		LIQUID	50.0
1136457	Lab Duplicate	54IDW	GROUND WATER	50
1136458	Matrix Spike	54IDW	GROUND WATER	
1136459	Matrix Spike Duplicate	54IDW	GROUND WATER	

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Method: EPA 7470A

SDG No.: 169098

Preparation Batch #: 95243

Preparation Date/Time: 05/03/2022 / 14:15

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1136212	Normal Sample	54IDW	GROUND WATER	
1136565	Method Blank		LIQUID	
1136566	Lab Control Spike		LIQUID	
1136567	Lab Duplicate	54IDW	GROUND WATER	
1136568	Matrix Spike	54IDW	GROUND WATER	
1136569	Matrix Spike Duplicate	54IDW	GROUND WATER	
1137439	Normal Sample	49IDW	GROUND WATER	

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Method: EPA 3010A

SDG No.: 169098

Preparation Batch #: 95267

Preparation Date/Time: 05/02/2022 / 09:24

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
1137439	Normal Sample	49IDW	GROUND WATER	
1137453	Method Blank		LIQUID	50.0
1137454	Lab Control Spike		LIQUID	50.0
1137455	Lab Duplicate	49IDW	GROUND WATER	
1137456	Matrix Spike	49IDW	GROUND WATER	
1137457	Matrix Spike Duplicate	49IDW	GROUND WATER	

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: CETAC

Method Number: CV

Start & End Date: 05/04/2022 to 05/04/2022

Analytical Run #: 211699

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1139472	ICV	1	5/04 10:19																X													
1139473	ICB	1	5/04 10:25																X													
1136566	LCSW	1	5/04 10:28																X													
1136565	MBW	1	5/04 10:35																X													
1136212	Initial	1	5/04 10:38																X													
1137439	Initial	1	5/04 10:41																X													
1139474	CCV	1	5/04 11:00																X													
1139475	CCB	1	5/04 11:06																X													
1139484	ICV	1	5/04 12:22																X													
1139485	ICB	1	5/04 12:29																X													
1136567	DUP	1	5/04 12:48																X													
1136568	MSW	1	5/04 12:54																X													
1136569	MSDW	1	5/04 12:57																X													
1139486	CCV	1	5/04 13:03																X													
1139487	CCB	1	5/04 13:10																X													

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: TJA

Method Number: P

Start & End Date: 05/03/2022 to 05/09/2022

Analytical Run #: 211581

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1138569	ICV	1	5/03 14:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138570	ICVLL	1	5/03 14:40	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138571	ICB	1	5/03 14:56	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138572	ICSA	1	5/03 15:11	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138573	ICSAB	1	5/03 15:19	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138574	ICV	1	5/03 15:34																							X							
1136456	LCSW	1	5/03 15:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X				X		X			X	X
1136455	MBW	1	5/03 15:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X				X		X			X	X
1136212	Initial	1	5/03 15:57	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X							X			X	X
1138575	L	5	5/03 16:05	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1136457	DUP	1	5/03 16:13	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1136458	MSW	1	5/03 16:21	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1136459	MSDW	1	5/03 16:28	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138576	PDSW	1	5/03 16:35	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138577	CCV1	1	5/03 16:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138578	CCV2	1	5/03 16:56	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138579	CCB	1	5/03 17:03	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141002	ICV	1	5/09 09:31	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141003	ICVLL	1	5/09 09:46	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
1141004	ICB	1	5/09 10:00	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141005	ICSA	1	5/09 10:15	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141006	ICSAB	1	5/09 10:22	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141007	ICVLL	1	5/09 10:37																							X							
1141008	CCV1	1	5/09 11:52	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141009	CCV2	1	5/09 11:58	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141010	CCB	1	5/09 12:05	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1136456	LCSW	1	5/09 13:04																					X		X							
1136455	MBW	1	5/09 13:11																					X		X							

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: TJA

Method Number: P

Start & End Date: 05/03/2022 to 05/09/2022

Analytical Run #: 211581

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1136212	Re-Analysis	1	5/09 13:18																					X		X							
1141011	CCV1	1	5/09 13:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141012	CCV2	1	5/09 13:32	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1141013	CCB	1	5/09 13:39	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: TJA

Method Number: P

Start & End Date: 05/03/2022 to 05/03/2022

Analytical Run #: 211582

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1141417	ICV	1	5/03 14:26																				X				X						
1141418	ICVLL	1	5/03 14:40																				X				X						
1141419	ICB	1	5/03 14:56																				X				X						
1141420	ICSA	1	5/03 15:11	X							X				X		X						X				X						
1141421	ICSAB	1	5/03 15:19	X							X				X		X						X				X						
1136212	Initial	1	5/03 15:57																				X				X						
1141432	L	5	5/03 16:05																				X										
1141433	L	5	5/03 16:05																								X						
1136457	DUP	1	5/03 16:13																				X				X						
1136458	MSW	1	5/03 16:21																				X				X						
1136459	MSDW	1	5/03 16:28																				X				X						
1141434	PDSW	1	5/03 16:35																				X										
1141435	PDSW	1	5/03 16:35																								X						
1141425	CCV1	1	5/03 16:49																				X				X						
1141426	CCV2	1	5/03 16:56																				X				X						
1141427	CCB	1	5/03 17:03																				X				X						

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: TJA

Method Number: P

Start & End Date: 05/03/2022 to 05/09/2022

Analytical Run #: 211628

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1138666	ICV	1	5/03 14:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138667	ICVLL	1	5/03 14:40																							X							
1138668	ICB	1	5/03 14:56	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138669	ICSA	1	5/03 15:11	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138670	ICSAB	1	5/03 15:19	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138671	ICV	1	5/03 15:34																							X							
1138694	CCV1	1	5/03 20:03	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138695	CCV2	1	5/03 20:10	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138696	CCB	1	5/03 20:17	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137454	LCSW	1	5/03 21:35	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1138672	CCV1	1	5/03 21:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138673	CCV2	1	5/03 21:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138674	CCB	1	5/03 21:56	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137453	MBW	1	5/03 22:04	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X	X	X			X		X			X	X
1137439	Initial	1	5/03 22:11	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
1138675	L	5	5/03 22:19	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137455	DUP	1	5/03 22:27	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137456	MSW	1	5/03 22:35	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137457	MSDW	1	5/03 22:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138676	PDSW	1	5/03 22:49	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138677	CCV1	1	5/03 23:19	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138678	CCV2	1	5/03 23:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1138679	CCB	1	5/03 23:33	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140978	ICV	1	5/09 09:31	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140979	ICVLL	1	5/09 09:46	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
1140980	ICB	1	5/09 10:00	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140981	ICSA	1	5/09 10:15	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140982	ICSAB	1	5/09 10:22	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL

SDG No.: 169098

Instrument ID Number: TJA

Method Number: P

Start & End Date: 05/03/2022 to 05/09/2022

Analytical Run #: 211628

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1140983	ICVLL	1	5/09 10:37																							X							
1140984	CCV1	1	5/09 11:52	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140985	CCV2	1	5/09 11:58	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140986	CCB	1	5/09 12:05	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1137454	LCSW	1	5/09 12:20																							X							
1137453	MBW	1	5/09 12:27																							X							
1137439	Re-Analysis	1	5/09 12:34																							X							
1140987	CCV1	1	5/09 13:26	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140988	CCV2	1	5/09 13:32	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
1140989	CCB	1	5/09 13:39	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Lab Code: CTL | SDG No.: 169098

Instrument ID Number: TJA | Method Number: P

Start & End Date: 05/03/2022 to 05/03/2022 | Analytical Run #: 211629

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
1138680	ICV	1	5/03 14:26																				X				X						
1138681	ICVLL	1	5/03 14:40																				X				X						
1138682	ICB	1	5/03 14:56																				X				X						
1138683	ICSA	1	5/03 15:11	X							X				X		X						X				X						
1138684	ICSAB	1	5/03 15:19	X							X				X		X						X				X						
1138697	CCV1	1	5/03 20:03																				X				X						
1138698	CCV2	1	5/03 20:10																				X				X						
1138699	CCB	1	5/03 20:17																				X				X						
1138686	CCV1	1	5/03 21:42																				X				X						
1138687	CCV2	1	5/03 21:49																				X				X						
1138688	CCB	1	5/03 21:56																				X				X						
1137439	Initial	1	5/03 22:11																				X				X						
1141389	L	5	5/03 22:19																				X										
1141390	L	5	5/03 22:19																								X						
1137455	DUP	1	5/03 22:27																				X				X						
1137456	MSW	1	5/03 22:35																				X				X						
1137457	MSDW	1	5/03 22:42																				X				X						
1141391	PDSW	1	5/03 22:49																				X										
1141392	PDSW	1	5/03 22:49																								X						
1138691	CCV1	1	5/03 23:19																				X				X						
1138692	CCV2	1	5/03 23:26																				X				X						
1138693	CCB	1	5/03 23:33																				X				X						

METALS
RAW DATA
DOCUMENTS

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	05/04/2022 13:08:43	05/03/2022 14:18:32	Linear	1/Conc	-0.000021	0.000003	0.000000	1.000000	0.998983	0.000000	0.371569	1.238562
Ag 338.289 {100}	05/04/2022 13:08:43	05/03/2022 14:18:32	Linear	1/Conc	43.685570	5.279786	0.000000	1.000000	0.999489	0.795114	0.642150	2.140500
Al 167.079 {501}	05/04/2022 13:08:43	05/03/2022 13:30:00	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	0.999858	0.000000	0.352665	1.175551
Al 309.271 {109}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000210	0.000001	0.000000	1.000000	0.999901	0.000001	12.773111	42.577038
Al 396.152 { 85}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000008	0.000002	0.000000	1.000000	0.999732	0.000047	7.351281	24.504272
As 193.759 {474}	05/04/2022 13:08:43	05/03/2022 13:30:00	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.999730	0.000000	3.381583	11.271944
As 197.262 {471}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	0.999806	0.000000	4.997884	16.659613
Ba 233.527 {445}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000000	0.000009	0.000000	1.000000	0.999662	0.000001	0.237141	0.790472
Ba 455.403 { 74}	05/04/2022 13:08:43	05/03/2022 13:37:53	Curvili	1/Conc	0.000110	0.000046	-0.000000	1.000000	0.999996	0.000001	0.204637	0.682123
Ba 493.409 { 68}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Var	0.000525	0.000044	0.000000	1.000000	0.999664	0.000149	0.793794	2.645981
Be 234.861 {144}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	-0.000000	0.000008	0.000000	1.000000	0.999779	0.000000	0.213609	0.712029
Be 313.042 {108}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000025	0.000083	0.000000	1.000000	0.999985	0.000000	0.013526	0.045086
Be 313.107 {108}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000013	0.000036	0.000000	1.000000	0.999976	0.000000	0.165969	0.553231
Ca 184.006 {483}	05/04/2022 13:08:43	05/03/2022 13:53:45	Linear	1/Conc	-0.000029	0.000002	0.000000	1.000000	0.999947	0.000009	1.009319	3.364395
Ca 315.887 {107}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000049	0.000001	0.000000	1.000000	0.999296	0.000028	5.389620	17.965400
Ca 317.933 {106}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.002519	0.000001	0.000000	1.000000	0.998893	0.000108	2.591979	8.639929
Ca 393.366 { 86}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000075	0.000198	0.000000	1.000000	0.999239	0.000083	0.042980	0.143265
Ca 396.847 { 85}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	0.000013	0.000084	0.000000	1.000000	0.999806	0.000078	0.094920	0.316401
Cd 226.502 {449}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	-0.000001	0.000021	0.000000	1.000000	0.999983	0.000000	0.156342	0.521141
Cd 228.802 {448}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000002	0.000005	0.000000	1.000000	0.999920	0.000000	0.413006	1.376688
Co 228.616 {447}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000003	0.000020	0.000000	1.000000	0.999793	0.000002	0.193332	0.644439
Co 238.892 {141}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999974	0.000001	0.306626	1.022088
Cr 205.560 {464}	05/04/2022 13:08:43	05/03/2022 13:46:19	Linear	1/Var	-0.000004	0.000015	0.000000	1.000000	0.999496	0.000006	0.175844	0.586148
Cr 267.716 {126}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000002	0.000003	0.000000	1.000000	0.999987	0.000000	0.334828	1.116094
Cu 223.008 {451}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000001	0.000004	0.000000	1.000000	0.999643	0.000001	0.956266	3.187553
Cu 324.754 {104}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000329	0.000003	0.000000	1.000000	0.999813	0.000007	2.428330	8.094435
Cu 327.396 {103}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000048	0.000002	0.000000	1.000000	0.999800	0.000001	4.575577	15.251924
Fe 234.349 {144}	05/04/2022 13:08:43	05/03/2022 13:53:45	Linear	1/Var	0.000015	0.000001	0.000000	1.000000	0.999984	0.000003	0.699558	2.331860
Fe 239.562 {140}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.997783	0.000082	3.836041	12.786804
Fe 259.940 {129}	05/04/2022 13:08:43	05/03/2022 14:10:52	Curvili	1/Var	0.000005	0.000003	0.000000	1.000000	0.999726	0.000036	1.513870	5.046235
Mg 202.582 {466}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000015	0.000001	0.000000	1.000000	0.998853	0.000161	2.449654	8.165513
Mg 279.079 {121}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999685	0.000003	25.559133	85.197111
Mg 280.270 {120}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000062	0.000048	0.000000	1.000000	0.999348	0.000081	0.013981	0.046604
Mn 257.610 {131}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000001	0.000012	0.000000	1.000000	0.999851	0.000002	0.047765	0.159218
Mn 259.373 {130}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	None	-0.000140	0.000010	0.000000	1.000000	0.999999	0.000737	0.364684	1.215613
Mo 202.030 {466}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	0.000004	0.000006	0.000000	1.000000	0.999955	0.000009	0.365364	1.217882
Mo 204.598 {464}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000002	0.000003	0.000000	1.000000	0.999825	0.000001	0.736140	2.453799
Ni 221.647 {452}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000002	0.000012	0.000000	1.000000	0.999779	0.000012	0.367243	1.224142
Ni 231.604 {445}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000001	0.000011	0.000000	1.000000	0.999786	0.000001	0.366247	1.220824
Pb 216.999 {455}	05/04/2022 13:08:43	05/03/2022 13:46:20	Curvili	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999971	0.000000	4.698486	15.661621
Pb 220.353 {153}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999986	0.000000	1.717821	5.726069
Pb 220.353 {453}	05/04/2022 13:08:43	05/03/2022 13:30:02	Linear	1/Conc	0.000014	0.000003	0.000000	1.000000	0.999972	0.000000	1.426759	4.755862
Sb 206.833 {463}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	-0.000001	0.000001	0.000000	1.000000	0.999811	0.000008	1.941046	6.470152
Sb 217.581 {455}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000010	0.000001	0.000000	1.000000	0.999816	0.000000	2.305353	7.684509

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

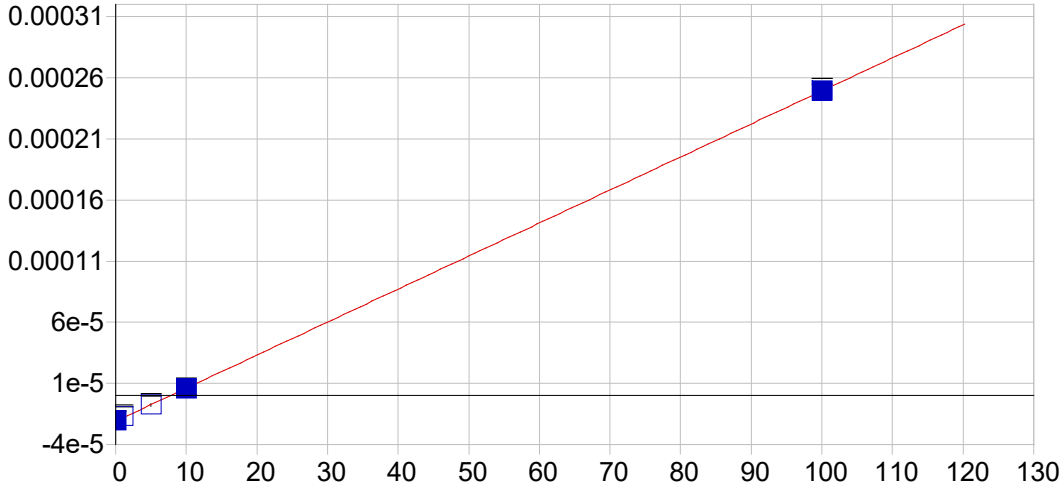
Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Se 196.090 {472}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000003	0.000001	0.000000	1.000000	0.999776	0.000000	2.889846	9.632820
Se 206.279 {463}	05/04/2022 13:08:43	05/03/2022 13:37:54	Curvili	1/Conc	0.000004	0.000000	0.000000	1.000000	0.999844	0.000000	14.818017	49.393390
Tl 190.856 {476}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000000	0.000002	0.000000	1.000000	0.999670	0.000001	1.703755	5.679182
Tl 190.856 {477}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	0.000004	0.000001	0.000000	1.000000	0.999439	0.000011	2.759172	9.197239
V 290.882 {116}	05/04/2022 13:08:43	05/03/2022 13:37:54	Curvili	1/Var	0.000013	0.000001	-0.000000	1.000000	0.999991	0.000001	4.338762	14.462541
V 292.402 {115}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000012	0.000008	0.000000	1.000000	0.999997	0.000000	0.280078	0.933592
Zn 206.200 {463}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Var	0.000013	0.000013	0.000000	1.000000	0.996634	0.000037	0.200498	0.668325
Zn 213.856 {457}	05/04/2022 13:08:43	05/03/2022 13:30:02	Linear	1/Conc	0.000009	0.000036	0.000000	1.000000	0.999985	0.000001	0.090243	0.300810
Y 224.306 {450}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 324.228 {104}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Y 371.030 { 91}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
Na 330.237 {102}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	-0.000000	0.000007	0.000000	1.000000	0.999847	0.000002	1.078491	3.594970
Na 588.995 { 57}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Conc	2219.4181	1611.6123	0.000000	1.000000	0.999985	4.223921	0.006709	0.022363
Na 589.592 { 57}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Conc	51.809383	702.06957	0.000000	1.000000	0.999993	1.198180	0.008962	0.029873
Si 212.412 {458}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	0.000045	0.000003	0.000000	1.000000	0.997384	0.000167	1.075564	3.585212
Si 251.611 {134}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.998752	0.000012	6.992742	23.309141
Ti 323.452 {104}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000272	0.000007	0.000000	1.000000	0.999875	0.000001	1.242070	4.140234
Sr 407.771 { 83}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000095	0.000071	0.000000	1.000000	0.999847	0.000005	0.139140	0.463801
Sr 421.552 { 80}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000036	0.000097	0.000000	1.000000	0.999889	0.000006	0.108229	0.360762
Sn 189.989 {477}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Var	0.000004	0.000004	0.000000	1.000000	0.999850	0.000008	0.522706	1.742355
Sn 189.989 {478}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Var	0.000002	0.000001	0.000000	1.000000	0.999405	0.000005	1.442288	4.807625
B 249.678 {135}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999999	0.000000	0.769694	2.565646
B 249.773 {135}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	0.000007	0.000003	0.000000	1.000000	0.999999	0.000000	0.403725	1.345751
Li 610.353 { 55}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-0.000474	0.000001	0.000000	1.000000	0.994993	0.000002	23.843010	79.476700
Li 670.776 { 50}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-30.799338	5.065816	0.000000	1.000000	0.999892	1.014185	1.271588	4.238626
K 766.490 { 44}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Var	32.267543	211.13077	0.000000	1.000000	0.999998	5.883864	0.032208	0.107360
K 769.896 { 44}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	3.540317	111.37843	0.000000	1.000000	0.999561	58.298796	0.054157	0.180523
P 177.495 {489}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-0.000003	0.000001	0.000000	1.000000	0.999994	0.000000	2.036108	6.787028
S 182.034 {485}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	0.000060	0.000000	0.000000	1.000000	0.998222	0.000071	3.771207	12.570692
Hg 184.950 {482}	05/04/2022 13:08:43	05/03/2022 13:30:03	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	1.000000	0.000000	0.567355	1.891182
Ce 404.076 { 83}	05/04/2022 13:08:43	05/03/2022 13:30:03	Linear	1/Conc	0.000047	0.000001	0.000000	1.000000	1.000000	0.000000	17.718102	59.060340

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Ce	0.000000	0.000000	No
			Al	-0.000018	0.000000	No
Ag 338.289 {100}	☒	2	Fe	0.000038	0.000000	No
			Na	0.100000	0.000000	No
Al 167.079 {501}	☒	None				
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001396	0.000000	No
As 197.262 {471}	☒	1	Al	0.000027	0.000000	No
Ba 233.527 {445}	☒	1	Fe	-0.000003	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	S	-0.005000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000004	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000002	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000165	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	3	Fe	-0.000001	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000018	0.000000	No
			Mo	0.008000	0.000000	No
			Ni	0.006000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	0.000308	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000031	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Fe	0.001120	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000014	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000021	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	5	Fe	-0.000074	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {153}	☒	2	Fe	0.000002	0.000000	No
			Al	-0.000020	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000020	0.000000	No
Sb 206.833 {463}	☒	3	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
			Ce	0.005500	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000049	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000332	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000126	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000083	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000115	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	1	Sr	-0.002100	0.000000	No
Na 588.995 { 57}	☒	1	Fe	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Na 589.592 { 57}	☒	1	Fe	0.000001	0.000000	No
Si 212.412 {458}	☒	1	Fe	-0.000007	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000177	0.000000	No
Ti 323.452 {104}	☒	2	Fe	0.000034	0.000000	No
			Ce	0.000123	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000036	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000012	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000018	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000401	0.000000	No
Li 610.353 { 55}	☒	1	Fe	-0.000109	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000003	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
S 182.034 {485}	☒	None				
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

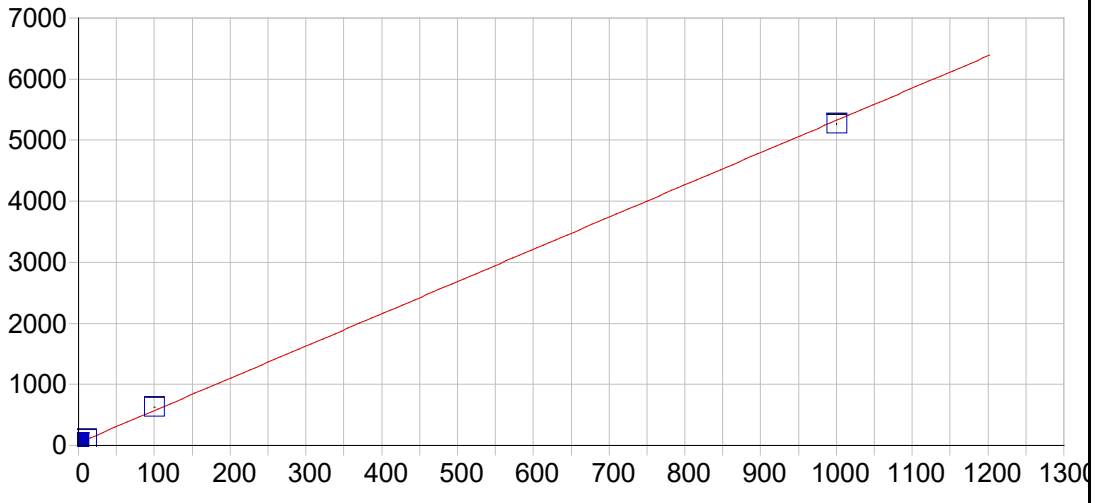


Ag 328.068 {103}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998983	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.371569		
Predicted MQL:	1.238562		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00042	-.000	.000	-.00002	.000	1
CalStd8=100	100.00	99.908	-.092	-.092	.00025	.000	1
CalStd4=5	5.0000	4.8638	-.136	-2.72	-.00001	.000	1
CalStd5=10	10.000	9.7528	-.247	-2.47	.00001	.000	1
CalStd3=1	1.0000	1.4757	.476	47.6	-.00002	.000	1

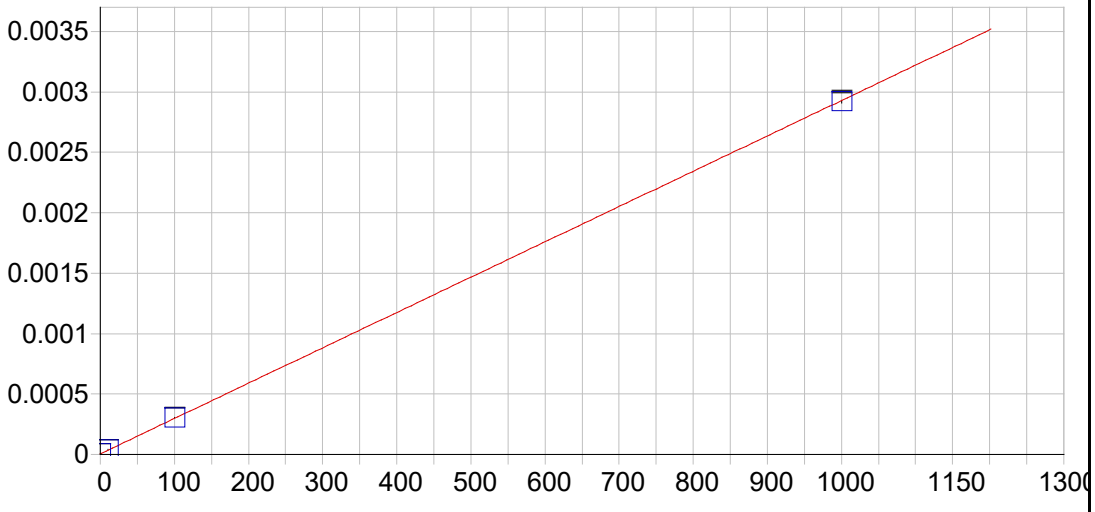


Ag 338.289 {100}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	43.685570	Re-Slope:	1.000000
A1 (Gain):	5.279786	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999489	Status:	OK.
Std Error of Est:	0.795114		
Predicted MDL:	0.642150		
Predicted MQL:	2.140500		

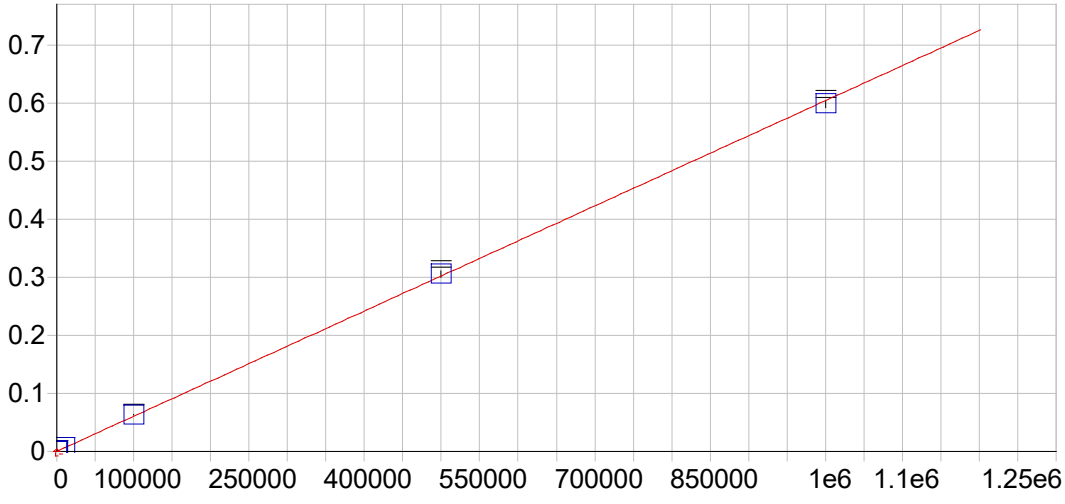
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00111	-.001	.000	43.680	1.02	1
Ag 1000	1000.0	989.68	-10.3	-1.03	5269.0	10.5	1
CalStd5=10	10.000	10.202	.202	2.02	97.552	2.07	1
CalStd8=100	100.00	110.12	10.1	10.1	625.10	1.83	1



Al 167.079 {501}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999858		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.352665				
Predicted MQL:	1.175551				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00179	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	996.54	-3.46	-.346	.00292	.000	1
CalStd5=10	10.000	11.647	1.65	16.5	.00004	.000	1
CalStd8=100	100.00	101.81	1.81	1.81	.00030	.000	1

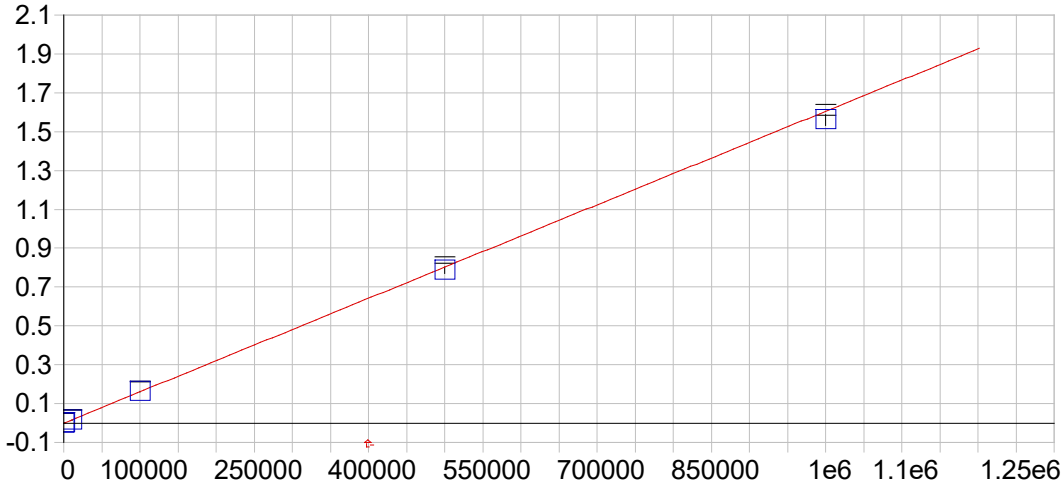


Al 309.271 {109}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000210	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	12.773111		
Predicted MQL:	42.577038		

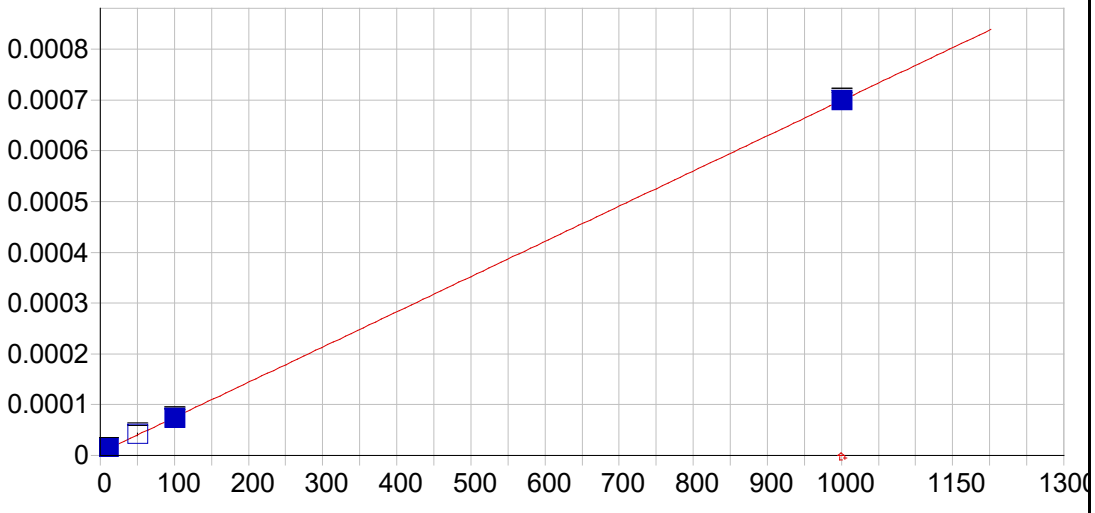
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01227	-.012	.000	.00021	.000	1
CalStd9=100	1000.0	1055.1	55.1	5.51	.00085	.000	1
CalStd5=10	10.000	19.299	9.30	93.0	.00022	.000	1
CalStd8=100	100.00	120.38	20.4	20.4	.00028	.000	1
CalStd10=10	10000.	9960.4	-39.6	-.396	.00622	.000	1
CalStd13=10	100000.	104080.	4080.	4.08	.06306	.001	1
CalStd14=50	500000.	505110.	5110.	1.02	.30522	.005	1
CalibStd15=	1000000.	990770.	-9230.	-.923	.59849	.006	1



Al 396.152 { 85}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999732		Status:	OK.	
Std Error of Est:	0.000047				
Predicted MDL:	7.351281				
Predicted MQL:	24.504272				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-5.8752	-5.88	.000	-.00000	.000	1
CalStd14=50	500000.	490530.	-9470.	-1.89	.78714	.017	1
CalStd13=10	100000.	100740.	739.	.739	.16166	.001	1
CalStd10=10	10000.	9788.6	-211.	-2.11	.01572	.000	1
CalStd9=100	1000.0	1051.1	51.1	5.11	.00169	.000	1
CalibStd15=	1000000.	972590.	-27400.	-2.74	1.5607	.027	1

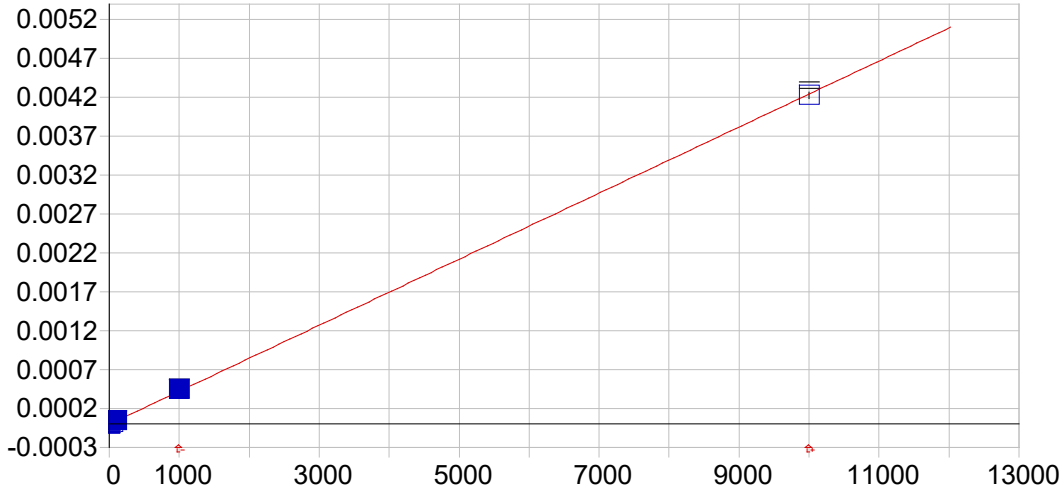


As 193.759 {474}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999730	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.381583		
Predicted MQL:	11.271944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00227	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	998.95	-1.05	-.105	.00070	.000	1
CalStd7=50	50.000	51.543	1.54	3.09	.00004	.000	1
CalStd5=10	10.000	12.244	2.24	22.4	.00001	.000	1
CalStd8=100	100.00	97.268	-2.73	-2.73	.00007	.000	1

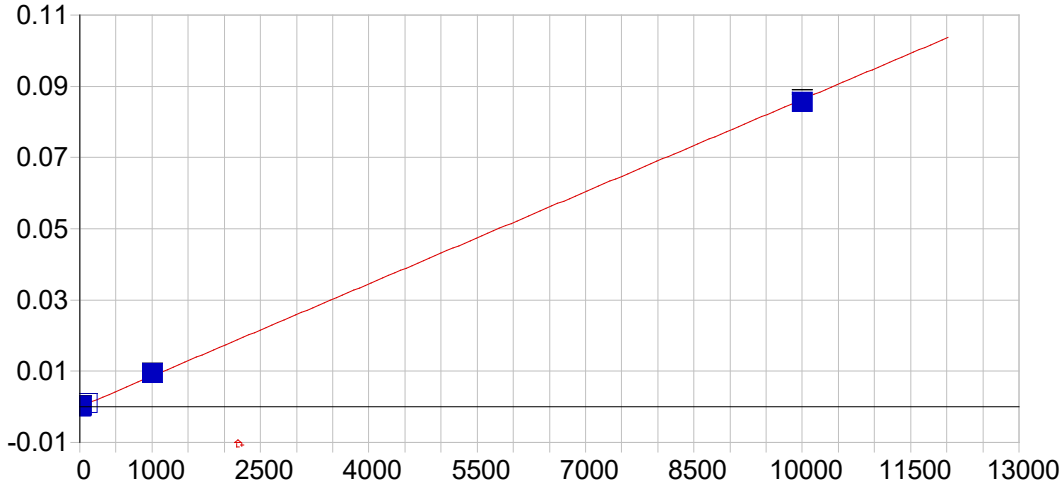


As 197.262 {471}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.997884		
Predicted MQL:	16.659613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00384	.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1049.0	49.0	4.90	.00044	.000	1
CalStd7=50	50.000	48.498	-1.50	-3.00	.00002	.000	1
CalStd5=10	10.000	5.9129	-4.09	-40.9	.00000	.000	1
CalStd8=100	100.00	101.03	1.03	1.03	.00004	.000	1
CalStd10=10	10000.	9955.6	-44.4	-.444	.00422	.000	1

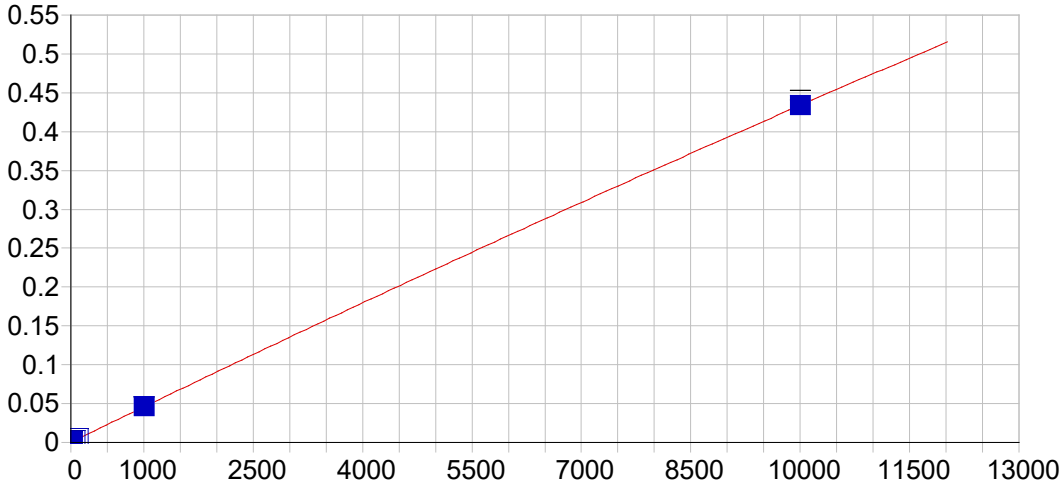


Ba 233.527 {445}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999662	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.237141		
Predicted MQL:	0.790472		

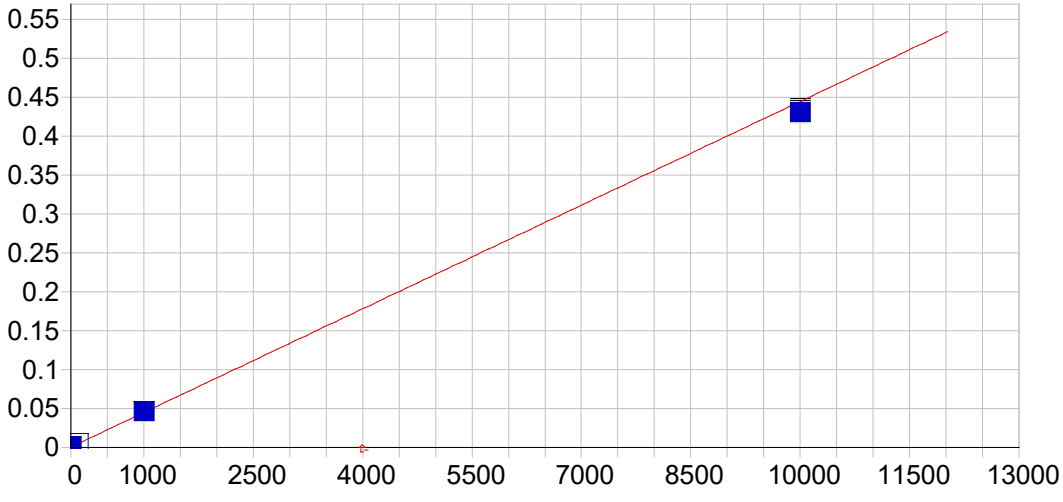
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00049	-.000	.000	-.00000	.000	1
CalStd5=10	10.000	10.624	.624	6.24	.00009	.000	1
CalStd6=20	20.000	22.189	2.19	10.9	.00019	.000	1
CalStd8=100	100.00	106.68	6.68	6.68	.00092	.000	1
CalStd4=5	5.0000	5.4754	.475	9.51	.00005	.000	1
CalStd9=100	1000.0	1077.4	77.4	7.74	.00930	.000	1
CalStd3=1	1.0000	1.0887	.089	8.87	.00001	.000	1
CalStd10=10	10000.	9912.5	-87.5	-.875	.08554	.001	1



Ba 455.403 { 74}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000110		Re-Slope:	1.000000	
A1 (Gain):	0.000046		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999996		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.204637				
Predicted MQL:	0.682123				

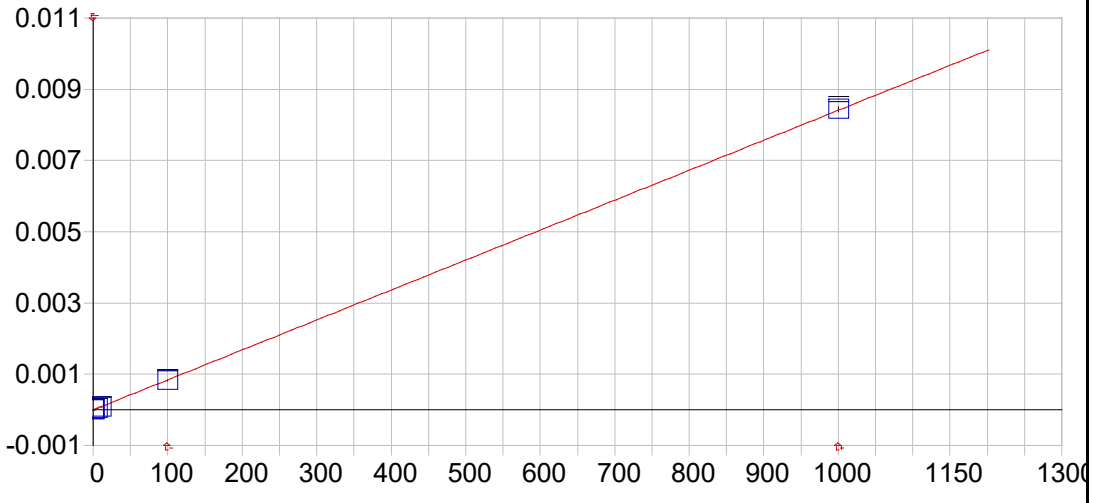
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00013	-.000	.000	.00011	.000	1
CalStd7=50	50.000	50.889	.889	1.78	.00244	.000	1
CalStd5=10	10.000	10.064	.064	.640	.00057	.000	1
CalStd6=20	20.000	20.632	.632	3.16	.00106	.000	1
CalStd8=100	100.00	98.733	-1.27	-1.27	.00464	.000	1
CalStd4=5	5.0000	5.4076	.408	8.15	.00036	.000	1
CalStd9=100	1000.0	999.17	-.828	-.083	.04568	.000	1
CalStd3=1	1.0000	1.0042	.004	.416	.00016	.000	1
CalStd10=10	10000.	10000.	.099	.001	.43383	.006	1



Ba 493.409 { 68}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000525		Re-Slope:	1.000000	
A1 (Gain):	0.000044		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999664		Status:	OK.	
Std Error of Est:	0.000149				
Predicted MDL:	0.793794				
Predicted MQL:	2.645981				

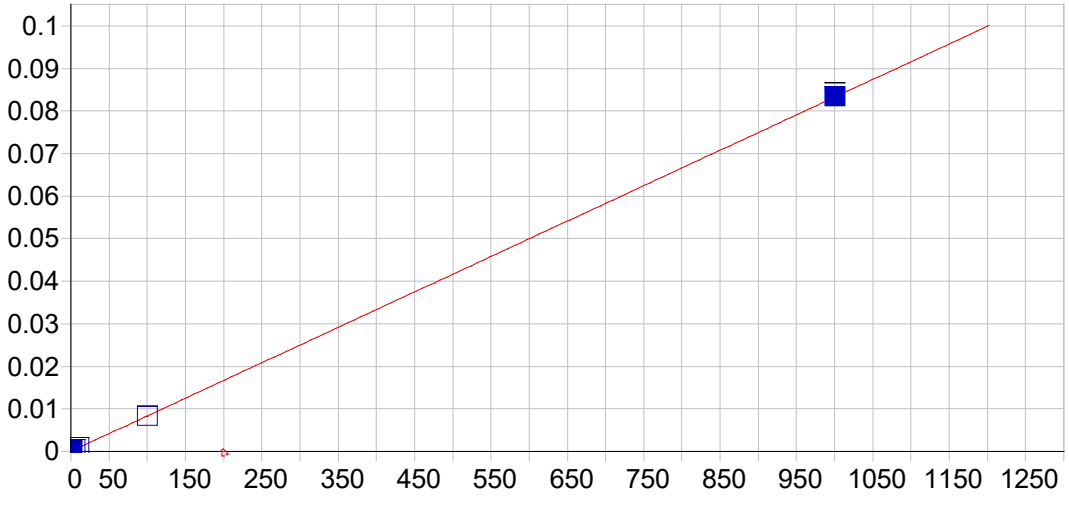
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07721	-.077	.000	.00052	.000	1
CalStd9=100	1000.0	1022.0	22.0	2.20	.04571	.000	1
CalStd8=100	100.00	99.355	-.645	-.645	.00494	.000	1
CalStd10=10	10000.	9688.1	-312.	-3.12	.42873	.004	1



Be 234.861 {144}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000008		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999779		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.213609				
Predicted MQL:	0.712029				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00059	.001	.000	-.00000	.000	1
CalStd5=10	10.000	9.5951	-.405	-4.05	.00008	.000	1
CalStd8=100	100.00	98.155	-1.85	-1.85	.00083	.000	1
CalStd2=0.5	.50000	.18593	-.314	-62.8	.00000	.000	1
CalStd4=5	5.0000	4.9148	-.085	-1.70	.00004	.000	1
CalStd9=100	1000.0	1003.1	3.13	.313	.00844	.000	1
CalStd3=1	1.0000	.51617	-.484	-48.4	.00000	.000	1

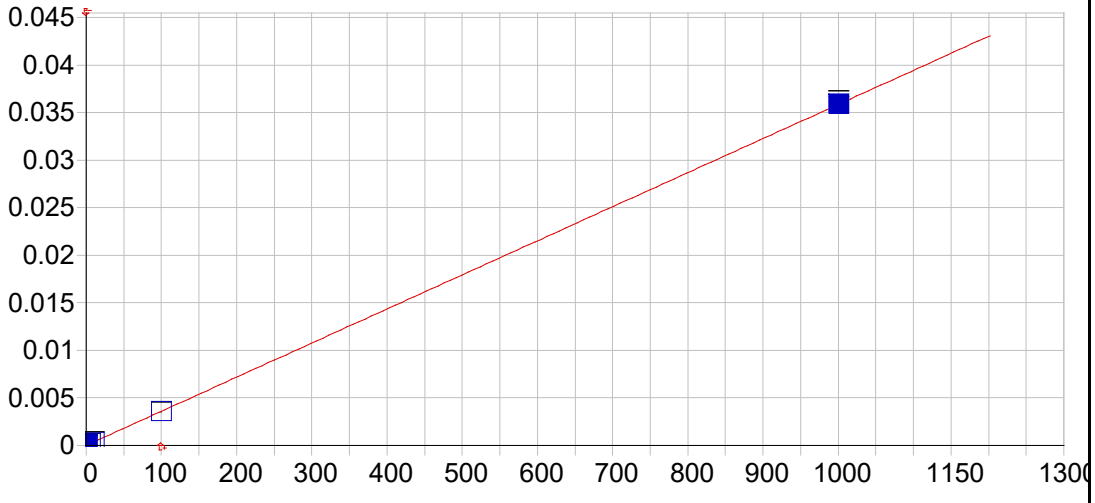


Be 313.042 {108}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.013526		
Predicted MQL:	0.045086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00002	-.000	.000	.00002	.000	1
CalStd5=10	10.000	10.064	.064	.635	.00086	.000	1
CalStd8=100	100.00	98.311	-1.69	-1.69	.00821	.000	1
CalStd2=0.5	.50000	.51733	.017	3.47	.00007	.000	1
CalStd4=5	5.0000	4.9972	-.003	-.056	.00044	.000	1
CalStd9=100	1000.0	1001.6	1.59	.159	.08339	.001	1
CalStd3=1	1.0000	1.0200	.020	2.00	.00011	.000	1

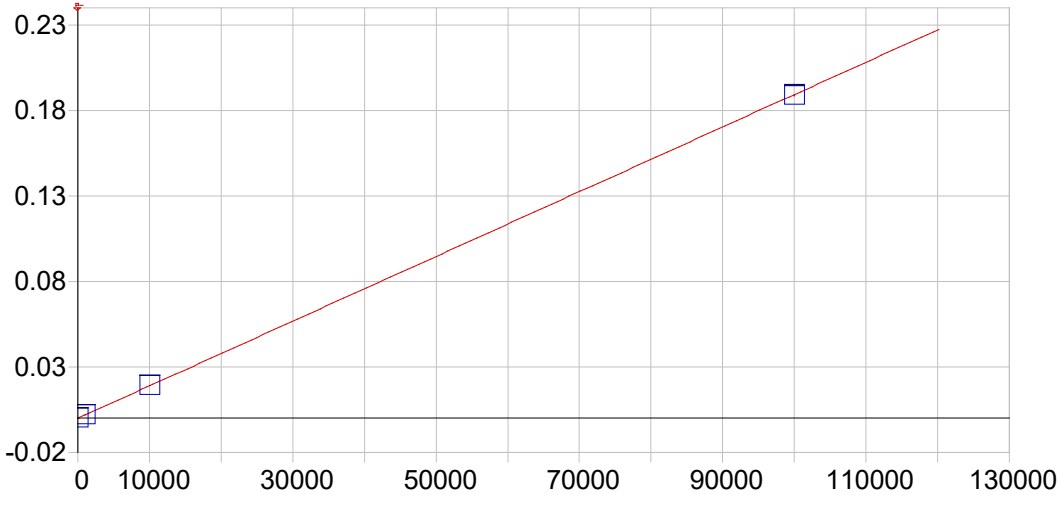


Be 313.107 {108}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000036	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.165969		
Predicted MQL:	0.553231		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00007	.000	.000	.00001	.000	1
CalStd5=10	10.000	9.9118	-.088	-.882	.00037	.000	1
CalStd2=0.5	.50000	.38391	-.116	-23.2	.00003	.000	1
CalStd4=5	5.0000	5.0810	.081	1.62	.00019	.000	1
CalStd9=100	1000.0	1001.3	1.29	.129	.03592	.000	1
CalStd3=1	1.0000	1.0875	.088	8.75	.00005	.000	1
CalStd8=100	100.00	98.744	-1.26	-1.26	.00355	.000	1

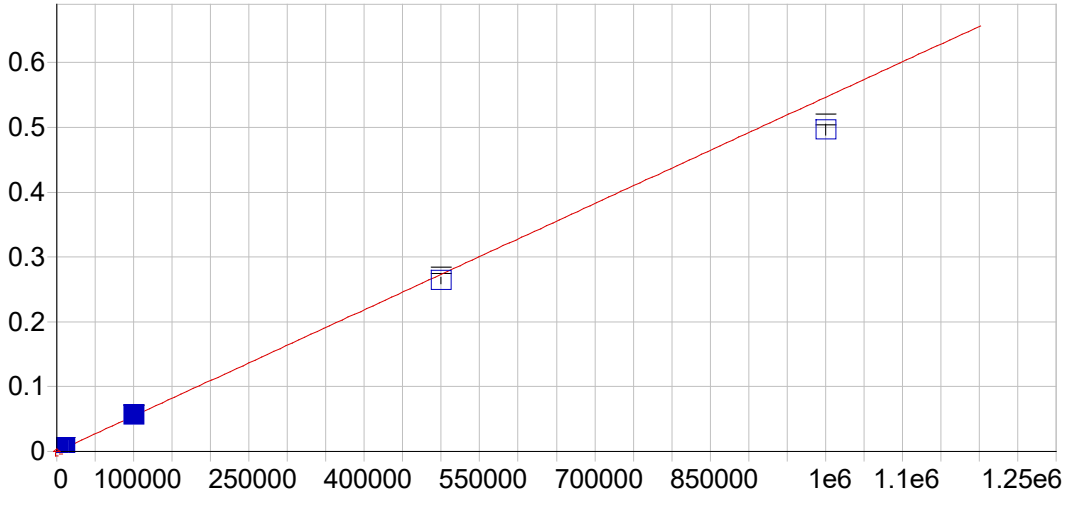


Ca 184.006 {483}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	1.009319		
Predicted MQL:	3.364395		

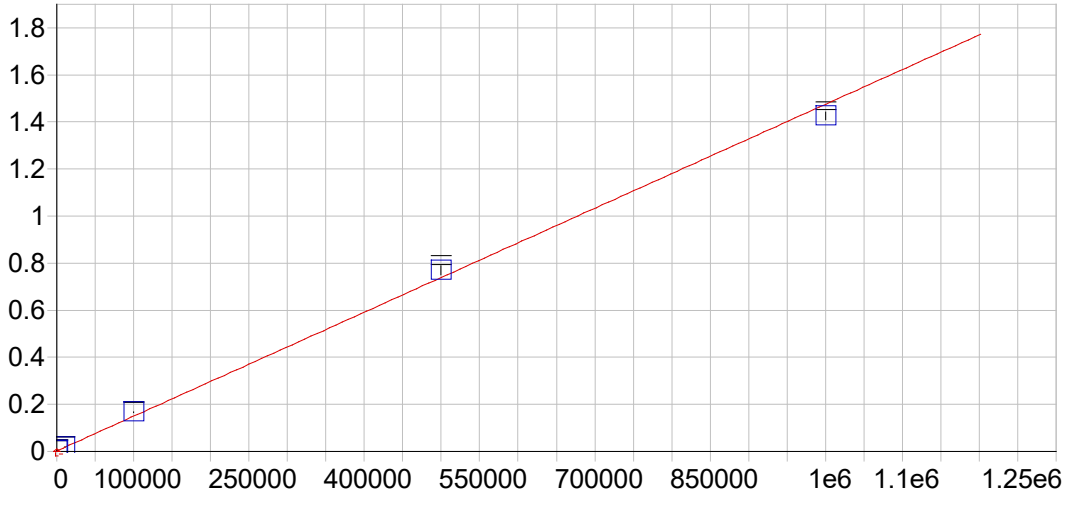
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10969	-.110	.000	-.00003	.000	1
CalStd10=10	10000.	10115.	115.	1.15	.01912	.000	1
CalStd13=10	100000.	99784.	-216.	-.216	.18887	.000	1
CalStd9=100	1000.0	1100.3	100.	10.0	.00205	.000	1



Ca 315.887 {107}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000049		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999296		Status:	OK.	
Std Error of Est:	0.000028				
Predicted MDL:	5.389620				
Predicted MQL:	17.965400				

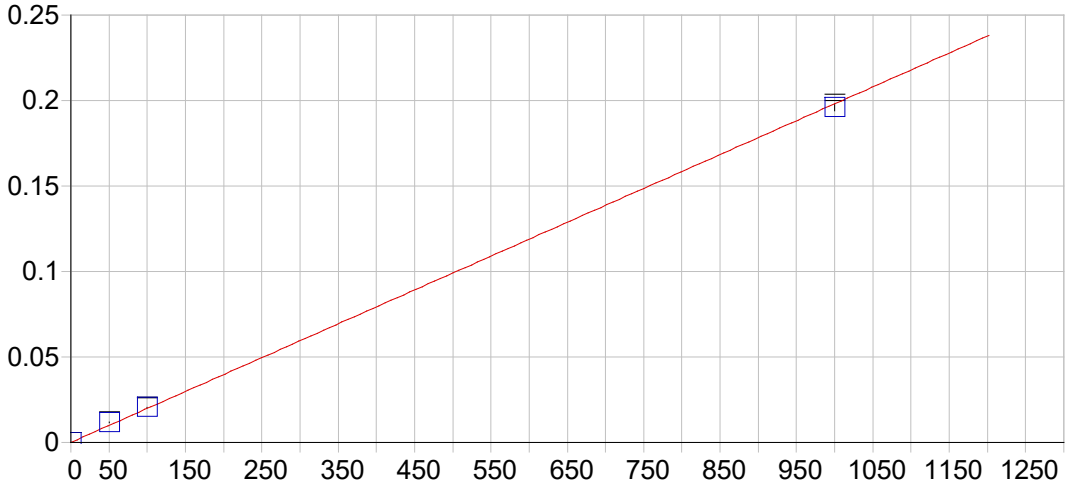
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-9.5808	-9.58	.000	.00004	.000	1
CalStd10=10	10000.	9897.5	-103.	-1.03	.00546	.000	1
CalStd13=10	100000.	102430.	2430.	2.43	.05602	.000	1
CalStd14=50	500000.	482500.	-17500.	-3.50	.26372	.005	1
CalStd9=100	1000.0	1037.5	37.5	3.75	.00062	.000	1
CalibStd15=	1000000.	908560.	-91400.	-9.14	.49656	.008	1



Ca 317.933 {106}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.002519		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998893		Status:	OK.	
Std Error of Est:	0.000108				
Predicted MDL:	2.591979				
Predicted MQL:	8.639929				

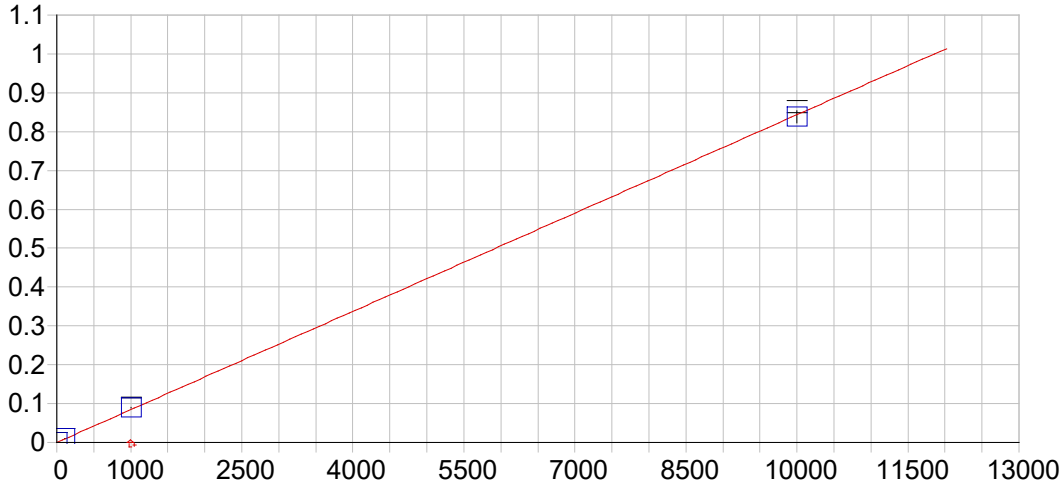
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.36371	-.364	.000	.00252	.000	1
CalStd10=10	10000.	10821.	821.	8.21	.01846	.000	1
CalStd13=10	100000.	112050.	12000.	12.0	.16754	.001	1
CalStd14=50	500000.	520940.	20900.	4.19	.76973	.018	1
CalStd9=100	1000.0	1153.2	153.	15.3	.00422	.000	1
CalibStd15=	1000000.	966040.	-34000.	-3.40	1.4253	.015	1



Ca 393.366 { 86}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000075		Re-Slope:	1.000000	
A1 (Gain):	0.000198		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999239		Status:	OK.	
Std Error of Est:	0.000083				
Predicted MDL:	0.042980				
Predicted MQL:	0.143265				

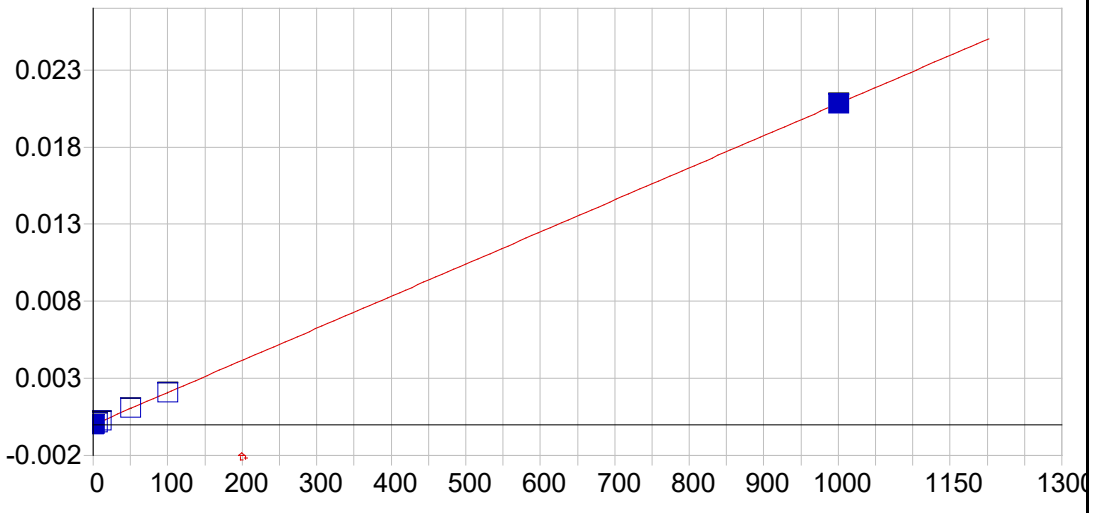
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00957	-.010	.000	.00007	.000	1
CalStd9=100	1000.0	988.48	-11.5	-1.15	.19583	.002	1
CalStd8=100	100.00	102.74	2.74	2.74	.02042	.000	1
CalStd7=50	50.000	58.780	8.78	17.6	.01172	.000	1



Ca 396.847 { 85}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000013		Re-Slope:	1.000000	
A1 (Gain):	0.000084		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999806		Status:	OK.	
Std Error of Est:	0.000078				
Predicted MDL:	0.094920				
Predicted MQL:	0.316401				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01448	-.014	.000	.00001	.000	1
CalStd10=10	10000.	9935.9	-64.1	-.641	.83792	.015	1
CalStd8=100	100.00	109.68	9.68	9.68	.00926	.000	1
CalStd9=100	1000.0	1054.4	54.4	5.44	.08893	.001	1

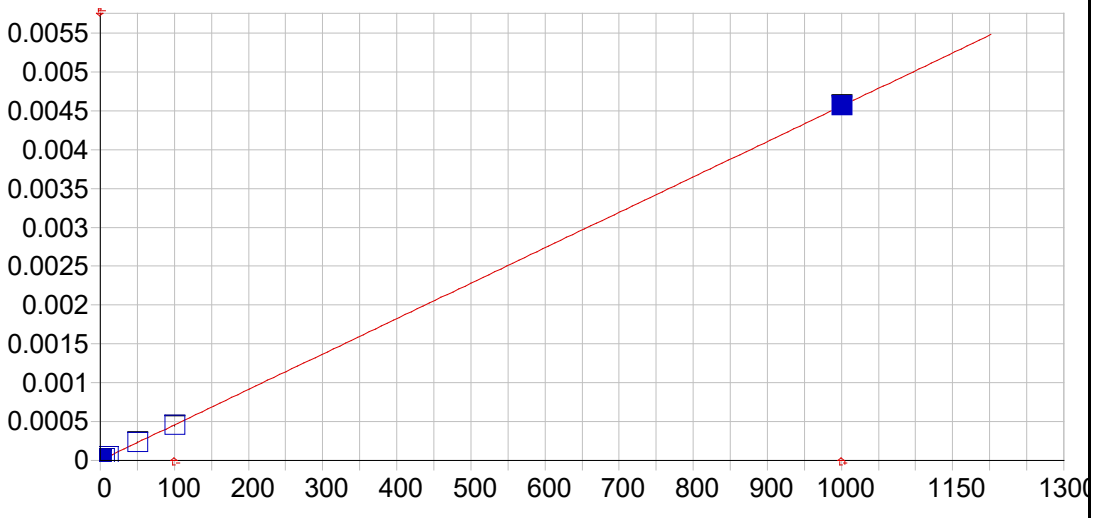


Cd 226.502 {449}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.156342		
Predicted MQL:	0.521141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00000	.000	1
CalStd3=1	1.0000	1.0218	.022	2.18	.00002	.000	1
CalStd2=0.5	.50000	.57478	.075	15.0	.00001	.000	1
CalStd4=5	5.0000	5.0126	.013	.253	.00010	.000	1
CalStd5=10	10.000	10.306	.306	3.06	.00021	.000	1
CalStd9=100	1000.0	999.12	-.884	-.088	.02080	.000	1
CalStd8=100	100.00	99.597	-.403	-.403	.00207	.000	1
CalStd7=50	50.000	50.871	.871	1.74	.00106	.000	1

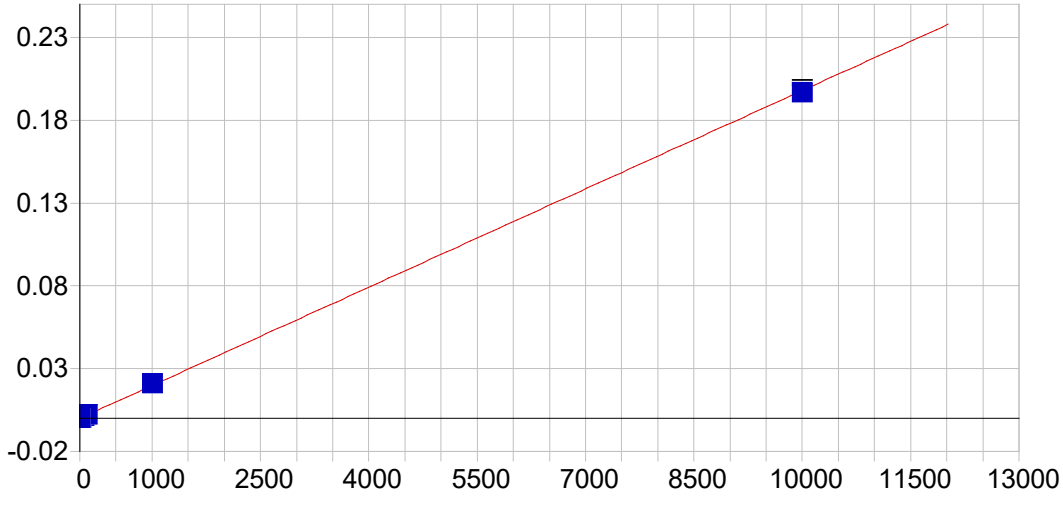


Cd 228.802 {448}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.413006		
Predicted MQL:	1.376688		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00033	-.000	.000	.00000	.000	1
CalStd3=1	1.0000	1.1236	.124	12.4	.00001	.000	1
CalStd2=0.5	.50000	.73209	.232	46.4	.00001	.000	1
CalStd4=5	5.0000	5.1708	.171	3.42	.00003	.000	1
CalStd5=10	10.000	10.512	.512	5.12	.00005	.000	1
CalStd9=100	1000.0	1000.2	.223	.022	.00456	.000	1
CalStd8=100	100.00	98.320	-1.68	-1.68	.00045	.000	1
CalStd7=50	50.000	50.419	.419	.838	.00023	.000	1

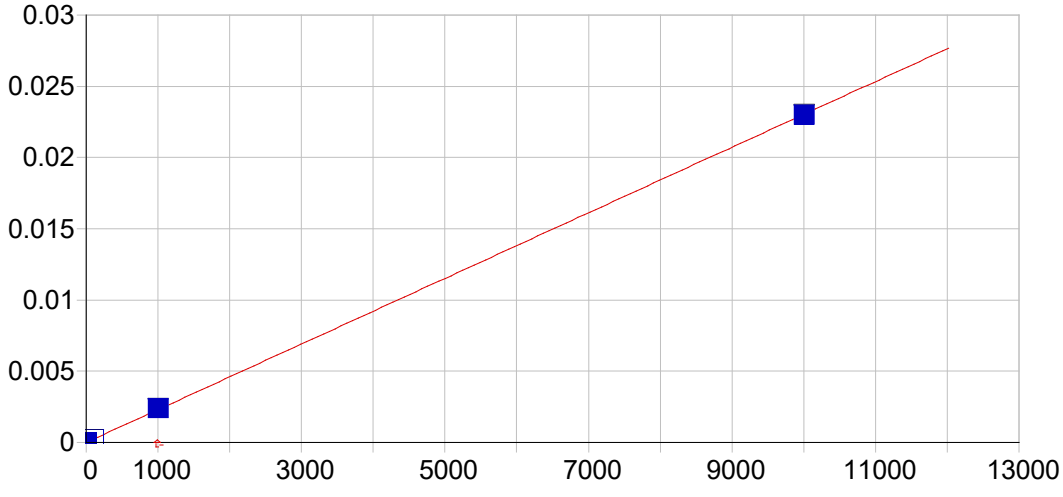


Co 228.616 {447}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999793	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.193332		
Predicted MQL:	0.644439		

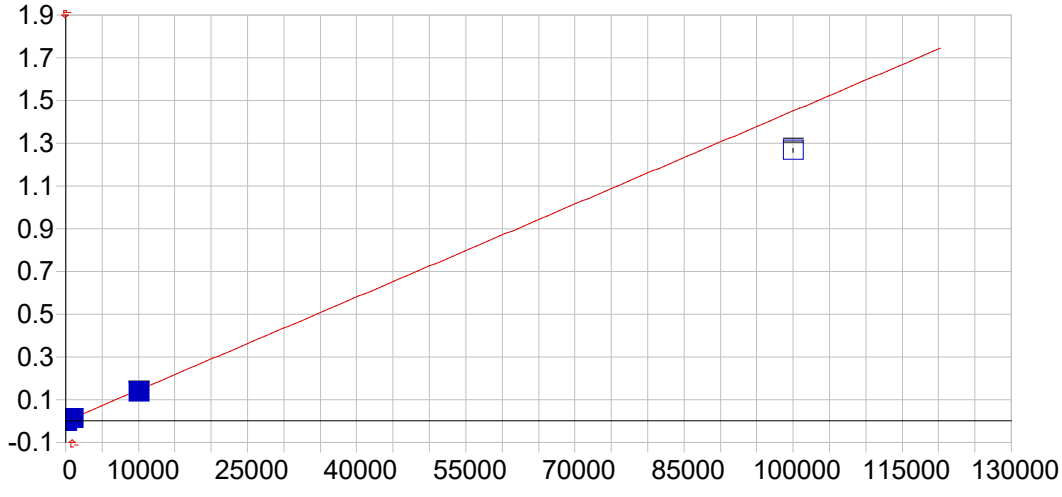
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00050	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	53.802	3.80	7.60	.00106	.000	1
CalStd5=10	10.000	10.953	.953	9.53	.00021	.000	1
CalStd4=5	5.0000	5.3970	.397	7.94	.00010	.000	1
CalStd8=100	100.00	105.31	5.31	5.31	.00208	.000	1
CalStd9=100	1000.0	1058.7	58.7	5.87	.02097	.000	1
CalStd3=1	1.0000	1.1413	.141	14.1	.00002	.000	1
CalStd10=10	10000.	9930.7	-69.3	-.693	.19675	.002	1



Co 238.892 {141}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999974		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.306626				
Predicted MQL:	1.022088				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00439	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	1021.4	21.4	2.14	.00235	.000	1
CalStd10=10	10000.	9976.1	-23.9	-.239	.02298	.000	1
CalStd8=100	100.00	102.49	2.49	2.49	.00024	.000	1

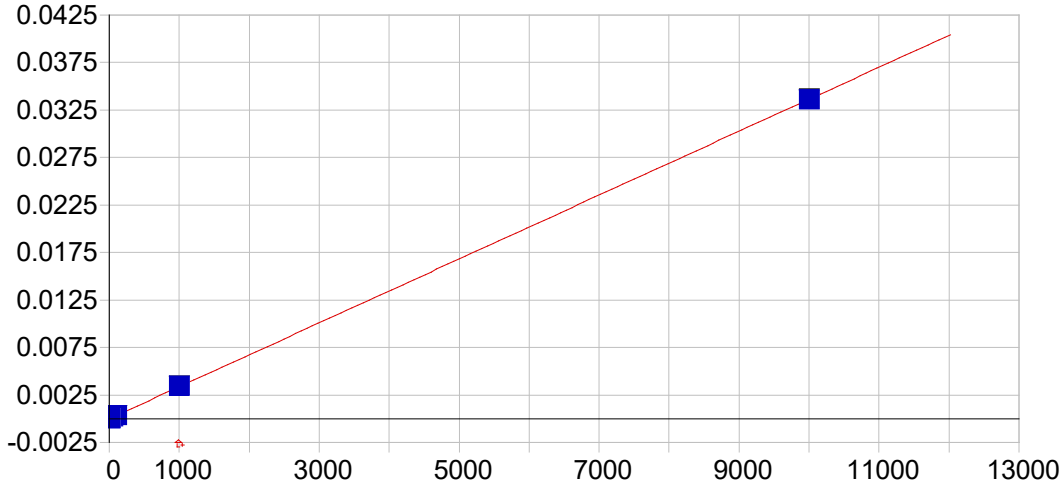


Cr 205.560 {464}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999496	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.175844		
Predicted MQL:	0.586148		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.09250	-.092	.000	-.00000	.000	1
CalStd5=10	10.000	10.130	.130	1.30	.00014	.000	1
CalStd7=50	50.000	50.825	.825	1.65	.00073	.000	1
CalStd9=100	1000.0	1004.7	4.67	.467	.01457	.000	1
CalStd8=100	100.00	99.125	-.875	-.875	.00143	.000	1
CalStd4=5	5.0000	5.0953	.095	1.91	.00007	.000	1
CalStd3=1	1.0000	1.0474	.047	4.74	.00001	.000	1
CalStd10=10	10000.	9401.4	-599.	-5.99	.13639	.001	1
CalStd12=10	100000.	87328.	-12700.	-12.7	1.2669	.008	1

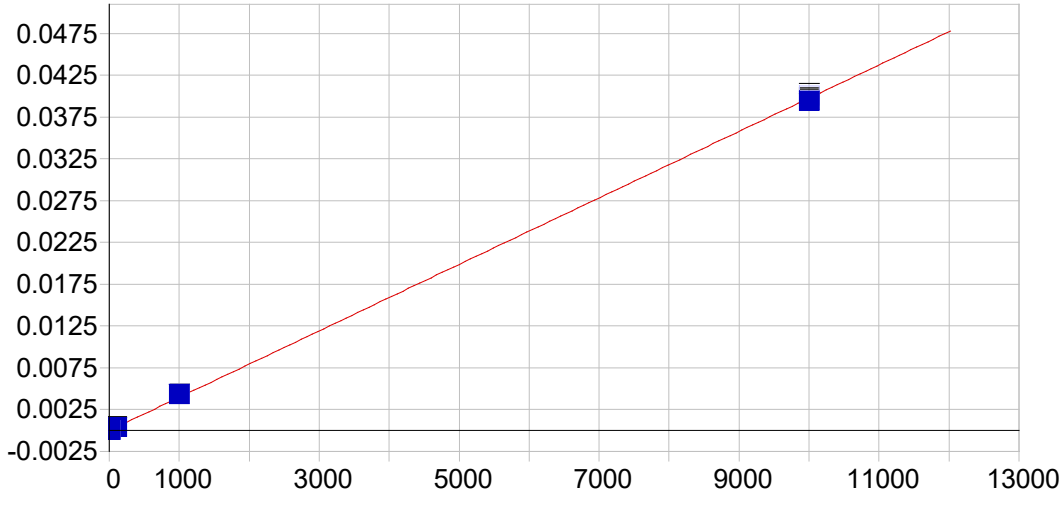


Cr 267.716 {126}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.334828		
Predicted MQL:	1.116094		

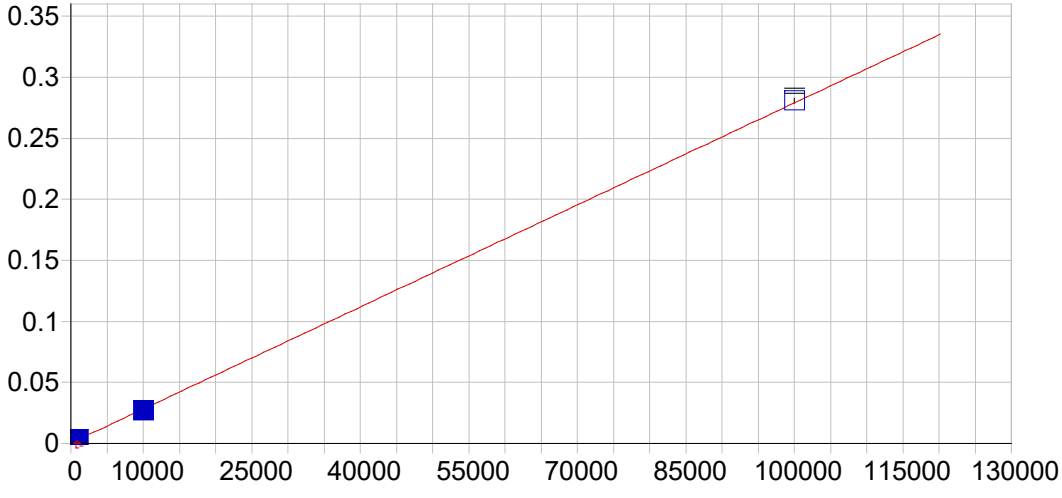
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00052	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.352	.352	3.52	.00003	.000	1
CalStd7=50	50.000	51.108	1.11	2.22	.00017	.000	1
CalStd9=100	1000.0	1013.8	13.8	1.38	.00341	.000	1
CalStd8=100	100.00	101.78	1.78	1.78	.00034	.000	1
CalStd4=5	5.0000	5.0856	.086	1.71	.00001	.000	1
CalStd10=10	10000.	9982.8	-17.2	-.172	.03359	.000	1



Cu 223.008 {451}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999643		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.956266				
Predicted MQL:	3.187553				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00463	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	1075.5	75.5	7.55	.00433	.000	1
CalStd8=100	100.00	108.48	8.48	8.48	.00044	.000	1
CalStd5=10	10.000	13.114	3.11	31.1	.00005	.000	1
CalStd10=10	10000.	9912.9	-87.1	-.871	.03998	.000	1

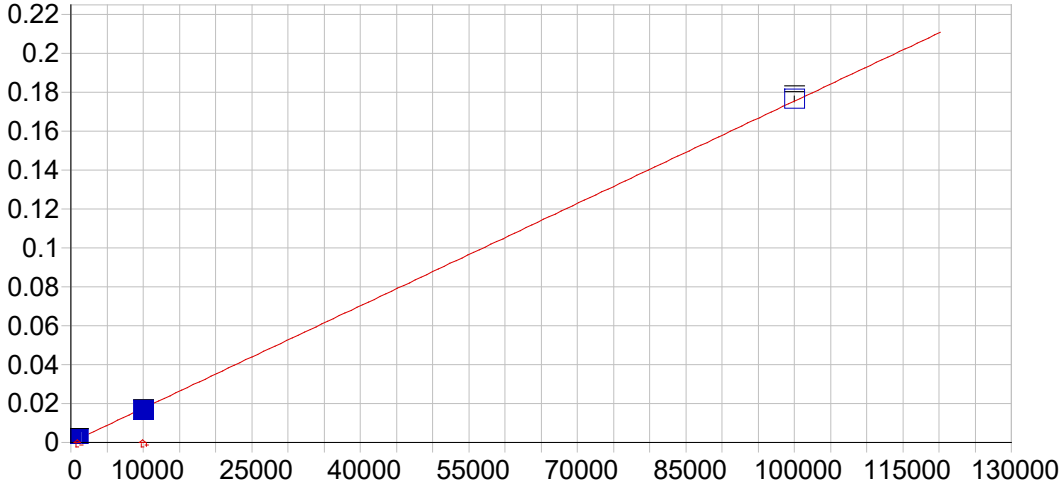


Cu 324.754 {104}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000329	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999813	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	2.428330		
Predicted MQL:	8.094435		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00922	.009	.000	.00033	.000	1
CalStd9=100	1000.0	988.66	-11.3	-1.13	.00308	.000	1
CalStd8=100	100.00	97.413	-2.59	-2.59	.00060	.000	1
CalStd10=10	10000.	9387.9	-612.	-6.12	.02649	.000	1
CalStd12=10	100000.	100630.	626.	.626	.28068	.002	1

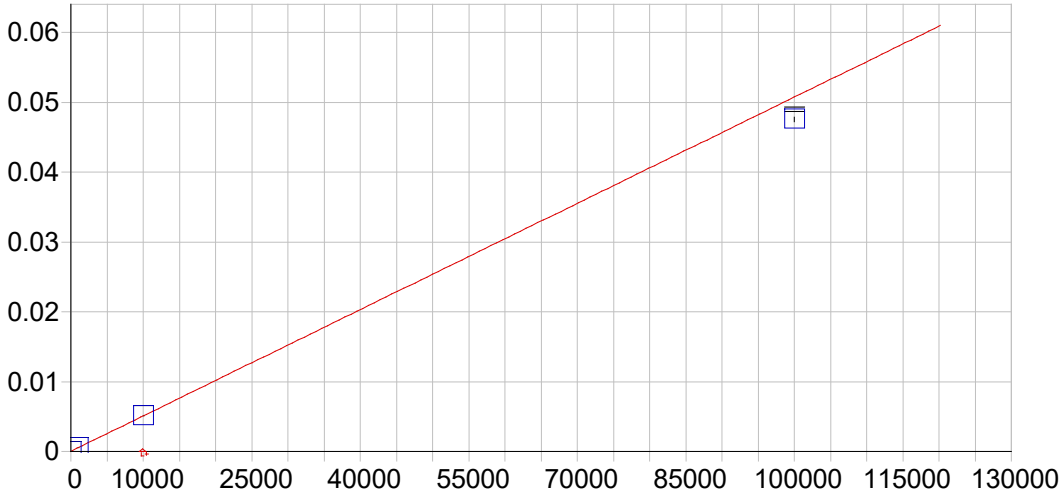


Cu 327.396 {103}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000048	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.575577		
Predicted MQL:	15.251924		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00002	.000	.000	.00005	.000	1
CalStd6=20	20.000	22.830	2.83	14.2	.00009	.000	1
CalStd7=50	50.000	47.140	-2.86	-5.72	.00013	.000	1
CalStd8=100	100.00	97.308	-2.69	-2.69	.00022	.000	1
CalStd9=100	1000.0	996.06	-3.94	-.394	.00179	.000	1
CalStd10=10	10000.	9370.1	-630.	-6.30	.01648	.000	1
CalStd4=5	5.0000	5.5646	.565	11.3	.00006	.000	1
CalStd5=10	10.000	8.8686	-1.13	-11.3	.00006	.000	1
CalStd12=10	100000.	100640.	637.	.637	.17659	.001	1

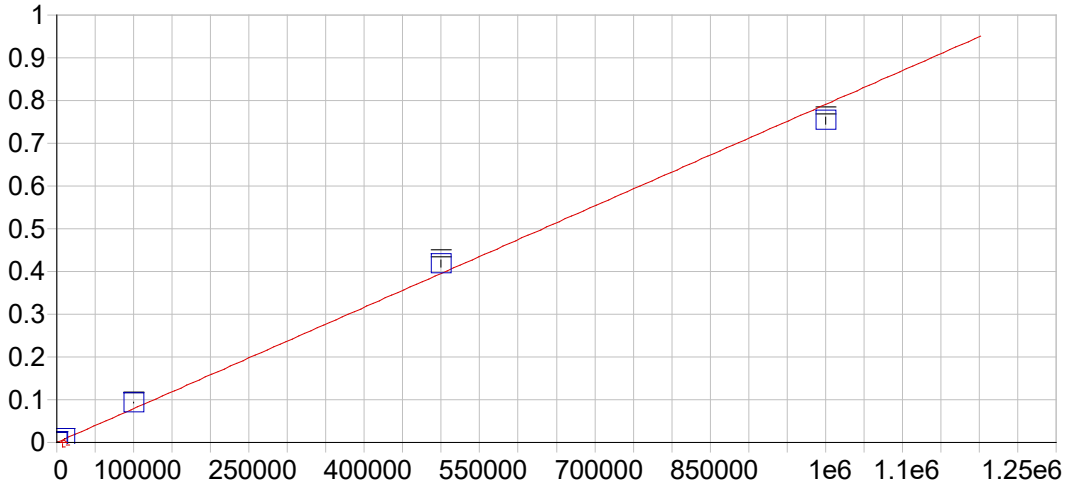


Fe 234.349 {144}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.699558		
Predicted MQL:	2.331860		

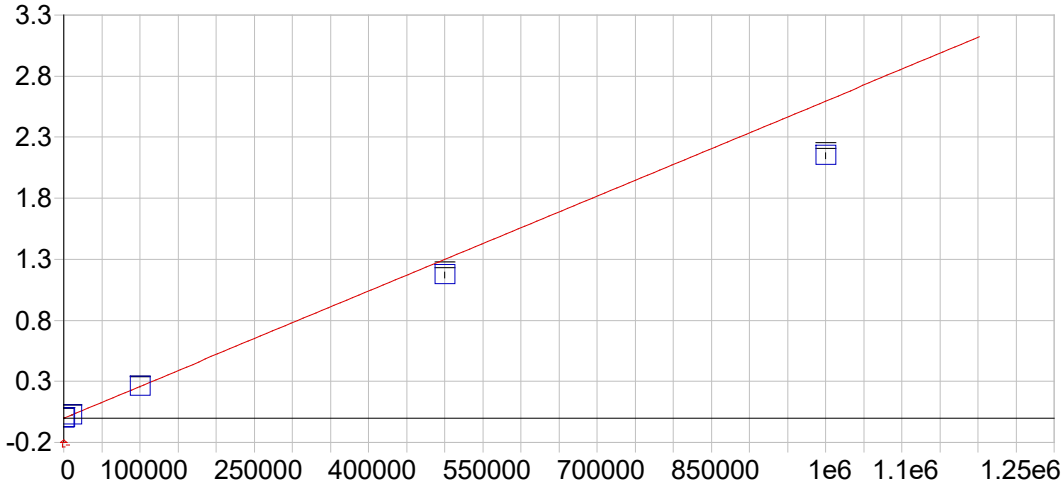
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.08524	-.085	.000	.00001	.000	1
CalStd10=10	10000.	10003.	3.28	.033	.00509	.000	1
CalStd13=10	100000.	93708.	-6290.	-6.29	.04756	.000	1
CalStd9=100	1000.0	1037.1	37.1	3.71	.00054	.000	1



Fe 239.562 {140}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.997783		Status:	OK.	
Std Error of Est:	0.000082				
Predicted MDL:	3.836041				
Predicted MQL:	12.786804				

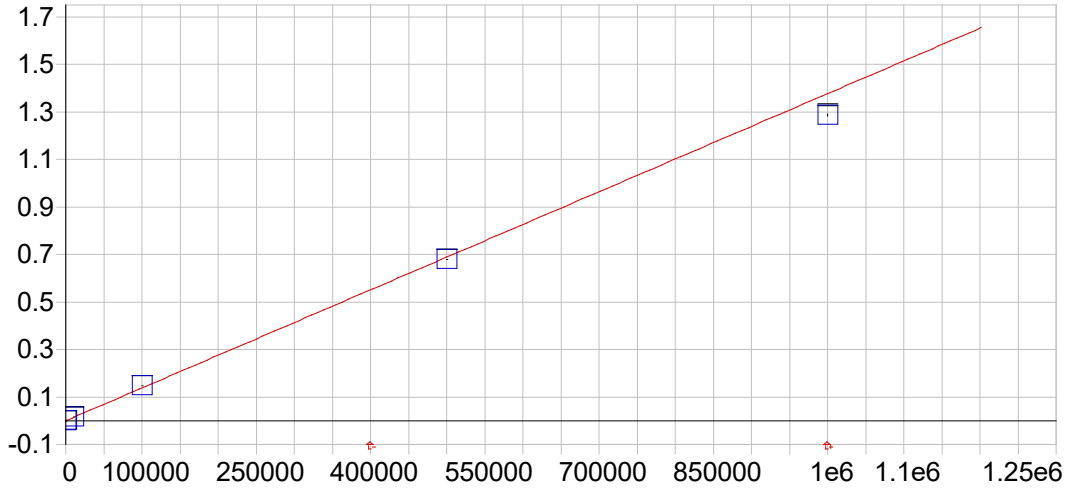
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.53247	-.532	.000	.00001	.000	1
CalStd10=10	10000.	11398.	1400.	14.0	.00902	.000	1
CalStd13=10	100000.	117180.	17200.	17.2	.09268	.001	1
CalStd14=50	500000.	529050.	29100.	5.81	.41843	.008	1
CalStd9=100	1000.0	1210.7	211.	21.1	.00096	.000	1
CalibStd15=	1000000.	952170.	-47800.	-4.78	.75306	.008	1



Fe 259.940 {129}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999726		Status:	OK.	
Std Error of Est:	0.000036				
Predicted MDL:	1.513870				
Predicted MQL:	5.046235				

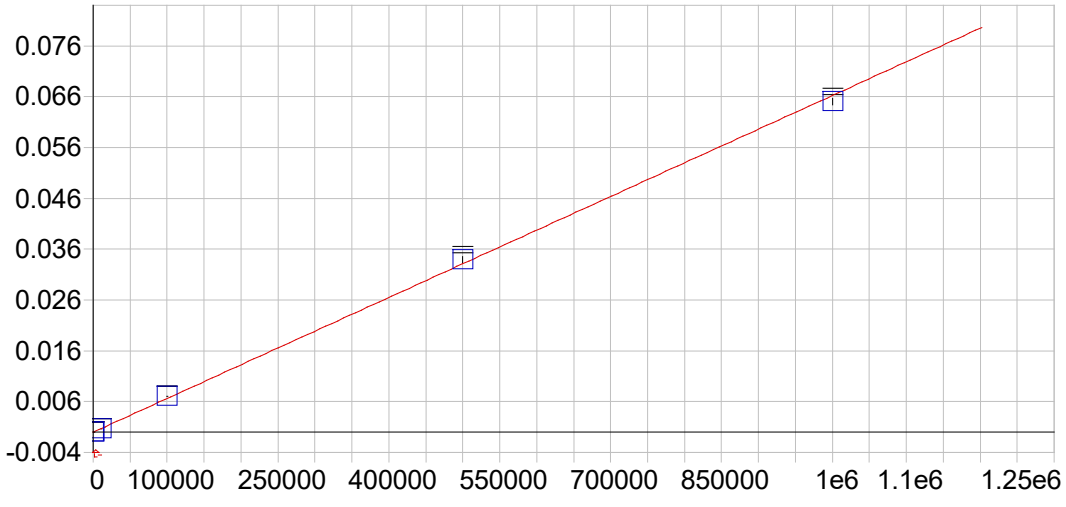
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.90767	-.908	.000	.00000	.000	1
CalStd10=10	10000.	9639.3	-361.	-3.61	.02503	.000	1
CalStd13=10	100000.	99481.	-519.	-.519	.25830	.002	1
CalStd14=50	500000.	451150.	-48900.	-9.77	1.1714	.025	1
CalStd9=100	1000.0	1027.5	27.5	2.75	.00267	.000	1
CalibStd15=	1000000.	827900.	-172000.	-17.2	2.1496	.023	1



Mg 202.582 {466}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000015		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998853		Status:	OK.	
Std Error of Est:	0.000161				
Predicted MDL:	2.449654				
Predicted MQL:	8.165513				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-16.218	-16.2	.000	-.00001	.000	1
CalStd13=10	100000.	107450.	7450.	7.45	.14794	.000	1
CalStd10=10	10000.	10588.	588.	5.88	.01459	.000	1
CalStd14=50	500000.	492960.	-7040.	-1.41	.67867	.001	1
CalStd9=100	1000.0	1160.9	161.	16.1	.00161	.000	1
CalibStd15=	1000000.	934200.	-65800.	-6.58	1.2861	.004	1

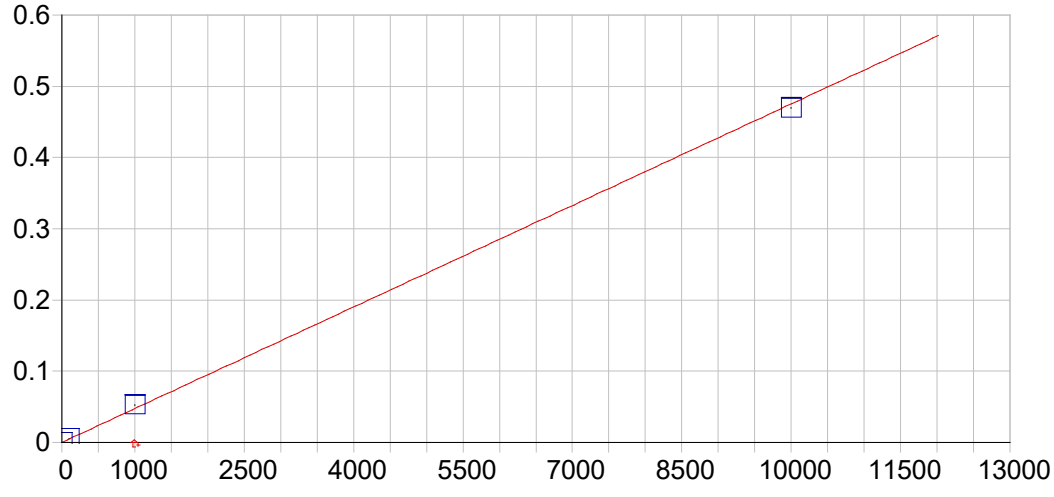


Mg 279.079 {121}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	25.559133		
Predicted MQL:	85.197111		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19406	-.194	.000	.00000	.000	1
CalStd13=10	100000.	106270.	6270.	6.27	.00704	.000	1
CalStd10=10	10000.	10287.	287.	2.87	.00068	.000	1
CalStd14=50	500000.	511650.	11600.	2.33	.03390	.001	1
CalStd9=100	1000.0	1097.7	97.7	9.77	.00007	.000	1
CalibStd15=	1000000.	981700.	-18300.	-1.83	.06504	.001	1

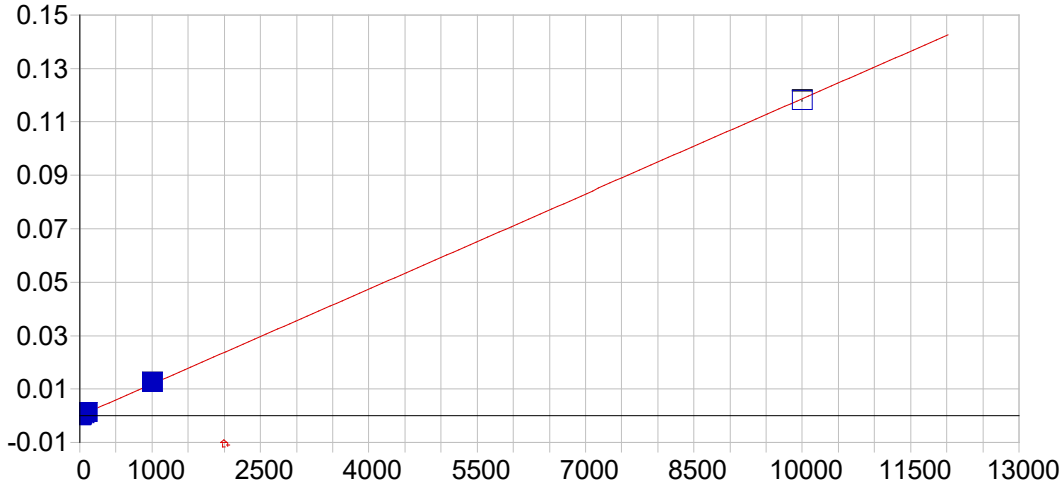


Mg 280.270 {120}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000062	Re-Slope:	1.000000
A1 (Gain):	0.000048	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999348	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.013981		
Predicted MQL:	0.046604		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02085	-.021	.000	.00006	.000	1
CalStd9=100	1000.0	1108.6	109.	10.9	.05274	.000	1
CalStd10=10	10000.	9880.2	-120.	-1.20	.46956	.001	1
CalStd8=100	100.00	111.18	11.2	11.2	.00535	.000	1

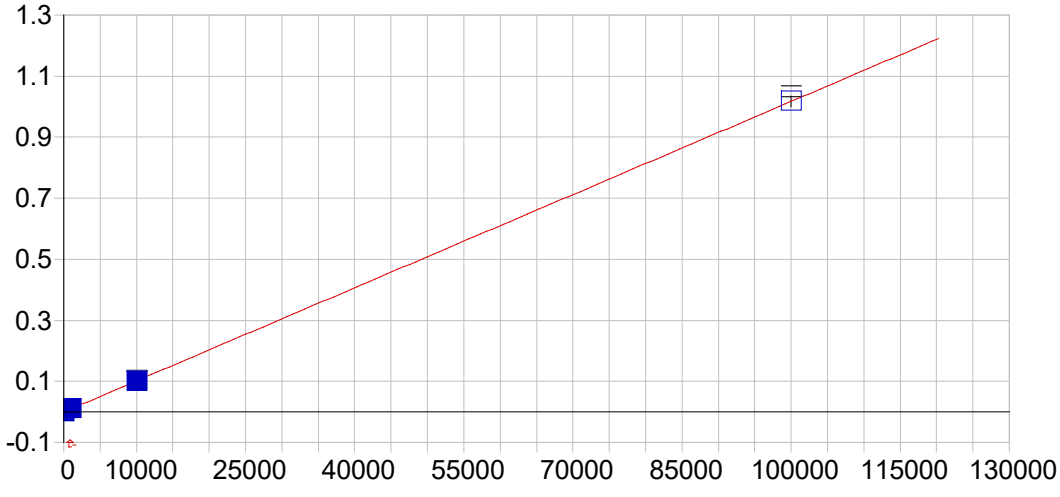


Mn 257.610 {131}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.047765		
Predicted MQL:	0.159218		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00206	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	10.767	.767	7.67	.00013	.000	1
CalStd7=50	50.000	53.411	3.41	6.82	.00063	.000	1
CalStd6=20	20.000	21.744	1.74	8.72	.00026	.000	1
CalStd8=100	100.00	104.87	4.87	4.87	.00124	.000	1
CalStd4=5	5.0000	5.4442	.444	8.88	.00006	.000	1
CalStd9=100	1000.0	1047.6	47.6	4.76	.01243	.000	1
CalStd10=10	10000.	9941.1	-58.9	-.589	.11793	.000	1

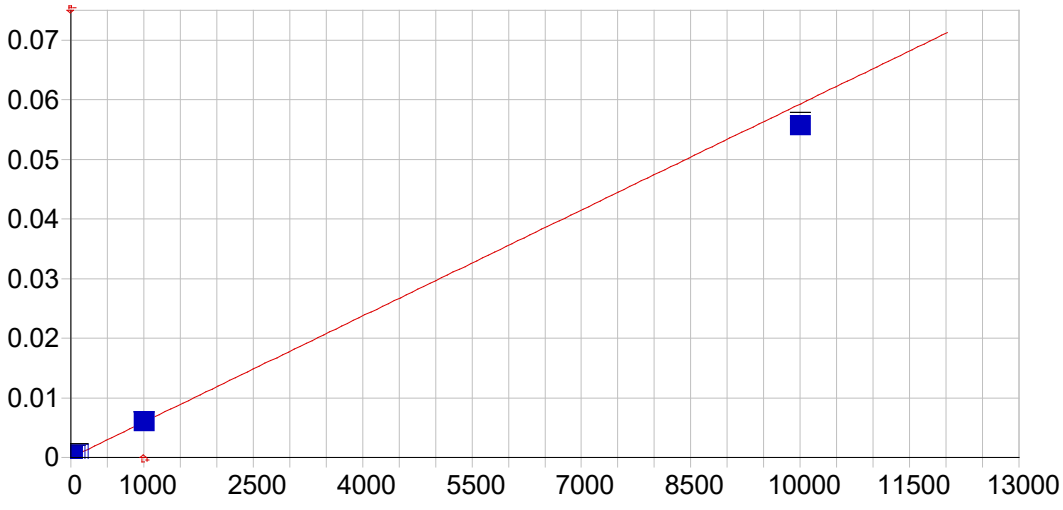


Mn 259.373 {130}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000140	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000737		
Predicted MDL:	0.364684		
Predicted MQL:	1.215613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	13.801	13.8	.000	.00000	.000	1
CalStd10=10	10000.	9918.5	-81.5	-.815	.10086	.001	1
CalStd9=100	1000.0	1060.1	60.1	6.01	.01065	.000	1
CalStd12=10	100000.	100010.	7.56	.008	1.0171	.018	1

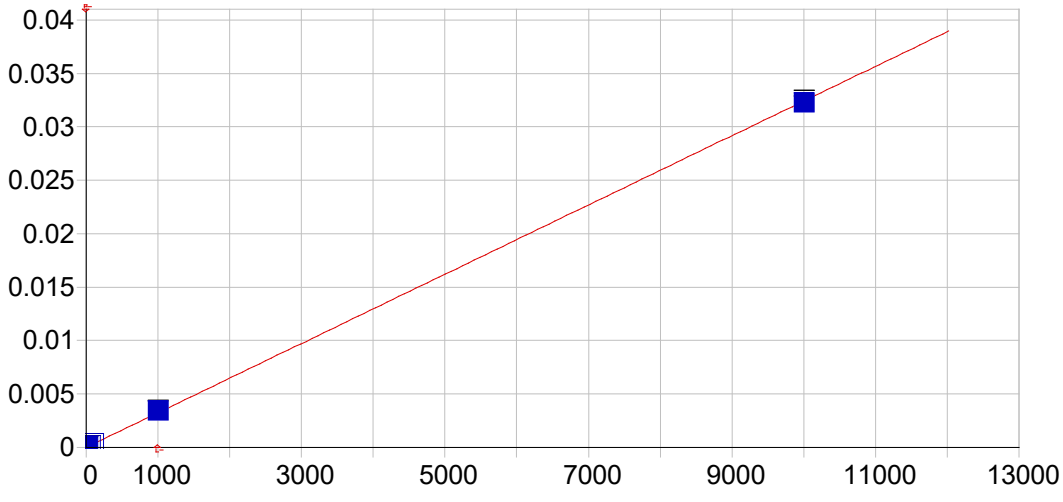


Mo 202.030 {466}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.365364		
Predicted MQL:	1.217882		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02246	.022	.000	.00000	.000	1
CalStd7=50	50.000	50.522	.522	1.04	.00030	.000	1
CalStd6=20	20.000	20.314	.314	1.57	.00012	.000	1
CalStd5=10	10.000	10.342	.342	3.42	.00006	.000	1
CalStd8=100	100.00	98.465	-1.54	-1.54	.00059	.000	1
CalStd4=5	5.0000	5.0329	.033	.657	.00003	.000	1
CalStd9=100	1000.0	1001.9	1.93	.193	.00594	.000	1
CalStd10=10	10000.	9392.9	-607.	-6.07	.05568	.000	1

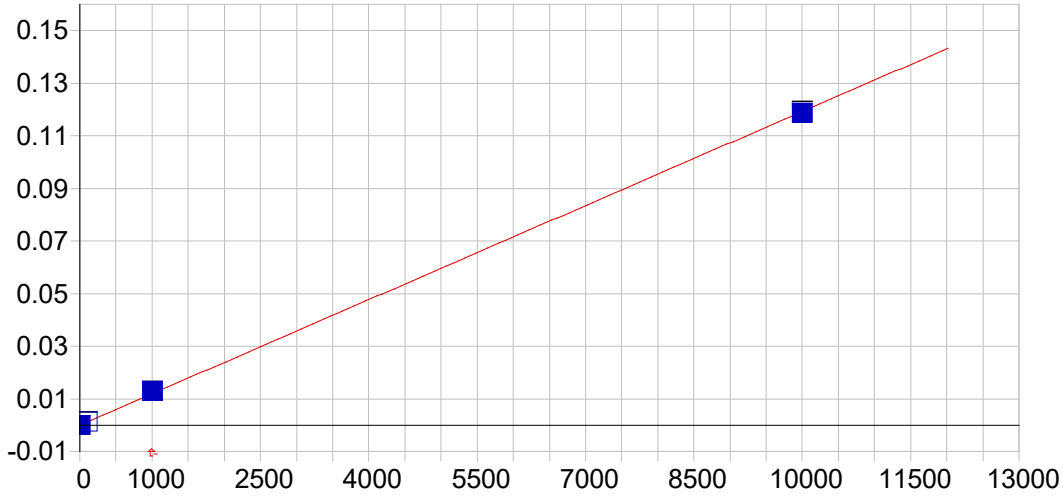


Mo 204.598 {464}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.736140		
Predicted MQL:	2.453799		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00135	-.001	.000	.00000	.000	1
CalStd7=50	50.000	52.949	2.95	5.90	.00017	.000	1
CalStd6=20	20.000	20.675	.675	3.38	.00007	.000	1
CalStd5=10	10.000	10.427	.427	4.27	.00004	.000	1
CalStd8=100	100.00	103.30	3.30	3.30	.00034	.000	1
CalStd4=5	5.0000	5.2573	.257	5.15	.00002	.000	1
CalStd9=100	1000.0	1056.3	56.3	5.63	.00343	.000	1
CalStd10=10	10000.	9936.1	-63.9	-.639	.03220	.000	1

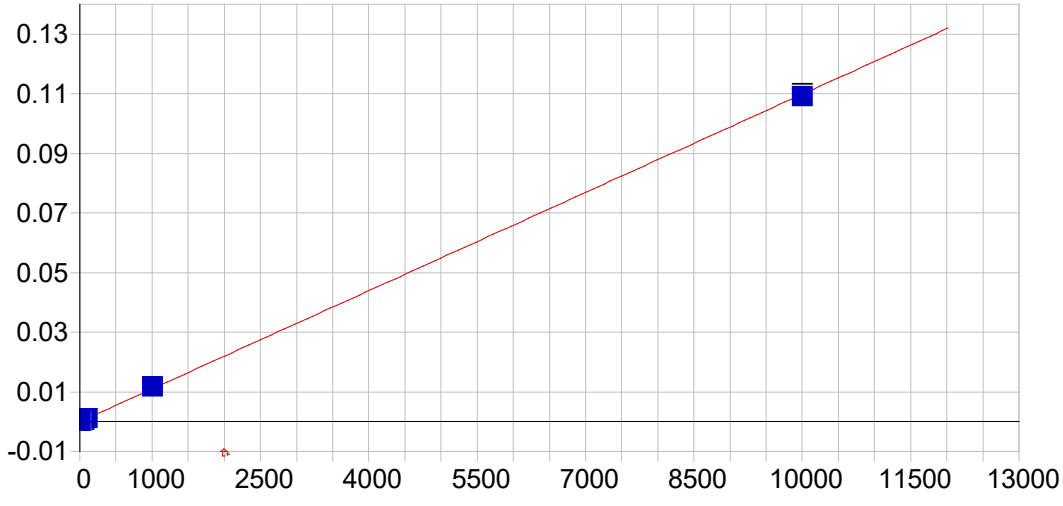


Ni 221.647 {452}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999779	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.367243		
Predicted MQL:	1.224142		

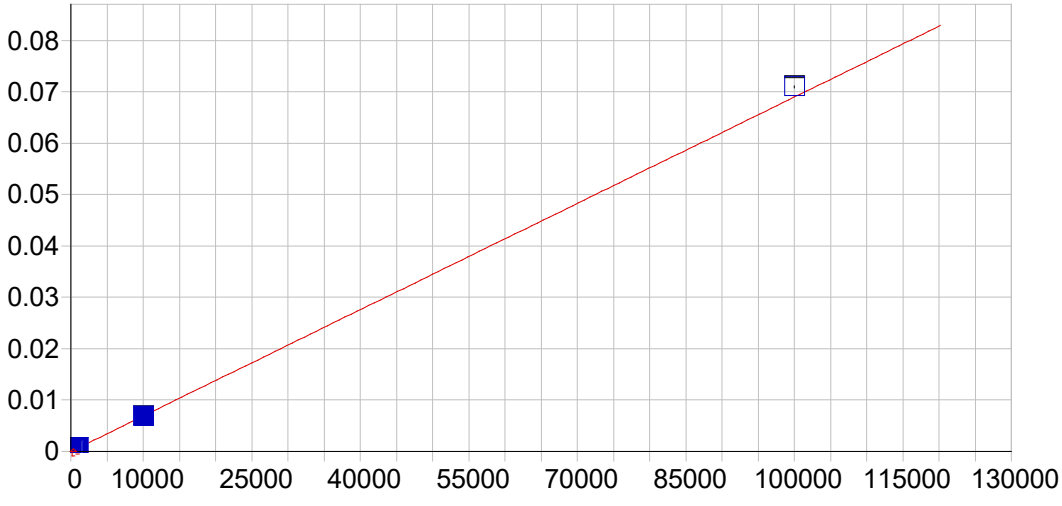
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01148	-.011	.000	-.00000	.000	1
CalStd10=10	10000.	9930.2	-69.8	-.698	.11841	.001	1
CalStd8=100	100.00	105.78	5.78	5.78	.00126	.000	1
CalStd9=100	1000.0	1064.0	64.0	6.40	.01269	.000	1



Ni 231.604 {445}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000011		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999786		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.366247				
Predicted MQL:	1.220824				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	53.884	3.88	7.77	.00059	.000	1
CalStd5=10	10.000	10.866	.866	8.66	.00012	.000	1
CalStd8=100	100.00	105.09	5.09	5.09	.00115	.000	1
CalStd4=5	5.0000	5.0760	.076	1.52	.00005	.000	1
CalStd9=100	1000.0	1060.2	60.2	6.02	.01163	.000	1
CalStd3=1	1.0000	.85773	-.142	-14.2	.00001	.000	1
CalStd10=10	10000.	9930.1	-69.9	-.699	.10914	.001	1

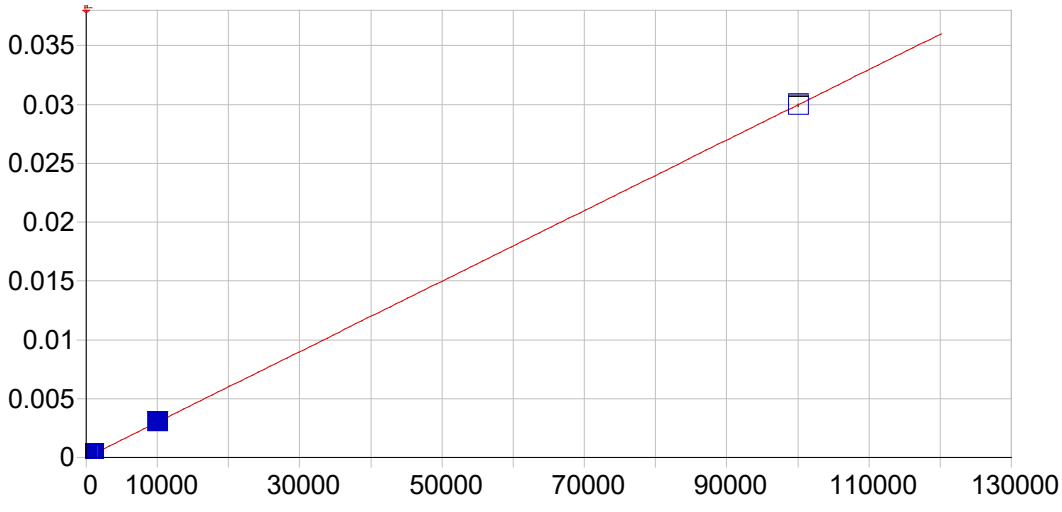


Pb 216.999 {455}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.698486		
Predicted MQL:	15.661621		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00142	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1075.6	75.6	7.56	.00075	.000	1
CalStd10=10	10000.	9939.8	-60.2	-.602	.00688	.000	1
CalStd8=100	100.00	105.34	5.34	5.34	.00007	.000	1
CalStd5=10	10.000	10.218	.218	2.18	.00001	.000	1
CalStd12=10	100000.	102900.	2900.	2.90	.07099	.000	1

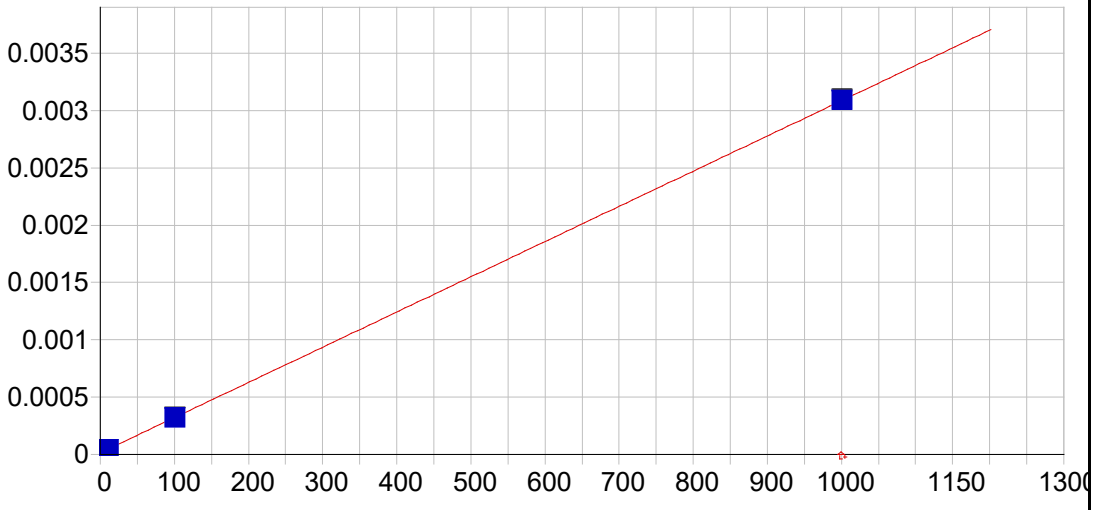


Pb 220.353 {153}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.717821		
Predicted MQL:	5.726069		

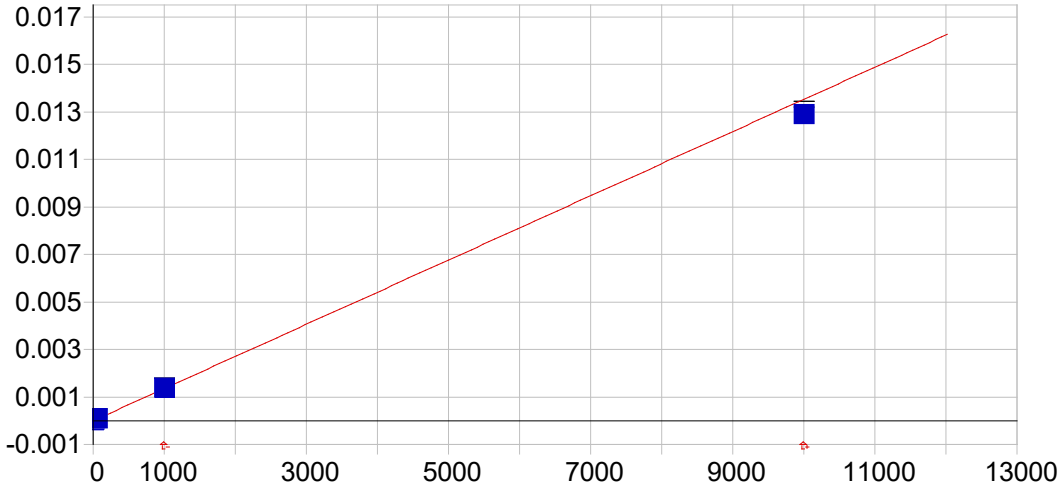
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00945	-.009	.000	.00000	.000	1
CalStd9=100	1000.0	1047.9	47.9	4.79	.00032	.000	1
CalStd10=10	10000.	10064.	63.6	.636	.00302	.000	1
CalStd8=100	100.00	104.14	4.14	4.14	.00003	.000	1
CalStd12=10	100000.	99884.	-116.	-.116	.02993	.000	1



Pb 220.353 {453}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000014		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999972		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.426759				
Predicted MQL:	4.755862				

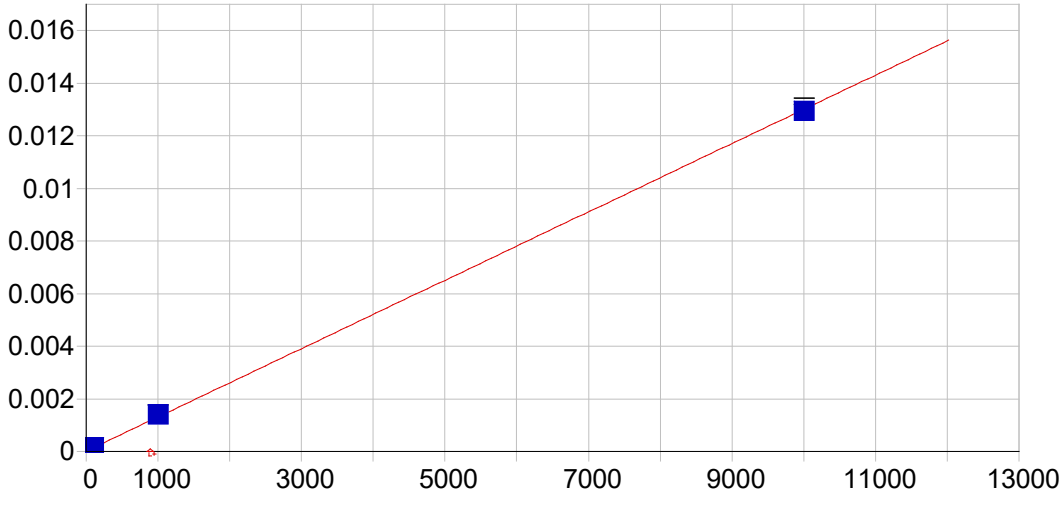
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00056	.001	.000	.00001	.000	1
CalStd5=10	10.000	10.002	.002	.021	.00004	.000	1
CalStd8=100	100.00	99.373	-.627	-.627	.00032	.000	1
CalStd4=5	5.0000	4.4673	-.533	-10.7	.00003	.000	1
CalStd9=100	1000.0	1001.2	1.16	.116	.00309	.000	1



Sb 206.833 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999811		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	1.941046				
Predicted MQL:	6.470152				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08232	.082	.000	-.00000	.000	1
CalStd9=100	1000.0	1007.2	7.20	.720	.00137	.000	1
CalStd5=10	10.000	8.6007	-1.40	-14.0	.00001	.000	1
CalStd7=50	50.000	50.235	.235	.470	.00007	.000	1
CalStd10=10	10000.	9532.2	-468.	-4.68	.01289	.000	1

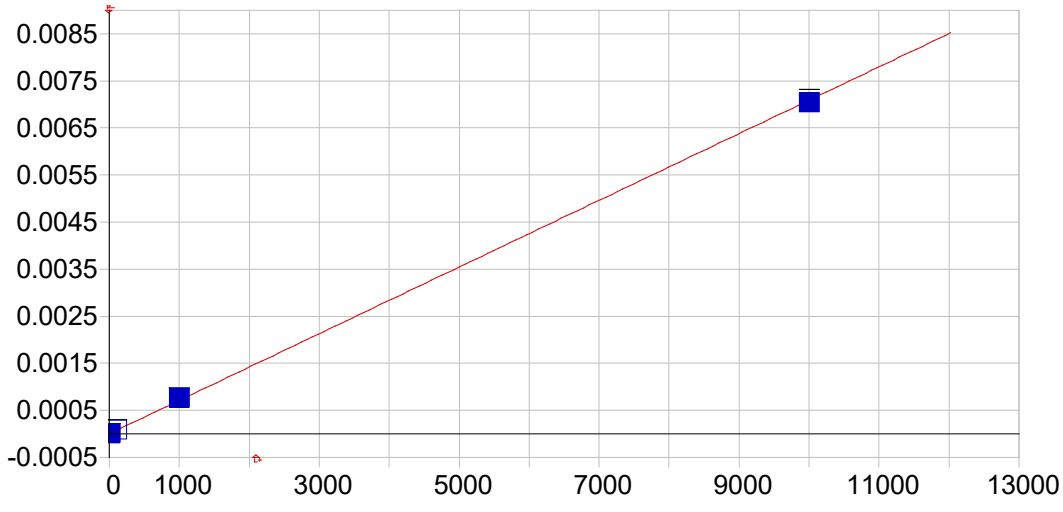


Sb 217.581 {455}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999816	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.305353		
Predicted MQL:	7.684509		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00146	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1056.5	56.5	5.65	.00138	.000	1
CalStd6=20	20.000	19.047	-.953	-4.76	.00004	.000	1
CalStd5=10	10.000	9.3468	-.653	-6.53	.00002	.000	1
CalStd8=100	100.00	103.57	3.57	3.57	.00014	.000	1
CalStd4=5	5.0000	3.6767	-1.32	-26.5	.00002	.000	1
CalStd10=10	10000.	9942.8	-57.2	-.572	.01293	.000	1

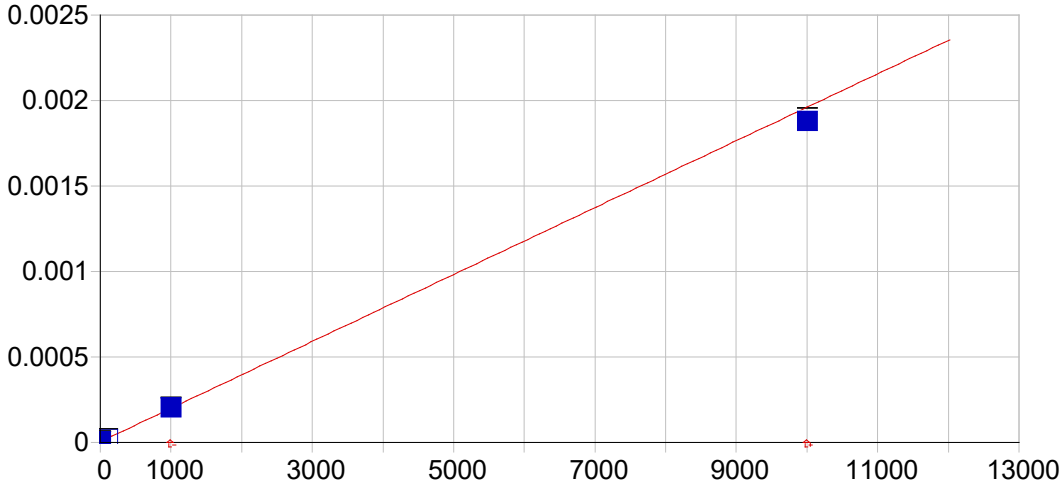


Se 196.090 {472}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.889846		
Predicted MQL:	9.632820		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00283	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	1062.6	62.6	6.26	.00076	.000	1
CalStd5=10	10.000	11.757	1.76	17.6	.00001	.000	1
CalStd8=100	100.00	105.15	5.15	5.15	.00008	.000	1
CalStd10=10	10000.	9930.5	-69.5	-.695	.00704	.000	1

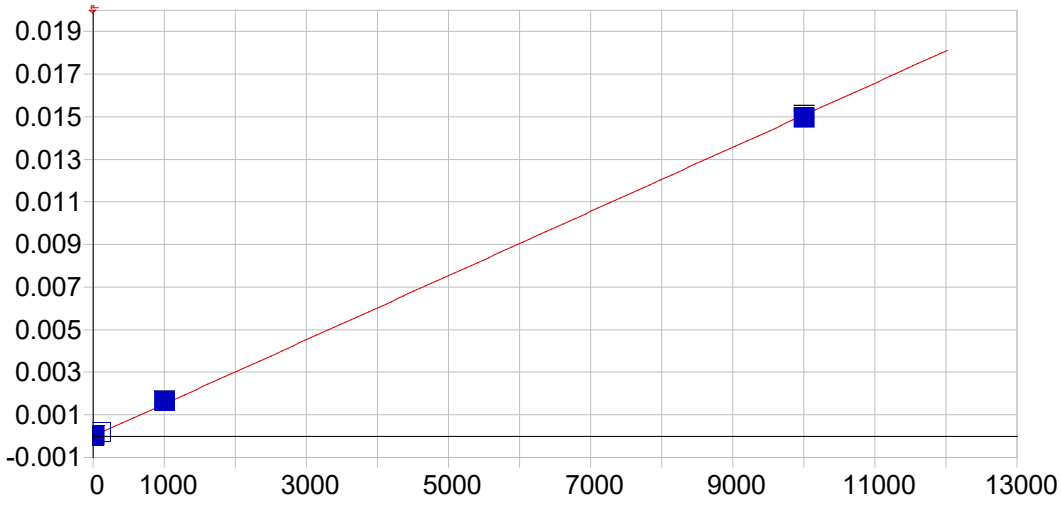


Se 206.279 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999844	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	14.818017		
Predicted MQL:	49.393390		

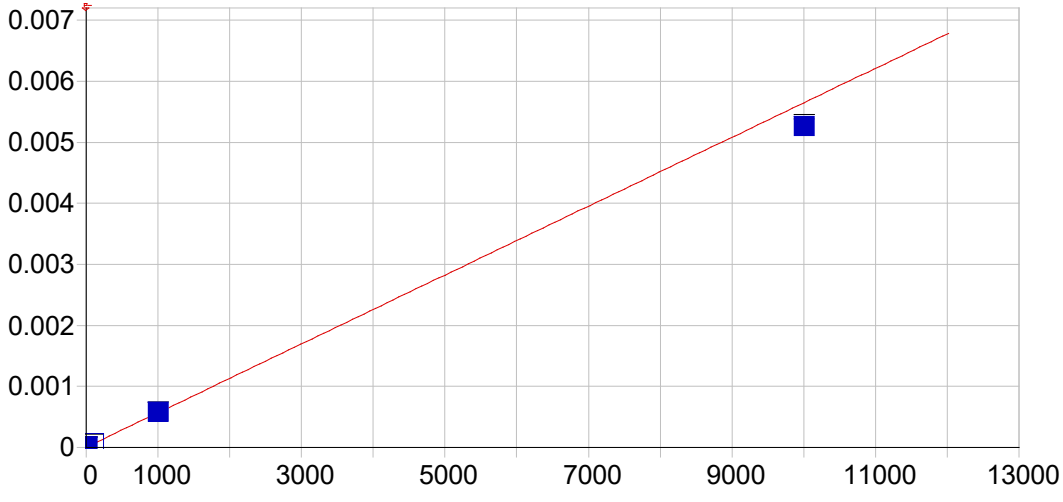
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01509	.015	.000	.00000	.000	1
CalStd9=100	1000.0	1014.4	14.4	1.44	.00020	.000	1
CalStd10=10	10000.	9573.8	-426.	-4.26	.00188	.000	1
CalStd8=100	100.00	83.023	-17.0	-17.0	.00002	.000	1



Tl 190.856 {476}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999670		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.703755				
Predicted MQL:	5.679182				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00192	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	1079.4	79.4	7.94	.00163	.000	1
CalStd8=100	100.00	105.07	5.07	5.07	.00016	.000	1
CalStd5=10	10.000	10.704	.704	7.04	.00002	.000	1
CalStd10=10	10000.	9914.8	-85.2	-.852	.01494	.000	1

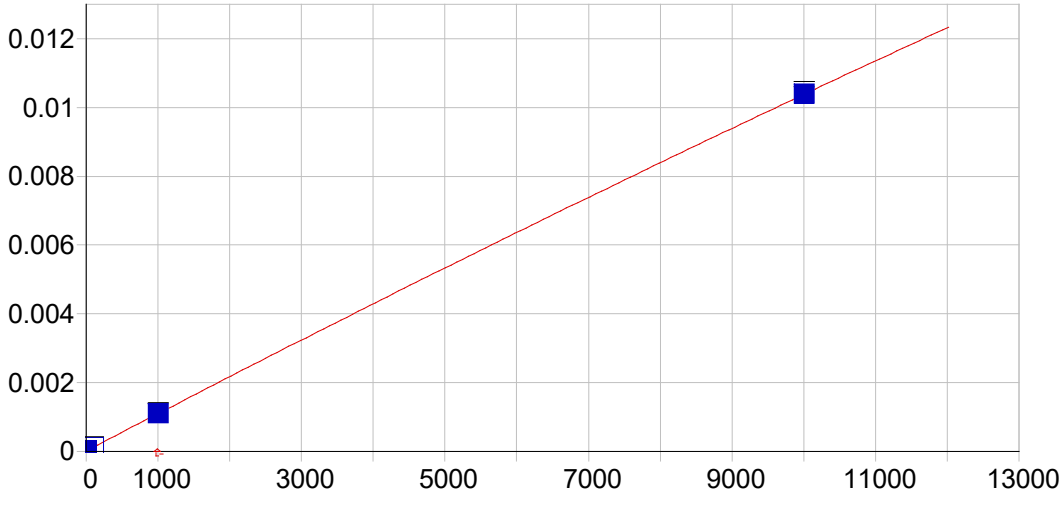


Tl 190.856 {477}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999439	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	2.759172		
Predicted MQL:	9.197239		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.6353	-2.64	.000	.00000	.000	1
CalStd9=100	1000.0	1012.8	12.8	1.28	.00058	.000	1
CalStd8=100	100.00	96.011	-3.99	-3.99	.00006	.000	1
CalStd5=10	10.000	5.8832	-4.12	-41.2	.00001	.000	1
CalStd10=10	10000.	9307.5	-693.	-6.93	.00525	.000	1

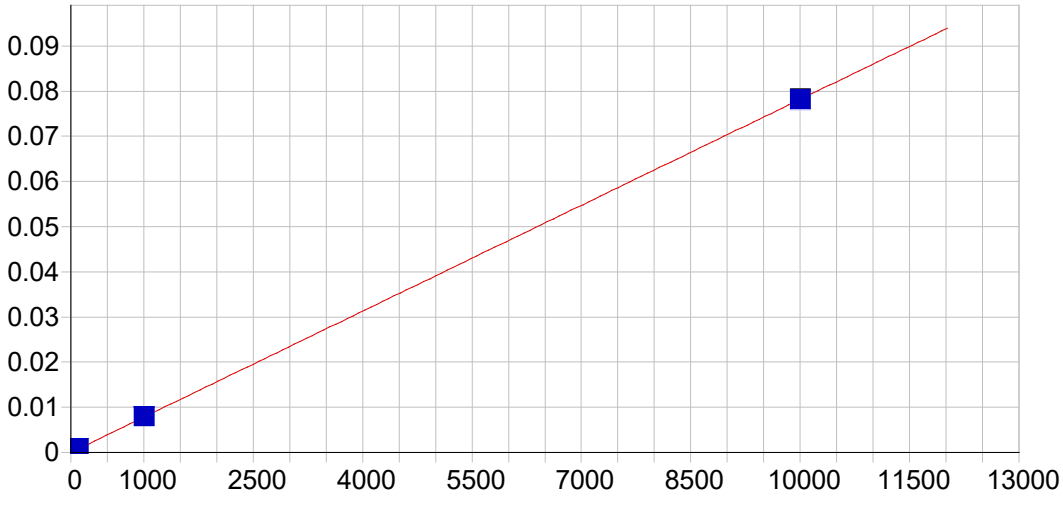


V 290.882 {116}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.338762		
Predicted MQL:	14.462541		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.20827	.208	.000	.00001	.000	1
CalStd9=100	1000.0	1002.9	2.91	.291	.00110	.000	1
CalStd10=10	10000.	9998.8	-1.17	-.012	.01038	.000	1
CalStd8=100	100.00	98.295	-1.70	-1.70	.00012	.000	1

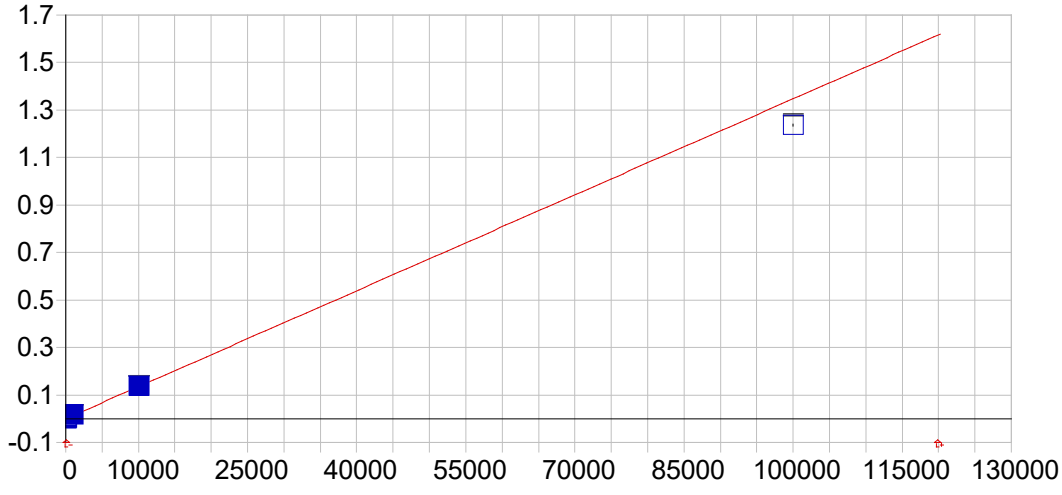


V 292.402 {115}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.280078		
Predicted MQL:	0.933592		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00002	-.000	.000	.00001	.000	1
CalStd7=50	50.000	50.197	.197	.394	.00040	.000	1
CalStd9=100	1000.0	1007.7	7.72	.772	.00786	.000	1
CalStd6=20	20.000	20.236	.236	1.18	.00017	.000	1
CalStd5=10	10.000	9.8149	-.185	-1.85	.00009	.000	1
CalStd8=100	100.00	99.833	-.167	-.167	.00079	.000	1
CalStd10=10	10000.	9992.2	-7.80	-.078	.07781	.000	1

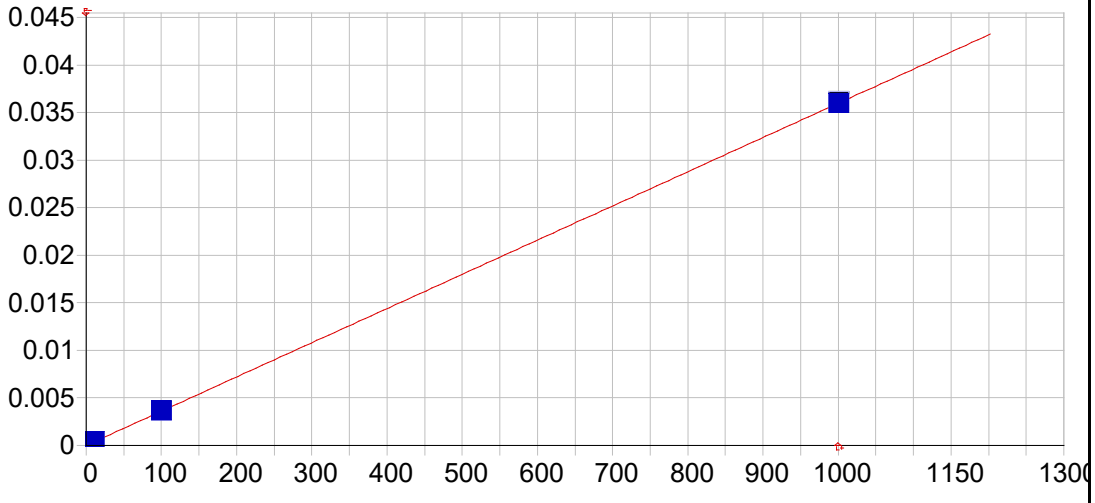


Zn 206.200 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996634	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.200498		
Predicted MQL:	0.668325		

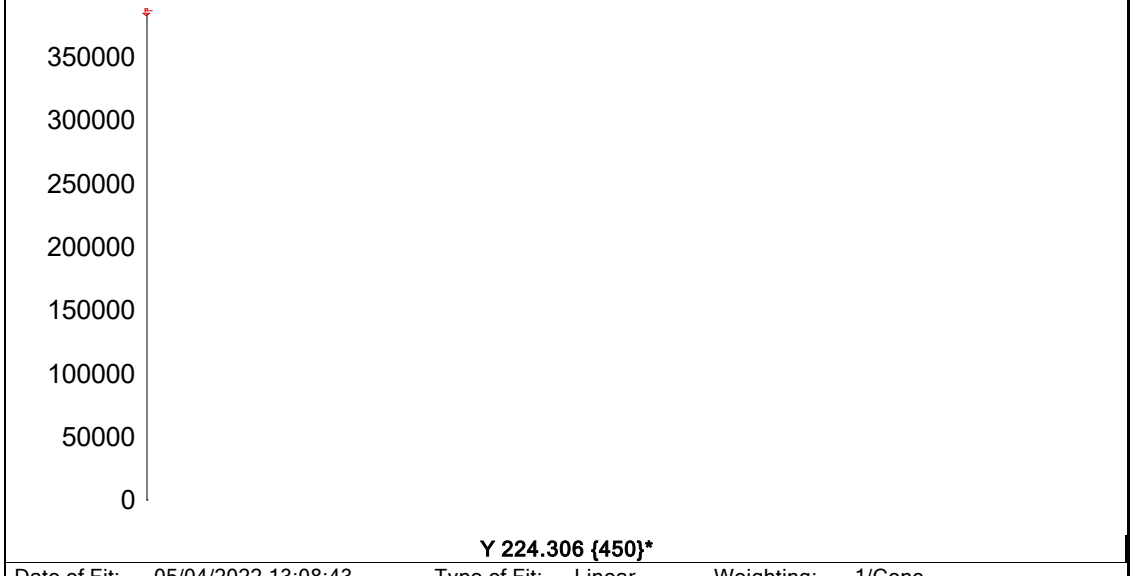
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10215.	215.	2.15	.13762	.001	1
Blank	.00000	-.94328	-.943	.000	.00000	.000	1
CalStd9=100	1000.0	1090.0	90.0	9.00	.01470	.000	1
CalStd12=10	100000.	91760.	-8240.	-8.24	1.2361	.004	1
CalStd5=10	10.000	10.365	.365	3.65	.00015	.000	1
CalStd8=100	100.00	107.78	7.78	7.78	.00146	.000	1



Zn 213.856 {457}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000009		Re-Slope:	1.000000	
A1 (Gain):	0.000036		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999985		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.090243				
Predicted MQL:	0.300810				

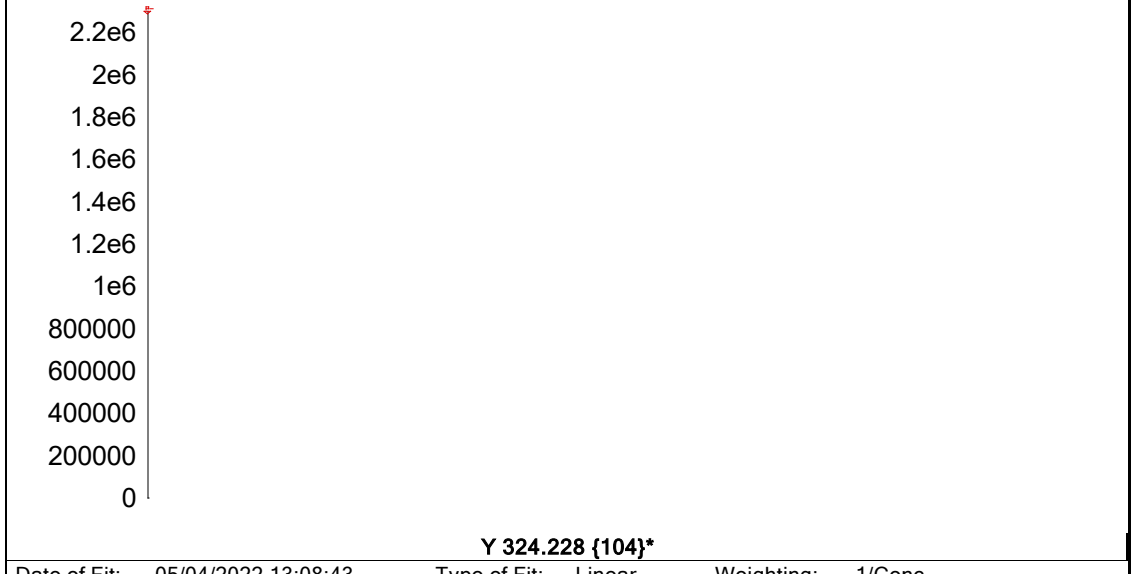
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00053	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	999.82	-.180	-.018	.03615	.000	1
CalStd5=10	10.000	10.568	.568	5.68	.00039	.000	1
CalStd8=100	100.00	99.614	-.386	-.386	.00361	.000	1



Y 224.306 {450}*

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

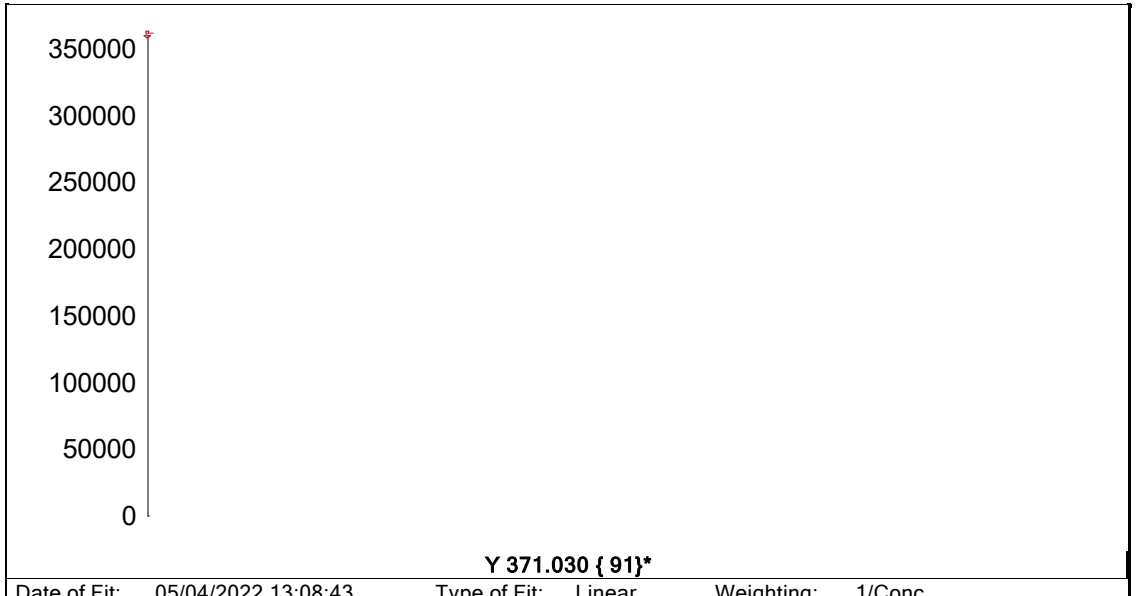
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	362680.	3580.	1



Y 324.228 {104}*

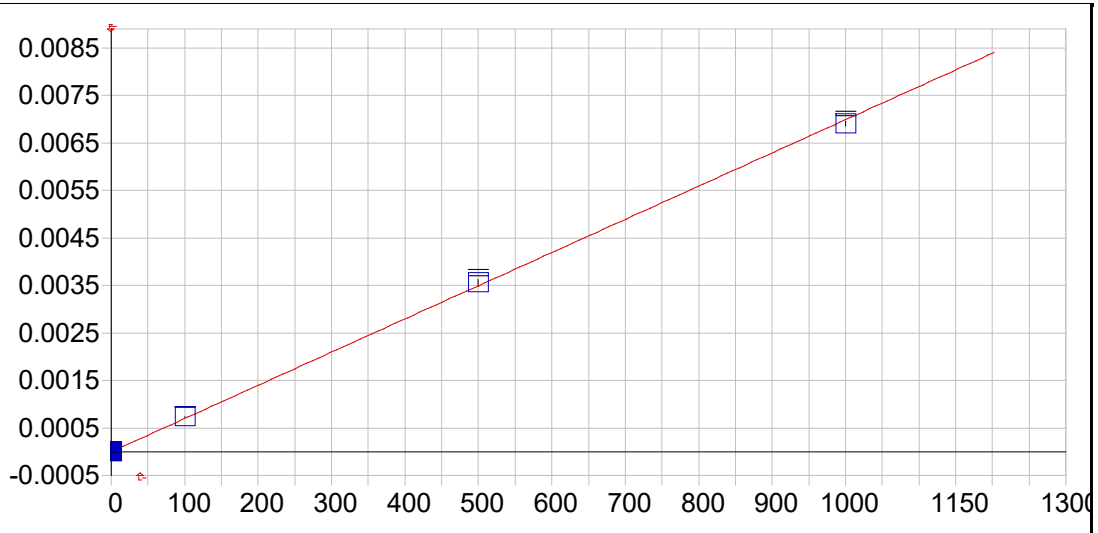
Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	2169900.	11400.	1



Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	334670.	7010.	1

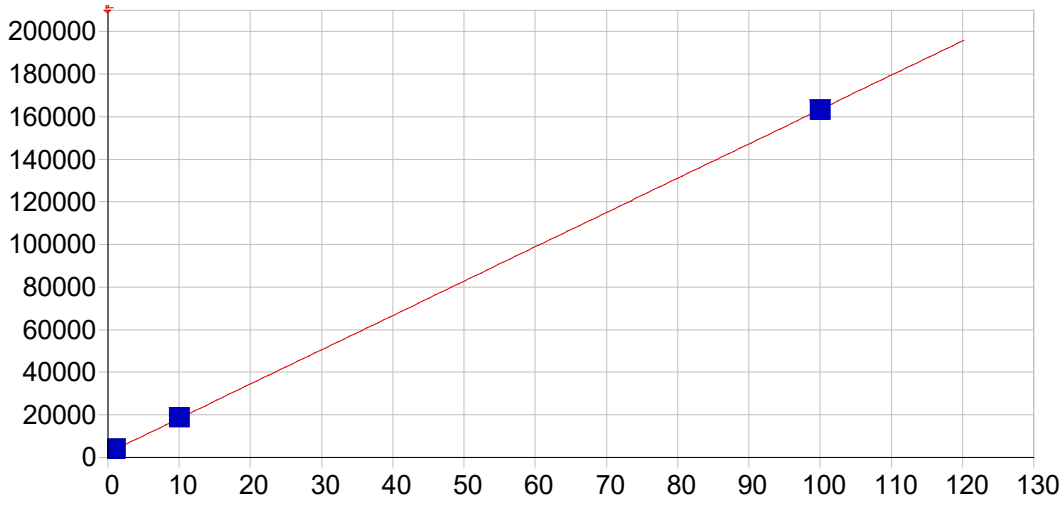


Na 330.237 {102}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999847	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.078491		
Predicted MQL:	3.594970		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00492	-.005	.000	-.00000	.000	1
CalStd13=10	100.00	104.59	4.59	4.59	.00073	.000	1
CalibStd15=	1000.0	987.54	-12.5	-1.25	.00690	.000	1
CalStd14=50	500.00	507.87	7.87	1.57	.00355	.000	1

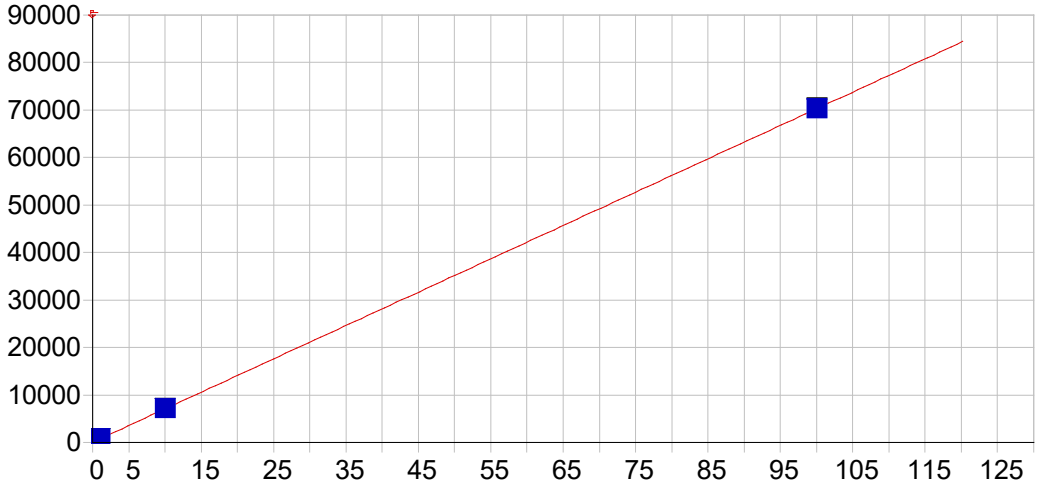


Na 588.995 { 57}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2219.418161	Re-Slope:	1.000000
A1 (Gain):	1611.612360	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	4.223921		
Predicted MDL:	0.006709		
Predicted MQL:	0.022363		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	-.000	.000	2219.4	15.0	1
CalStd9=100	1.0000	1.0160	.016	1.60	3857.1	15.0	1
CalStd10=10	10.000	10.169	.169	1.69	18610.	57.1	1
CalStd13=10	100.00	99.815	-.185	-.185	163110.	265.	1

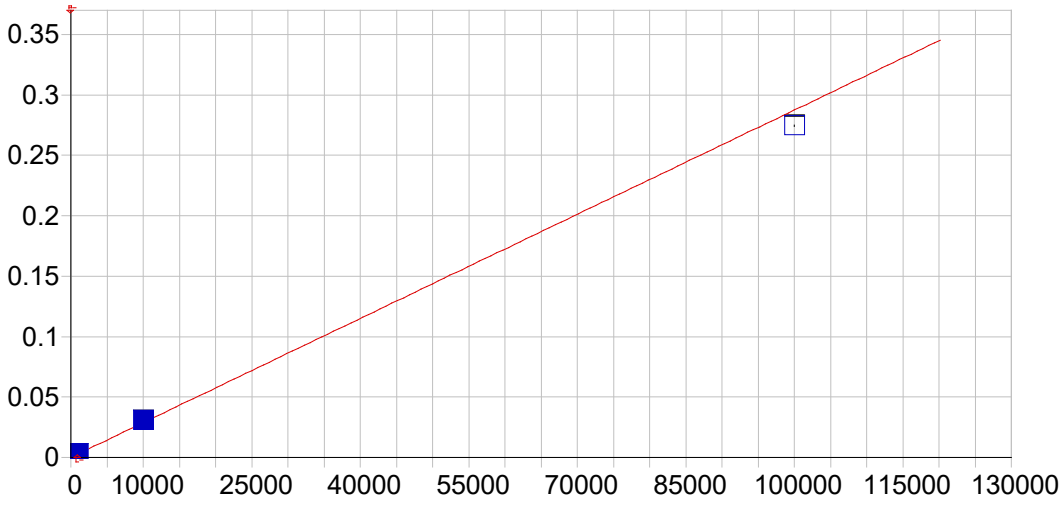


Na 589.592 { 57}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	51.809383	Re-Slope:	1.000000
A1 (Gain):	702.069574	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	1.198180		
Predicted MDL:	0.008962		
Predicted MQL:	0.029873		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	51.782	2.21	1
CalStd9=100	1.0000	1.0375	.037	3.75	780.76	7.87	1
CalStd10=10	10.000	10.016	.016	.155	7089.1	25.2	1
CalStd13=10	100.00	99.947	-.053	-.053	70279.	134.	1

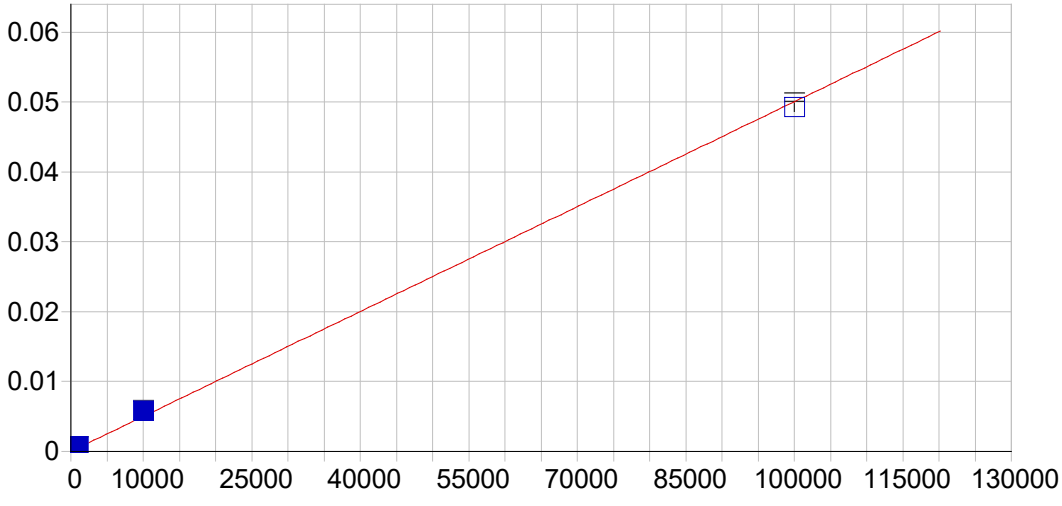


Si 212.412 {458}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997384	Status:	OK.
Std Error of Est:	0.000167		
Predicted MDL:	1.075564		
Predicted MQL:	3.585212		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-11.063	-11.1	.000	.00001	.000	1
CalStd9=100	1000.0	1108.0	108.	10.8	.00323	.000	1
CalibStd15=	100000.	95483.	-4520.	-4.52	.27442	.000	1
CalStd10=10	10000.	10587.	587.	5.87	.03047	.000	1

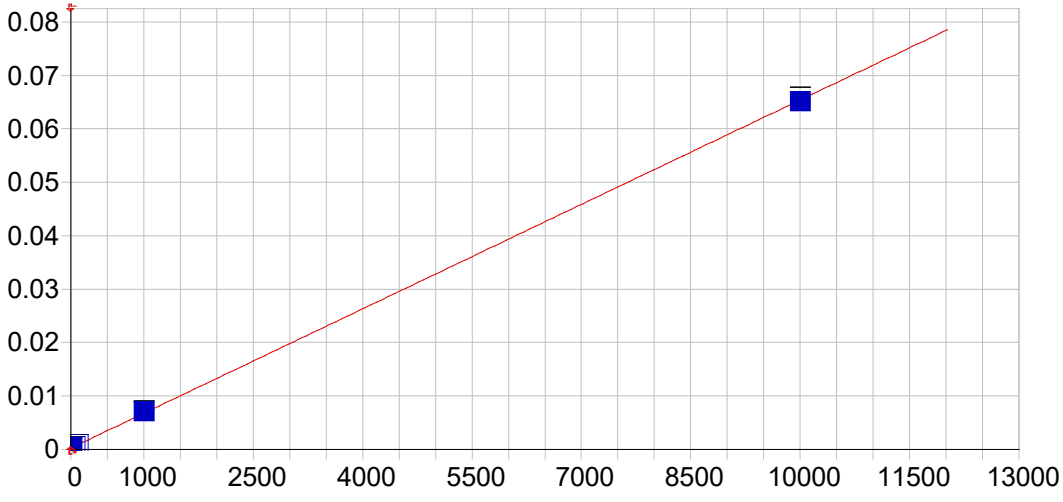


Si 251.611 {134}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998752	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	6.992742		
Predicted MQL:	23.309141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.32470	-.325	.000	.00000	.000	1
CalStd9=100	1000.0	1195.6	196.	19.6	.00060	.000	1
CalibStd15=	100000.	98349.	-1650.	-1.65	.04923	.001	1
CalStd10=10	10000.	11456.	1460.	14.6	.00574	.000	1

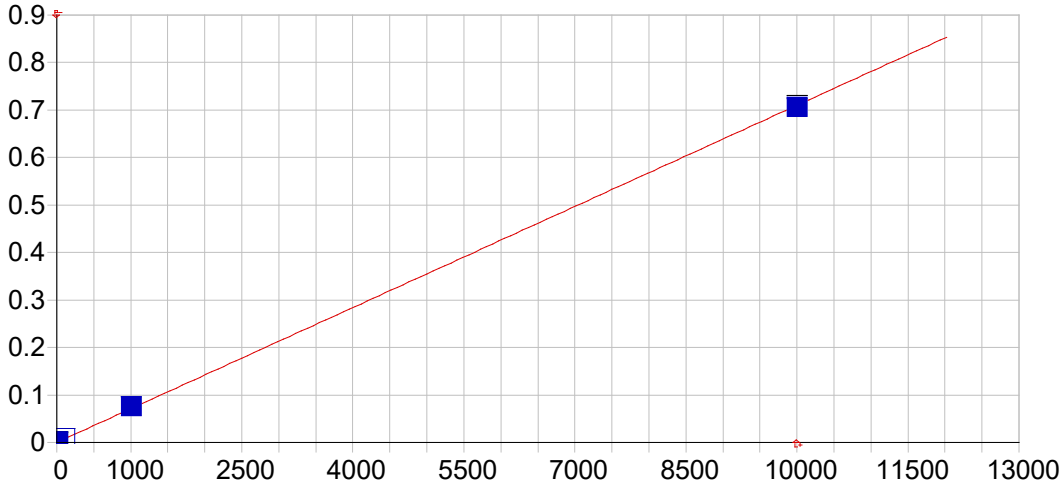


Ti 323.452 {104}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000272	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.242070		
Predicted MQL:	4.140234		

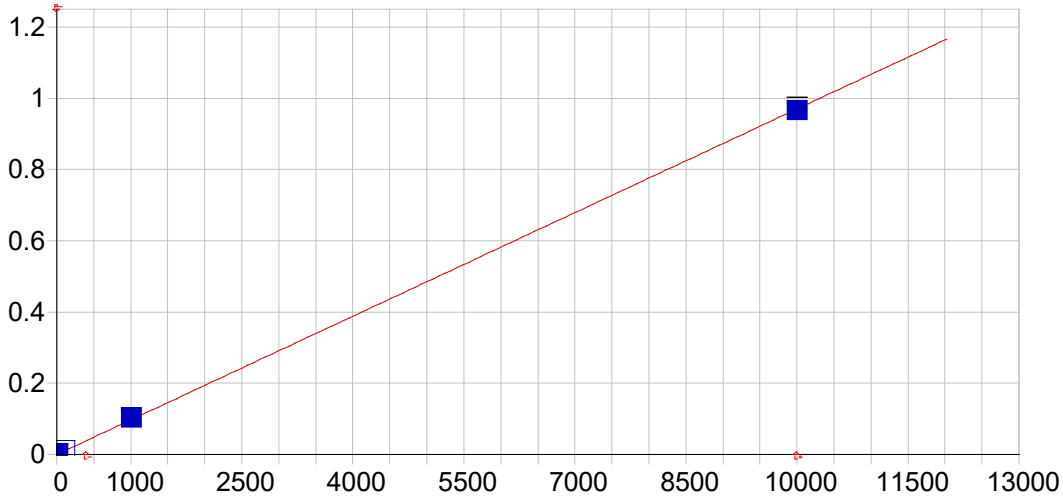
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00181	-.002	.000	.00027	.000	1
CalStd5=10	10.000	11.383	1.38	13.8	.00035	.000	1
CalStd8=100	100.00	105.08	5.08	5.08	.00096	.000	1
CalStd9=100	1000.0	1041.4	41.4	4.14	.00706	.000	1
CalStd10=10	10000.	9947.7	-52.3	-.523	.06506	.001	1
CalStd7=50	50.000	54.170	4.17	8.34	.00063	.000	1
CalStd4=5	5.0000	5.2650	.265	5.30	.00031	.000	1



Sr 407.771 { 83}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000095		Re-Slope:	1.000000	
A1 (Gain):	0.000071		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999847		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	0.139140				
Predicted MQL:	0.463801				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00044	-.000	.000	.00009	.000	1
CalStd3=1	1.0000	1.2115	.212	21.2	.00018	.000	1
CalStd4=5	5.0000	5.3761	.376	7.52	.00048	.000	1
CalStd5=10	10.000	10.627	.627	6.27	.00085	.000	1
CalStd8=100	100.00	104.30	4.30	4.30	.00750	.000	1
CalStd9=100	1000.0	1052.5	52.5	5.25	.07482	.001	1
CalStd10=10	10000.	9941.9	-58.1	-.581	.70590	.003	1

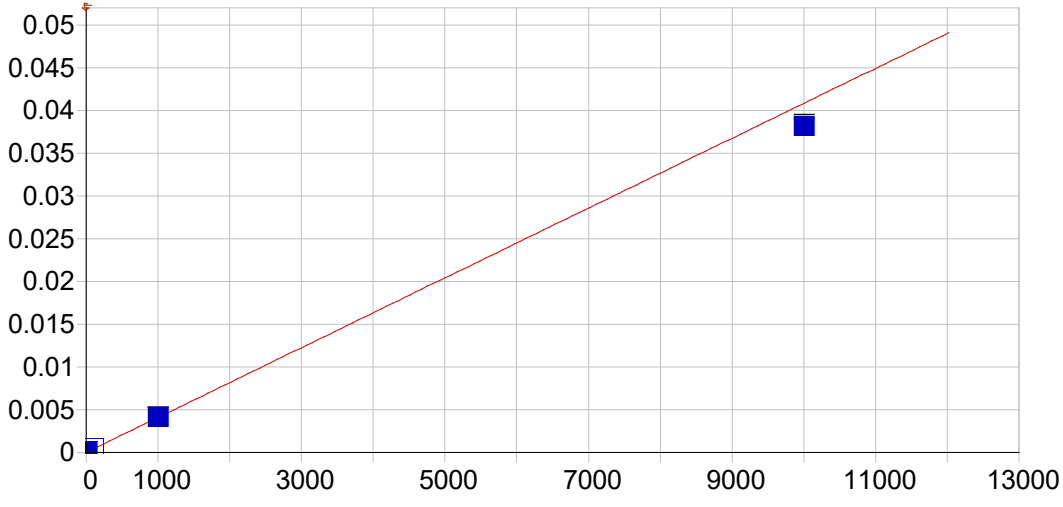


Sr 421.552 { 80}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.000097	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.108229		
Predicted MQL:	0.360762		

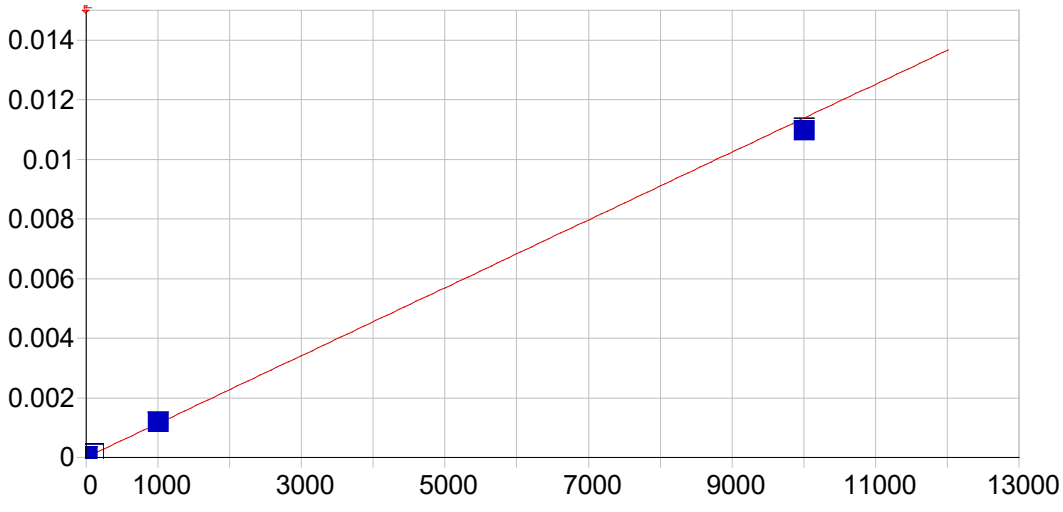
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	-.000	.000	.00004	.000	1
CalStd3=1	1.0000	1.1010	.101	10.1	.00014	.000	1
CalStd4=5	5.0000	5.2705	.270	5.41	.00055	.000	1
CalStd5=10	10.000	10.508	.508	5.08	.00105	.000	1
CalStd8=100	100.00	103.97	3.97	3.97	.01012	.000	1
CalStd9=100	1000.0	1044.8	44.8	4.48	.10137	.001	1
CalStd10=10	10000.	9950.4	-49.6	-.496	.96512	.009	1



Sn 189.989 {477}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999850		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	0.522706				
Predicted MQL:	1.742355				

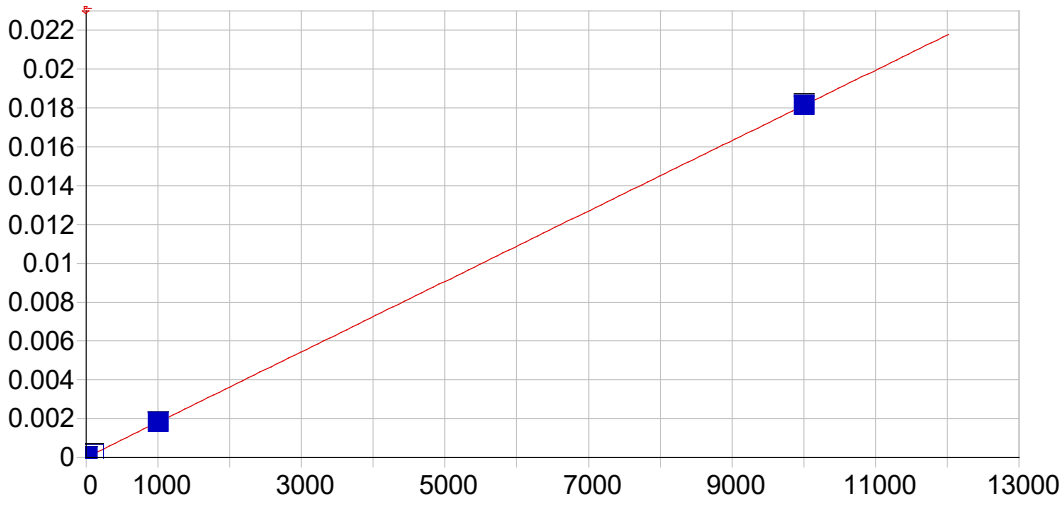
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.42227	-.422	.000	.00000	.000	1
CalStd10=10	10000.	9328.0	-672.	-6.72	.03809	.000	1
CalStd9=100	1000.0	1003.7	3.69	.369	.00410	.000	1
CalStd8=100	100.00	100.10	.100	.100	.00041	.000	1
CalStd5=10	10.000	11.030	1.03	10.3	.00005	.000	1



Sn 189.989 {478}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999405		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	1.442288				
Predicted MQL:	4.807625				

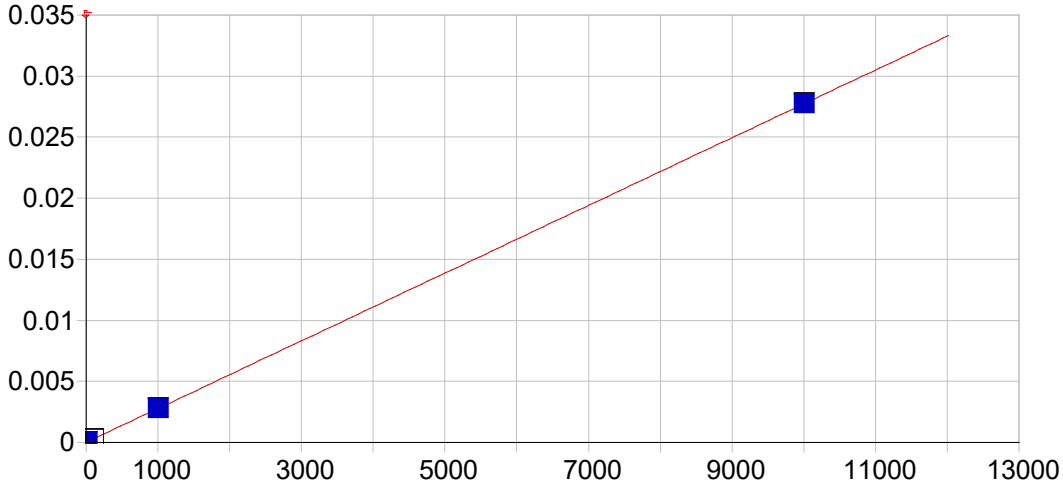
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.30797	-.308	.000	.00000	.000	1
CalStd10=10	10000.	9629.9	-370.	-3.70	.01096	.000	1
CalStd9=100	1000.0	1032.5	32.5	3.25	.00118	.000	1
CalStd8=100	100.00	101.15	1.15	1.15	.00012	.000	1
CalStd5=10	10.000	10.092	.092	.916	.00001	.000	1



B 249.678 {135}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999999		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.769694				
Predicted MQL:	2.565646				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00017	-.000	.000	.00000	.000	1
CalStd8=100	100.00	98.672	-1.33	-1.33	.00018	.000	1
CalStd5=10	10.000	10.293	.293	2.93	.00002	.000	1
CalStd9=100	1000.0	1000.7	.677	.068	.00182	.000	1
CalStd10=10	10000.	10000.	.358	.004	.01814	.000	1

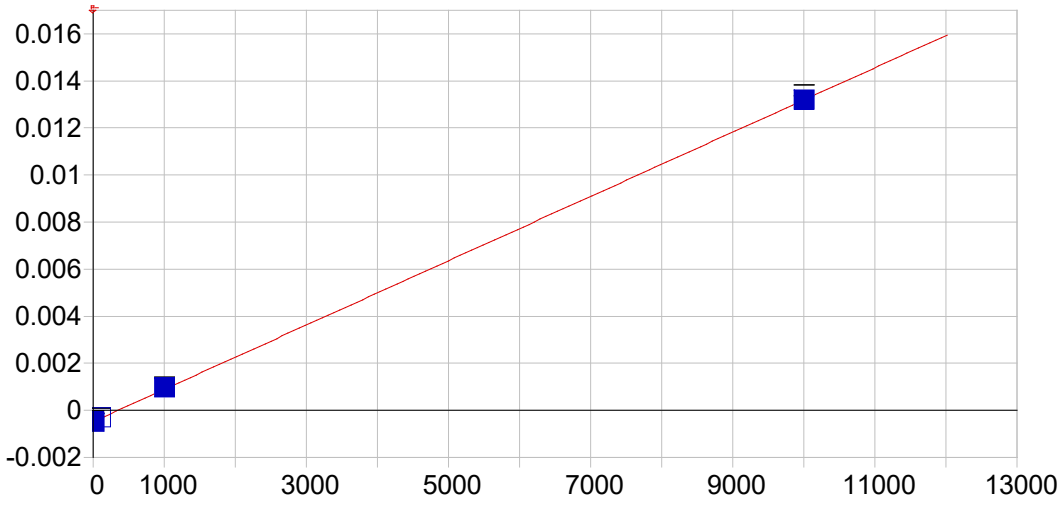


B 249.773 {135}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.403725		
Predicted MQL:	1.345751		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00048	-.000	.000	.00001	.000	1
CalStd8=100	100.00	100.13	.135	.135	.00029	.000	1
CalStd5=10	10.000	10.483	.483	4.83	.00004	.000	1
CalStd9=100	1000.0	998.24	-1.76	-.176	.00278	.000	1
CalStd10=10	10000.	10001.	1.14	.011	.02774	.000	1

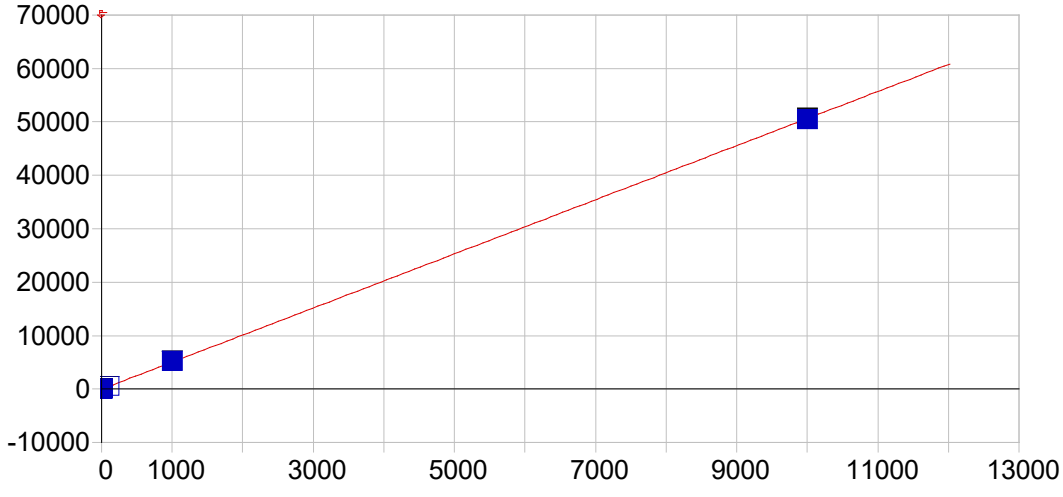


Li 610.353 { 55}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000474	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994993	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	23.843010		
Predicted MQL:	79.476700		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03204	.032	.000	-.00047	.000	1
CalStd5=10	10.000	-23.123	-33.1	-331.	-.00051	.000	1
CalStd8=100	100.00	106.77	6.77	6.77	-.00033	.000	1
CalStd9=100	1000.0	1042.0	42.0	4.20	.00095	.000	1
CalStd10=10	10000.	9984.3	-15.7	-.157	.01317	.000	1

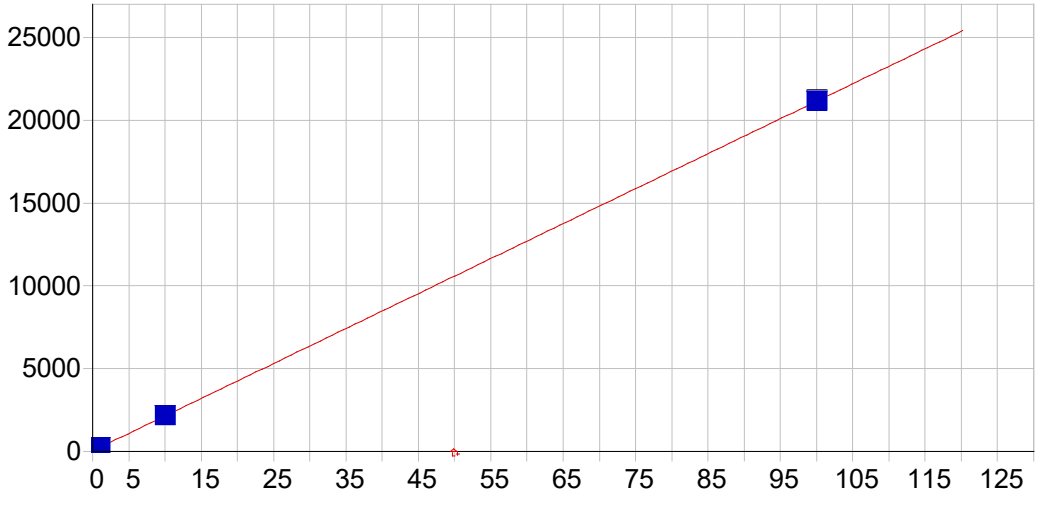


Li 670.776 { 50}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-30.799338	Re-Slope:	1.000000
A1 (Gain):	5.065816	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999892	Status:	OK.
Std Error of Est:	1.014185		
Predicted MDL:	1.271588		
Predicted MQL:	4.238626		

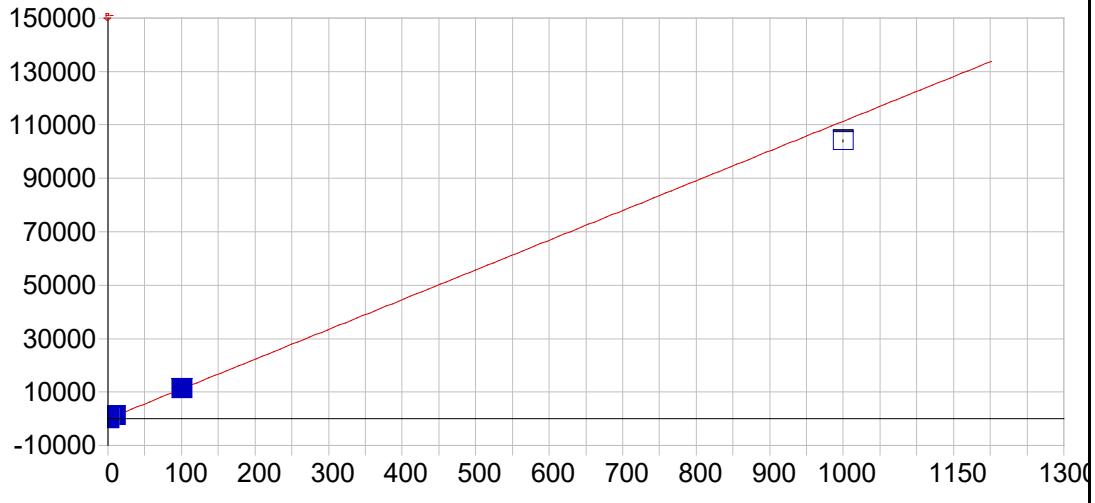
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00375	-.004	.000	-30.818	6.07	1
CalStd5=10	10.000	12.921	2.92	29.2	34.656	4.61	1
CalStd8=100	100.00	105.42	5.42	5.42	503.22	5.45	1
CalStd9=100	1000.0	1033.0	33.0	3.30	5202.2	8.79	1
CalStd10=10	10000.	9958.7	-41.3	-.413	50419.	224.	1



K 766.490 { 44}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	32.267543		Re-Slope:	1.000000	
A1 (Gain):	211.130773		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999998		Status:	OK.	
Std Error of Est:	5.883864				
Predicted MDL:	0.032208				
Predicted MQL:	0.107360				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	32.315	3.58	1
CalStd9=100	1.0000	.97175	-.028	-2.83	238.07	6.41	1
CalStd10=10	10.000	10.033	.033	.329	2156.8	6.67	1
CalStd13=10	100.00	99.923	-.077	-.077	21192.	34.0	1

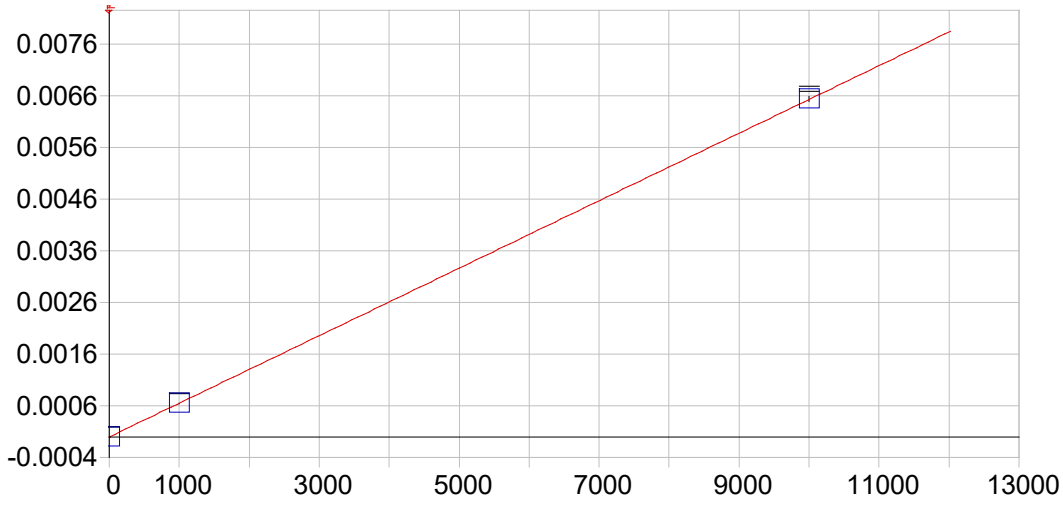


K 769.896 { 44}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	3.540317	Re-Slope:	1.000000
A1 (Gain):	111.378434	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999561	Status:	OK.
Std Error of Est:	58.298796		
Predicted MDL:	0.054157		
Predicted MQL:	0.180523		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07676	-.077	.000	-5.0090	3.02	1
CalStd10=10	10.000	10.026	.026	.262	1121.4	3.26	1
CalibStd15=	1000.0	934.09	-65.9	-6.59	104040.	323.	1
CalStd13=10	100.00	101.33	1.33	1.33	11301.	14.8	1
CalStd9=100	1.0000	1.0053	.005	.525	115.62	3.18	1

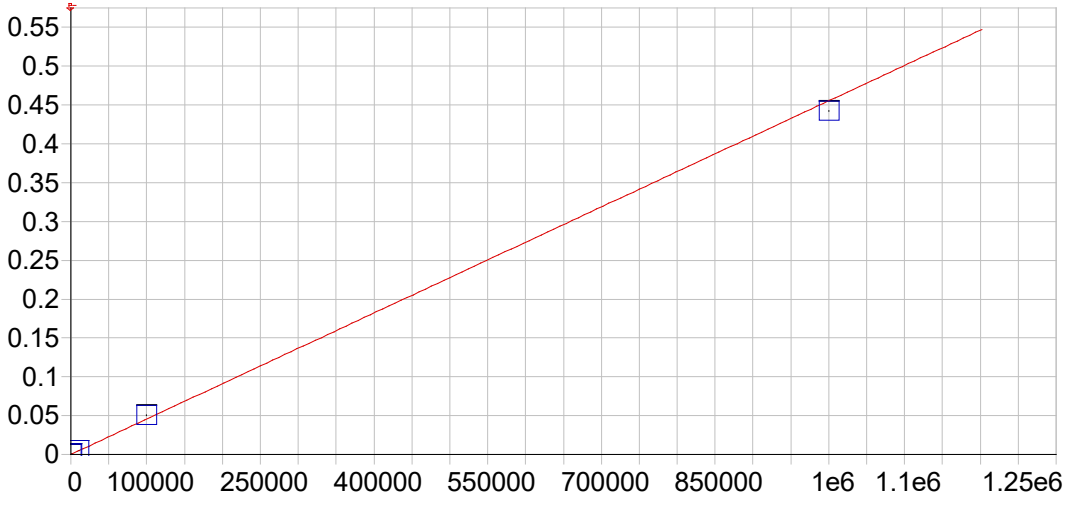


P 177.495 {489}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.036108		
Predicted MQL:	6.787028		

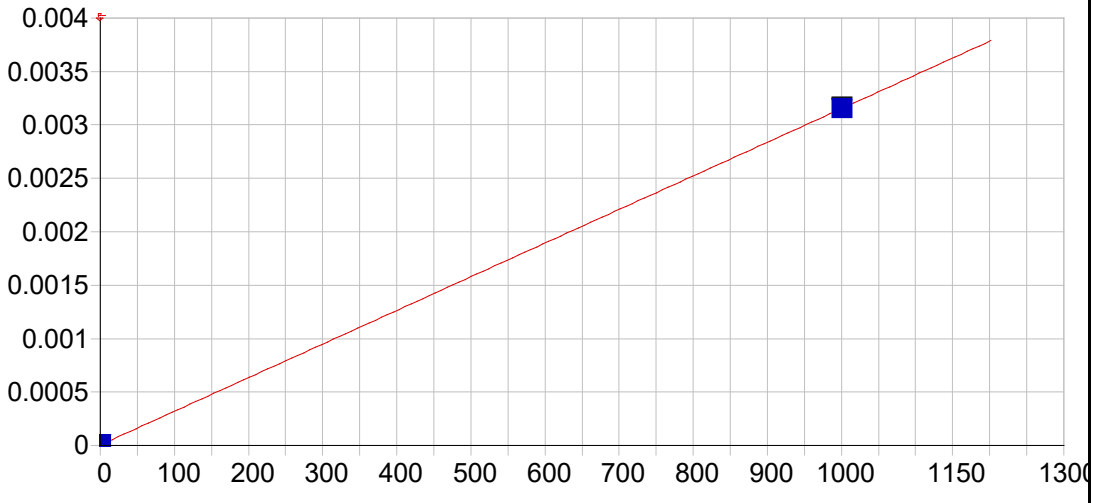
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00956	.010	.000	-.00000	.000	1
CalStd10=10	10000.	10011.	10.6	.106	.00653	.000	1
CalStd9=100	1000.0	989.37	-10.6	-1.06	.00064	.000	1



S 182.034 {485}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000060		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998222		Status:	OK.	
Std Error of Est:	0.000071				
Predicted MDL:	3.771207				
Predicted MQL:	12.570692				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-77.064	-77.1	.000	.00002	.000	1
CalStd9=100	1000.0	1068.5	68.5	6.85	.00055	.000	1
CalStd10=10	10000.	11119.	1120.	11.2	.00512	.000	1
CalibStd15=	1000000.	970890.	-29100.	-2.91	.44213	.000	1
CalStd13=10	100000.	110810.	10800.	10.8	.05051	.000	1

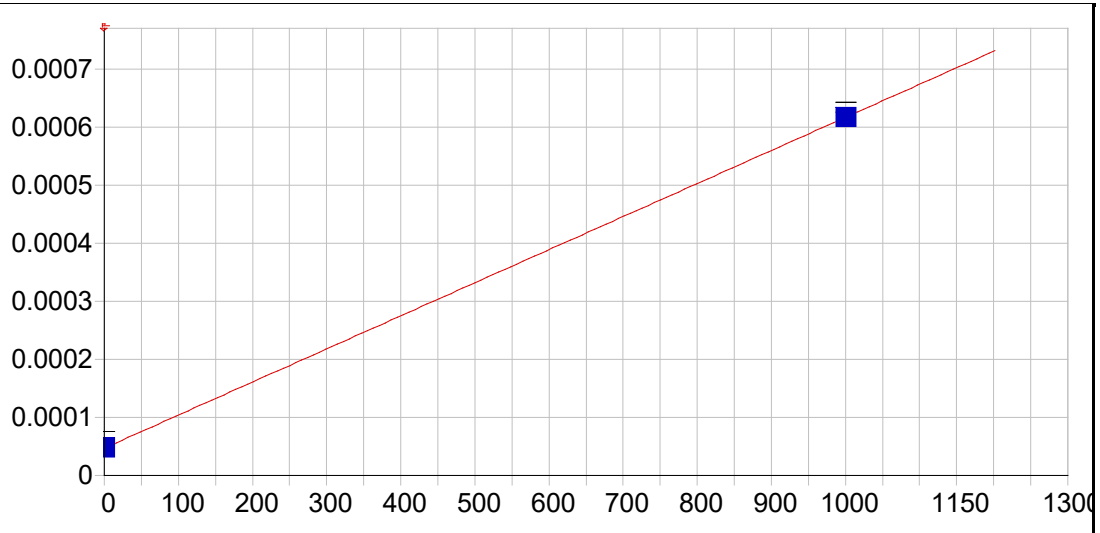


Hg 184.950 {482}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.567355		
Predicted MQL:	1.891182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00315	.000	1



Ce 404.076 { 83}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000047	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	17.718102		
Predicted MQL:	59.060340		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00005	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00062	.000	1

Sample Name: Blank Acquired: 05/03/2022 12:22:10 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3968
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**43.7**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.001**	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	1.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.29	2.34	11.5	3.49	870.	18.9	69.6	388.	4.77	540.	2.50	7.44	38.9

Elem	Cd2265	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	140.	70.7	169.	80.0	5.17	54.1	942.	1.34	46.7	210.	39.6	2960.	.337

Elem	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	47.5	780.	41.6	65.1	139.	213.	81.1	22.1	281.	17.1	111.	46.8	169.

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**51.8**	**32.3**	**-5.01**
Stddev	.000	.000	.000	.000	2.2	3.6	3.02
%RSD	20.2	299.	12.4	1530.	4.26	11.1	60.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**362680.**	**2169900.**	**334670.**
Stddev	3580.	11425.	7008.
%RSD	.98723	.52651	2.0939

Sample Name: CalStd2=0.5 Acquired: 05/03/2022 12:29:50 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be2348	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	149.	2.20	3.65	39.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355660.**	**2155900.**	**329450.**
Stddev	1350.	11907.	2371.
%RSD	.37950	.55230	.71953

Sample Name: CalStd3=1 Acquired: 05/03/2022 12:37:31 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.91	8.54	32.3	1.71	20.2	14.2	8.88	15.5	48.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**357200.**	**2147100.**	**326520.**
Stddev	1226.	15868.	2849.
%RSD	.34331	.73903	.87258

Sample Name: CalStd4=5 Acquired: 05/03/2022 12:45:12 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	12.0	3.16	3.02	.677	4.76	5.55	.982	1.30	4.66	1.42	8.77	8.58	3.43

Elem	Pb2203	Sb2175
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	10.6	19.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**356280.**	**2160400.**	**326990.**
Stddev	1534.	7141.	2091.
%RSD	.43059	.33052	.63951

Sample Name: CalStd5=10 Acquired: 05/03/2022 12:52:53 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**97.6**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	2.1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	9.27	2.12	1.41	3.49	9.46	163.	1.54	1.99	.909	1.26	5.43	.477	.224

Elem	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.40	1.87	.984	3.28	5.19	2.73	32.6	4.70	17.4	9.82	12.0	5.25	1.06

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	.576	1.01

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355960.**	**2142200.**	**326890.**
Stddev	1498.	17011.	1672.
%RSD	.42077	.79407	.51158

Sample Name: CalStd6=20 Acquired: 05/03/2022 13:00:34 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	.694	.481	1.96	3.59	2.59	.654

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354930.**	**2142700.**	**324860.**
Stddev	1281.	11847.	1290.
%RSD	.36097	.55292	.39720

Sample Name: CalStd7=50 Acquired: 05/03/2022 13:08:13 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.001**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.67	6.04	.686	1.10	.365	.533	.933	.918	.673	.354	.775	2.34	1.16

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354690.**	**2148400.**	**325370.**
Stddev	1327.	20652.	2874.
%RSD	.37410	.96125	.88327

Sample Name: CalStd8=100 Acquired: 05/03/2022 13:15:39 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3968	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**625.**	**.000**	**.000**	**.000**	**.000**	**.001**	**.005**	**.001**	**.008**	**.009**	**.002**	**.000**
Stddev	.000	2.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.935	.294	.533	1.90	3.01	4.72	.518	2.70	1.35	.465	1.20	.195	.740

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.000**	**.001**	**.000**	**.000**	**.005**	**.001**	**.001**	**.000**	**.001**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.466	.388	.615	.571	1.08	.545	.467	.374	.587	.327	.525	3.05	.593

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.001**	**.004**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	1.75	1.26	10.2	.883	.573	.450	.369

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**353700.**	**2119700.**	**324580.**
Stddev	1133.	9111.	4548.
%RSD	.32036	.42983	1.4012

Sample Name: CalStd9=1000 Acquired: 05/03/2022 13:22:59 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3968	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.001**	**.002**	**.001**	**.000**	**.009**	**.046**	**.008**	**.083**	**.001**	**.089**	**.021**	**.005**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.001	.000	.000
%RSD	.391	.699	1.44	.564	.324	.253	.767	.899	.974	1.01	.945	.162	.263

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.021**	**.002**	**.015**	**.003**	**.004**	**.001**	**.001**	**.003**	**.002**	**.000**	**.053**	**.012**	**.011**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.129	.752	.153	.927	.186	.862	1.06	.858	.544	1.96	.841	.807	.968

Elem	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.003**	**.013**	**.012**	**.001**	**.003**	**.001**	**.001**	**.001**	**.000**	**.002**	**.008**	**.015**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.100	.418	.090	.189	.385	.244	.337	.122	.374	1.17	.489	.796	.354

Elem	Zn2138	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.036**	**781.**	**238.**	**116.**
Stddev	.000	8.	6.	3.
%RSD	.101	1.01	2.69	2.75

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355080.**	**2141200.**	**326860.**
Stddev	479.	18504.	2893.
%RSD	.13483	.86417	.88493

Sample Name: CalStd10=10000 Acquired: 05/03/2022 13:30:07 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.016**	**.004**	**.086**	**.429**	**.005**	**.838**	**.197**	**.023**	**.136**	**.034**	**.040**	**.005**
Stddev	.000	.000	.000	.001	.004	.000	.015	.002	.000	.001	.000	.000	.000
%RSD	1.18	.972	.954	.799	.984	.768	1.84	.800	.099	.785	.148	.894	.048

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.025**	**.015**	**.001**	**.470**	**.118**	**.101**	**.056**	**.032**	**.118**	**.109**	**.007**	**.013**
Stddev	.000	.000	.000	.000	.001	.000	.001	.000	.000	.001	.001	.000	.000
%RSD	1.23	.803	.910	1.07	.159	.180	1.08	.802	.774	.749	.734	.862	.910

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.013**	**.007**	**.002**	**.015**	**.078**	**.138**	**7090.**	**2160.**	**1120.**
Stddev	.000	.000	.000	.000	.000	.001	25.	7.	3.
%RSD	.932	.887	1.04	.764	.154	.552	.356	.309	.291

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**350980.**	**2042100.**	**327470.**
Stddev	2811.	3127.	2513.
%RSD	.80078	.15312	.76726

Sample Name: CalStd12=100K Acquired: 05/03/2022 13:37:59 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.27**	**1.02**	**.071**	**1.24**
Stddev	.01	.02	.000	.00
%RSD	.646	1.73	.295	.301

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**352890.**	**2129200.**	**325570.**
Stddev	976.	6237.	1581.
%RSD	.27656	.29294	.48564

Sample Name: CalStd13=100000 Acquired: 05/03/2022 13:46:24 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.063**	**.162**	**.056**	**.048**	**.093**	**.258**	**.148**	**.007**	**.001**	**70300.**	**21200.**
Stddev	.001	.001	.000	.000	.001	.002	.000	.000	.000	134.	34.
%RSD	.877	.694	.760	.624	.739	.691	.210	.789	.586	.191	.161

Elem	K_7698
Units	Cts/S
Avg	**11300.**
Stddev	15.
%RSD	.131

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**341040.**	**2077300.**	**323980.**
Stddev	383.	11507.	2514.
%RSD	.11239	.55395	.77598

Sample Name: CalStd14=500000 Acquired: 05/03/2022 13:53:50 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.305**	**.787**	**.264**	**.418**	**1.17**	**.679**	**.034**	**.004**
Stddev	.005	.017	.005	.008	.03	.001	.001	.000
%RSD	1.79	2.13	1.81	1.87	2.12	.117	1.79	1.89

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**311830.**	**311670.**
Stddev	472.	4947.
%RSD	.15135	1.5871

Sample Name: CalibStd15=1000k Acquired: 05/03/2022 14:02:15 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.598**	**1.56**	**.497**	**.753**	**2.15**	**1.29**	**.065**	**.007**	**104000.**
Stddev	.006	.03	.008	.008	.02	.00	.001	.000	323.
%RSD	1.01	1.75	1.67	1.08	1.06	.294	1.03	.703	.310

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**290490.**	**305250.**
Stddev	197.	3552.
%RSD	.06798	1.1635

Sample Name: Ag 1000 Acquired: 05/03/2022 14:10:56 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382
Units	Cts/S
Avg	**5270.**
Stddev	11.
%RSD	.200

Sample Name: icv Acquired: 05/03/2022 14:26:16 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.6**	**50.4**	**12000.**	**2050.**	**2040.**	**49.8**	**10300.**	**47.6**	**516.**	**202.**	**246.**	**5020.**
Stddev	.3	.6	180.	12.	4.	.4	107.	.2	1.	2.	2.	40.
%RSD	.596	1.24	1.50	.577	.201	.902	1.03	.496	.220	.940	.620	.799
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5170.**	**10400.**	**507.**	**505.**	**512.**	**493.**	**474.**	**510.**	**2070.**	**1970.**	**2010.**	**487.**
Stddev	89.	87.	5.	1.	2.	3.	1.	2.	7.	10.	4.	5.
%RSD	1.71	.834	.932	.206	.322	.671	.164	.361	.354	.500	.174	.970
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**556.**	**503.**	**106.**	**98.2**	**99.1**
Stddev	.	1.	1.	.6	.4
%RSD	.059	.201	.704	.618	.411
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: icv Acquired: 05/03/2022 14:26:16 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**346090.**	**2067400.**	**321090.**
Stddev	731.	17946.	2826.
%RSD	.21132	.86803	.88015

Sample Name: ICVLL Acquired: 05/03/2022 14:40:51 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.79**	**9.17**	**401.**	**20.7**	**10.7**	**4.06**	**511.**	**5.06**	**10.6**	**9.93**	**11.0**	**307.**	**548.**
Stddev	.53	1.13	2.	4.4	.2	.02	2.	.11	.1	.16	1.1	3.	2.
%RSD	6.07	12.3	.485	21.4	2.19	.386	.367	2.19	1.06	1.59	10.4	.859	.429
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.3**	**9.95**	**10.4**	**9.07**	**20.9**	**25.0**	**22.2**	**9.53**	**10.3**	**2.02**	**1.15**	**1.02**
Stddev	.0	.62	.2	1.36	2.6	1.6	1.3	.12	.1	.02	.03	.03
%RSD	.432	6.22	1.96	15.0	12.3	6.34	5.67	1.30	1.02	.781	2.42	2.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**358640.**	**2159200.**	**333450.**
Stddev	1359.	9331.	2213.
%RSD	.37894	.43213	.66376

Sample Name: icb Acquired: 05/03/2022 14:56:07 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.209**	**.150**	**-.109**	**-.569**	**.197**	**.002**	**.083**	**-.064**	**-.073**	**.016**	**.607**	**.617**	**.037**
Stddev	.312	.414	.494	3.44	.166	.005	.039	.176	.171	.210	.576	.414	.069
%RSD	150.	277.	453.	606.	84.3	247.	47.1	274.	234.	1300.	94.9	67.1	186.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.066**	**-.025**	**-.123**	**-.331**	**-2.65**	**.540**	**-.737**	**-.169**	**-.027**	**.005**	**.004**	**-.083**
Stddev	.021	.304	.360	.874	2.04	1.16	1.12	.267	.075	.007	.035	.023
%RSD	31.8	1190.	292.	264.	76.9	215.	152.	158.	272.	149.	825.	27.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**362960.**	**2175700.**	**334280.**
Stddev	2329.	25560.	2110.
%RSD	.64153	1.1748	.63134

Sample Name: MRL/LLOQ Acquired: 05/03/2022 15:03:49 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**7.88**	**7.79**	**407.**	**20.2**	**10.8**	**4.12**	**529.**	**5.14**	**10.7**	**9.98**	**12.8**	**346.**	**558.**
Stddev	.41	.84	3.	1.8	.1	.01	1.	.17	.2	.25	.7	3.	1.
%RSD	5.27	10.8	.796	9.03	1.31	.248	.221	3.31	2.18	2.49	5.61	.900	.267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.5**	**10.1**	**10.2**	**9.21**	**17.9**	**22.5**	**19.1**	**9.84**	**10.2**	**2.00**	**1.02**	**.930**
Stddev	.0	.4	.3	1.10	1.9	.9	1.2	.13	.2	.01	.05	.054
%RSD	.364	3.62	2.79	11.9	10.7	3.79	6.33	1.31	1.65	.394	4.70	5.80
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354980.**	**2113900.**	**327460.**
Stddev	1974.	6113.	1432.
%RSD	.55614	.28919	.43730

Sample Name: ICSA Acquired: 05/03/2022 15:11:26 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.000**	**.023**	**511000.**	**494000.**	**-.784**	**.022**	**-.140**	**487000.**	**-.000**	**.376**	**-7.72**
Stddev	.310	.726	2670.	4910.	8.49	.217	.020	3400.	.330	.255	.44
%RSD	194000.	3220.	.522	.994	1080.	999.	14.2	.699	115000.	67.9	5.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.31**	**538000.**	**452000.**	**506000.**	**522000.**	**-.877**	**-1.91**	**4.63**	**.000**	**.000**	**-.008**
Stddev	.64	3630.	6160.	675.	2670.	.137	.17	.38	2.35	1.25	3.36
%RSD	27.6	.674	1.36	.133	.511	15.6	8.97	8.24	1130000.	257000.	42500.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.016**	**9410.**	**4.83**	**-.316**	**-1.25**	**-.308**
Stddev	2.02	71.	.52	.020	.02	.035
%RSD	12700.	.759	10.7	6.22	1.45	11.5
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA Acquired: 05/03/2022 15:11:26 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**320540.**	**1990500.**	**316800.**
Stddev	492.	16138.	1094.
%RSD	.15353	.81075	.34543

Sample Name: ICSAB Acquired: 05/03/2022 15:19:35 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	Al3961	As1937	Ba2335	Be2348	Ca3158	Cd2288	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**453.**	**516000.**	**502000.**	**504.**	**528.**	**502.**	**495000.**	**510.**	**496.**	**482.**	**538.**
Stddev	1.	7620.	9920.	10.	3.	8.	7020.	2.	2.	2.	2.
%RSD	.225	1.48	1.98	2.01	.644	1.56	1.42	.400	.401	.315	.293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**553000.**	**458000.**	**510000.**	**527000.**	**499.**	**493.**	**491.**	**443.**	**510.**	**507.**	**526.**
Stddev	9350.	8510.	1700.	7690.	2.	3.	2.	2.	4.	7.	2.
%RSD	1.69	1.86	.334	1.46	.325	.575	.421	.482	.820	1.46	.411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**478.**	**493.**	**508.**	**52.5**	**49.9**	**49.7**	**51.1**
Stddev	2.	3.	2.	.6	.0	.0	.1
%RSD	.391	.559	.449	1.18	.067	.089	.189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 05/03/2022 15:19:35 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**321230.**	**1970800.**	**316790.**
Stddev	809.	6719.	4520.
%RSD	.25186	.34092	1.4269

Sample Name: ICV LL ag Acquired: 05/03/2022 15:34:55 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.04**	**8.79**	**3.50**	**1.89**	**.209**	**.007**	**5.80**	**.092**	**-.002**	**.063**	**1.83**	**39.6**	**3.01**
Stddev	.58	.27	.44	1.84	.129	.008	.04	.069	.073	.170	.60	6.2	.03
%RSD	7.19	3.09	12.6	97.2	61.9	120.	.716	75.1	4810.	273.	32.9	15.5	1.01

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.127**	**.319**	**-.128**	**-.144**	**-1.68**	**1.56**	**.346**	**-.140**	**.275**	**.024**	**-.016**	**-.033**
Stddev	.049	.230	.356	1.12	1.79	4.38	1.21	.220	.096	.012	.021	.029
%RSD	38.6	72.1	278.	774.	107.	281.	348.	157.	35.0	50.0	128.	88.0

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**357290.**	**2150100.**	**328290.**
Stddev	552.	12486.	1094.
%RSD	.15445	.58072	.33331

Sample Name: lcsw95236 Acquired: 05/03/2022 15:42:36 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**17.8**	**793.**	**1090.**	**835.**	**855.**	**20.6**	**204000.**	**19.6**	**209.**	**83.6**	**108.**
Stddev	.4	1.	12.	5.	1.	.1	1120.	.2	.	.7	1.
%RSD	2.47	.159	1.13	.649	.119	.584	.549	1.23	.170	.859	1.35

Elem	Fe2343	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**420.**	**104000.**	**209.**	**2060.**	**210.**	**195.**	**218.**	**869.**	**814.**	**204.**	**221.**
Stddev	4.	437.	1.	4.	.	2.	1.	7.	3.	1.	1.
%RSD	.949	.420	.643	.197	.178	.845	.280	.779	.359	.708	.372

Elem	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	mg/L	mg/L	mg/L
Avg	**211.**	**103.**	**98.2**	**100.0**
Stddev	.	2.	.4	.51
%RSD	.147	1.54	.389	.514

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**336330.**	**2036600.**	**319620.**
Stddev	223.	11974.	1452.
%RSD	.06634	.58793	.45432

Sample Name: mbw95236 Acquired: 05/03/2022 15:49:51 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.329**	**-.996**	**2.50**	**1.35**	**.066**	**.003**	**10.8**	**.138**	**-.022**	**.144**	**2.07**	**10.1**	**1.68**
Stddev	.521	.655	.37	3.98	.275	.007	1.7	.088	.122	.200	.15	.7	.15
%RSD	158.	65.8	14.8	294.	415.	199.	15.3	64.0	556.	138.	7.39	7.29	8.81

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.004**	**1.85**	**-.207**	**-1.03**	**-1.88**	**1.58**	**-.718**	**-.298**	**.355**	**.024**	**-.014**	**-.068**
Stddev	.035	.38	.267	.77	2.80	2.41	1.82	.129	.024	.011	.032	.048
%RSD	887.	20.5	129.	74.1	149.	152.	253.	43.1	6.77	45.8	231.	69.6

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**360070.**	**2166600.**	**332310.**
Stddev	2261.	12809.	1748.
%RSD	.62788	.59119	.52587

Sample Name: 1136212 Acquired: 05/03/2022 15:57:30 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.429**	**16.2**	**171.**	**4.78**	**78.5**	**.026**	**58700.**	**.001**	**-.185**	**3.06**	**8.65**	**209.**
Stddev	.214	.2	1.	2.81	.2	.004	520.	.055	.105	.20	.48	1.
%RSD	49.8	1.26	.485	58.8	.315	13.7	.886	3900.	56.9	6.47	5.57	.701

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**24500.**	**8.55**	**4.17**	**.163**	**.114**	**-2.05**	**1.71**	**-1.97**	**.286**	**51.6**	**25.8**	**.828**
Stddev	168.	.08	.13	.242	1.53	2.52	1.23	.66	.079	.2	.2	.036
%RSD	.686	.962	3.16	148.	1350.	123.	71.8	33.4	27.7	.313	.700	4.39

Elem	K_7698
Units	mg/L
Avg	**.889**
Stddev	.077
%RSD	8.70

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**349980.**	**2122600.**	**329920.**
Stddev	1369.	4402.	2530.
%RSD	.39112	.20737	.76685

Sample Name: I1136212 Acquired: 05/03/2022 16:05:19 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.233**	**5.72**	**25.7**	**-.236**	**14.2**	**.006**	**12400.**	**-.043**	**.074**	**.407**	**2.81**	**38.3**
Stddev	.300	.90	1.9	2.44	3.4	.015	451.	.064	.225	.225	.97	2.3
%RSD	129.	15.8	7.23	1030.	23.8	267.	3.63	149.	303.	55.3	34.5	5.91

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**5150.**	**1.57**	**.645**	**.100**	**.209**	**-.415**	**3.04**	**-1.13**	**-.117**	**8.64**	**5.33**	**.129**
Stddev	180.	.07	.530	.381	1.02	2.06	2.07	1.70	.101	.47	.18	.018
%RSD	3.50	4.63	82.2	379.	490.	495.	68.0	151.	86.3	5.40	3.43	13.7

Elem	K_7698
Units	mg/L
Avg	**.083**
Stddev	.028
%RSD	33.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**356430.**	**2149100.**	**330370.**
Stddev	1744.	7477.	1330.
%RSD	.48925	.34789	.40251

Sample Name: dup1136212 Acquired: 05/03/2022 16:13:24 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.246**	**15.9**	**172.**	**1.38**	**78.4**	**.024**	**59600.**	**-.155**	**-.207**	**3.41**	**6.74**	**211.**
Stddev	.234	.6	2.	1.64	.3	.007	840.	.114	.300	.13	1.24	1.
%RSD	95.0	3.73	1.03	118.	.340	30.4	1.41	73.8	145.	3.93	18.4	.477

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**24800.**	**8.50**	**3.78**	**.411**	**1.32**	**-2.59**	**.259**	**.644**	**.247**	**51.5**	**25.6**	**.853**
Stddev	355.	.04	.29	.110	.58	2.22	1.16	.929	.157	.1	.1	.012
%RSD	1.43	.516	7.73	26.8	44.2	85.8	450.	144.	63.5	.181	.309	1.41

Elem	K_7698
Units	mg/L
Avg	**.777**
Stddev	.050
%RSD	6.46

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**351660.**	**2106300.**	**326890.**
Stddev	675.	7119.	5302.
%RSD	.19196	.33800	1.6220

Sample Name: msw1136212 Acquired: 05/03/2022 16:21:13 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**18.0**	**36.0**	**962.**	**1330.**	**845.**	**932.**	**20.8**	**267000.**	**19.7**	**208.**	**86.7**
Stddev	.3	.4	1.	21.	6.	1.	.1	1980.	.2	.	.6
%RSD	1.68	1.04	.114	1.59	.660	.065	.521	.738	1.07	.181	.707

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**113.**	**609.**	**626.**	**131000.**	**216.**	**2080.**	**209.**	**195.**	**222.**	**872.**	**810.**
Stddev	1.	4.	6.	1270.	1.	3.	.	1.	5.	6.	4.
%RSD	1.13	.720	1.02	.972	.649	.138	.235	.714	2.04	.636	.448

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**204.**	**270.**	**263.**	**136.**	**124.**	**101.**
Stddev	2.	1.	1.	1.	.	.
%RSD	.943	.202	.222	.990	.153	.159

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**331480.**	**2016600.**	**316360.**
Stddev	395.	12051.	2328.
%RSD	.11927	.59760	.73581

Sample Name: msdw1136212 Acquired: 05/03/2022 16:28:17 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**18.6**	**36.3**	**978.**	**1340.**	**852.**	**946.**	**20.9**	**268000.**	**19.9**	**211.**	**87.4**
Stddev	.4	.9	2.	18.	4.	1.	.1	3350.	.1	.	1.2
%RSD	1.89	2.35	.252	1.38	.416	.158	.402	1.25	.311	.162	1.31

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**116.**	**629.**	**648.**	**131000.**	**218.**	**2110.**	**211.**	**196.**	**221.**	**884.**	**824.**
Stddev	1.	3.	8.	1890.	1.	2.	.	1.	2.	5.	2.
%RSD	.520	.514	1.24	1.44	.433	.112	.224	.461	.855	.583	.297

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**206.**	**275.**	**266.**	**135.**	**125.**	**102.**
Stddev	1.	1.	.	3.	1.	1.
%RSD	.640	.194	.179	2.00	.417	.529

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**331670.**	**2023300.**	**315790.**
Stddev	967.	8603.	3691.
%RSD	.29169	.42518	1.1686

Sample Name: pdsw1136212 Acquired: 05/03/2022 16:35:21 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba4934	Be2348	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**79.4**	**90.0**	**4750.**	**4000.**	**4220.**	**102.**	**93.4**	**437000.**	**88.1**	**941.**	**378.**
Stddev	1.5	1.5	107.	10.	86.	2.	.8	8680.	.1	1.	4.
%RSD	1.93	1.68	2.25	.248	2.03	2.26	.821	1.98	.089	.153	1.09

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mn2593	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**476.**	**2010.**	**2160.**	**221000.**	**943.**	**1040.**	**1680.**	**929.**	**1000.**	**874.**	**956.**
Stddev	1.	19.	38.	4240.	9.	22.	5.	2.	10.	3.	4.
%RSD	.156	.946	1.76	1.92	.966	2.16	.307	.194	.960	.381	.421

Elem	Se2062	Tl1908	V_2924	Zn2062	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**3780.**	**3580.**	**928.**	**1030.**	**225.**	**206.**	**191.**
Stddev	31.	7.	10.	1.	4.	3.	3.
%RSD	.832	.189	1.06	.131	1.94	1.33	1.36

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**322970.**	**1985900.**	**314150.**
Stddev	815.	5306.	2450.
%RSD	.25241	.26720	.77999

Sample Name: ccv1 Acquired: 05/03/2022 16:49:37 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2286	Co2388	Cr2055	Cu2230	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**512.**	**4850.**	**4900.**	**4760.**	**475.**	**4900.**	**468.**	**4840.**	**4800.**	**4600.**	**4860.**	**4820.**	**4760.**
Stddev	2.	37.	16.	34.	5.	55.	1.	19.	24.	20.	19.	25.	26.
%RSD	.328	.762	.319	.708	.991	1.13	.288	.400	.502	.423	.391	.513	.540
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4990.**	**4850.**	**4910.**	**4820.**	**4730.**	**4690.**	**4780.**	**4830.**	**4780.**	**5140.**	**100.**	**94.9**	**96.1**
Stddev	12.	45.	22.	20.	22.	15.	18.	22.	26.	38.	2.	.4	.4
%RSD	.249	.923	.439	.412	.456	.315	.372	.462	.552	.746	1.90	.375	.378
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**347230.**	**2048100.**	**324950.**
Stddev	1012.	10172.	3310.
%RSD	.29140	.49663	1.0185

Sample Name: ccv2 Acquired: 05/03/2022 16:56:39 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.0**	**484.**	**470.**	**506.**	**47.6**	**500.**	**47.8**	**500.**	**478.**	**507.**	**495.**	**492.**	**519.**
Stddev	.7	2.	3.	4.	.5	3.	.3	2.	5.	3.	5.	5.	5.
%RSD	1.61	.504	.742	.692	.994	.660	.664	.493	1.09	.625	1.06	1.01	1.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**493.**	**474.**	**500.**	**503.**	**469.**	**498.**	**506.**	**519.**	**474.**	**520.**	**478.**	**9.63**	**9.63**
Stddev	5.	4.	3.	7.	3.	3.	3.	2.	4.	3.	3.	.01	.03
%RSD	1.03	.779	.578	1.38	.561	.670	.612	.412	.888	.655	.606	.125	.307
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**9.63**
Stddev	.03
%RSD	.292
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 05/03/2022 16:56:39 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**356940.**	**2144100.**	**328330.**
Stddev	1656.	19161.	2357.
%RSD	.46393	.89363	.71801

Sample Name: ccb Acquired: 05/03/2022 17:03:37 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.396**	**-.870**	**-.185**	**.252**	**-.073**	**-.011**	**1.72**	**-.064**	**-.001**	**-.092**	**1.52**	**-.422**	**.522**
Stddev	.334	.261	.222	3.29	.122	.008	.32	.130	.141	.283	.52	.925	.020
%RSD	84.5	30.0	120.	1310.	167.	78.3	18.8	204.	18000.	308.	34.1	219.	3.91
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.000**	**1.58**	**-.207**	**.470**	**-.173**	**1.84**	**.139**	**-.211**	**.049**	**.011**	**-.019**	**-.100**
Stddev	.028	.09	.344	1.33	2.27	1.79	2.02	.109	.129	.008	.044	.047
%RSD	11300.	5.89	166.	283.	1310.	97.4	1450.	51.6	264.	75.8	234.	47.3
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**364660.**	**2179300.**	**337670.**
Stddev	7058.	14456.	3183.
%RSD	1.9354	.66336	.94251

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	05/10/2022 09:24:21	05/09/2022 08:31:18	Linear	1/Conc	0.000009	0.000003	0.000000	1.000000	0.999312	0.000000	0.498998	1.663328
Ag 338.289 {100}	05/10/2022 09:24:21	05/09/2022 09:24:19	Linear	1/Var	53.689454	4.912444	0.000000	1.000000	0.999986	7.012702	1.027826	3.426088
Al 167.079 {501}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000005	0.000002	0.000000	1.000000	0.999976	0.000000	0.608026	2.026754
Al 309.271 {109}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Conc	0.000278	0.000001	0.000000	1.000000	0.999925	0.000001	21.814928	72.716427
Al 396.152 { 85}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Var	0.000023	0.000001	0.000000	1.000000	0.999958	0.000064	13.209600	44.032000
As 193.759 {474}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000010	0.000001	0.000000	1.000000	0.999788	0.000000	4.202968	14.009892
As 197.262 {471}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000004	0.000000	0.000000	1.000000	0.999950	0.000000	5.989099	19.963662
Ba 233.527 {445}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000002	0.000007	0.000000	1.000000	0.999766	0.000001	0.315022	1.050075
Ba 455.403 { 74}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000249	0.000023	0.000000	1.000000	0.999880	0.000001	0.564814	1.882714
Ba 493.409 { 68}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Var	0.015858	0.000040	0.000000	1.000000	0.999772	0.000729	1.366082	4.553608
Be 234.861 {144}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000006	0.000007	0.000000	1.000000	0.999533	0.000000	0.405033	1.350110
Be 313.042 {108}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000018	0.000069	0.000000	1.000000	0.999935	0.000001	0.016140	0.053800
Be 313.107 {108}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000007	0.000028	0.000000	1.000000	0.999846	0.000000	0.315048	1.050161
Ca 184.006 {483}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	-0.000039	0.000002	0.000000	1.000000	0.999980	0.000005	1.023422	3.411406
Ca 315.887 {107}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Var	0.000091	0.000001	0.000000	1.000000	0.999933	0.000066	8.561413	28.538044
Ca 317.933 {106}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Conc	0.002474	0.000001	0.000000	1.000000	0.999656	0.000056	4.207076	14.023585
Ca 393.366 { 86}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000015	0.000164	0.000000	1.000000	0.999663	0.000046	0.081542	0.271808
Ca 396.847 { 85}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000001	0.000071	0.000000	1.000000	0.999922	0.000042	0.171350	0.571167
Cd 226.502 {449}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000002	0.000008	0.000000	1.000000	0.704232	0.000007	0.446740	1.489134
Cd 228.802 {448}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000001	0.000003	0.000000	1.000000	0.999910	0.000000	0.559670	1.865565
Co 228.616 {447}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000010	0.000016	0.000000	1.000000	0.999880	0.000001	0.265048	0.883493
Co 238.892 {141}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999956	0.000001	0.397661	1.325536
Cr 205.560 {464}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Var	-0.000003	0.000012	0.000000	1.000000	0.999777	0.000009	0.235704	0.785681
Cr 267.716 {126}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000003	0.000003	0.000000	1.000000	0.999990	0.000000	0.429477	1.431589
Cu 223.008 {451}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	0.999785	0.000001	1.233140	4.110467
Cu 324.754 {104}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000186	0.000002	0.000000	1.000000	0.999530	0.000010	4.045637	13.485456
Cu 327.396 {103}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000054	0.000002	0.000000	1.000000	0.999409	0.000001	7.806843	26.022811
Fe 234.349 {144}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Var	0.000011	0.000000	0.000000	1.000000	0.999679	0.000005	0.891672	2.972240
Fe 239.562 {140}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000008	0.000001	0.000000	1.000000	0.999417	0.000047	5.399645	17.998815
Fe 259.940 {129}	05/10/2022 09:24:21	05/09/2022 09:16:57	Curvili	1/Var	0.000003	0.000002	0.000000	1.000000	0.999797	0.000032	2.618579	8.728598
Mg 202.582 {466}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	-0.000007	0.000001	0.000000	1.000000	0.998925	0.000055	3.527247	11.757490
Mg 279.079 {121}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999945	0.000001	38.747087	129.15695
Mg 280.270 {120}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000053	0.000039	0.000000	1.000000	0.999420	0.000063	0.017302	0.057673
Mn 257.610 {131}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000002	0.000009	0.000000	1.000000	0.999873	0.000001	0.061677	0.205591
Mn 259.373 {130}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000002	0.000010	0.000000	1.000000	0.999724	0.000107	0.582115	1.940382
Mo 202.030 {466}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000004	0.000004	0.000000	1.000000	0.999892	0.000001	0.510949	1.703163
Mo 204.598 {464}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000001	0.000003	0.000000	1.000000	0.999882	0.000000	1.025727	3.419090
Ni 221.647 {452}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000006	0.000011	0.000000	1.000000	0.999866	0.000009	0.425359	1.417864
Ni 231.604 {445}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000002	0.000010	0.000000	1.000000	0.999837	0.000001	0.458507	1.528355
Pb 216.999 {455}	05/10/2022 09:24:21	05/09/2022 08:53:24	Curvili	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999970	0.000000	7.299745	24.332482
Pb 220.353 {153}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999818	0.000001	1.916183	6.387276
Pb 220.353 {453}	05/10/2022 09:24:21	05/09/2022 08:38:15	Linear	1/Conc	0.000017	0.000003	0.000000	1.000000	0.999598	0.000000	1.747476	5.824919
Sb 206.833 {463}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Var	-0.000001	0.000001	0.000000	1.000000	0.999835	0.000008	2.768049	9.226829
Sb 217.581 {455}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999908	0.000000	3.302099	11.006997

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

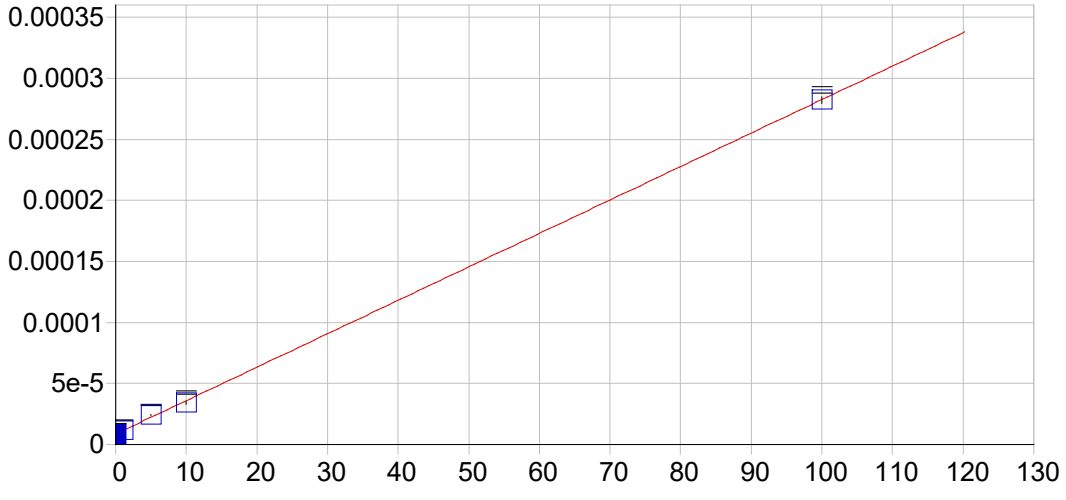
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Se 196.090 {472}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999897	0.000000	3.546972	11.823242
	Se 206.279 {463}	05/10/2022 09:24:21	05/09/2022 08:45:27	Curvili	1/Conc	0.000001	0.000000	-0.000000	1.000000	0.999957	0.000000	17.995433	59.984775
	Tl 190.856 {476}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000004	0.000002	0.000000	1.000000	0.999700	0.000001	1.780647	5.935491
	Tl 190.856 {477}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Var	0.000003	0.000001	0.000000	1.000000	0.999500	0.000006	2.505970	8.353235
	V 290.882 {116}	05/10/2022 09:24:21	05/09/2022 08:45:27	Curvili	1/Var	0.000005	0.000001	-0.000000	1.000000	0.999999	0.000001	8.073617	26.912058
	V 292.402 {115}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000015	0.000006	0.000000	1.000000	0.999996	0.000000	0.374660	1.248866
	Zn 206.200 {463}	05/10/2022 09:24:21	05/09/2022 08:53:25	Linear	1/Var	0.000006	0.000021	0.000000	1.000000	0.999265	0.000036	0.152862	0.509541
	Zn 213.856 {457}	05/10/2022 09:24:21	05/09/2022 08:38:16	Linear	1/Conc	0.000001	0.000031	0.000000	1.000000	0.999979	0.000001	0.116684	0.388947
	Y 224.306 {450}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000003	0.000006	0.000000	1.000000	0.999997	0.000000	1.938494	6.461647
	Na 588.995 { 57}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	3014.6983	1026.0369	0.000000	1.000000	0.999751	10.782376	0.011862	0.039538
	Na 589.592 { 57}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	48.399591	527.45730	0.000000	1.000000	0.999977	1.689053	0.014526	0.048419
	Si 212.412 {458}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	0.000017	0.000002	0.000000	1.000000	0.999170	0.000081	1.445412	4.818039
	Si 251.611 {134}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.999809	0.000005	10.348099	34.493665
	Ti 323.452 {104}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000275	0.000005	0.000000	1.000000	0.999609	0.000001	2.281533	7.605111
	Sr 407.771 { 83}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000128	0.000064	0.000000	1.000000	0.999897	0.000004	0.242595	0.808650
	Sr 421.552 { 80}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000075	0.000083	0.000000	1.000000	0.999949	0.000003	0.197430	0.658101
	Sn 189.989 {477}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Var	0.000009	0.000004	0.000000	1.000000	0.999704	0.000011	0.633440	2.111468
	Sn 189.989 {478}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999695	0.000005	1.604221	5.347403
	B 249.678 {135}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999995	0.000000	1.100258	3.667527
	B 249.773 {135}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000008	0.000002	0.000000	1.000000	0.999999	0.000000	0.609186	2.030621
	Li 610.353 { 55}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-0.001673	0.000001	0.000000	1.000000	0.887876	0.000008	49.685459	165.61819
	Li 670.776 { 50}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-13.747537	2.889610	0.000000	1.000000	0.999871	0.630661	2.402288	8.007626
	K 766.490 { 44}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	-25.225853	194.66872	0.000000	1.000000	0.999989	0.438948	0.040705	0.135685
	K 769.896 { 44}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	4.004528	75.355169	0.000000	1.000000	0.999742	37.298057	0.085581	0.285271
	P 177.495 {489}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-0.000006	0.000001	0.000000	1.000000	0.999961	0.000001	2.251268	7.504227
	S 182.034 {485}	05/10/2022 09:24:21	05/09/2022 09:16:57	Curvili	1/Conc	0.000019	0.000000	0.000000	1.000000	0.999998	0.000001	3.717848	12.392827
	Hg 184.950 {482}	05/10/2022 09:24:21	05/09/2022 08:38:16	Linear	1/Conc	0.000008	0.000003	0.000000	1.000000	1.000000	0.000000	0.592781	1.975937
	Ce 404.076 { 83}	05/10/2022 09:24:21	05/09/2022 08:38:17	Linear	1/Conc	0.000064	0.000000	0.000000	1.000000	1.000000	0.000000	33.453712	111.51237

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	1	Ce	-0.000548	0.000000	No
Ag 338.289 {100}	☒	2	Fe	0.000030	0.000000	No
			Na	0.090000	0.000000	No
Al 167.079 {501}	☒	None				
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001356	0.000000	No
As 197.262 {471}	☒	1	Al	0.000027	0.000000	No
Ba 233.527 {445}	☒	1	Fe	-0.000007	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	Ce	0.000000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000004	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000002	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000048	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	3	Fe	-0.000001	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000018	0.000000	No
			Mo	0.008000	0.000000	No
			Ni	0.006000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	0.000308	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000031	0.000000	No
Mn 259.373 {130}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mo 202.030 {466}	☒	1	Fe	-0.000014	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000021	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	5	Fe	-0.000074	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {153}	☒	1	Fe	0.000002	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000042	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000018	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000115	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000035	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000083	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000115	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	1	Sr	-0.002100	0.000000	No
Na 588.995 { 57}	☒	1	Fe	0.000000	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000001	0.000000	No
Si 212.412 {458}	☒	1	Fe	-0.000007	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000177	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ti 323.452 {104}	☒	2	Fe	0.000034	0.000000	No
			Ce	0.000123	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000036	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000012	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000018	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000401	0.000000	No
Li 610.353 { 55}	☒	1	Fe	-0.000109	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000003	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
S 182.034 {485}	☒	1	Mn	0.002145	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

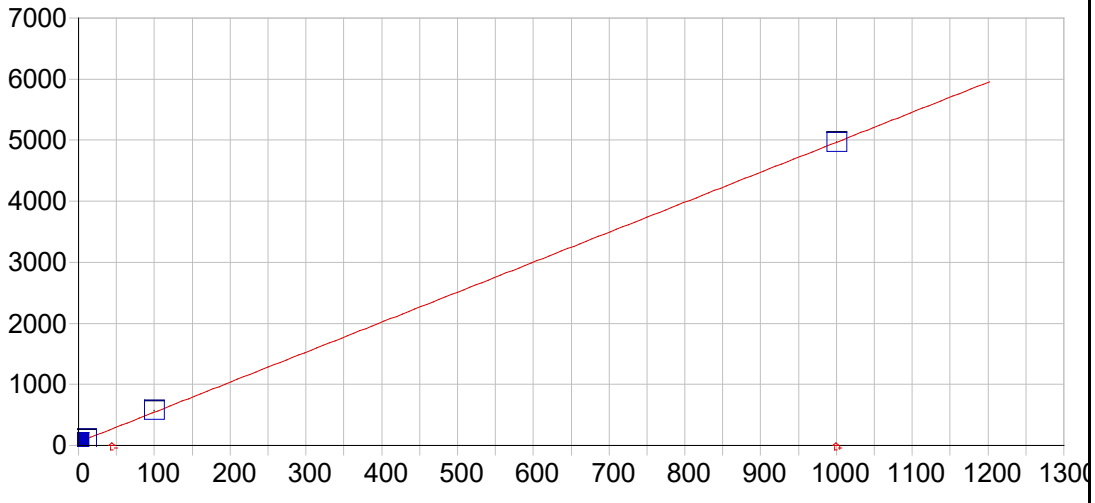


Ag 328.068 {103}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999312	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.498998		
Predicted MQL:	1.663328		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00021	-.000	.000	.00001	.000	1
CalStd8=100	100.00	99.885	-.115	-.115	.00028	.000	1
CalStd4=5	5.0000	5.6699	.670	13.4	.00002	.000	1
CalStd5=10	10.000	9.3005	-.700	-7.00	.00003	.000	1
CalStd3=1	1.0000	1.1449	.145	14.5	.00001	.000	1

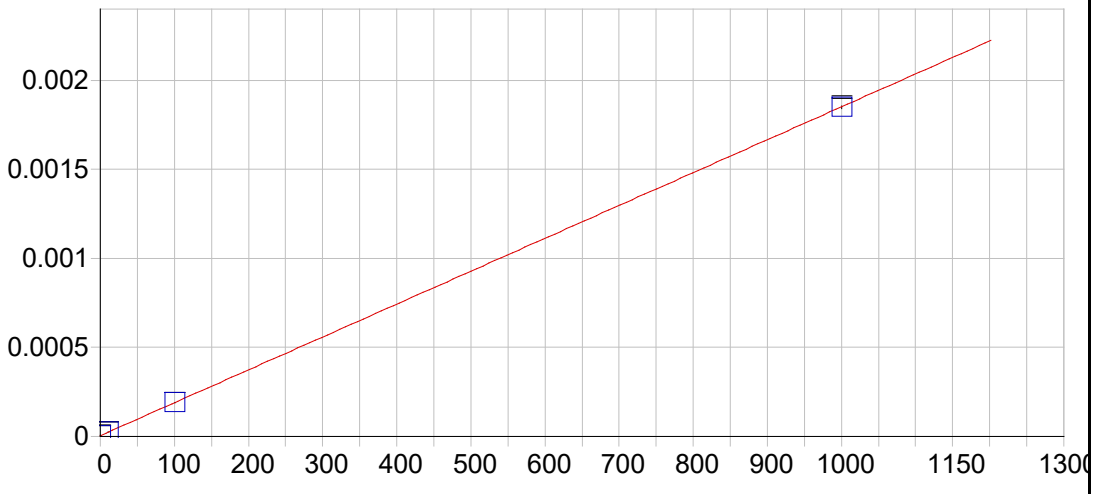


Ag 338.289 {100}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	53.689454	Re-Slope:	1.000000
A1 (Gain):	4.912444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	7.012702		
Predicted MDL:	1.027826		
Predicted MQL:	3.426088		

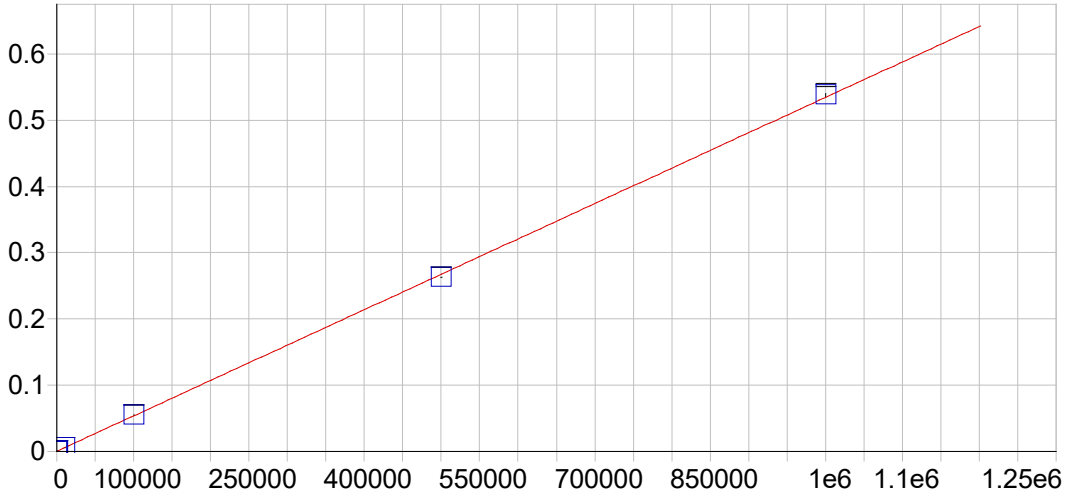
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.17463	-.175	.000	52.832	.977	1
Ag 1000	1000.0	999.51	-.487	-.049	4963.7	4.84	1
CalStd5=10	10.000	9.8563	-.144	-1.44	102.11	5.37	1
CalStd8=100	100.00	105.47	5.47	5.47	571.82	5.12	1



Al 167.079 {501}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999976		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.608026				
Predicted MQL:	2.026754				

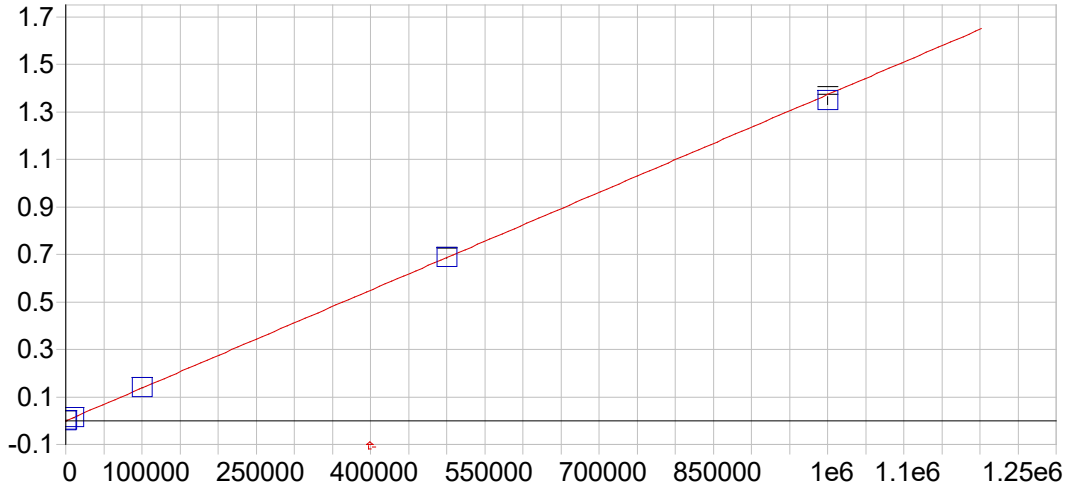
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00074	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	998.92	-1.08	-.108	.00185	.000	1
CalStd5=10	10.000	10.718	.718	7.18	.00002	.000	1
CalStd8=100	100.00	100.36	.364	.364	.00019	.000	1



Al 309.271 {109}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000278		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999925		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	21.814928				
Predicted MQL:	72.716427				

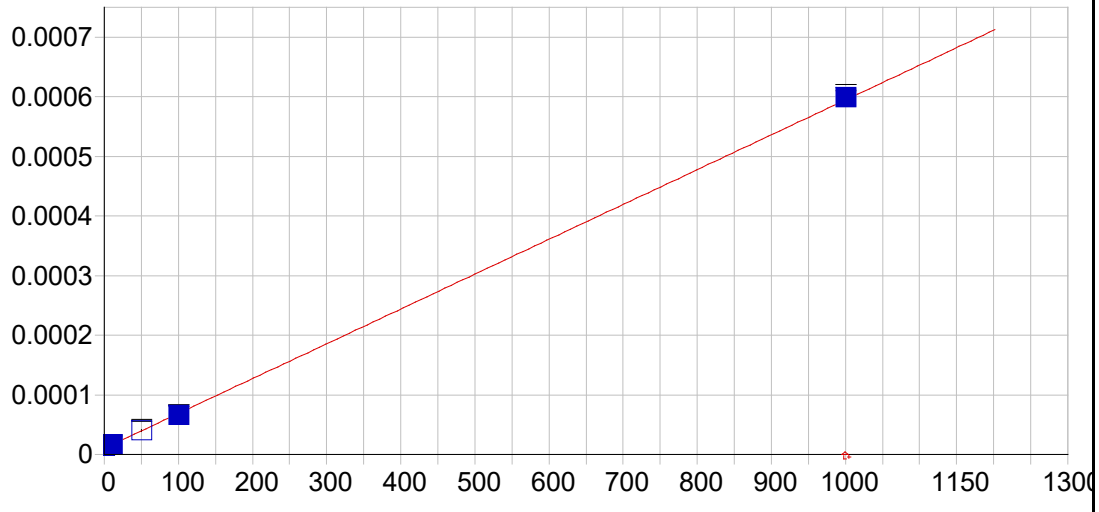
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00683	.007	.000	.00028	.000	1
CalStd9=100	1000.0	1011.9	11.9	1.19	.00082	.000	1
CalStd5=10	10.000	1.1063	-8.89	-88.9	.00028	.000	1
CalStd8=100	100.00	121.96	22.0	22.0	.00034	.000	1
CalStd10=10	10000.	9664.2	-336.	-3.36	.00544	.000	1
CalStd13=10	100000.	101860.	1860.	1.86	.05470	.000	1
CalStd14=50	500000.	491710.	-8290.	-1.66	.26297	.000	1
CalibStd15=	1000000.	1006700.	6730.	.673	.53812	.002	1



Al 396.152 { 85}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000023		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999958		Status:	OK.	
Std Error of Est:	0.000064				
Predicted MDL:	13.209600				
Predicted MQL:	44.032000				

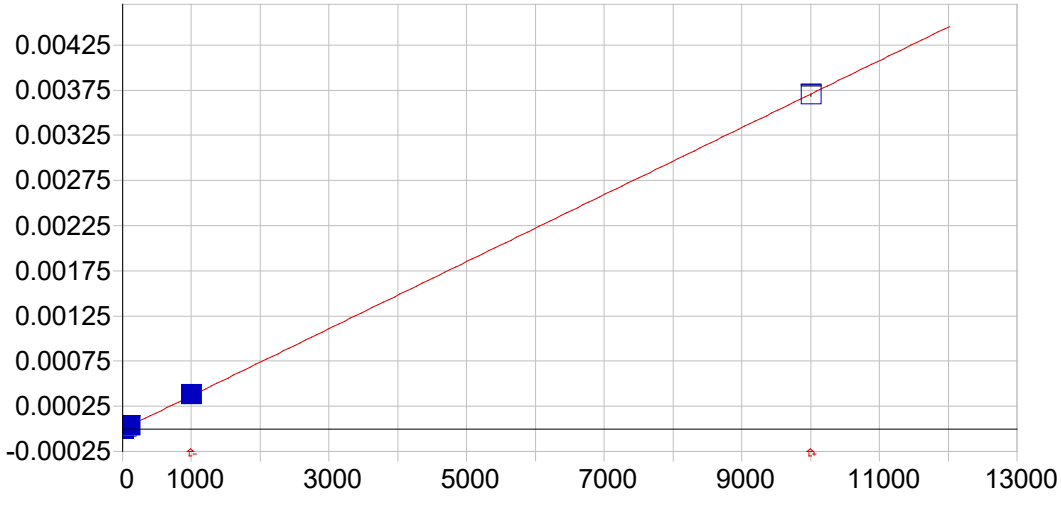
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.467	-12.5	.000	.00001	.000	1
CalStd14=50	500000.	499640.	-364.	-.073	.68587	.001	1
CalStd13=10	100000.	101480.	1480.	1.48	.13932	.001	1
CalStd10=10	10000.	9899.2	-101.	-1.01	.01361	.000	1
CalStd9=100	1000.0	1035.2	35.2	3.52	.00144	.000	1
CalibStd15=	1000000.	981570.	-18400.	-1.84	1.3474	.016	1



As 193.759 {474}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000010		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999788		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.202968				
Predicted MQL:	14.009892				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00094	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1006.2	6.21	.621	.00060	.000	1
CalStd7=50	50.000	50.760	.760	1.52	.00004	.000	1
CalStd5=10	10.000	9.4865	-.513	-5.13	.00002	.000	1
CalStd8=100	100.00	93.549	-6.45	-6.45	.00007	.000	1

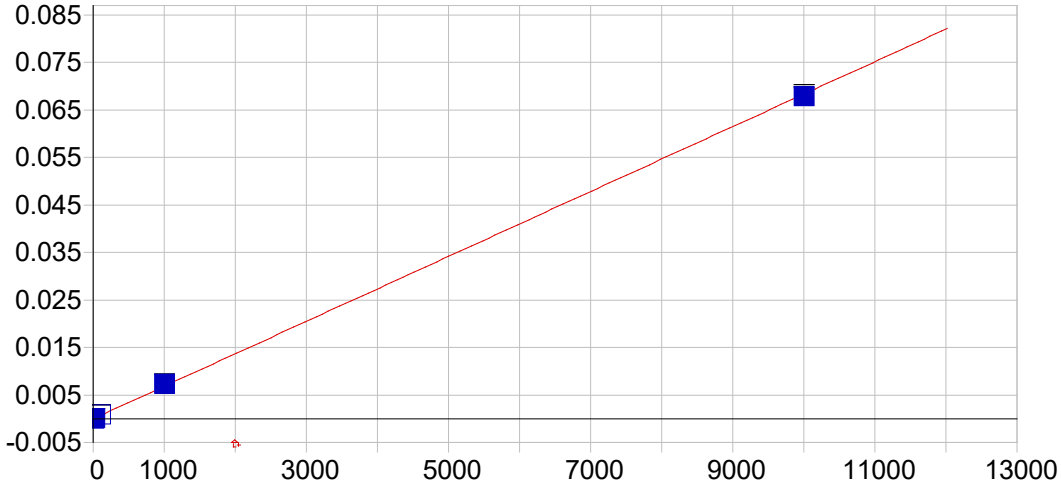


As 197.262 {471}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999950	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	5.989099		
Predicted MQL:	19.963662		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00000	.000	1
CalStd9=100	1000.0	1026.7	26.7	2.67	.00038	.000	1
CalStd7=50	50.000	53.306	3.31	6.61	.00002	.000	1
CalStd5=10	10.000	9.1066	-.893	-8.93	-.00000	.000	1
CalStd8=100	100.00	101.02	1.02	1.02	.00003	.000	1
CalStd10=10	10000.	9969.8	-30.2	-.302	.00369	.000	1

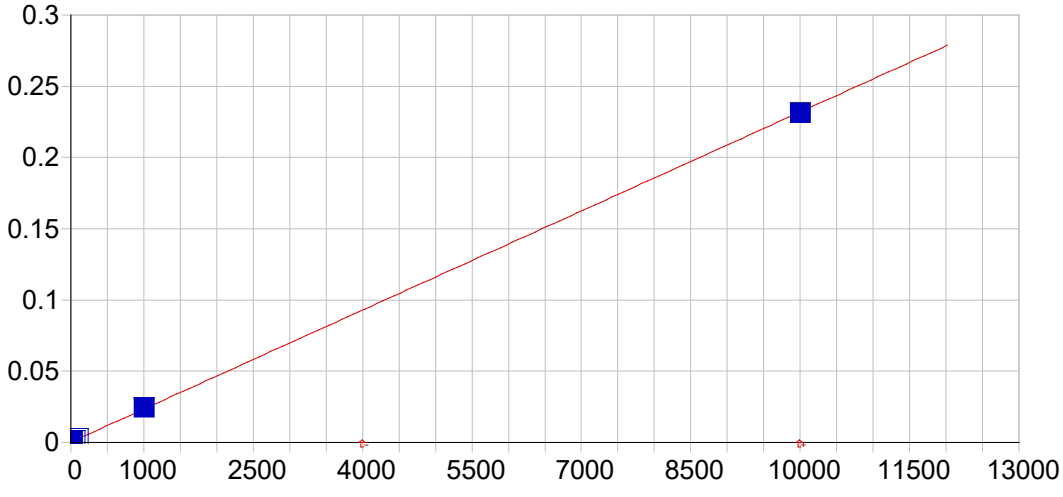


Ba 233.527 {445}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999766	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.315022		
Predicted MQL:	1.050075		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00075	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	11.144	1.14	11.4	.00007	.000	1
CalStd6=20	20.000	21.644	1.64	8.22	.00015	.000	1
CalStd8=100	100.00	105.09	5.09	5.09	.00072	.000	1
CalStd4=5	5.0000	5.7052	.705	14.1	.00004	.000	1
CalStd9=100	1000.0	1063.0	63.0	6.30	.00726	.000	1
CalStd3=1	1.0000	1.3094	.309	30.9	.00001	.000	1
CalStd10=10	10000.	9928.1	-71.9	-.719	.06785	.000	1

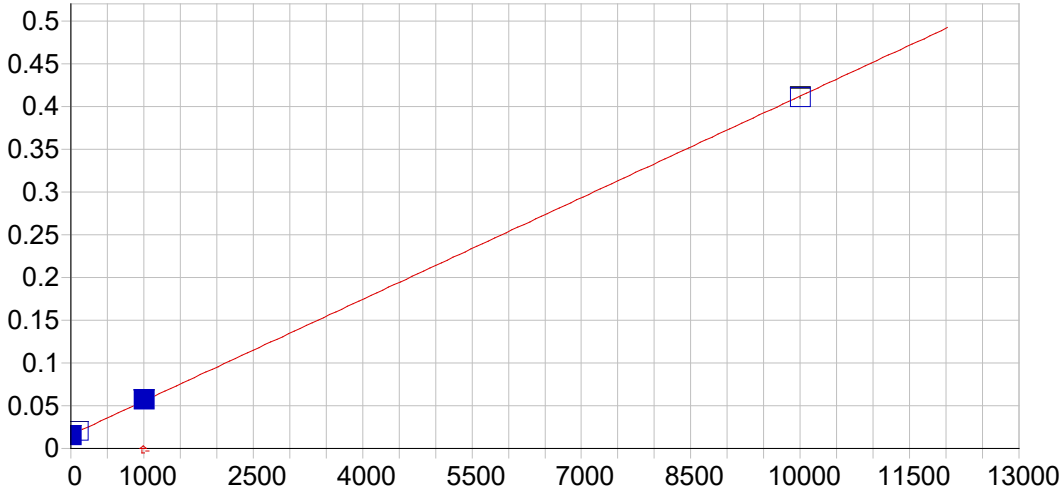


Ba 455.403 { 74}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000249	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.564814		
Predicted MQL:	1.882714		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00094	-.001	.000	.00025	.000	1
CalStd7=50	50.000	53.316	3.32	6.63	.00148	.000	1
CalStd5=10	10.000	11.373	1.37	13.7	.00051	.000	1
CalStd6=20	20.000	21.729	1.73	8.65	.00075	.000	1
CalStd8=100	100.00	104.21	4.21	4.21	.00266	.000	1
CalStd4=5	5.0000	6.1261	1.13	22.5	.00039	.000	1
CalStd9=100	1000.0	1036.4	36.4	3.64	.02427	.000	1
CalStd3=1	1.0000	1.3559	.356	35.6	.00028	.000	1
CalStd10=10	10000.	9951.5	-48.5	-.485	.23086	.001	1

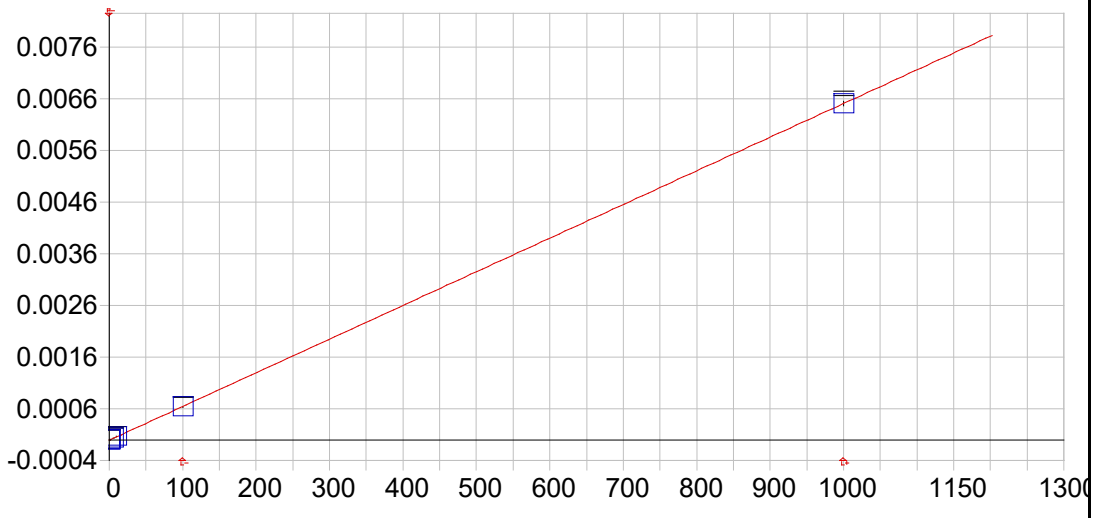


Ba 493.409 { 68}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.015858	Re-Slope:	1.000000
A1 (Gain):	0.000040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.000729		
Predicted MDL:	1.366082		
Predicted MQL:	4.553608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-23.883	-23.9	.000	.01491	.000	1
CalStd9=100	1000.0	1029.4	29.4	2.94	.05665	.000	1
CalStd8=100	100.00	104.92	4.92	4.92	.02002	.000	1
CalStd10=10	10000.	9957.6	-42.4	-.424	.41043	.001	1

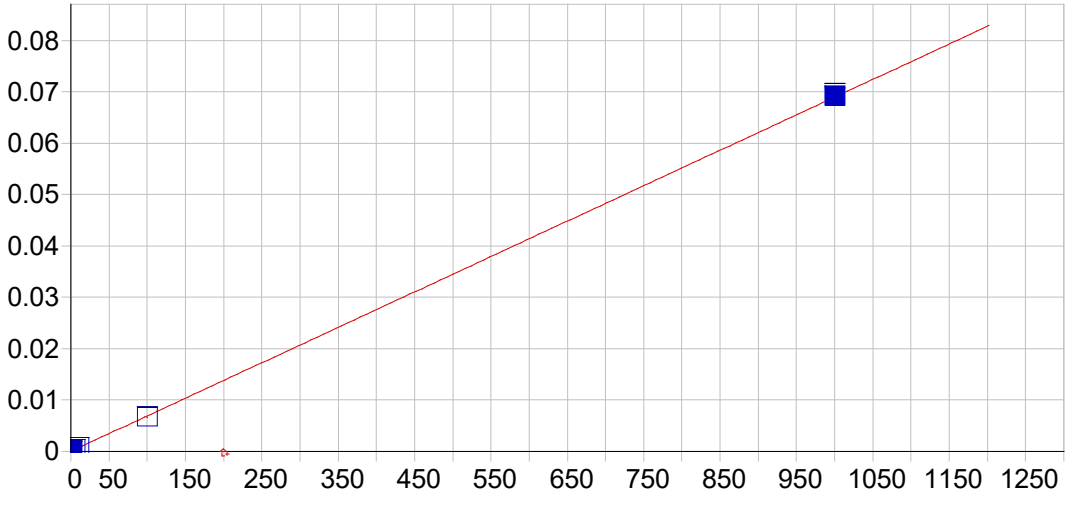


Be 234.861 {144}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999533	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.405033		
Predicted MQL:	1.350110		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00078	-.001	.000	-.00001	.000	1
CalStd5=10	10.000	11.162	1.16	11.6	.00007	.000	1
CalStd8=100	100.00	97.949	-2.05	-2.05	.00063	.000	1
CalStd2=0.5	.50000	.78721	.287	57.4	-.00000	.000	1
CalStd4=5	5.0000	5.3645	.364	7.29	.00003	.000	1
CalStd9=100	1000.0	999.42	-.583	-.058	.00650	.000	1
CalStd3=1	1.0000	1.8204	.820	82.0	.00001	.000	1

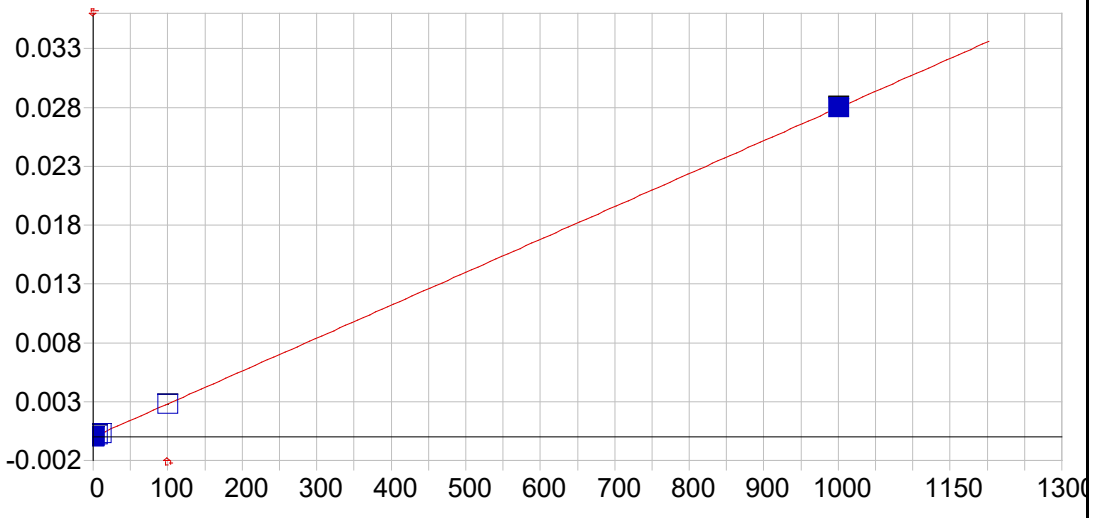


Be 313.042 {108}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.016140		
Predicted MQL:	0.053800		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	.00002	.000	1
CalStd5=10	10.000	9.9166	-.083	-.834	.00070	.000	1
CalStd8=100	100.00	96.549	-3.45	-3.45	.00667	.000	1
CalStd2=0.5	.50000	.53730	.037	7.46	.00005	.000	1
CalStd4=5	5.0000	5.2376	.238	4.75	.00038	.000	1
CalStd9=100	1000.0	1003.3	3.26	.326	.06919	.000	1
CalStd3=1	1.0000	.99661	-.003	-.339	.00009	.000	1

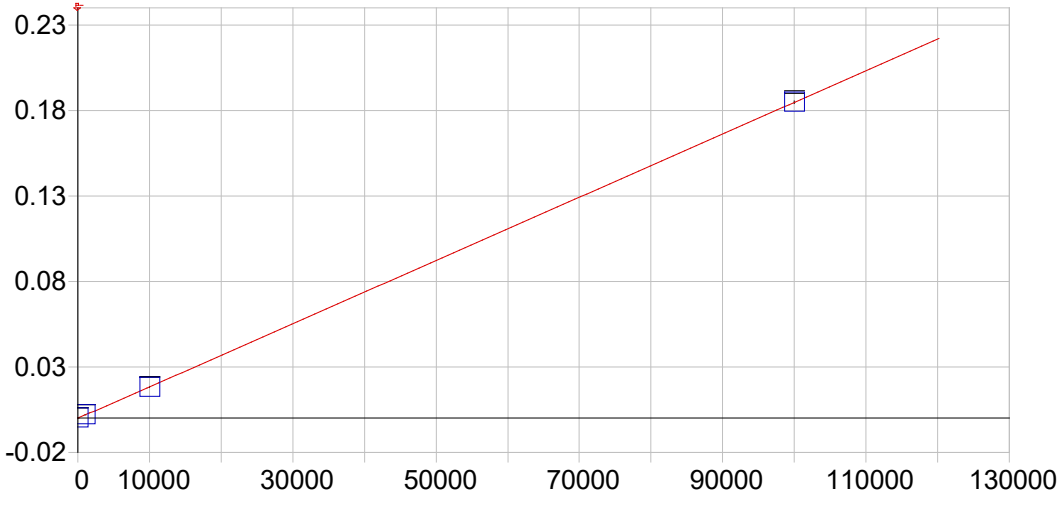


Be 313.107 {108}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999846	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.315048		
Predicted MQL:	1.050161		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00049	-.000	.000	.00001	.000	1
CalStd5=10	10.000	10.254	.254	2.54	.00029	.000	1
CalStd2=0.5	.50000	.81139	.311	62.3	.00003	.000	1
CalStd4=5	5.0000	5.5155	.516	10.3	.00016	.000	1
CalStd9=100	1000.0	1000.4	.391	.039	.02798	.000	1
CalStd3=1	1.0000	1.2440	.244	24.4	.00004	.000	1
CalStd8=100	100.00	98.285	-1.72	-1.72	.00275	.000	1

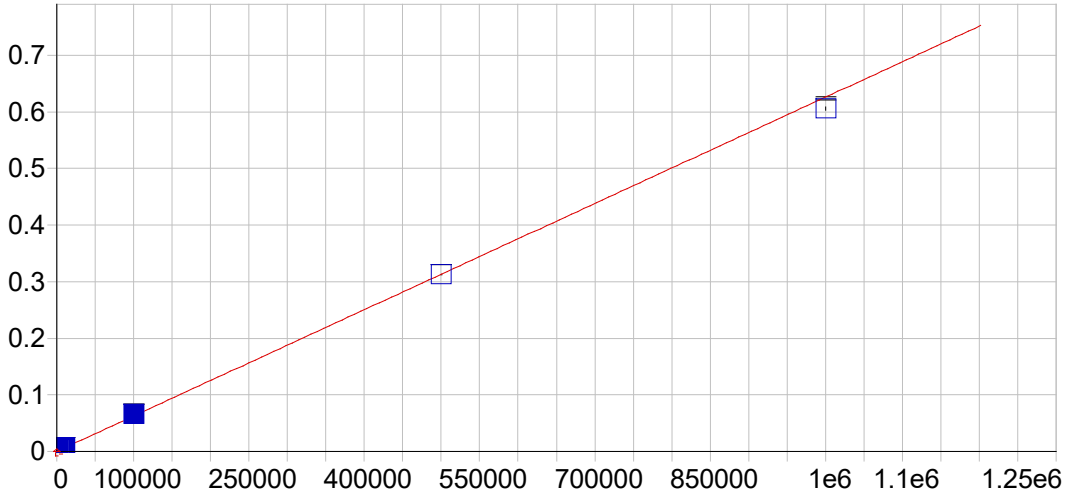


Ca 184.006 {483}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	1.023422		
Predicted MQL:	3.411406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04496	-.045	.000	-.00004	.000	1
CalStd10=10	10000.	9888.4	-112.	-1.12	.01823	.000	1
CalStd13=10	100000.	100060.	56.0	.056	.18481	.001	1
CalStd9=100	1000.0	1055.6	55.6	5.56	.00191	.000	1

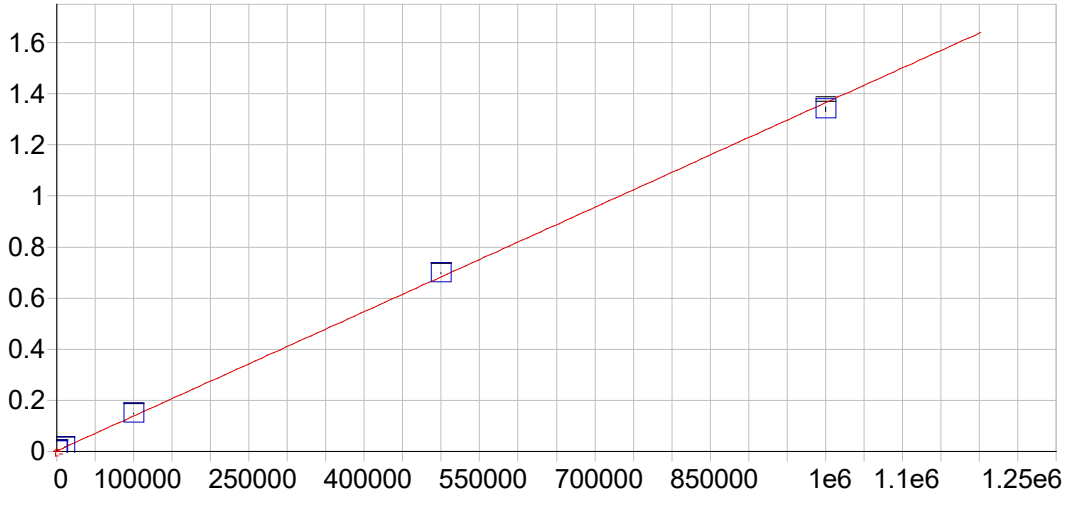


Ca 315.887 {107}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000091	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999933	Status:	OK.
Std Error of Est:	0.000066		
Predicted MDL:	8.561413		
Predicted MQL:	28.538044		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.926	-14.9	.000	.00008	.000	1
CalStd10=10	10000.	10119.	119.	1.19	.00642	.000	1
CalStd13=10	100000.	104560.	4560.	4.56	.06553	.000	1
CalStd14=50	500000.	499120.	-876.	-.175	.31245	.000	1
CalStd9=100	1000.0	1041.2	41.2	4.12	.00074	.000	1
CalibStd15=	1000000.	967640.	-32400.	-3.24	.60566	.003	1

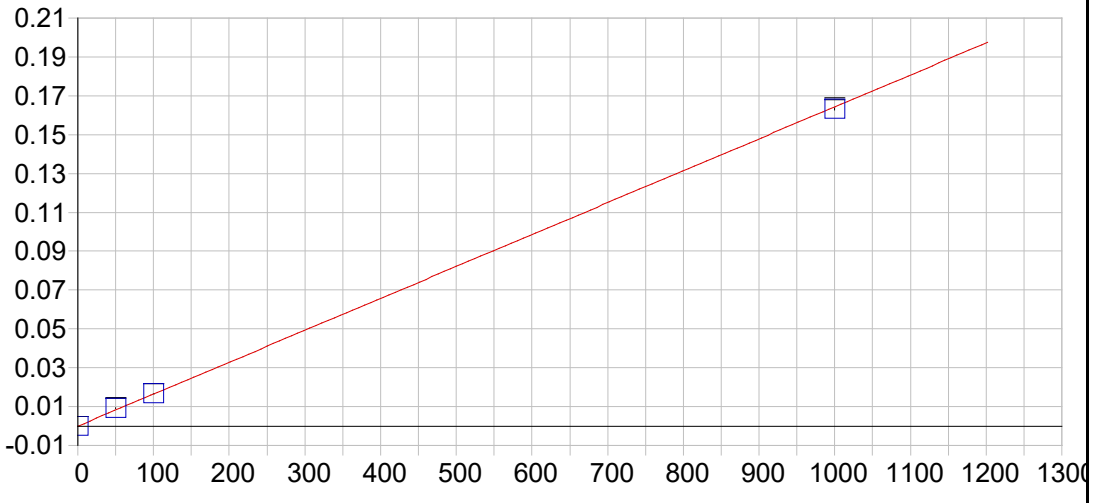


Ca 317.933 {106}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002474	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999656	Status:	OK.
Std Error of Est:	0.000056		
Predicted MDL:	4.207076		
Predicted MQL:	14.023585		

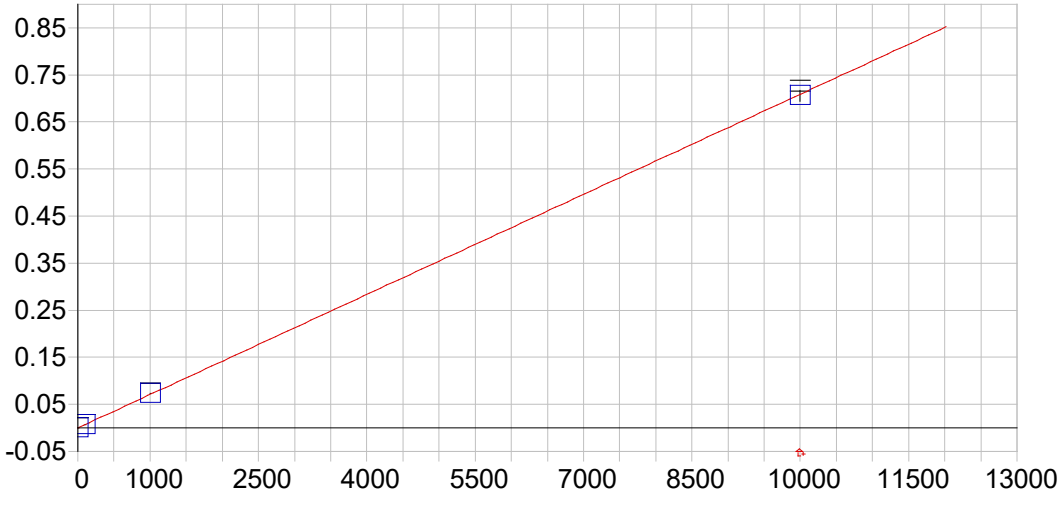
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18475	-.185	.000	.00247	.000	1
CalStd10=10	10000.	10356.	356.	3.56	.01658	.000	1
CalStd13=10	100000.	107280.	7280.	7.28	.14859	.001	1
CalStd14=50	500000.	510620.	10600.	2.12	.69795	.001	1
CalStd9=100	1000.0	1073.4	73.4	7.34	.00394	.000	1
CalibStd15=	1000000.	981670.	-18300.	-1.83	1.3395	.010	1



Ca 393.366 { 86}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000015		Re-Slope:	1.000000	
A1 (Gain):	0.000164		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999663		Status:	OK.	
Std Error of Est:	0.000046				
Predicted MDL:	0.081542				
Predicted MQL:	0.271808				

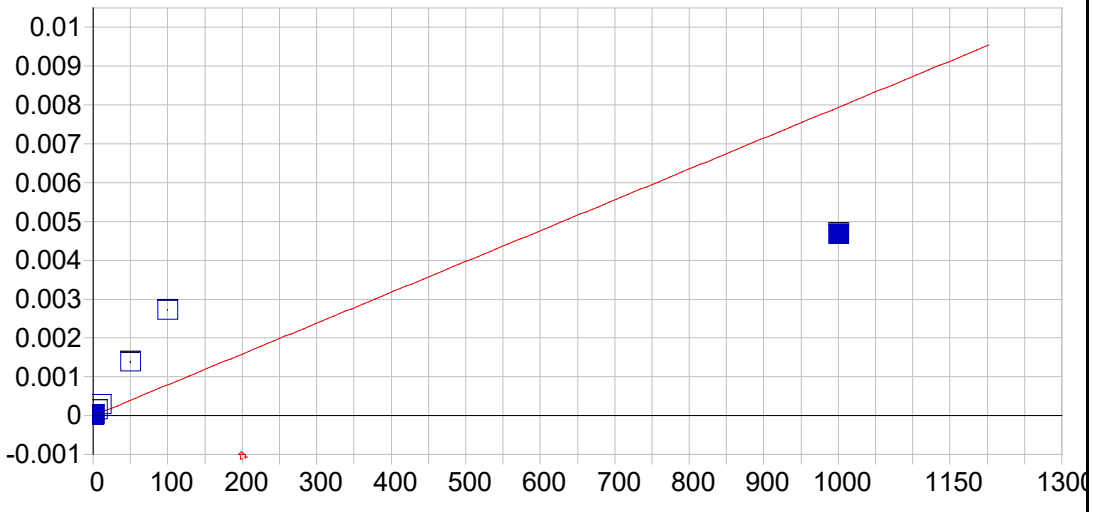
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00606	-.006	.000	-.00002	.000	1
CalStd9=100	1000.0	993.20	-6.80	-.680	.16316	.001	1
CalStd8=100	100.00	100.79	.794	.794	.01655	.000	1
CalStd7=50	50.000	56.006	6.01	12.0	.00919	.000	1



Ca 396.847 { 85}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000071		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999922		Status:	OK.	
Std Error of Est:	0.000042				
Predicted MDL:	0.171350				
Predicted MQL:	0.571167				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00895	-.009	.000	-.00000	.000	1
CalStd10=10	10000.	9959.1	-40.9	-.409	.70594	.012	1
CalStd8=100	100.00	105.85	5.85	5.85	.00750	.000	1
CalStd9=100	1000.0	1035.1	35.1	3.51	.07337	.000	1

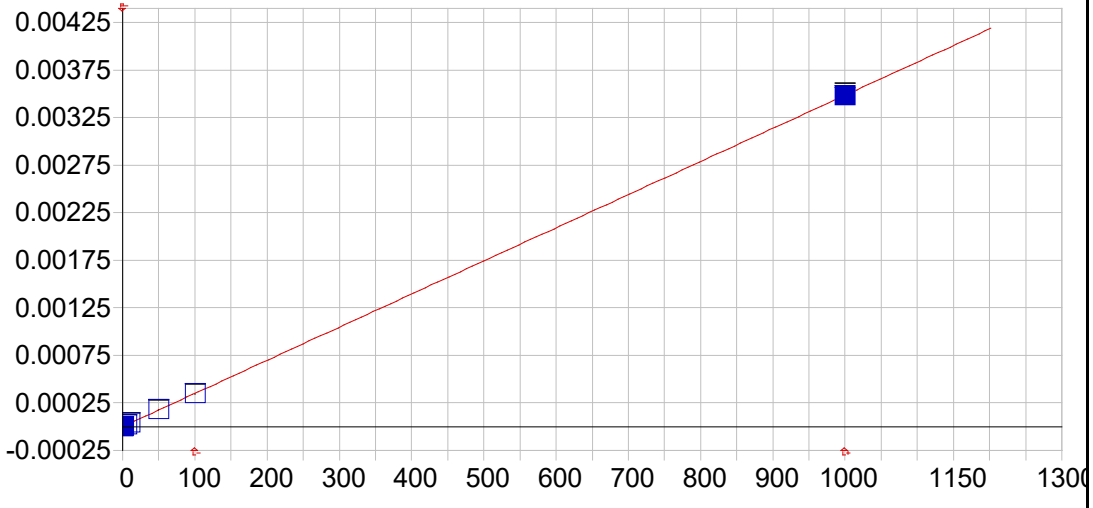


Cd 226.502 {449}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.704232	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.446740		
Predicted MQL:	1.489134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00764	-.008	.000	-.00000	.000	1
CalStd3=1	1.0000	3.6622	2.66	266.	.00003	.000	1
CalStd2=0.5	.50000	1.9162	1.42	283.	.00001	.000	1
CalStd4=5	5.0000	18.497	13.5	270.	.00015	.000	1
CalStd5=10	10.000	35.649	25.6	256.	.00028	.000	1
CalStd9=100	1000.0	588.78	-411.	-41.1	.00467	.000	1
CalStd8=100	100.00	342.83	243.	243.	.00272	.000	1
CalStd7=50	50.000	175.19	125.	250.	.00139	.000	1

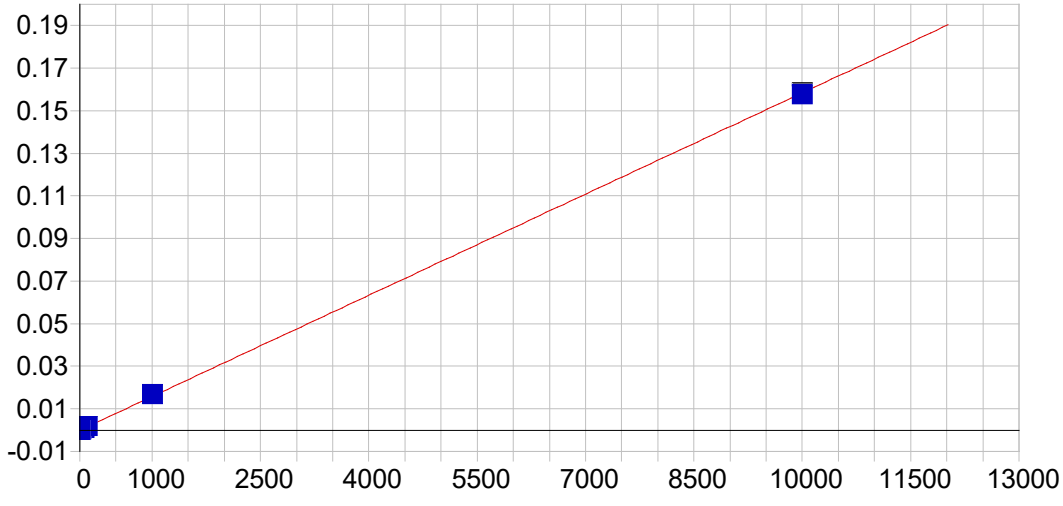


Cd 228.802 {448}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.559670		
Predicted MQL:	1.865565		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00023	-.000	.000	.00000	.000	1
CalStd3=1	1.0000	1.3069	.307	30.7	.00001	.000	1
CalStd2=0.5	.50000	.49554	-.004	-.892	.00000	.000	1
CalStd4=5	5.0000	5.6278	.628	12.6	.00002	.000	1
CalStd5=10	10.000	10.457	.457	4.57	.00004	.000	1
CalStd9=100	1000.0	999.00	-1.00	-.100	.00348	.000	1
CalStd8=100	100.00	99.075	-.925	-.925	.00035	.000	1
CalStd7=50	50.000	50.539	.539	1.08	.00018	.000	1

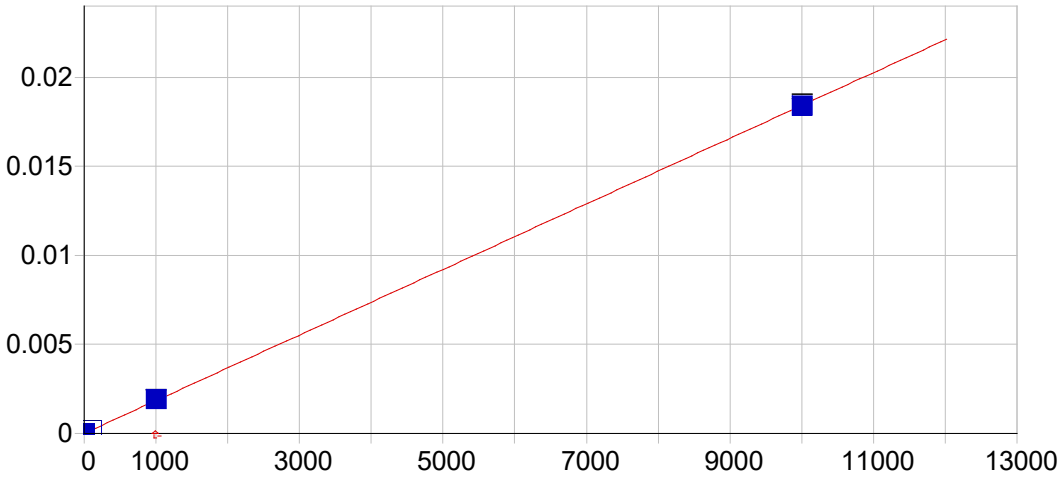


Co 228.616 {447}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000016	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.265048		
Predicted MQL:	0.883493		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00046	-.000	.000	-.00001	.000	1
CalStd7=50	50.000	52.960	2.96	5.92	.00083	.000	1
CalStd5=10	10.000	10.789	.789	7.89	.00016	.000	1
CalStd4=5	5.0000	5.6185	.618	12.4	.00008	.000	1
CalStd8=100	100.00	103.85	3.85	3.85	.00164	.000	1
CalStd9=100	1000.0	1043.9	43.9	4.39	.01654	.000	1
CalStd3=1	1.0000	1.1213	.121	12.1	.00001	.000	1
CalStd10=10	10000.	9947.8	-52.2	-.522	.15771	.001	1

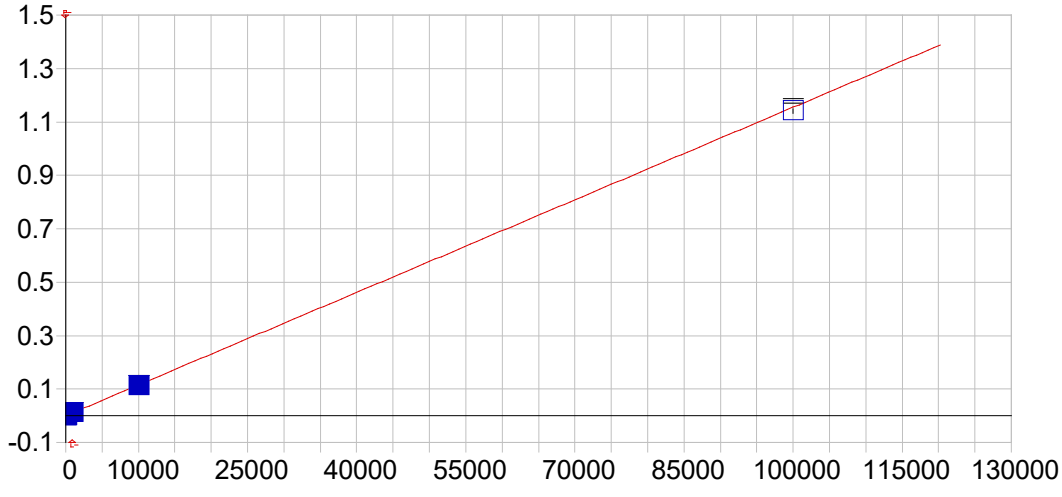


Co 238.892 {141}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.397661		
Predicted MQL:	1.325536		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00452	-.005	.000	.00000	.000	1
CalStd9=100	1000.0	1029.1	29.1	2.91	.00190	.000	1
CalStd10=10	10000.	9969.0	-31.0	-.310	.01836	.000	1
CalStd8=100	100.00	101.92	1.92	1.92	.00019	.000	1

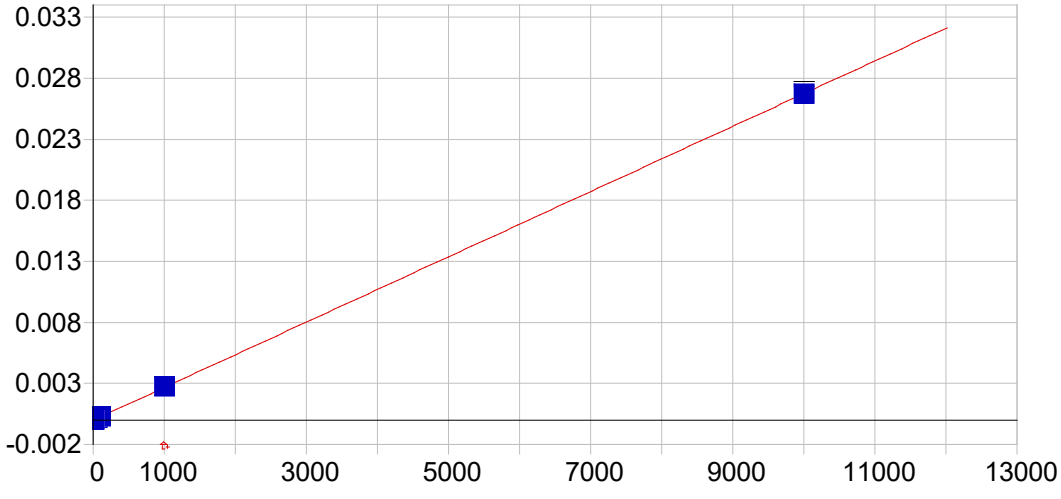


Cr 205.560 {464}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.235704		
Predicted MQL:	0.785681		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.27241	-.272	.000	-.00001	.000	1
CalStd5=10	10.000	10.332	.332	3.32	.00012	.000	1
CalStd7=50	50.000	51.373	1.37	2.75	.00059	.000	1
CalStd9=100	1000.0	1025.2	25.2	2.52	.01183	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.00116	.000	1
CalStd4=5	5.0000	5.3213	.321	6.43	.00006	.000	1
CalStd3=1	1.0000	.98723	-.013	-1.28	.00001	.000	1
CalStd10=10	10000.	9735.8	-264.	-2.64	.11241	.001	1
CalStd12=10	100000.	98804.	-1200.	-1.20	1.1409	.008	1

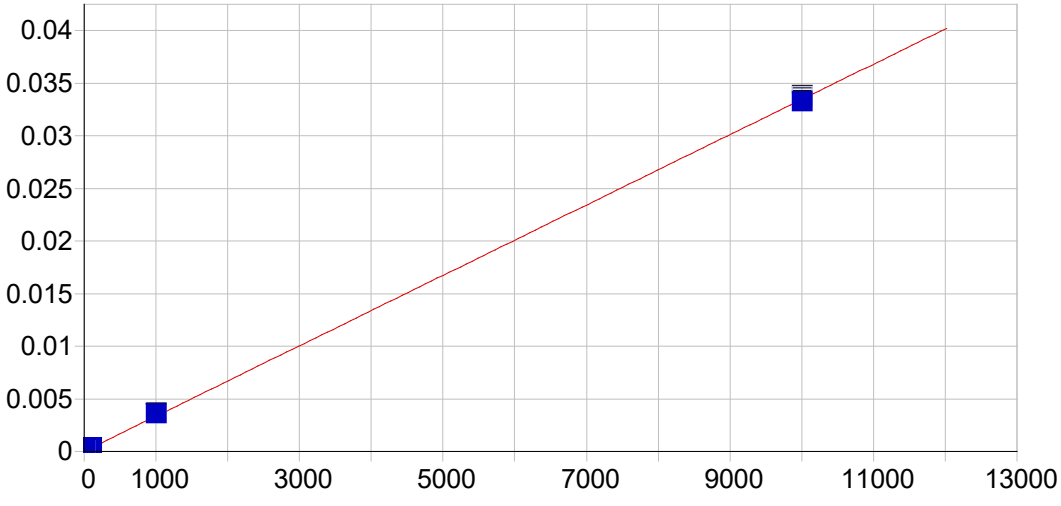


Cr 267.716 {126}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999990	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.429477		
Predicted MQL:	1.431589		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00082	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.173	.173	1.73	.00002	.000	1
CalStd7=50	50.000	51.051	1.05	2.10	.00013	.000	1
CalStd9=100	1000.0	1010.8	10.8	1.08	.00270	.000	1
CalStd8=100	100.00	100.16	.158	.158	.00026	.000	1
CalStd4=5	5.0000	5.5723	.572	11.4	.00001	.000	1
CalStd10=10	10000.	9987.3	-12.7	-.127	.02671	.000	1

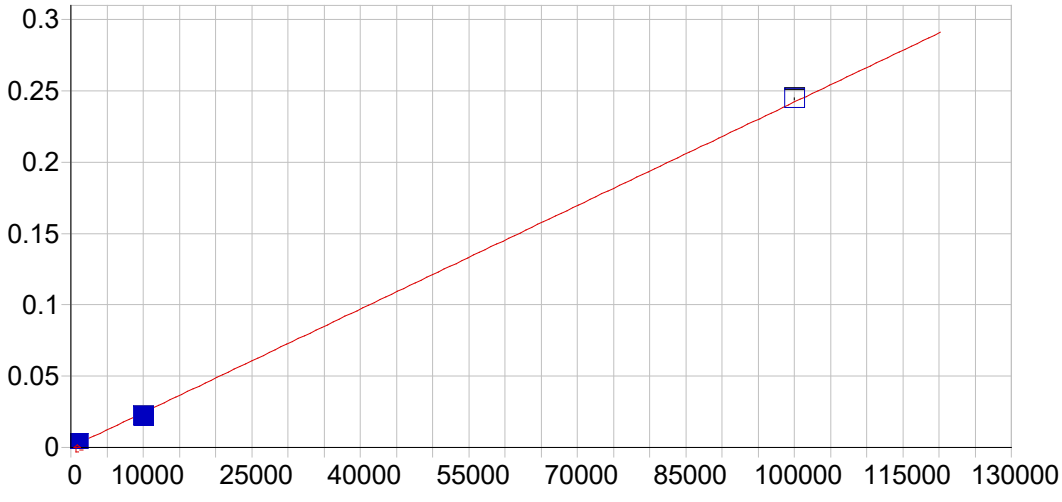


Cu 223.008 {451}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999785	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.233140		
Predicted MQL:	4.110467		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00237	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	1062.0	62.0	6.20	.00360	.000	1
CalStd8=100	100.00	106.71	6.71	6.71	.00037	.000	1
CalStd5=10	10.000	11.149	1.15	11.5	.00004	.000	1
CalStd10=10	10000.	9930.1	-69.9	-.699	.03369	.000	1

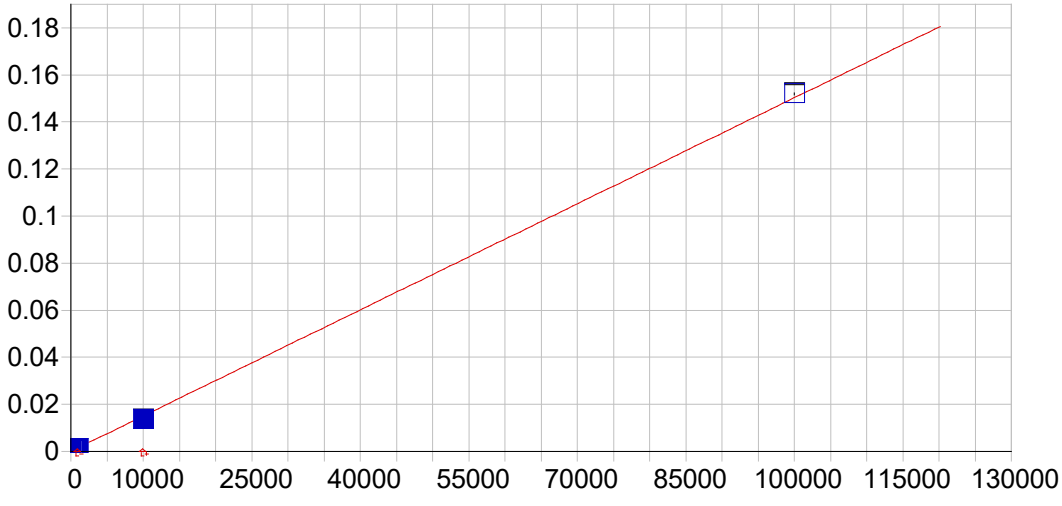


Cu 324.754 {104}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000186	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999530	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	4.045637		
Predicted MQL:	13.485456		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00359	.004	.000	.00019	.000	1
CalStd9=100	1000.0	955.73	-44.3	-4.43	.00250	.000	1
CalStd8=100	100.00	109.42	9.42	9.42	.00045	.000	1
CalStd10=10	10000.	9041.5	-959.	-9.59	.02207	.000	1
CalStd12=10	100000.	100990.	994.	.994	.24458	.001	1

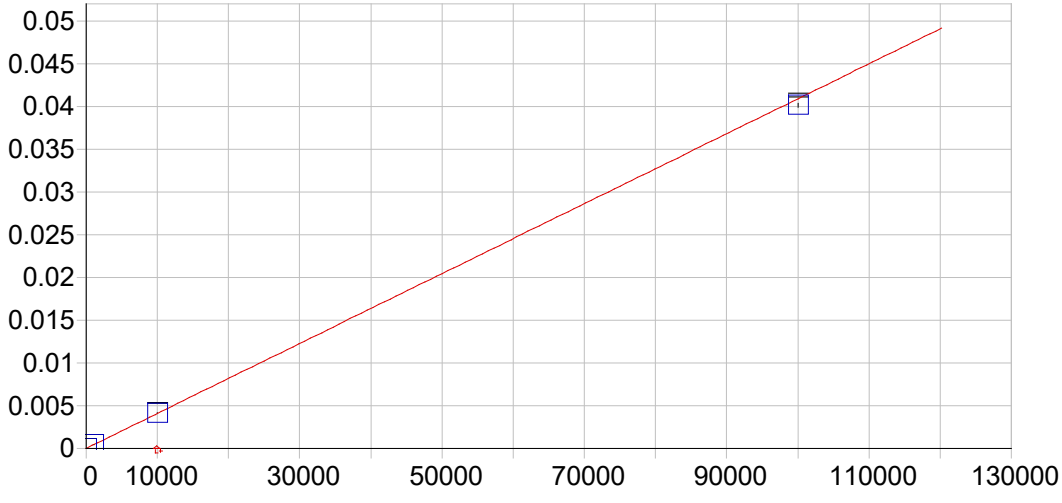


Cu 327.396 {103}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000054	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999409	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	7.806843		
Predicted MQL:	26.022811		

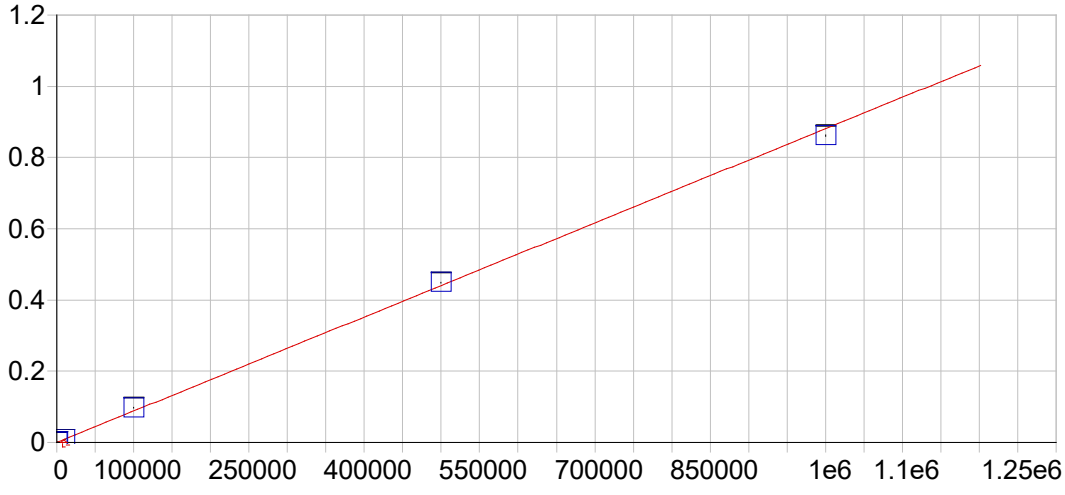
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00190	.002	.000	.00005	.000	1
CalStd6=20	20.000	20.011	.011	.055	.00008	.000	1
CalStd7=50	50.000	46.255	-3.75	-7.49	.00012	.000	1
CalStd8=100	100.00	94.876	-5.12	-5.12	.00020	.000	1
CalStd9=100	1000.0	934.38	-65.6	-6.56	.00146	.000	1
CalStd10=10	10000.	8951.5	-1050.	-10.5	.01350	.000	1
CalStd4=5	5.0000	7.2545	2.25	45.1	.00007	.000	1
CalStd5=10	10.000	4.5364	-5.46	-54.6	.00006	.000	1
CalStd12=10	100000.	101130.	1130.	1.13	.15197	.000	1



Fe 234.349 {144}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000011		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999679		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	0.891672				
Predicted MQL:	2.972240				

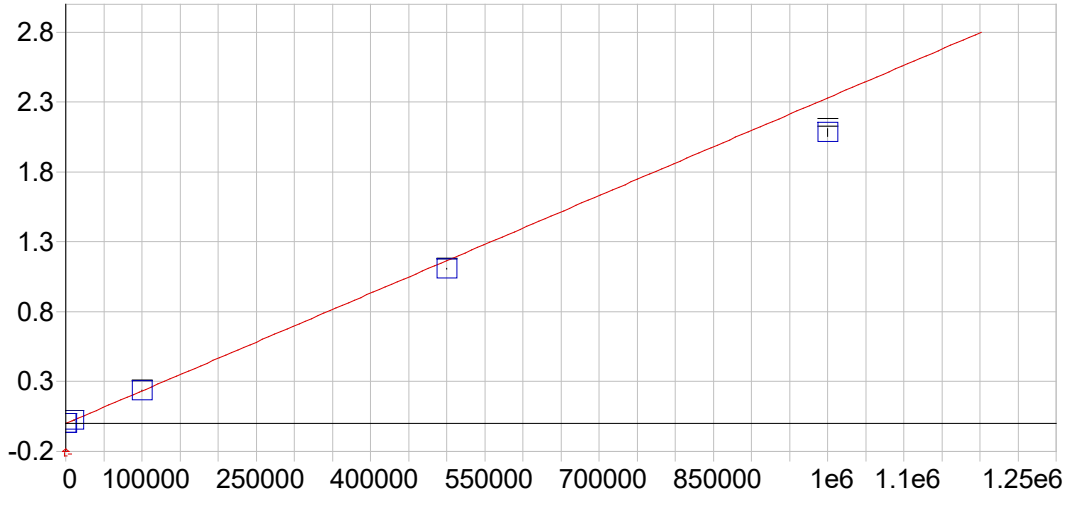
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.94712	-.947	.000	.00001	.000	1
CalStd10=10	10000.	10099.	99.3	.993	.00414	.000	1
CalStd13=10	100000.	98141.	-1860.	-1.86	.04014	.000	1
CalStd9=100	1000.0	1048.8	48.8	4.88	.00044	.000	1



Fe 239.562 {140}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999417		Status:	OK.	
Std Error of Est:	0.000047				
Predicted MDL:	5.399645				
Predicted MQL:	17.998815				

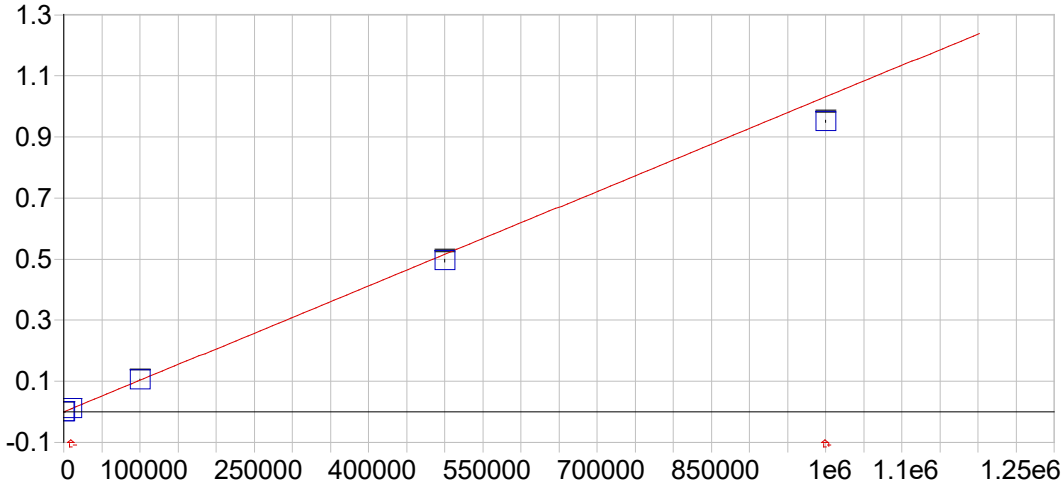
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.27299	-.273	.000	.00001	.000	1
CalStd10=10	10000.	10579.	579.	5.79	.00933	.000	1
CalStd13=10	100000.	110740.	10700.	10.7	.09756	.000	1
CalStd14=50	500000.	510260.	10300.	2.05	.44951	.001	1
CalStd9=100	1000.0	1108.8	109.	10.9	.00098	.000	1
CalibStd15=	1000000.	978310.	-21700.	-2.17	.86183	.002	1



Fe 259.940 {129}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999797		Status:	OK.	
Std Error of Est:	0.000032				
Predicted MDL:	2.618579				
Predicted MQL:	8.728598				

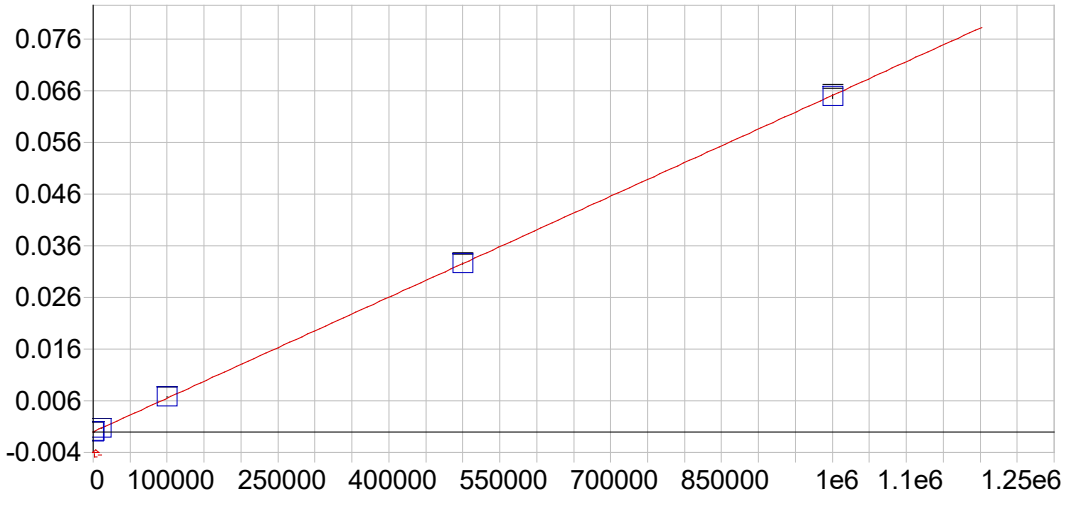
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.3314	-1.33	.000	-.00000	.000	1
CalStd10=10	10000.	9800.8	-199.	-1.99	.02284	.000	1
CalStd13=10	100000.	101070.	1070.	1.07	.23545	.001	1
CalStd14=50	500000.	475430.	-24600.	-4.91	1.1076	.004	1
CalStd9=100	1000.0	1026.9	26.9	2.69	.00239	.000	1
CalibStd15=	1000000.	893890.	-106000.	-10.6	2.0825	.025	1



Mg 202.582 {466}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000007		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998925		Status:	OK.	
Std Error of Est:	0.000055				
Predicted MDL:	3.527247				
Predicted MQL:	11.757490				

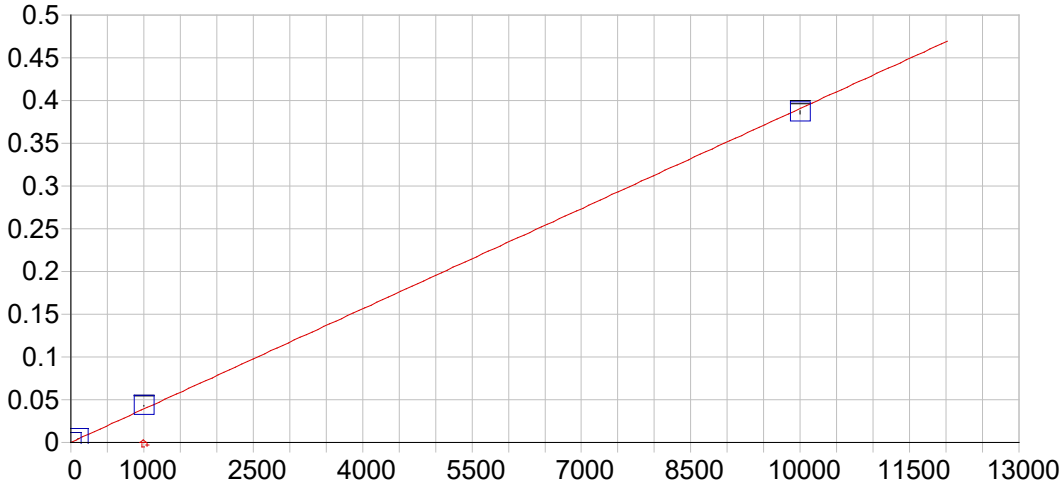
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-5.3143	-5.31	.000	-.00001	.000	1
CalStd13=10	100000.	102420.	2420.	2.42	.10560	.000	1
CalStd10=10	10000.	10012.	12.3	.123	.01032	.000	1
CalStd14=50	500000.	480250.	-19800.	-3.95	.49518	.003	1
CalStd9=100	1000.0	1103.5	104.	10.4	.00113	.000	1
CalibStd15=	1000000.	922700.	-77300.	-7.73	.95139	.004	1



Mg 279.079 {121}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999945		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	38.747087				
Predicted MQL:	129.156957				

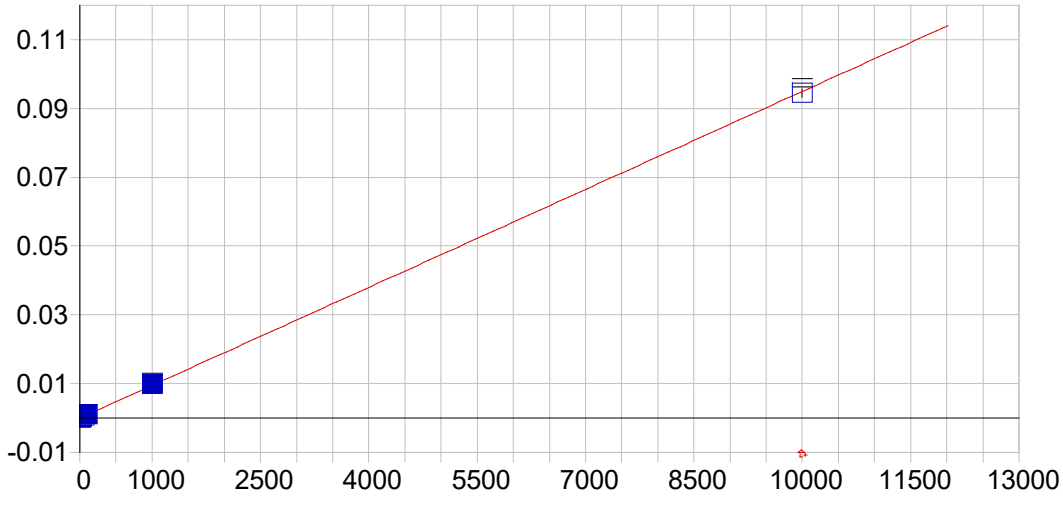
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05045	-.050	.000	.00000	.000	1
CalStd13=10	100000.	104030.	4030.	4.03	.00677	.000	1
CalStd10=10	10000.	9986.3	-13.7	-.137	.00065	.000	1
CalStd14=50	500000.	499830.	-166.	-.033	.03253	.000	1
CalStd9=100	1000.0	1015.7	15.7	1.57	.00007	.000	1
CalibStd15=	1000000.	996140.	-3860.	-.386	.06483	.000	1



Mg 280.270 {120}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000053		Re-Slope:	1.000000	
A1 (Gain):	0.000039		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999420		Status:	OK.	
Std Error of Est:	0.000063				
Predicted MDL:	0.017302				
Predicted MQL:	0.057673				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01858	-.019	.000	.00005	.000	1
CalStd9=100	1000.0	1103.6	104.	10.4	.04316	.000	1
CalStd10=10	10000.	9887.1	-113.	-1.13	.38625	.002	1
CalStd8=100	100.00	109.35	9.35	9.35	.00432	.000	1

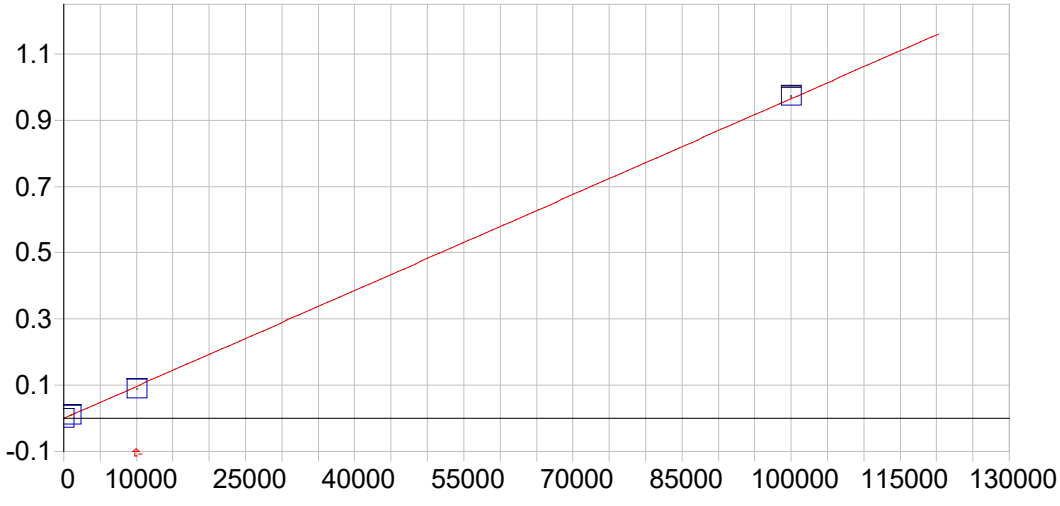


Mn 257.610 {131}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.061677		
Predicted MQL:	0.205591		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00213	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	10.780	.780	7.80	.00010	.000	1
CalStd7=50	50.000	53.136	3.14	6.27	.00050	.000	1
CalStd6=20	20.000	21.394	1.39	6.97	.00020	.000	1
CalStd8=100	100.00	103.49	3.49	3.49	.00098	.000	1
CalStd4=5	5.0000	5.7043	.704	14.1	.00005	.000	1
CalStd9=100	1000.0	1044.4	44.4	4.44	.00992	.000	1
CalStd10=10	10000.	9946.1	-53.9	-.539	.09444	.001	1

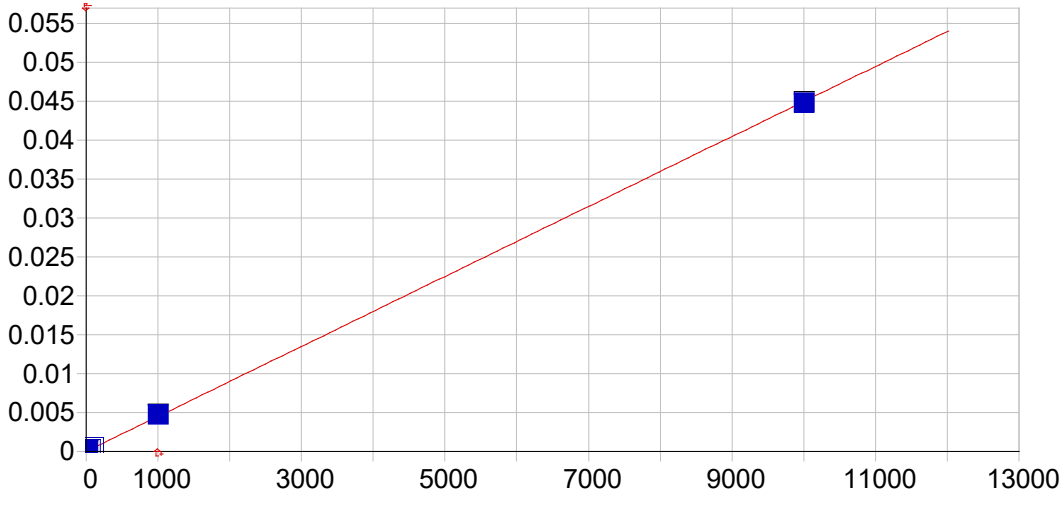


Mn 259.373 {130}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999724	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.582115		
Predicted MQL:	1.940382		

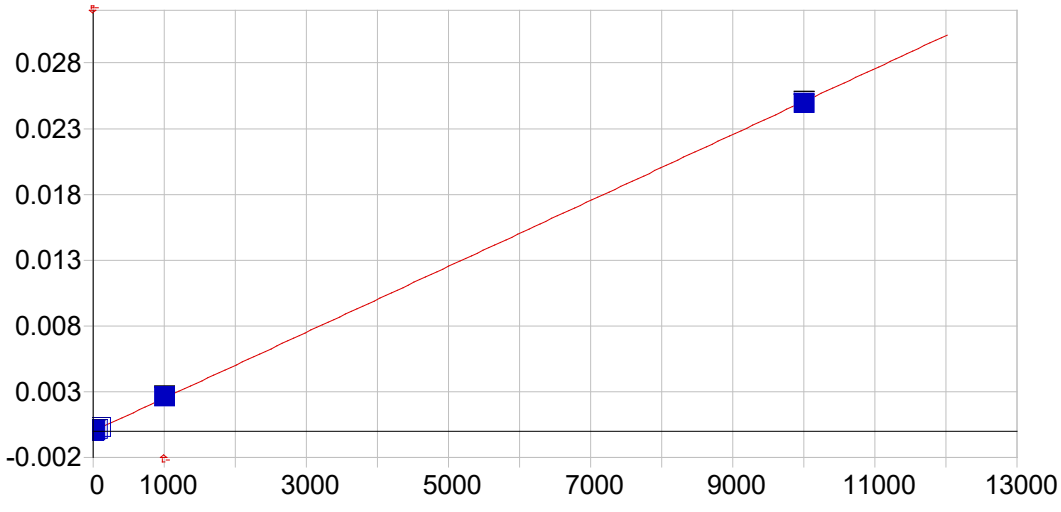
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08788	.088	.000	.00000	.000	1
CalStd10=10	10000.	9258.9	-741.	-7.41	.08936	.000	1
CalStd9=100	1000.0	978.61	-21.4	-2.14	.00945	.000	1
CalStd12=10	100000.	100760.	762.	.762	.97241	.003	1



Mo 202.030 {466}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999892		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.510949				
Predicted MQL:	1.703163				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00153	-.002	.000	.00000	.000	1
CalStd7=50	50.000	52.183	2.18	4.37	.00024	.000	1
CalStd6=20	20.000	21.230	1.23	6.15	.00010	.000	1
CalStd5=10	10.000	10.254	.254	2.54	.00005	.000	1
CalStd8=100	100.00	102.17	2.17	2.17	.00046	.000	1
CalStd4=5	5.0000	5.5731	.573	11.5	.00003	.000	1
CalStd9=100	1000.0	1043.3	43.3	4.33	.00470	.000	1
CalStd10=10	10000.	9950.3	-49.7	-.497	.04477	.000	1

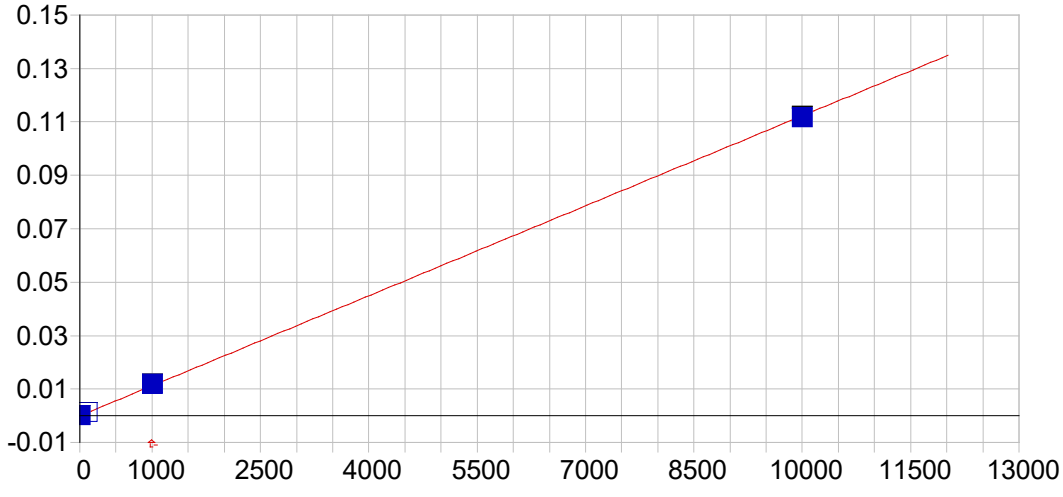


Mo 204.598 {464}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999882	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.025727		
Predicted MQL:	3.419090		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00201	-.002	.000	.00000	.000	1
CalStd7=50	50.000	52.210	2.21	4.42	.00013	.000	1
CalStd6=20	20.000	20.603	.603	3.01	.00005	.000	1
CalStd5=10	10.000	11.276	1.28	12.8	.00003	.000	1
CalStd8=100	100.00	102.89	2.89	2.89	.00026	.000	1
CalStd4=5	5.0000	5.6579	.658	13.2	.00002	.000	1
CalStd9=100	1000.0	1043.8	43.8	4.38	.00262	.000	1
CalStd10=10	10000.	9948.6	-51.4	-.514	.02493	.000	1

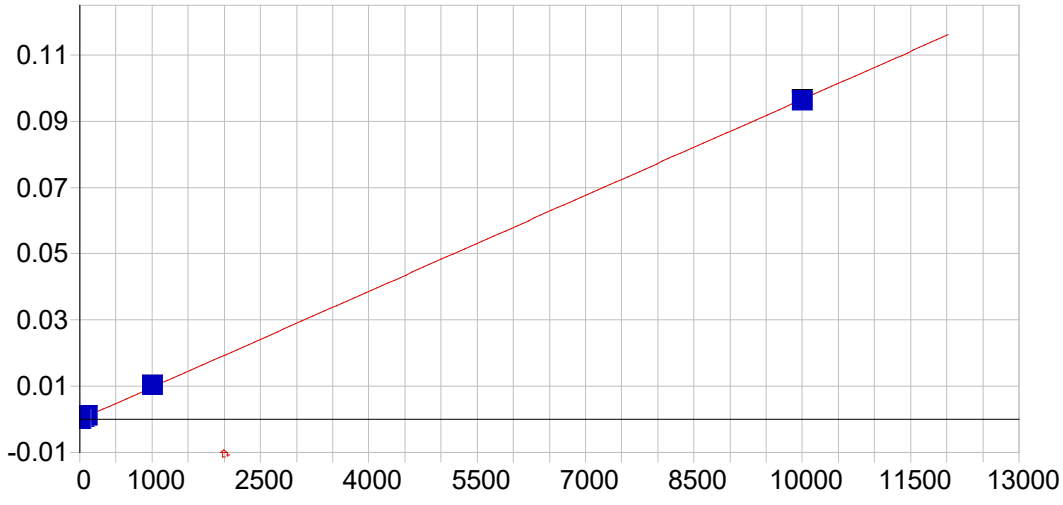


Ni 221.647 {452}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999866	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.425359		
Predicted MQL:	1.417864		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00899	-.009	.000	-.00001	.000	1
CalStd10=10	10000.	9945.6	-54.4	-.544	.11166	.000	1
CalStd8=100	100.00	104.56	4.56	4.56	.00117	.000	1
CalStd9=100	1000.0	1049.8	49.8	4.98	.01178	.000	1

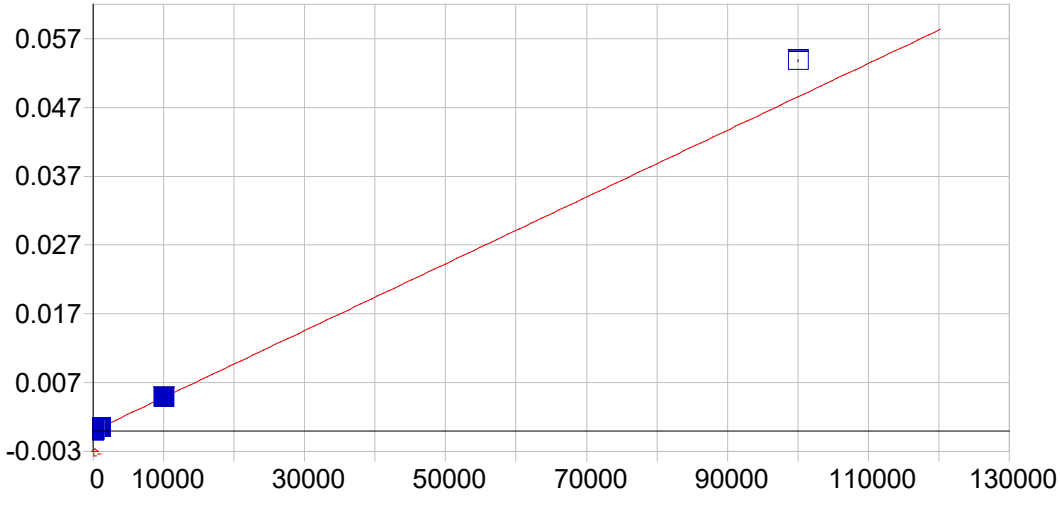


Ni 231.604 {445}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999837	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.458507		
Predicted MQL:	1.528355		

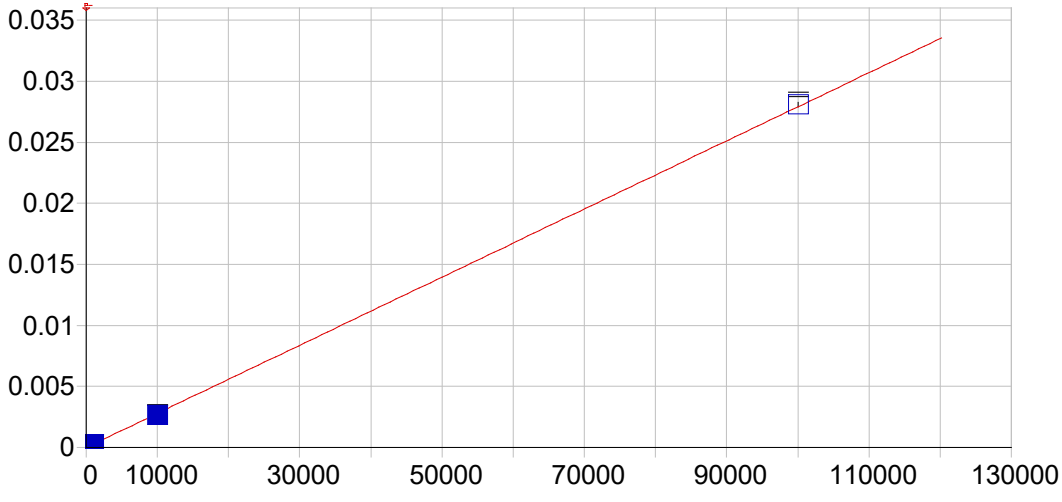
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00037	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	52.914	2.91	5.83	.00051	.000	1
CalStd5=10	10.000	10.907	.907	9.07	.00010	.000	1
CalStd8=100	100.00	104.60	4.60	4.60	.00101	.000	1
CalStd4=5	5.0000	6.2525	1.25	25.1	.00006	.000	1
CalStd9=100	1000.0	1050.0	50.0	5.00	.01013	.000	1
CalStd3=1	1.0000	.87600	-.124	-12.4	.00001	.000	1
CalStd10=10	10000.	9940.6	-59.4	-.594	.09608	.000	1



Pb 216.999 {455}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999970		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	7.299745				
Predicted MQL:	24.332482				

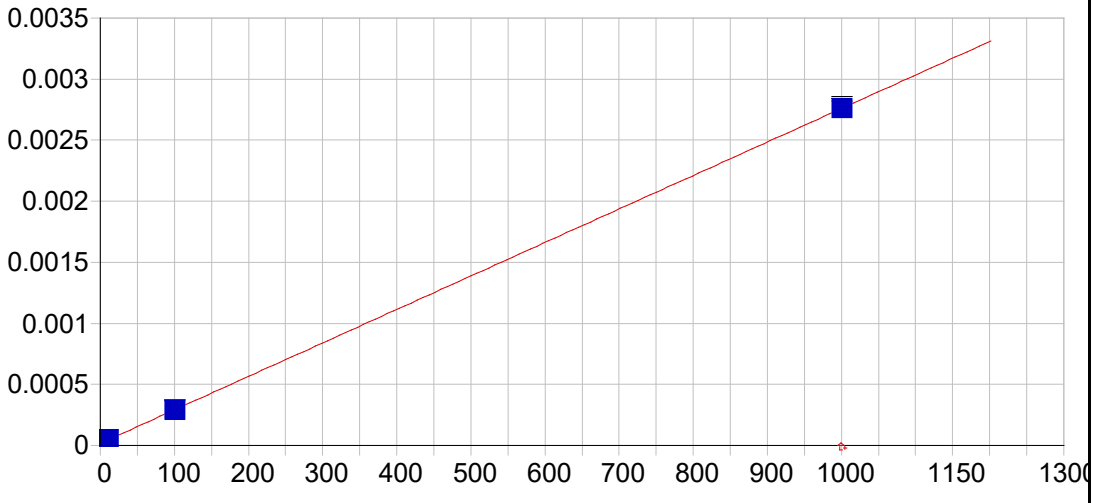
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00412	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	1079.4	79.4	7.94	.00053	.000	1
CalStd10=10	10000.	10015.	15.2	.152	.00488	.000	1
CalStd8=100	100.00	103.08	3.08	3.08	.00005	.000	1
CalStd5=10	10.000	13.126	3.13	31.3	.00001	.000	1
CalStd12=10	100000.	110840.	10800.	10.8	.05380	.000	1



Pb 220.353 {153}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999818		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.916183				
Predicted MQL:	6.387276				

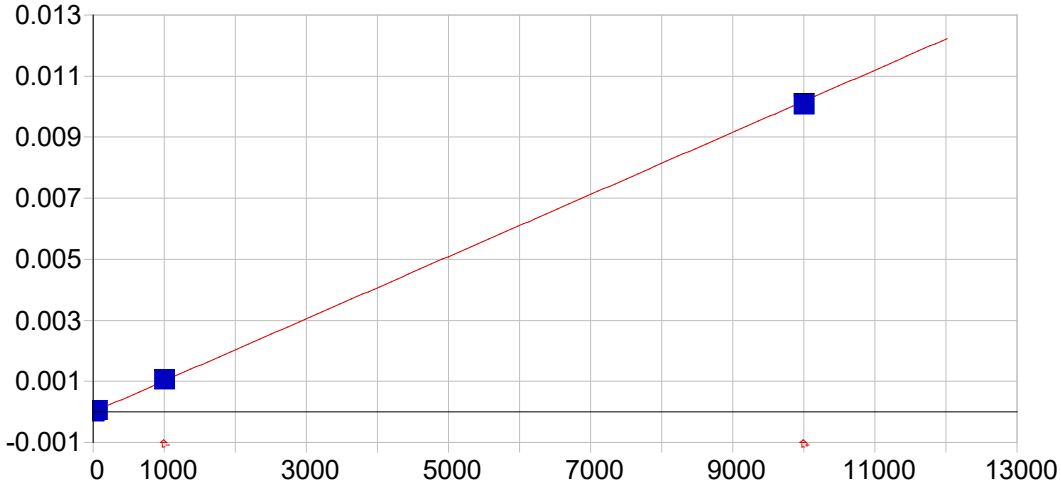
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00644	.006	.000	.00000	.000	1
CalStd9=100	1000.0	982.67	-17.3	-1.73	.00028	.000	1
CalStd10=10	10000.	9396.6	-603.	-6.03	.00262	.000	1
CalStd8=100	100.00	100.71	.709	.709	.00003	.000	1
CalStd12=10	100000.	100620.	620.	.620	.02807	.000	1



Pb 220.353 {453}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000017		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999598		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.747476				
Predicted MQL:	5.824919				

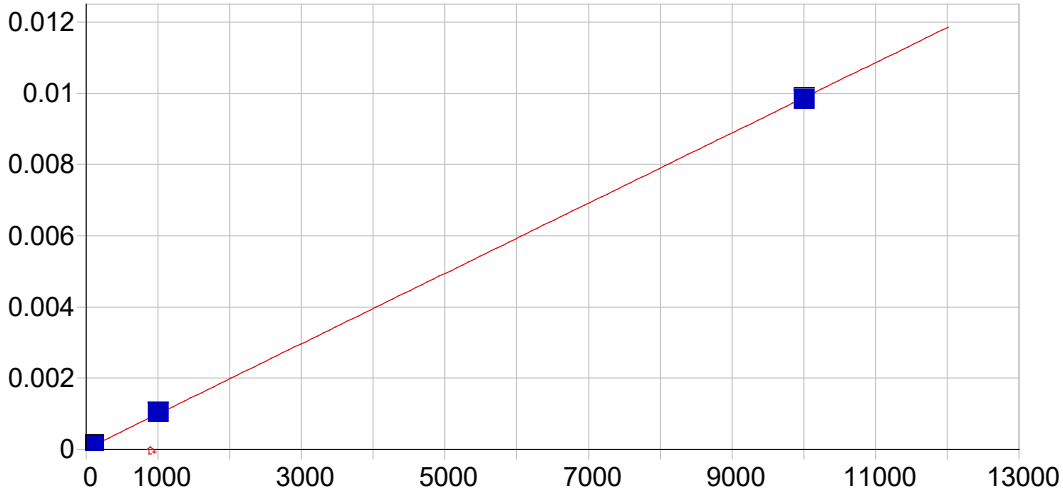
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00217	-.002	.000	.00002	.000	1
CalStd5=10	10.000	10.351	.351	3.51	.00005	.000	1
CalStd8=100	100.00	98.492	-1.51	-1.51	.00029	.000	1
CalStd4=5	5.0000	7.0739	2.07	41.5	.00004	.000	1
CalStd9=100	1000.0	999.08	-.917	-.092	.00276	.000	1



Sb 206.833 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999835		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	2.768049				
Predicted MQL:	9.226829				

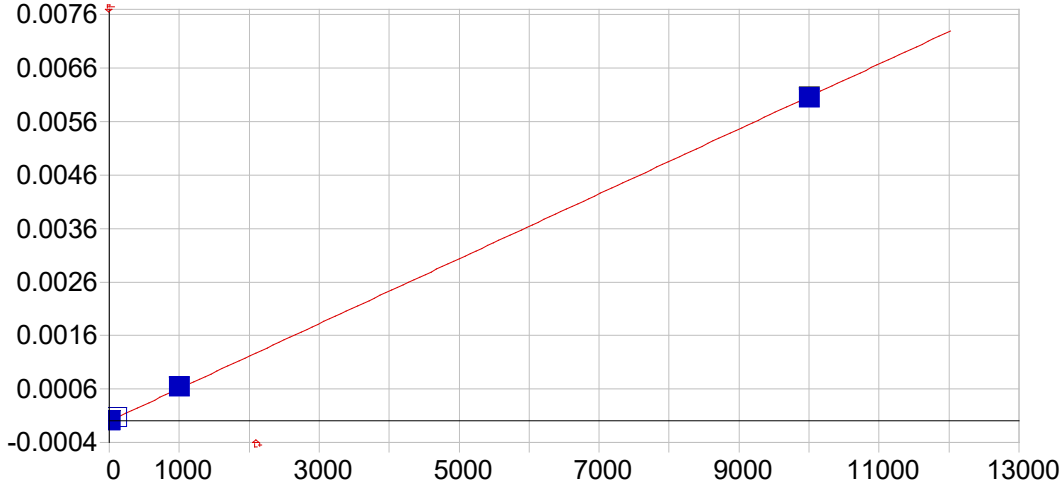
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0817	-1.08	.000	-.00000	.000	1
CalStd9=100	1000.0	1027.0	27.0	2.70	.00104	.000	1
CalStd5=10	10.000	8.8123	-1.19	-11.9	.00001	.000	1
CalStd7=50	50.000	49.875	-.125	-.250	.00005	.000	1
CalStd10=10	10000.	9884.4	-116.	-1.16	.01006	.000	1



Sb 217.581 {455}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000012		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999908		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	3.302099				
Predicted MQL:	11.006997				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00144	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	1039.3	39.3	3.93	.00104	.000	1
CalStd6=20	20.000	21.241	1.24	6.21	.00003	.000	1
CalStd5=10	10.000	10.426	.426	4.26	.00002	.000	1
CalStd8=100	100.00	103.87	3.87	3.87	.00011	.000	1
CalStd4=5	5.0000	5.5513	.551	11.0	.00002	.000	1
CalStd10=10	10000.	9954.6	-45.4	-.454	.00983	.000	1

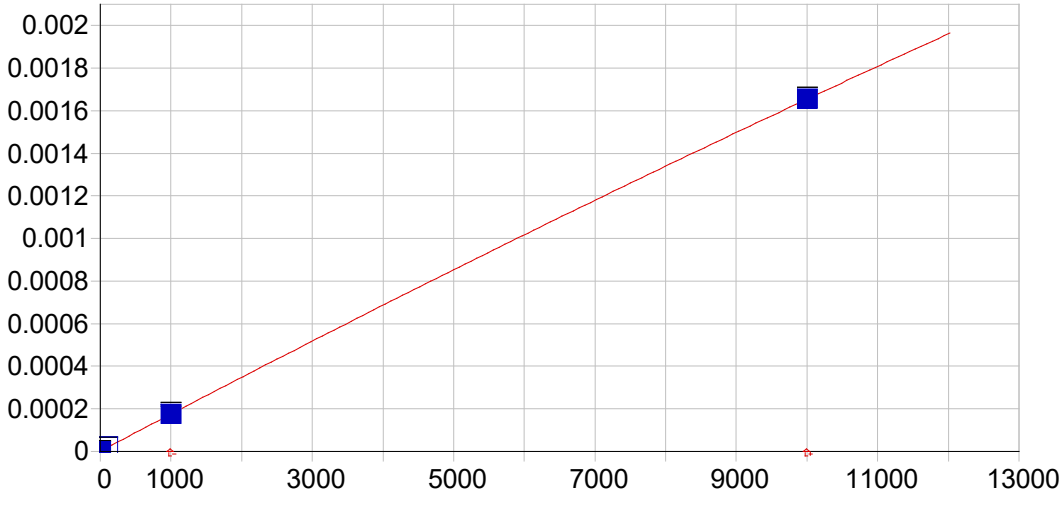


Se 196.090 {472}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.546972		
Predicted MQL:	11.823242		

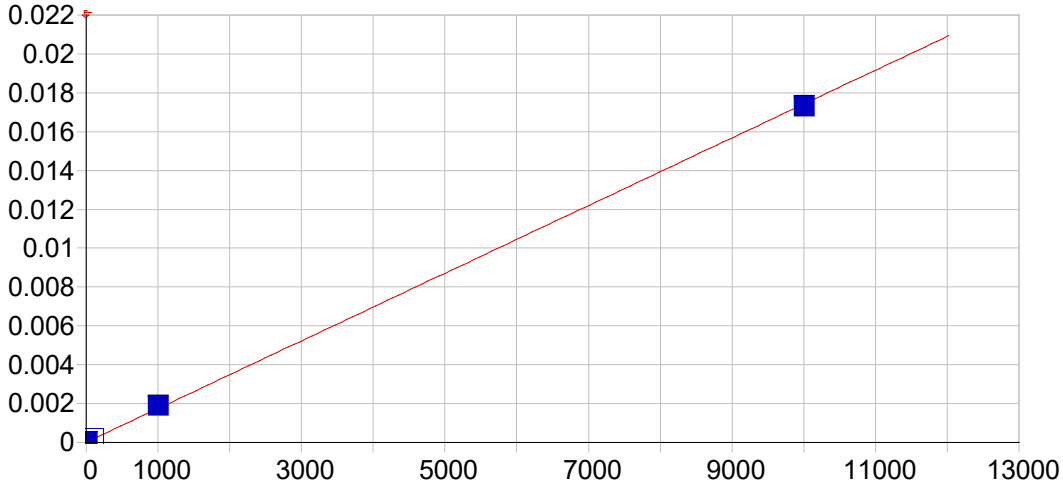
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00060	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1045.4	45.4	4.54	.00063	.000	1
CalStd5=10	10.000	10.084	.084	.837	.00001	.000	1
CalStd8=100	100.00	101.13	1.13	1.13	.00006	.000	1
CalStd10=10	10000.	9953.4	-46.6	-.466	.00604	.000	1



Se 206.279 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999957		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	17.995433				
Predicted MQL:	59.984775				

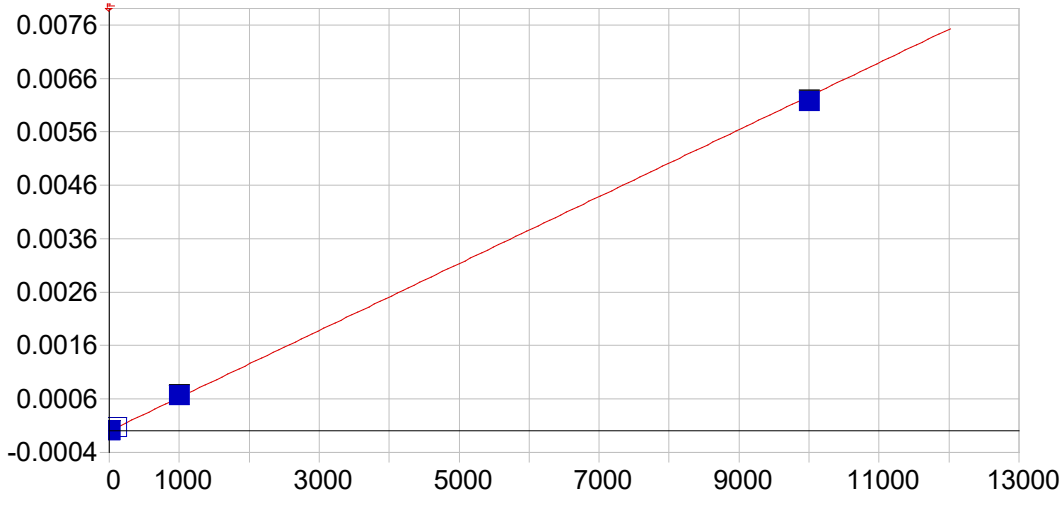
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00784	-.008	.000	.00000	.000	1
CalStd9=100	1000.0	990.22	-9.78	-.978	.00017	.000	1
CalStd10=10	10000.	10001.	.992	.010	.00166	.000	1
CalStd8=100	100.00	108.81	8.81	8.81	.00002	.000	1



Tl 190.856 {476}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999700		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.780647				
Predicted MQL:	5.935491				

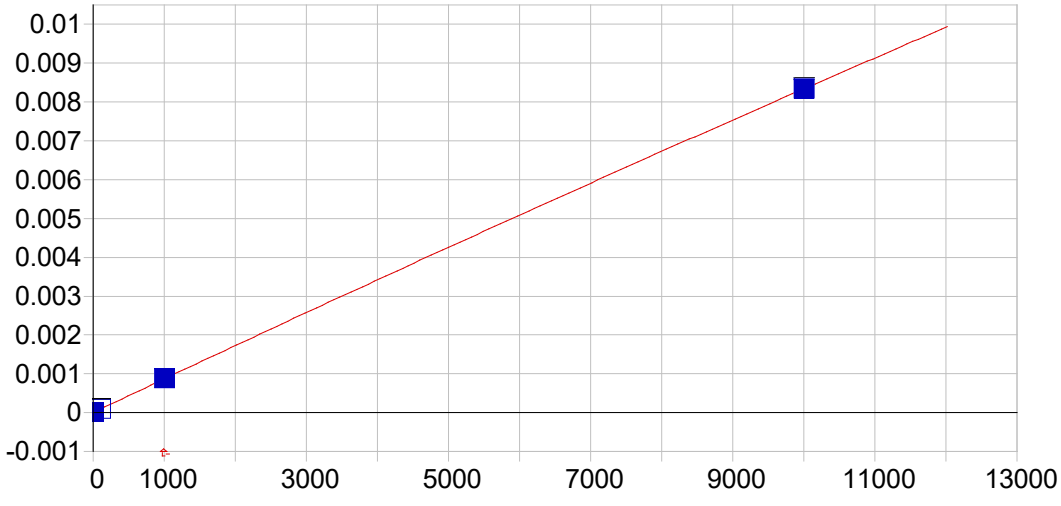
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00200	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	1074.8	74.8	7.48	.00188	.000	1
CalStd8=100	100.00	105.92	5.92	5.92	.00019	.000	1
CalStd5=10	10.000	10.738	.738	7.38	.00002	.000	1
CalStd10=10	10000.	9918.5	-81.5	-.815	.01728	.000	1



Tl 190.856 {477}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999500		Status:	OK.	
Std Error of Est:	0.000006				
Predicted MDL:	2.505970				
Predicted MQL:	8.353235				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.8820	-2.88	.000	.00000	.000	1
CalStd9=100	1000.0	1057.1	57.1	5.71	.00067	.000	1
CalStd8=100	100.00	103.02	3.02	3.02	.00007	.000	1
CalStd5=10	10.000	6.8691	-3.13	-31.3	.00001	.000	1
CalStd10=10	10000.	9839.4	-161.	-1.61	.00617	.000	1

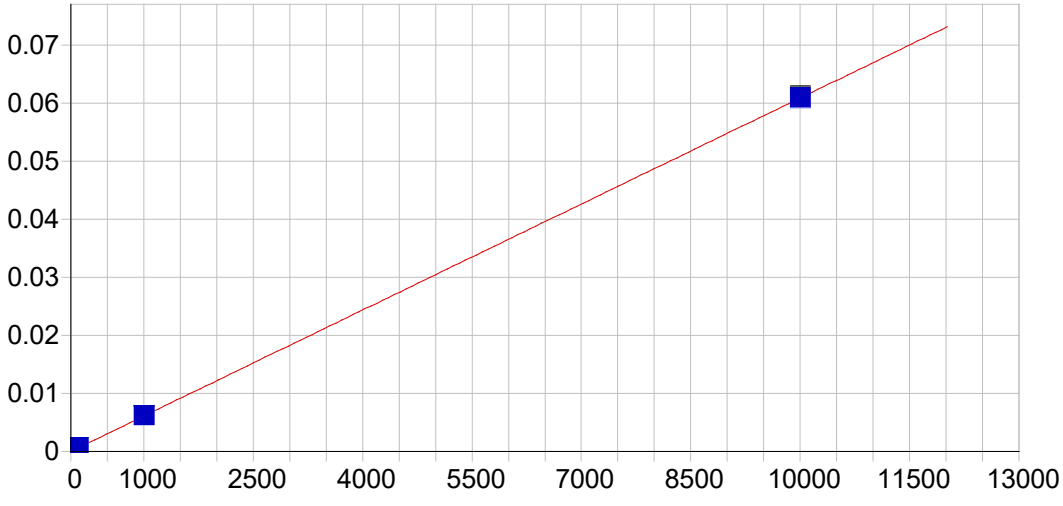


V 290.882 {116}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	8.073617		
Predicted MQL:	26.912058		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.8308	-1.83	.000	.00000	.000	1
CalStd9=100	1000.0	998.89	-1.11	-.111	.00087	.000	1
CalStd10=10	10000.	10000.	.063	.001	.00834	.000	1
CalStd8=100	100.00	100.24	.238	.238	.00009	.000	1

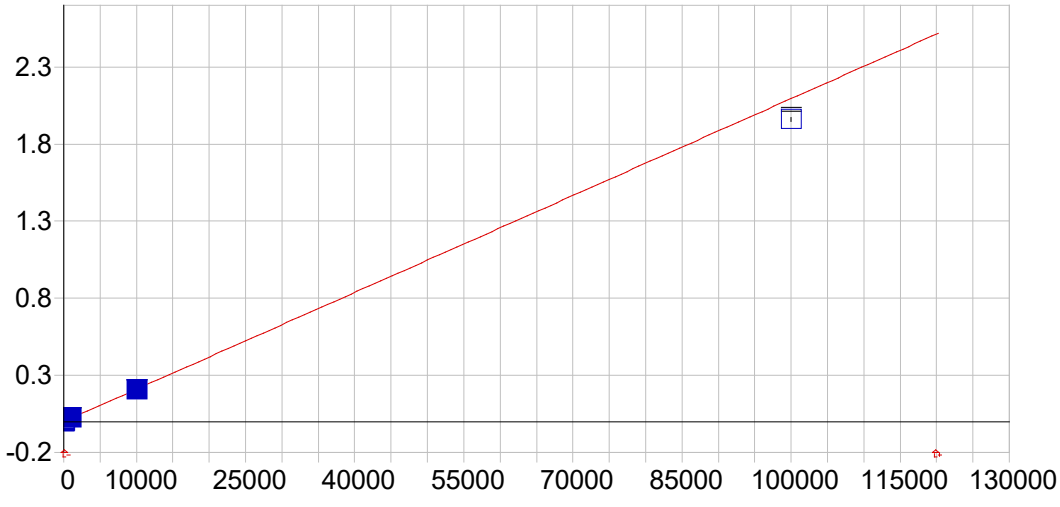


V 292.402 {115}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.374660		
Predicted MQL:	1.248866		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	.00001	.000	1
CalStd7=50	50.000	50.365	.365	.730	.00032	.000	1
CalStd9=100	1000.0	1007.2	7.21	.721	.00612	.000	1
CalStd6=20	20.000	20.122	.122	.611	.00014	.000	1
CalStd5=10	10.000	10.078	.078	.780	.00008	.000	1
CalStd8=100	100.00	98.599	-1.40	-1.40	.00061	.000	1
CalStd10=10	10000.	9993.6	-6.37	-.064	.06059	.000	1

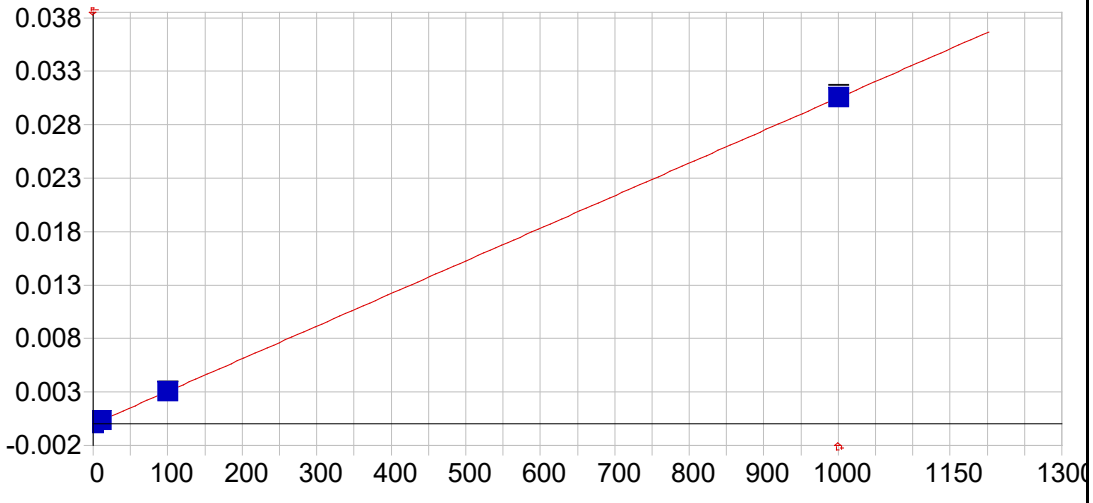


Zn 206.200 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999265	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.152862		
Predicted MQL:	0.509541		

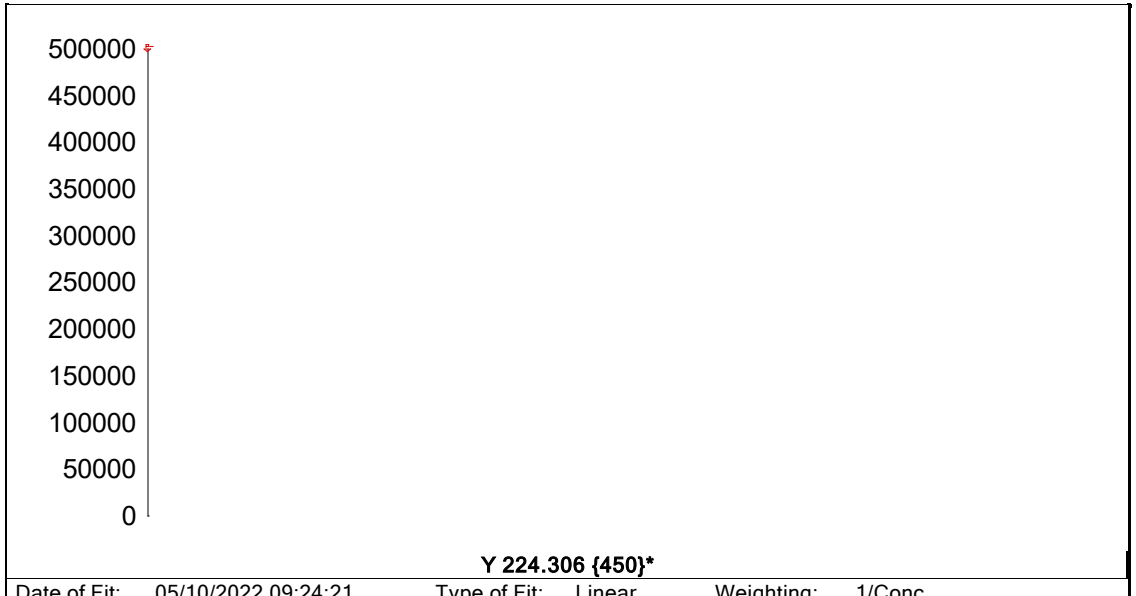
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9763.8	-236.	-2.36	.20452	.001	1
Blank	.00000	-.37196	-.372	.000	-.00000	.000	1
CalStd9=100	1000.0	1033.1	33.1	3.31	.02165	.000	1
CalStd12=10	100000.	93485.	-6520.	-6.52	1.9581	.012	1
CalStd5=10	10.000	10.398	.398	3.98	.00022	.000	1
CalStd8=100	100.00	102.63	2.63	2.63	.00216	.000	1



Zn 213.856 {457}

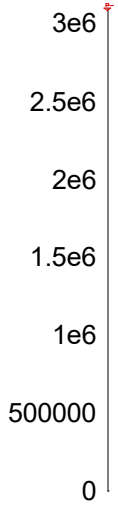
Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000031		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999979		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.116684				
Predicted MQL:	0.388947				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00056	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1000.1	.138	.014	.03066	.000	1
CalStd5=10	10.000	10.632	.632	6.32	.00033	.000	1
CalStd8=100	100.00	99.232	-.768	-.768	.00304	.000	1



Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc	
A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted MQL:	n/a					

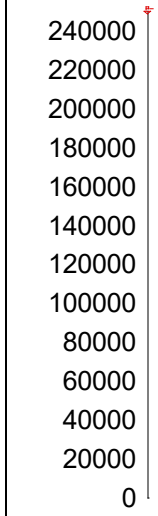
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	452790.	1710.	1



Y 324.228 {104}*

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

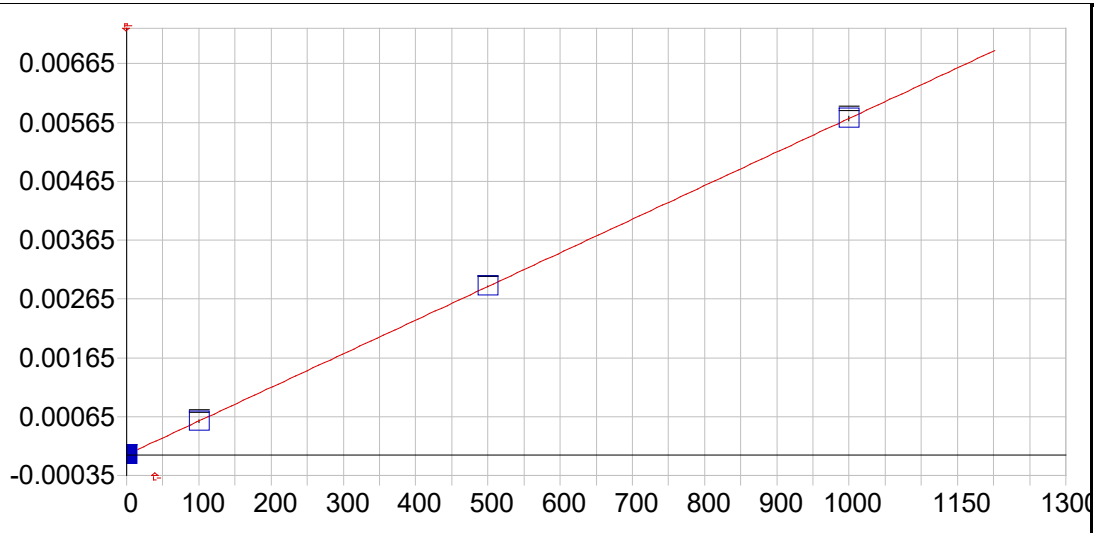
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	2929000.	8640.	1



Y 371.030 { 91}*

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

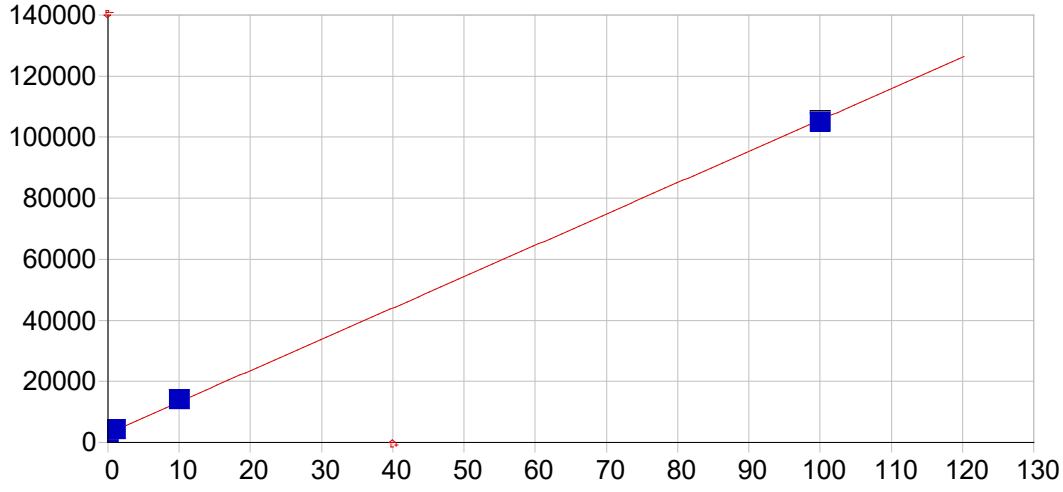
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	234250.	1080.	1



Na 330.237 {102}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999997		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.938494				
Predicted MQL:	6.461647				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00059	.001	.000	.00000	.000	1
CalStd13=10	100.00	99.208	-.792	-.792	.00057	.000	1
CalibStd15=	1000.0	999.53	-.467	-.047	.00572	.000	1
CalStd14=50	500.00	501.26	1.26	.252	.00287	.000	1

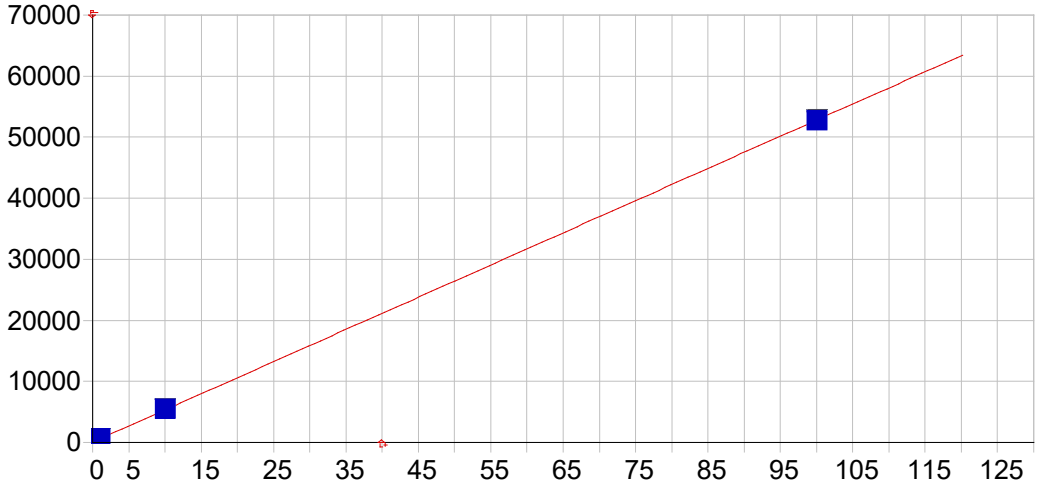


Na 588.995 { 57}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	3014.698306	Re-Slope:	1.000000
A1 (Gain):	1026.036912	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999751	Status:	OK.
Std Error of Est:	10.782376		
Predicted MDL:	0.011862		
Predicted MQL:	0.039538		

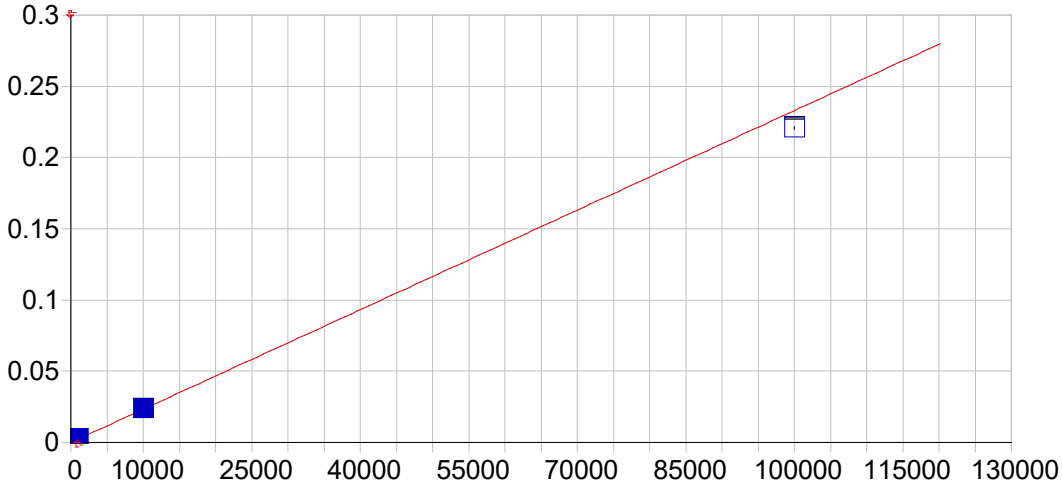
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00017	-.000	.000	3014.5	21.2	1
CalStd9=100	1.0000	1.1118	.112	11.2	4155.7	32.4	1
CalStd10=10	10.000	10.612	.612	6.12	13905.	19.4	1
CalStd13=10	100.00	99.276	-.724	-.724	104900.	341.	1



Na 589.592 { 57}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	48.399591		Re-Slope:	1.000000	
A1 (Gain):	527.457305		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999977		Status:	OK.	
Std Error of Est:	1.689053				
Predicted MDL:	0.014526				
Predicted MQL:	0.048419				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00005	-.000	.000	48.376	8.05	1
CalStd9=100	1.0000	1.0281	.028	2.81	591.09	8.35	1
CalStd10=10	10.000	10.196	.196	1.96	5430.6	13.5	1
CalStd13=10	100.00	99.776	-.224	-.224	52719.	192.	1

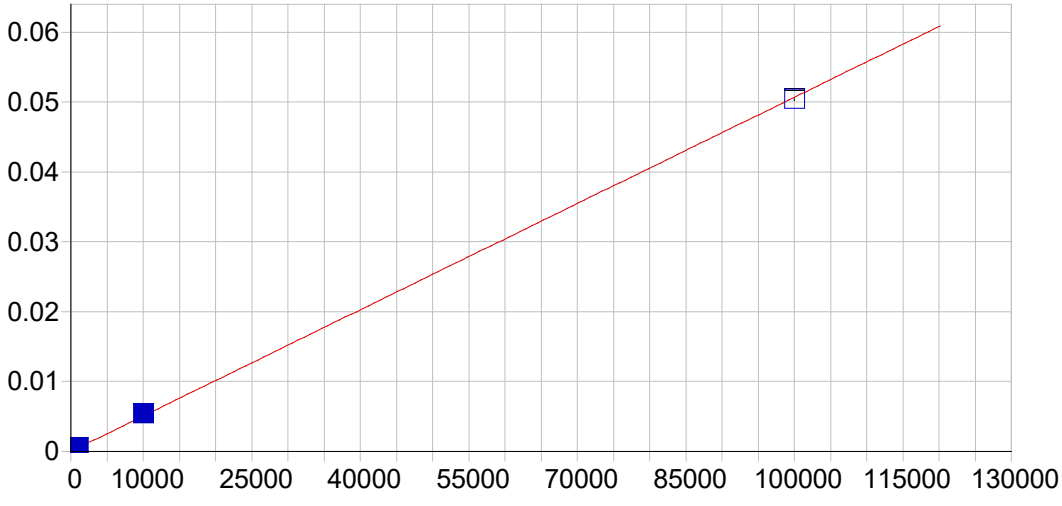


Si 212.412 {458}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999170	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	1.445412		
Predicted MQL:	4.818039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.4036	-3.40	.000	.00001	.000	1
CalStd9=100	1000.0	1060.6	60.6	6.06	.00249	.000	1
CalibStd15=	100000.	94784.	-5220.	-5.22	.22079	.001	1
CalStd10=10	10000.	10189.	189.	1.89	.02375	.000	1

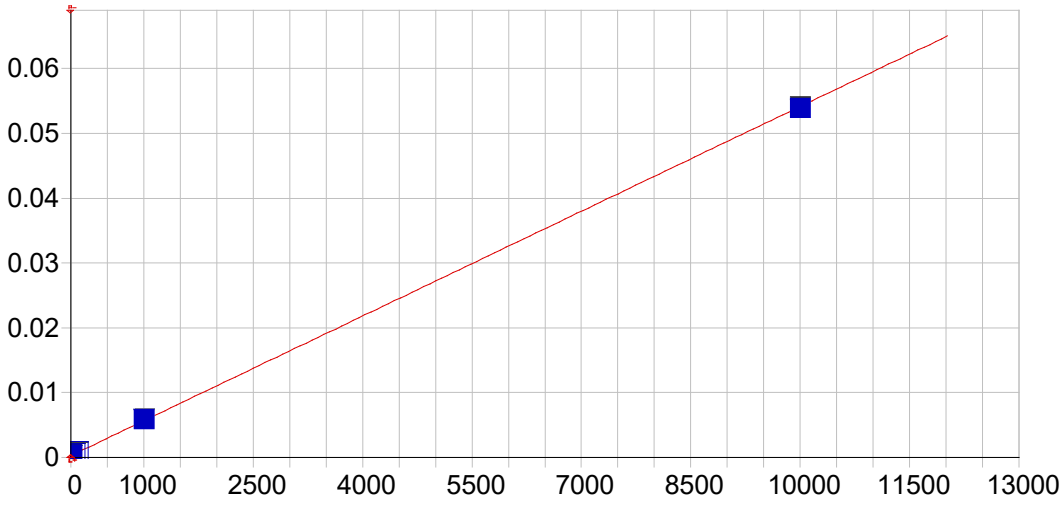


Si 251.611 {134}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999809	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	10.348099		
Predicted MQL:	34.493665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.14699	-.147	.000	.00001	.000	1
CalStd9=100	1000.0	1100.0	100.0	10.00	.00056	.000	1
CalibStd15=	100000.	99367.	-633.	-.633	.05036	.000	1
CalStd10=10	10000.	10534.	534.	5.34	.00534	.000	1

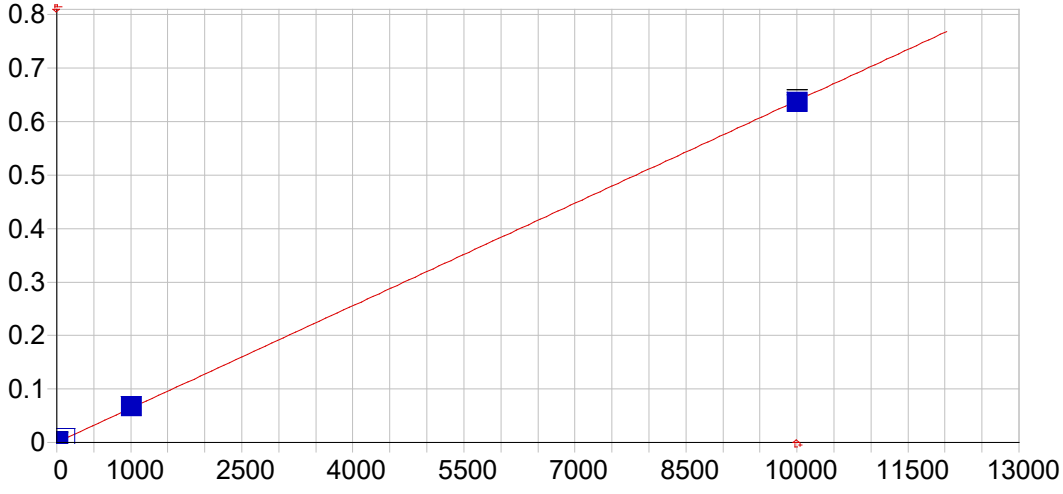


Ti 323.452 {104}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000275	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.281533		
Predicted MQL:	7.605111		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00771	-.008	.000	.00027	.000	1
CalStd5=10	10.000	14.679	4.68	46.8	.00035	.000	1
CalStd8=100	100.00	105.03	5.03	5.03	.00084	.000	1
CalStd9=100	1000.0	1035.8	35.8	3.58	.00586	.000	1
CalStd10=10	10000.	9942.9	-57.1	-.571	.05385	.000	1
CalStd7=50	50.000	57.355	7.36	14.7	.00058	.000	1
CalStd4=5	5.0000	9.2366	4.24	84.7	.00032	.000	1

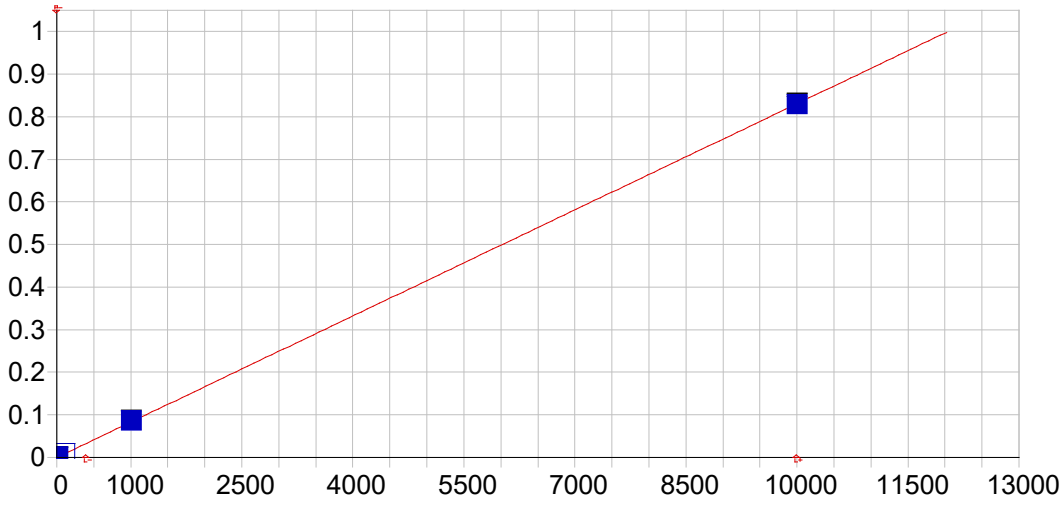


Sr 407.771 { 83}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000128	Re-Slope:	1.000000
A1 (Gain):	0.000064	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.242595		
Predicted MQL:	0.808650		

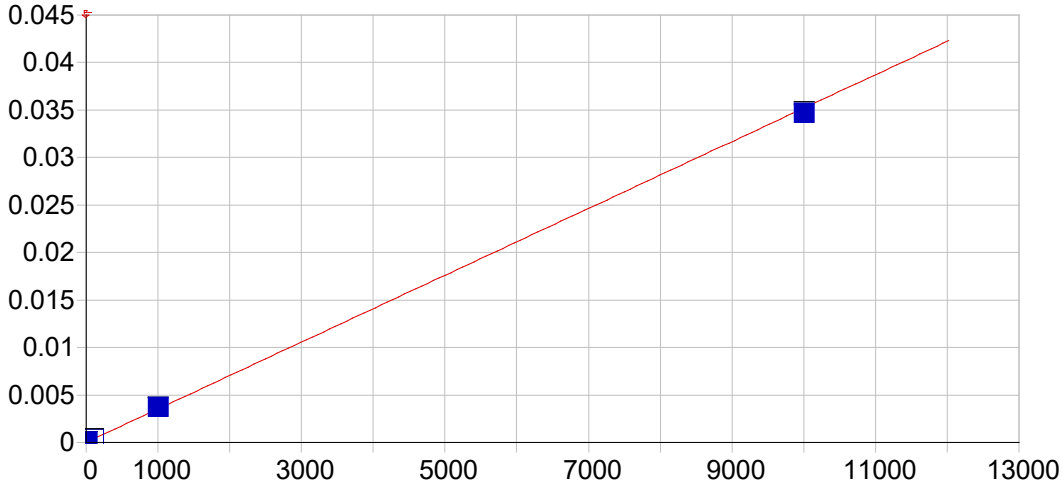
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00053	-.001	.000	.00013	.000	1
CalStd3=1	1.0000	1.2893	.289	28.9	.00021	.000	1
CalStd4=5	5.0000	5.4962	.496	9.92	.00048	.000	1
CalStd5=10	10.000	10.640	.640	6.40	.00081	.000	1
CalStd8=100	100.00	103.60	3.60	3.60	.00675	.000	1
CalStd9=100	1000.0	1042.1	42.1	4.21	.06672	.000	1
CalStd10=10	10000.	9952.9	-47.1	-.471	.63610	.004	1



Sr 421.552 { 80}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000075		Re-Slope:	1.000000	
A1 (Gain):	0.000083		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999949		Status:	OK.	
Std Error of Est:	0.000003				
Predicted MDL:	0.197430				
Predicted MQL:	0.658101				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00007	-.000	.000	.00008	.000	1
CalStd3=1	1.0000	.93923	-.061	-6.08	.00015	.000	1
CalStd4=5	5.0000	5.2744	.274	5.49	.00051	.000	1
CalStd5=10	10.000	10.206	.206	2.06	.00092	.000	1
CalStd8=100	100.00	102.45	2.45	2.45	.00858	.000	1
CalStd9=100	1000.0	1030.6	30.6	3.06	.08566	.001	1
CalStd10=10	10000.	9966.6	-33.4	-.334	.82778	.003	1

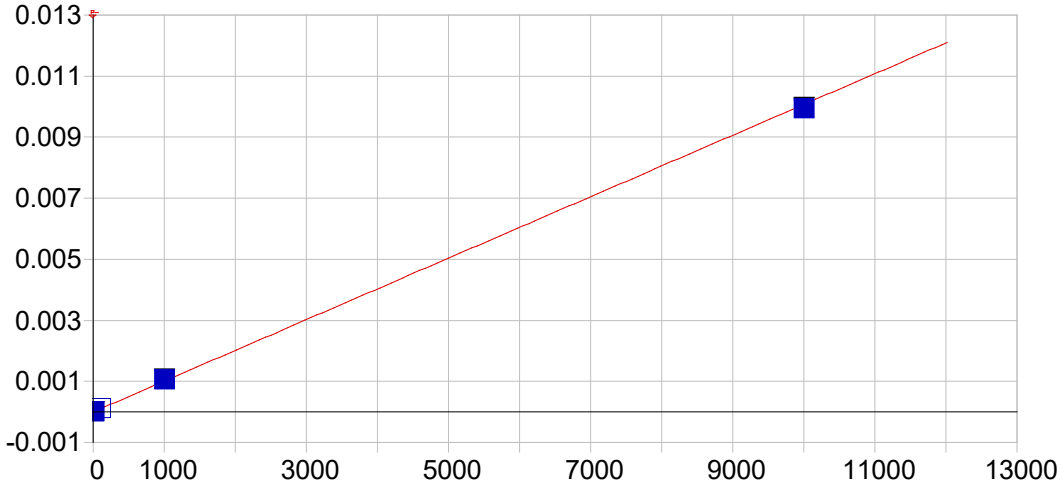


Sn 189.989 {477}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999704	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.633440		
Predicted MQL:	2.111468		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2926	-1.29	.000	.00000	.000	1
CalStd10=10	10000.	9853.9	-146.	-1.46	.03468	.000	1
CalStd9=100	1000.0	1040.8	40.8	4.08	.00367	.000	1
CalStd8=100	100.00	101.66	1.66	1.66	.00037	.000	1
CalStd5=10	10.000	10.294	.294	2.94	.00005	.000	1

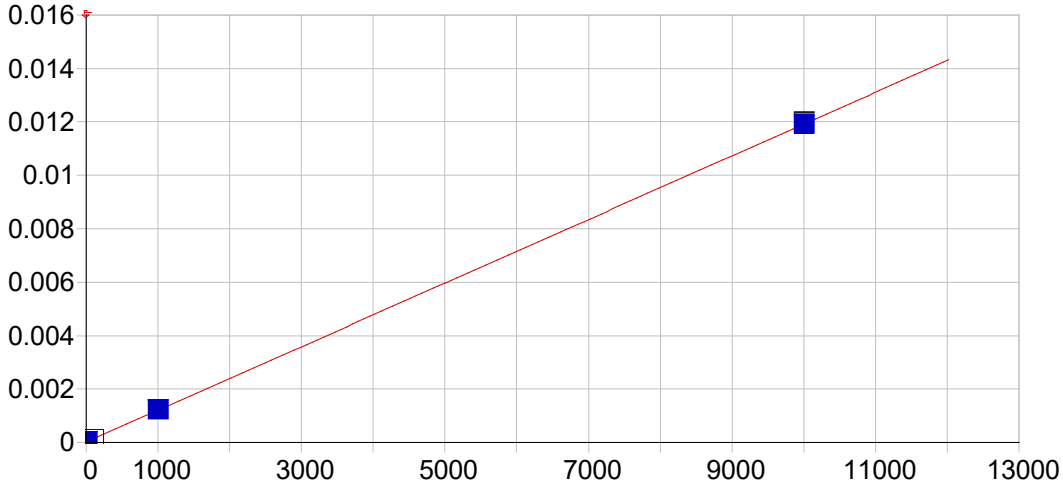


Sn 189.989 {478}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999695	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	1.604221		
Predicted MQL:	5.347403		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.90076	-.901	.000	.00000	.000	1
CalStd10=10	10000.	9863.8	-136.	-1.36	.00993	.000	1
CalStd9=100	1000.0	1044.5	44.5	4.45	.00105	.000	1
CalStd8=100	100.00	102.93	2.93	2.93	.00010	.000	1
CalStd5=10	10.000	10.685	.685	6.85	.00001	.000	1

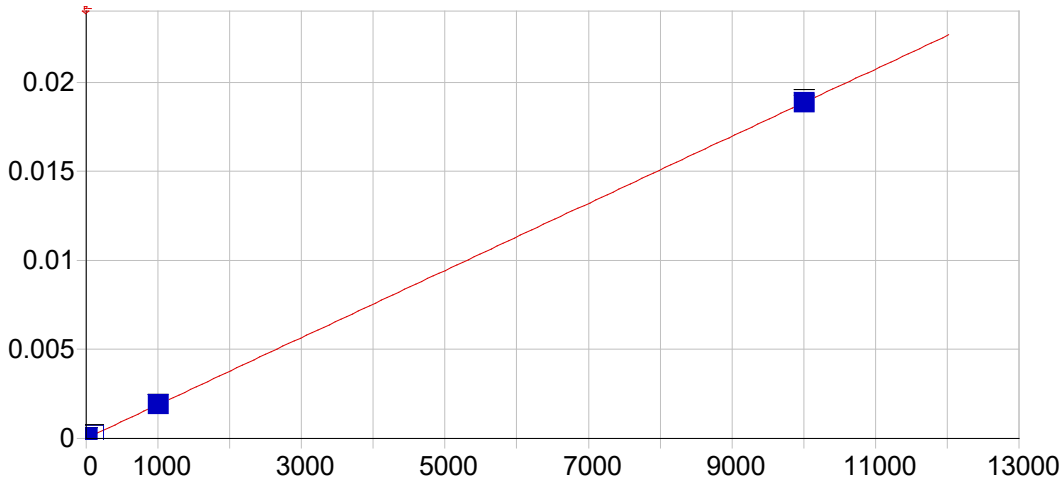


B 249.678 {135}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.100258		
Predicted MQL:	3.667527		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00030	.000	.000	.00001	.000	1
CalStd8=100	100.00	97.185	-2.81	-2.81	.00013	.000	1
CalStd5=10	10.000	9.9297	-.070	-.703	.00002	.000	1
CalStd9=100	1000.0	1005.2	5.17	.517	.00121	.000	1
CalStd10=10	10000.	9997.7	-2.28	-.023	.01192	.000	1

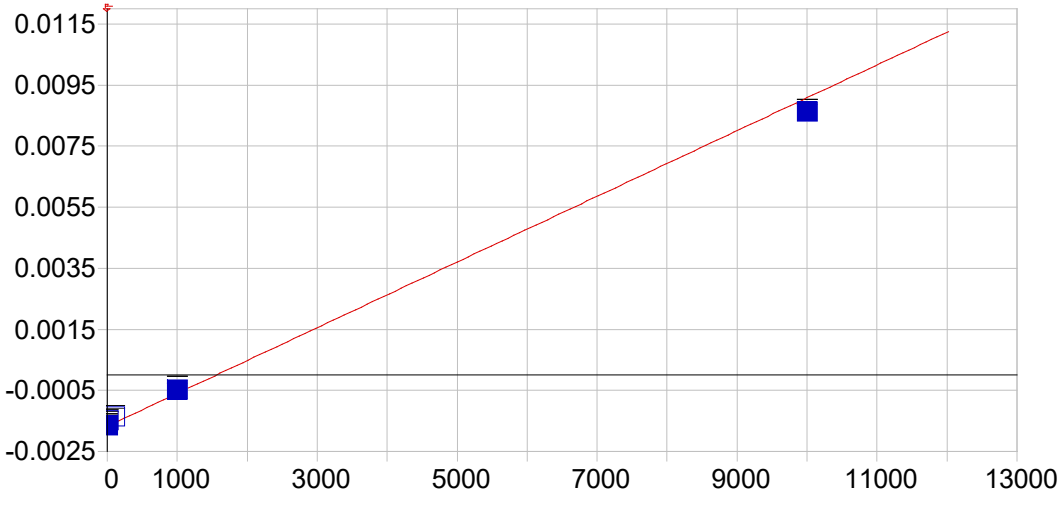


B 249.773 {135}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.609186		
Predicted MQL:	2.030621		

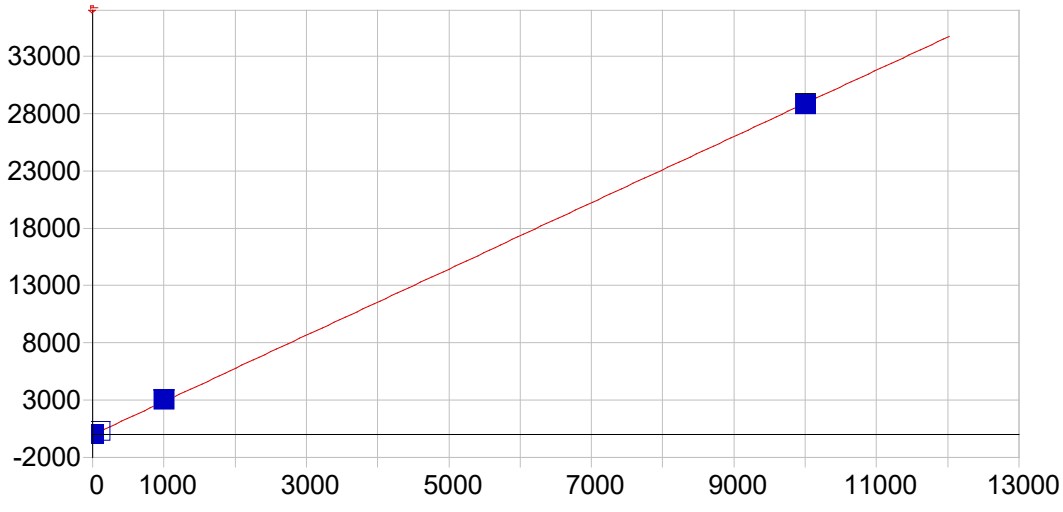
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	.00001	.000	1
CalStd8=100	100.00	98.989	-1.01	-1.01	.00019	.000	1
CalStd5=10	10.000	9.8519	-.148	-1.48	.00003	.000	1
CalStd9=100	1000.0	1002.6	2.61	.261	.00190	.000	1
CalStd10=10	10000.	9998.6	-1.45	-.014	.01886	.000	1



Li 610.353 { 55}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.001673		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.887876		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	49.685459				
Predicted MQL:	165.618197				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18066	-.181	.000	-.00167	.000	1
CalStd5=10	10.000	172.56	163.	1630.	-.00149	.000	1
CalStd8=100	100.00	275.06	175.	175.	-.00138	.000	1
CalStd9=100	1000.0	1103.1	103.	10.3	-.00049	.000	1
CalStd10=10	10000.	9559.3	-441.	-4.41	.00861	.000	1

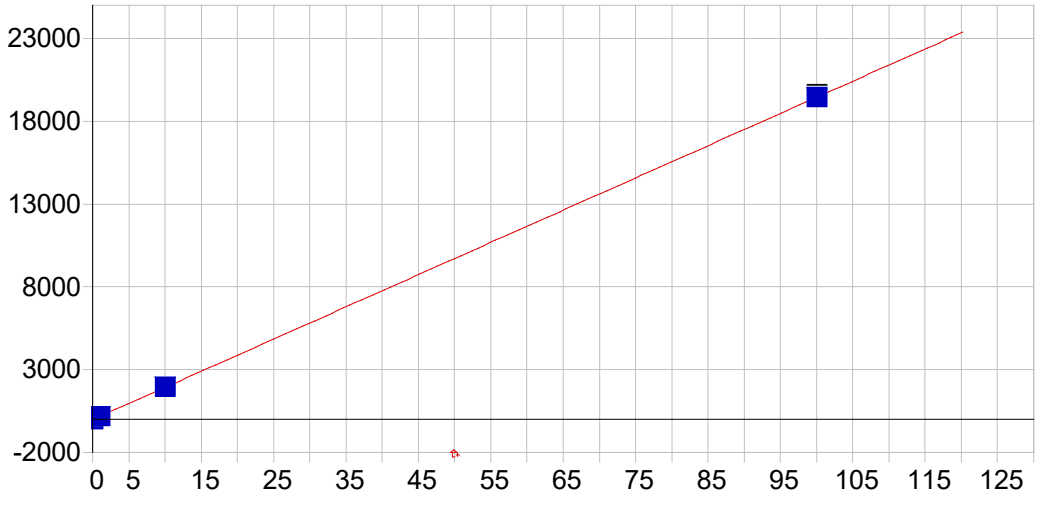


Li 670.776 { 50}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-13.747537	Re-Slope:	1.000000
A1 (Gain):	2.889610	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.630661		
Predicted MDL:	2.402288		
Predicted MQL:	8.007626		

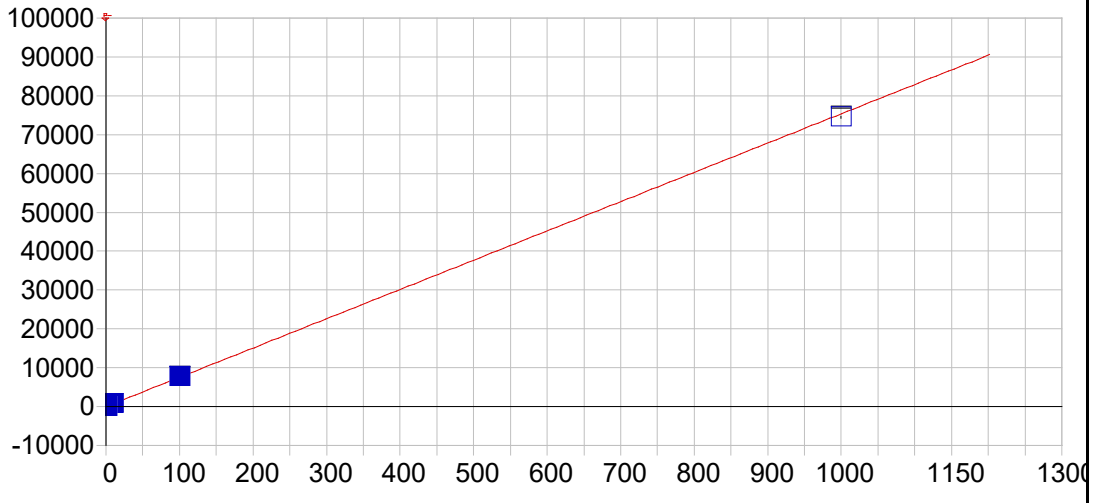
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00250	.002	.000	-13.740	2.63	1
CalStd5=10	10.000	7.1202	-2.88	-28.8	6.8270	6.99	1
CalStd8=100	100.00	99.919	-.081	-.081	274.98	2.54	1
CalStd9=100	1000.0	1043.2	43.2	4.32	3000.8	14.8	1
CalStd10=10	10000.	9959.7	-40.3	-.403	28766.	58.4	1



K 766.490 { 44}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-25.225853		Re-Slope:	1.000000	
A1 (Gain):	194.668728		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999989		Status:	OK.	
Std Error of Est:	0.438948				
Predicted MDL:	0.040705				
Predicted MQL:	0.135685				

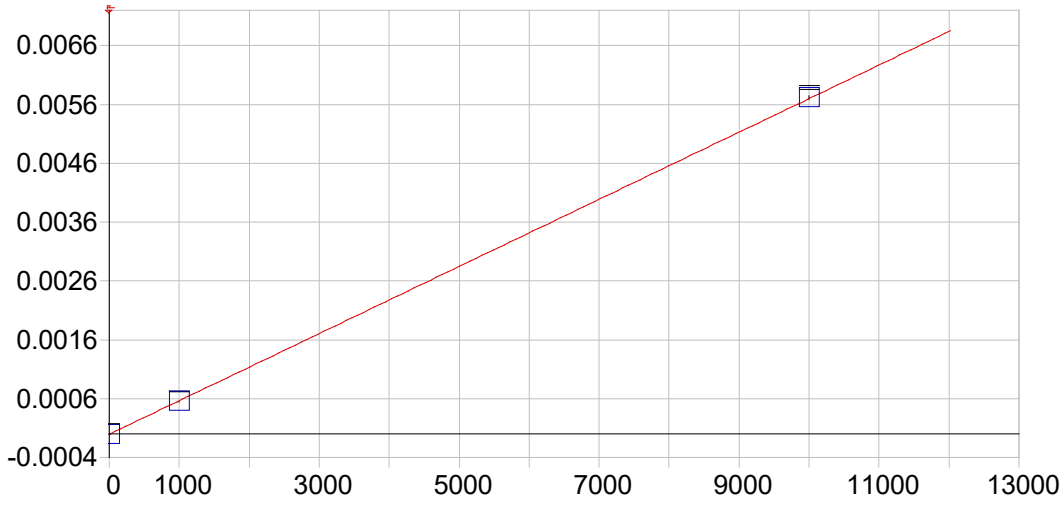
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00001	.000	.000	-25.223	2.97	1
CalStd9=100	1.0000	.97412	-.026	-2.59	164.99	4.93	1
CalStd10=10	10.000	10.133	.133	1.33	1953.1	8.52	1
CalStd13=10	100.00	99.893	-.107	-.107	19479.	118.	1



K 769.896 { 44}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	4.004528		Re-Slope:	1.000000	
A1 (Gain):	75.355169		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999742		Status:	OK.	
Std Error of Est:	37.298057				
Predicted MDL:	0.085581				
Predicted MQL:	0.285271				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.25049	-.250	.000	-14.871	3.63	1
CalStd10=10	10.000	10.494	.494	4.94	795.54	5.40	1
CalibStd15=	1000.0	988.46	-11.5	-1.15	74489.	198.	1
CalStd13=10	100.00	101.48	1.48	1.48	7658.4	34.3	1
CalStd9=100	1.0000	1.0770	.077	7.70	85.234	8.25	1

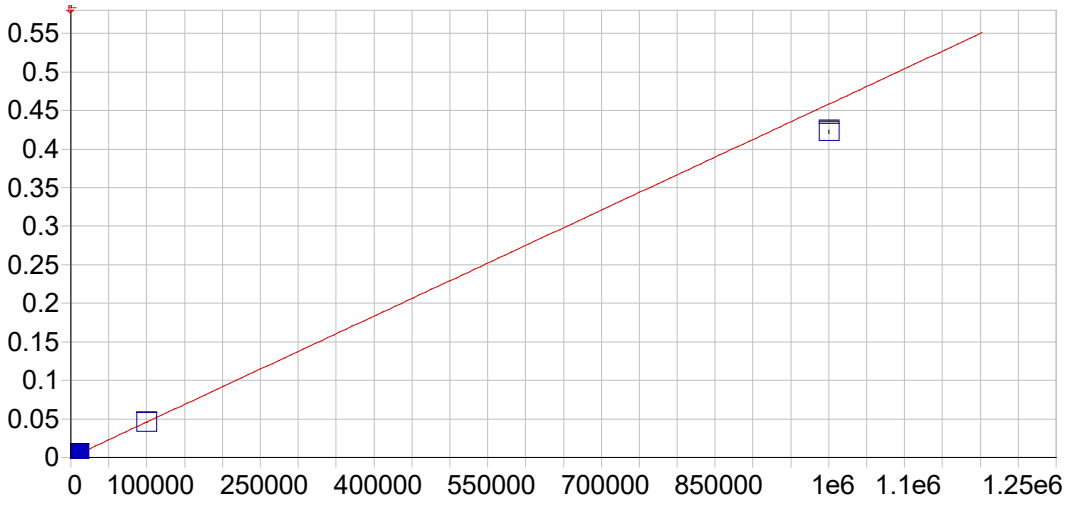


P 177.495 {489}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.251268		
Predicted MQL:	7.504227		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02522	.025	.000	-.00001	.000	1
CalStd10=10	10000.	10028.	28.0	.280	.00571	.000	1
CalStd9=100	1000.0	971.98	-28.0	-2.80	.00055	.000	1

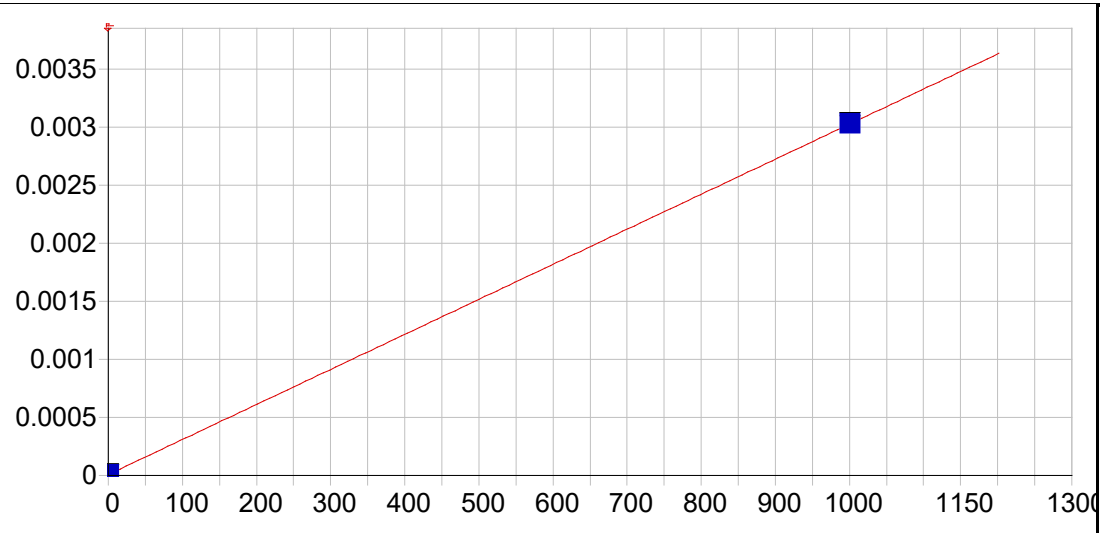


S 182.034 {485}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000019	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.717848		
Predicted MQL:	12.392827		

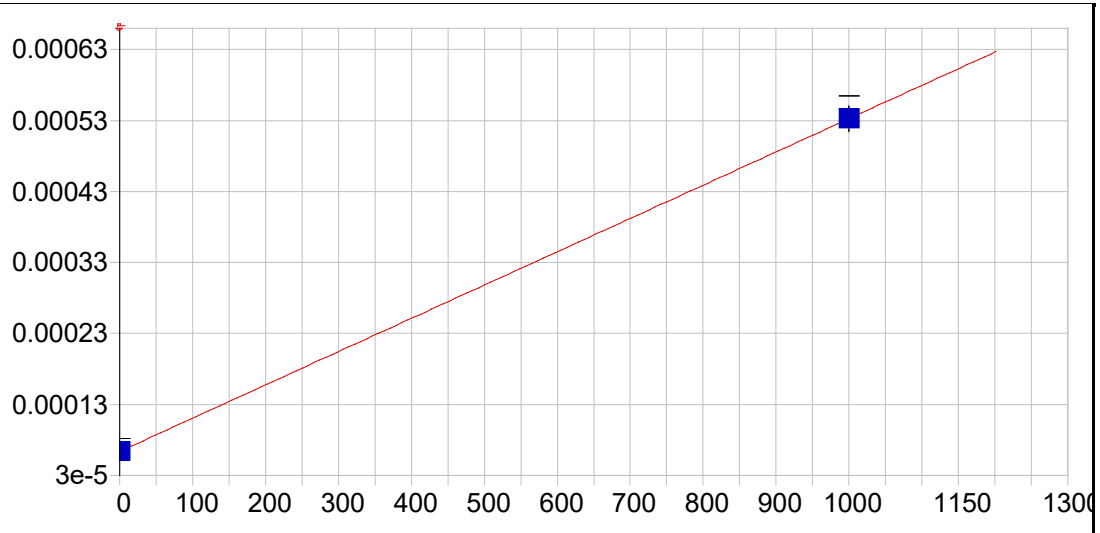
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04928	.049	.000	.00002	.000	1
CalStd9=100	1000.0	963.13	-36.9	-3.69	.00046	.000	1
CalStd10=10	10000.	9847.4	-153.	-1.53	.00454	.000	1
CalibStd15=	1000000.	921820.	-78200.	-7.82	.42245	.002	1
CalStd13=10	100000.	99419.	-581.	-.581	.04558	.000	1



Hg 184.950 {482}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	1.000000		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.592781				
Predicted MQL:	1.975937				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00001	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00302	.000	1



Ce 404.076 { 83}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000064	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	33.453712		
Predicted MQL:	111.512374		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00006	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00053	.000	1

Sample Name: Blank Acquired: 05/09/2022 07:32:55 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**52.8**	**.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.015**	**-.000**	**.000**	**.000**	**-.000**
Stddev	.000	1.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.16	1.85	12.7	2.75	195.	26.6	19.4	29.2	.685	32.2	6.42	4.92	113.

Elem	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	435.	101.	180.	45.8	44.3	21.5	28.6	60.2	4.48	60.6	340.	11.8	155.

Elem	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.01	5.32	111.	27.3	174.	71.9	180.	212.	32.6	223.	8.17	261.	80.5

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**.000**	**.000**	**48.4**	**-25.2**	**-14.9**
Stddev	.000	.000	.000	.000	.000	8.1	3.0	3.6
%RSD	39.7	11.6	118.	112.	167.	16.6	11.8	24.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**452790.**	**2929000.**	**234250.**
Stddev	1709.	8635.	1079.
%RSD	.37740	.29481	.46046

Sample Name: CalStd2=0.5 Acquired: 05/09/2022 07:40:19 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be2348	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	344.	1.32	30.5	52.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**443030.**	**2844100.**	**228550.**
Stddev	1320.	15451.	804.
%RSD	.29795	.54326	.35163

Sample Name: CalStd3=1 Acquired: 05/09/2022 07:47:44 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.79	18.7	38.3	.784	5.93	42.3	20.4	20.2	44.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**439460.**	**2859000.**	**228880.**
Stddev	2696.	24252.	263.
%RSD	.61356	.84826	.11469

Sample Name: CalStd4=5 Acquired: 05/09/2022 07:55:06 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.57	3.24	7.69	1.01	1.91	10.9	5.24	5.34	8.65	.871	5.04	11.2	4.09

Elem	Pb2203	Sb2175
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	11.6	8.90

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**441920.**	**2820800.**	**228410.**
Stddev	1972.	30558.	214.
%RSD	.44616	1.0833	.09354

Sample Name: CalStd5=10 Acquired: 05/09/2022 08:02:27 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	102.	.000	.000	.000	-.000	.000	.000	.001	.000	.000	.000	.000
Stddev	.000	5.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.81	5.26	2.22	2.16	10.4	91.8	2.19	6.23	.913	1.65	3.02	2.36	2.25

Elem	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.62	6.30	1.01	1.96	6.84	4.14	39.5	3.14	16.7	11.8	21.2	11.9	2.28

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	.000	.000
Stddev	.000	.000
%RSD	1.75	.957

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	439840.	2833300.	227180.
Stddev	3747.	27988.	995.
%RSD	.85200	.98782	.43793

Sample Name: CalStd6=20 Acquired: 05/09/2022 08:09:48 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	.853	.859	1.03	1.37	5.53	1.91

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**439670.**	**2797800.**	**226470.**
Stddev	2959.	18328.	807.
%RSD	.67304	.65509	.35617

Sample Name: CalStd7=50 Acquired: 05/09/2022 08:17:06 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Ca3933	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.009**	**.001**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.69	13.9	.285	1.14	1.78	1.37	1.16	1.42	.548	1.19	.687	1.64	3.94

Elem	V_2924
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	.349

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**438030.**	**2794700.**	**228020.**
Stddev	5063.	9273.	325.
%RSD	1.1558	.33181	.14243

Sample Name: CalStd8=100 Acquired: 05/09/2022 08:24:20 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3933	Ca3968	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**572.**	**.000**	**.000**	**.000**	**.000**	**.001**	**.020**	**.001**	**.007**	**.017**	**.008**	**.003**
Stddev	.000	5.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.942	.896	.749	2.12	2.20	3.79	.507	.259	.977	.946	.066	.294	.582

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.002**	**.000**	**.001**	**.000**	**.000**	**.004**	**.001**	**.000**	**.000**	**.001**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.851	.387	.624	.359	1.05	.279	.952	.968	.748	.852	.805	.389	5.39

Elem	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.003**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.56	1.78	3.05	7.65	.222	.932	.351	.636

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**436590.**	**2790200.**	**223890.**
Stddev	2162.	23018.	757.
%RSD	.49520	.82496	.33824

Sample Name: CalStd9=1000 Acquired: 05/09/2022 08:31:24 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3933	Ca3968	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.001**	**.001**	**.001**	**.000**	**.007**	**.057**	**.007**	**.069**	**.001**	**.163**	**.073**	*****
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	-----
%RSD	.347	.937	1.22	.816	1.01	.705	.414	.670	.647	1.29	.360	.357	-----

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.017**	**.002**	**.012**	**.003**	**.004**	**.000**	**.001**	**.002**	**.001**	**.000**	**.043**	**.010**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.689	.552	.852	.676	.602	.600	.796	.790	.280	.602	3.38	.717	.786

Elem	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.005**	**.003**	**.012**	**.010**	**.001**	**.003**	**.001**	**.001**	**.001**	**.000**	**.002**	**.006**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.285	.638	.602	.539	.670	1.27	.645	.555	.724	.879	4.64	.731	.854

Elem	Zn2062	Zn2138	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.022**	**.031**	**591.**	**165.**	**85.2**
Stddev	.000	.000	8.	5.	8.3
%RSD	.671	.511	1.41	2.99	9.68

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**437810.**	**2779000.**	**225690.**
Stddev	2392.	24189.	1040.
%RSD	.54645	.87041	.46075

Sample Name: CalStd10=10000 Acquired: 05/09/2022 08:38:20 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.014**	**.004**	**.068**	**.410**	**.006**	**.706**	**.158**	**.018**	**.112**	**.027**	**.034**	**.004**
Stddev	.000	.000	.000	.000	.001	.000	.012	.001	.000	.001	.000	.000	.000
%RSD	.581	.410	.341	.439	.187	.263	1.63	.366	.640	.451	.767	.323	.701

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.023**	**.010**	**.001**	**.386**	**.094**	**.089**	**.045**	**.025**	**.112**	**.096**	**.005**	**.010**
Stddev	.000	.000	.000	.000	.002	.001	.000	.000	.000	.000	.000	.000	.000
%RSD	.315	.208	.327	.749	.535	1.29	.253	.408	.467	.316	.399	.503	.379

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.010**	**.006**	**.002**	**.017**	**.061**	**.205**	**5430.**	**1950.**	**796.**
Stddev	.000	.000	.000	.000	.000	.001	14.	9.	5.
%RSD	.402	.314	.455	.399	.637	.506	.249	.436	.679

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434700.**	**2693300.**	**224930.**
Stddev	1870.	19654.	430.
%RSD	.43008	.72975	.19108

Sample Name: CalStd12=100K Acquired: 05/09/2022 08:45:32 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.14**	**.972**	**.054**	**1.96**
Stddev	.01	.003	.000	.01
%RSD	.708	.279	.295	.635

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434710.**	**2732600.**	**221950.**
Stddev	1931.	21635.	1258.
%RSD	.44426	.79173	.56657

Sample Name: CalStd13=100000 Acquired: 05/09/2022 08:53:29 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.055**	**.139**	**.066**	**.040**	**.098**	**.235**	**.106**	**.007**	**.001**	**52700.**	**19500.**
Stddev	.000	.001	.000	.000	.000	.001	.000	.000	.000	192.	118.
%RSD	.298	.452	.398	.473	.363	.373	.218	.271	3.34	.363	.605

Elem	K_7698
Units	Cts/S
Avg	**7660.**
Stddev	34.
%RSD	.448

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**421880.**	**2676200.**	**221410.**
Stddev	1412.	10401.	191.
%RSD	.33482	.38864	.08616

Sample Name: CalStd14=500000 Acquired: 05/09/2022 09:01:01 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.263**	**.686**	**.312**	**.450**	**1.11**	**.495**	**.033**	**.003**
Stddev	.000	.001	.000	.001	.00	.003	.000	.000
%RSD	.110	.209	.085	.191	.344	.656	.226	.198

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**389090.**	**213510.**
Stddev	2633.	528.
%RSD	.67678	.24750

Sample Name: CalibStd15=1000k Acquired: 05/09/2022 09:08:49 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.538**	**1.35**	**.606**	**.862**	**2.08**	**.951**	**.065**	**.006**	**74500.**
Stddev	.002	.02	.003	.002	.03	.004	.000	.000	198.
%RSD	.426	1.16	.417	.175	1.22	.378	.562	.676	.265

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**363820.**	**205870.**
Stddev	1597.	788.
%RSD	.43889	.38275

Sample Name: Ag 1000 Acquired: 05/09/2022 09:17:00 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382
Units	Cts/S
Avg	**4960.**
Stddev	5.
%RSD	.097

Sample Name: icv Acquired: 05/09/2022 09:31:49 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.3**	**48.0**	**12300.**	**2110.**	**2050.**	**51.6**	**11000.**	**9550.**	**48.5**	**520.**	**208.**	**248.**
Stddev	.5	.6	78.	15.	6.	.3	49.	47.	.2	3.	1.	1.
%RSD	1.04	1.35	.635	.700	.280	.580	.445	.488	.482	.497	.492	.598
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5240.**	**5320.**	**10100.**	**10700.**	**522.**	**516.**	**514.**	**502.**	**478.**	**524.**	**2090.**	**1980.**
Stddev	25.	53.	59.	26.	3.	2.	3.	8.	4.	4.	18.	22.
%RSD	.479	1.00	.582	.248	.513	.410	.501	1.50	.753	.708	.861	1.12
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**2010.**	**516.**	**513.**	**512.**	**103.**	**102.**
Stddev	12.	3.	2.	3.	.	.
%RSD	.571	.670	.371	.635	.246	.093
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icv Acquired: 05/09/2022 09:31:49 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**432500.**	**2659100.**	**216000.**
Stddev	1628.	14114.	1070.
%RSD	.37647	.53079	.49539

Sample Name: ICVLL Acquired: 05/09/2022 09:46:06 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **26.6**	**1340.**	**1330.**	**57.5**	**33.3**	**12.8**	**1730.**	**1540.**	**1590.**	**15.9**	**33.2**	**31.7**	**34.0**
Stddev	.8	20.	5.	4.1	.4	.2	8.	2.	2.	.2	.6	.6	.6
%RSD	3.07	1.53	.398	7.04	1.27	1.31	.449	.106	.097	1.22	1.92	1.92	1.64
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0												
Range	30.0%												

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**987.**	**985.**	**1700.**	**32.7**	**31.1**	**32.8**	**28.7**	**61.0**	**67.4**	**59.8**	**31.5**	**32.8**	**6.23**
Stddev	12.	7.	17.	.4	.3	.7	1.1	3.8	3.6	2.4	.5	.3	.03
%RSD	1.25	.678	1.01	1.23	1.10	2.01	3.71	6.17	5.34	4.08	1.66	1.05	.407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**3.70**	**3.74**
Stddev	.04	.05
%RSD	1.01	1.37
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ICVLL Acquired: 05/09/2022 09:46:06 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**438110.**	**2758300.**	**217500.**
Stddev	3905.	29901.	483.
%RSD	.89122	1.0840	.22221

Sample Name: icb Acquired: 05/09/2022 10:00:47 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.723**	**-.325**	**-2.12**	**.015**	**.011**	**.806**	**.750**	**.090**	**.192**	**.236**	**-.187**	**.879**	**.248**
Stddev	.529	.556	3.52	.395	.009	.051	.136	.088	.197	.656	.885	.916	.027
%RSD	73.3	171.	166.	2620.	77.8	6.28	18.1	97.5	102.	278.	474.	104.	11.0
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.001**	**-.063**	**.040**	**.842**	**-.648**	**1.28**	**-2.37**	**-.061**	**.340**	**.032**	**.246**	**.182**
Stddev	.033	.295	.726	.437	.572	2.43	1.18	.261	.110	.011	.032	.071
%RSD	2220.	467.	1800.	51.9	88.2	190.	49.8	427.	32.4	34.0	13.1	39.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**443350.**	**2773700.**	**219900.**
Stddev	1032.	12021.	297.
%RSD	.23269	.43341	.13505

Sample Name: ICSA Acquired: 05/09/2022 10:15:25 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.093**	**520000.**	**491000.**	**-.026**	**.627**	**.201**	**528000.**	**.998**	**-.329**	**-8.45**	**-1.43**
Stddev	.498	346.	1470.	10.3	.408	.021	487.	.188	.395	.60	1.16
%RSD	535.	.066	.298	39000.	65.1	10.2	.092	18.8	120.	7.08	81.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**524000.**	**479000.**	**497000.**	**527000.**	**-5.06**	**-2.15**	**5.40**	**-.000**	**-3.66**	**-2.63**	**-.733**
Stddev	808.	240.	1750.	1110.	.13	.49	.63	2.97	.95	4.51	1.16
%RSD	.154	.050	.351	.210	2.65	23.0	11.7	1280000.	26.0	171.	158.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10000.**	**-6.08**	**-.294**	**-.912**	**-.024**
Stddev	53.	.24	.007	.032	.127
%RSD	.529	3.99	2.30	3.47	520.
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICSA Acquired: 05/09/2022 10:15:25 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**395850.**	**2527700.**	**208460.**
Stddev	1122.	12069.	585.
%RSD	.28340	.47746	.28069

Sample Name: ICSAB Acquired: 05/09/2022 10:22:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	Al3961	As1937	Ba2335	Be2348	Ca3158	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**456.**	**465.**	**523000.**	**486000.**	**524.**	**527.**	**486.**	**530000.**	**504.**	**504.**	**490.**
Stddev	2.	2.	488.	994.	13.	4.	3.	644.	6.	4.	2.
%RSD	.442	.381	.093	.204	2.53	.703	.519	.122	1.11	.808	.497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**538.**	**523000.**	**480000.**	**490000.**	**524000.**	**509.**	**505.**	**497.**	**450.**	**507.**	**516.**
Stddev	6.	1270.	475.	4070.	727.	2.	5.	3.	5.	9.	10.
%RSD	1.03	.242	.099	.832	.139	.473	.916	.683	1.00	1.77	1.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**494.**	**504.**	**464.**	**507.**	**53.5**	**49.9**	**52.2**
Stddev	4.	3.	5.	5.	1.0	.2	.3
%RSD	.873	.571	.990	.897	1.84	.352	.499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 05/09/2022 10:22:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**400160.**	**2512300.**	**209460.**
Stddev	3546.	14077.	811.
%RSD	.88615	.56032	.38740

Sample Name: ICVLL ag Acquired: 05/09/2022 10:37:17 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.87**	**7.08**	**-35.9**	**-2.42**	**.410**	**.016**	**6.65**	**6.82**	**.078**	**.185**	**.285**	**.889**	**58.5**
Stddev	.50	.28	16.9	2.92	.081	.006	.16	.28	.095	.243	.094	1.46	5.9
%RSD	5.06	3.98	46.9	121.	19.9	39.0	2.44	4.13	122.	132.	33.0	164.	10.0

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4.53**	**.150**	**.370**	**.141**	**-.722**	**.128**	**.726**	**-2.17**	**.168**	**.374**	**.042**	**.226**	**.269**
Stddev	.04	.057	.149	.530	2.26	2.36	.769	.65	.446	.111	.010	.007	.084
%RSD	.957	38.1	40.2	377.	314.	1840.	106.	29.8	265.	29.7	23.0	3.21	31.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**436130.**	**2753900.**	**216970.**
Stddev	2827.	11357.	536.
%RSD	.64828	.41238	.24724

Sample Name: ccv1 Acquired: 05/09/2022 11:52:15 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	As1972	Ba4934	Be2348	Ca3158	Ca3933	Ca3968	Cd2288	Co2286	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**482.**	**5120.**	**5210.**	**4930.**	**460.**	**5360.**	**4740.**	**4870.**	**481.**	**5120.**	**5090.**	**4950.**	**5100.**
Stddev	2.	23.	39.	12.	2.	7.	13.	14.	2.	27.	19.	25.	31.
%RSD	.417	.449	.745	.247	.472	.135	.277	.280	.315	.518	.382	.499	.616
Check ?	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**5160.**	**4920.**	**5070.**	**5100.**	**5100.**	**5130.**	**5030.**	**5140.**	**5020.**	**5000.**	**5160.**	**5000.**	**97.0**
Stddev	20.	16.	32.	70.	25.	28.	23.	33.	32.	22.	22.	20.	.9
%RSD	.377	.323	.635	1.38	.489	.552	.450	.637	.628	.444	.417	.405	.945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**101.**
Stddev	.
%RSD	.263
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 05/09/2022 11:52:15 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**433470.**	**2691800.**	**219110.**
Stddev	1819.	15054.	512.
%RSD	.41964	.55923	.23378

Sample Name: ccv2 Acquired: 05/09/2022 11:58:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**46.2**	**52.7**	**506.**	**507.**	**531.**	**50.9**	**487.**	**504.**	**50.3**	**528.**	**508.**	**537.**	**534.**
Stddev	1.0	.7	10.	2.	3.	.6	1.	.	.3	3.	5.	3.	8.
%RSD	2.20	1.27	1.92	.389	.481	1.12	.228	.091	.621	.617	.959	.564	1.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**508.**	**550.**	**527.**	**505.**	**526.**	**539.**	**492.**	**527.**	**526.**	**535.**	**515.**	**512.**	**510.**
Stddev	4.	6.	6.	3.	3.	5.	4.	7.	3.	4.	6.	1.	4.
%RSD	.689	1.18	1.22	.584	.614	.849	.835	1.24	.623	.757	1.13	.290	.688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Na5895	K_7664	K_7698
Units	mg/L	mg/L	mg/L
Avg	**9.86**	**10.4**	**10.6**
Stddev	.02	.1	.1
%RSD	.232	.553	.550
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 05/09/2022 11:58:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**437110.**	**2755500.**	**218660.**
Stddev	2249.	31581.	678.
%RSD	.51462	1.1461	.31000

Sample Name: ccb Acquired: 05/09/2022 12:05:40 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.002**	**-.337**	**-5.00**	**.200**	**-.003**	**.009**	**-.107**	**-.012**	**.175**	**-.031**	**-1.24**	**-.360**	**-.064**
Stddev	.395	.522	3.30	.133	.007	.039	.211	.092	.057	.335	1.74	.712	.011
%RSD	26300.	155.	65.9	66.8	203.	455.	196.	735.	32.5	1080.	140.	198.	17.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.009**	**.560**	**.234**	**-.162**	**-.106**	**1.96**	**-1.35**	**-.079**	**.217**	**.018**	**.508**	**.226**
Stddev	.059	.516	.537	2.25	.990	4.16	.56	.335	.091	.012	.034	.057
%RSD	696.	92.2	229.	1390.	937.	212.	41.1	423.	42.1	70.3	6.76	25.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**447280.**	**2857300.**	**224050.**
Stddev	2775.	13781.	1002.
%RSD	.62044	.48231	.44715

Sample Name: lcsw95236 Acquired: 05/09/2022 13:04:17 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.8**	**912.**	**1040.**	**905.**	**901.**	**21.8**	**221000.**	**72.8**	**222.**	**87.4**	**115.**
Stddev	.5	4.	3.	1.	3.	.2	599.	1.0	1.	.6	.
%RSD	2.76	.482	.294	.077	.285	.786	.272	1.38	.428	.707	.185

Elem	Fe2343	Mg2025	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**439.**	**106000.**	**103000.**	**219.**	**2190.**	**222.**	**207.**	**234.**	**916.**	**881.**	**218.**
Stddev	5.	515.	389.	2.	10.	1.	5.	3.	7.	13.	2.
%RSD	1.06	.487	.379	.967	.441	.371	2.38	1.26	.811	1.52	.687

Elem	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	mg/L	mg/L
Avg	**221.**	**225.**	**106.**	**107.**
Stddev	1.	1.	2.	.
%RSD	.376	.303	1.97	.122

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**413420.**	**2654000.**	**216360.**
Stddev	1518.	25760.	584.
%RSD	.36715	.97059	.27009

Sample Name: mbw95236 Acquired: 05/09/2022 13:11:25 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.121**	**2.61**	**-3.17**	**-.152**	**.001**	**10.8**	**11.0**	**.095**	**.048**	**-.060**	**1.26**	**5.28**	**1.68**
Stddev	.567	.29	4.17	.463	.022	1.6	1.7	.175	.089	.346	.39	.94	.15
%RSD	469.	11.2	131.	305.	1920.	14.7	15.4	184.	186.	581.	31.3	17.9	8.99

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.072**	**1.37**	**.003**	**.084**	**1.40**	**.325**	**-1.03**	**-.716**	**.373**	**.066**	**.433**	**.321**
Stddev	.026	.32	.095	1.47	2.18	1.12	1.00	.245	.018	.020	.012	.080
%RSD	35.7	22.9	2970.	1750.	156.	345.	97.3	34.2	4.72	30.5	2.85	24.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**435820.**	**2798900.**	**217650.**
Stddev	2039.	23794.	911.
%RSD	.46782	.85013	.41872

Sample Name: 1136212 Acquired: 05/09/2022 13:18:48 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.180**	**150.**	**141.**	**-3.54**	**82.8**	**.023**	**64000.**	**.023**	**.206**	**3.50**	**2.73**	**205.**
Stddev	.503	.	6.	5.12	.4	.009	119.	.072	.292	.50	.89	.
%RSD	280.	.297	4.20	145.	.533	37.0	.185	309.	142.	14.1	32.6	.212

Elem	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**26000.**	**24200.**	**9.04**	**3.75**	**.774**	**1.13**	**-.571**	**2.18**	**-1.75**	**-.092**	**55.2**	**26.5**
Stddev	141.	59.	.10	.27	.595	1.04	2.21	1.77	1.56	.572	.4	.0
%RSD	.541	.243	1.09	7.32	76.9	92.5	387.	81.1	89.1	625.	.654	.179

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**1.31**	**1.15**
Stddev	.04	.07
%RSD	2.63	6.36

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**427430.**	**2756800.**	**222890.**
Stddev	1580.	11045.	236.
%RSD	.36963	.40064	.10603

Sample Name: ccv1 Acquired: 05/09/2022 13:26:20 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	As1972	Ba4934	Be3130	Ca3158	Ca3933	Ca3968	Cd2288	Co2286	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**482.**	**5000.**	**5190.**	**4940.**	**495.**	**5270.**	**4760.**	**4880.**	**492.**	**5140.**	**5020.**	**4990.**	**5090.**
Stddev	3.	15.	17.	10.	3.	3.	6.	5.	2.	10.	26.	12.	3.
%RSD	.636	.295	.331	.194	.519	.058	.123	.101	.455	.197	.511	.249	.061
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**5090.**	**4800.**	**4890.**	**5060.**	**5200.**	**5060.**	**5090.**	**5150.**	**5100.**	**5100.**	**5080.**	**5050.**	**98.7**
Stddev	29.	9.	18.	42.	14.	4.	14.	8.	21.	9.	34.	14.	.9
%RSD	.568	.181	.365	.822	.264	.074	.279	.161	.411	.181	.668	.270	.945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**104.**
Stddev	1.
%RSD	.517
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 05/09/2022 13:26:20 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**426290.**	**2705800.**	**223550.**
Stddev	812.	14821.	1469.
%RSD	.19042	.54774	.65725

Sample Name: ccv2 Acquired: 05/09/2022 13:32:58 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.6**	**52.6**	**542.**	**489.**	**511.**	**534.**	**49.9**	**484.**	**499.**	**50.7**	**527.**	**498.**	**532.**
Stddev	1.0	.6	7.	10.	3.	2.	.6	1.	1.	.3	4.	6.	4.
%RSD	2.11	1.17	1.24	2.12	.575	.453	1.14	.226	.138	.612	.707	1.21	.736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**523.**	**493.**	**541.**	**516.**	**508.**	**528.**	**544.**	**496.**	**525.**	**531.**	**544.**	**502.**	**520.**
Stddev	7.	2.	7.	6.	3.	3.	2.	4.	3.	6.	4.	6.	2.
%RSD	1.34	.493	1.23	1.16	.646	.506	.439	.830	.560	1.05	.643	1.10	.454
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	mg/L	mg/L	mg/L
Avg	**508.**	**10.0**	**10.4**	**10.7**
Stddev	3.	.0	.1	.1
%RSD	.665	.455	.559	.597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv2 Acquired: 05/09/2022 13:32:58 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434020.**	**2788500.**	**220180.**
Stddev	1968.	34706.	842.
%RSD	.45348	1.2446	.38242

Sample Name: ccb Acquired: 05/09/2022 13:39:45 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.096**	**-.139**	**-3.42**	**.321**	**.007**	**.528**	**.494**	**.021**	**.219**	**.078**	**-.227**	**-.120**	**.015**
Stddev	.354	.321	4.22	.086	.003	.113	.121	.103	.032	.410	.521	.842	.012
%RSD	367.	231.	123.	26.7	40.4	21.4	24.6	479.	14.6	524.	229.	700.	76.8
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.052**	**.424**	**.158**	**-.760**	**-2.64**	**1.96**	**-.060**	**-.468**	**.416**	**.016**	**.263**	**.197**
Stddev	.041	.304	.338	.926	1.03	2.16	1.38	.371	.038	.008	.050	.067
%RSD	78.1	71.7	214.	122.	39.0	111.	2310.	79.4	9.14	46.8	19.1	34.1
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**444540.**	**2845800.**	**222460.**
Stddev	1815.	17054.	1175.
%RSD	.40830	.59926	.52831

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	05/04/2022 13:08:43	05/03/2022 14:18:32	Linear	1/Conc	-0.000021	0.000003	0.000000	1.000000	0.998983	0.000000	0.371569	1.238562
Ag 338.289 {100}	05/04/2022 13:08:43	05/03/2022 14:18:32	Linear	1/Conc	43.685570	5.279786	0.000000	1.000000	0.999489	0.795114	0.642150	2.140500
Al 167.079 {501}	05/04/2022 13:08:43	05/03/2022 13:30:00	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	0.999858	0.000000	0.352665	1.175551
Al 309.271 {109}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000210	0.000001	0.000000	1.000000	0.999901	0.000001	12.773111	42.577038
Al 396.152 { 85}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000008	0.000002	0.000000	1.000000	0.999732	0.000047	7.351281	24.504272
As 193.759 {474}	05/04/2022 13:08:43	05/03/2022 13:30:00	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.999730	0.000000	3.381583	11.271944
As 197.262 {471}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	0.999806	0.000000	4.997884	16.659613
Ba 233.527 {445}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000000	0.000009	0.000000	1.000000	0.999662	0.000001	0.237141	0.790472
Ba 455.403 { 74}	05/04/2022 13:08:43	05/03/2022 13:37:53	Curvili	1/Conc	0.000110	0.000046	-0.000000	1.000000	0.999996	0.000001	0.204637	0.682123
Ba 493.409 { 68}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Var	0.000525	0.000044	0.000000	1.000000	0.999664	0.000149	0.793794	2.645981
Be 234.861 {144}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	-0.000000	0.000008	0.000000	1.000000	0.999779	0.000000	0.213609	0.712029
Be 313.042 {108}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000025	0.000083	0.000000	1.000000	0.999985	0.000000	0.013526	0.045086
Be 313.107 {108}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000013	0.000036	0.000000	1.000000	0.999976	0.000000	0.165969	0.553231
Ca 184.006 {483}	05/04/2022 13:08:43	05/03/2022 13:53:45	Linear	1/Conc	-0.000029	0.000002	0.000000	1.000000	0.999947	0.000009	1.009319	3.364395
Ca 315.887 {107}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000049	0.000001	0.000000	1.000000	0.999296	0.000028	5.389620	17.965400
Ca 317.933 {106}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.002519	0.000001	0.000000	1.000000	0.998893	0.000108	2.591979	8.639929
Ca 393.366 { 86}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000075	0.000198	0.000000	1.000000	0.999239	0.000083	0.042980	0.143265
Ca 396.847 { 85}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	0.000013	0.000084	0.000000	1.000000	0.999806	0.000078	0.094920	0.316401
Cd 226.502 {449}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	-0.000001	0.000021	0.000000	1.000000	0.999983	0.000000	0.156342	0.521141
Cd 228.802 {448}	05/04/2022 13:08:43	05/03/2022 13:30:01	Linear	1/Conc	0.000002	0.000005	0.000000	1.000000	0.999920	0.000000	0.413006	1.376688
Co 228.616 {447}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000003	0.000020	0.000000	1.000000	0.999793	0.000002	0.193332	0.644439
Co 238.892 {141}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999974	0.000001	0.306626	1.022088
Cr 205.560 {464}	05/04/2022 13:08:43	05/03/2022 13:46:19	Linear	1/Var	-0.000004	0.000015	0.000000	1.000000	0.999496	0.000006	0.175844	0.586148
Cr 267.716 {126}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000002	0.000003	0.000000	1.000000	0.999987	0.000000	0.334828	1.116094
Cu 223.008 {451}	05/04/2022 13:08:43	05/03/2022 13:37:53	Linear	1/Conc	-0.000001	0.000004	0.000000	1.000000	0.999643	0.000001	0.956266	3.187553
Cu 324.754 {104}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000329	0.000003	0.000000	1.000000	0.999813	0.000007	2.428330	8.094435
Cu 327.396 {103}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000048	0.000002	0.000000	1.000000	0.999800	0.000001	4.575577	15.251924
Fe 234.349 {144}	05/04/2022 13:08:43	05/03/2022 13:53:45	Linear	1/Var	0.000015	0.000001	0.000000	1.000000	0.999984	0.000003	0.699558	2.331860
Fe 239.562 {140}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.997783	0.000082	3.836041	12.786804
Fe 259.940 {129}	05/04/2022 13:08:43	05/03/2022 14:10:52	Curvili	1/Var	0.000005	0.000003	0.000000	1.000000	0.999726	0.000036	1.513870	5.046235
Mg 202.582 {466}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Var	0.000015	0.000001	0.000000	1.000000	0.998853	0.000161	2.449654	8.165513
Mg 279.079 {121}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999685	0.000003	25.559133	85.197111
Mg 280.270 {120}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000062	0.000048	0.000000	1.000000	0.999348	0.000081	0.013981	0.046604
Mn 257.610 {131}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000001	0.000012	0.000000	1.000000	0.999851	0.000002	0.047765	0.159218
Mn 259.373 {130}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	None	-0.000140	0.000010	0.000000	1.000000	0.999999	0.000737	0.364684	1.215613
Mo 202.030 {466}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	0.000004	0.000006	0.000000	1.000000	0.999955	0.000009	0.365364	1.217882
Mo 204.598 {464}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000002	0.000003	0.000000	1.000000	0.999825	0.000001	0.736140	2.453799
Ni 221.647 {452}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000002	0.000012	0.000000	1.000000	0.999779	0.000012	0.367243	1.224142
Ni 231.604 {445}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	-0.000001	0.000011	0.000000	1.000000	0.999786	0.000001	0.366247	1.220824
Pb 216.999 {455}	05/04/2022 13:08:43	05/03/2022 13:46:20	Curvili	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999971	0.000000	4.698486	15.661621
Pb 220.353 {153}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999986	0.000000	1.717821	5.726069
Pb 220.353 {453}	05/04/2022 13:08:43	05/03/2022 13:30:02	Linear	1/Conc	0.000014	0.000003	0.000000	1.000000	0.999972	0.000000	1.426759	4.755862
Sb 206.833 {463}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	-0.000001	0.000001	0.000000	1.000000	0.999811	0.000008	1.941046	6.470152
Sb 217.581 {455}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000010	0.000001	0.000000	1.000000	0.999816	0.000000	2.305353	7.684509

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

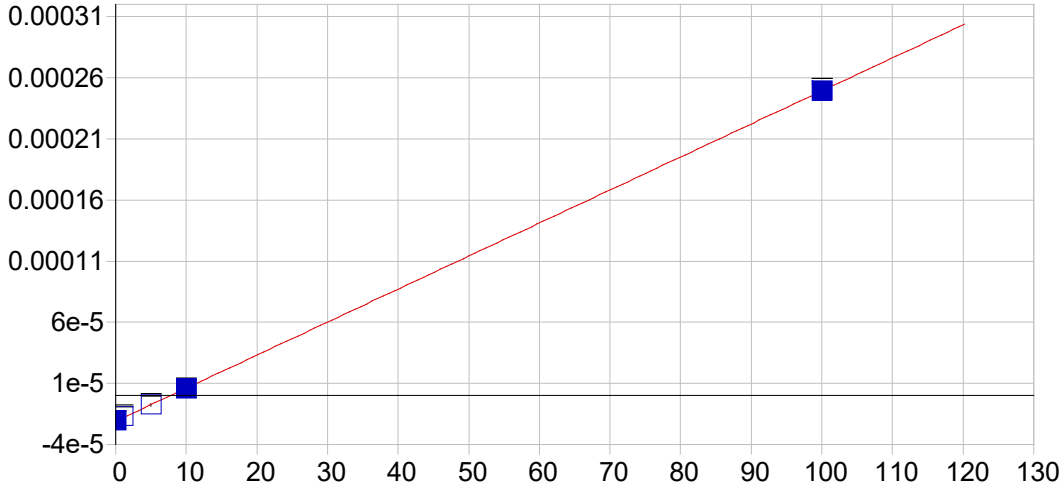
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Se 196.090 {472}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000003	0.000001	0.000000	1.000000	0.999776	0.000000	2.889846	9.632820
	Se 206.279 {463}	05/04/2022 13:08:43	05/03/2022 13:37:54	Curvili	1/Conc	0.000004	0.000000	0.000000	1.000000	0.999844	0.000000	14.818017	49.393390
	Tl 190.856 {476}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000000	0.000002	0.000000	1.000000	0.999670	0.000001	1.703755	5.679182
	Tl 190.856 {477}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Var	0.000004	0.000001	0.000000	1.000000	0.999439	0.000011	2.759172	9.197239
	V 290.882 {116}	05/04/2022 13:08:43	05/03/2022 13:37:54	Curvili	1/Var	0.000013	0.000001	-0.000000	1.000000	0.999991	0.000001	4.338762	14.462541
	V 292.402 {115}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000012	0.000008	0.000000	1.000000	0.999997	0.000000	0.280078	0.933592
	Zn 206.200 {463}	05/04/2022 13:08:43	05/03/2022 13:46:20	Linear	1/Var	0.000013	0.000013	0.000000	1.000000	0.996634	0.000037	0.200498	0.668325
	Zn 213.856 {457}	05/04/2022 13:08:43	05/03/2022 13:30:02	Linear	1/Conc	0.000009	0.000036	0.000000	1.000000	0.999985	0.000001	0.090243	0.300810
	Y 224.306 {450}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	05/04/2022 13:08:43	05/03/2022 12:29:47	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	05/04/2022 13:08:43	05/03/2022 14:10:52	Linear	1/Conc	-0.000000	0.000007	0.000000	1.000000	0.999847	0.000002	1.078491	3.594970
	Na 588.995 { 57}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Conc	2219.4181	1611.6123	0.000000	1.000000	0.999985	4.223921	0.006709	0.022363
	Na 589.592 { 57}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Conc	51.809383	702.06957	0.000000	1.000000	0.999993	1.198180	0.008962	0.029873
	Si 212.412 {458}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	0.000045	0.000003	0.000000	1.000000	0.997384	0.000167	1.075564	3.585212
	Si 251.611 {134}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Conc	0.000005	0.000001	0.000000	1.000000	0.998752	0.000012	6.992742	23.309141
	Ti 323.452 {104}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000272	0.000007	0.000000	1.000000	0.999875	0.000001	1.242070	4.140234
	Sr 407.771 { 83}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000095	0.000071	0.000000	1.000000	0.999847	0.000005	0.139140	0.463801
	Sr 421.552 { 80}	05/04/2022 13:08:43	05/03/2022 13:37:54	Linear	1/Conc	0.000036	0.000097	0.000000	1.000000	0.999889	0.000006	0.108229	0.360762
	Sn 189.989 {477}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Var	0.000004	0.000004	0.000000	1.000000	0.999850	0.000008	0.522706	1.742355
	Sn 189.989 {478}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Var	0.000002	0.000001	0.000000	1.000000	0.999405	0.000005	1.442288	4.807625
	B 249.678 {135}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999999	0.000000	0.769694	2.565646
	B 249.773 {135}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	0.000007	0.000003	0.000000	1.000000	0.999999	0.000000	0.403725	1.345751
	Li 610.353 { 55}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-0.000474	0.000001	0.000000	1.000000	0.994993	0.000002	23.843010	79.476700
	Li 670.776 { 50}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-30.799338	5.065816	0.000000	1.000000	0.999892	1.014185	1.271588	4.238626
	K 766.490 { 44}	05/04/2022 13:08:43	05/03/2022 13:53:46	Linear	1/Var	32.267543	211.13077	0.000000	1.000000	0.999998	5.883864	0.032208	0.107360
	K 769.896 { 44}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	3.540317	111.37843	0.000000	1.000000	0.999561	58.298796	0.054157	0.180523
	P 177.495 {489}	05/04/2022 13:08:43	05/03/2022 13:37:55	Linear	1/Conc	-0.000003	0.000001	0.000000	1.000000	0.999994	0.000000	2.036108	6.787028
	S 182.034 {485}	05/04/2022 13:08:43	05/03/2022 14:10:53	Linear	1/Var	0.000060	0.000000	0.000000	1.000000	0.998222	0.000071	3.771207	12.570692
	Hg 184.950 {482}	05/04/2022 13:08:43	05/03/2022 13:30:03	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	1.000000	0.000000	0.567355	1.891182
	Ce 404.076 { 83}	05/04/2022 13:08:43	05/03/2022 13:30:03	Linear	1/Conc	0.000047	0.000001	0.000000	1.000000	1.000000	0.000000	17.718102	59.060340

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Ce	0.000000	0.000000	No
			Al	-0.000018	0.000000	No
Ag 338.289 {100}	☒	2	Fe	0.000038	0.000000	No
			Na	0.100000	0.000000	No
Al 167.079 {501}	☒	None				
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001396	0.000000	No
As 197.262 {471}	☒	1	Al	0.000027	0.000000	No
Ba 233.527 {445}	☒	1	Fe	-0.000003	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	S	-0.005000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000004	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000002	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000165	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	3	Fe	-0.000001	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000018	0.000000	No
			Mo	0.008000	0.000000	No
			Ni	0.006000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	0.000308	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000031	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Fe	0.001120	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000014	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000021	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	5	Fe	-0.000074	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {153}	☒	2	Fe	0.000002	0.000000	No
			Al	-0.000020	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000020	0.000000	No
Sb 206.833 {463}	☒	3	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
			Ce	0.005500	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000049	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000332	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000126	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000083	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000115	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	1	Sr	-0.002100	0.000000	No
Na 588.995 { 57}	☒	1	Fe	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Na 589.592 { 57}	☒	1	Fe	0.000001	0.000000	No
Si 212.412 {458}	☒	1	Fe	-0.000007	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000177	0.000000	No
Ti 323.452 {104}	☒	2	Fe	0.000034	0.000000	No
			Ce	0.000123	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000036	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000012	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000018	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000401	0.000000	No
Li 610.353 { 55}	☒	1	Fe	-0.000109	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000003	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
S 182.034 {485}	☒	None				
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

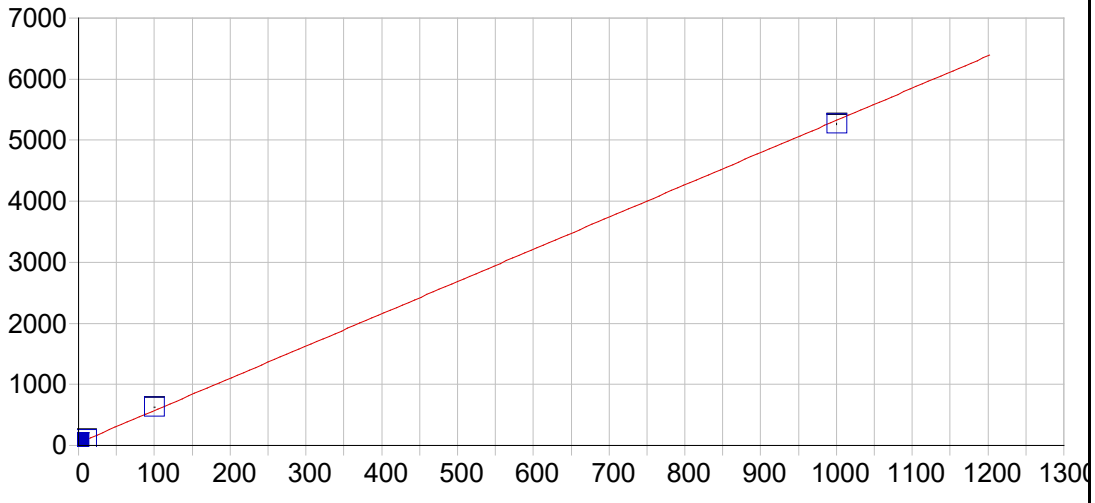


Ag 328.068 {103}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000021	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998983	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.371569		
Predicted MQL:	1.238562		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00042	-.000	.000	-.00002	.000	1
CalStd8=100	100.00	99.908	-.092	-.092	.00025	.000	1
CalStd4=5	5.0000	4.8638	-.136	-2.72	-.00001	.000	1
CalStd5=10	10.000	9.7528	-.247	-2.47	.00001	.000	1
CalStd3=1	1.0000	1.4757	.476	47.6	-.00002	.000	1

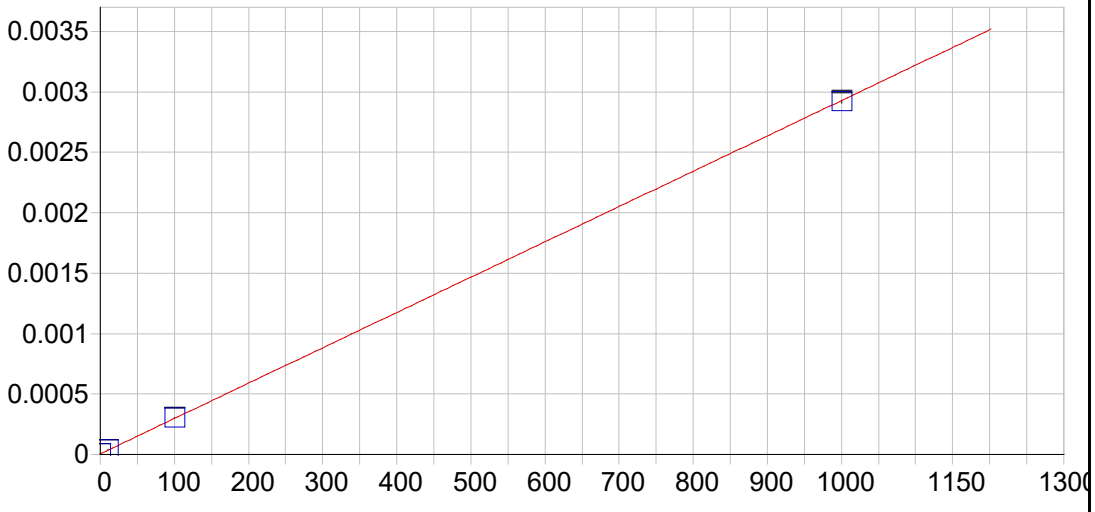


Ag 338.289 {100}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	43.685570	Re-Slope:	1.000000
A1 (Gain):	5.279786	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999489	Status:	OK.
Std Error of Est:	0.795114		
Predicted MDL:	0.642150		
Predicted MQL:	2.140500		

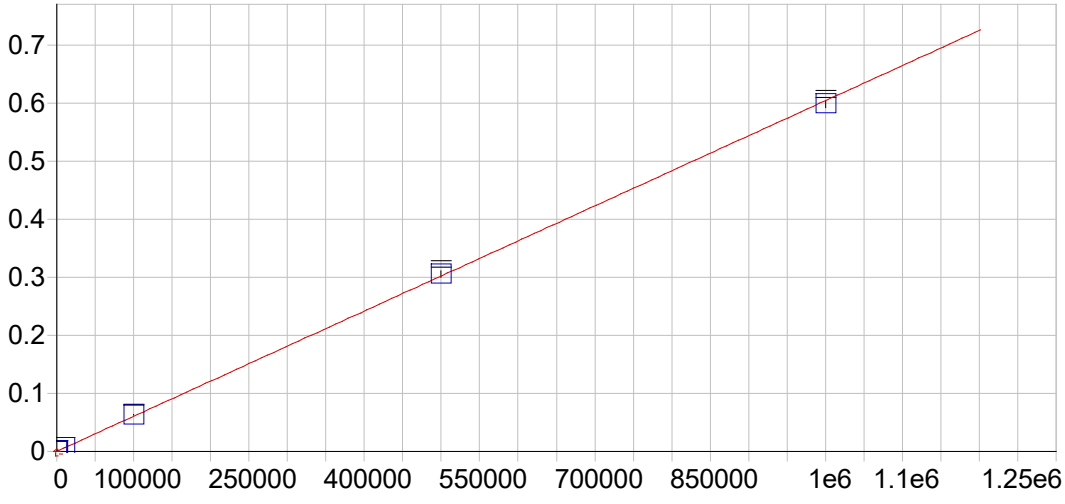
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00111	-.001	.000	43.680	1.02	1
Ag 1000	1000.0	989.68	-10.3	-1.03	5269.0	10.5	1
CalStd5=10	10.000	10.202	.202	2.02	97.552	2.07	1
CalStd8=100	100.00	110.12	10.1	10.1	625.10	1.83	1



Al 167.079 {501}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999858		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.352665				
Predicted MQL:	1.175551				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00179	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	996.54	-3.46	-.346	.00292	.000	1
CalStd5=10	10.000	11.647	1.65	16.5	.00004	.000	1
CalStd8=100	100.00	101.81	1.81	1.81	.00030	.000	1

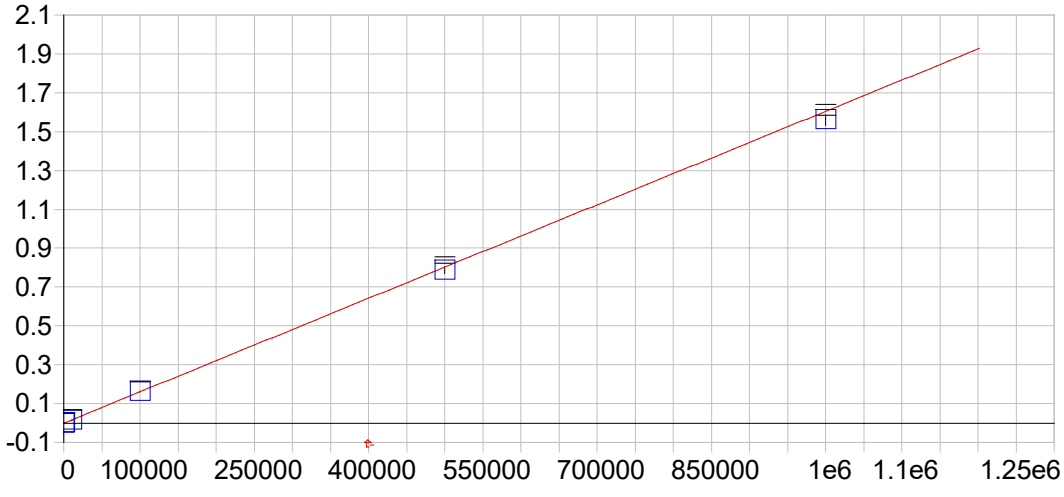


Al 309.271 {109}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000210	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	12.773111		
Predicted MQL:	42.577038		

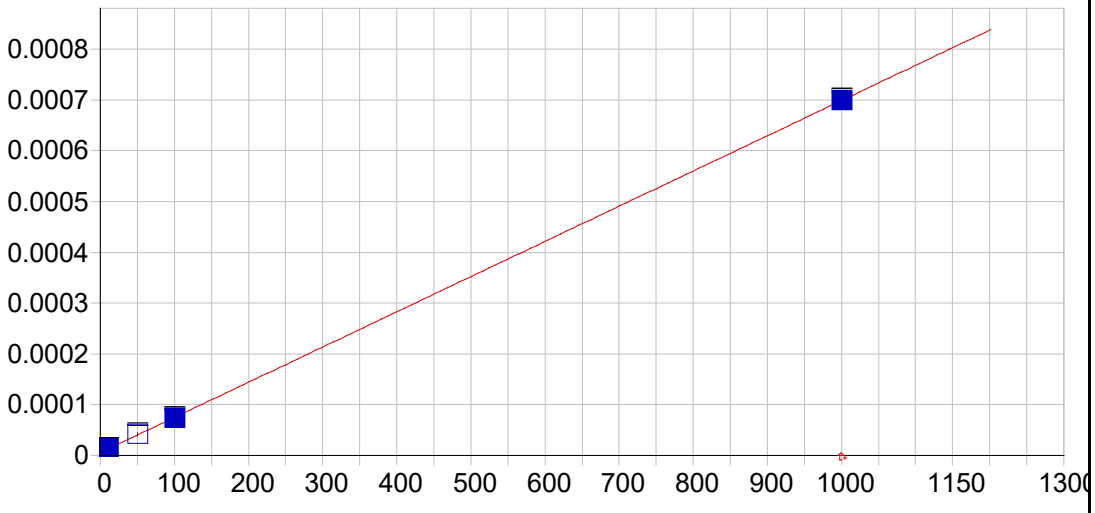
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01227	-.012	.000	.00021	.000	1
CalStd9=100	1000.0	1055.1	55.1	5.51	.00085	.000	1
CalStd5=10	10.000	19.299	9.30	93.0	.00022	.000	1
CalStd8=100	100.00	120.38	20.4	20.4	.00028	.000	1
CalStd10=10	10000.	9960.4	-39.6	-.396	.00622	.000	1
CalStd13=10	100000.	104080.	4080.	4.08	.06306	.001	1
CalStd14=50	500000.	505110.	5110.	1.02	.30522	.005	1
CalibStd15=	1000000.	990770.	-9230.	-.923	.59849	.006	1



Al 396.152 { 85}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999732		Status:	OK.	
Std Error of Est:	0.000047				
Predicted MDL:	7.351281				
Predicted MQL:	24.504272				

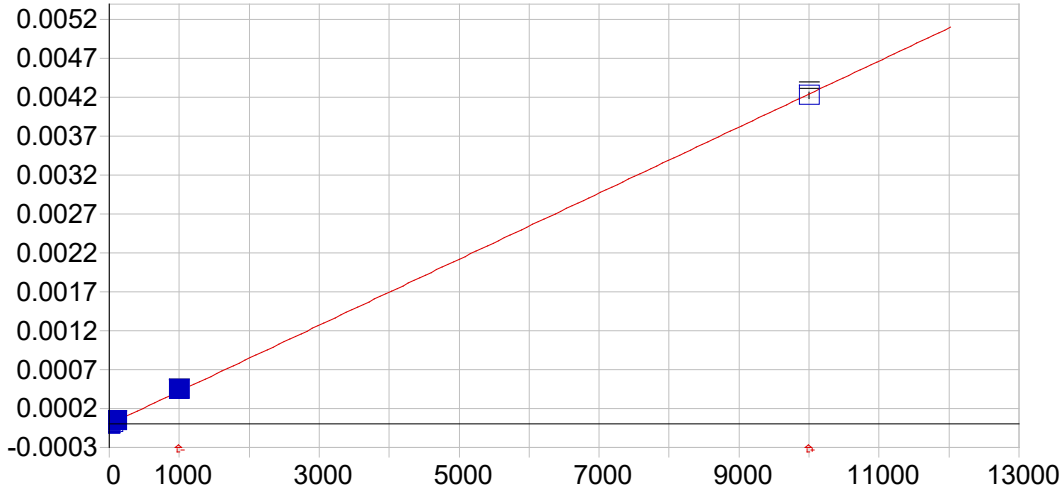
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-5.8752	-5.88	.000	-.00000	.000	1
CalStd14=50	500000.	490530.	-9470.	-1.89	.78714	.017	1
CalStd13=10	100000.	100740.	739.	.739	.16166	.001	1
CalStd10=10	10000.	9788.6	-211.	-2.11	.01572	.000	1
CalStd9=100	1000.0	1051.1	51.1	5.11	.00169	.000	1
CalibStd15=	1000000.	972590.	-27400.	-2.74	1.5607	.027	1



As 193.759 {474}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999730		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	3.381583				
Predicted MQL:	11.271944				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00227	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	998.95	-1.05	-.105	.00070	.000	1
CalStd7=50	50.000	51.543	1.54	3.09	.00004	.000	1
CalStd5=10	10.000	12.244	2.24	22.4	.00001	.000	1
CalStd8=100	100.00	97.268	-2.73	-2.73	.00007	.000	1

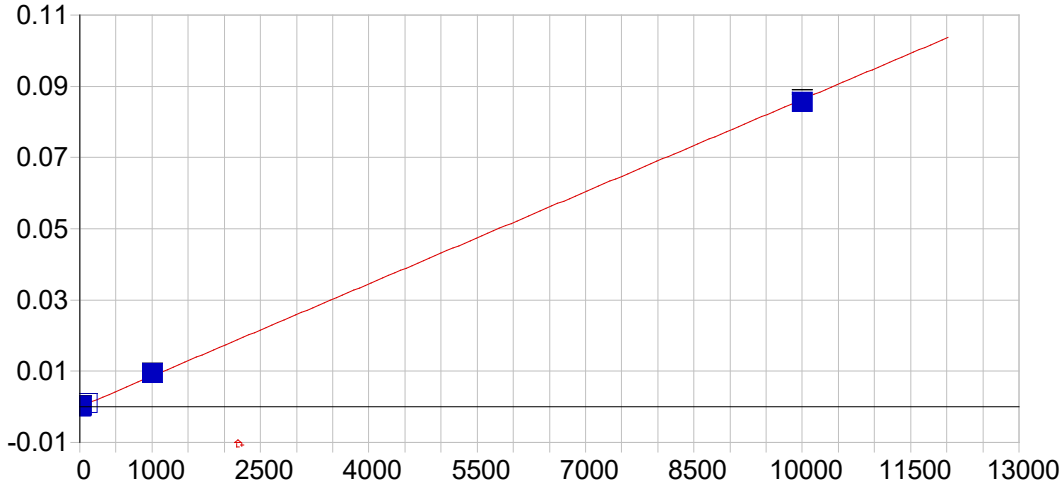


As 197.262 {471}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	4.997884		
Predicted MQL:	16.659613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00384	.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1049.0	49.0	4.90	.00044	.000	1
CalStd7=50	50.000	48.498	-1.50	-3.00	.00002	.000	1
CalStd5=10	10.000	5.9129	-4.09	-40.9	.00000	.000	1
CalStd8=100	100.00	101.03	1.03	1.03	.00004	.000	1
CalStd10=10	10000.	9955.6	-44.4	-.444	.00422	.000	1

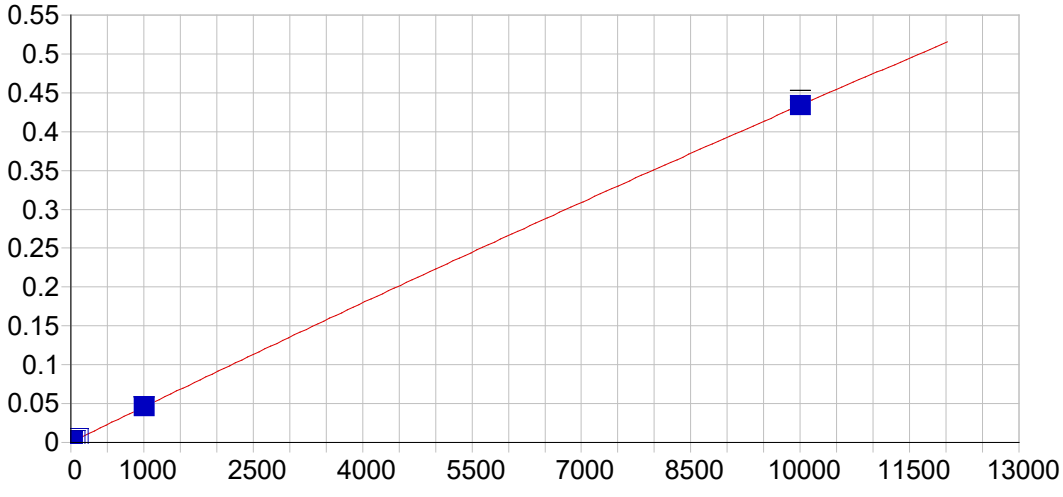


Ba 233.527 {445}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999662	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.237141		
Predicted MQL:	0.790472		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00049	-.000	.000	-.00000	.000	1
CalStd5=10	10.000	10.624	.624	6.24	.00009	.000	1
CalStd6=20	20.000	22.189	2.19	10.9	.00019	.000	1
CalStd8=100	100.00	106.68	6.68	6.68	.00092	.000	1
CalStd4=5	5.0000	5.4754	.475	9.51	.00005	.000	1
CalStd9=100	1000.0	1077.4	77.4	7.74	.00930	.000	1
CalStd3=1	1.0000	1.0887	.089	8.87	.00001	.000	1
CalStd10=10	10000.	9912.5	-87.5	-.875	.08554	.001	1

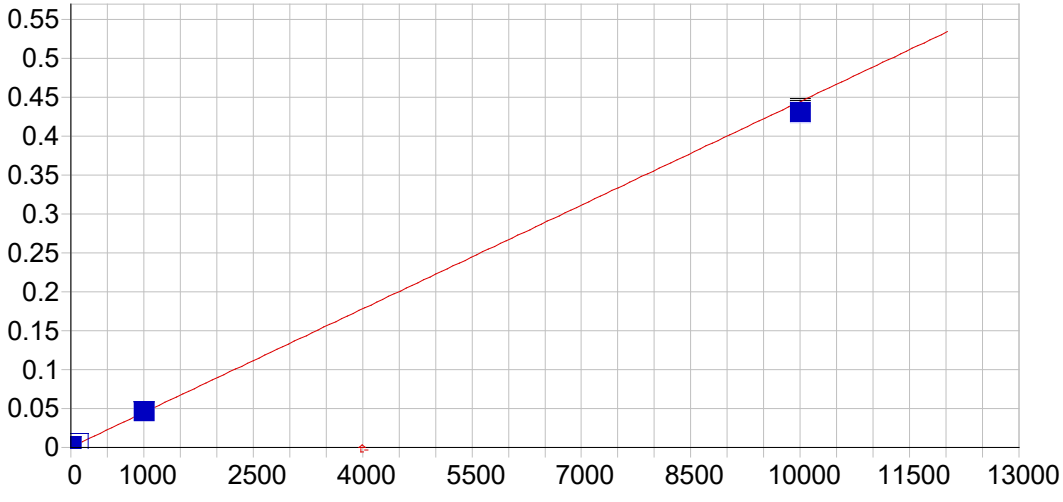


Ba 455.403 { 74}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000110	Re-Slope:	1.000000
A1 (Gain):	0.000046	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.204637		
Predicted MQL:	0.682123		

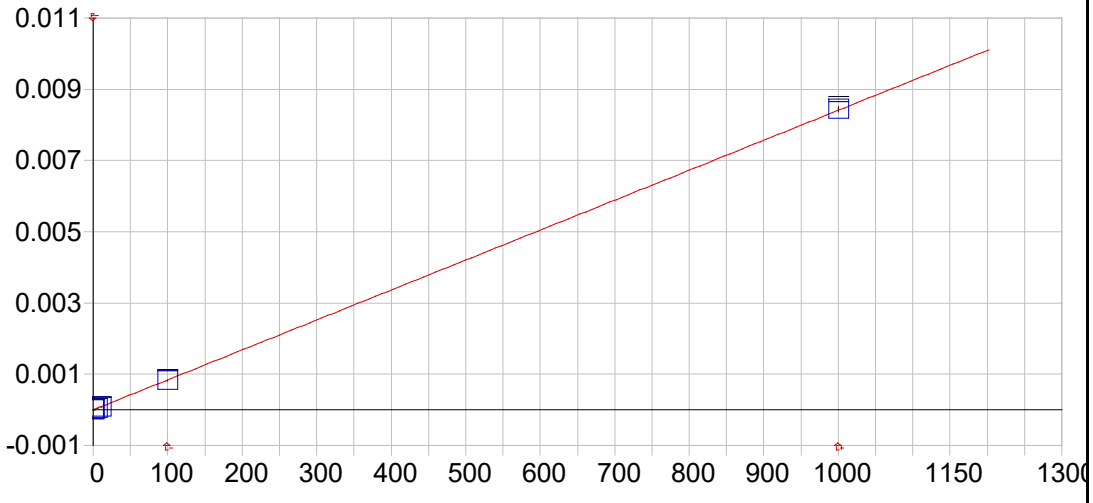
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00013	-.000	.000	.00011	.000	1
CalStd7=50	50.000	50.889	.889	1.78	.00244	.000	1
CalStd5=10	10.000	10.064	.064	.640	.00057	.000	1
CalStd6=20	20.000	20.632	.632	3.16	.00106	.000	1
CalStd8=100	100.00	98.733	-1.27	-1.27	.00464	.000	1
CalStd4=5	5.0000	5.4076	.408	8.15	.00036	.000	1
CalStd9=100	1000.0	999.17	-.828	-.083	.04568	.000	1
CalStd3=1	1.0000	1.0042	.004	.416	.00016	.000	1
CalStd10=10	10000.	10000.	.099	.001	.43383	.006	1



Ba 493.409 { 68}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000525		Re-Slope:	1.000000	
A1 (Gain):	0.000044		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999664		Status:	OK.	
Std Error of Est:	0.000149				
Predicted MDL:	0.793794				
Predicted MQL:	2.645981				

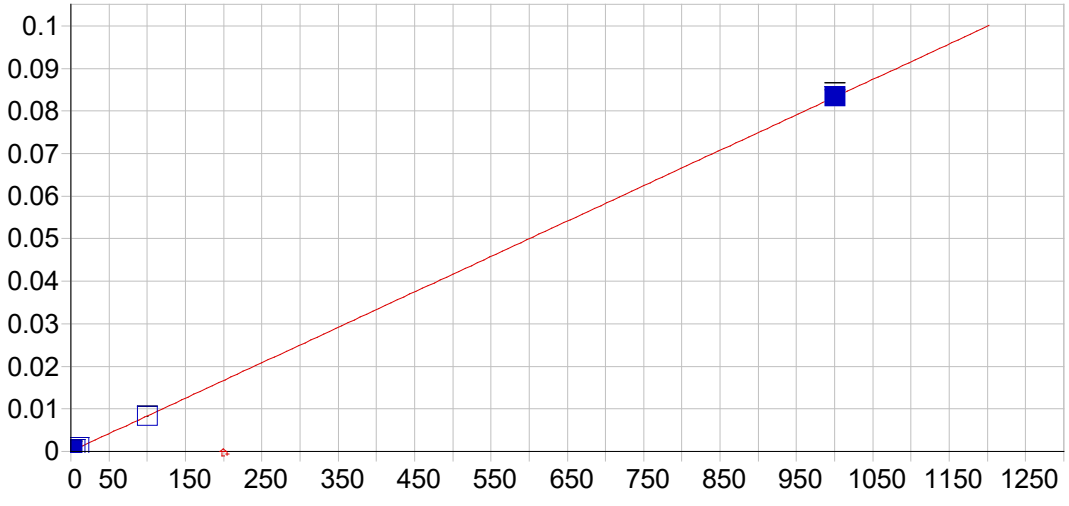
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07721	-.077	.000	.00052	.000	1
CalStd9=100	1000.0	1022.0	22.0	2.20	.04571	.000	1
CalStd8=100	100.00	99.355	-.645	-.645	.00494	.000	1
CalStd10=10	10000.	9688.1	-312.	-3.12	.42873	.004	1



Be 234.861 {144}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000008		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999779		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.213609				
Predicted MQL:	0.712029				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00059	.001	.000	-.00000	.000	1
CalStd5=10	10.000	9.5951	-.405	-4.05	.00008	.000	1
CalStd8=100	100.00	98.155	-1.85	-1.85	.00083	.000	1
CalStd2=0.5	.50000	.18593	-.314	-62.8	.00000	.000	1
CalStd4=5	5.0000	4.9148	-.085	-1.70	.00004	.000	1
CalStd9=100	1000.0	1003.1	3.13	.313	.00844	.000	1
CalStd3=1	1.0000	.51617	-.484	-48.4	.00000	.000	1

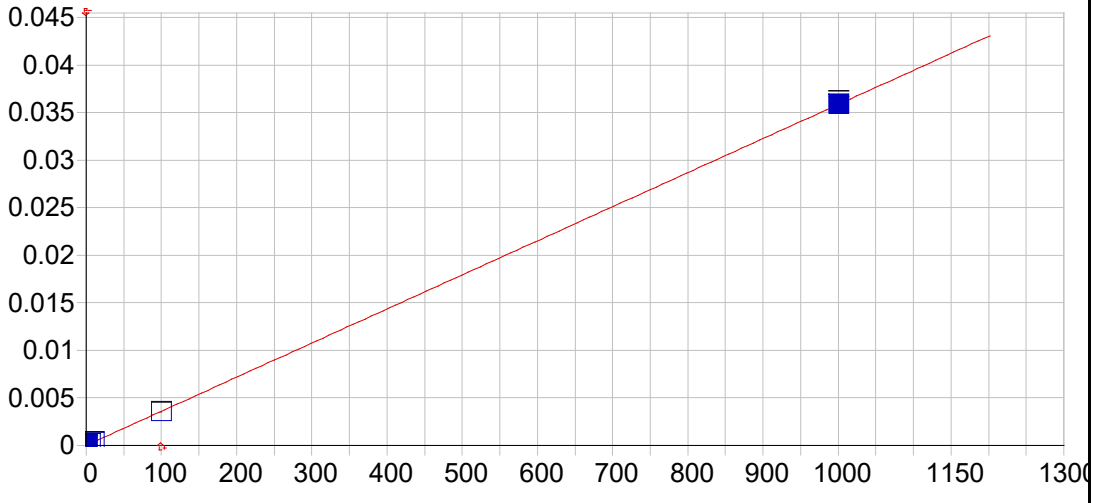


Be 313.042 {108}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.000083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.013526		
Predicted MQL:	0.045086		

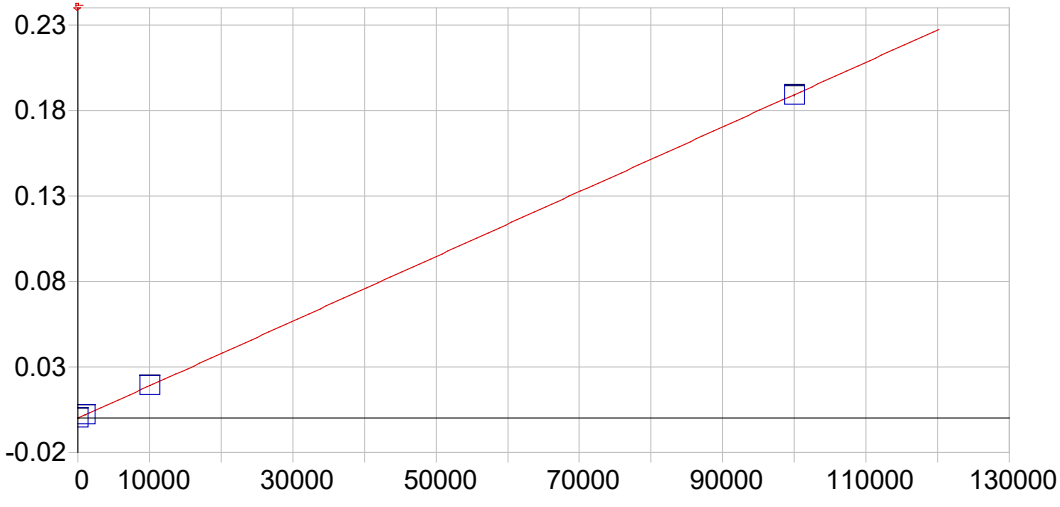
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00002	-.000	.000	.00002	.000	1
CalStd5=10	10.000	10.064	.064	.635	.00086	.000	1
CalStd8=100	100.00	98.311	-1.69	-1.69	.00821	.000	1
CalStd2=0.5	.50000	.51733	.017	3.47	.00007	.000	1
CalStd4=5	5.0000	4.9972	-.003	-.056	.00044	.000	1
CalStd9=100	1000.0	1001.6	1.59	.159	.08339	.001	1
CalStd3=1	1.0000	1.0200	.020	2.00	.00011	.000	1



Be 313.107 {108}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000013		Re-Slope:	1.000000	
A1 (Gain):	0.000036		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999976		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.165969				
Predicted MQL:	0.553231				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00007	.000	.000	.00001	.000	1
CalStd5=10	10.000	9.9118	-.088	-.882	.00037	.000	1
CalStd2=0.5	.50000	.38391	-.116	-23.2	.00003	.000	1
CalStd4=5	5.0000	5.0810	.081	1.62	.00019	.000	1
CalStd9=100	1000.0	1001.3	1.29	.129	.03592	.000	1
CalStd3=1	1.0000	1.0875	.088	8.75	.00005	.000	1
CalStd8=100	100.00	98.744	-1.26	-1.26	.00355	.000	1

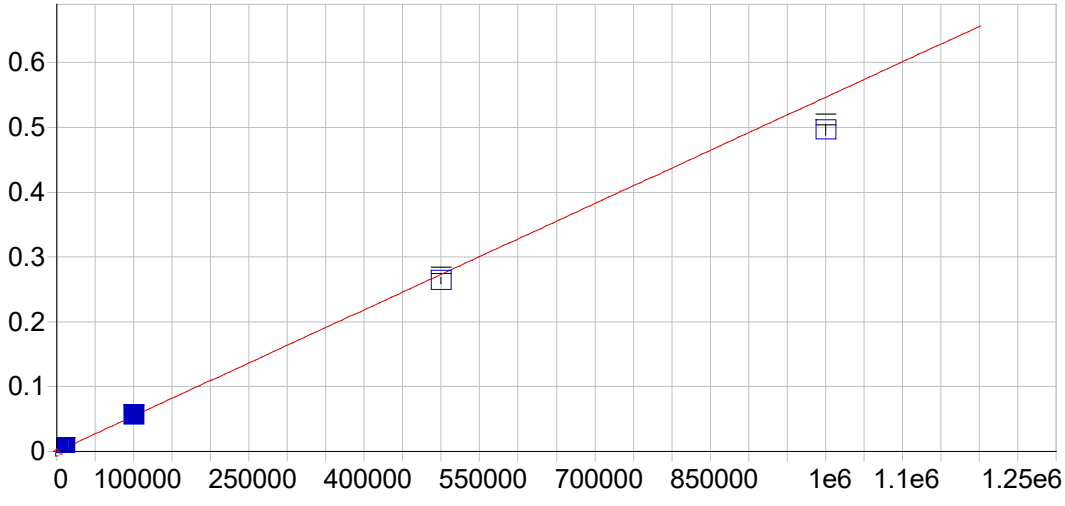


Ca 184.006 {483}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000029	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	1.009319		
Predicted MQL:	3.364395		

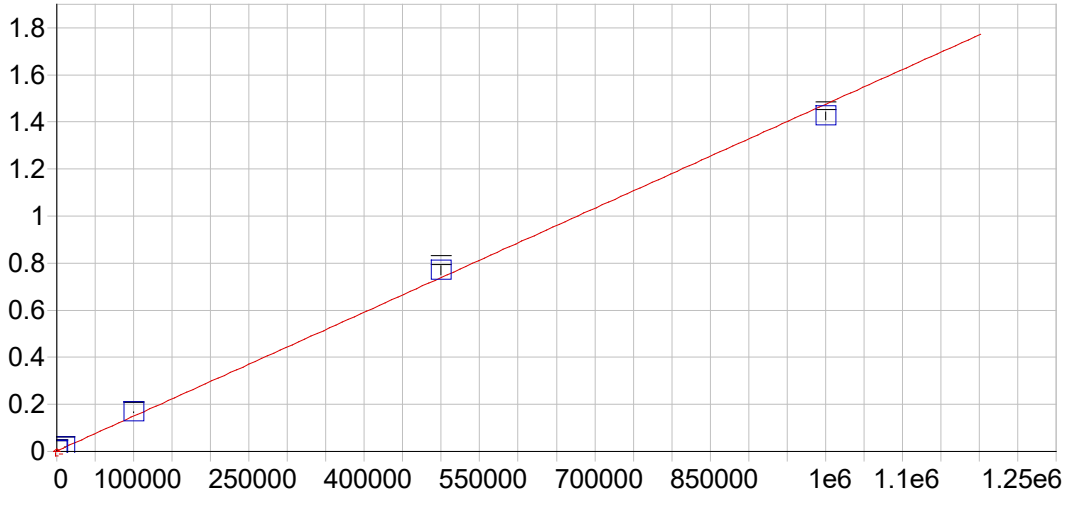
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10969	-.110	.000	-.00003	.000	1
CalStd10=10	10000.	10115.	115.	1.15	.01912	.000	1
CalStd13=10	100000.	99784.	-216.	-.216	.18887	.000	1
CalStd9=100	1000.0	1100.3	100.	10.0	.00205	.000	1



Ca 315.887 {107}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000049		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999296		Status:	OK.	
Std Error of Est:	0.000028				
Predicted MDL:	5.389620				
Predicted MQL:	17.965400				

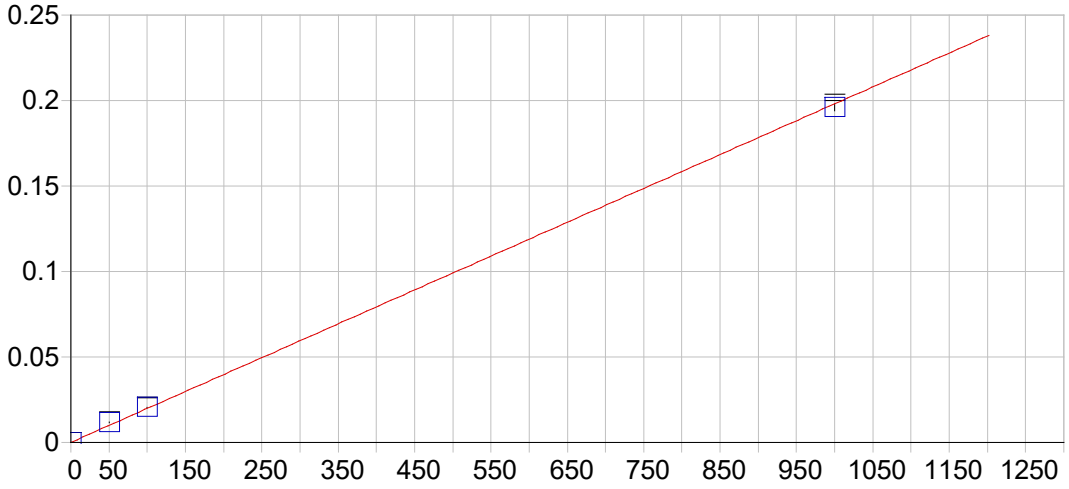
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-9.5808	-9.58	.000	.00004	.000	1
CalStd10=10	10000.	9897.5	-103.	-1.03	.00546	.000	1
CalStd13=10	100000.	102430.	2430.	2.43	.05602	.000	1
CalStd14=50	500000.	482500.	-17500.	-3.50	.26372	.005	1
CalStd9=100	1000.0	1037.5	37.5	3.75	.00062	.000	1
CalibStd15=	1000000.	908560.	-91400.	-9.14	.49656	.008	1



Ca 317.933 {106}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.002519		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998893		Status:	OK.	
Std Error of Est:	0.000108				
Predicted MDL:	2.591979				
Predicted MQL:	8.639929				

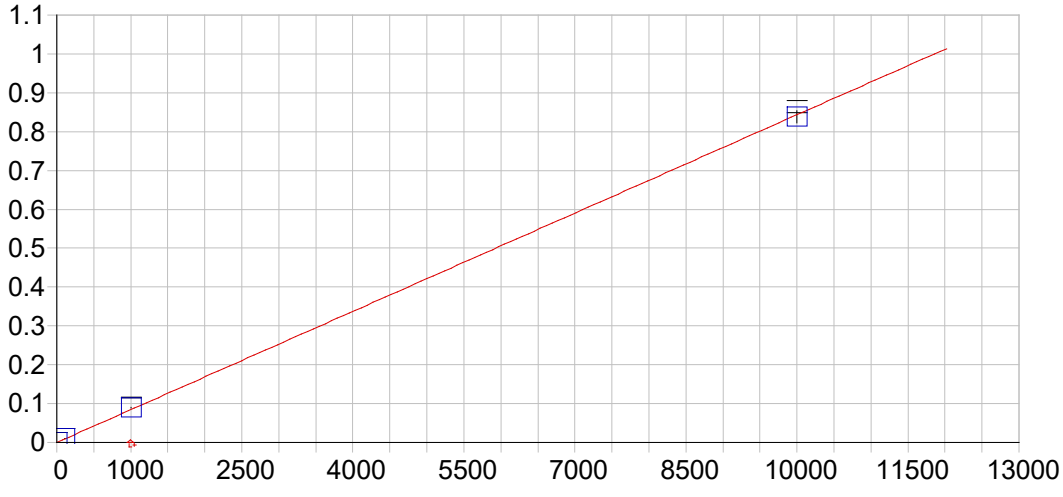
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.36371	-.364	.000	.00252	.000	1
CalStd10=10	10000.	10821.	821.	8.21	.01846	.000	1
CalStd13=10	100000.	112050.	12000.	12.0	.16754	.001	1
CalStd14=50	500000.	520940.	20900.	4.19	.76973	.018	1
CalStd9=100	1000.0	1153.2	153.	15.3	.00422	.000	1
CalibStd15=	1000000.	966040.	-34000.	-3.40	1.4253	.015	1



Ca 393.366 { 86}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000075		Re-Slope:	1.000000	
A1 (Gain):	0.000198		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999239		Status:	OK.	
Std Error of Est:	0.000083				
Predicted MDL:	0.042980				
Predicted MQL:	0.143265				

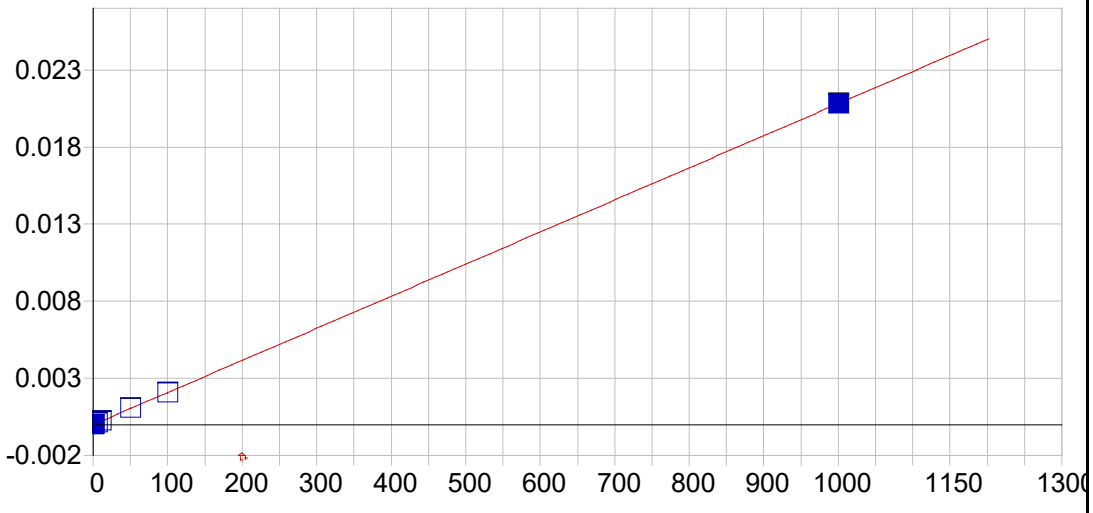
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00957	-.010	.000	.00007	.000	1
CalStd9=100	1000.0	988.48	-11.5	-1.15	.19583	.002	1
CalStd8=100	100.00	102.74	2.74	2.74	.02042	.000	1
CalStd7=50	50.000	58.780	8.78	17.6	.01172	.000	1



Ca 396.847 { 85}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000013		Re-Slope:	1.000000	
A1 (Gain):	0.000084		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999806		Status:	OK.	
Std Error of Est:	0.000078				
Predicted MDL:	0.094920				
Predicted MQL:	0.316401				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01448	-.014	.000	.00001	.000	1
CalStd10=10	10000.	9935.9	-64.1	-.641	.83792	.015	1
CalStd8=100	100.00	109.68	9.68	9.68	.00926	.000	1
CalStd9=100	1000.0	1054.4	54.4	5.44	.08893	.001	1

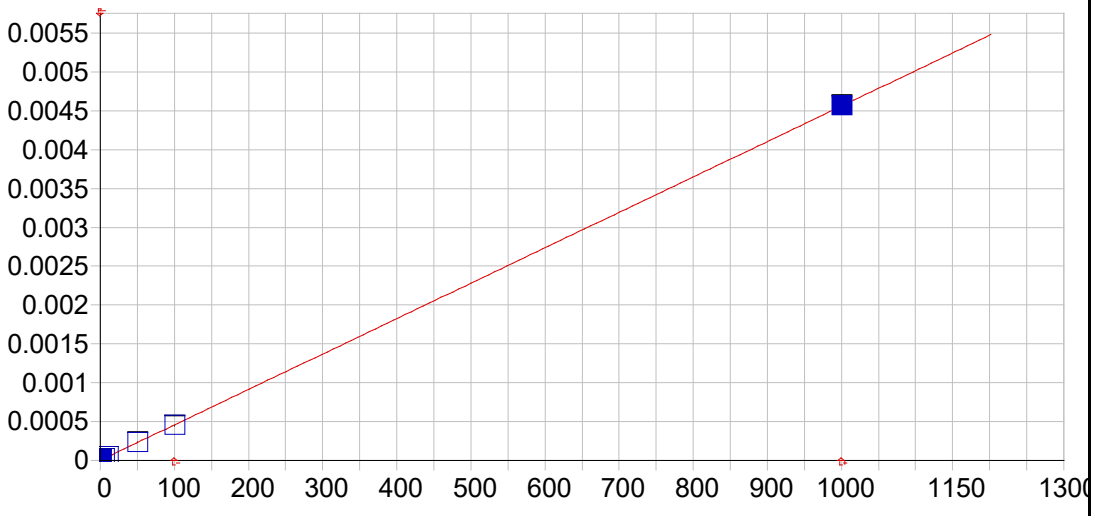


Cd 226.502 {449}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.156342		
Predicted MQL:	0.521141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00000	.000	1
CalStd3=1	1.0000	1.0218	.022	2.18	.00002	.000	1
CalStd2=0.5	.50000	.57478	.075	15.0	.00001	.000	1
CalStd4=5	5.0000	5.0126	.013	.253	.00010	.000	1
CalStd5=10	10.000	10.306	.306	3.06	.00021	.000	1
CalStd9=100	1000.0	999.12	-.884	-.088	.02080	.000	1
CalStd8=100	100.00	99.597	-.403	-.403	.00207	.000	1
CalStd7=50	50.000	50.871	.871	1.74	.00106	.000	1

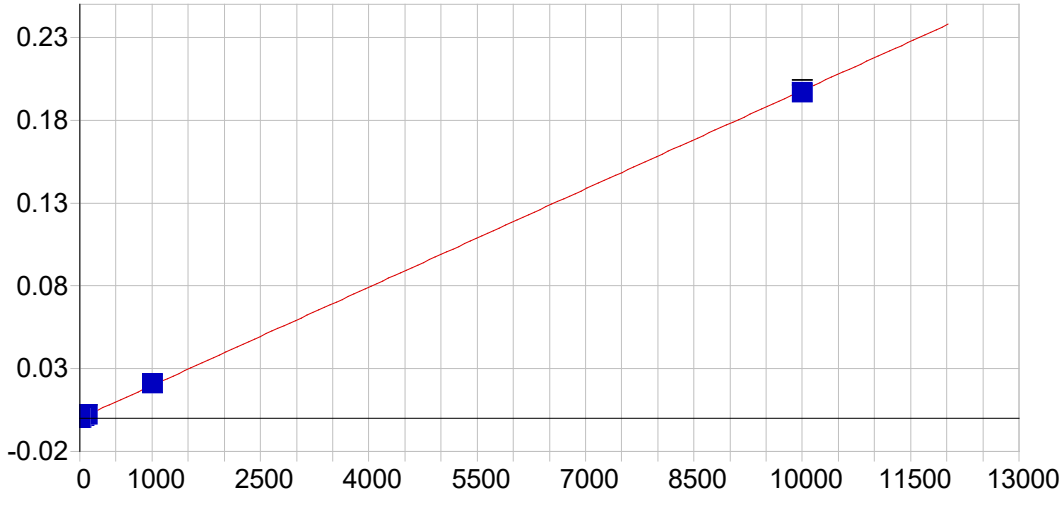


Cd 228.802 {448}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.413006		
Predicted MQL:	1.376688		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00033	-.000	.000	.00000	.000	1
CalStd3=1	1.0000	1.1236	.124	12.4	.00001	.000	1
CalStd2=0.5	.50000	.73209	.232	46.4	.00001	.000	1
CalStd4=5	5.0000	5.1708	.171	3.42	.00003	.000	1
CalStd5=10	10.000	10.512	.512	5.12	.00005	.000	1
CalStd9=100	1000.0	1000.2	.223	.022	.00456	.000	1
CalStd8=100	100.00	98.320	-1.68	-1.68	.00045	.000	1
CalStd7=50	50.000	50.419	.419	.838	.00023	.000	1

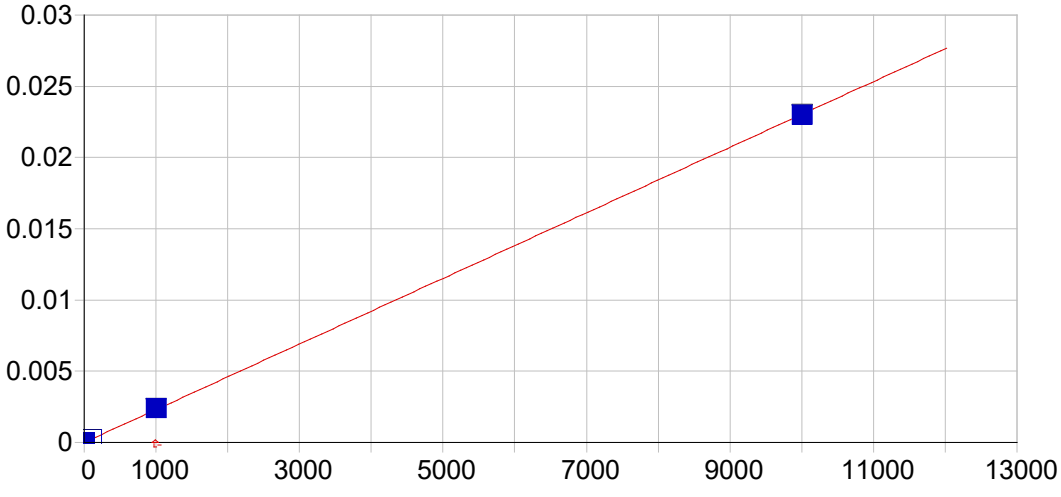


Co 228.616 {447}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000020	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999793	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.193332		
Predicted MQL:	0.644439		

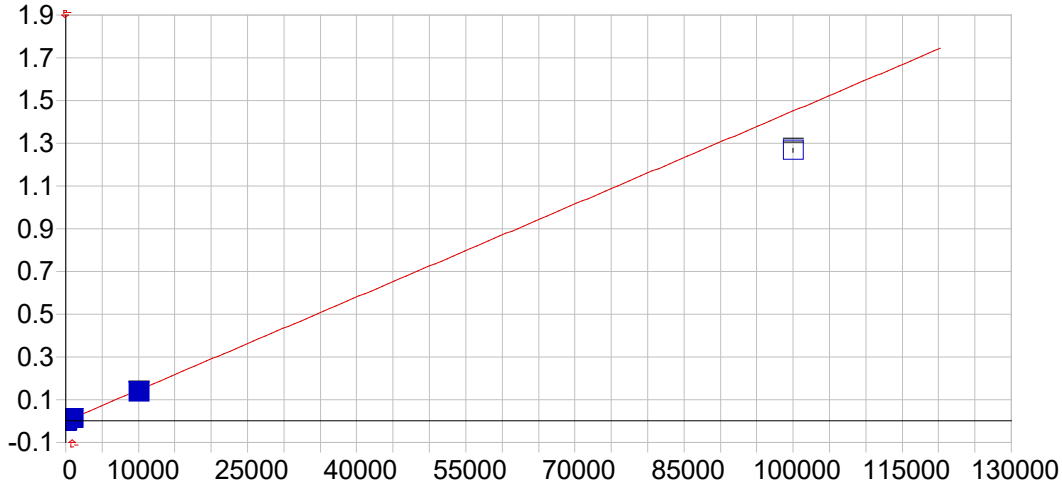
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00050	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	53.802	3.80	7.60	.00106	.000	1
CalStd5=10	10.000	10.953	.953	9.53	.00021	.000	1
CalStd4=5	5.0000	5.3970	.397	7.94	.00010	.000	1
CalStd8=100	100.00	105.31	5.31	5.31	.00208	.000	1
CalStd9=100	1000.0	1058.7	58.7	5.87	.02097	.000	1
CalStd3=1	1.0000	1.1413	.141	14.1	.00002	.000	1
CalStd10=10	10000.	9930.7	-69.3	-.693	.19675	.002	1



Co 238.892 {141}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999974		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.306626				
Predicted MQL:	1.022088				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00439	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	1021.4	21.4	2.14	.00235	.000	1
CalStd10=10	10000.	9976.1	-23.9	-.239	.02298	.000	1
CalStd8=100	100.00	102.49	2.49	2.49	.00024	.000	1

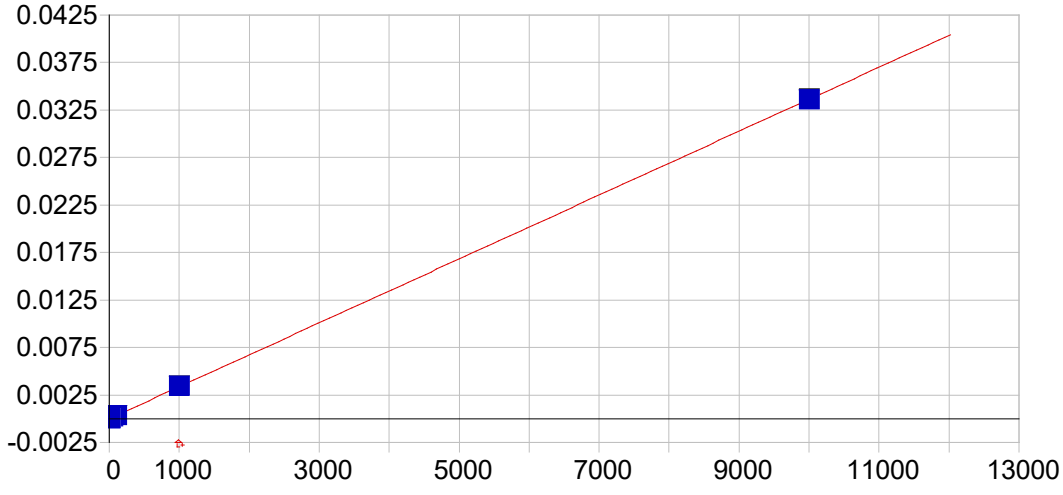


Cr 205.560 {464}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999496	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.175844		
Predicted MQL:	0.586148		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.09250	-.092	.000	-.00000	.000	1
CalStd5=10	10.000	10.130	.130	1.30	.00014	.000	1
CalStd7=50	50.000	50.825	.825	1.65	.00073	.000	1
CalStd9=100	1000.0	1004.7	4.67	.467	.01457	.000	1
CalStd8=100	100.00	99.125	-.875	-.875	.00143	.000	1
CalStd4=5	5.0000	5.0953	.095	1.91	.00007	.000	1
CalStd3=1	1.0000	1.0474	.047	4.74	.00001	.000	1
CalStd10=10	10000.	9401.4	-599.	-5.99	.13639	.001	1
CalStd12=10	100000.	87328.	-12700.	-12.7	1.2669	.008	1

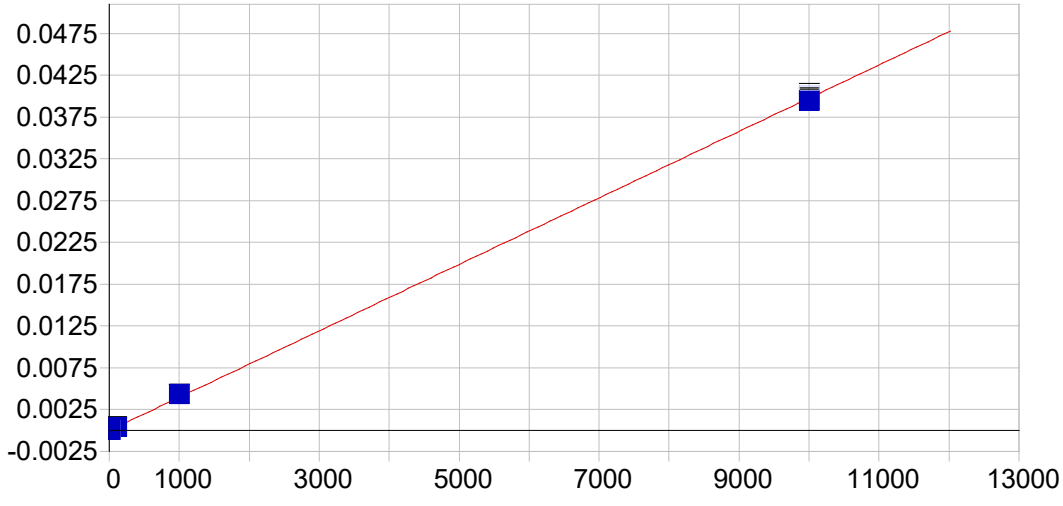


Cr 267.716 {126}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999987	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.334828		
Predicted MQL:	1.116094		

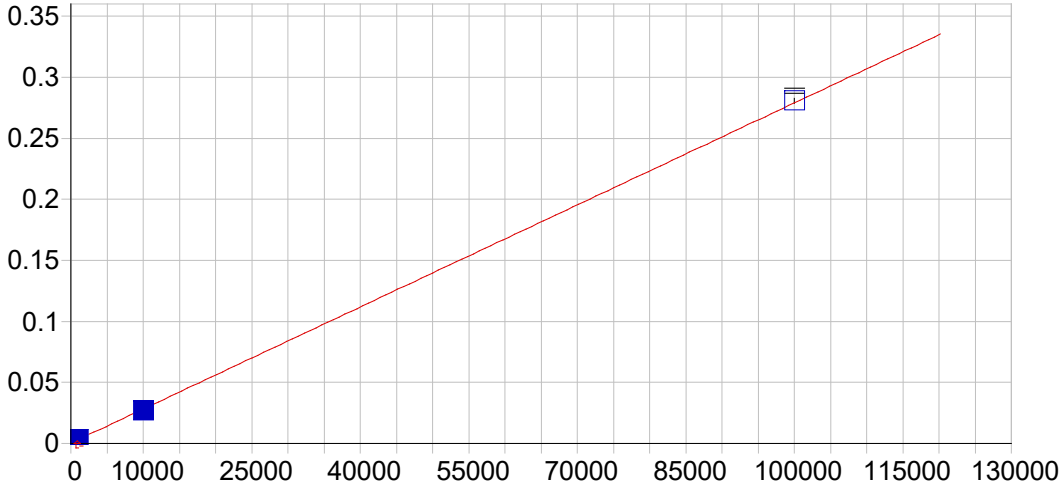
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00052	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.352	.352	3.52	.00003	.000	1
CalStd7=50	50.000	51.108	1.11	2.22	.00017	.000	1
CalStd9=100	1000.0	1013.8	13.8	1.38	.00341	.000	1
CalStd8=100	100.00	101.78	1.78	1.78	.00034	.000	1
CalStd4=5	5.0000	5.0856	.086	1.71	.00001	.000	1
CalStd10=10	10000.	9982.8	-17.2	-.172	.03359	.000	1



Cu 223.008 {451}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999643		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.956266				
Predicted MQL:	3.187553				

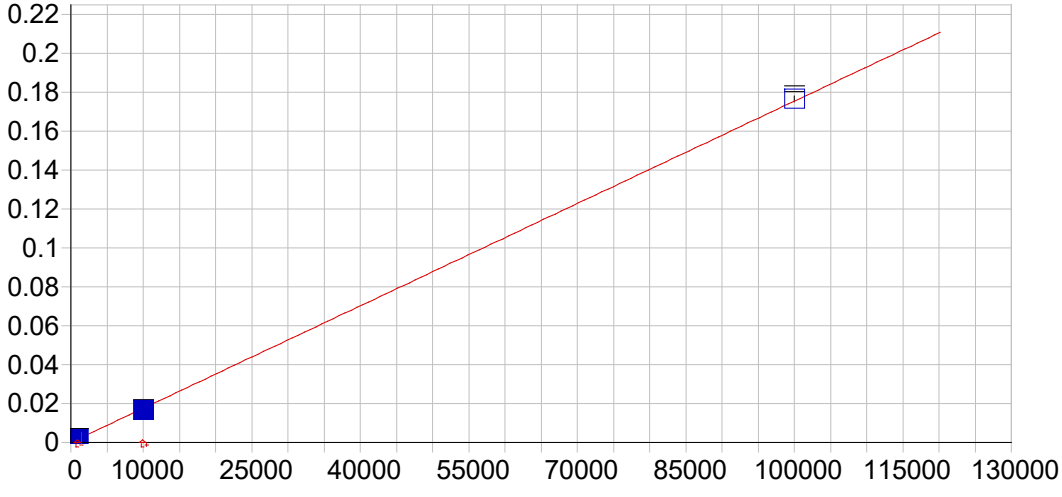
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00463	-.005	.000	-.00000	.000	1
CalStd9=100	1000.0	1075.5	75.5	7.55	.00433	.000	1
CalStd8=100	100.00	108.48	8.48	8.48	.00044	.000	1
CalStd5=10	10.000	13.114	3.11	31.1	.00005	.000	1
CalStd10=10	10000.	9912.9	-87.1	-.871	.03998	.000	1



Cu 324.754 {104}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000329		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999813		Status:	OK.	
Std Error of Est:	0.000007				
Predicted MDL:	2.428330				
Predicted MQL:	8.094435				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00922	.009	.000	.00033	.000	1
CalStd9=100	1000.0	988.66	-11.3	-1.13	.00308	.000	1
CalStd8=100	100.00	97.413	-2.59	-2.59	.00060	.000	1
CalStd10=10	10000.	9387.9	-612.	-6.12	.02649	.000	1
CalStd12=10	100000.	100630.	626.	.626	.28068	.002	1

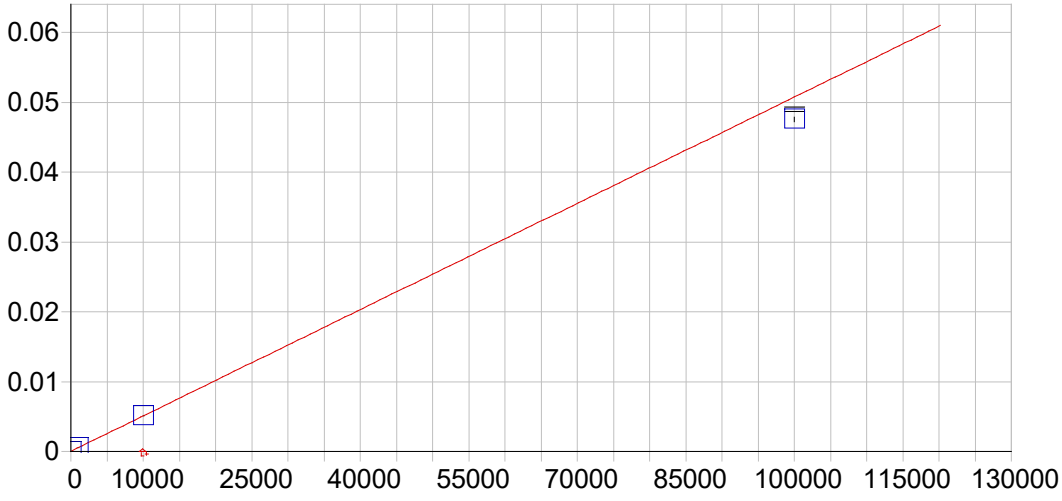


Cu 327.396 {103}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000048	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999800	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.575577		
Predicted MQL:	15.251924		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00002	.000	.000	.00005	.000	1
CalStd6=20	20.000	22.830	2.83	14.2	.00009	.000	1
CalStd7=50	50.000	47.140	-2.86	-5.72	.00013	.000	1
CalStd8=100	100.00	97.308	-2.69	-2.69	.00022	.000	1
CalStd9=100	1000.0	996.06	-3.94	-.394	.00179	.000	1
CalStd10=10	10000.	9370.1	-630.	-6.30	.01648	.000	1
CalStd4=5	5.0000	5.5646	.565	11.3	.00006	.000	1
CalStd5=10	10.000	8.8686	-1.13	-11.3	.00006	.000	1
CalStd12=10	100000.	100640.	637.	.637	.17659	.001	1

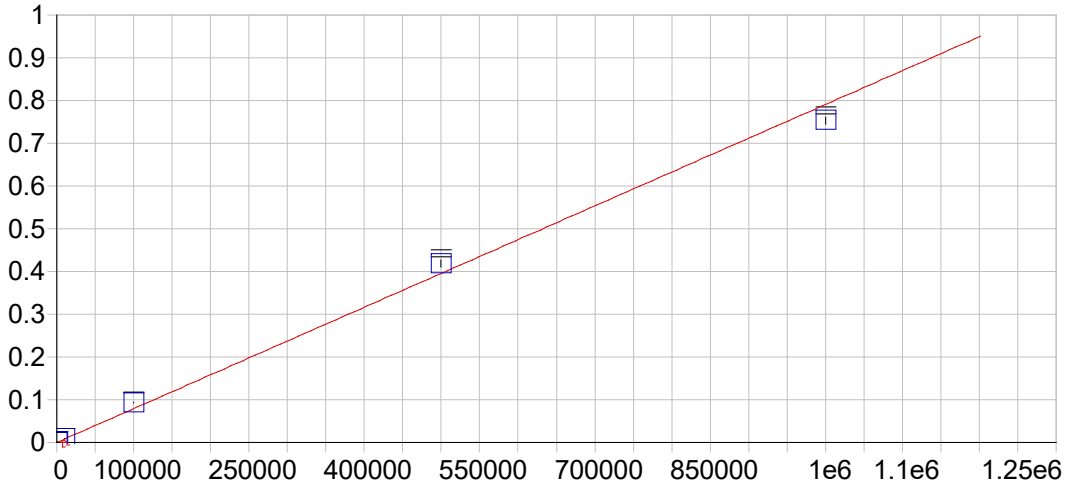


Fe 234.349 {144}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.699558		
Predicted MQL:	2.331860		

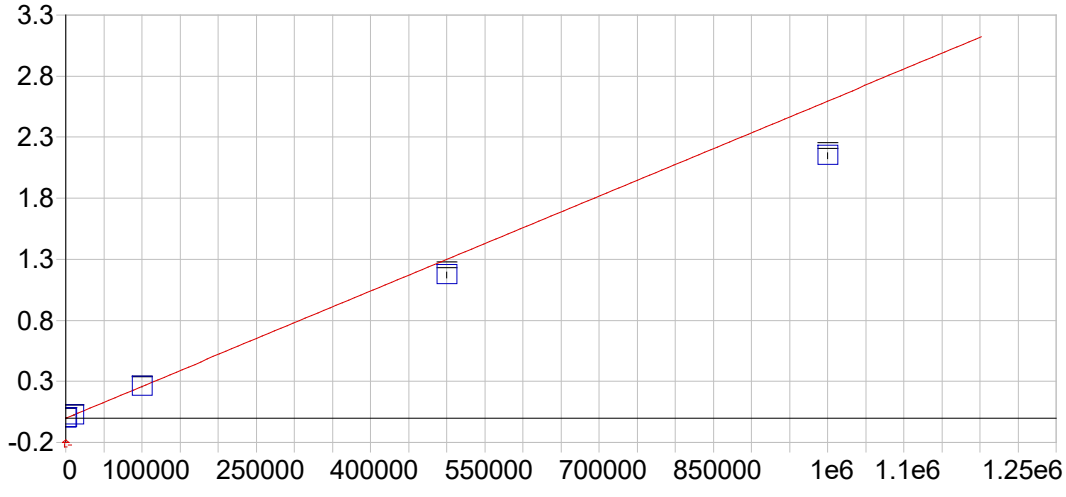
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.08524	-.085	.000	.00001	.000	1
CalStd10=10	10000.	10003.	3.28	.033	.00509	.000	1
CalStd13=10	100000.	93708.	-6290.	-6.29	.04756	.000	1
CalStd9=100	1000.0	1037.1	37.1	3.71	.00054	.000	1



Fe 239.562 {140}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.997783		Status:	OK.	
Std Error of Est:	0.000082				
Predicted MDL:	3.836041				
Predicted MQL:	12.786804				

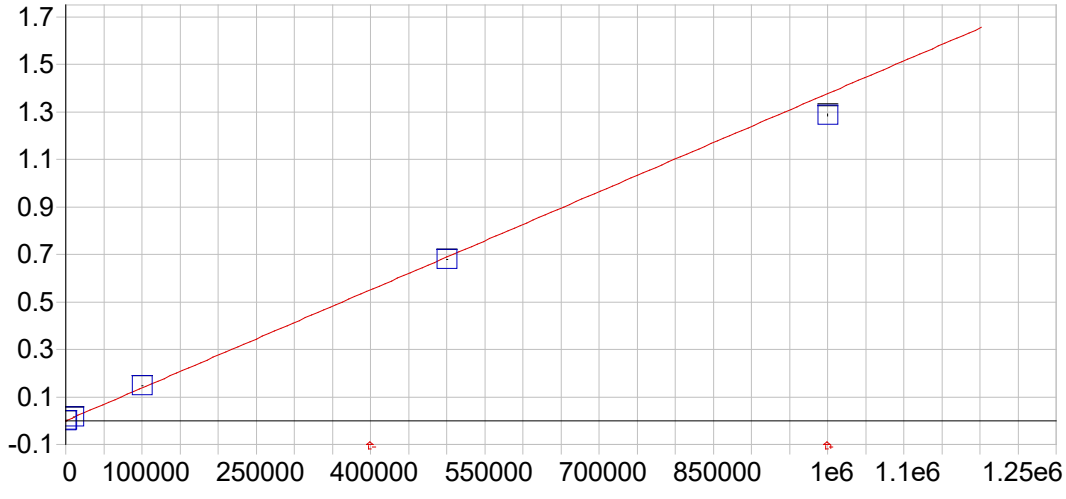
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.53247	-.532	.000	.00001	.000	1
CalStd10=10	10000.	11398.	1400.	14.0	.00902	.000	1
CalStd13=10	100000.	117180.	17200.	17.2	.09268	.001	1
CalStd14=50	500000.	529050.	29100.	5.81	.41843	.008	1
CalStd9=100	1000.0	1210.7	211.	21.1	.00096	.000	1
CalibStd15=	1000000.	952170.	-47800.	-4.78	.75306	.008	1



Fe 259.940 {129}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999726		Status:	OK.	
Std Error of Est:	0.000036				
Predicted MDL:	1.513870				
Predicted MQL:	5.046235				

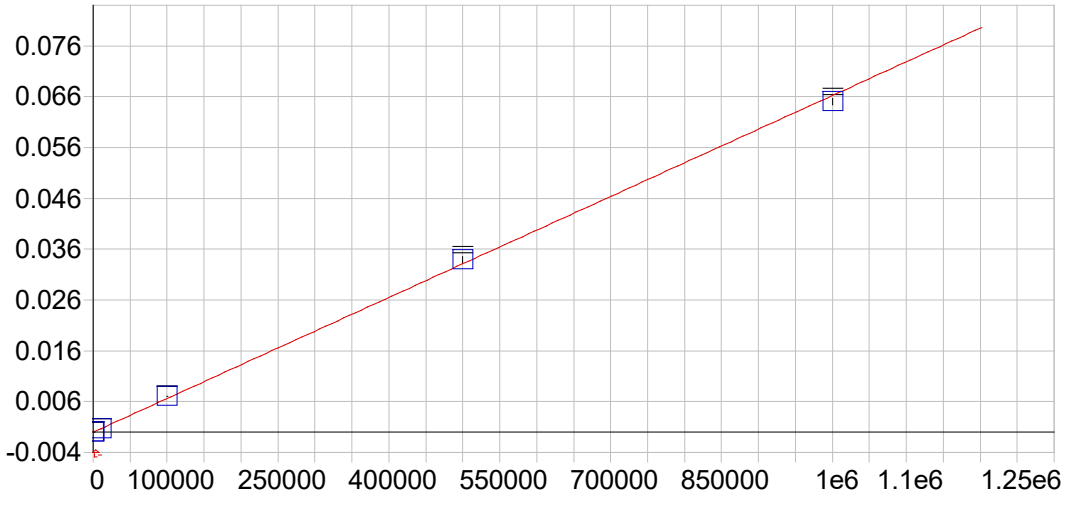
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.90767	-.908	.000	.00000	.000	1
CalStd10=10	10000.	9639.3	-361.	-3.61	.02503	.000	1
CalStd13=10	100000.	99481.	-519.	-.519	.25830	.002	1
CalStd14=50	500000.	451150.	-48900.	-9.77	1.1714	.025	1
CalStd9=100	1000.0	1027.5	27.5	2.75	.00267	.000	1
CalibStd15=	1000000.	827900.	-172000.	-17.2	2.1496	.023	1



Mg 202.582 {466}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000015		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998853		Status:	OK.	
Std Error of Est:	0.000161				
Predicted MDL:	2.449654				
Predicted MQL:	8.165513				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-16.218	-16.2	.000	-.00001	.000	1
CalStd13=10	100000.	107450.	7450.	7.45	.14794	.000	1
CalStd10=10	10000.	10588.	588.	5.88	.01459	.000	1
CalStd14=50	500000.	492960.	-7040.	-1.41	.67867	.001	1
CalStd9=100	1000.0	1160.9	161.	16.1	.00161	.000	1
CalibStd15=	1000000.	934200.	-65800.	-6.58	1.2861	.004	1

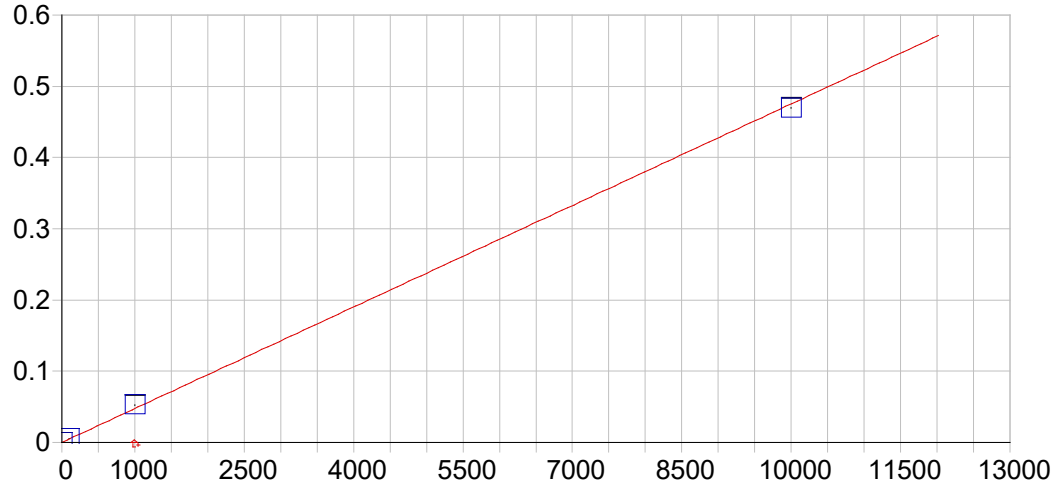


Mg 279.079 {121}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	25.559133		
Predicted MQL:	85.197111		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19406	-.194	.000	.00000	.000	1
CalStd13=10	100000.	106270.	6270.	6.27	.00704	.000	1
CalStd10=10	10000.	10287.	287.	2.87	.00068	.000	1
CalStd14=50	500000.	511650.	11600.	2.33	.03390	.001	1
CalStd9=100	1000.0	1097.7	97.7	9.77	.00007	.000	1
CalibStd15=	1000000.	981700.	-18300.	-1.83	.06504	.001	1

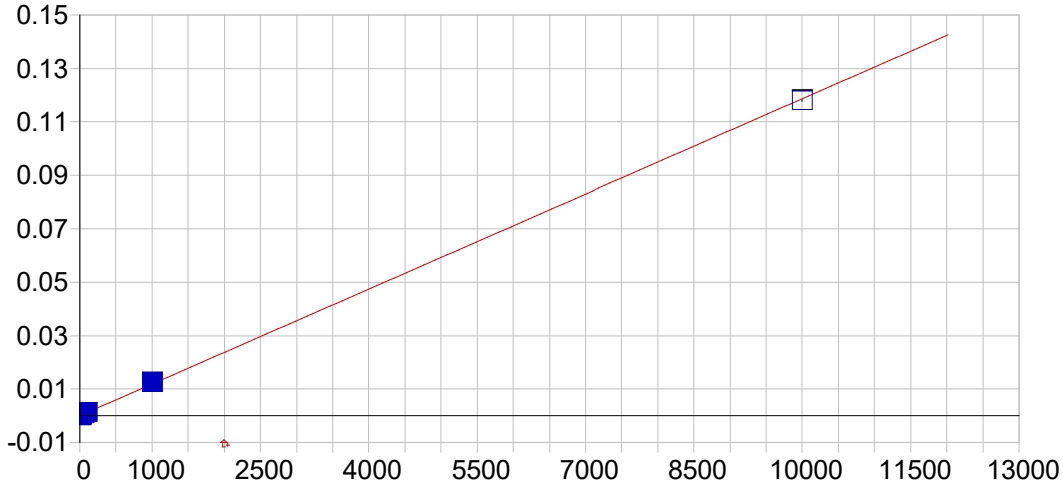


Mg 280.270 {120}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000062	Re-Slope:	1.000000
A1 (Gain):	0.000048	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999348	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.013981		
Predicted MQL:	0.046604		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02085	-.021	.000	.00006	.000	1
CalStd9=100	1000.0	1108.6	109.	10.9	.05274	.000	1
CalStd10=10	10000.	9880.2	-120.	-1.20	.46956	.001	1
CalStd8=100	100.00	111.18	11.2	11.2	.00535	.000	1

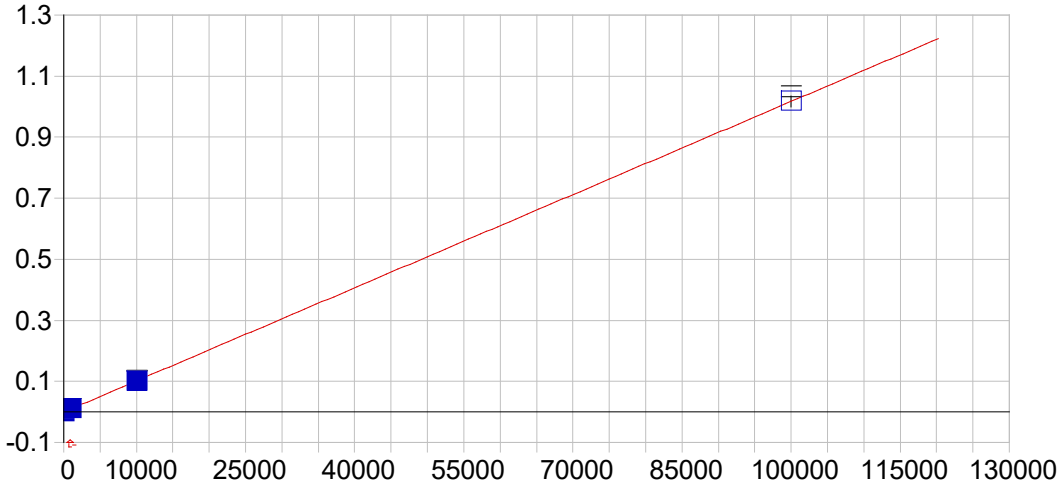


Mn 257.610 {131}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.047765		
Predicted MQL:	0.159218		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00206	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	10.767	.767	7.67	.00013	.000	1
CalStd7=50	50.000	53.411	3.41	6.82	.00063	.000	1
CalStd6=20	20.000	21.744	1.74	8.72	.00026	.000	1
CalStd8=100	100.00	104.87	4.87	4.87	.00124	.000	1
CalStd4=5	5.0000	5.4442	.444	8.88	.00006	.000	1
CalStd9=100	1000.0	1047.6	47.6	4.76	.01243	.000	1
CalStd10=10	10000.	9941.1	-58.9	-.589	.11793	.000	1

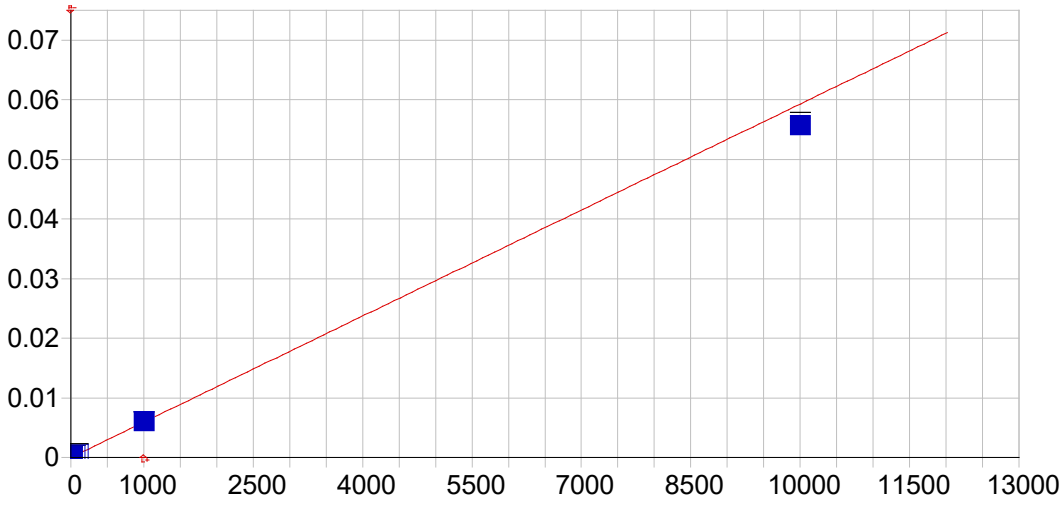


Mn 259.373 {130}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	-0.000140	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000737		
Predicted MDL:	0.364684		
Predicted MQL:	1.215613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	13.801	13.8	.000	.00000	.000	1
CalStd10=10	10000.	9918.5	-81.5	-.815	.10086	.001	1
CalStd9=100	1000.0	1060.1	60.1	6.01	.01065	.000	1
CalStd12=10	100000.	100010.	7.56	.008	1.0171	.018	1

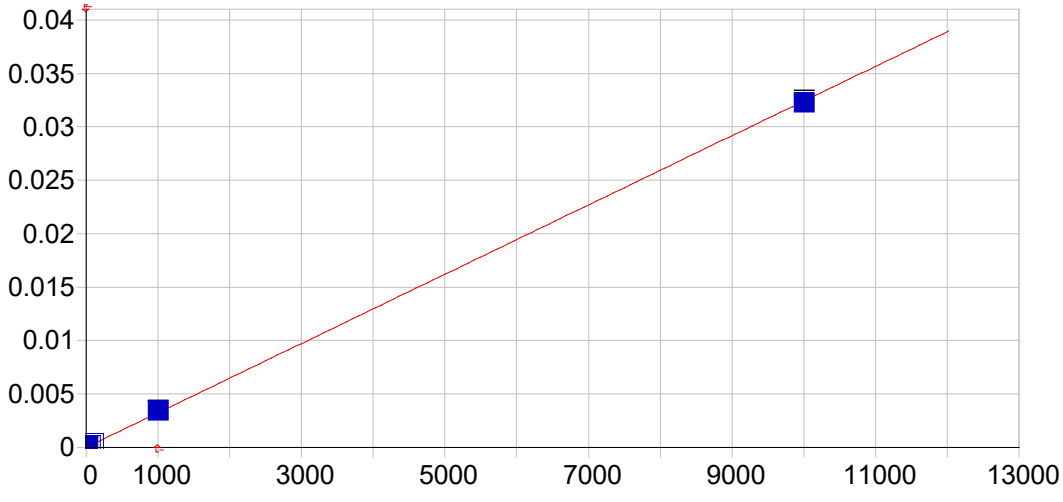


Mo 202.030 {466}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.365364		
Predicted MQL:	1.217882		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02246	.022	.000	.00000	.000	1
CalStd7=50	50.000	50.522	.522	1.04	.00030	.000	1
CalStd6=20	20.000	20.314	.314	1.57	.00012	.000	1
CalStd5=10	10.000	10.342	.342	3.42	.00006	.000	1
CalStd8=100	100.00	98.465	-1.54	-1.54	.00059	.000	1
CalStd4=5	5.0000	5.0329	.033	.657	.00003	.000	1
CalStd9=100	1000.0	1001.9	1.93	.193	.00594	.000	1
CalStd10=10	10000.	9392.9	-607.	-6.07	.05568	.000	1

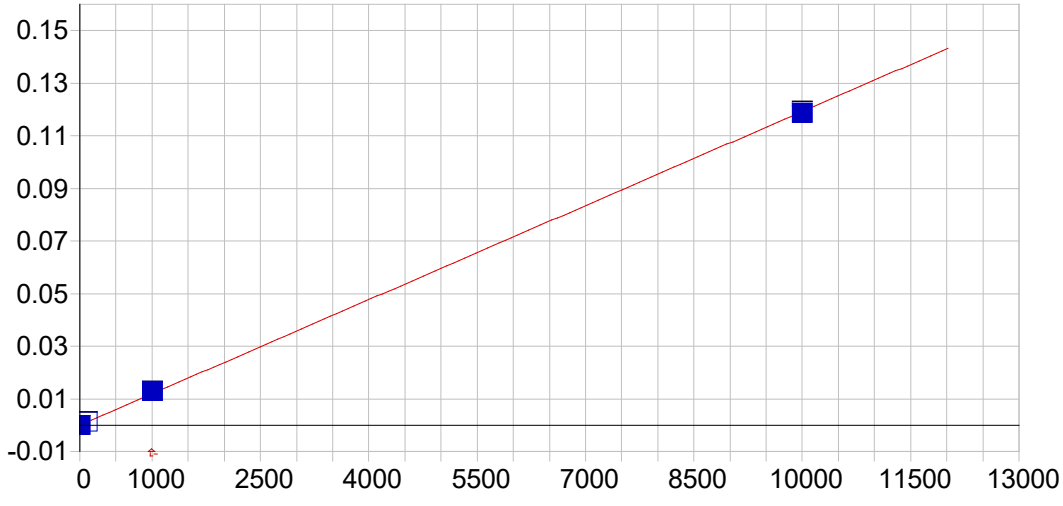


Mo 204.598 {464}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.736140		
Predicted MQL:	2.453799		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00135	-.001	.000	.00000	.000	1
CalStd7=50	50.000	52.949	2.95	5.90	.00017	.000	1
CalStd6=20	20.000	20.675	.675	3.38	.00007	.000	1
CalStd5=10	10.000	10.427	.427	4.27	.00004	.000	1
CalStd8=100	100.00	103.30	3.30	3.30	.00034	.000	1
CalStd4=5	5.0000	5.2573	.257	5.15	.00002	.000	1
CalStd9=100	1000.0	1056.3	56.3	5.63	.00343	.000	1
CalStd10=10	10000.	9936.1	-63.9	-.639	.03220	.000	1

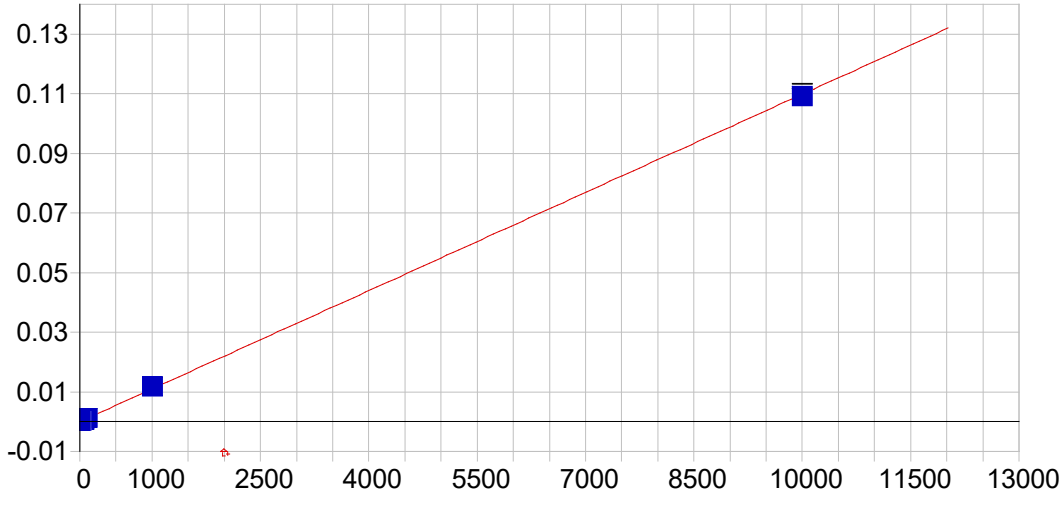


Ni 221.647 {452}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999779	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.367243		
Predicted MQL:	1.224142		

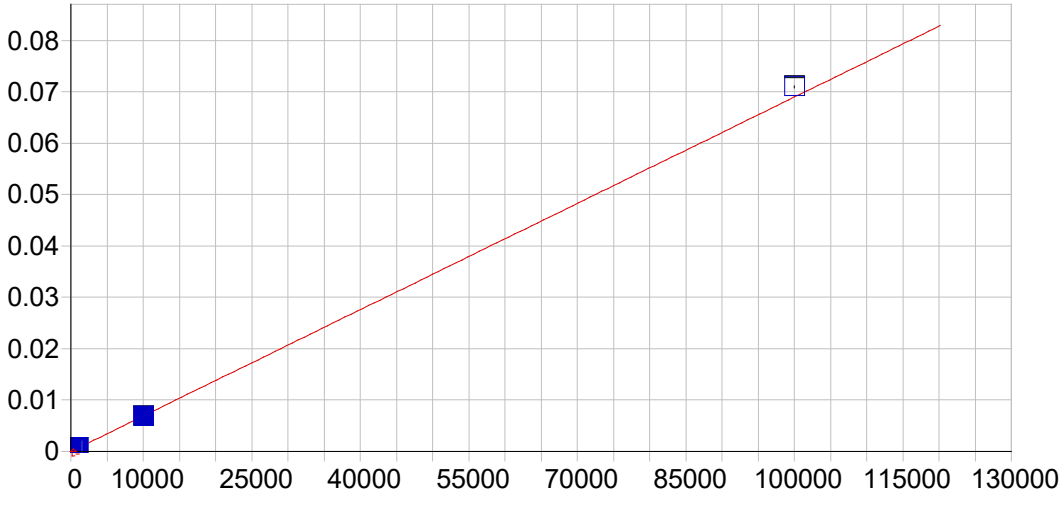
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01148	-.011	.000	-.00000	.000	1
CalStd10=10	10000.	9930.2	-69.8	-.698	.11841	.001	1
CalStd8=100	100.00	105.78	5.78	5.78	.00126	.000	1
CalStd9=100	1000.0	1064.0	64.0	6.40	.01269	.000	1



Ni 231.604 {445}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000011		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999786		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.366247				
Predicted MQL:	1.220824				

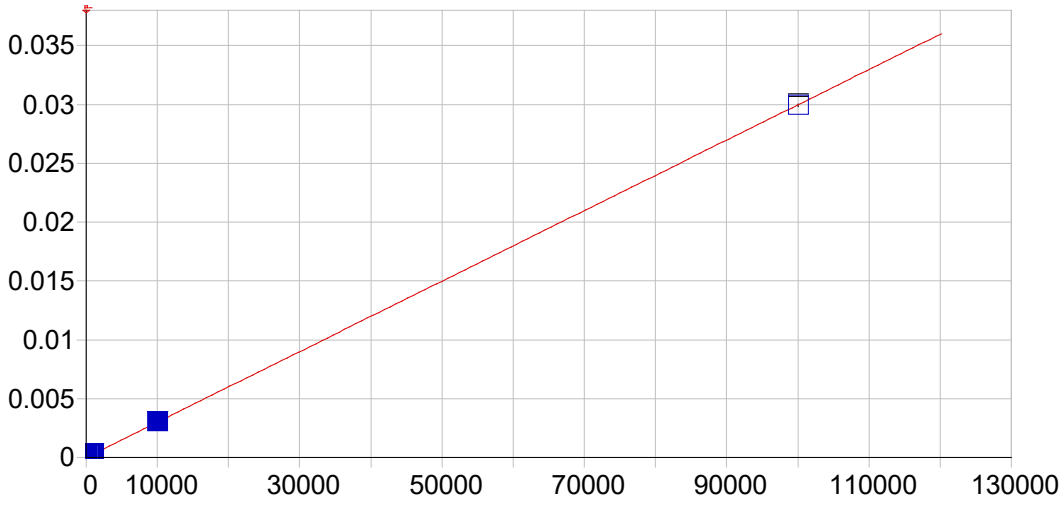
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	53.884	3.88	7.77	.00059	.000	1
CalStd5=10	10.000	10.866	.866	8.66	.00012	.000	1
CalStd8=100	100.00	105.09	5.09	5.09	.00115	.000	1
CalStd4=5	5.0000	5.0760	.076	1.52	.00005	.000	1
CalStd9=100	1000.0	1060.2	60.2	6.02	.01163	.000	1
CalStd3=1	1.0000	.85773	-.142	-14.2	.00001	.000	1
CalStd10=10	10000.	9930.1	-69.9	-.699	.10914	.001	1



Pb 216.999 {455}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999971		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.698486				
Predicted MQL:	15.661621				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00142	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1075.6	75.6	7.56	.00075	.000	1
CalStd10=10	10000.	9939.8	-60.2	-.602	.00688	.000	1
CalStd8=100	100.00	105.34	5.34	5.34	.00007	.000	1
CalStd5=10	10.000	10.218	.218	2.18	.00001	.000	1
CalStd12=10	100000.	102900.	2900.	2.90	.07099	.000	1

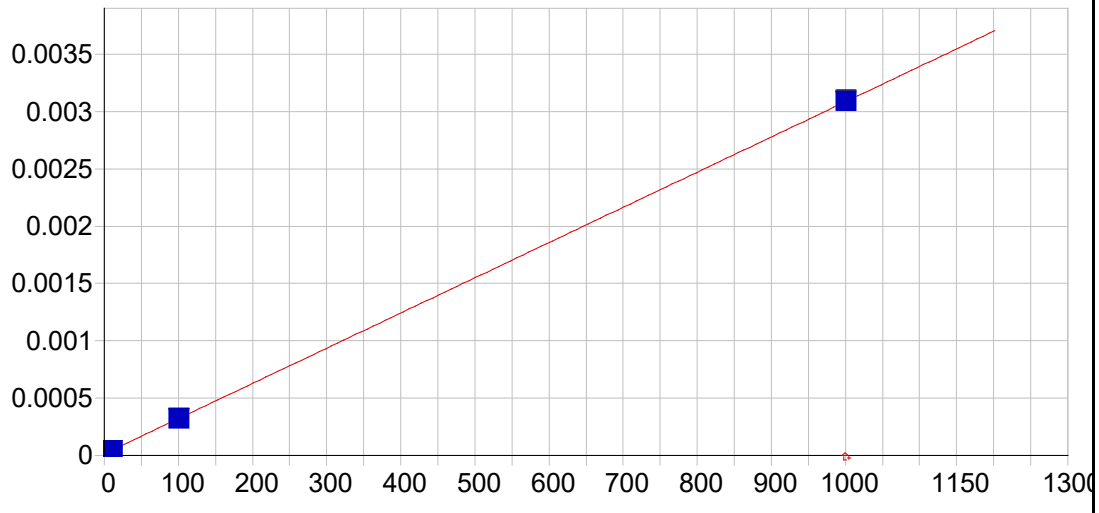


Pb 220.353 {153}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.717821		
Predicted MQL:	5.726069		

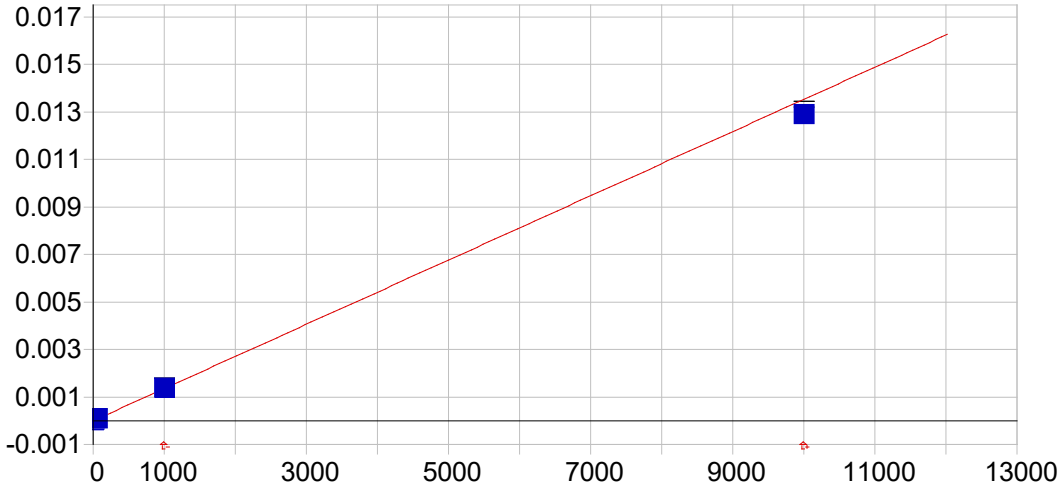
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00945	-.009	.000	.00000	.000	1
CalStd9=100	1000.0	1047.9	47.9	4.79	.00032	.000	1
CalStd10=10	10000.	10064.	63.6	.636	.00302	.000	1
CalStd8=100	100.00	104.14	4.14	4.14	.00003	.000	1
CalStd12=10	100000.	99884.	-116.	-.116	.02993	.000	1



Pb 220.353 {453}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000014		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999972		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.426759				
Predicted MQL:	4.755862				

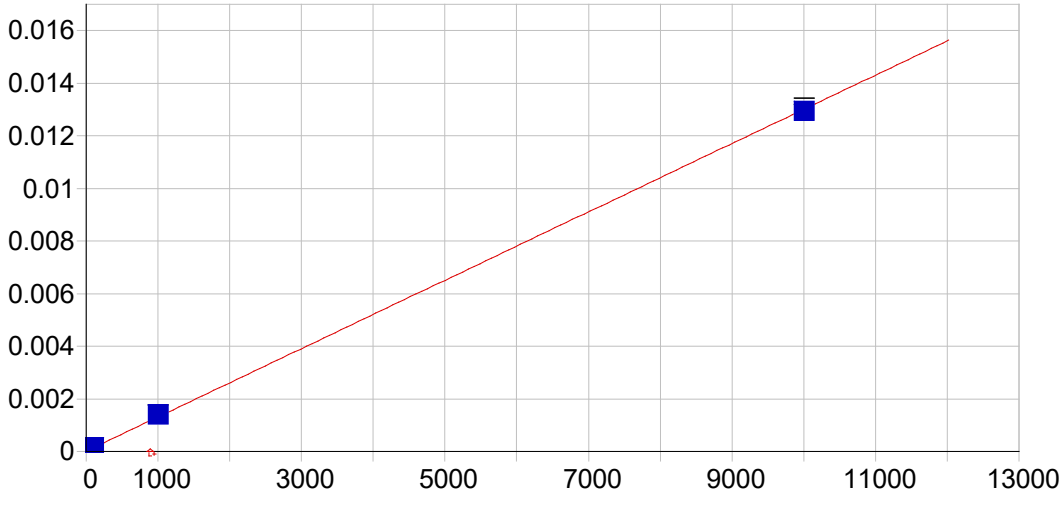
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00056	.001	.000	.00001	.000	1
CalStd5=10	10.000	10.002	.002	.021	.00004	.000	1
CalStd8=100	100.00	99.373	-.627	-.627	.00032	.000	1
CalStd4=5	5.0000	4.4673	-.533	-10.7	.00003	.000	1
CalStd9=100	1000.0	1001.2	1.16	.116	.00309	.000	1



Sb 206.833 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999811		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	1.941046				
Predicted MQL:	6.470152				

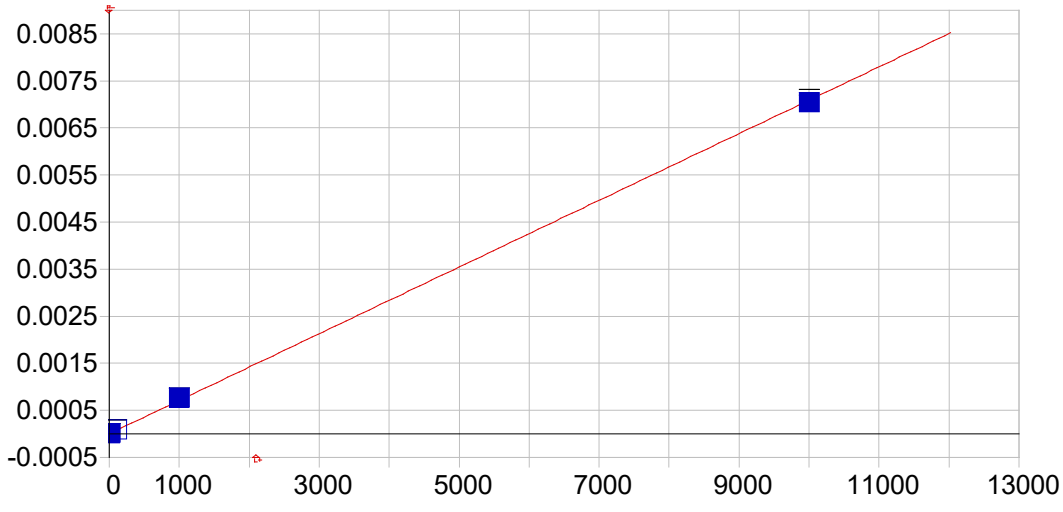
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08232	.082	.000	-.00000	.000	1
CalStd9=100	1000.0	1007.2	7.20	.720	.00137	.000	1
CalStd5=10	10.000	8.6007	-1.40	-14.0	.00001	.000	1
CalStd7=50	50.000	50.235	.235	.470	.00007	.000	1
CalStd10=10	10000.	9532.2	-468.	-4.68	.01289	.000	1



Sb 217.581 {455}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000010		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999816		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	2.305353				
Predicted MQL:	7.684509				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00146	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1056.5	56.5	5.65	.00138	.000	1
CalStd6=20	20.000	19.047	-.953	-4.76	.00004	.000	1
CalStd5=10	10.000	9.3468	-.653	-6.53	.00002	.000	1
CalStd8=100	100.00	103.57	3.57	3.57	.00014	.000	1
CalStd4=5	5.0000	3.6767	-1.32	-26.5	.00002	.000	1
CalStd10=10	10000.	9942.8	-57.2	-.572	.01293	.000	1

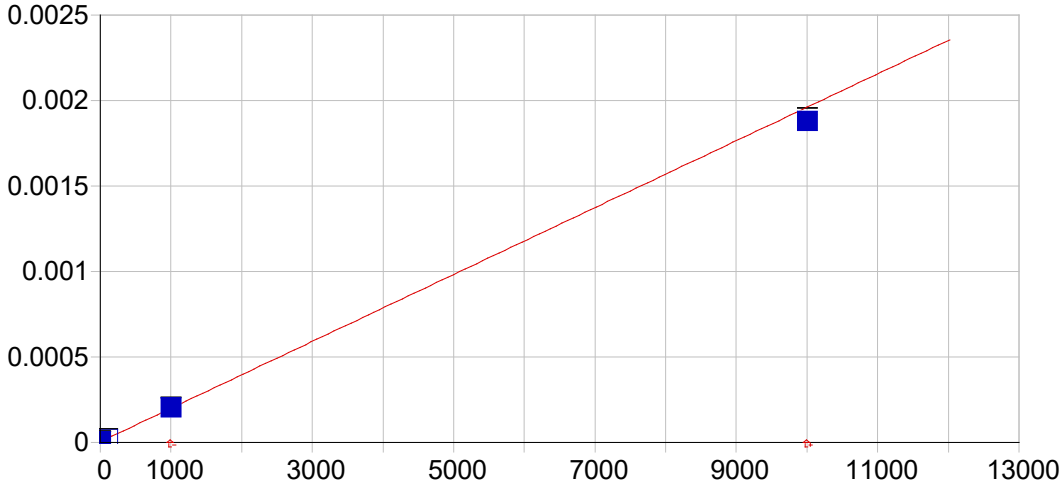


Se 196.090 {472}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.889846		
Predicted MQL:	9.632820		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00283	-.003	.000	.00000	.000	1
CalStd9=100	1000.0	1062.6	62.6	6.26	.00076	.000	1
CalStd5=10	10.000	11.757	1.76	17.6	.00001	.000	1
CalStd8=100	100.00	105.15	5.15	5.15	.00008	.000	1
CalStd10=10	10000.	9930.5	-69.5	-.695	.00704	.000	1

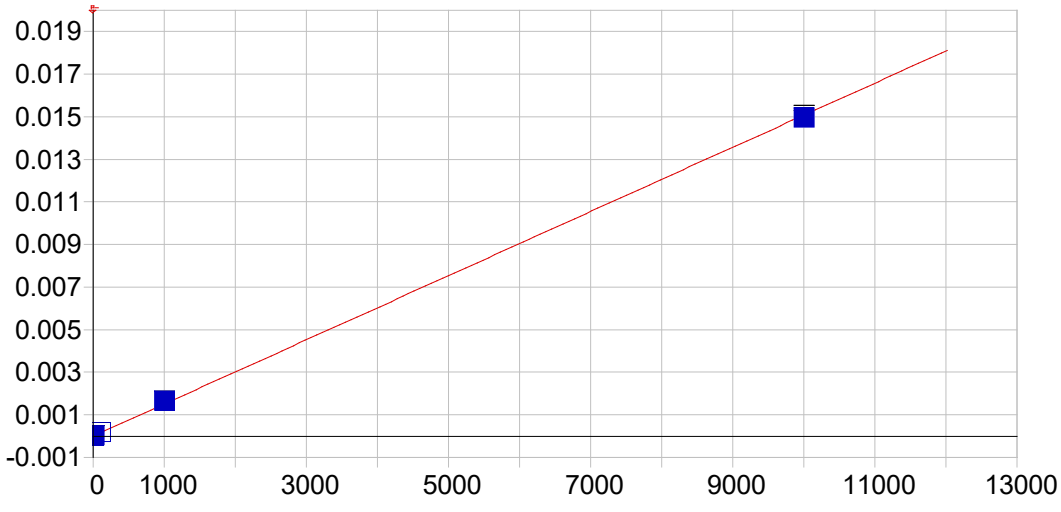


Se 206.279 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999844	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	14.818017		
Predicted MQL:	49.393390		

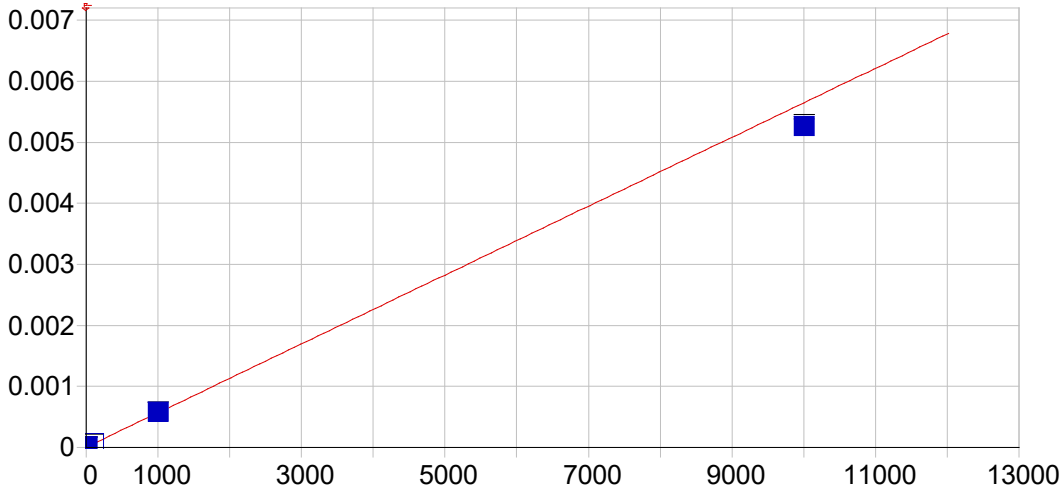
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01509	.015	.000	.00000	.000	1
CalStd9=100	1000.0	1014.4	14.4	1.44	.00020	.000	1
CalStd10=10	10000.	9573.8	-426.	-4.26	.00188	.000	1
CalStd8=100	100.00	83.023	-17.0	-17.0	.00002	.000	1



Tl 190.856 {476}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999670		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.703755				
Predicted MQL:	5.679182				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00192	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	1079.4	79.4	7.94	.00163	.000	1
CalStd8=100	100.00	105.07	5.07	5.07	.00016	.000	1
CalStd5=10	10.000	10.704	.704	7.04	.00002	.000	1
CalStd10=10	10000.	9914.8	-85.2	-.852	.01494	.000	1

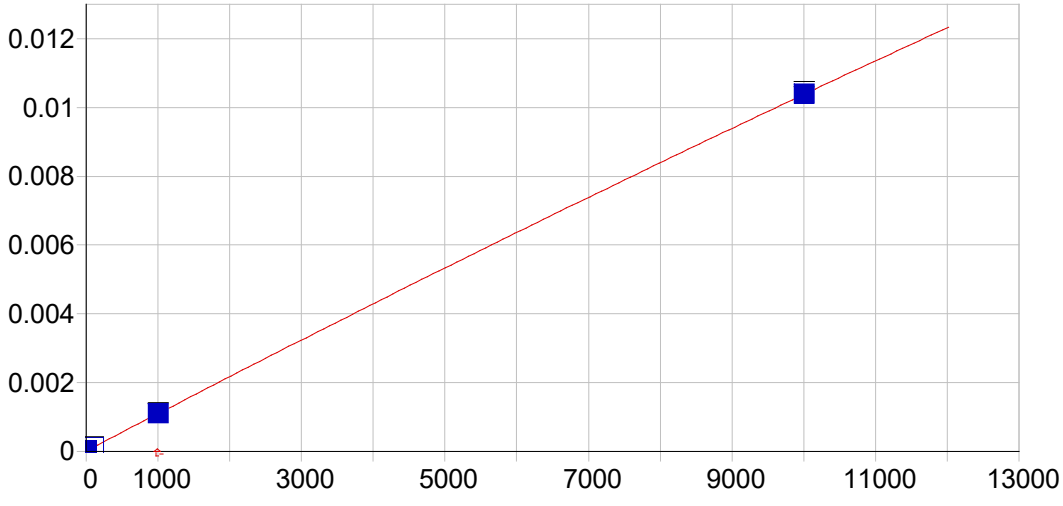


Tl 190.856 {477}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999439	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	2.759172		
Predicted MQL:	9.197239		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.6353	-2.64	.000	.00000	.000	1
CalStd9=100	1000.0	1012.8	12.8	1.28	.00058	.000	1
CalStd8=100	100.00	96.011	-3.99	-3.99	.00006	.000	1
CalStd5=10	10.000	5.8832	-4.12	-41.2	.00001	.000	1
CalStd10=10	10000.	9307.5	-693.	-6.93	.00525	.000	1

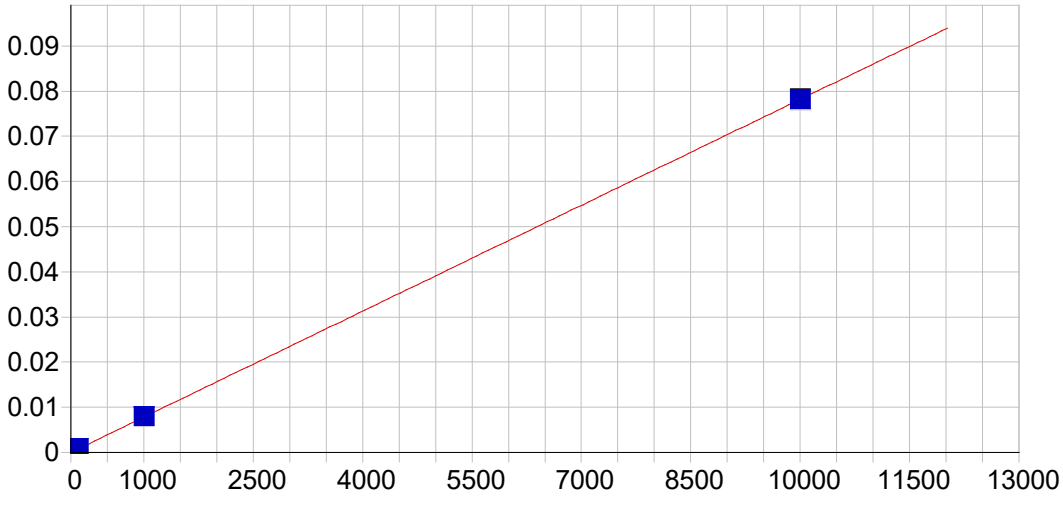


V 290.882 {116}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	4.338762		
Predicted MQL:	14.462541		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.20827	.208	.000	.00001	.000	1
CalStd9=100	1000.0	1002.9	2.91	.291	.00110	.000	1
CalStd10=10	10000.	9998.8	-1.17	-.012	.01038	.000	1
CalStd8=100	100.00	98.295	-1.70	-1.70	.00012	.000	1

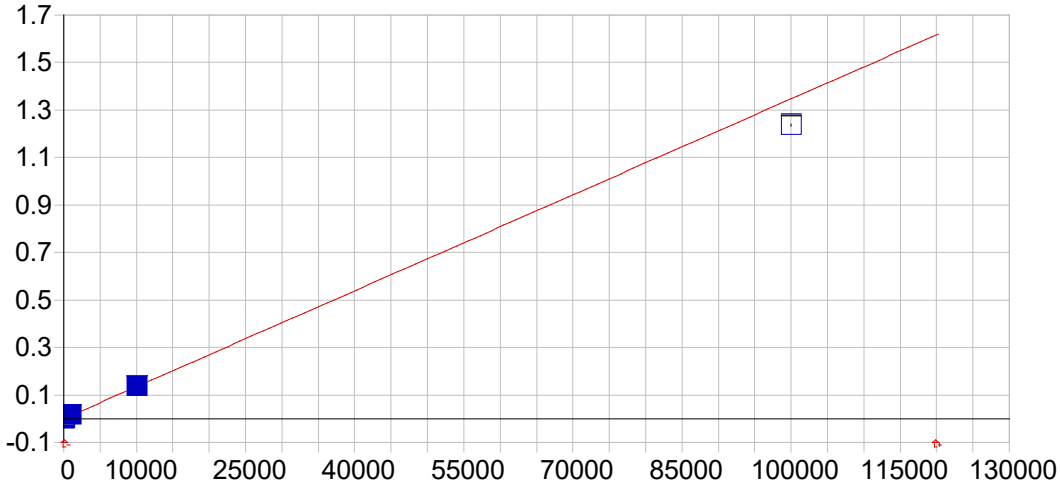


V 292.402 {115}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.280078		
Predicted MQL:	0.933592		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00002	-.000	.000	.00001	.000	1
CalStd7=50	50.000	50.197	.197	.394	.00040	.000	1
CalStd9=100	1000.0	1007.7	7.72	.772	.00786	.000	1
CalStd6=20	20.000	20.236	.236	1.18	.00017	.000	1
CalStd5=10	10.000	9.8149	-.185	-1.85	.00009	.000	1
CalStd8=100	100.00	99.833	-.167	-.167	.00079	.000	1
CalStd10=10	10000.	9992.2	-7.80	-.078	.07781	.000	1

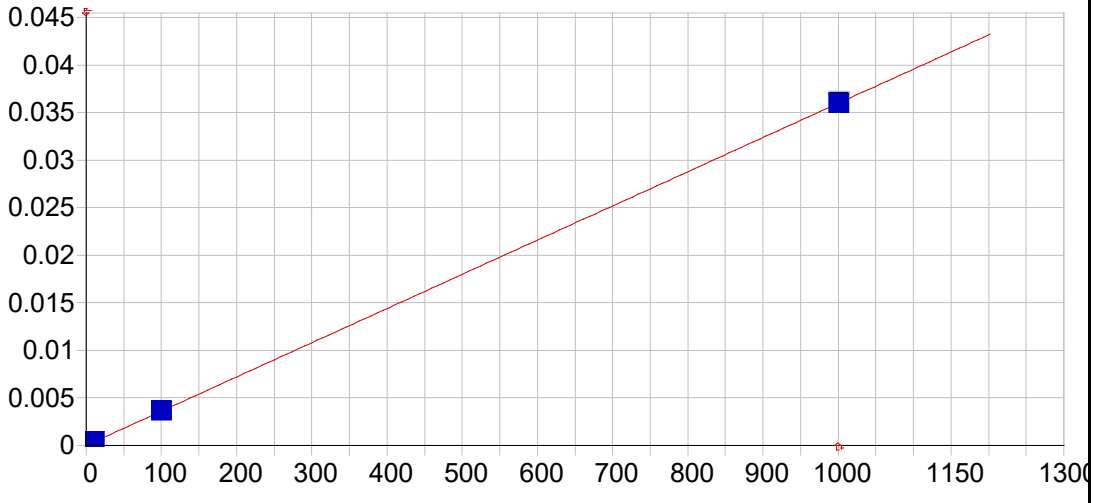


Zn 206.200 {463}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000013	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996634	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.200498		
Predicted MQL:	0.668325		

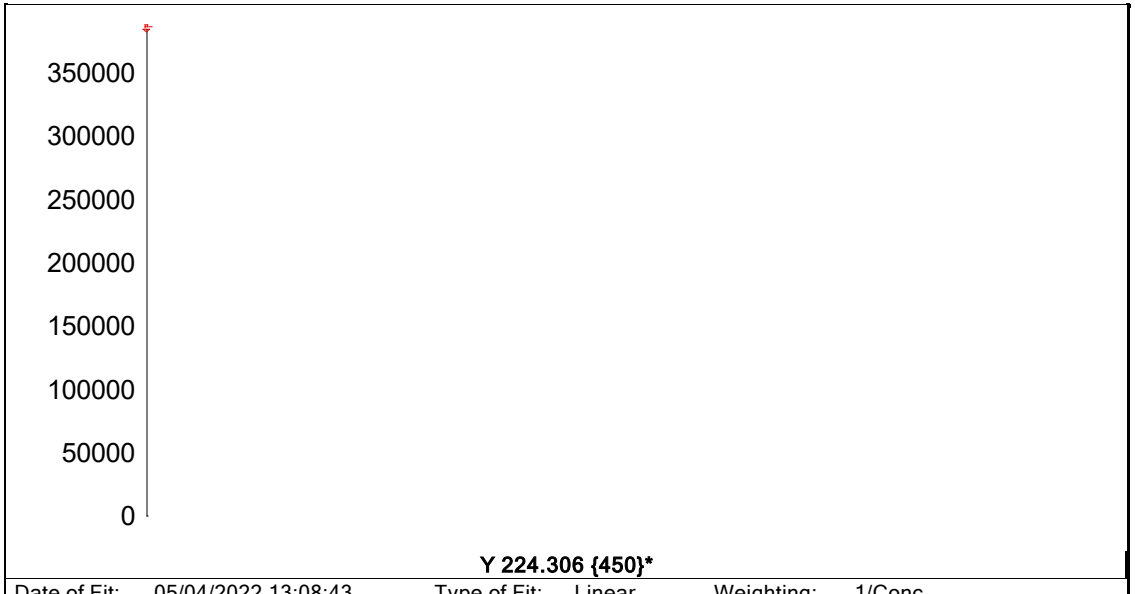
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10215.	215.	2.15	.13762	.001	1
Blank	.00000	-.94328	-.943	.000	.00000	.000	1
CalStd9=100	1000.0	1090.0	90.0	9.00	.01470	.000	1
CalStd12=10	100000.	91760.	-8240.	-8.24	1.2361	.004	1
CalStd5=10	10.000	10.365	.365	3.65	.00015	.000	1
CalStd8=100	100.00	107.78	7.78	7.78	.00146	.000	1



Zn 213.856 {457}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000009		Re-Slope:	1.000000	
A1 (Gain):	0.000036		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999985		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.090243				
Predicted MQL:	0.300810				

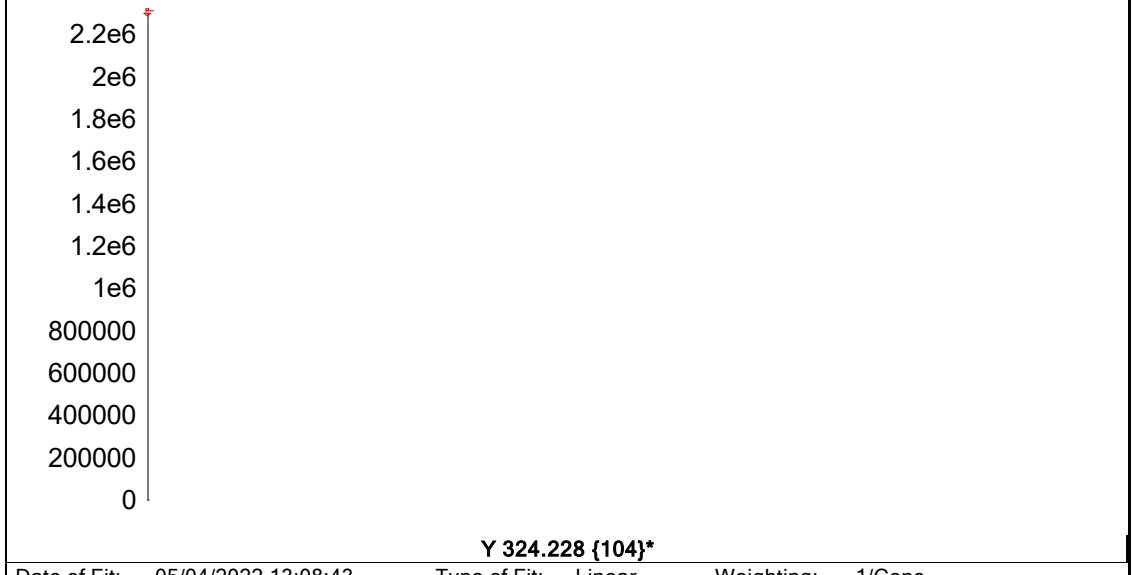
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00053	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	999.82	-.180	-.018	.03615	.000	1
CalStd5=10	10.000	10.568	.568	5.68	.00039	.000	1
CalStd8=100	100.00	99.614	-.386	-.386	.00361	.000	1



Y 224.306 {450}*

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

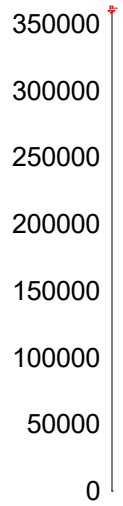
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	362680.	3580.	1



Y 324.228 {104}*

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

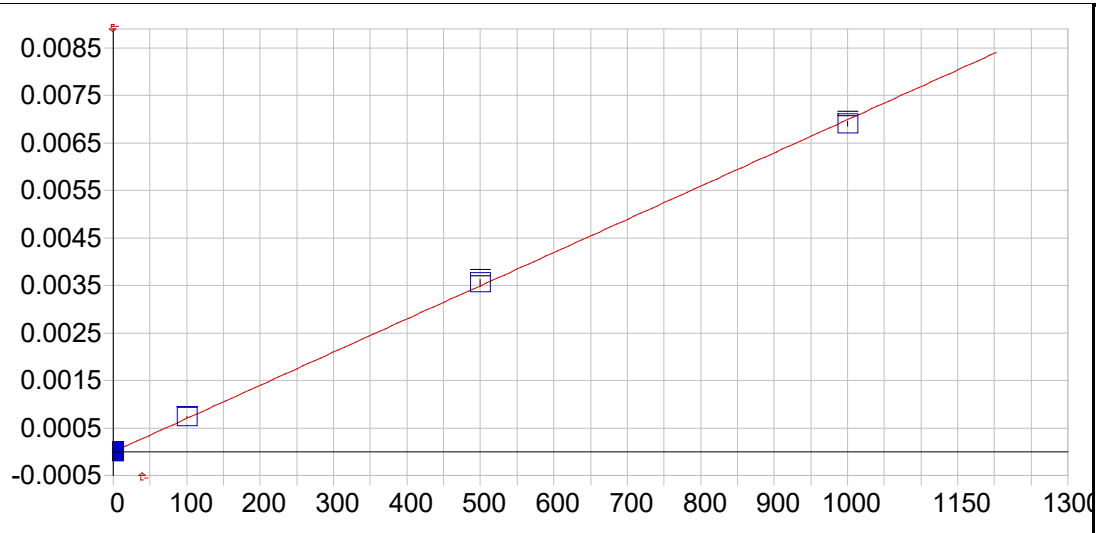
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	2169900.	11400.	1



Y 371.030 { 91}*

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

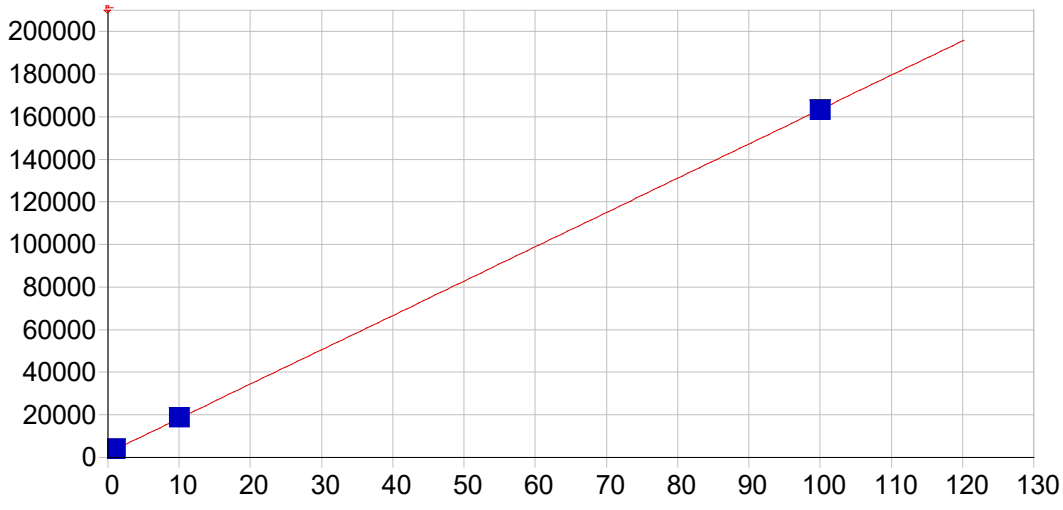
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	334670.	7010.	1



Na 330.237 {102}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000007		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999847		Status:	OK.	
Std Error of Est:	0.000002				
Predicted MDL:	1.078491				
Predicted MQL:	3.594970				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00492	-.005	.000	-.00000	.000	1
CalStd13=10	100.00	104.59	4.59	4.59	.00073	.000	1
CalibStd15=	1000.0	987.54	-12.5	-1.25	.00690	.000	1
CalStd14=50	500.00	507.87	7.87	1.57	.00355	.000	1

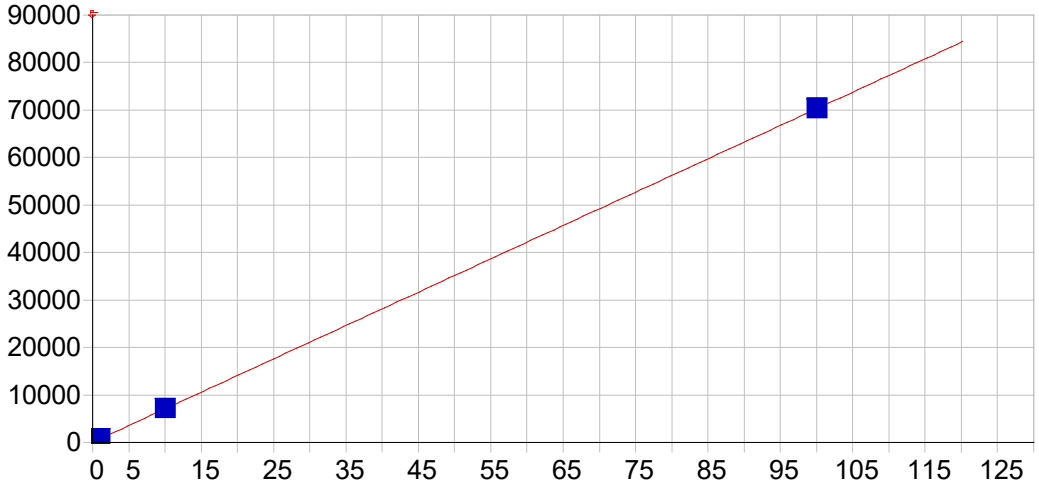


Na 588.995 { 57}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2219.418161	Re-Slope:	1.000000
A1 (Gain):	1611.612360	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	4.223921		
Predicted MDL:	0.006709		
Predicted MQL:	0.022363		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00003	-.000	.000	2219.4	15.0	1
CalStd9=100	1.0000	1.0160	.016	1.60	3857.1	15.0	1
CalStd10=10	10.000	10.169	.169	1.69	18610.	57.1	1
CalStd13=10	100.00	99.815	-.185	-.185	163110.	265.	1

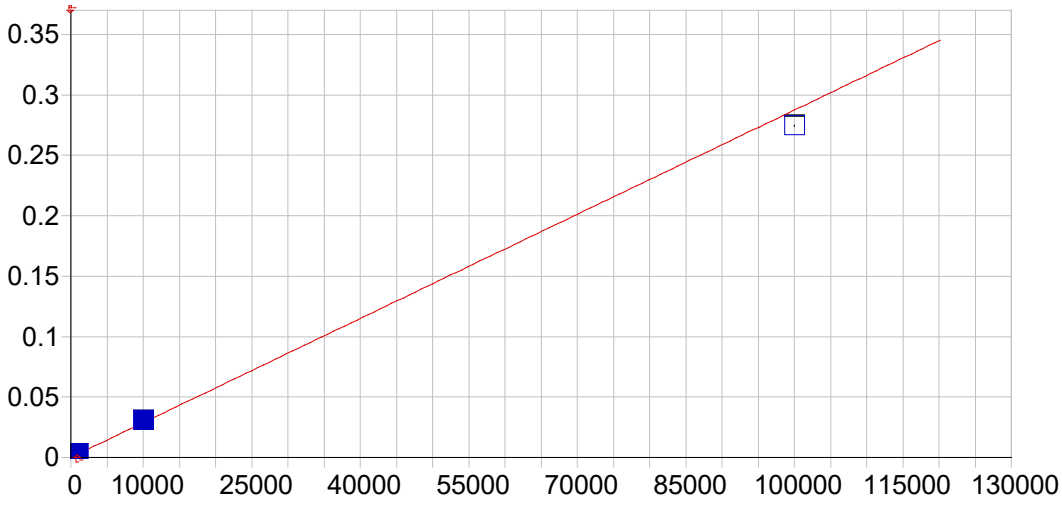


Na 589.592 { 57}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	51.809383	Re-Slope:	1.000000
A1 (Gain):	702.069574	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	1.198180		
Predicted MDL:	0.008962		
Predicted MQL:	0.029873		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	51.782	2.21	1
CalStd9=100	1.0000	1.0375	.037	3.75	780.76	7.87	1
CalStd10=10	10.000	10.016	.016	.155	7089.1	25.2	1
CalStd13=10	100.00	99.947	-.053	-.053	70279.	134.	1

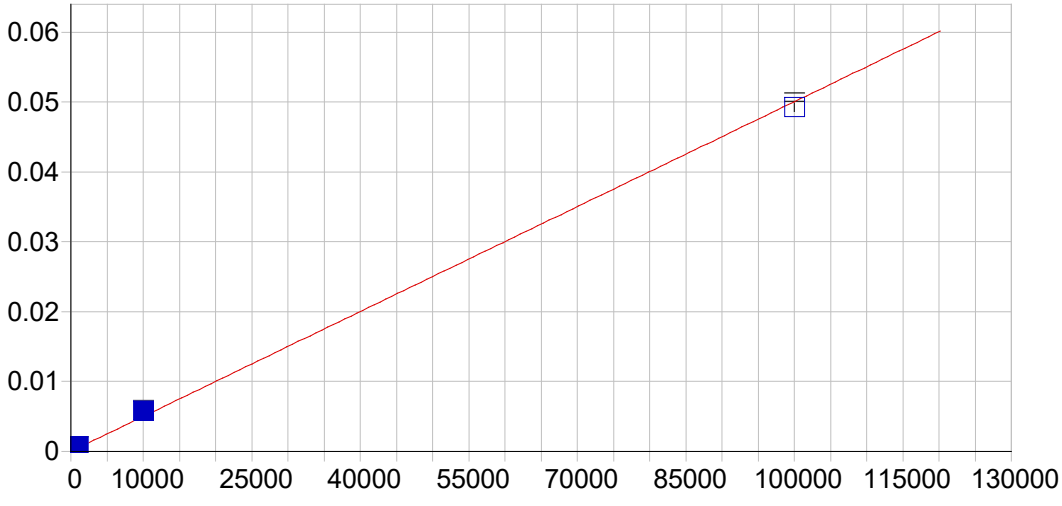


Si 212.412 {458}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000045	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997384	Status:	OK.
Std Error of Est:	0.000167		
Predicted MDL:	1.075564		
Predicted MQL:	3.585212		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-11.063	-11.1	.000	.00001	.000	1
CalStd9=100	1000.0	1108.0	108.	10.8	.00323	.000	1
CalibStd15=	100000.	95483.	-4520.	-4.52	.27442	.000	1
CalStd10=10	10000.	10587.	587.	5.87	.03047	.000	1

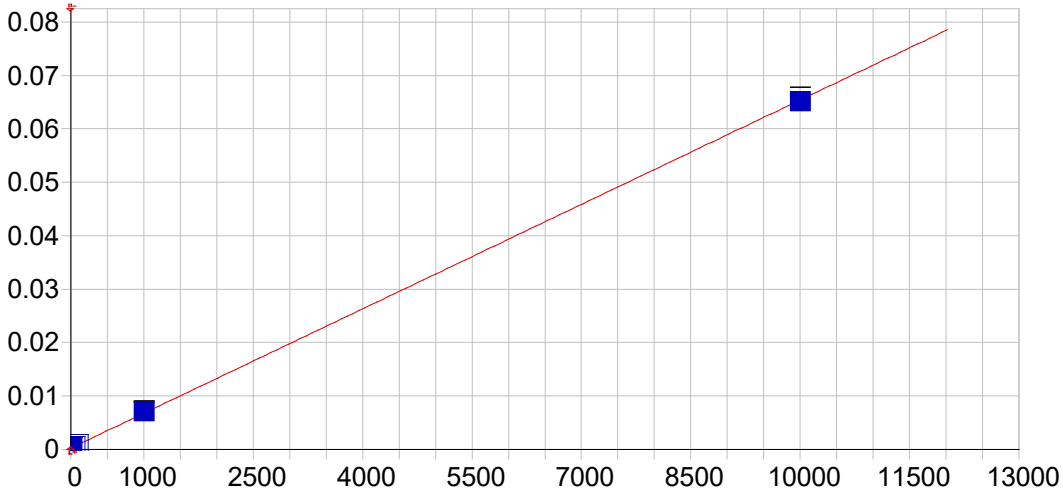


Si 251.611 {134}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998752	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	6.992742		
Predicted MQL:	23.309141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.32470	-.325	.000	.00000	.000	1
CalStd9=100	1000.0	1195.6	196.	19.6	.00060	.000	1
CalibStd15=	100000.	98349.	-1650.	-1.65	.04923	.001	1
CalStd10=10	10000.	11456.	1460.	14.6	.00574	.000	1

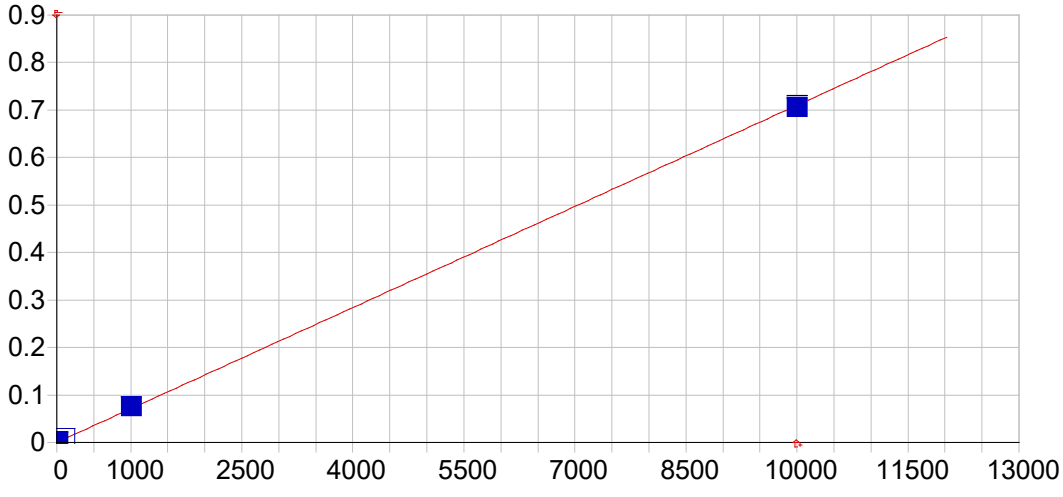


Ti 323.452 {104}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000272	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.242070		
Predicted MQL:	4.140234		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00181	-.002	.000	.00027	.000	1
CalStd5=10	10.000	11.383	1.38	13.8	.00035	.000	1
CalStd8=100	100.00	105.08	5.08	5.08	.00096	.000	1
CalStd9=100	1000.0	1041.4	41.4	4.14	.00706	.000	1
CalStd10=10	10000.	9947.7	-52.3	-.523	.06506	.001	1
CalStd7=50	50.000	54.170	4.17	8.34	.00063	.000	1
CalStd4=5	5.0000	5.2650	.265	5.30	.00031	.000	1

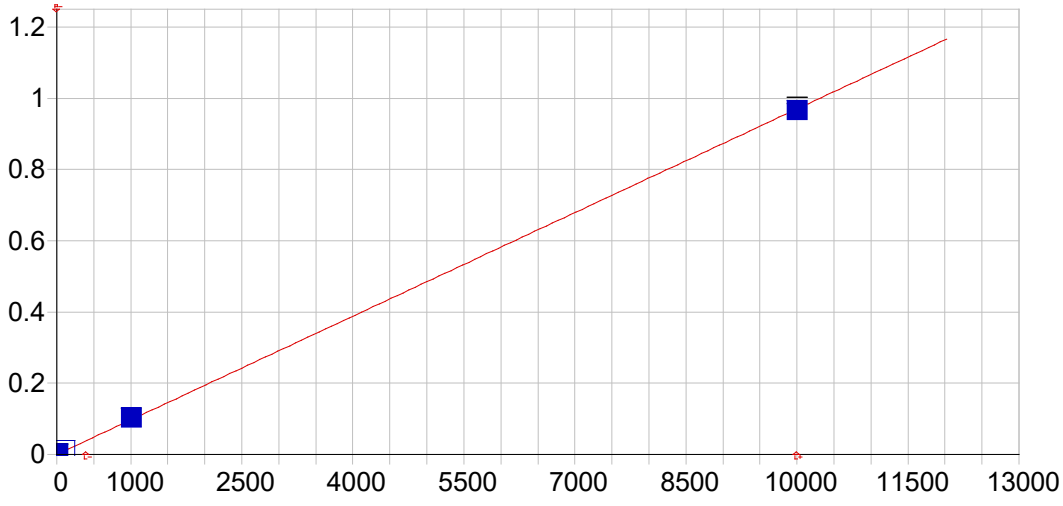


Sr 407.771 { 83}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000095	Re-Slope:	1.000000
A1 (Gain):	0.000071	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999847	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.139140		
Predicted MQL:	0.463801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00044	-.000	.000	.00009	.000	1
CalStd3=1	1.0000	1.2115	.212	21.2	.00018	.000	1
CalStd4=5	5.0000	5.3761	.376	7.52	.00048	.000	1
CalStd5=10	10.000	10.627	.627	6.27	.00085	.000	1
CalStd8=100	100.00	104.30	4.30	4.30	.00750	.000	1
CalStd9=100	1000.0	1052.5	52.5	5.25	.07482	.001	1
CalStd10=10	10000.	9941.9	-58.1	-.581	.70590	.003	1

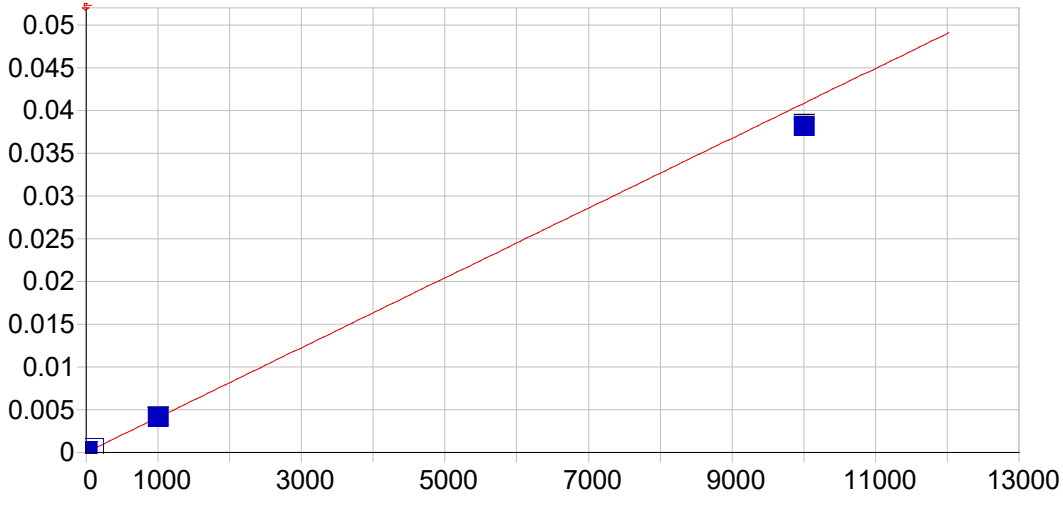


Sr 421.552 { 80}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.000097	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.108229		
Predicted MQL:	0.360762		

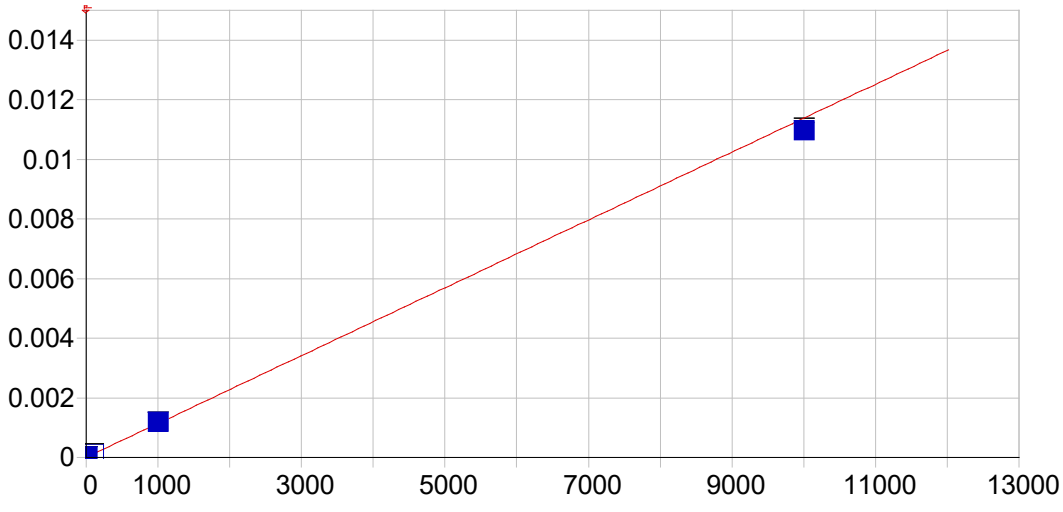
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	-.000	.000	.00004	.000	1
CalStd3=1	1.0000	1.1010	.101	10.1	.00014	.000	1
CalStd4=5	5.0000	5.2705	.270	5.41	.00055	.000	1
CalStd5=10	10.000	10.508	.508	5.08	.00105	.000	1
CalStd8=100	100.00	103.97	3.97	3.97	.01012	.000	1
CalStd9=100	1000.0	1044.8	44.8	4.48	.10137	.001	1
CalStd10=10	10000.	9950.4	-49.6	-.496	.96512	.009	1



Sn 189.989 {477}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999850		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	0.522706				
Predicted MQL:	1.742355				

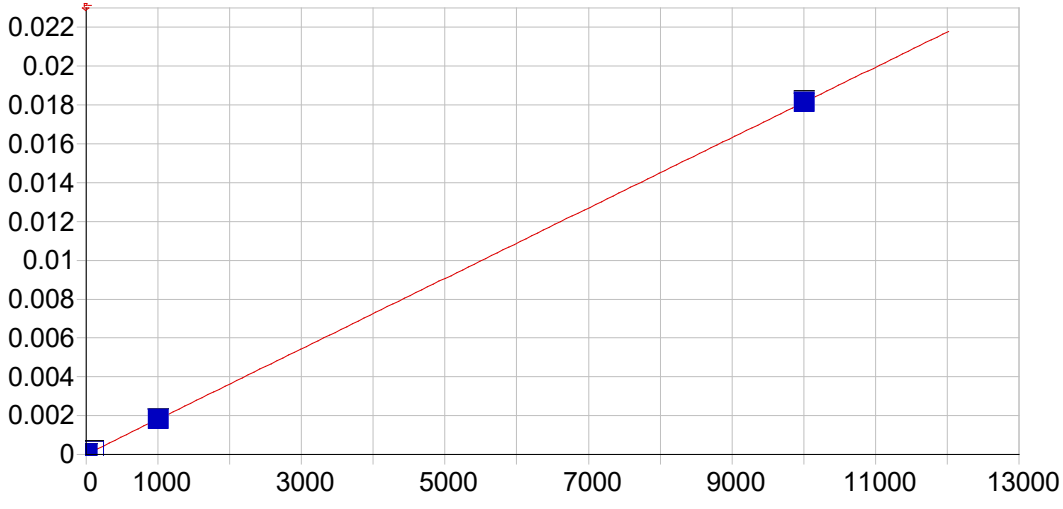
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.42227	-.422	.000	.00000	.000	1
CalStd10=10	10000.	9328.0	-672.	-6.72	.03809	.000	1
CalStd9=100	1000.0	1003.7	3.69	.369	.00410	.000	1
CalStd8=100	100.00	100.10	.100	.100	.00041	.000	1
CalStd5=10	10.000	11.030	1.03	10.3	.00005	.000	1



Sn 189.989 {478}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999405		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	1.442288				
Predicted MQL:	4.807625				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.30797	-.308	.000	.00000	.000	1
CalStd10=10	10000.	9629.9	-370.	-3.70	.01096	.000	1
CalStd9=100	1000.0	1032.5	32.5	3.25	.00118	.000	1
CalStd8=100	100.00	101.15	1.15	1.15	.00012	.000	1
CalStd5=10	10.000	10.092	.092	.916	.00001	.000	1

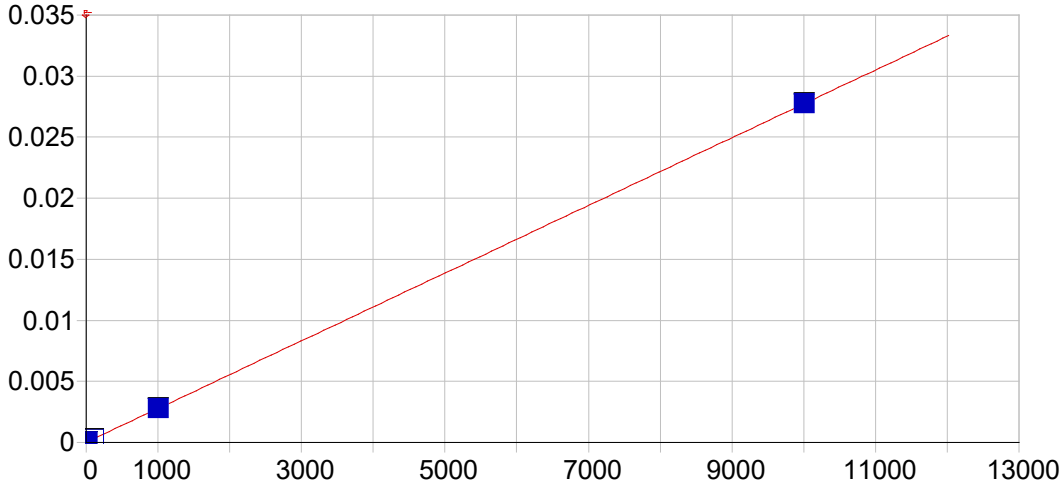


B 249.678 {135}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.769694		
Predicted MQL:	2.565646		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00017	-.000	.000	.00000	.000	1
CalStd8=100	100.00	98.672	-1.33	-1.33	.00018	.000	1
CalStd5=10	10.000	10.293	.293	2.93	.00002	.000	1
CalStd9=100	1000.0	1000.7	.677	.068	.00182	.000	1
CalStd10=10	10000.	10000.	.358	.004	.01814	.000	1

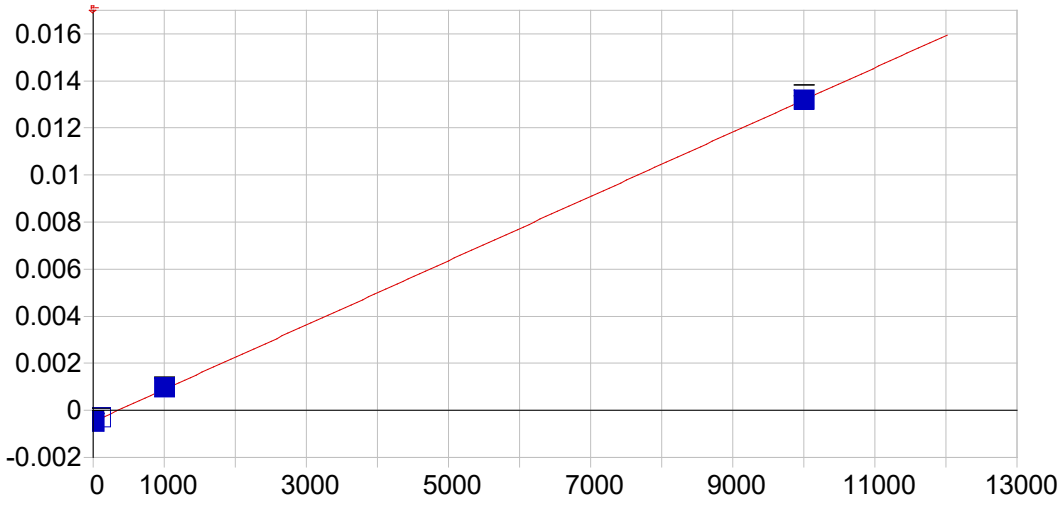


B 249.773 {135}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.403725		
Predicted MQL:	1.345751		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00048	-.000	.000	.00001	.000	1
CalStd8=100	100.00	100.13	.135	.135	.00029	.000	1
CalStd5=10	10.000	10.483	.483	4.83	.00004	.000	1
CalStd9=100	1000.0	998.24	-1.76	-.176	.00278	.000	1
CalStd10=10	10000.	10001.	1.14	.011	.02774	.000	1

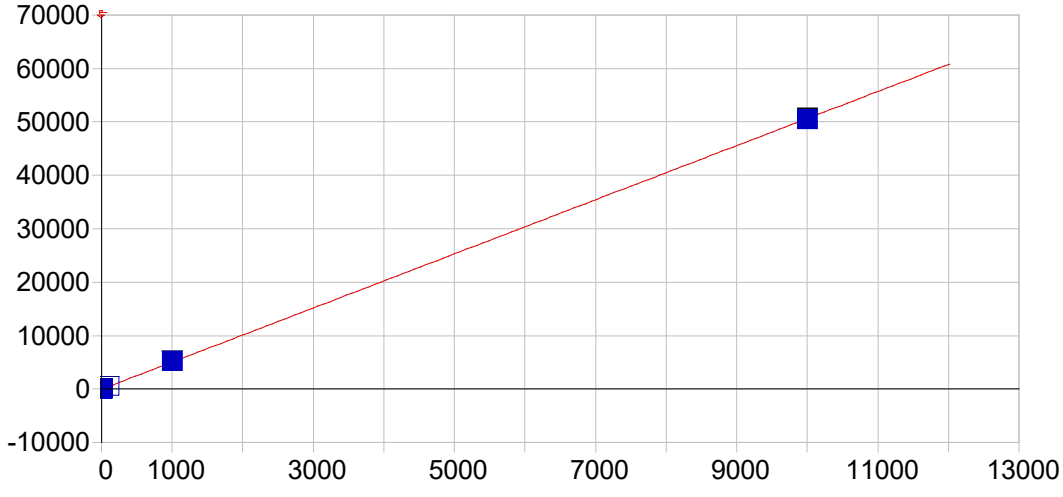


Li 610.353 { 55}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000474	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994993	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	23.843010		
Predicted MQL:	79.476700		

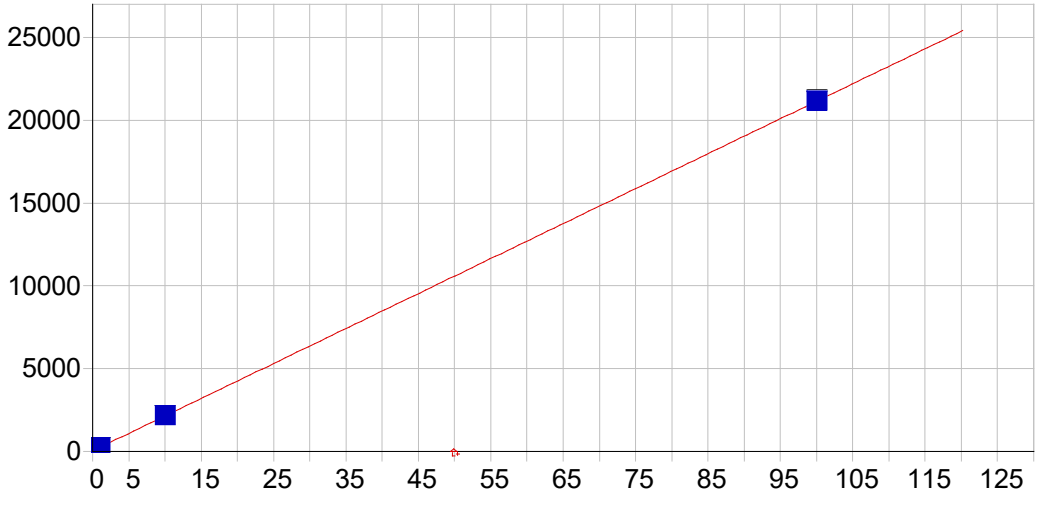
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03204	.032	.000	-.00047	.000	1
CalStd5=10	10.000	-23.123	-33.1	-331.	-.00051	.000	1
CalStd8=100	100.00	106.77	6.77	6.77	-.00033	.000	1
CalStd9=100	1000.0	1042.0	42.0	4.20	.00095	.000	1
CalStd10=10	10000.	9984.3	-15.7	-.157	.01317	.000	1



Li 670.776 { 50}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-30.799338		Re-Slope:	1.000000	
A1 (Gain):	5.065816		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999892		Status:	OK.	
Std Error of Est:	1.014185				
Predicted MDL:	1.271588				
Predicted MQL:	4.238626				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00375	-.004	.000	-30.818	6.07	1
CalStd5=10	10.000	12.921	2.92	29.2	34.656	4.61	1
CalStd8=100	100.00	105.42	5.42	5.42	503.22	5.45	1
CalStd9=100	1000.0	1033.0	33.0	3.30	5202.2	8.79	1
CalStd10=10	10000.	9958.7	-41.3	-.413	50419.	224.	1

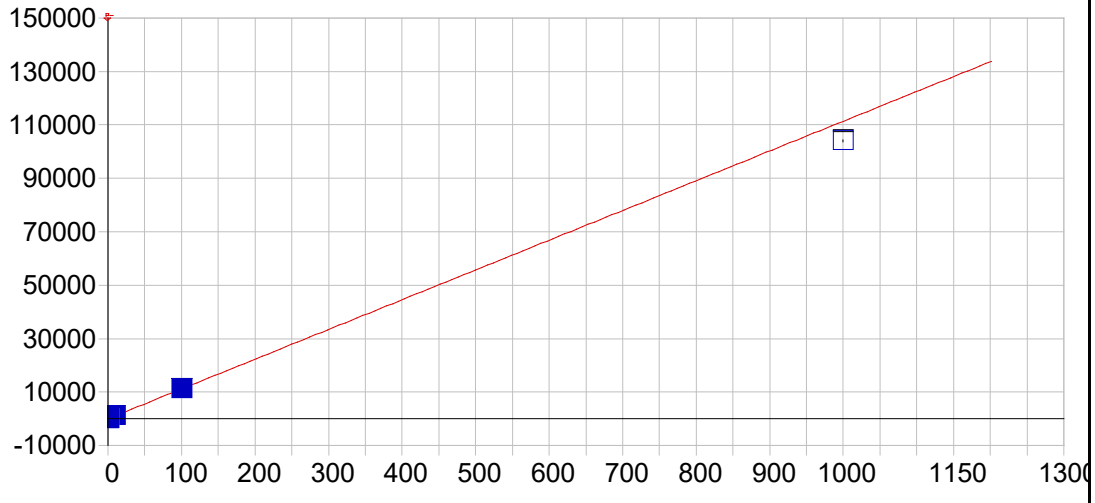


K 766.490 { 44}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	32.267543	Re-Slope:	1.000000
A1 (Gain):	211.130773	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	5.883864		
Predicted MDL:	0.032208		
Predicted MQL:	0.107360		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	32.315	3.58	1
CalStd9=100	1.0000	.97175	-.028	-2.83	238.07	6.41	1
CalStd10=10	10.000	10.033	.033	.329	2156.8	6.67	1
CalStd13=10	100.00	99.923	-.077	-.077	21192.	34.0	1

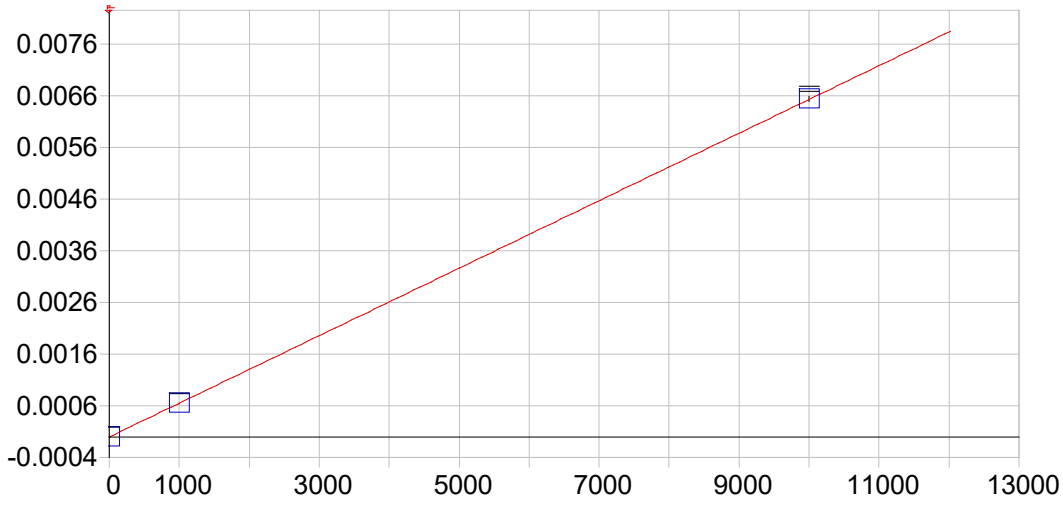


K 769.896 { 44}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	3.540317	Re-Slope:	1.000000
A1 (Gain):	111.378434	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999561	Status:	OK.
Std Error of Est:	58.298796		
Predicted MDL:	0.054157		
Predicted MQL:	0.180523		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07676	-.077	.000	-5.0090	3.02	1
CalStd10=10	10.000	10.026	.026	.262	1121.4	3.26	1
CalibStd15=	1000.0	934.09	-65.9	-6.59	104040.	323.	1
CalStd13=10	100.00	101.33	1.33	1.33	11301.	14.8	1
CalStd9=100	1.0000	1.0053	.005	.525	115.62	3.18	1

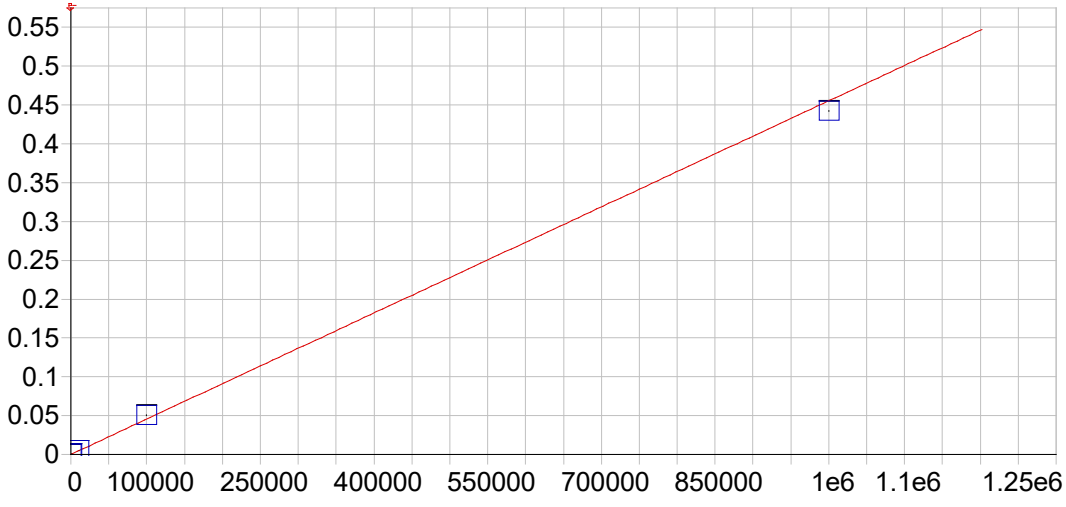


P 177.495 {489}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999994	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.036108		
Predicted MQL:	6.787028		

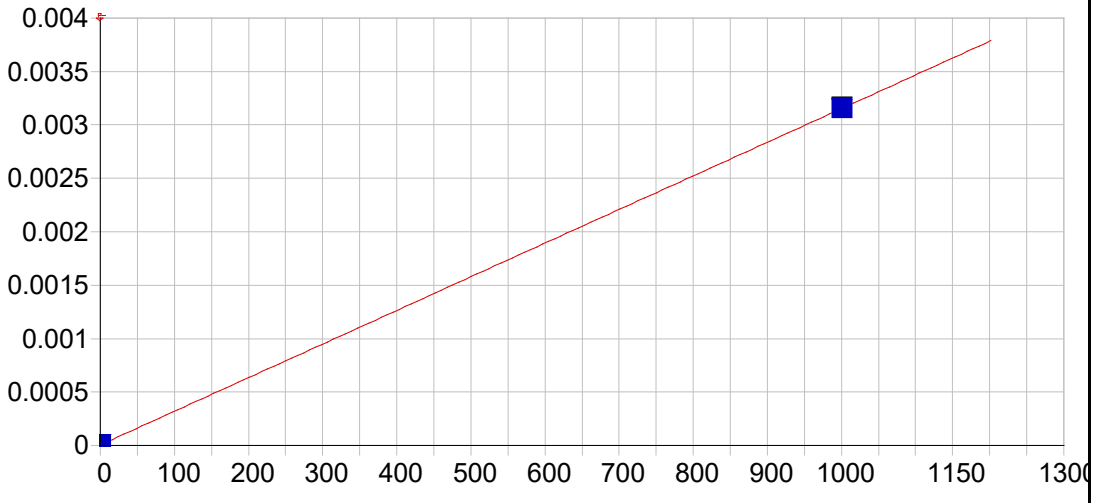
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00956	.010	.000	-.00000	.000	1
CalStd10=10	10000.	10011.	10.6	.106	.00653	.000	1
CalStd9=100	1000.0	989.37	-10.6	-1.06	.00064	.000	1



S 182.034 {485}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000060		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998222		Status:	OK.	
Std Error of Est:	0.000071				
Predicted MDL:	3.771207				
Predicted MQL:	12.570692				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-77.064	-77.1	.000	.00002	.000	1
CalStd9=100	1000.0	1068.5	68.5	6.85	.00055	.000	1
CalStd10=10	10000.	11119.	1120.	11.2	.00512	.000	1
CalibStd15=	1000000.	970890.	-29100.	-2.91	.44213	.000	1
CalStd13=10	100000.	110810.	10800.	10.8	.05051	.000	1

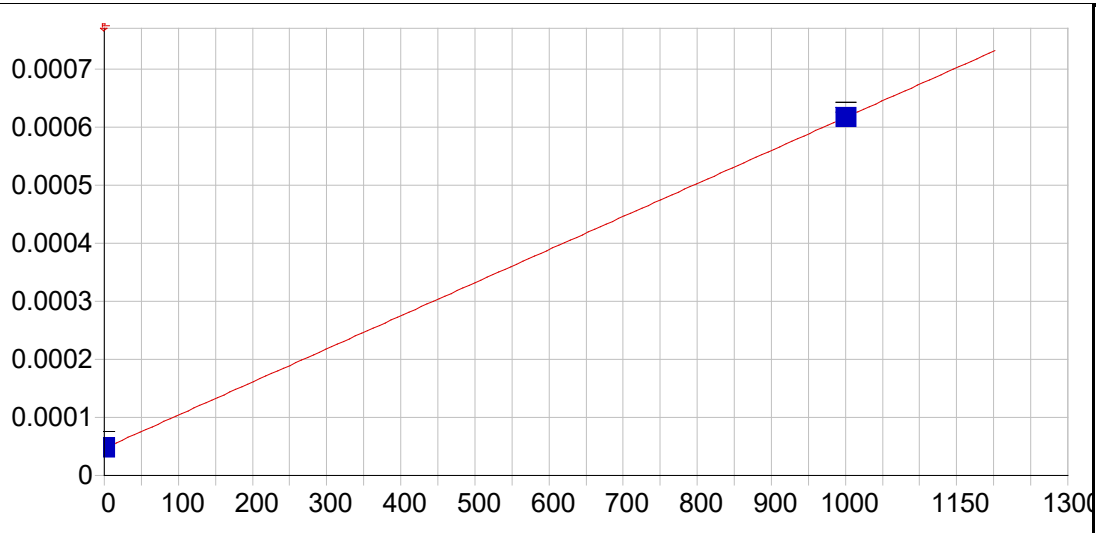


Hg 184.950 {482}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.567355		
Predicted MQL:	1.891182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00315	.000	1



Ce 404.076 { 83}

Date of Fit:	05/04/2022 13:08:43	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000047		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	1.000000		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	17.718102				
Predicted MQL:	59.060340				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00005	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00062	.000	1

Sample Name: Blank Acquired: 05/03/2022 12:22:10 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3968
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**43.7**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.001**	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	1.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.29	2.34	11.5	3.49	870.	18.9	69.6	388.	4.77	540.	2.50	7.44	38.9

Elem	Cd2265	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	140.	70.7	169.	80.0	5.17	54.1	942.	1.34	46.7	210.	39.6	2960.	.337

Elem	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	47.5	780.	41.6	65.1	139.	213.	81.1	22.1	281.	17.1	111.	46.8	169.

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**51.8**	**32.3**	**-5.01**
Stddev	.000	.000	.000	.000	2.2	3.6	3.02
%RSD	20.2	299.	12.4	1530.	4.26	11.1	60.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**362680.**	**2169900.**	**334670.**
Stddev	3580.	11425.	7008.
%RSD	.98723	.52651	2.0939

Sample Name: CalStd2=0.5 Acquired: 05/03/2022 12:29:50 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be2348	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	149.	2.20	3.65	39.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355660.**	**2155900.**	**329450.**
Stddev	1350.	11907.	2371.
%RSD	.37950	.55230	.71953

Sample Name: CalStd3=1 Acquired: 05/03/2022 12:37:31 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.91	8.54	32.3	1.71	20.2	14.2	8.88	15.5	48.2

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**357200.**	**2147100.**	**326520.**
Stddev	1226.	15868.	2849.
%RSD	.34331	.73903	.87258

Sample Name: CalStd4=5 Acquired: 05/03/2022 12:45:12 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	12.0	3.16	3.02	.677	4.76	5.55	.982	1.30	4.66	1.42	8.77	8.58	3.43

Elem	Pb2203	Sb2175
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	10.6	19.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**356280.**	**2160400.**	**326990.**
Stddev	1534.	7141.	2091.
%RSD	.43059	.33052	.63951

Sample Name: CalStd5=10 Acquired: 05/03/2022 12:52:53 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**97.6**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	2.1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	9.27	2.12	1.41	3.49	9.46	163.	1.54	1.99	.909	1.26	5.43	.477	.224

Elem	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.40	1.87	.984	3.28	5.19	2.73	32.6	4.70	17.4	9.82	12.0	5.25	1.06

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	.576	1.01

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355960.**	**2142200.**	**326890.**
Stddev	1498.	17011.	1672.
%RSD	.42077	.79407	.51158

Sample Name: CalStd6=20 Acquired: 05/03/2022 13:00:34 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	.694	.481	1.96	3.59	2.59	.654

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354930.**	**2142700.**	**324860.**
Stddev	1281.	11847.	1290.
%RSD	.36097	.55292	.39720

Sample Name: CalStd7=50 Acquired: 05/03/2022 13:08:13 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.001**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.67	6.04	.686	1.10	.365	.533	.933	.918	.673	.354	.775	2.34	1.16

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354690.**	**2148400.**	**325370.**
Stddev	1327.	20652.	2874.
%RSD	.37410	.96125	.88327

Sample Name: CalStd8=100 Acquired: 05/03/2022 13:15:39 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3968	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**625.**	**.000**	**.000**	**.000**	**.000**	**.001**	**.005**	**.001**	**.008**	**.009**	**.002**	**.000**
Stddev	.000	2.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.935	.294	.533	1.90	3.01	4.72	.518	2.70	1.35	.465	1.20	.195	.740

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.000**	**.001**	**.000**	**.000**	**.005**	**.001**	**.001**	**.000**	**.001**	**.001**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.466	.388	.615	.571	1.08	.545	.467	.374	.587	.327	.525	3.05	.593

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.001**	**.004**
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	1.75	1.26	10.2	.883	.573	.450	.369

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**353700.**	**2119700.**	**324580.**
Stddev	1133.	9111.	4548.
%RSD	.32036	.42983	1.4012

Sample Name: CalStd9=1000 Acquired: 05/03/2022 13:22:59 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3968	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.001**	**.002**	**.001**	**.000**	**.009**	**.046**	**.008**	**.083**	**.001**	**.089**	**.021**	**.005**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.001	.000	.000
%RSD	.391	.699	1.44	.564	.324	.253	.767	.899	.974	1.01	.945	.162	.263

Elem	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.021**	**.002**	**.015**	**.003**	**.004**	**.001**	**.001**	**.003**	**.002**	**.000**	**.053**	**.012**	**.011**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.129	.752	.153	.927	.186	.862	1.06	.858	.544	1.96	.841	.807	.968

Elem	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.003**	**.013**	**.012**	**.001**	**.003**	**.001**	**.001**	**.001**	**.000**	**.002**	**.008**	**.015**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.100	.418	.090	.189	.385	.244	.337	.122	.374	1.17	.489	.796	.354

Elem	Zn2138	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.036**	**781.**	**238.**	**116.**
Stddev	.000	8.	6.	3.
%RSD	.101	1.01	2.69	2.75

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**355080.**	**2141200.**	**326860.**
Stddev	479.	18504.	2893.
%RSD	.13483	.86417	.88493

Sample Name: CalStd10=10000 Acquired: 05/03/2022 13:30:07 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.006**	**.016**	**.004**	**.086**	**.429**	**.005**	**.838**	**.197**	**.023**	**.136**	**.034**	**.040**	**.005**
Stddev	.000	.000	.000	.001	.004	.000	.015	.002	.000	.001	.000	.000	.000
%RSD	1.18	.972	.954	.799	.984	.768	1.84	.800	.099	.785	.148	.894	.048

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.025**	**.015**	**.001**	**.470**	**.118**	**.101**	**.056**	**.032**	**.118**	**.109**	**.007**	**.013**
Stddev	.000	.000	.000	.000	.001	.000	.001	.000	.000	.001	.001	.000	.000
%RSD	1.23	.803	.910	1.07	.159	.180	1.08	.802	.774	.749	.734	.862	.910

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.013**	**.007**	**.002**	**.015**	**.078**	**.138**	**7090.**	**2160.**	**1120.**
Stddev	.000	.000	.000	.000	.000	.001	25.	7.	3.
%RSD	.932	.887	1.04	.764	.154	.552	.356	.309	.291

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**350980.**	**2042100.**	**327470.**
Stddev	2811.	3127.	2513.
%RSD	.80078	.15312	.76726

Sample Name: CalStd12=100K Acquired: 05/03/2022 13:37:59 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.27**	**1.02**	**.071**	**1.24**
Stddev	.01	.02	.000	.00
%RSD	.646	1.73	.295	.301

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**352890.**	**2129200.**	**325570.**
Stddev	976.	6237.	1581.
%RSD	.27656	.29294	.48564

Sample Name: CalStd13=100000 Acquired: 05/03/2022 13:46:24 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.063**	**.162**	**.056**	**.048**	**.093**	**.258**	**.148**	**.007**	**.001**	**70300.**	**21200.**
Stddev	.001	.001	.000	.000	.001	.002	.000	.000	.000	134.	34.
%RSD	.877	.694	.760	.624	.739	.691	.210	.789	.586	.191	.161

Elem	K_7698
Units	Cts/S
Avg	**11300.**
Stddev	15.
%RSD	.131

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**341040.**	**2077300.**	**323980.**
Stddev	383.	11507.	2514.
%RSD	.11239	.55395	.77598

Sample Name: CalStd14=500000 Acquired: 05/03/2022 13:53:50 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.305**	**.787**	**.264**	**.418**	**1.17**	**.679**	**.034**	**.004**
Stddev	.005	.017	.005	.008	.03	.001	.001	.000
%RSD	1.79	2.13	1.81	1.87	2.12	.117	1.79	1.89

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**311830.**	**311670.**
Stddev	472.	4947.
%RSD	.15135	1.5871

Sample Name: CalibStd15=1000k Acquired: 05/03/2022 14:02:15 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.598**	**1.56**	**.497**	**.753**	**2.15**	**1.29**	**.065**	**.007**	**104000.**
Stddev	.006	.03	.008	.008	.02	.00	.001	.000	323.
%RSD	1.01	1.75	1.67	1.08	1.06	.294	1.03	.703	.310

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**290490.**	**305250.**
Stddev	197.	3552.
%RSD	.06798	1.1635

Sample Name: Ag 1000 Acquired: 05/03/2022 14:10:56 Type: Cal
Method: DOD Calibration Updated 060614(v5020) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382
Units	Cts/S
Avg	**5270.**
Stddev	11.
%RSD	.200

Sample Name: icv Acquired: 05/03/2022 14:26:16 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.6**	**50.4**	**12000.**	**2050.**	**2040.**	**49.8**	**10300.**	**47.6**	**516.**	**202.**	**246.**	**5020.**
Stddev	.3	.6	180.	12.	4.	.4	107.	.2	1.	2.	2.	40.
%RSD	.596	1.24	1.50	.577	.201	.902	1.03	.496	.220	.940	.620	.799
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5170.**	**10400.**	**507.**	**505.**	**512.**	**493.**	**474.**	**510.**	**2070.**	**1970.**	**2010.**	**487.**
Stddev	89.	87.	5.	1.	2.	3.	1.	2.	7.	10.	4.	5.
%RSD	1.71	.834	.932	.206	.322	.671	.164	.361	.354	.500	.174	.970
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**556.**	**503.**	**106.**	**98.2**	**99.1**
Stddev	.	1.	1.	.6	.4
%RSD	.059	.201	.704	.618	.411
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: icv Acquired: 05/03/2022 14:26:16 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**346090.**	**2067400.**	**321090.**
Stddev	731.	17946.	2826.
%RSD	.21132	.86803	.88015

Sample Name: ICVLL Acquired: 05/03/2022 14:40:51 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.79**	**9.17**	**401.**	**20.7**	**10.7**	**4.06**	**511.**	**5.06**	**10.6**	**9.93**	**11.0**	**307.**	**548.**
Stddev	.53	1.13	2.	4.4	.2	.02	2.	.11	.1	.16	1.1	3.	2.
%RSD	6.07	12.3	.485	21.4	2.19	.386	.367	2.19	1.06	1.59	10.4	.859	.429
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.3**	**9.95**	**10.4**	**9.07**	**20.9**	**25.0**	**22.2**	**9.53**	**10.3**	**2.02**	**1.15**	**1.02**
Stddev	.0	.62	.2	1.36	2.6	1.6	1.3	.12	.1	.02	.03	.03
%RSD	.432	6.22	1.96	15.0	12.3	6.34	5.67	1.30	1.02	.781	2.42	2.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**358640.**	**2159200.**	**333450.**
Stddev	1359.	9331.	2213.
%RSD	.37894	.43213	.66376

Sample Name: icb Acquired: 05/03/2022 14:56:07 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.209**	**.150**	**-.109**	**-.569**	**.197**	**.002**	**.083**	**-.064**	**-.073**	**.016**	**.607**	**.617**	**.037**
Stddev	.312	.414	.494	3.44	.166	.005	.039	.176	.171	.210	.576	.414	.069
%RSD	150.	277.	453.	606.	84.3	247.	47.1	274.	234.	1300.	94.9	67.1	186.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.066**	**-.025**	**-.123**	**-.331**	**-2.65**	**.540**	**-.737**	**-.169**	**-.027**	**.005**	**.004**	**-.083**
Stddev	.021	.304	.360	.874	2.04	1.16	1.12	.267	.075	.007	.035	.023
%RSD	31.8	1190.	292.	264.	76.9	215.	152.	158.	272.	149.	825.	27.4
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**362960.**	**2175700.**	**334280.**
Stddev	2329.	25560.	2110.
%RSD	.64153	1.1748	.63134

Sample Name: MRL/LLOQ Acquired: 05/03/2022 15:03:49 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**7.88**	**7.79**	**407.**	**20.2**	**10.8**	**4.12**	**529.**	**5.14**	**10.7**	**9.98**	**12.8**	**346.**	**558.**
Stddev	.41	.84	3.	1.8	.1	.01	1.	.17	.2	.25	.7	3.	1.
%RSD	5.27	10.8	.796	9.03	1.31	.248	.221	3.31	2.18	2.49	5.61	.900	.267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10.5**	**10.1**	**10.2**	**9.21**	**17.9**	**22.5**	**19.1**	**9.84**	**10.2**	**2.00**	**1.02**	**.930**
Stddev	.0	.4	.3	1.10	1.9	.9	1.2	.13	.2	.01	.05	.054
%RSD	.364	3.62	2.79	11.9	10.7	3.79	6.33	1.31	1.65	.394	4.70	5.80
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**354980.**	**2113900.**	**327460.**
Stddev	1974.	6113.	1432.
%RSD	.55614	.28919	.43730

Sample Name: ICSA Acquired: 05/03/2022 15:11:26 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.000**	**.023**	**511000.**	**494000.**	**-.784**	**.022**	**-.140**	**487000.**	**-.000**	**.376**	**-7.72**
Stddev	.310	.726	2670.	4910.	8.49	.217	.020	3400.	.330	.255	.44
%RSD	194000.	3220.	.522	.994	1080.	999.	14.2	.699	115000.	67.9	5.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.31**	**538000.**	**452000.**	**506000.**	**522000.**	**-.877**	**-1.91**	**4.63**	**.000**	**.000**	**-.008**
Stddev	.64	3630.	6160.	675.	2670.	.137	.17	.38	2.35	1.25	3.36
%RSD	27.6	.674	1.36	.133	.511	15.6	8.97	8.24	1130000.	257000.	42500.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.016**	**9410.**	**4.83**	**-.316**	**-1.25**	**-.308**
Stddev	2.02	71.	.52	.020	.02	.035
%RSD	12700.	.759	10.7	6.22	1.45	11.5
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA Acquired: 05/03/2022 15:11:26 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**320540.**	**1990500.**	**316800.**
Stddev	492.	16138.	1094.
%RSD	.15353	.81075	.34543

Sample Name: ICSAB Acquired: 05/03/2022 15:19:35 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	Al3961	As1937	Ba2335	Be2348	Ca3158	Cd2288	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**453.**	**516000.**	**502000.**	**504.**	**528.**	**502.**	**495000.**	**510.**	**496.**	**482.**	**538.**
Stddev	1.	7620.	9920.	10.	3.	8.	7020.	2.	2.	2.	2.
%RSD	.225	1.48	1.98	2.01	.644	1.56	1.42	.400	.401	.315	.293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**553000.**	**458000.**	**510000.**	**527000.**	**499.**	**493.**	**491.**	**443.**	**510.**	**507.**	**526.**
Stddev	9350.	8510.	1700.	7690.	2.	3.	2.	2.	4.	7.	2.
%RSD	1.69	1.86	.334	1.46	.325	.575	.421	.482	.820	1.46	.411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Avg	**478.**	**493.**	**508.**	**52.5**	**49.9**	**49.7**	**51.1**
Stddev	2.	3.	2.	.6	.0	.0	.1
%RSD	.391	.559	.449	1.18	.067	.089	.189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 05/03/2022 15:19:35 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**321230.**	**1970800.**	**316790.**
Stddev	809.	6719.	4520.
%RSD	.25186	.34092	1.4269

Sample Name: ICV LL ag Acquired: 05/03/2022 15:34:55 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**8.04**	**8.79**	**3.50**	**1.89**	**.209**	**.007**	**5.80**	**.092**	**-.002**	**.063**	**1.83**	**39.6**	**3.01**
Stddev	.58	.27	.44	1.84	.129	.008	.04	.069	.073	.170	.60	6.2	.03
%RSD	7.19	3.09	12.6	97.2	61.9	120.	.716	75.1	4810.	273.	32.9	15.5	1.01

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.127**	**.319**	**-.128**	**-.144**	**-1.68**	**1.56**	**.346**	**-.140**	**.275**	**.024**	**-.016**	**-.033**
Stddev	.049	.230	.356	1.12	1.79	4.38	1.21	.220	.096	.012	.021	.029
%RSD	38.6	72.1	278.	774.	107.	281.	348.	157.	35.0	50.0	128.	88.0

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**357290.**	**2150100.**	**328290.**
Stddev	552.	12486.	1094.
%RSD	.15445	.58072	.33331

Sample Name: ccv1 Acquired: 05/03/2022 20:03:24 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2286	Co2388	Cr2055	Cu2230	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**506.**	**4710.**	**4680.**	**4640.**	**467.**	**4880.**	**474.**	**4750.**	**4820.**	**4570.**	**4680.**	**4860.**	**4780.**
Stddev	2.	99.	22.	75.	8.	75.	1.	7.	37.	8.	10.	41.	80.
%RSD	.379	2.11	.469	1.62	1.70	1.54	.149	.155	.762	.168	.216	.846	1.68
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4770.**	**4640.**	**4970.**	**4640.**	**4650.**	**4510.**	**4700.**	**4920.**	**4710.**	**5280.**	**95.4**	**95.0**	**95.7**
Stddev	76.	74.	7.	8.	3.	13.	14.	10.	32.	13.	2.2	.3	.2
%RSD	1.59	1.59	.138	.173	.059	.293	.306	.204	.671	.250	2.31	.321	.244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**349370.**	**2045700.**	**328460.**
Stddev	352.	15599.	5533.
%RSD	.10061	.76256	1.6846

Sample Name: ccv2 Acquired: 05/03/2022 20:10:23 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.0**	**475.**	**465.**	**505.**	**47.5**	**479.**	**45.3**	**490.**	**485.**	**490.**	**501.**	**491.**	**529.**
Stddev	.2	1.	4.	1.	.4	5.	.3	1.	4.	1.	5.	6.	4.
%RSD	.520	.304	.830	.279	.741	1.02	.753	.176	.898	.174	.960	1.27	.834
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**494.**	**469.**	**495.**	**498.**	**467.**	**480.**	**492.**	**526.**	**467.**	**536.**	**463.**	**9.63**	**9.56**
Stddev	4.	1.	1.	7.	1.	2.	2.	2.	4.	1.	1.	.05	.04
%RSD	.801	.143	.103	1.39	.171	.333	.414	.376	.752	.206	.187	.520	.386
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**9.72**
Stddev	.04
%RSD	.422
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 05/03/2022 20:10:23 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**358630.**	**2134400.**	**331250.**
Stddev	672.	17206.	2284.
%RSD	.18747	.80612	.68960

Sample Name: ccb Acquired: 05/03/2022 20:17:21 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.948**	**-.358**	**-.035**	**1.59**	**-.262**	**.031**	**1.56**	**.093**	**.074**	**-.056**	**.939**	**.943**	**.587**
Stddev	.598	.480	.398	3.40	.159	.008	.33	.145	.153	.398	.868	.325	.015
%RSD	63.1	134.	1140.	214.	60.8	26.2	21.0	156.	206.	713.	92.4	34.4	2.57
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.025**	**1.27**	**.181**	**1.21**	**-2.35**	**.393**	**-.156**	**-.052**	**.116**	**.036**	**.050**	**-.019**
Stddev	.060	.24	.516	.84	2.13	2.07	1.07	.313	.037	.005	.025	.075
%RSD	238.	18.6	285.	69.4	90.9	528.	687.	597.	32.1	12.9	49.8	398.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**366170.**	**2168800.**	**338130.**
Stddev	196.	10956.	3193.
%RSD	.05357	.50515	.94439

Sample Name: lcsw95267 Acquired: 05/03/2022 21:35:19 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.3**	**38.1**	**752.**	**799.**	**825.**	**19.7**	**196000.**	**17.7**	**198.**	**81.3**	**97.2**
Stddev	.6	.4	2.	3.	1.	.1	1290.	.2	1.	.6	.7
%RSD	3.03	.964	.209	.430	.071	.693	.658	.872	.258	.738	.701

Elem	Fe2343	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**403.**	**95400.**	**201.**	**2050.**	**201.**	**188.**	**200.**	**821.**	**820.**	**193.**	**222.**
Stddev	3.	881.	1.	7.	1.	1.	1.	4.	1.	2.	1.
%RSD	.855	.924	.578	.351	.316	.681	.616	.480	.113	.874	.322

Elem	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	mg/L	mg/L	mg/L
Avg	**197.**	**98.8**	**91.5**	**96.2**
Stddev	.	1.4	.2	.2
%RSD	.121	1.37	.270	.231

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**338540.**	**2031200.**	**325960.**
Stddev	438.	12311.	2484.
%RSD	.12933	.60608	.76189

Sample Name: ccv1 Acquired: 05/03/2022 21:42:32 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2286	Co2388	Cr2055	Cu2230	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**508.**	**4630.**	**4640.**	**4610.**	**464.**	**4860.**	**476.**	**4750.**	**4830.**	**4560.**	**4650.**	**4870.**	**4750.**
Stddev	1.	55.	47.	39.	5.	48.	3.	37.	24.	35.	44.	26.	37.
%RSD	.224	1.18	1.02	.848	1.17	.979	.677	.776	.495	.770	.941	.526	.789
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4730.**	**4620.**	**4980.**	**4610.**	**4630.**	**4490.**	**4710.**	**4930.**	**4700.**	**5300.**	**94.9**	**93.1**	**96.3**
Stddev	47.	42.	35.	39.	37.	44.	33.	33.	20.	29.	.6	.3	.2
%RSD	.984	.913	.712	.854	.797	.974	.703	.668	.433	.550	.615	.309	.171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**351380.**	**2046500.**	**331880.**
Stddev	2221.	12112.	3166.
%RSD	.63202	.59182	.95381

Sample Name: ccv2 Acquired: 05/03/2022 21:49:33 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.1**	**479.**	**465.**	**506.**	**47.5**	**471.**	**44.9**	**490.**	**484.**	**486.**	**500.**	**492.**	**532.**
Stddev	.0	1.	2.	1.	.0	2.	.3	1.	2.	2.	1.	5.	1.
%RSD	.016	.176	.375	.293	.087	.428	.718	.138	.443	.428	.147	1.08	.112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**494.**	**469.**	**495.**	**498.**	**467.**	**476.**	**491.**	**535.**	**463.**	**544.**	**462.**	**9.66**	**9.65**
Stddev	.	.	1.	3.	5.	2.	4.	6.	.	1.	1.	.12	.08
%RSD	.044	.047	.196	.514	1.03	.430	.754	1.16	.051	.135	.178	1.20	.849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**9.93**
Stddev	.13
%RSD	1.27
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 05/03/2022 21:49:33 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**358110.**	**2128800.**	**329020.**
Stddev	1121.	617.	4892.
%RSD	.31294	.02898	1.4867

Sample Name: ccb Acquired: 05/03/2022 21:56:31 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.20**	**-.691**	**-.128**	**-1.50**	**.243**	**.035**	**1.63**	**.011**	**-.008**	**-.264**	**.688**	**.702**	**.632**
Stddev	.21	.687	.431	3.13	.205	.004	.16	.110	.166	.353	.630	.762	.039
%RSD	17.5	99.5	338.	208.	84.4	12.9	9.82	1020.	2080.	134.	91.5	108.	6.17
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**-.010**	**1.07**	**.178**	**-.706**	**-2.12**	**.144**	**-.435**	**-.090**	**.141**	**.181**	**.224**	**.119**
Stddev	.043	.18	.161	1.92	1.85	2.94	1.33	.303	.037	.011	.034	.074
%RSD	446.	16.5	90.4	272.	87.6	2050.	306.	338.	26.1	6.31	15.4	61.9
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**366140.**	**2181700.**	**335790.**
Stddev	3681.	13478.	1767.
%RSD	1.0053	.61779	.52621

Sample Name: mbw95267 Acquired: 05/03/2022 22:04:12 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.17**	**-.716**	**2.23**	**-.230**	**-.059**	**.037**	**3.69**	**-.019**	**-.050**	**-.039**	**2.21**	**3.44**	**.616**
Stddev	.21	.643	.29	3.30	.180	.009	.10	.182	.137	.337	.32	.91	.058
%RSD	18.0	89.8	13.0	1430.	306.	24.7	2.60	981.	277.	853.	14.3	26.5	9.39

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.020**	**1.06**	**-.169**	**-.606**	**-1.88**	**.300**	**.205**	**-.018**	**.376**	**.155**	**.175**	**.051**
Stddev	.035	.11	.374	.518	.73	3.18	2.19	.073	.100	.016	.020	.033
%RSD	176.	10.5	221.	85.5	38.6	1060.	1070.	405.	26.6	10.6	11.6	64.7

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**360520.**	**2145500.**	**332970.**
Stddev	1887.	12167.	2733.
%RSD	.52347	.56712	.82093

Sample Name: 1137439 Acquired: 05/03/2022 22:11:53 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.33**	**18.8**	**329.**	**3.52**	**34.9**	**.163**	**67800.**	**-.098**	**.674**	**3.36**	**5.30**	**684.**
Stddev	.19	.3	4.	3.77	.4	.009	719.	.098	.165	.31	.07	2.
%RSD	14.0	1.52	1.07	107.	1.02	5.72	1.06	99.4	24.4	9.21	1.41	.297

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**678.**	**32800.**	**81.2**	**1.40**	**.319**	**3.13**	**-.092**	**1.89**	**.065**	**.888**	**51.2**	**27.1**
Stddev	9.	423.	.4	.25	.179	.61	3.06	2.35	1.63	.170	.2	.3
%RSD	1.27	1.29	.529	17.8	56.2	19.4	3340.	124.	2510.	19.1	.327	1.00

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**1.81**	**1.77**
Stddev	.06	.03
%RSD	3.17	1.87

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**352060.**	**2090600.**	**333290.**
Stddev	2234.	6722.	6105.
%RSD	.63442	.32152	1.8317

Sample Name: I1137439 Acquired: 05/03/2022 22:19:41 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.24**	**7.36**	**51.7**	**-.600**	**6.08**	**.059**	**16900.**	**-.019**	**.182**	**.620**	**2.01**	**145.**
Stddev	.28	.67	4.5	2.89	.41	.017	901.	.098	.181	.300	.72	7.
%RSD	22.7	9.15	8.60	482.	6.80	29.6	5.32	521.	99.4	48.4	35.7	4.84

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**8230.**	**17.7**	**.317**	**-.196**	**.190**	**-.850**	**-2.27**	**.815**	**-.029**	**9.19**	**6.76**	**.496**
Stddev	459.	.9	.318	.307	.402	.708	1.31	1.32	.346	.69	.31	.030
%RSD	5.57	4.88	100.	157.	211.	83.3	57.6	162.	1190.	7.47	4.58	6.00

Elem	K_7698
Units	mg/L
Avg	**.416**
Stddev	.033
%RSD	7.97

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**360280.**	**2127900.**	**337000.**
Stddev	1198.	21672.	3806.
%RSD	.33260	1.0185	1.1292

Sample Name: dup1137439 Acquired: 05/03/2022 22:27:42 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1.13**	**17.9**	**351.**	**3.11**	**35.7**	**.189**	**68500.**	**.074**	**.874**	**3.53**	**6.25**	**700.**
Stddev	.53	.3	2.	2.91	.2	.017	845.	.110	.226	.40	.45	5.
%RSD	46.3	1.41	.635	93.4	.532	9.15	1.23	149.	25.8	11.4	7.13	.662

Elem	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**699.**	**33400.**	**82.1**	**.991**	**.716**	**1.97**	**-.514**	**2.44**	**-.725**	**.742**	**52.6**	**27.1**
Stddev	9.	370.	.6	.272	.300	.43	.830	1.83	.893	.215	.3	.2
%RSD	1.29	1.11	.769	27.5	41.8	21.8	161.	74.9	123.	28.9	.574	.813

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**1.76**	**1.72**
Stddev	.04	.03
%RSD	2.35	1.78

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**350540.**	**2101700.**	**329770.**
Stddev	1521.	17765.	4534.
%RSD	.43383	.84531	1.3749

Sample Name: msw1137439 Acquired: 05/03/2022 22:35:30 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.9**	**38.4**	**1690.**	**2110.**	**826.**	**884.**	**20.7**	**267000.**	**18.5**	**204.**	**87.0**
Stddev	.2	.4	4.	31.	5.	2.	.1	3840.	.2	.	.5
%RSD	1.10	1.16	.262	1.46	.600	.171	.594	1.44	1.07	.148	.540

Elem	Cu2230	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**107.**	**1480.**	**1480.**	**132000.**	**289.**	**2110.**	**205.**	**194.**	**209.**	**845.**	**824.**
Stddev	1.	11.	18.	1850.	1.	4.	.	1.	2.	4.	4.
%RSD	1.39	.744	1.22	1.40	.493	.182	.182	.688	1.07	.516	.498

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**201.**	**280.**	**258.**	**130.**	**124.**	**103.**
Stddev	1.	1.	.	2.	.	.
%RSD	.481	.306	.078	1.23	.241	.214

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**333590.**	**2006700.**	**327880.**
Stddev	501.	11328.	3811.
%RSD	.15008	.56450	1.1622

Sample Name: msdw1137439 Acquired: 05/03/2022 22:42:33 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.3**	**38.6**	**3130.**	**814.**	**886.**	**20.5**	**267000.**	**18.6**	**203.**	**86.5**	**109.**
Stddev	.0	.6	29.	4.	2.	.2	2190.	.1	.	1.4	.
%RSD	.099	1.63	.929	.530	.211	1.17	.822	.608	.159	1.57	.354

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2100.**	**2130.**	**133000.**	**291.**	**2110.**	**205.**	**193.**	**207.**	**839.**	**817.**	**200.**
Stddev	24.	24.	1380.	3.	3.	.	1.	1.	3.	2.	2.
%RSD	1.12	1.11	1.04	.999	.123	.196	.716	.318	.353	.281	.880

Elem	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**284.**	**262.**	**130.**	**122.**	**101.**
Stddev	1.	.	1.	.	.
%RSD	.182	.081	1.14	.259	.250

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**334140.**	**2019900.**	**322150.**
Stddev	657.	19218.	2488.
%RSD	.19673	.95140	.77225

Sample Name: pdsw1137439 Acquired: 05/03/2022 22:49:36 Type: Unk
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**79.6**	**91.4**	**4420.**	**3630.**	**3620.**	**86.9**	**428000.**	**79.6**	**873.**	**353.**	**432.**
Stddev	.5	.8	157.	11.	6.	.4	12700.	.3	2.	2.	3.
%RSD	.608	.836	3.55	.306	.169	.442	2.97	.423	.214	.547	.644

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2320.**	**2420.**	**216000.**	**946.**	**1600.**	**866.**	**930.**	**820.**	**875.**	**3520.**	**3440.**
Stddev	9.	67.	6300.	3.	3.	3.	9.	3.	7.	25.	5.
%RSD	.403	2.75	2.92	.344	.182	.289	.928	.350	.785	.696	.156

Elem	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**856.**	**996.**	**928.**	**214.**	**200.**	**186.**
Stddev	4.	1.	2.	5.	3.	3.
%RSD	.443	.112	.226	2.13	1.64	1.64

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**326120.**	**1985200.**	**322960.**
Stddev	411.	9883.	3648.
%RSD	.12612	.49783	1.1295

Sample Name: ccv1 Acquired: 05/03/2022 23:19:51 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al3092	As1972	Ba4934	Be2348	Ca3158	Cd2288	Co2286	Co2388	Cr2055	Cu2230	Fe2343	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**504.**	**4860.**	**4760.**	**4630.**	**470.**	**4880.**	**470.**	**4780.**	**4750.**	**4570.**	**4750.**	**4830.**	**4910.**
Stddev	1.	123.	13.	59.	6.	81.	1.	13.	15.	15.	9.	25.	153.
%RSD	.137	2.52	.268	1.28	1.37	1.65	.299	.263	.316	.332	.198	.511	3.12
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2790	Mn2593	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302	Na5895	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4890.**	**4740.**	**4920.**	**4720.**	**4650.**	**4570.**	**4740.**	**4860.**	**4700.**	**5210.**	**96.2**	**91.7**	**94.5**
Stddev	74.	71.	16.	12.	18.	12.	31.	22.	14.	27.	2.0	.8	.9
%RSD	1.51	1.49	.334	.259	.392	.262	.661	.449	.286	.525	2.13	.866	.942
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**349720.**	**2062900.**	**323250.**
Stddev	968.	6502.	5635.
%RSD	.27682	.31519	1.7431

Sample Name: ccv2 Acquired: 05/03/2022 23:26:52 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.4**	**482.**	**465.**	**502.**	**47.5**	**476.**	**45.8**	**490.**	**483.**	**493.**	**502.**	**491.**	**527.**
Stddev	.8	3.	3.	3.	.5	6.	.1	2.	5.	3.	5.	6.	6.
%RSD	1.68	.596	.714	.544	.980	1.26	.181	.371	.995	.679	1.06	1.17	1.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138	Na5895	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**493.**	**468.**	**492.**	**496.**	**465.**	**483.**	**493.**	**521.**	**468.**	**529.**	**467.**	**9.74**	**9.72**
Stddev	5.	2.	3.	3.	2.	4.	1.	2.	4.	4.	2.	.03	.03
%RSD	1.02	.356	.559	.664	.513	.854	.184	.351	.819	.735	.352	.307	.335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**9.92**
Stddev	.05
%RSD	.509
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv2 Acquired: 05/03/2022 23:26:52 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**361880.**	**2146700.**	**336890.**
Stddev	1035.	21867.	3146.
%RSD	.28612	1.0186	.93376

Sample Name: ccb Acquired: 05/03/2022 23:33:51 Type: QC
Method: DOD Calibration Updated 060614(v5020) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	As1937	Ba2335	Be3130	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.286**	**-.985**	**-.099**	**1.45**	**.077**	**.001**	**2.01**	**.092**	**.028**	**-.025**	**.595**	**-.600**	**.736**
Stddev	.491	.393	.082	3.60	.111	.009	.12	.081	.178	.380	.780	.722	.015
%RSD	172.	39.9	82.7	248.	145.	1040.	5.82	88.1	640.	1530.	131.	120.	2.05
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.071**	**1.21**	**.214**	**-.024**	**-1.14**	**2.22**	**-.938**	**.010**	**1.52**	**.125**	**.102**	**.057**
Stddev	.020	.52	.204	.787	.96	4.33	.917	.180	.09	.021	.031	.079
%RSD	28.3	42.5	95.2	3300.	83.7	195.	97.8	1770.	5.99	16.8	30.6	138.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**371830.**	**2169100.**	**325500.**
Stddev	1953.	16432.	3382.
%RSD	.52521	.75753	1.0389

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	05/10/2022 09:24:21	05/09/2022 08:31:18	Linear	1/Conc	0.000009	0.000003	0.000000	1.000000	0.999312	0.000000	0.498998	1.663328
Ag 338.289 {100}	05/10/2022 09:24:21	05/09/2022 09:24:19	Linear	1/Var	53.689454	4.912444	0.000000	1.000000	0.999986	7.012702	1.027826	3.426088
Al 167.079 {501}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000005	0.000002	0.000000	1.000000	0.999976	0.000000	0.608026	2.026754
Al 309.271 {109}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Conc	0.000278	0.000001	0.000000	1.000000	0.999925	0.000001	21.814928	72.716427
Al 396.152 { 85}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Var	0.000023	0.000001	0.000000	1.000000	0.999958	0.000064	13.209600	44.032000
As 193.759 {474}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000010	0.000001	0.000000	1.000000	0.999788	0.000000	4.202968	14.009892
As 197.262 {471}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000004	0.000000	0.000000	1.000000	0.999950	0.000000	5.989099	19.963662
Ba 233.527 {445}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000002	0.000007	0.000000	1.000000	0.999766	0.000001	0.315022	1.050075
Ba 455.403 { 74}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000249	0.000023	0.000000	1.000000	0.999880	0.000001	0.564814	1.882714
Ba 493.409 { 68}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Var	0.015858	0.000040	0.000000	1.000000	0.999772	0.000729	1.366082	4.553608
Be 234.861 {144}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000006	0.000007	0.000000	1.000000	0.999533	0.000000	0.405033	1.350110
Be 313.042 {108}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000018	0.000069	0.000000	1.000000	0.999935	0.000001	0.016140	0.053800
Be 313.107 {108}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000007	0.000028	0.000000	1.000000	0.999846	0.000000	0.315048	1.050161
Ca 184.006 {483}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	-0.000039	0.000002	0.000000	1.000000	0.999980	0.000005	1.023422	3.411406
Ca 315.887 {107}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Var	0.000091	0.000001	0.000000	1.000000	0.999933	0.000066	8.561413	28.538044
Ca 317.933 {106}	05/10/2022 09:24:21	05/09/2022 09:16:56	Linear	1/Conc	0.002474	0.000001	0.000000	1.000000	0.999656	0.000056	4.207076	14.023585
Ca 393.366 { 86}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000015	0.000164	0.000000	1.000000	0.999663	0.000046	0.081542	0.271808
Ca 396.847 { 85}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000001	0.000071	0.000000	1.000000	0.999922	0.000042	0.171350	0.571167
Cd 226.502 {449}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	-0.000002	0.000008	0.000000	1.000000	0.704232	0.000007	0.446740	1.489134
Cd 228.802 {448}	05/10/2022 09:24:21	05/09/2022 08:38:14	Linear	1/Conc	0.000001	0.000003	0.000000	1.000000	0.999910	0.000000	0.559670	1.865565
Co 228.616 {447}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000010	0.000016	0.000000	1.000000	0.999880	0.000001	0.265048	0.883493
Co 238.892 {141}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000001	0.000002	0.000000	1.000000	0.999956	0.000001	0.397661	1.325536
Cr 205.560 {464}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Var	-0.000003	0.000012	0.000000	1.000000	0.999777	0.000009	0.235704	0.785681
Cr 267.716 {126}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	-0.000003	0.000003	0.000000	1.000000	0.999990	0.000000	0.429477	1.431589
Cu 223.008 {451}	05/10/2022 09:24:21	05/09/2022 08:45:26	Linear	1/Conc	0.000005	0.000003	0.000000	1.000000	0.999785	0.000001	1.233140	4.110467
Cu 324.754 {104}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000186	0.000002	0.000000	1.000000	0.999530	0.000010	4.045637	13.485456
Cu 327.396 {103}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000054	0.000002	0.000000	1.000000	0.999409	0.000001	7.806843	26.022811
Fe 234.349 {144}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Var	0.000011	0.000000	0.000000	1.000000	0.999679	0.000005	0.891672	2.972240
Fe 239.562 {140}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000008	0.000001	0.000000	1.000000	0.999417	0.000047	5.399645	17.998815
Fe 259.940 {129}	05/10/2022 09:24:21	05/09/2022 09:16:57	Curvili	1/Var	0.000003	0.000002	0.000000	1.000000	0.999797	0.000032	2.618579	8.728598
Mg 202.582 {466}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	-0.000007	0.000001	0.000000	1.000000	0.998925	0.000055	3.527247	11.757490
Mg 279.079 {121}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999945	0.000001	38.747087	129.15695
Mg 280.270 {120}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000053	0.000039	0.000000	1.000000	0.999420	0.000063	0.017302	0.057673
Mn 257.610 {131}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000002	0.000009	0.000000	1.000000	0.999873	0.000001	0.061677	0.205591
Mn 259.373 {130}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000002	0.000010	0.000000	1.000000	0.999724	0.000107	0.582115	1.940382
Mo 202.030 {466}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000004	0.000004	0.000000	1.000000	0.999892	0.000001	0.510949	1.703163
Mo 204.598 {464}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000001	0.000003	0.000000	1.000000	0.999882	0.000000	1.025727	3.419090
Ni 221.647 {452}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000006	0.000011	0.000000	1.000000	0.999866	0.000009	0.425359	1.417864
Ni 231.604 {445}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	-0.000002	0.000010	0.000000	1.000000	0.999837	0.000001	0.458507	1.528355
Pb 216.999 {455}	05/10/2022 09:24:21	05/09/2022 08:53:24	Curvili	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999970	0.000000	7.299745	24.332482
Pb 220.353 {153}	05/10/2022 09:24:21	05/09/2022 08:53:24	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999818	0.000001	1.916183	6.387276
Pb 220.353 {453}	05/10/2022 09:24:21	05/09/2022 08:38:15	Linear	1/Conc	0.000017	0.000003	0.000000	1.000000	0.999598	0.000000	1.747476	5.824919
Sb 206.833 {463}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Var	-0.000001	0.000001	0.000000	1.000000	0.999835	0.000008	2.768049	9.226829
Sb 217.581 {455}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999908	0.000000	3.302099	11.006997

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 309.271 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 313.107 {108}	OK.	1.000000	0.000000	1	0
	Ca 184.006 {483}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0

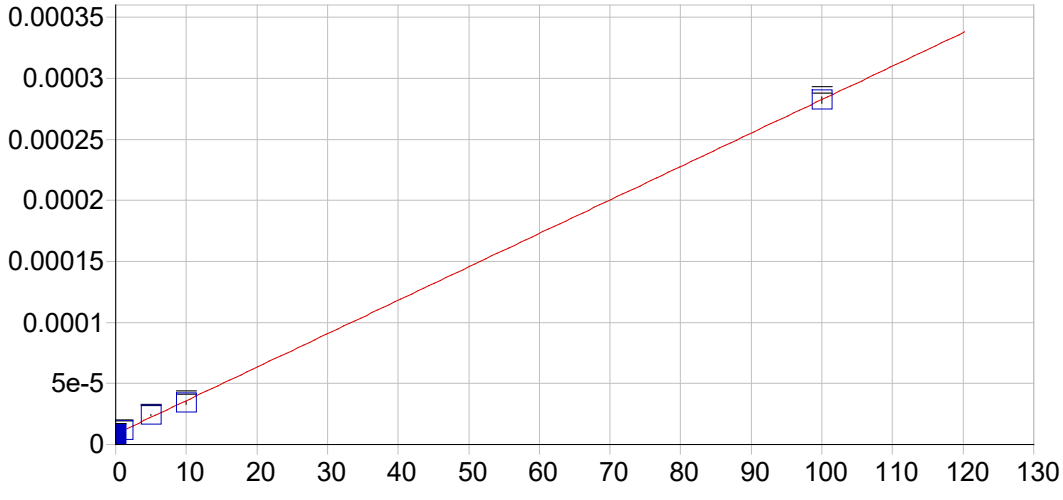
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Se 196.090 {472}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999897	0.000000	3.546972	11.823242
	Se 206.279 {463}	05/10/2022 09:24:21	05/09/2022 08:45:27	Curvili	1/Conc	0.000001	0.000000	-0.000000	1.000000	0.999957	0.000000	17.995433	59.984775
	Tl 190.856 {476}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000004	0.000002	0.000000	1.000000	0.999700	0.000001	1.780647	5.935491
	Tl 190.856 {477}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Var	0.000003	0.000001	0.000000	1.000000	0.999500	0.000006	2.505970	8.353235
	V 290.882 {116}	05/10/2022 09:24:21	05/09/2022 08:45:27	Curvili	1/Var	0.000005	0.000001	-0.000000	1.000000	0.999999	0.000001	8.073617	26.912058
	V 292.402 {115}	05/10/2022 09:24:21	05/09/2022 08:45:27	Linear	1/Conc	0.000015	0.000006	0.000000	1.000000	0.999996	0.000000	0.374660	1.248866
	Zn 206.200 {463}	05/10/2022 09:24:21	05/09/2022 08:53:25	Linear	1/Var	0.000006	0.000021	0.000000	1.000000	0.999265	0.000036	0.152862	0.509541
	Zn 213.856 {457}	05/10/2022 09:24:21	05/09/2022 08:38:16	Linear	1/Conc	0.000001	0.000031	0.000000	1.000000	0.999979	0.000001	0.116684	0.388947
	Y 224.306 {450}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	05/10/2022 09:24:21	05/09/2022 07:40:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 330.237 {102}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000003	0.000006	0.000000	1.000000	0.999997	0.000000	1.938494	6.461647
	Na 588.995 { 57}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	3014.6983	1026.0369	0.000000	1.000000	0.999751	10.782376	0.011862	0.039538
	Na 589.592 { 57}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	48.399591	527.45730	0.000000	1.000000	0.999977	1.689053	0.014526	0.048419
	Si 212.412 {458}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	0.000017	0.000002	0.000000	1.000000	0.999170	0.000081	1.445412	4.818039
	Si 251.611 {134}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.999809	0.000005	10.348099	34.493665
	Ti 323.452 {104}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000275	0.000005	0.000000	1.000000	0.999609	0.000001	2.281533	7.605111
	Sr 407.771 { 83}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000128	0.000064	0.000000	1.000000	0.999897	0.000004	0.242595	0.808650
	Sr 421.552 { 80}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000075	0.000083	0.000000	1.000000	0.999949	0.000003	0.197430	0.658101
	Sn 189.989 {477}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Var	0.000009	0.000004	0.000000	1.000000	0.999704	0.000011	0.633440	2.111468
	Sn 189.989 {478}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999695	0.000005	1.604221	5.347403
	B 249.678 {135}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000012	0.000001	0.000000	1.000000	0.999995	0.000000	1.100258	3.667527
	B 249.773 {135}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	0.000008	0.000002	0.000000	1.000000	0.999999	0.000000	0.609186	2.030621
	Li 610.353 { 55}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-0.001673	0.000001	0.000000	1.000000	0.887876	0.000008	49.685459	165.61819
	Li 670.776 { 50}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-13.747537	2.889610	0.000000	1.000000	0.999871	0.630661	2.402288	8.007626
	K 766.490 { 44}	05/10/2022 09:24:21	05/09/2022 09:00:56	Linear	1/Conc	-25.225853	194.66872	0.000000	1.000000	0.999989	0.438948	0.040705	0.135685
	K 769.896 { 44}	05/10/2022 09:24:21	05/09/2022 09:16:57	Linear	1/Var	4.004528	75.355169	0.000000	1.000000	0.999742	37.298057	0.085581	0.285271
	P 177.495 {489}	05/10/2022 09:24:21	05/09/2022 08:45:28	Linear	1/Conc	-0.000006	0.000001	0.000000	1.000000	0.999961	0.000001	2.251268	7.504227
	S 182.034 {485}	05/10/2022 09:24:21	05/09/2022 09:16:57	Curvili	1/Conc	0.000019	0.000000	0.000000	1.000000	0.999998	0.000001	3.717848	12.392827
	Hg 184.950 {482}	05/10/2022 09:24:21	05/09/2022 08:38:16	Linear	1/Conc	0.000008	0.000003	0.000000	1.000000	1.000000	0.000000	0.592781	1.975937
	Ce 404.076 { 83}	05/10/2022 09:24:21	05/09/2022 08:38:17	Linear	1/Conc	0.000064	0.000000	0.000000	1.000000	1.000000	0.000000	33.453712	111.51237

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 330.237 {102}	OK.	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 212.412 {458}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 610.353 { 55}	OK.	1.000000	0.000000	1	0
	Li 670.776 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 177.495 {489}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	1	Ce	-0.000548	0.000000	No
Ag 338.289 {100}	☒	2	Fe	0.000030	0.000000	No
			Na	0.090000	0.000000	No
Al 167.079 {501}	☒	None				
Al 309.271 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001356	0.000000	No
As 197.262 {471}	☒	1	Al	0.000027	0.000000	No
Ba 233.527 {445}	☒	1	Fe	-0.000007	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000006	0.000000	No
Ba 493.409 { 68}	☒	1	Ce	0.000000	0.000000	No
Be 234.861 {144}	☒	None				
Be 313.042 {108}	☒	1	Fe	0.000004	0.000000	No
Be 313.107 {108}	☒	1	Fe	0.000002	0.000000	No
Ca 184.006 {483}	☒	None				
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000048	0.000000	No
Cd 228.802 {448}	☒	1	Fe	-0.000007	0.000000	No
Co 228.616 {447}	☒	3	Fe	-0.000001	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.002165	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 223.008 {451}	☒	3	Fe	-0.000018	0.000000	No
			Mo	0.008000	0.000000	No
			Ni	0.006000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	0.000308	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000009	0.000000	No
			Mo	-0.000319	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000031	0.000000	No
Mn 259.373 {130}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mo 202.030 {466}	☒	1	Fe	-0.000014	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000021	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	5	Fe	-0.000074	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.001918	0.000000	No
Pb 216.999 {455}	☒	3	Al	0.001866	0.000000	No
			Na	0.000000	0.000000	No
			Fe	0.002996	0.000000	No
Pb 220.353 {153}	☒	1	Fe	0.000002	0.000000	No
Pb 220.353 {453}	☒	2	Si	0.000000	0.000000	No
			Al	-0.000042	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000018	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000115	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	1	Fe	-0.000035	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000083	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	6	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
			Cu	-0.003767	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	5	Fe	0.000115	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mo	0.000034	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 330.237 {102}	☒	1	Sr	-0.002100	0.000000	No
Na 588.995 { 57}	☒	1	Fe	0.000000	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000001	0.000000	No
Si 212.412 {458}	☒	1	Fe	-0.000007	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000177	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ti 323.452 {104}	☒	2	Fe	0.000034	0.000000	No
			Ce	0.000123	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000036	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000012	0.000000	No
Sn 189.989 {478}	☒	1	Fe	-0.000008	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000018	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000401	0.000000	No
Li 610.353 { 55}	☒	1	Fe	-0.000109	0.000000	No
Li 670.776 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000003	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.000001	0.000000	No
P 177.495 {489}	☒	None				
S 182.034 {485}	☒	1	Mn	0.002145	0.000000	No
Hg 184.950 {482}	☒	1	Fe	-0.000000	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

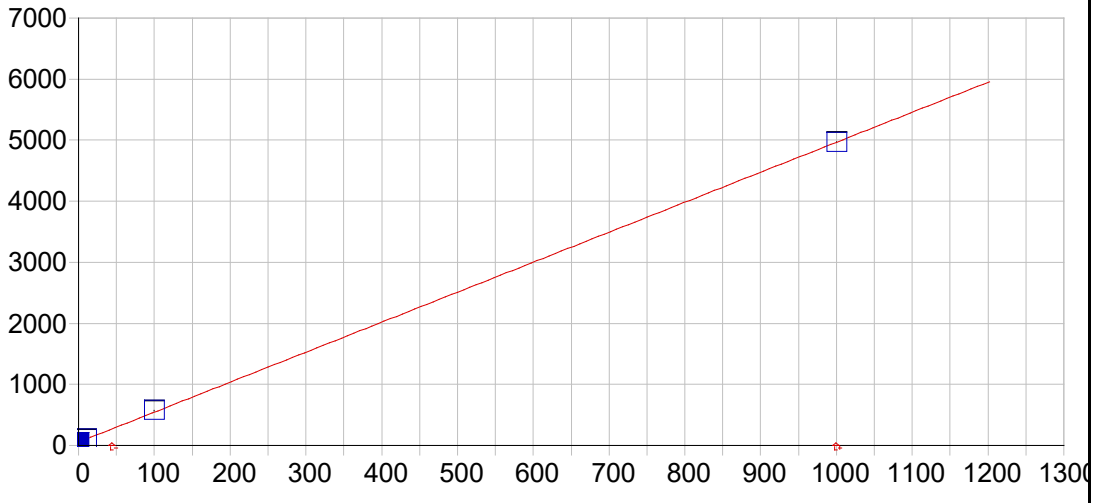


Ag 328.068 {103}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999312	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.498998		
Predicted MQL:	1.663328		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00021	-.000	.000	.00001	.000	1
CalStd8=100	100.00	99.885	-.115	-.115	.00028	.000	1
CalStd4=5	5.0000	5.6699	.670	13.4	.00002	.000	1
CalStd5=10	10.000	9.3005	-.700	-7.00	.00003	.000	1
CalStd3=1	1.0000	1.1449	.145	14.5	.00001	.000	1

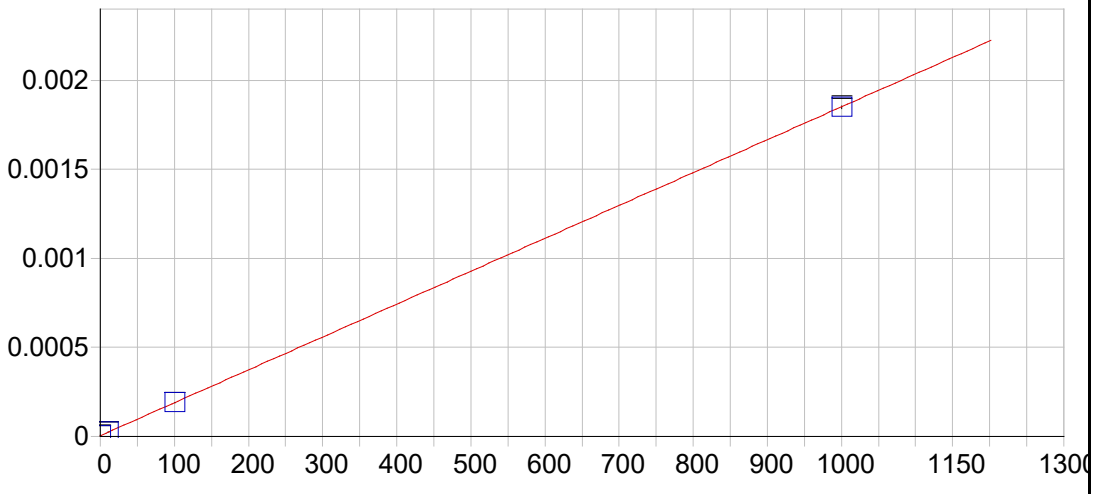


Ag 338.289 {100}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	53.689454	Re-Slope:	1.000000
A1 (Gain):	4.912444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999986	Status:	OK.
Std Error of Est:	7.012702		
Predicted MDL:	1.027826		
Predicted MQL:	3.426088		

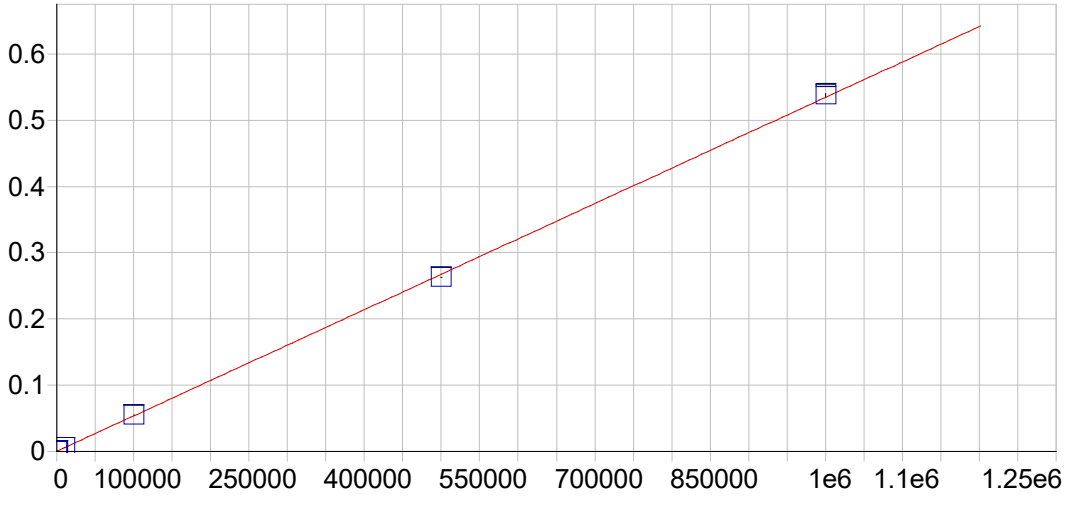
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.17463	-.175	.000	52.832	.977	1
Ag 1000	1000.0	999.51	-.487	-.049	4963.7	4.84	1
CalStd5=10	10.000	9.8563	-.144	-1.44	102.11	5.37	1
CalStd8=100	100.00	105.47	5.47	5.47	571.82	5.12	1



Al 167.079 {501}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999976		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.608026				
Predicted MQL:	2.026754				

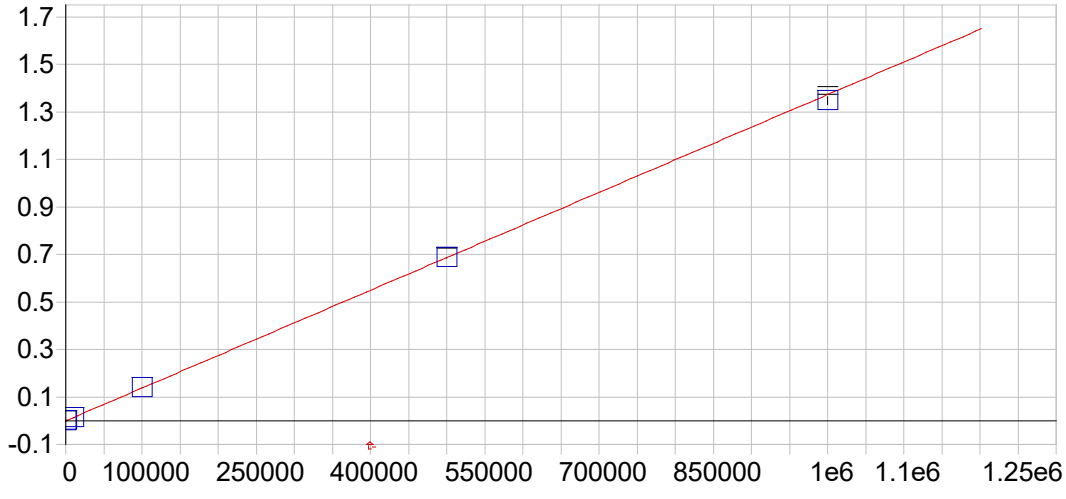
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00074	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	998.92	-1.08	-.108	.00185	.000	1
CalStd5=10	10.000	10.718	.718	7.18	.00002	.000	1
CalStd8=100	100.00	100.36	.364	.364	.00019	.000	1



Al 309.271 {109}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000278		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999925		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	21.814928				
Predicted MQL:	72.716427				

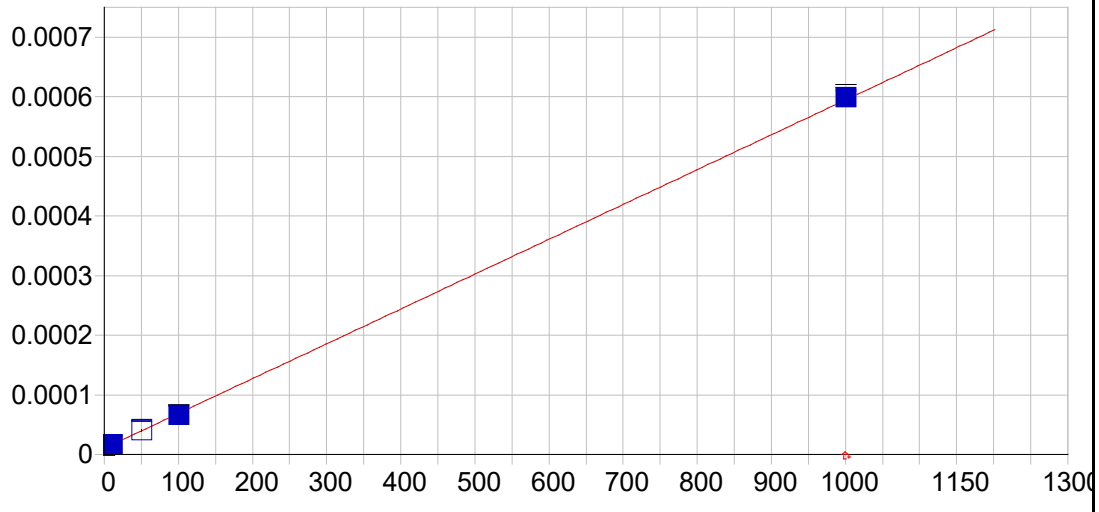
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00683	.007	.000	.00028	.000	1
CalStd9=100	1000.0	1011.9	11.9	1.19	.00082	.000	1
CalStd5=10	10.000	1.1063	-8.89	-88.9	.00028	.000	1
CalStd8=100	100.00	121.96	22.0	22.0	.00034	.000	1
CalStd10=10	10000.	9664.2	-336.	-3.36	.00544	.000	1
CalStd13=10	100000.	101860.	1860.	1.86	.05470	.000	1
CalStd14=50	500000.	491710.	-8290.	-1.66	.26297	.000	1
CalibStd15=	1000000.	1006700.	6730.	.673	.53812	.002	1



Al 396.152 { 85}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000023		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999958		Status:	OK.	
Std Error of Est:	0.000064				
Predicted MDL:	13.209600				
Predicted MQL:	44.032000				

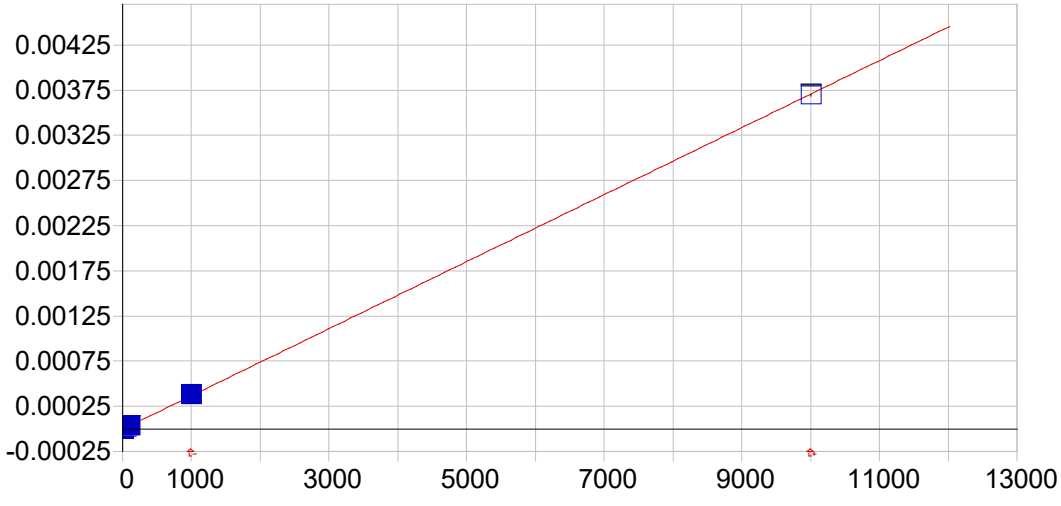
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.467	-12.5	.000	.00001	.000	1
CalStd14=50	500000.	499640.	-364.	-.073	.68587	.001	1
CalStd13=10	100000.	101480.	1480.	1.48	.13932	.001	1
CalStd10=10	10000.	9899.2	-101.	-1.01	.01361	.000	1
CalStd9=100	1000.0	1035.2	35.2	3.52	.00144	.000	1
CalibStd15=	1000000.	981570.	-18400.	-1.84	1.3474	.016	1



As 193.759 {474}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000010		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999788		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	4.202968				
Predicted MQL:	14.009892				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00094	.001	.000	.00001	.000	1
CalStd9=100	1000.0	1006.2	6.21	.621	.00060	.000	1
CalStd7=50	50.000	50.760	.760	1.52	.00004	.000	1
CalStd5=10	10.000	9.4865	-.513	-5.13	.00002	.000	1
CalStd8=100	100.00	93.549	-6.45	-6.45	.00007	.000	1

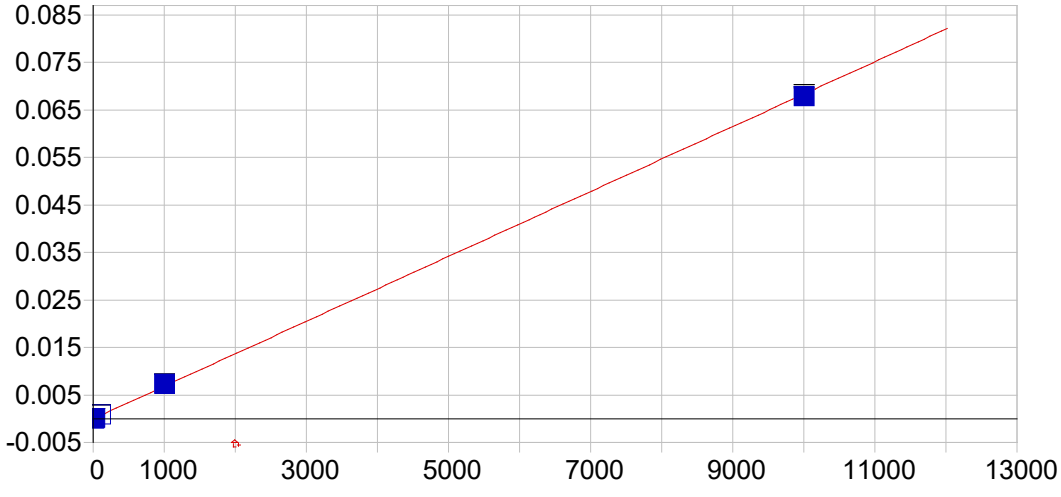


As 197.262 {471}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999950	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	5.989099		
Predicted MQL:	19.963662		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00011	-.000	.000	-.00000	.000	1
CalStd9=100	1000.0	1026.7	26.7	2.67	.00038	.000	1
CalStd7=50	50.000	53.306	3.31	6.61	.00002	.000	1
CalStd5=10	10.000	9.1066	-.893	-8.93	-.00000	.000	1
CalStd8=100	100.00	101.02	1.02	1.02	.00003	.000	1
CalStd10=10	10000.	9969.8	-30.2	-.302	.00369	.000	1

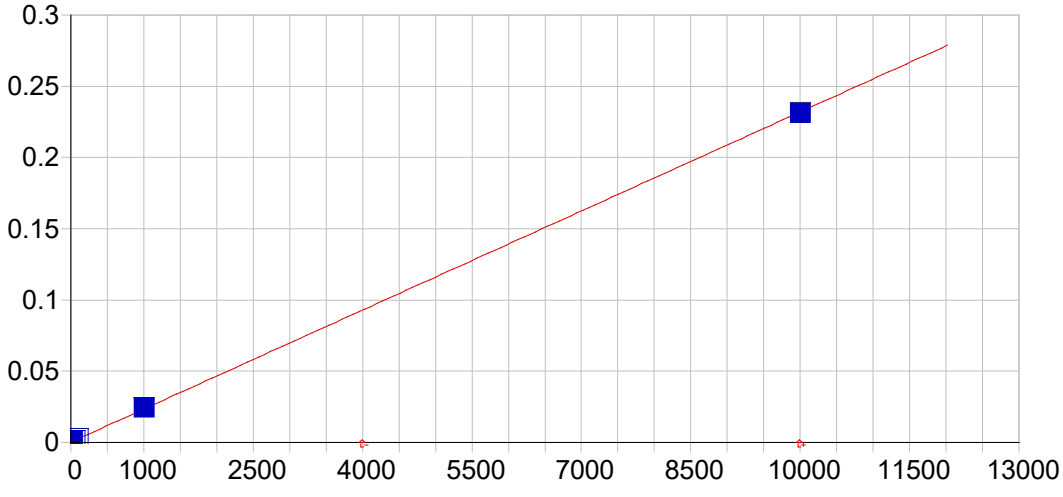


Ba 233.527 {445}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999766	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.315022		
Predicted MQL:	1.050075		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00075	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	11.144	1.14	11.4	.00007	.000	1
CalStd6=20	20.000	21.644	1.64	8.22	.00015	.000	1
CalStd8=100	100.00	105.09	5.09	5.09	.00072	.000	1
CalStd4=5	5.0000	5.7052	.705	14.1	.00004	.000	1
CalStd9=100	1000.0	1063.0	63.0	6.30	.00726	.000	1
CalStd3=1	1.0000	1.3094	.309	30.9	.00001	.000	1
CalStd10=10	10000.	9928.1	-71.9	-.719	.06785	.000	1

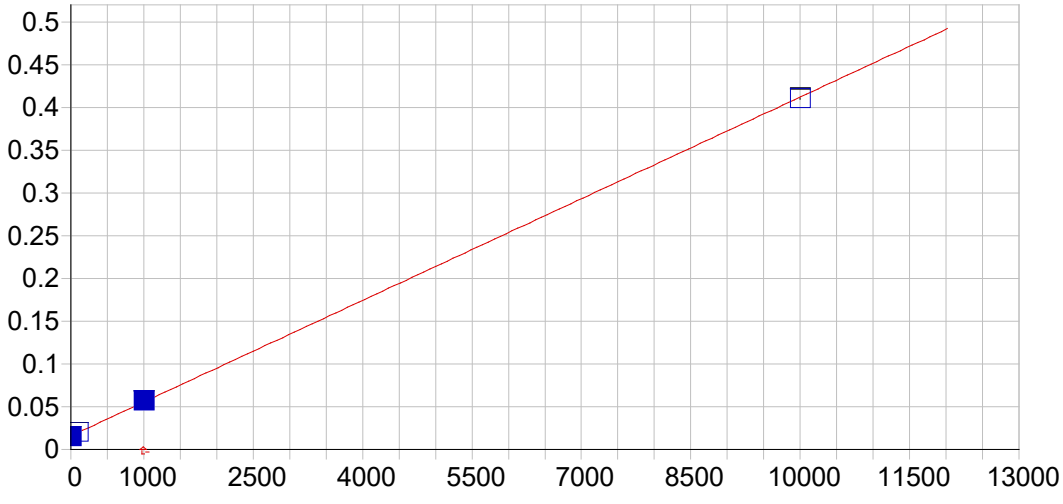


Ba 455.403 { 74}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000249	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.564814		
Predicted MQL:	1.882714		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00094	-.001	.000	.00025	.000	1
CalStd7=50	50.000	53.316	3.32	6.63	.00148	.000	1
CalStd5=10	10.000	11.373	1.37	13.7	.00051	.000	1
CalStd6=20	20.000	21.729	1.73	8.65	.00075	.000	1
CalStd8=100	100.00	104.21	4.21	4.21	.00266	.000	1
CalStd4=5	5.0000	6.1261	1.13	22.5	.00039	.000	1
CalStd9=100	1000.0	1036.4	36.4	3.64	.02427	.000	1
CalStd3=1	1.0000	1.3559	.356	35.6	.00028	.000	1
CalStd10=10	10000.	9951.5	-48.5	-.485	.23086	.001	1

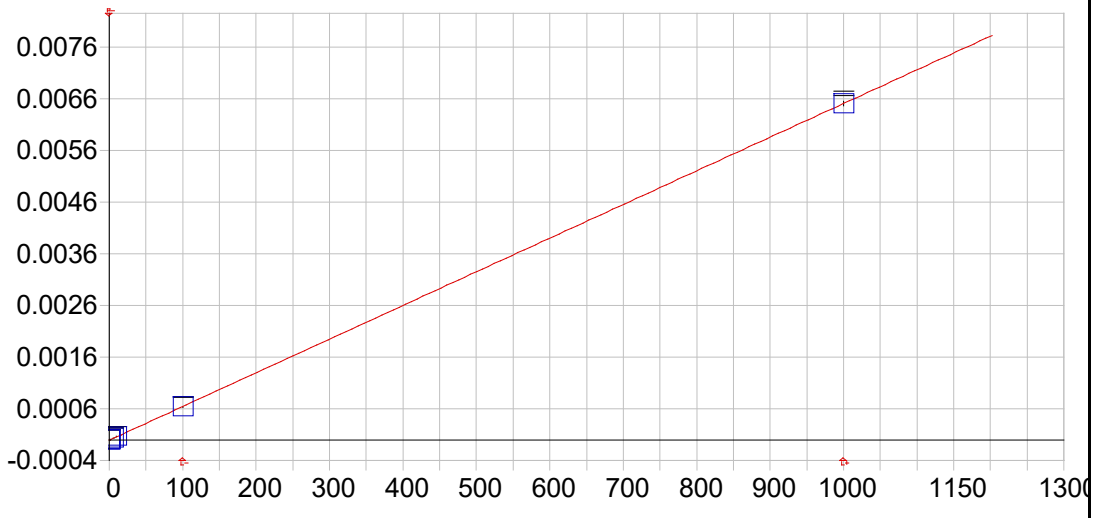


Ba 493.409 { 68}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.015858	Re-Slope:	1.000000
A1 (Gain):	0.000040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.000729		
Predicted MDL:	1.366082		
Predicted MQL:	4.553608		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-23.883	-23.9	.000	.01491	.000	1
CalStd9=100	1000.0	1029.4	29.4	2.94	.05665	.000	1
CalStd8=100	100.00	104.92	4.92	4.92	.02002	.000	1
CalStd10=10	10000.	9957.6	-42.4	-.424	.41043	.001	1

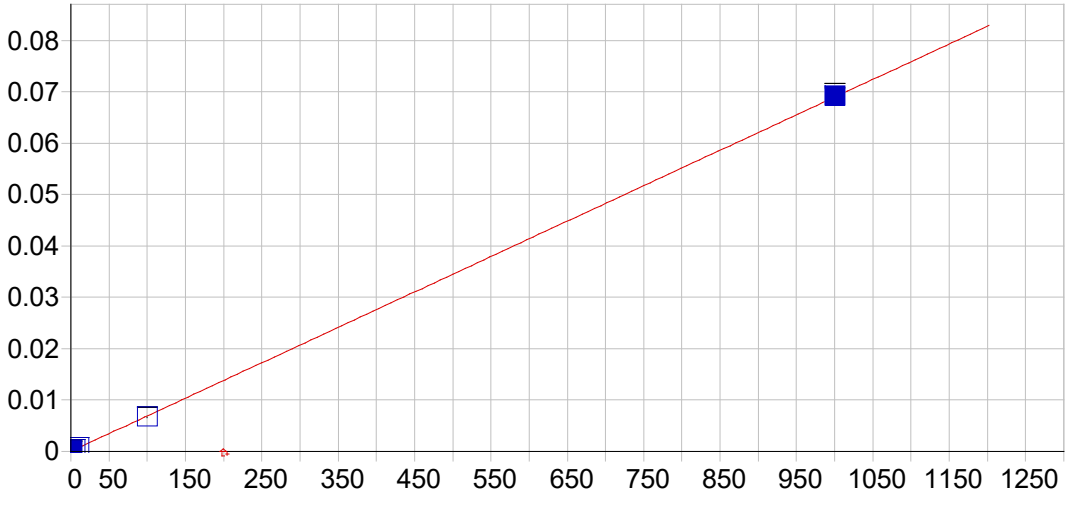


Be 234.861 {144}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999533	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.405033		
Predicted MQL:	1.350110		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00078	-.001	.000	-.00001	.000	1
CalStd5=10	10.000	11.162	1.16	11.6	.00007	.000	1
CalStd8=100	100.00	97.949	-2.05	-2.05	.00063	.000	1
CalStd2=0.5	.50000	.78721	.287	57.4	-.00000	.000	1
CalStd4=5	5.0000	5.3645	.364	7.29	.00003	.000	1
CalStd9=100	1000.0	999.42	-.583	-.058	.00650	.000	1
CalStd3=1	1.0000	1.8204	.820	82.0	.00001	.000	1

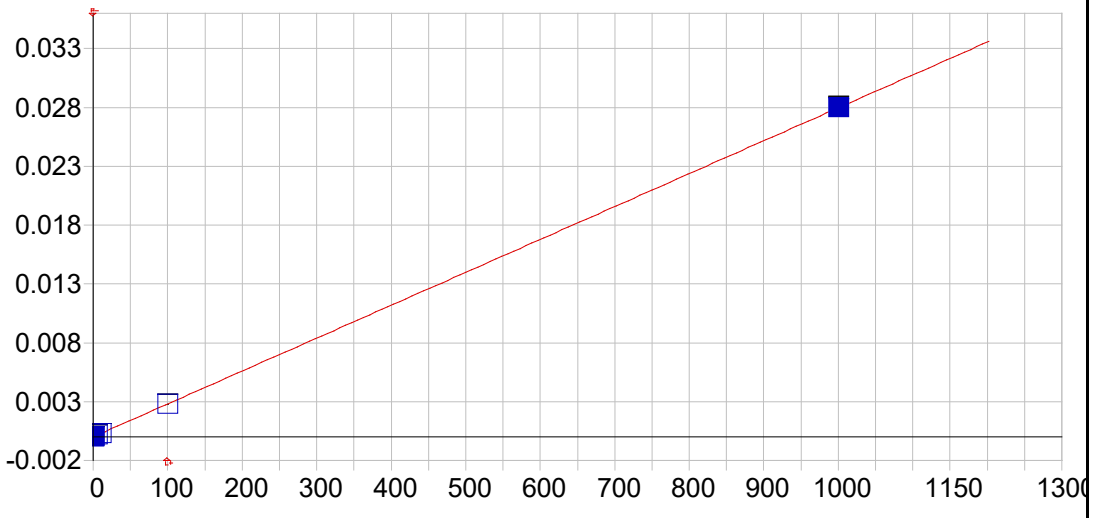


Be 313.042 {108}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000069	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.016140		
Predicted MQL:	0.053800		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	.00002	.000	1
CalStd5=10	10.000	9.9166	-.083	-.834	.00070	.000	1
CalStd8=100	100.00	96.549	-3.45	-3.45	.00667	.000	1
CalStd2=0.5	.50000	.53730	.037	7.46	.00005	.000	1
CalStd4=5	5.0000	5.2376	.238	4.75	.00038	.000	1
CalStd9=100	1000.0	1003.3	3.26	.326	.06919	.000	1
CalStd3=1	1.0000	.99661	-.003	-.339	.00009	.000	1

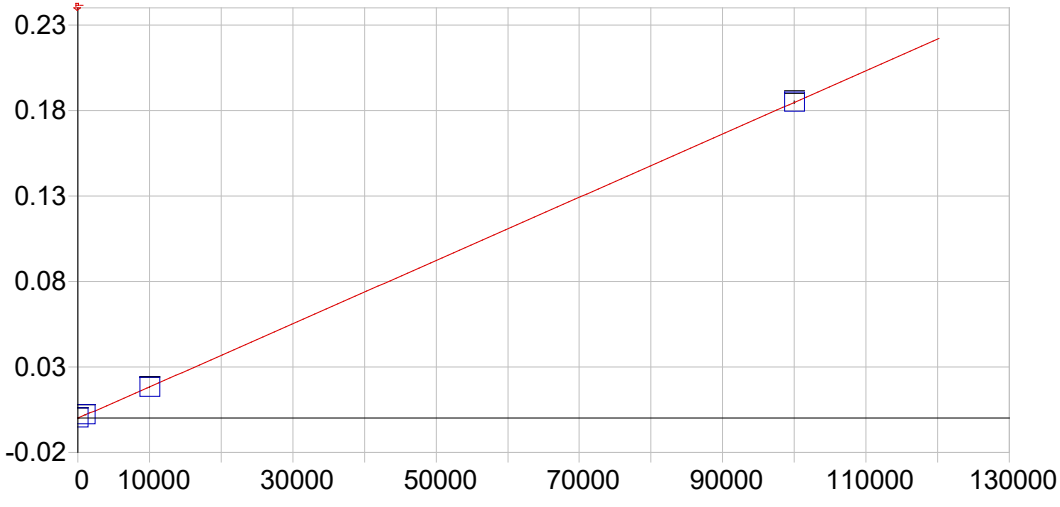


Be 313.107 {108}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000028	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999846	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.315048		
Predicted MQL:	1.050161		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00049	-.000	.000	.00001	.000	1
CalStd5=10	10.000	10.254	.254	2.54	.00029	.000	1
CalStd2=0.5	.50000	.81139	.311	62.3	.00003	.000	1
CalStd4=5	5.0000	5.5155	.516	10.3	.00016	.000	1
CalStd9=100	1000.0	1000.4	.391	.039	.02798	.000	1
CalStd3=1	1.0000	1.2440	.244	24.4	.00004	.000	1
CalStd8=100	100.00	98.285	-1.72	-1.72	.00275	.000	1

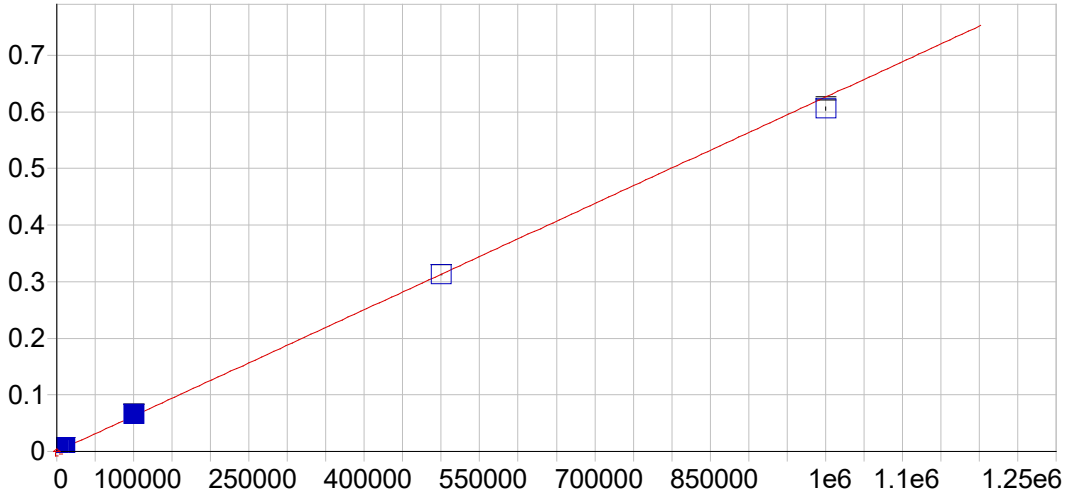


Ca 184.006 {483}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	1.023422		
Predicted MQL:	3.411406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04496	-.045	.000	-.00004	.000	1
CalStd10=10	10000.	9888.4	-112.	-1.12	.01823	.000	1
CalStd13=10	100000.	100060.	56.0	.056	.18481	.001	1
CalStd9=100	1000.0	1055.6	55.6	5.56	.00191	.000	1

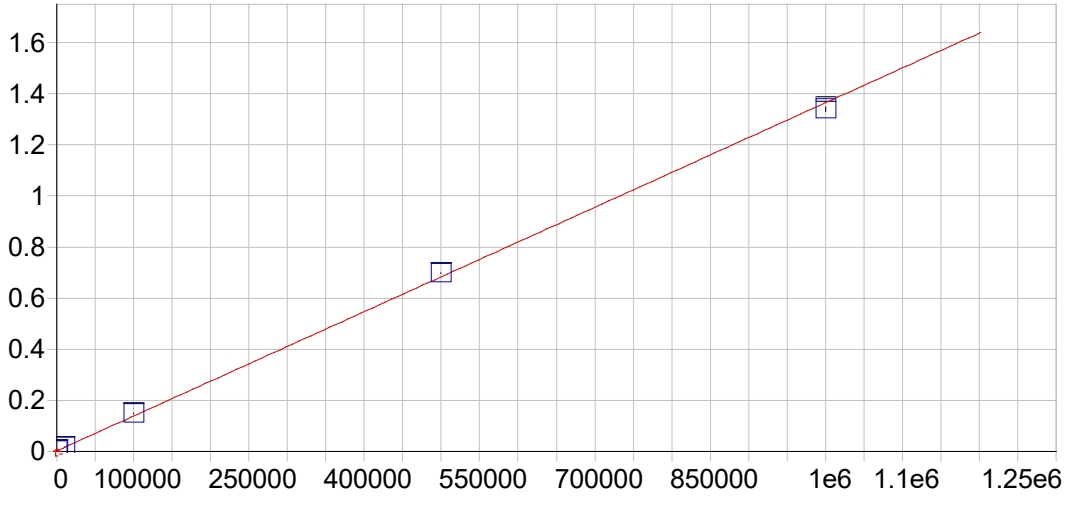


Ca 315.887 {107}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000091	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999933	Status:	OK.
Std Error of Est:	0.000066		
Predicted MDL:	8.561413		
Predicted MQL:	28.538044		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.926	-14.9	.000	.00008	.000	1
CalStd10=10	10000.	10119.	119.	1.19	.00642	.000	1
CalStd13=10	100000.	104560.	4560.	4.56	.06553	.000	1
CalStd14=50	500000.	499120.	-876.	-.175	.31245	.000	1
CalStd9=100	1000.0	1041.2	41.2	4.12	.00074	.000	1
CalibStd15=	1000000.	967640.	-32400.	-3.24	.60566	.003	1

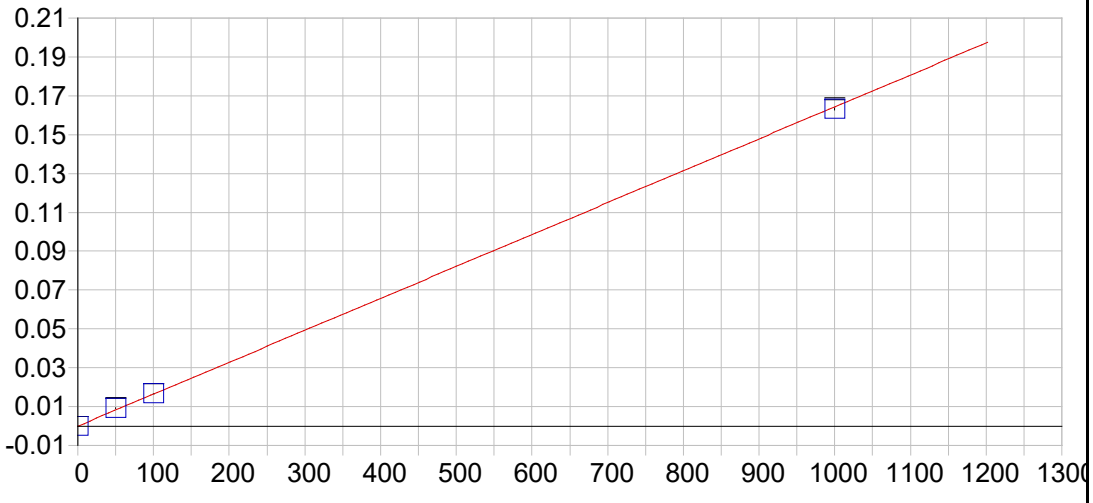


Ca 317.933 {106}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002474	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999656	Status:	OK.
Std Error of Est:	0.000056		
Predicted MDL:	4.207076		
Predicted MQL:	14.023585		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18475	-.185	.000	.00247	.000	1
CalStd10=10	10000.	10356.	356.	3.56	.01658	.000	1
CalStd13=10	100000.	107280.	7280.	7.28	.14859	.001	1
CalStd14=50	500000.	510620.	10600.	2.12	.69795	.001	1
CalStd9=100	1000.0	1073.4	73.4	7.34	.00394	.000	1
CalibStd15=	1000000.	981670.	-18300.	-1.83	1.3395	.010	1

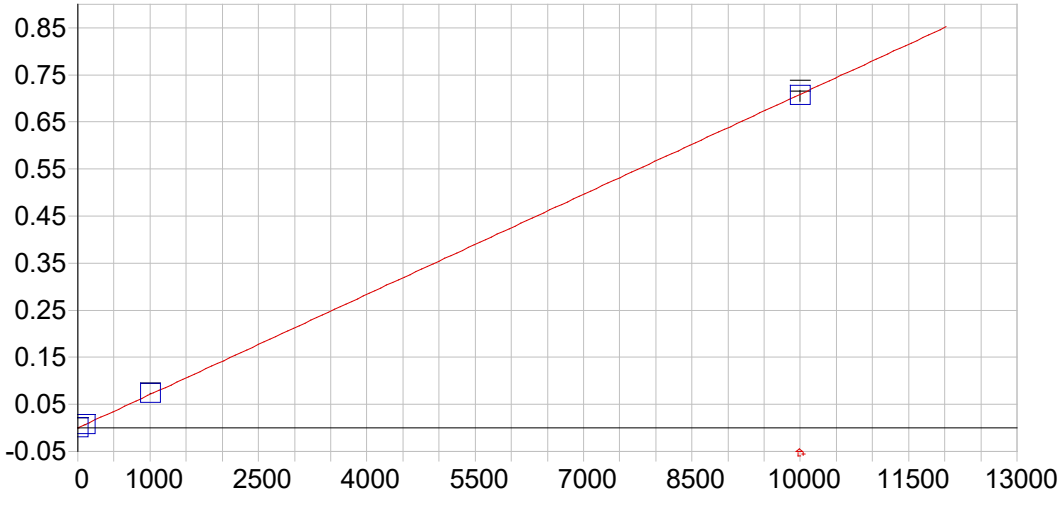


Ca 393.366 { 86}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000164	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999663	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.081542		
Predicted MQL:	0.271808		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00606	-.006	.000	-.00002	.000	1
CalStd9=100	1000.0	993.20	-6.80	-.680	.16316	.001	1
CalStd8=100	100.00	100.79	.794	.794	.01655	.000	1
CalStd7=50	50.000	56.006	6.01	12.0	.00919	.000	1

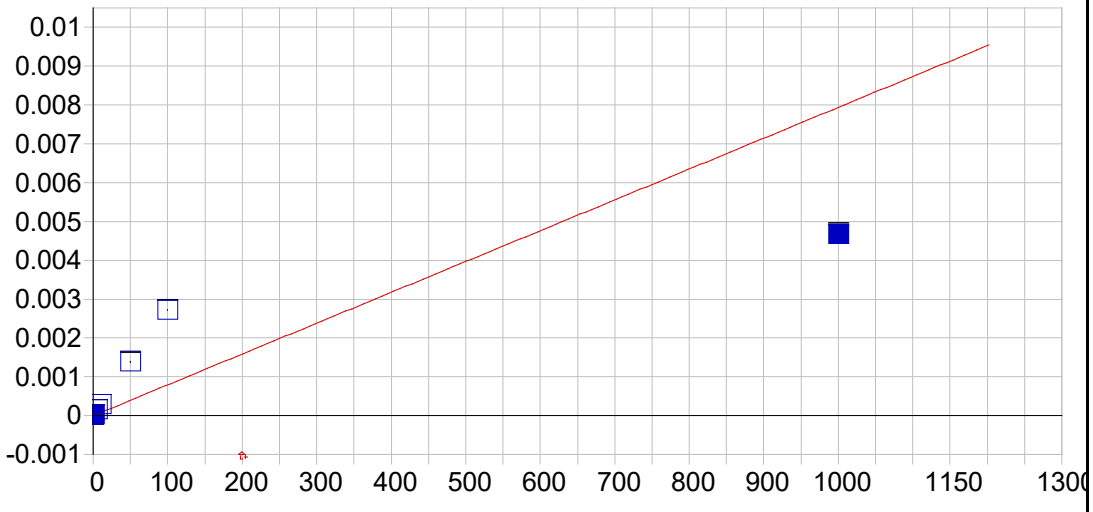


Ca 396.847 { 85}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000071	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999922	Status:	OK.
Std Error of Est:	0.000042		
Predicted MDL:	0.171350		
Predicted MQL:	0.571167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00895	-.009	.000	-.00000	.000	1
CalStd10=10	10000.	9959.1	-40.9	-.409	.70594	.012	1
CalStd8=100	100.00	105.85	5.85	5.85	.00750	.000	1
CalStd9=100	1000.0	1035.1	35.1	3.51	.07337	.000	1

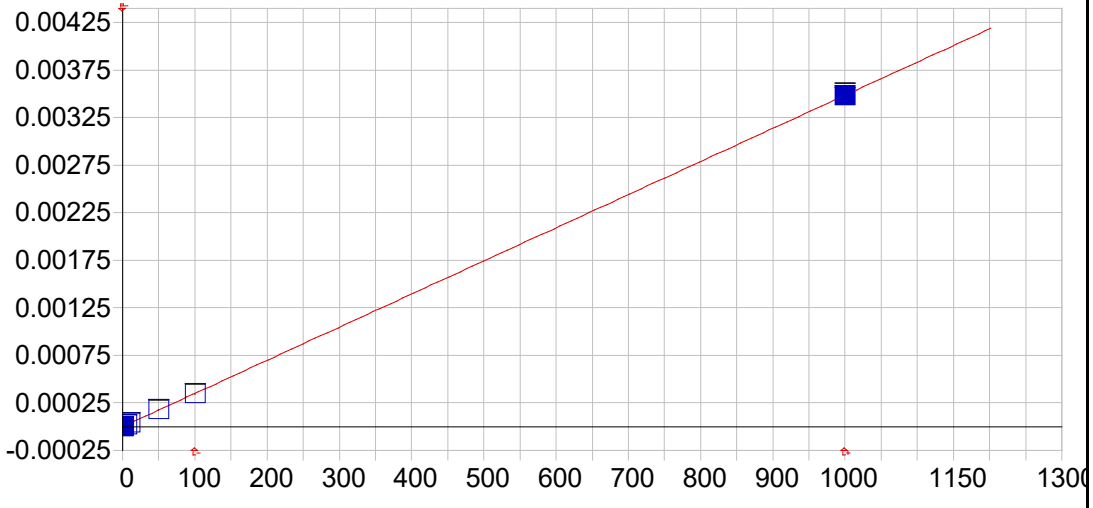


Cd 226.502 {449}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.704232	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.446740		
Predicted MQL:	1.489134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00764	-.008	.000	-.00000	.000	1
CalStd3=1	1.0000	3.6622	2.66	266.	.00003	.000	1
CalStd2=0.5	.50000	1.9162	1.42	283.	.00001	.000	1
CalStd4=5	5.0000	18.497	13.5	270.	.00015	.000	1
CalStd5=10	10.000	35.649	25.6	256.	.00028	.000	1
CalStd9=100	1000.0	588.78	-411.	-41.1	.00467	.000	1
CalStd8=100	100.00	342.83	243.	243.	.00272	.000	1
CalStd7=50	50.000	175.19	125.	250.	.00139	.000	1

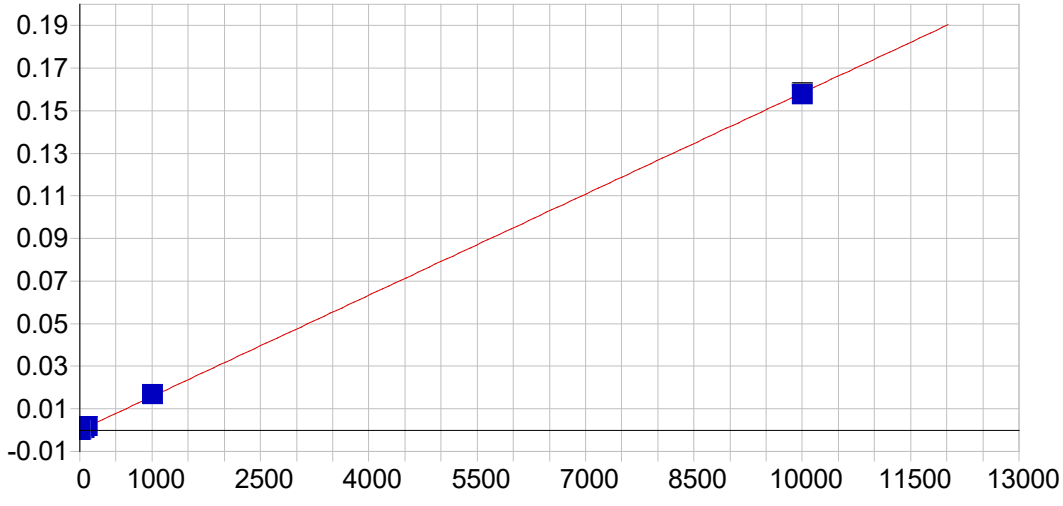


Cd 228.802 {448}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.559670		
Predicted MQL:	1.865565		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00023	-.000	.000	.00000	.000	1
CalStd3=1	1.0000	1.3069	.307	30.7	.00001	.000	1
CalStd2=0.5	.50000	.49554	-.004	-.892	.00000	.000	1
CalStd4=5	5.0000	5.6278	.628	12.6	.00002	.000	1
CalStd5=10	10.000	10.457	.457	4.57	.00004	.000	1
CalStd9=100	1000.0	999.00	-1.00	-.100	.00348	.000	1
CalStd8=100	100.00	99.075	-.925	-.925	.00035	.000	1
CalStd7=50	50.000	50.539	.539	1.08	.00018	.000	1

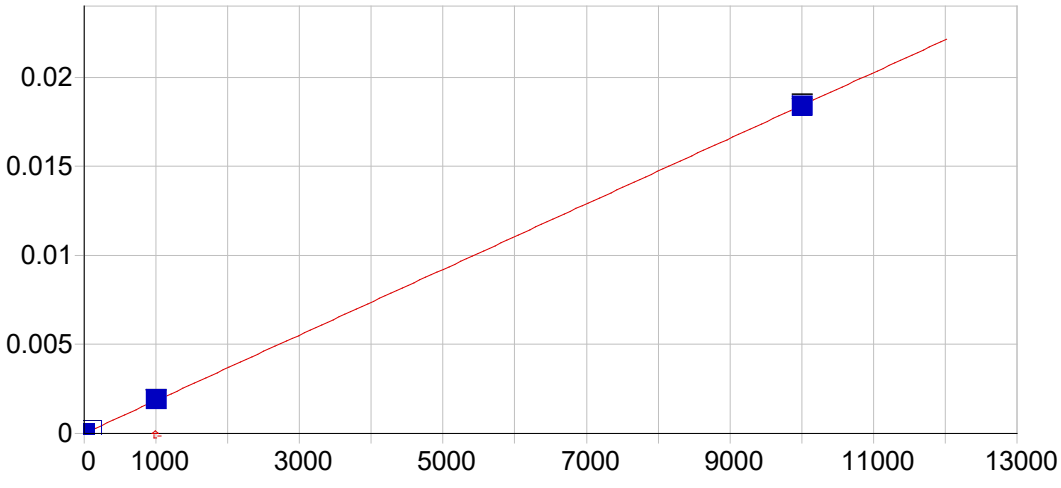


Co 228.616 {447}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000016	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.265048		
Predicted MQL:	0.883493		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00046	-.000	.000	-.00001	.000	1
CalStd7=50	50.000	52.960	2.96	5.92	.00083	.000	1
CalStd5=10	10.000	10.789	.789	7.89	.00016	.000	1
CalStd4=5	5.0000	5.6185	.618	12.4	.00008	.000	1
CalStd8=100	100.00	103.85	3.85	3.85	.00164	.000	1
CalStd9=100	1000.0	1043.9	43.9	4.39	.01654	.000	1
CalStd3=1	1.0000	1.1213	.121	12.1	.00001	.000	1
CalStd10=10	10000.	9947.8	-52.2	-.522	.15771	.001	1

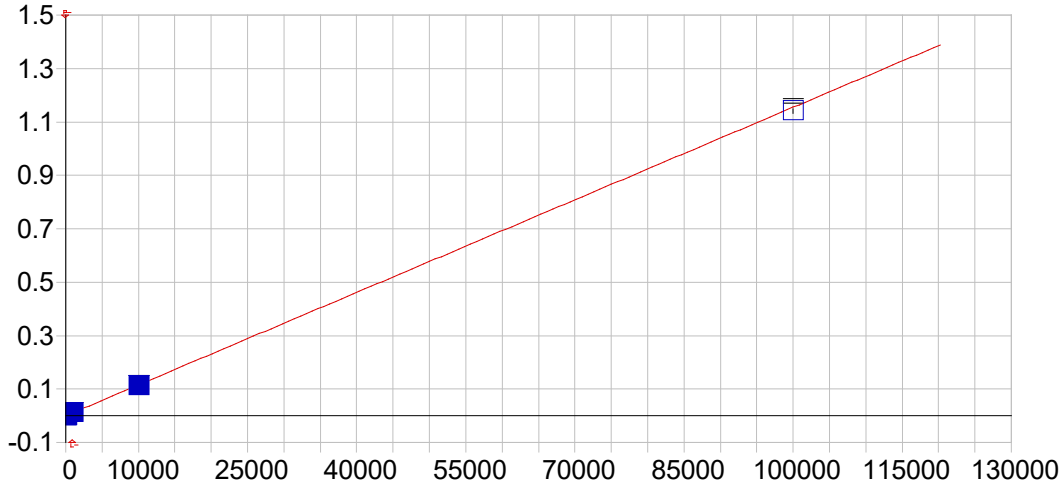


Co 238.892 {141}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.397661		
Predicted MQL:	1.325536		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00452	-.005	.000	.00000	.000	1
CalStd9=100	1000.0	1029.1	29.1	2.91	.00190	.000	1
CalStd10=10	10000.	9969.0	-31.0	-.310	.01836	.000	1
CalStd8=100	100.00	101.92	1.92	1.92	.00019	.000	1

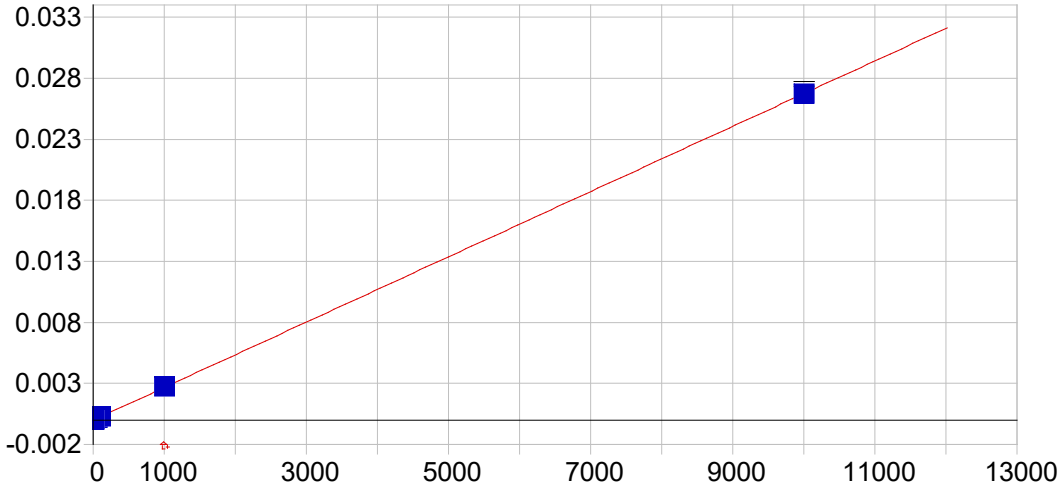


Cr 205.560 {464}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000012	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.235704		
Predicted MQL:	0.785681		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.27241	-.272	.000	-.00001	.000	1
CalStd5=10	10.000	10.332	.332	3.32	.00012	.000	1
CalStd7=50	50.000	51.373	1.37	2.75	.00059	.000	1
CalStd9=100	1000.0	1025.2	25.2	2.52	.01183	.000	1
CalStd8=100	100.00	101.06	1.06	1.06	.00116	.000	1
CalStd4=5	5.0000	5.3213	.321	6.43	.00006	.000	1
CalStd3=1	1.0000	.98723	-.013	-1.28	.00001	.000	1
CalStd10=10	10000.	9735.8	-264.	-2.64	.11241	.001	1
CalStd12=10	100000.	98804.	-1200.	-1.20	1.1409	.008	1

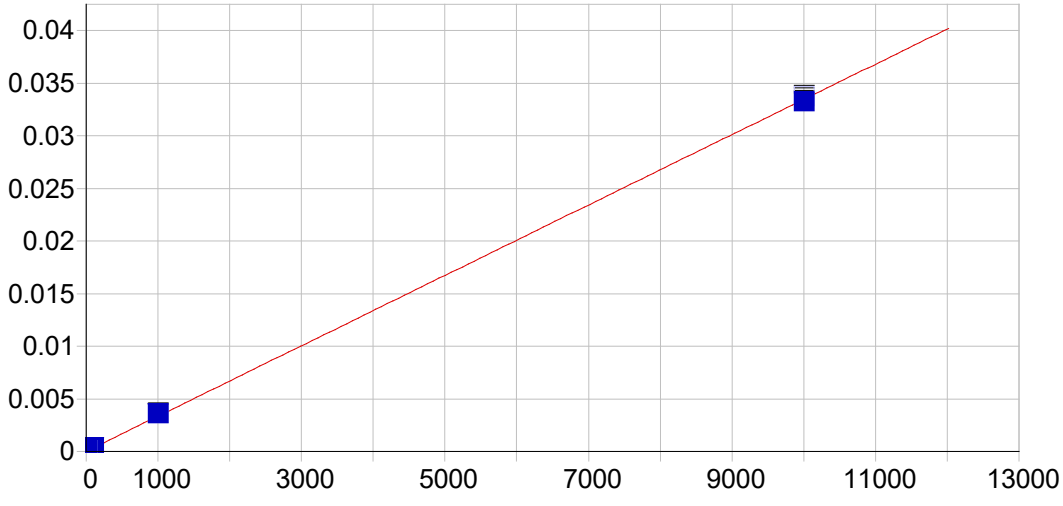


Cr 267.716 {126}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999990	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.429477		
Predicted MQL:	1.431589		

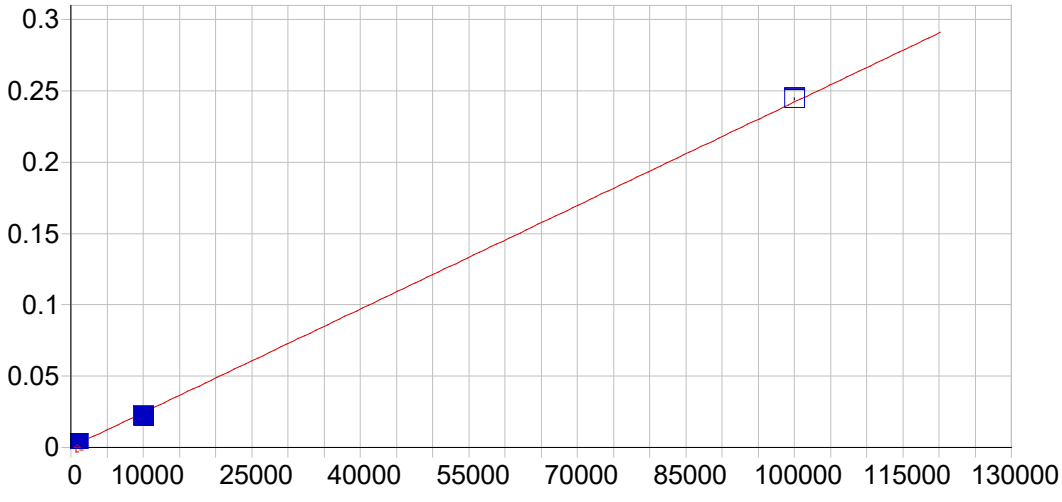
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00082	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.173	.173	1.73	.00002	.000	1
CalStd7=50	50.000	51.051	1.05	2.10	.00013	.000	1
CalStd9=100	1000.0	1010.8	10.8	1.08	.00270	.000	1
CalStd8=100	100.00	100.16	.158	.158	.00026	.000	1
CalStd4=5	5.0000	5.5723	.572	11.4	.00001	.000	1
CalStd10=10	10000.	9987.3	-12.7	-.127	.02671	.000	1



Cu 223.008 {451}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000005		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999785		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.233140				
Predicted MQL:	4.110467				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00237	-.002	.000	.00001	.000	1
CalStd9=100	1000.0	1062.0	62.0	6.20	.00360	.000	1
CalStd8=100	100.00	106.71	6.71	6.71	.00037	.000	1
CalStd5=10	10.000	11.149	1.15	11.5	.00004	.000	1
CalStd10=10	10000.	9930.1	-69.9	-.699	.03369	.000	1

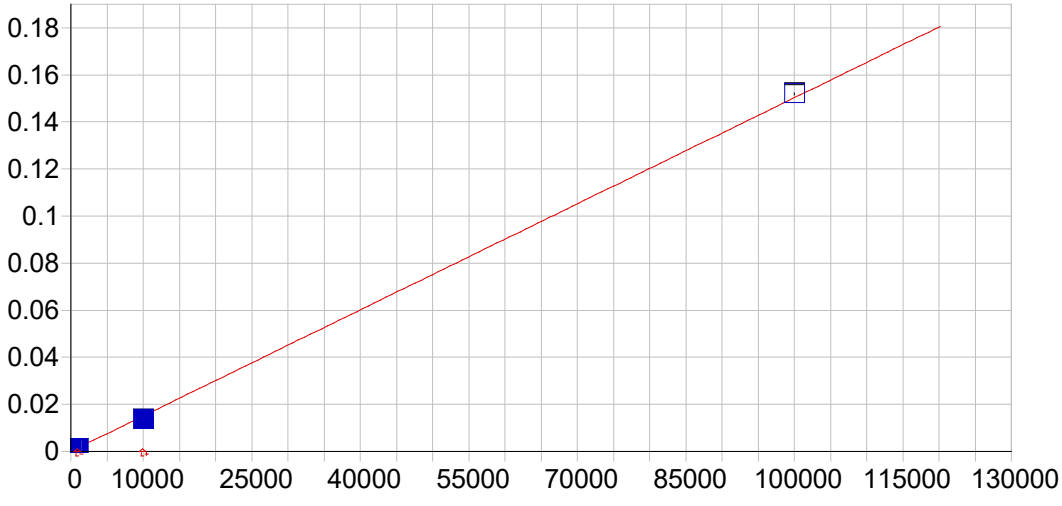


Cu 324.754 {104}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000186	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999530	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	4.045637		
Predicted MQL:	13.485456		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00359	.004	.000	.00019	.000	1
CalStd9=100	1000.0	955.73	-44.3	-4.43	.00250	.000	1
CalStd8=100	100.00	109.42	9.42	9.42	.00045	.000	1
CalStd10=10	10000.	9041.5	-959.	-9.59	.02207	.000	1
CalStd12=10	100000.	100990.	994.	.994	.24458	.001	1

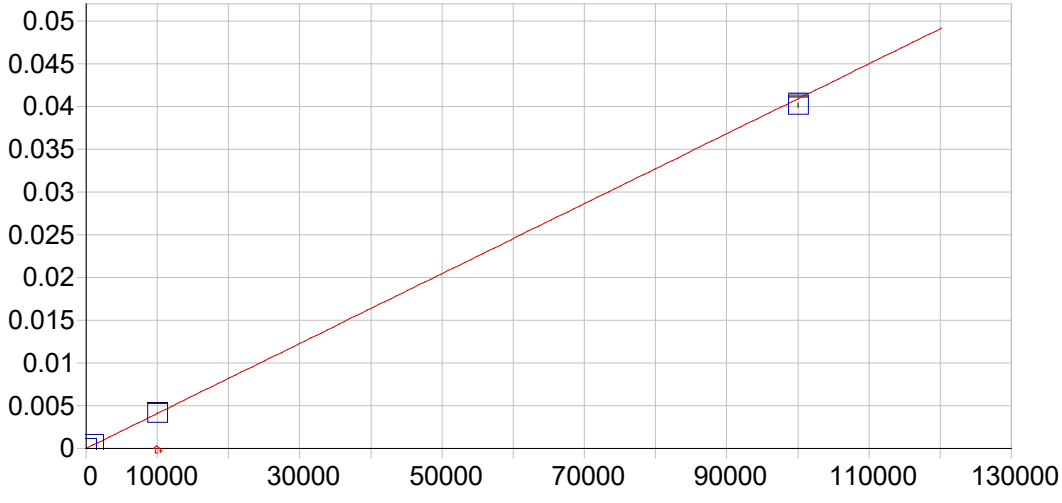


Cu 327.396 {103}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000054	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999409	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	7.806843		
Predicted MQL:	26.022811		

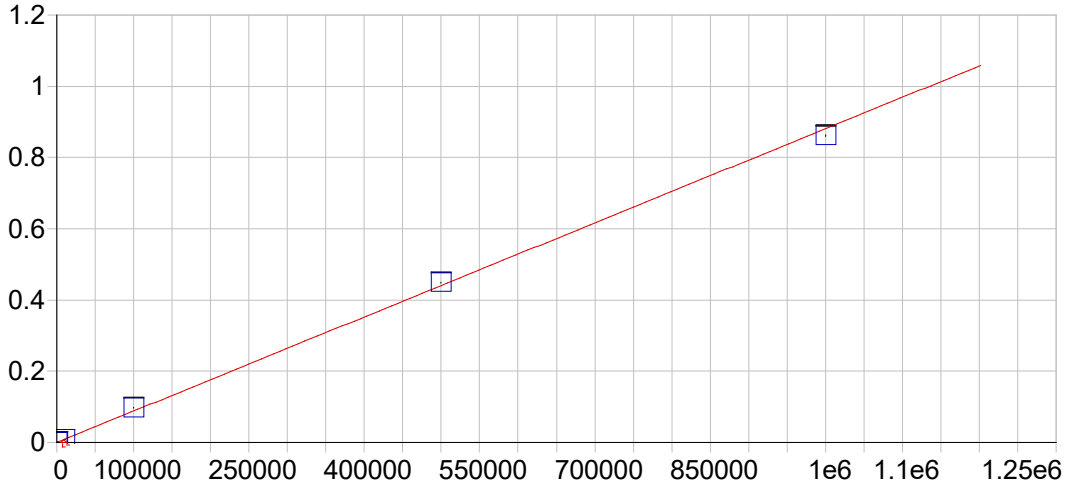
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00190	.002	.000	.00005	.000	1
CalStd6=20	20.000	20.011	.011	.055	.00008	.000	1
CalStd7=50	50.000	46.255	-3.75	-7.49	.00012	.000	1
CalStd8=100	100.00	94.876	-5.12	-5.12	.00020	.000	1
CalStd9=100	1000.0	934.38	-65.6	-6.56	.00146	.000	1
CalStd10=10	10000.	8951.5	-1050.	-10.5	.01350	.000	1
CalStd4=5	5.0000	7.2545	2.25	45.1	.00007	.000	1
CalStd5=10	10.000	4.5364	-5.46	-54.6	.00006	.000	1
CalStd12=10	100000.	101130.	1130.	1.13	.15197	.000	1



Fe 234.349 {144}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000011		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999679		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	0.891672				
Predicted MQL:	2.972240				

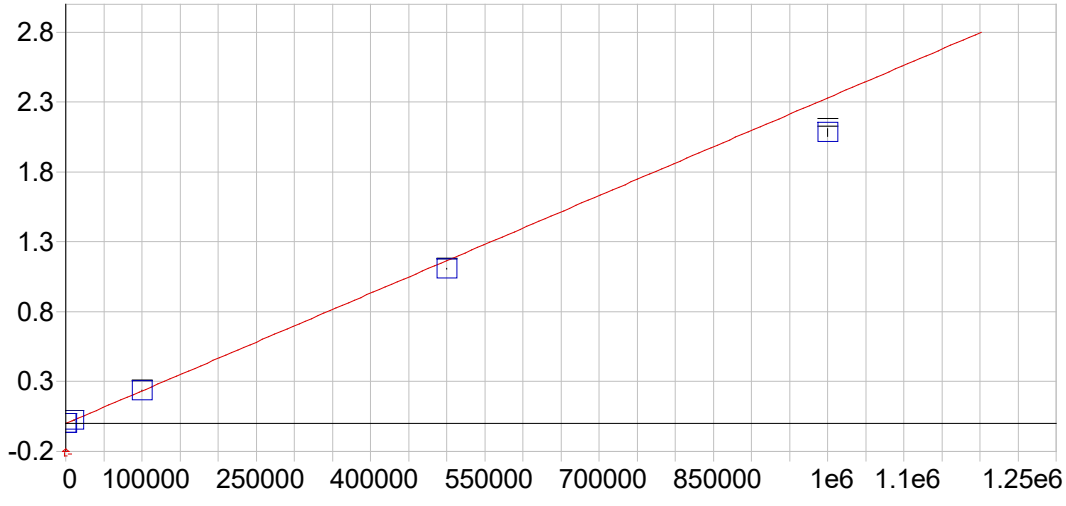
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.94712	-.947	.000	.00001	.000	1
CalStd10=10	10000.	10099.	99.3	.993	.00414	.000	1
CalStd13=10	100000.	98141.	-1860.	-1.86	.04014	.000	1
CalStd9=100	1000.0	1048.8	48.8	4.88	.00044	.000	1



Fe 239.562 {140}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999417		Status:	OK.	
Std Error of Est:	0.000047				
Predicted MDL:	5.399645				
Predicted MQL:	17.998815				

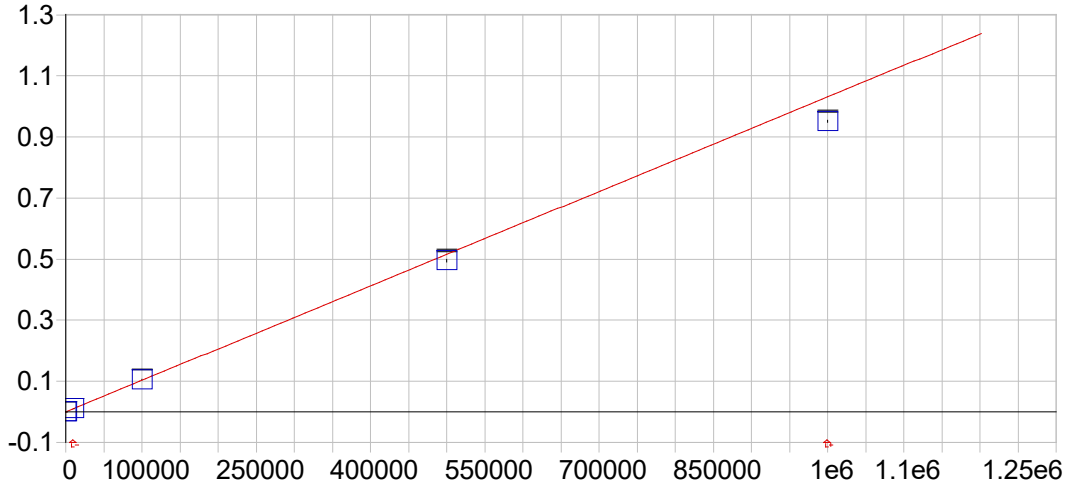
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.27299	-.273	.000	.00001	.000	1
CalStd10=10	10000.	10579.	579.	5.79	.00933	.000	1
CalStd13=10	100000.	110740.	10700.	10.7	.09756	.000	1
CalStd14=50	500000.	510260.	10300.	2.05	.44951	.001	1
CalStd9=100	1000.0	1108.8	109.	10.9	.00098	.000	1
CalibStd15=	1000000.	978310.	-21700.	-2.17	.86183	.002	1



Fe 259.940 {129}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000002		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999797		Status:	OK.	
Std Error of Est:	0.000032				
Predicted MDL:	2.618579				
Predicted MQL:	8.728598				

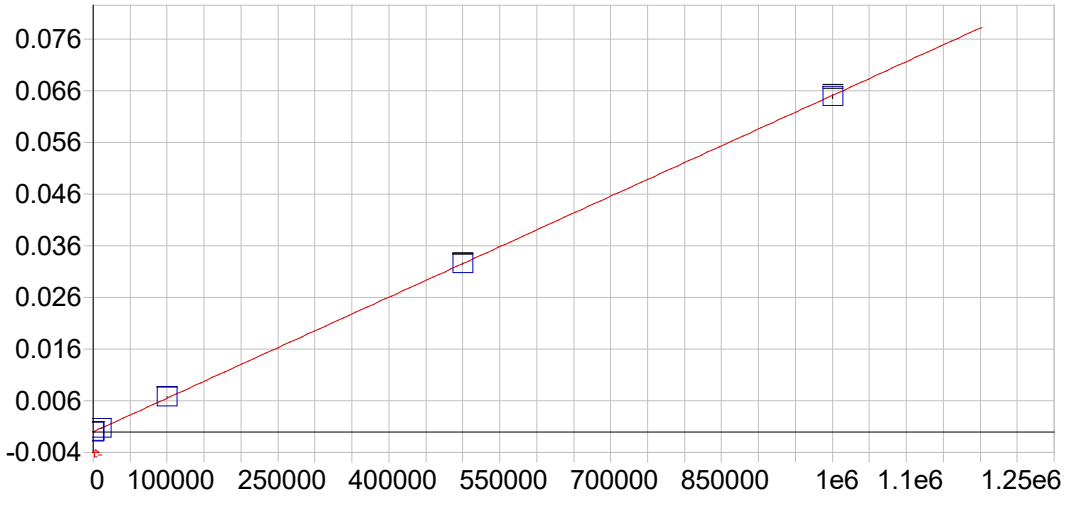
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.3314	-1.33	.000	-.00000	.000	1
CalStd10=10	10000.	9800.8	-199.	-1.99	.02284	.000	1
CalStd13=10	100000.	101070.	1070.	1.07	.23545	.001	1
CalStd14=50	500000.	475430.	-24600.	-4.91	1.1076	.004	1
CalStd9=100	1000.0	1026.9	26.9	2.69	.00239	.000	1
CalibStd15=	1000000.	893890.	-106000.	-10.6	2.0825	.025	1



Mg 202.582 {466}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	-0.000007		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998925		Status:	OK.	
Std Error of Est:	0.000055				
Predicted MDL:	3.527247				
Predicted MQL:	11.757490				

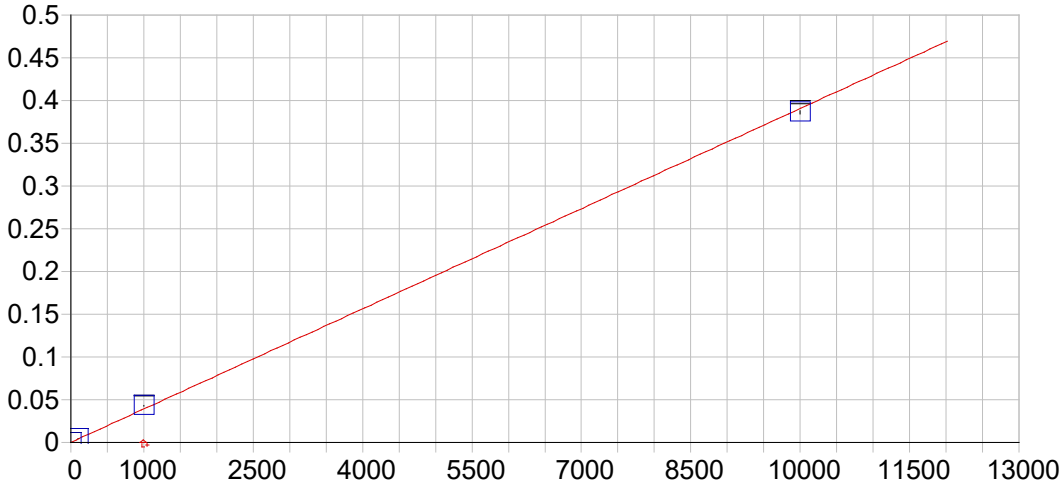
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-5.3143	-5.31	.000	-.00001	.000	1
CalStd13=10	100000.	102420.	2420.	2.42	.10560	.000	1
CalStd10=10	10000.	10012.	12.3	.123	.01032	.000	1
CalStd14=50	500000.	480250.	-19800.	-3.95	.49518	.003	1
CalStd9=100	1000.0	1103.5	104.	10.4	.00113	.000	1
CalibStd15=	1000000.	922700.	-77300.	-7.73	.95139	.004	1



Mg 279.079 {121}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999945		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	38.747087				
Predicted MQL:	129.156957				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05045	-.050	.000	.00000	.000	1
CalStd13=10	100000.	104030.	4030.	4.03	.00677	.000	1
CalStd10=10	10000.	9986.3	-13.7	-.137	.00065	.000	1
CalStd14=50	500000.	499830.	-166.	-.033	.03253	.000	1
CalStd9=100	1000.0	1015.7	15.7	1.57	.00007	.000	1
CalibStd15=	1000000.	996140.	-3860.	-.386	.06483	.000	1

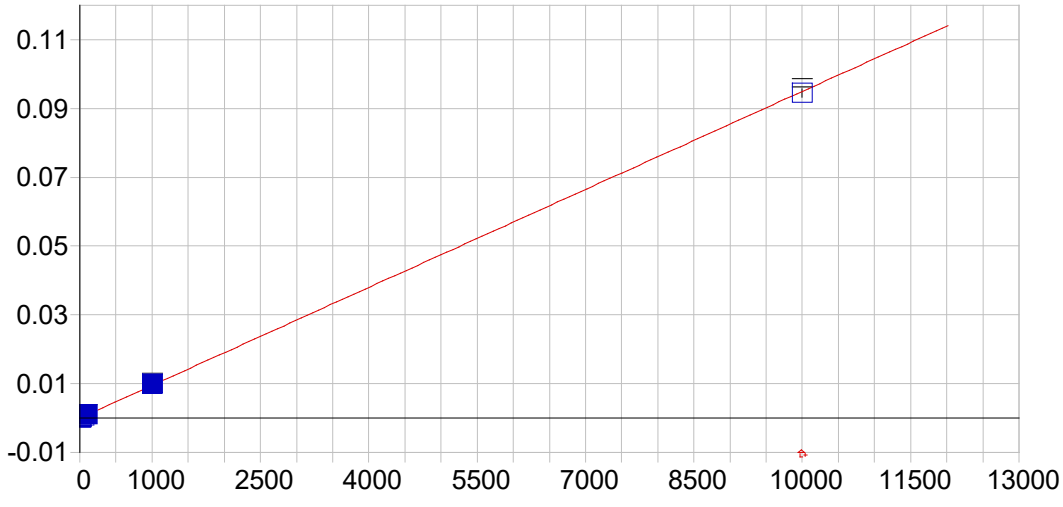


Mg 280.270 {120}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000053	Re-Slope:	1.000000
A1 (Gain):	0.000039	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999420	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.017302		
Predicted MQL:	0.057673		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01858	-.019	.000	.00005	.000	1
CalStd9=100	1000.0	1103.6	104.	10.4	.04316	.000	1
CalStd10=10	10000.	9887.1	-113.	-1.13	.38625	.002	1
CalStd8=100	100.00	109.35	9.35	9.35	.00432	.000	1

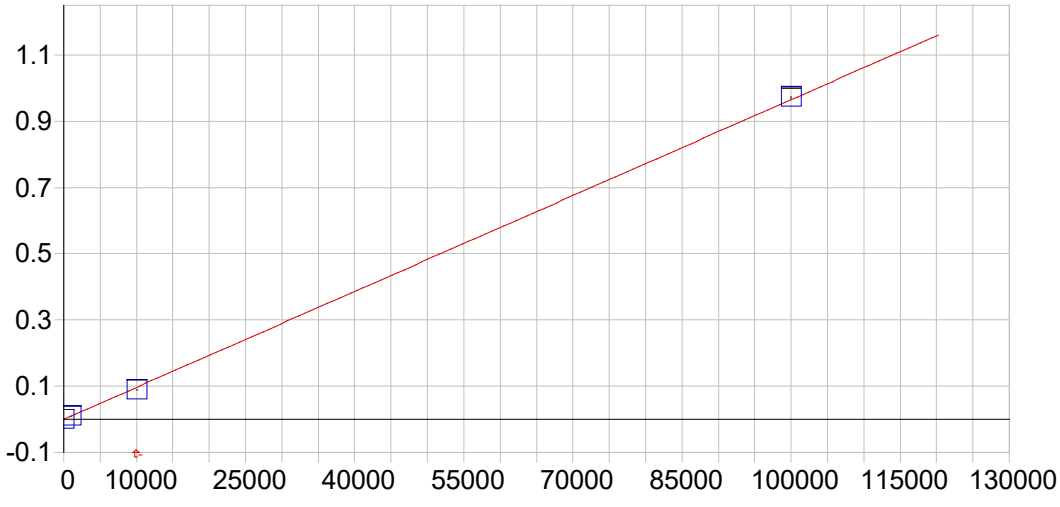


Mn 257.610 {131}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.061677		
Predicted MQL:	0.205591		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00213	-.002	.000	-.00000	.000	1
CalStd5=10	10.000	10.780	.780	7.80	.00010	.000	1
CalStd7=50	50.000	53.136	3.14	6.27	.00050	.000	1
CalStd6=20	20.000	21.394	1.39	6.97	.00020	.000	1
CalStd8=100	100.00	103.49	3.49	3.49	.00098	.000	1
CalStd4=5	5.0000	5.7043	.704	14.1	.00005	.000	1
CalStd9=100	1000.0	1044.4	44.4	4.44	.00992	.000	1
CalStd10=10	10000.	9946.1	-53.9	-.539	.09444	.001	1

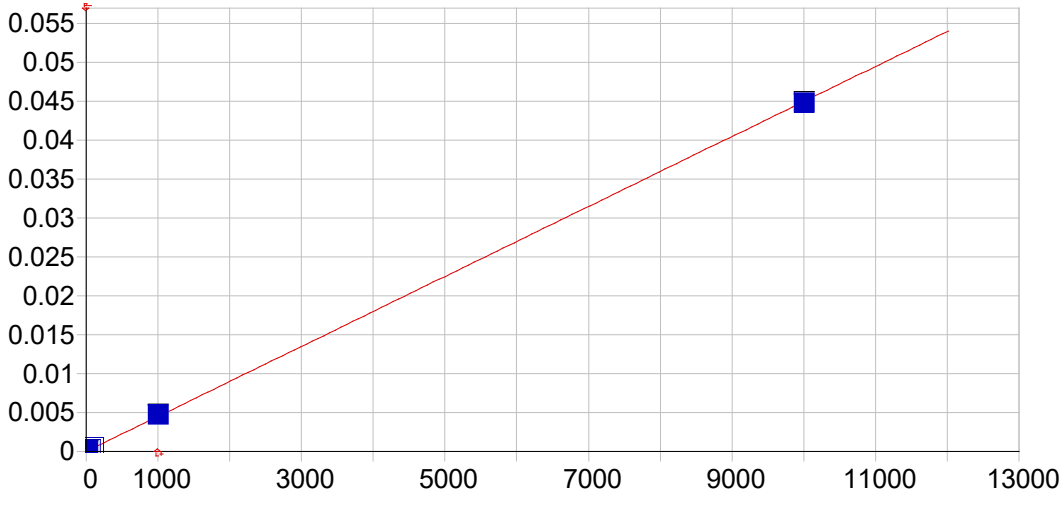


Mn 259.373 {130}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999724	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.582115		
Predicted MQL:	1.940382		

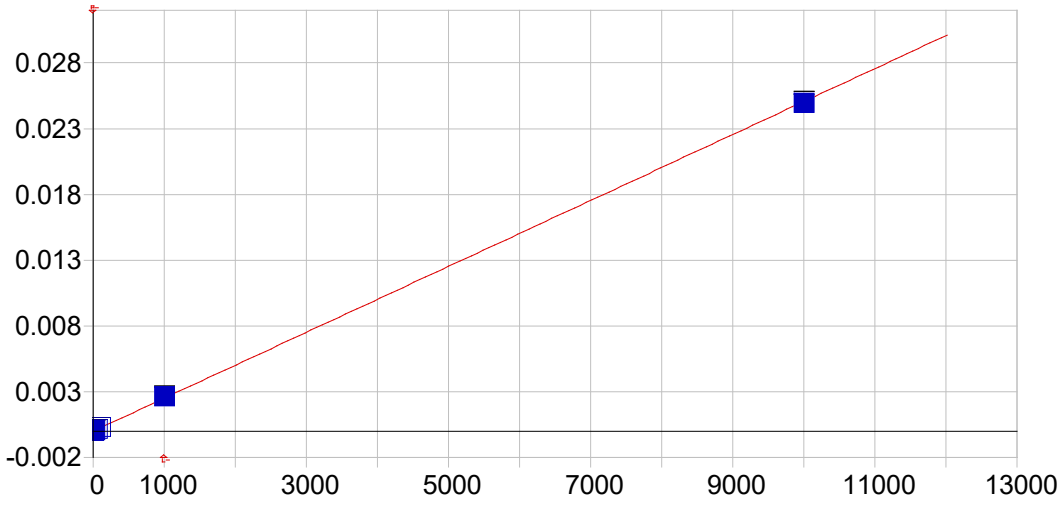
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08788	.088	.000	.00000	.000	1
CalStd10=10	10000.	9258.9	-741.	-7.41	.08936	.000	1
CalStd9=100	1000.0	978.61	-21.4	-2.14	.00945	.000	1
CalStd12=10	100000.	100760.	762.	.762	.97241	.003	1



Mo 202.030 {466}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000004		Re-Slope:	1.000000	
A1 (Gain):	0.000004		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999892		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	0.510949				
Predicted MQL:	1.703163				

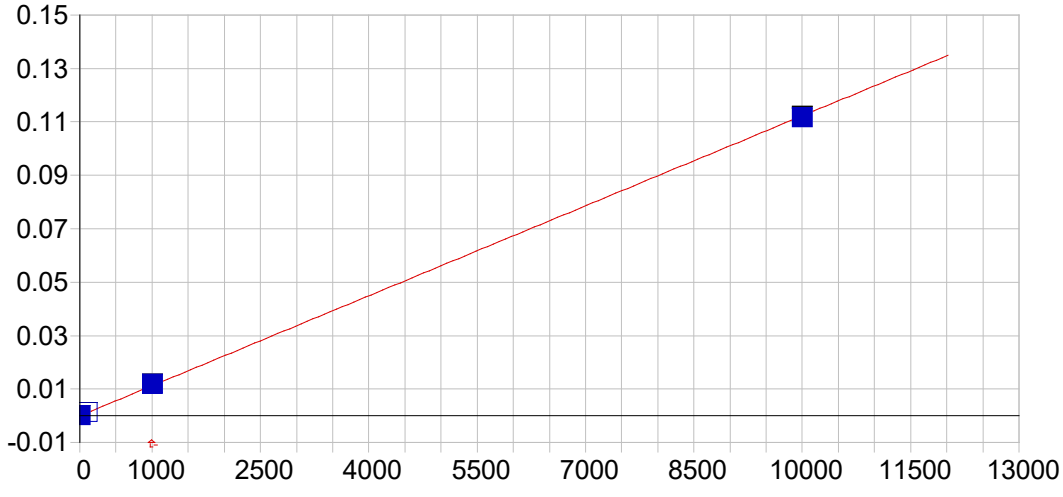
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00153	-.002	.000	.00000	.000	1
CalStd7=50	50.000	52.183	2.18	4.37	.00024	.000	1
CalStd6=20	20.000	21.230	1.23	6.15	.00010	.000	1
CalStd5=10	10.000	10.254	.254	2.54	.00005	.000	1
CalStd8=100	100.00	102.17	2.17	2.17	.00046	.000	1
CalStd4=5	5.0000	5.5731	.573	11.5	.00003	.000	1
CalStd9=100	1000.0	1043.3	43.3	4.33	.00470	.000	1
CalStd10=10	10000.	9950.3	-49.7	-.497	.04477	.000	1



Mo 204.598 {464}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999882		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.025727				
Predicted MQL:	3.419090				

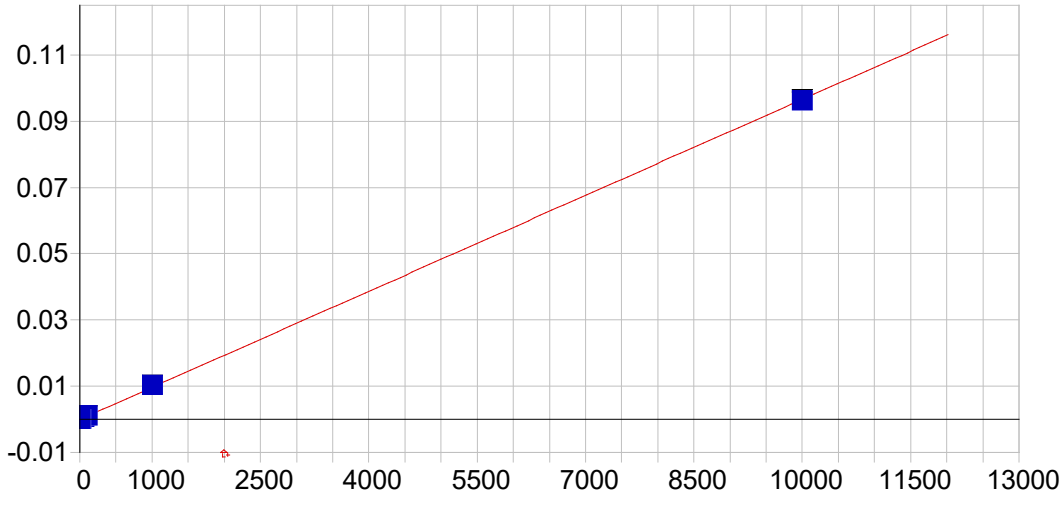
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00201	-.002	.000	.00000	.000	1
CalStd7=50	50.000	52.210	2.21	4.42	.00013	.000	1
CalStd6=20	20.000	20.603	.603	3.01	.00005	.000	1
CalStd5=10	10.000	11.276	1.28	12.8	.00003	.000	1
CalStd8=100	100.00	102.89	2.89	2.89	.00026	.000	1
CalStd4=5	5.0000	5.6579	.658	13.2	.00002	.000	1
CalStd9=100	1000.0	1043.8	43.8	4.38	.00262	.000	1
CalStd10=10	10000.	9948.6	-51.4	-.514	.02493	.000	1



Ni 221.647 {452}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.000006		Re-Slope:	1.000000	
A1 (Gain):	0.000011		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999866		Status:	OK.	
Std Error of Est:	0.000009				
Predicted MDL:	0.425359				
Predicted MQL:	1.417864				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00899	-.009	.000	-.00001	.000	1
CalStd10=10	10000.	9945.6	-54.4	-.544	.11166	.000	1
CalStd8=100	100.00	104.56	4.56	4.56	.00117	.000	1
CalStd9=100	1000.0	1049.8	49.8	4.98	.01178	.000	1

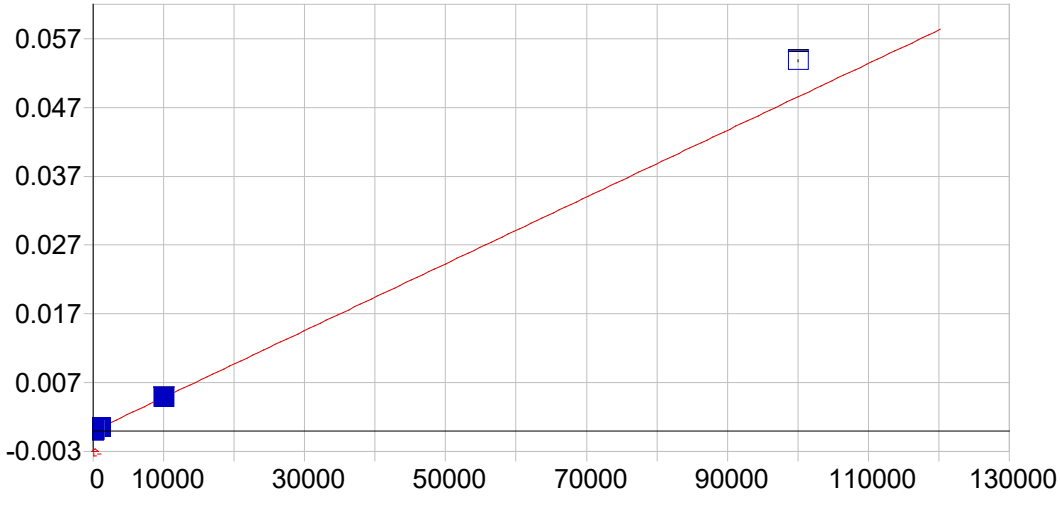


Ni 231.604 {445}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000010	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999837	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.458507		
Predicted MQL:	1.528355		

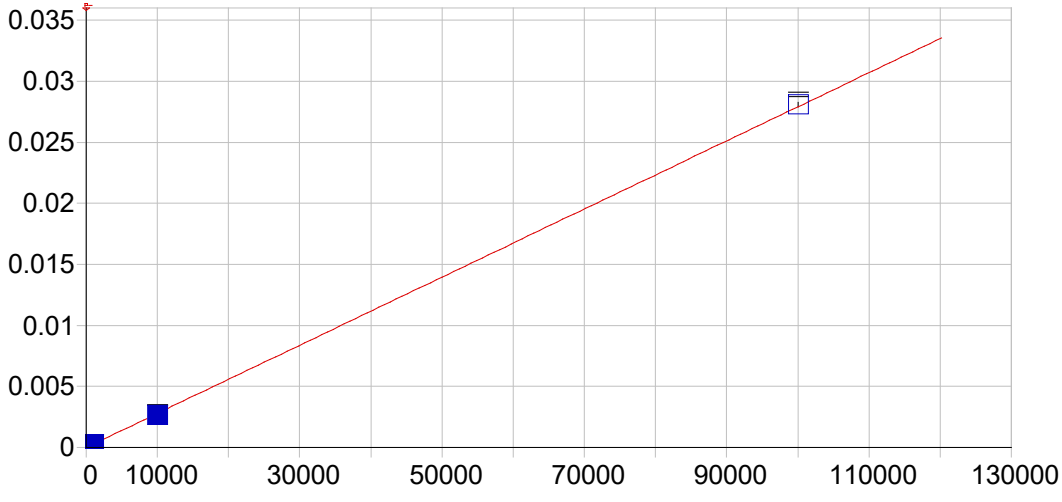
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00037	-.000	.000	-.00000	.000	1
CalStd7=50	50.000	52.914	2.91	5.83	.00051	.000	1
CalStd5=10	10.000	10.907	.907	9.07	.00010	.000	1
CalStd8=100	100.00	104.60	4.60	4.60	.00101	.000	1
CalStd4=5	5.0000	6.2525	1.25	25.1	.00006	.000	1
CalStd9=100	1000.0	1050.0	50.0	5.00	.01013	.000	1
CalStd3=1	1.0000	.87600	-.124	-12.4	.00001	.000	1
CalStd10=10	10000.	9940.6	-59.4	-.594	.09608	.000	1



Pb 216.999 {455}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999970		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	7.299745				
Predicted MQL:	24.332482				

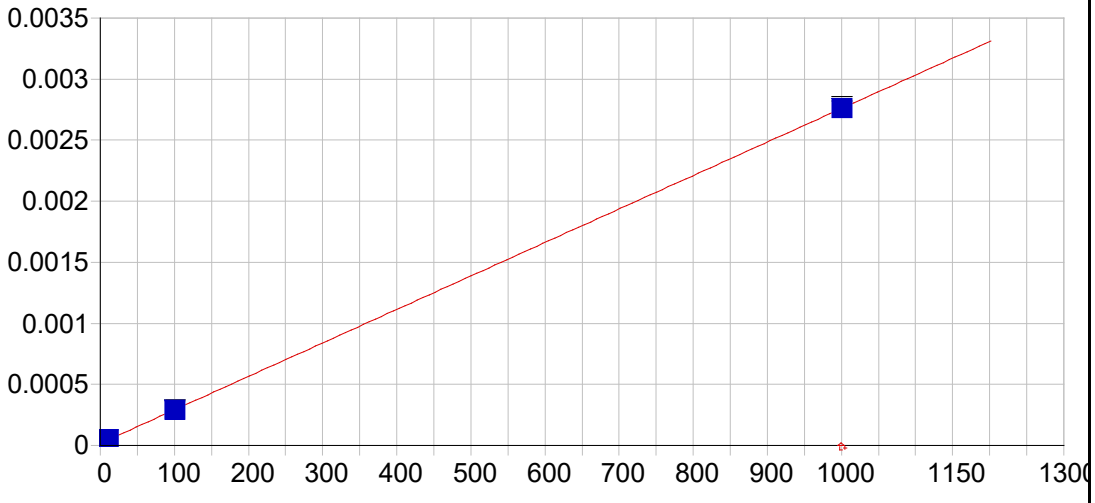
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00412	-.004	.000	.00000	.000	1
CalStd9=100	1000.0	1079.4	79.4	7.94	.00053	.000	1
CalStd10=10	10000.	10015.	15.2	.152	.00488	.000	1
CalStd8=100	100.00	103.08	3.08	3.08	.00005	.000	1
CalStd5=10	10.000	13.126	3.13	31.3	.00001	.000	1
CalStd12=10	100000.	110840.	10800.	10.8	.05380	.000	1



Pb 220.353 {153}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999818		Status:	OK.	
Std Error of Est:	0.000001				
Predicted MDL:	1.916183				
Predicted MQL:	6.387276				

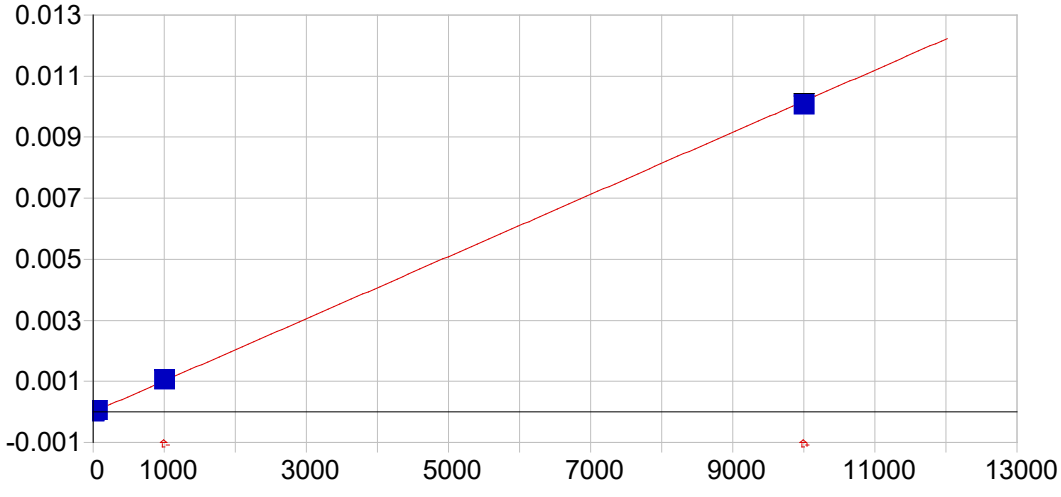
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00644	.006	.000	.00000	.000	1
CalStd9=100	1000.0	982.67	-17.3	-1.73	.00028	.000	1
CalStd10=10	10000.	9396.6	-603.	-6.03	.00262	.000	1
CalStd8=100	100.00	100.71	.709	.709	.00003	.000	1
CalStd12=10	100000.	100620.	620.	.620	.02807	.000	1



Pb 220.353 {453}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000017		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999598		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.747476				
Predicted MQL:	5.824919				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00217	-.002	.000	.00002	.000	1
CalStd5=10	10.000	10.351	.351	3.51	.00005	.000	1
CalStd8=100	100.00	98.492	-1.51	-1.51	.00029	.000	1
CalStd4=5	5.0000	7.0739	2.07	41.5	.00004	.000	1
CalStd9=100	1000.0	999.08	-.917	-.092	.00276	.000	1

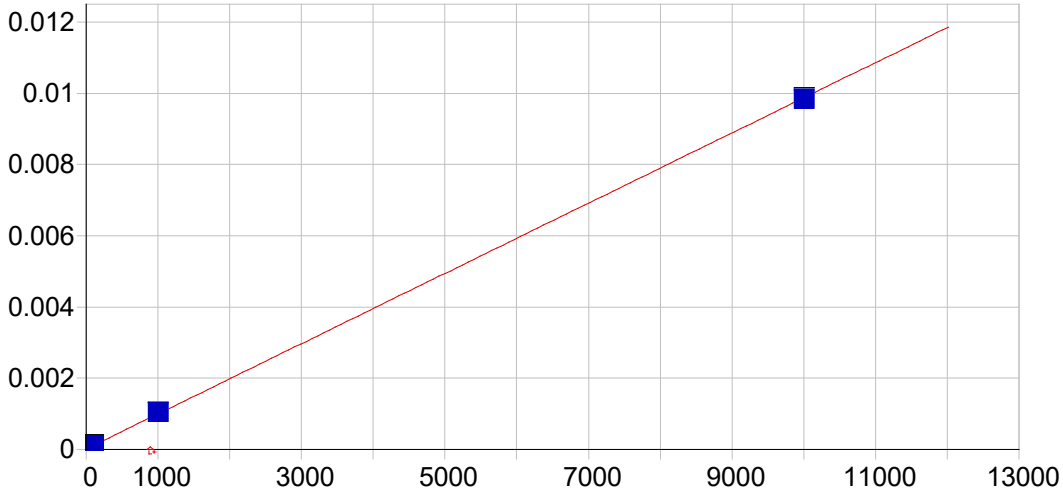


Sb 206.833 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999835	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	2.768049		
Predicted MQL:	9.226829		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0817	-1.08	.000	-.00000	.000	1
CalStd9=100	1000.0	1027.0	27.0	2.70	.00104	.000	1
CalStd5=10	10.000	8.8123	-1.19	-11.9	.00001	.000	1
CalStd7=50	50.000	49.875	-.125	-.250	.00005	.000	1
CalStd10=10	10000.	9884.4	-116.	-1.16	.01006	.000	1

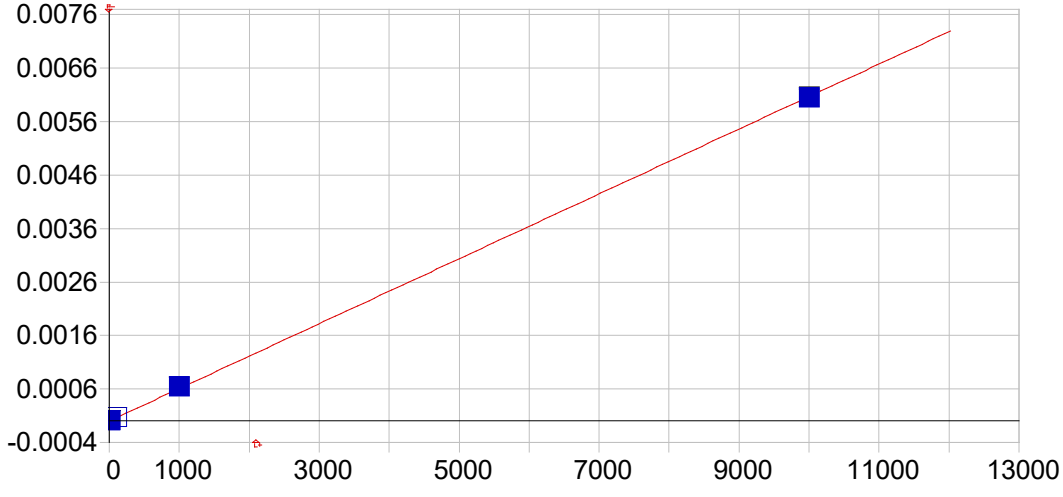


Sb 217.581 {455}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.302099		
Predicted MQL:	11.006997		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00144	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	1039.3	39.3	3.93	.00104	.000	1
CalStd6=20	20.000	21.241	1.24	6.21	.00003	.000	1
CalStd5=10	10.000	10.426	.426	4.26	.00002	.000	1
CalStd8=100	100.00	103.87	3.87	3.87	.00011	.000	1
CalStd4=5	5.0000	5.5513	.551	11.0	.00002	.000	1
CalStd10=10	10000.	9954.6	-45.4	-.454	.00983	.000	1

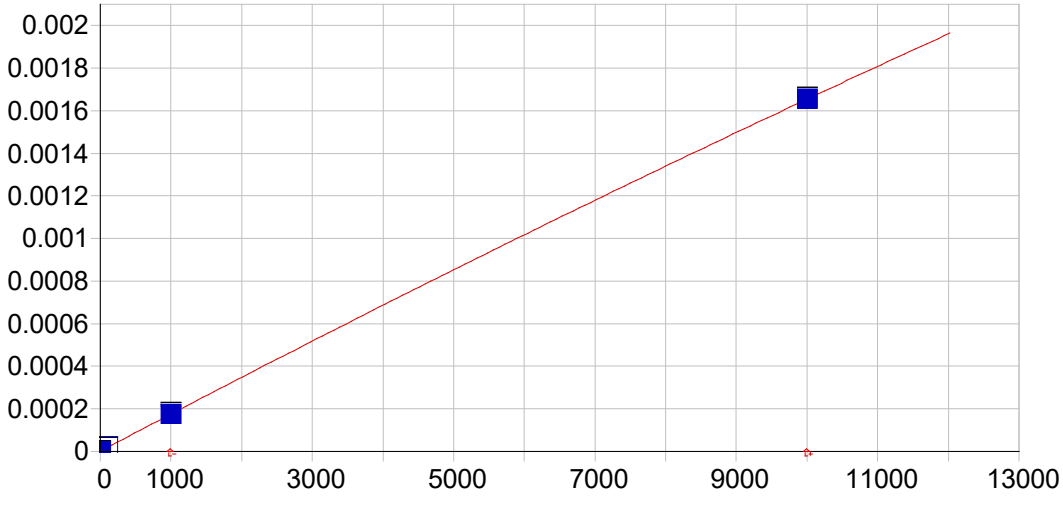


Se 196.090 {472}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.546972		
Predicted MQL:	11.823242		

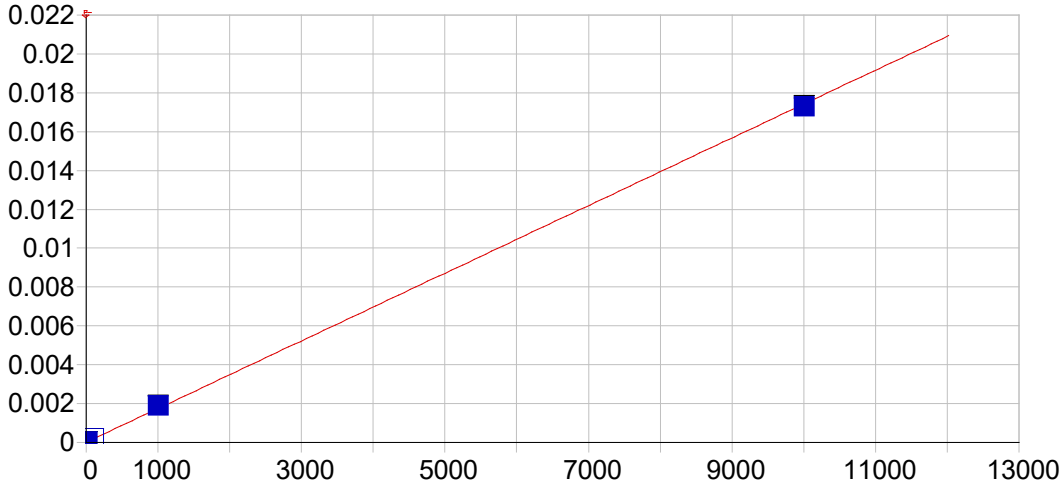
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00060	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1045.4	45.4	4.54	.00063	.000	1
CalStd5=10	10.000	10.084	.084	.837	.00001	.000	1
CalStd8=100	100.00	101.13	1.13	1.13	.00006	.000	1
CalStd10=10	10000.	9953.4	-46.6	-.466	.00604	.000	1



Se 206.279 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	-0.000000				
n (Exponent):	1.000000				
Correlation:	0.999957		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	17.995433				
Predicted MQL:	59.984775				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00784	-.008	.000	.00000	.000	1
CalStd9=100	1000.0	990.22	-9.78	-.978	.00017	.000	1
CalStd10=10	10000.	10001.	.992	.010	.00166	.000	1
CalStd8=100	100.00	108.81	8.81	8.81	.00002	.000	1

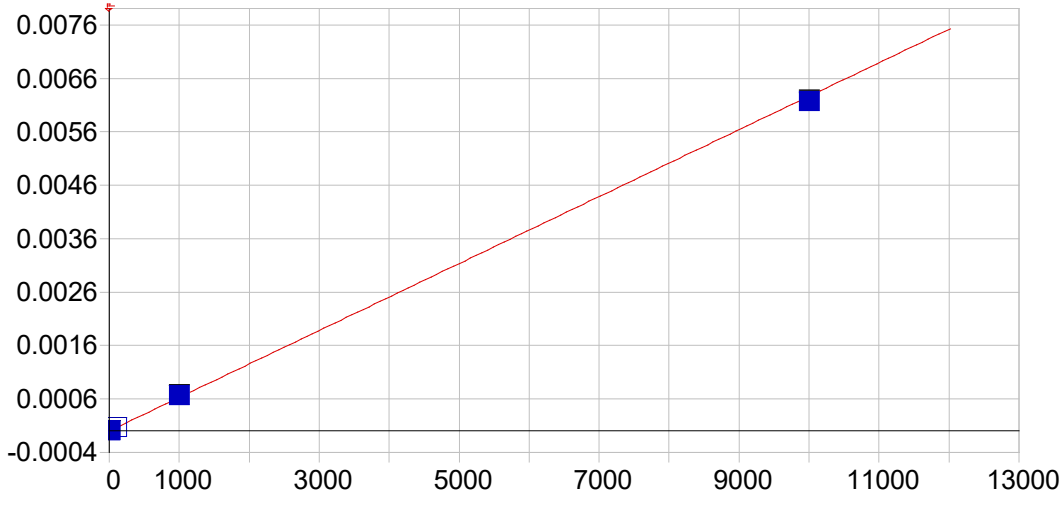


Tl 190.856 {476}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999700	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.780647		
Predicted MQL:	5.935491		

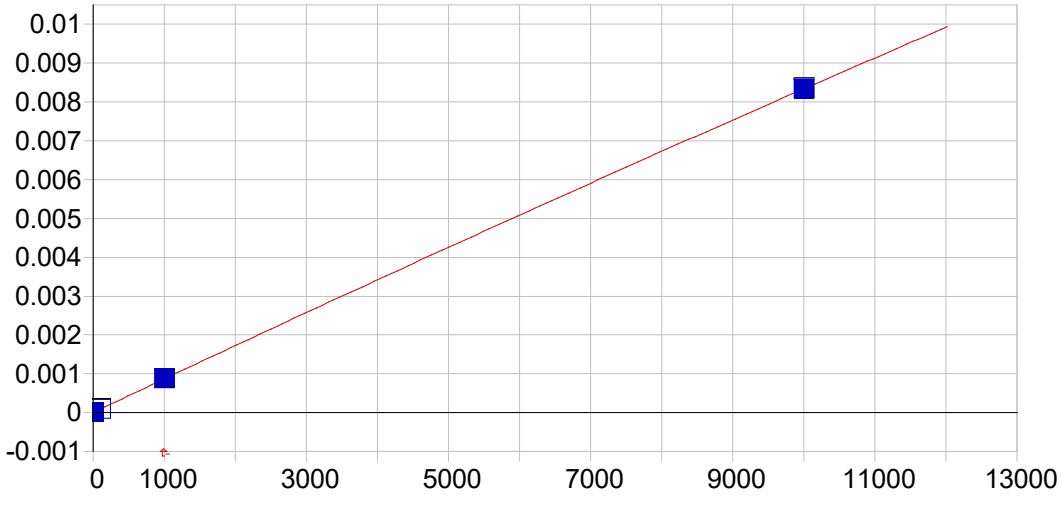
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00200	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	1074.8	74.8	7.48	.00188	.000	1
CalStd8=100	100.00	105.92	5.92	5.92	.00019	.000	1
CalStd5=10	10.000	10.738	.738	7.38	.00002	.000	1
CalStd10=10	10000.	9918.5	-81.5	-.815	.01728	.000	1



Tl 190.856 {477}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999500		Status:	OK.	
Std Error of Est:	0.000006				
Predicted MDL:	2.505970				
Predicted MQL:	8.353235				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.8820	-2.88	.000	.00000	.000	1
CalStd9=100	1000.0	1057.1	57.1	5.71	.00067	.000	1
CalStd8=100	100.00	103.02	3.02	3.02	.00007	.000	1
CalStd5=10	10.000	6.8691	-3.13	-31.3	.00001	.000	1
CalStd10=10	10000.	9839.4	-161.	-1.61	.00617	.000	1

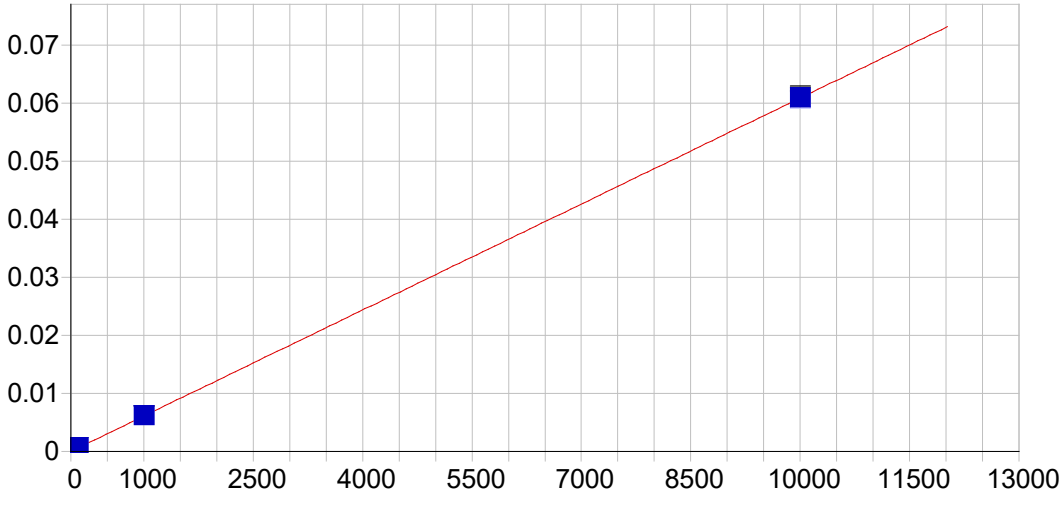


V 290.882 {116}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	8.073617		
Predicted MQL:	26.912058		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.8308	-1.83	.000	.00000	.000	1
CalStd9=100	1000.0	998.89	-1.11	-.111	.00087	.000	1
CalStd10=10	10000.	10000.	.063	.001	.00834	.000	1
CalStd8=100	100.00	100.24	.238	.238	.00009	.000	1

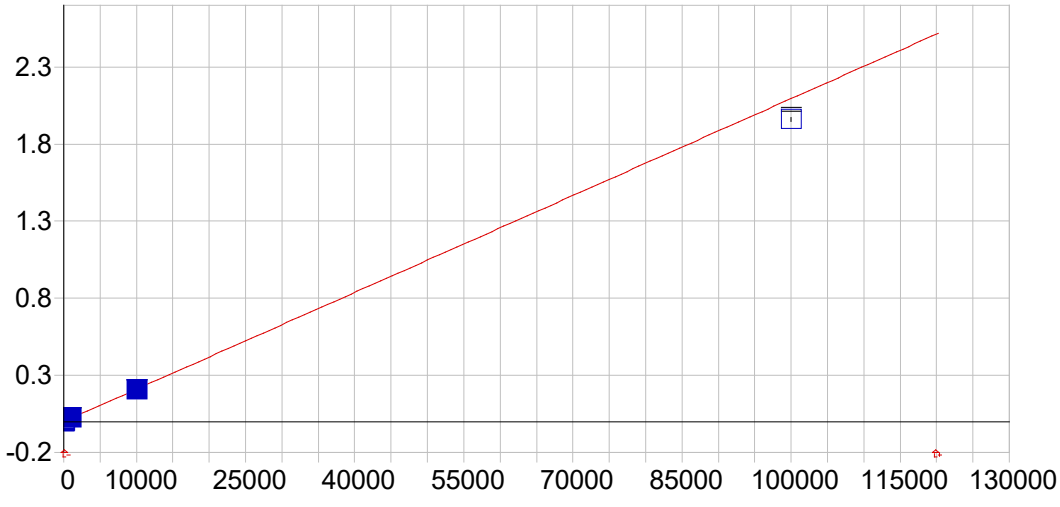


V 292.402 {115}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.374660		
Predicted MQL:	1.248866		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00014	-.000	.000	.00001	.000	1
CalStd7=50	50.000	50.365	.365	.730	.00032	.000	1
CalStd9=100	1000.0	1007.2	7.21	.721	.00612	.000	1
CalStd6=20	20.000	20.122	.122	.611	.00014	.000	1
CalStd5=10	10.000	10.078	.078	.780	.00008	.000	1
CalStd8=100	100.00	98.599	-1.40	-1.40	.00061	.000	1
CalStd10=10	10000.	9993.6	-6.37	-.064	.06059	.000	1

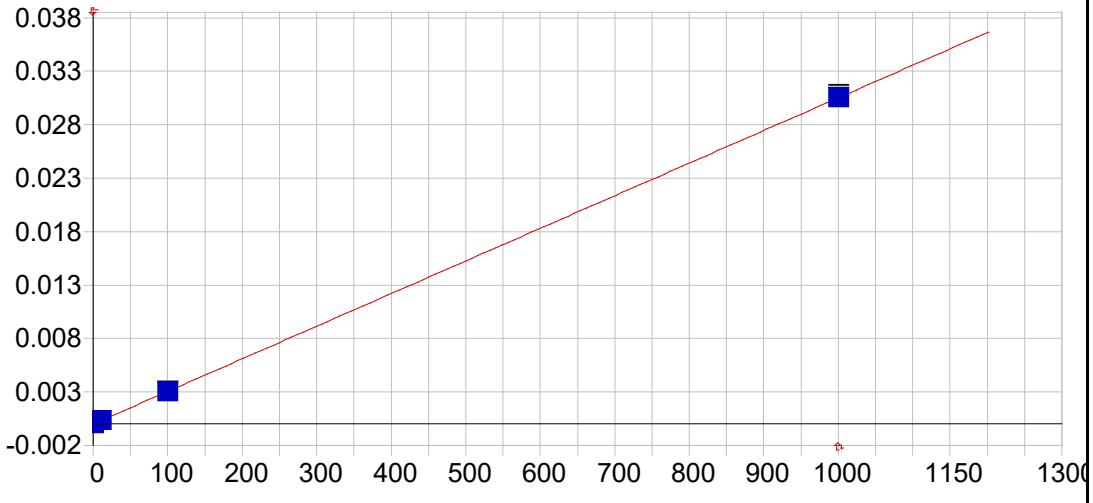


Zn 206.200 {463}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999265	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.152862		
Predicted MQL:	0.509541		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9763.8	-236.	-2.36	.20452	.001	1
Blank	.00000	-.37196	-.372	.000	-.00000	.000	1
CalStd9=100	1000.0	1033.1	33.1	3.31	.02165	.000	1
CalStd12=10	100000.	93485.	-6520.	-6.52	1.9581	.012	1
CalStd5=10	10.000	10.398	.398	3.98	.00022	.000	1
CalStd8=100	100.00	102.63	2.63	2.63	.00216	.000	1

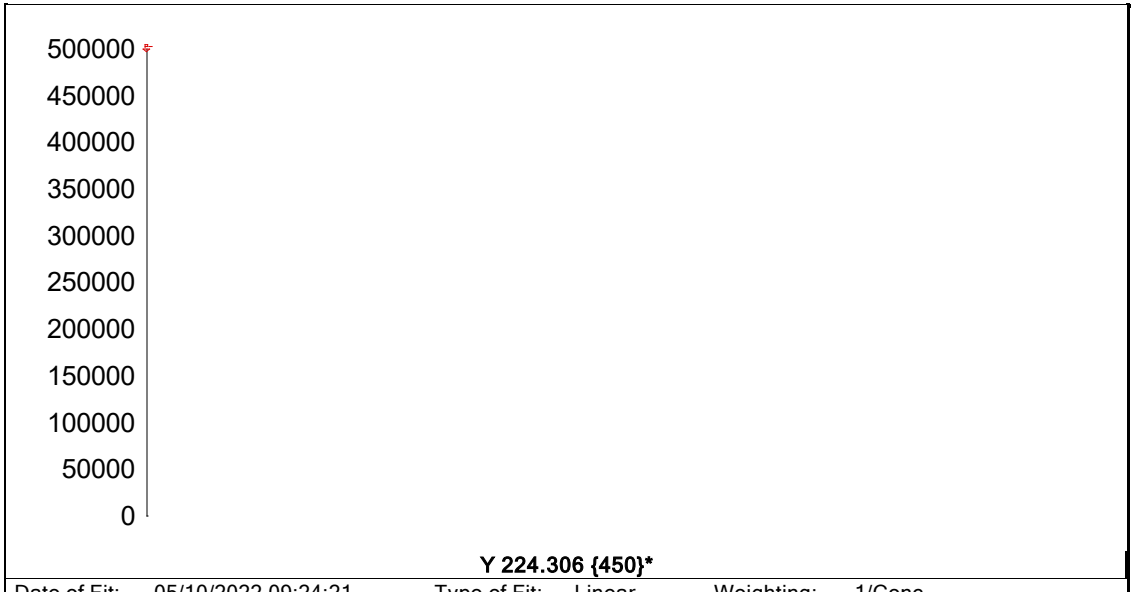


Zn 213.856 {457}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

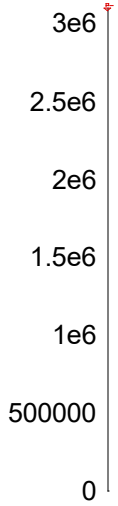
A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000031	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.116684		
Predicted MQL:	0.388947		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00056	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1000.1	.138	.014	.03066	.000	1
CalStd5=10	10.000	10.632	.632	6.32	.00033	.000	1
CalStd8=100	100.00	99.232	-.768	-.768	.00304	.000	1



Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

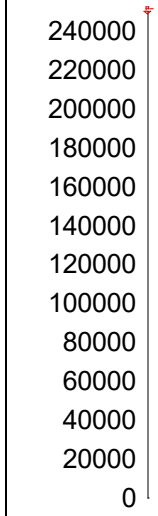
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	452790.	1710.	1



Y 324.228 {104}*

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

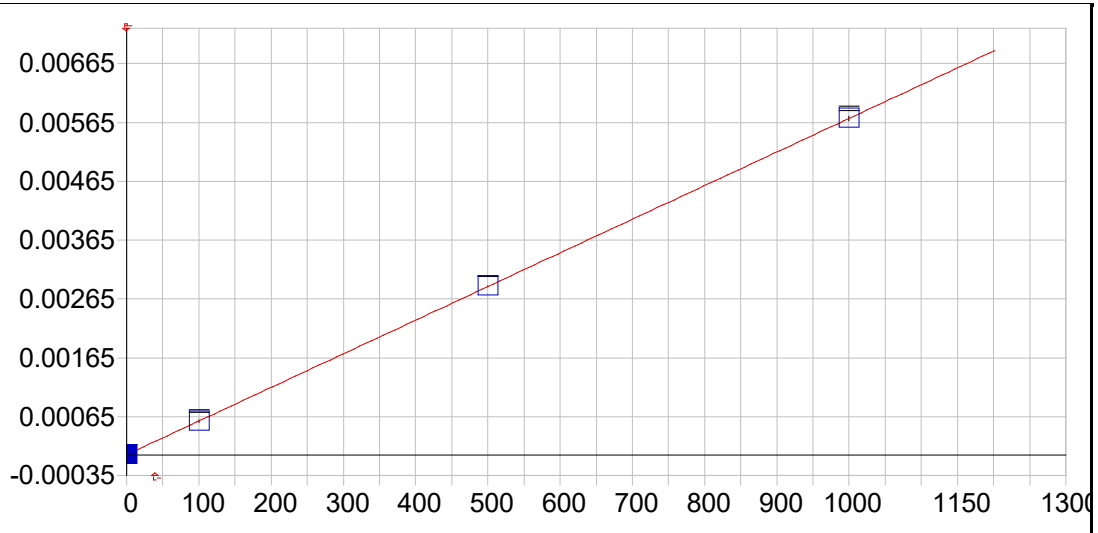
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	2929000.	8640.	1



Y 371.030 { 91}*

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

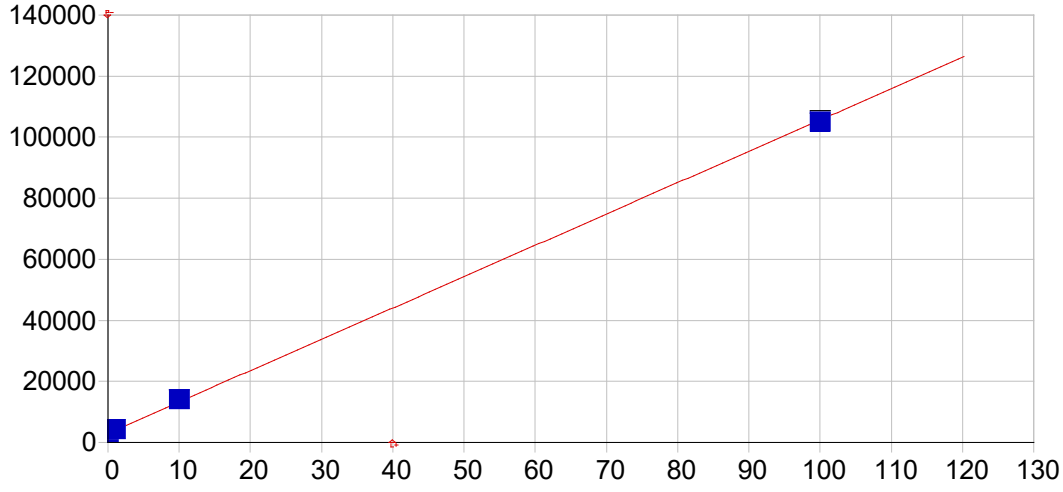
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	234250.	1080.	1



Na 330.237 {102}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000003		Re-Slope:	1.000000	
A1 (Gain):	0.000006		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999997		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	1.938494				
Predicted MQL:	6.461647				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00059	.001	.000	.00000	.000	1
CalStd13=10	100.00	99.208	-.792	-.792	.00057	.000	1
CalibStd15=	1000.0	999.53	-.467	-.047	.00572	.000	1
CalStd14=50	500.00	501.26	1.26	.252	.00287	.000	1

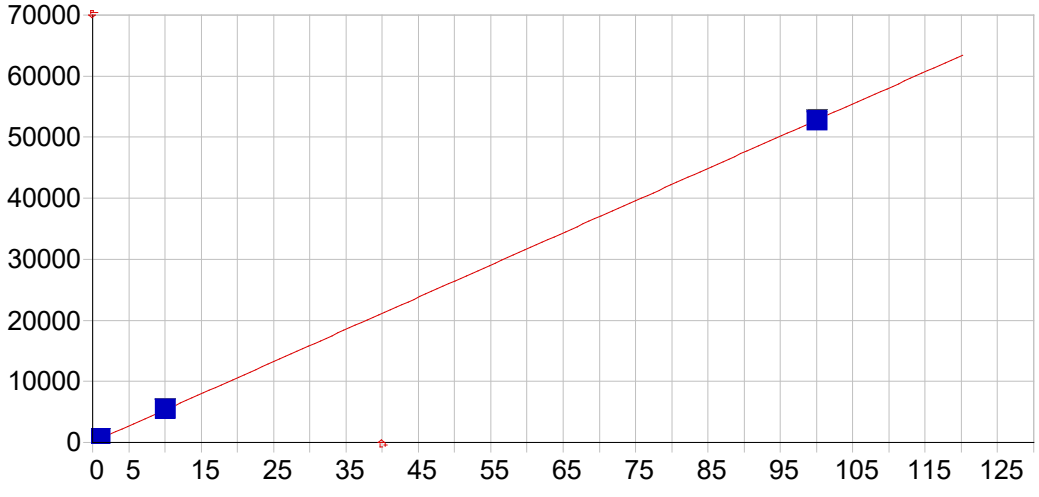


Na 588.995 { 57}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	3014.698306	Re-Slope:	1.000000
A1 (Gain):	1026.036912	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999751	Status:	OK.
Std Error of Est:	10.782376		
Predicted MDL:	0.011862		
Predicted MQL:	0.039538		

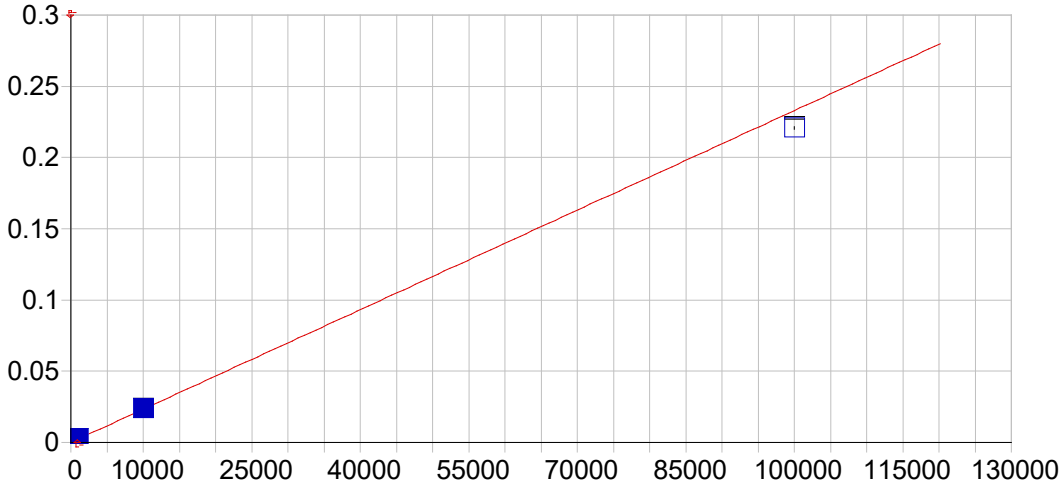
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00017	-.000	.000	3014.5	21.2	1
CalStd9=100	1.0000	1.1118	.112	11.2	4155.7	32.4	1
CalStd10=10	10.000	10.612	.612	6.12	13905.	19.4	1
CalStd13=10	100.00	99.276	-.724	-.724	104900.	341.	1



Na 589.592 { 57}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	48.399591		Re-Slope:	1.000000	
A1 (Gain):	527.457305		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999977		Status:	OK.	
Std Error of Est:	1.689053				
Predicted MDL:	0.014526				
Predicted MQL:	0.048419				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00005	-.000	.000	48.376	8.05	1
CalStd9=100	1.0000	1.0281	.028	2.81	591.09	8.35	1
CalStd10=10	10.000	10.196	.196	1.96	5430.6	13.5	1
CalStd13=10	100.00	99.776	-.224	-.224	52719.	192.	1

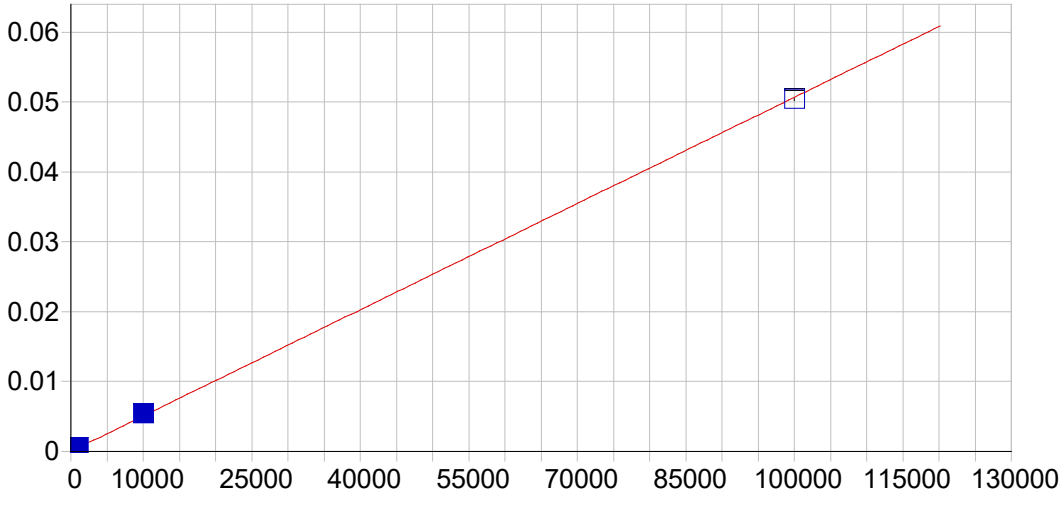


Si 212.412 {458}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000017	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999170	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	1.445412		
Predicted MQL:	4.818039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.4036	-3.40	.000	.00001	.000	1
CalStd9=100	1000.0	1060.6	60.6	6.06	.00249	.000	1
CalibStd15=	100000.	94784.	-5220.	-5.22	.22079	.001	1
CalStd10=10	10000.	10189.	189.	1.89	.02375	.000	1

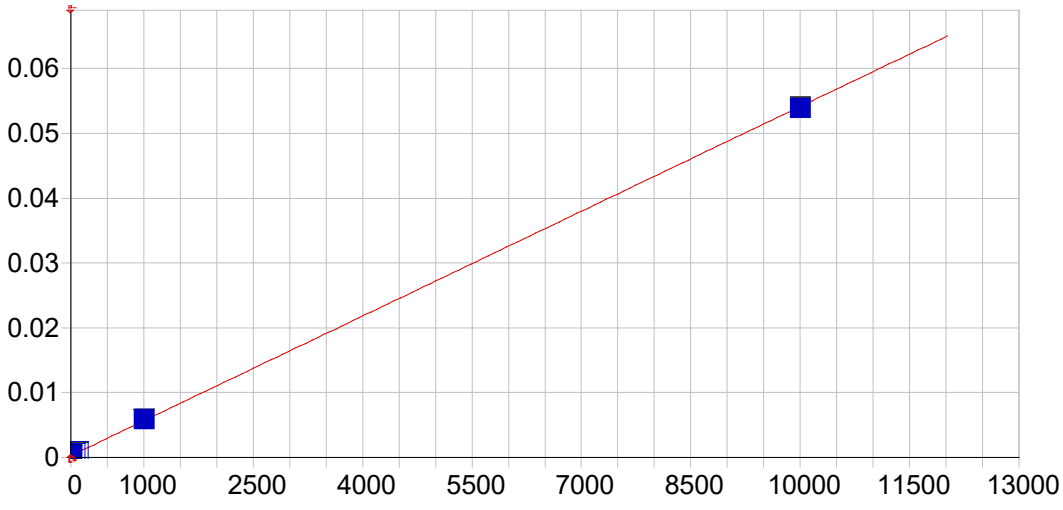


Si 251.611 {134}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999809	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	10.348099		
Predicted MQL:	34.493665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.14699	-.147	.000	.00001	.000	1
CalStd9=100	1000.0	1100.0	100.0	10.00	.00056	.000	1
CalibStd15=	100000.	99367.	-633.	-.633	.05036	.000	1
CalStd10=10	10000.	10534.	534.	5.34	.00534	.000	1

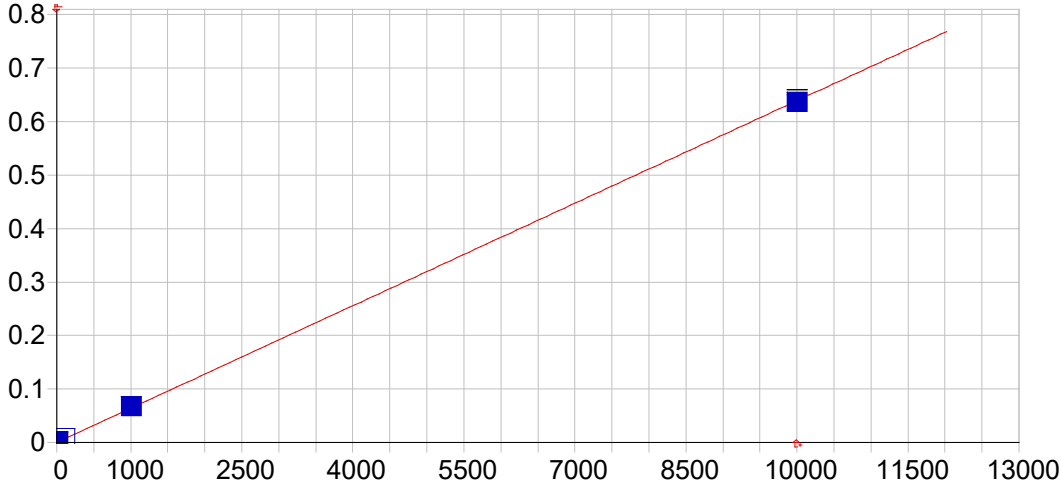


Ti 323.452 {104}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000275	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.281533		
Predicted MQL:	7.605111		

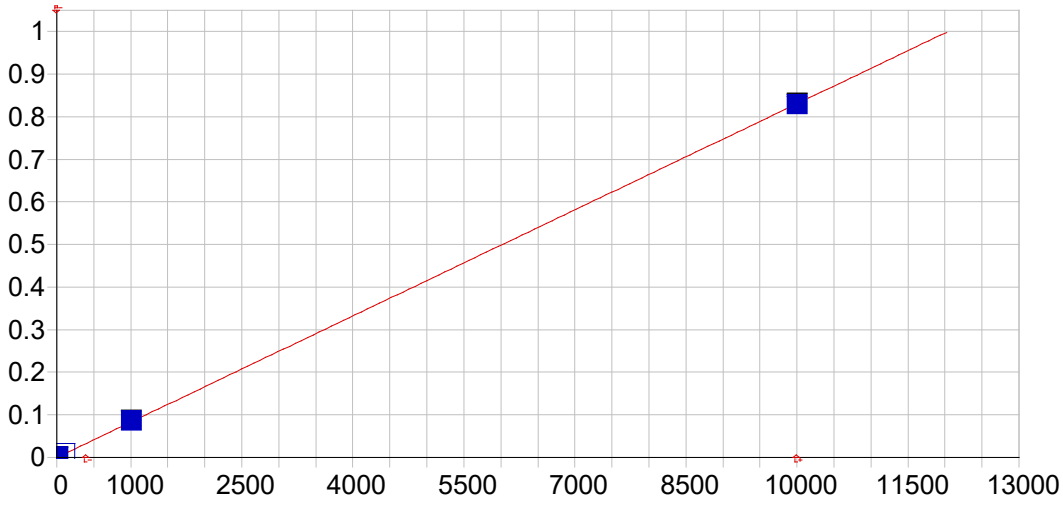
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00771	-.008	.000	.00027	.000	1
CalStd5=10	10.000	14.679	4.68	46.8	.00035	.000	1
CalStd8=100	100.00	105.03	5.03	5.03	.00084	.000	1
CalStd9=100	1000.0	1035.8	35.8	3.58	.00586	.000	1
CalStd10=10	10000.	9942.9	-57.1	-.571	.05385	.000	1
CalStd7=50	50.000	57.355	7.36	14.7	.00058	.000	1
CalStd4=5	5.0000	9.2366	4.24	84.7	.00032	.000	1



Sr 407.771 { 83}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000128		Re-Slope:	1.000000	
A1 (Gain):	0.000064		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999897		Status:	OK.	
Std Error of Est:	0.000004				
Predicted MDL:	0.242595				
Predicted MQL:	0.808650				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00053	-.001	.000	.00013	.000	1
CalStd3=1	1.0000	1.2893	.289	28.9	.00021	.000	1
CalStd4=5	5.0000	5.4962	.496	9.92	.00048	.000	1
CalStd5=10	10.000	10.640	.640	6.40	.00081	.000	1
CalStd8=100	100.00	103.60	3.60	3.60	.00675	.000	1
CalStd9=100	1000.0	1042.1	42.1	4.21	.06672	.000	1
CalStd10=10	10000.	9952.9	-47.1	-.471	.63610	.004	1

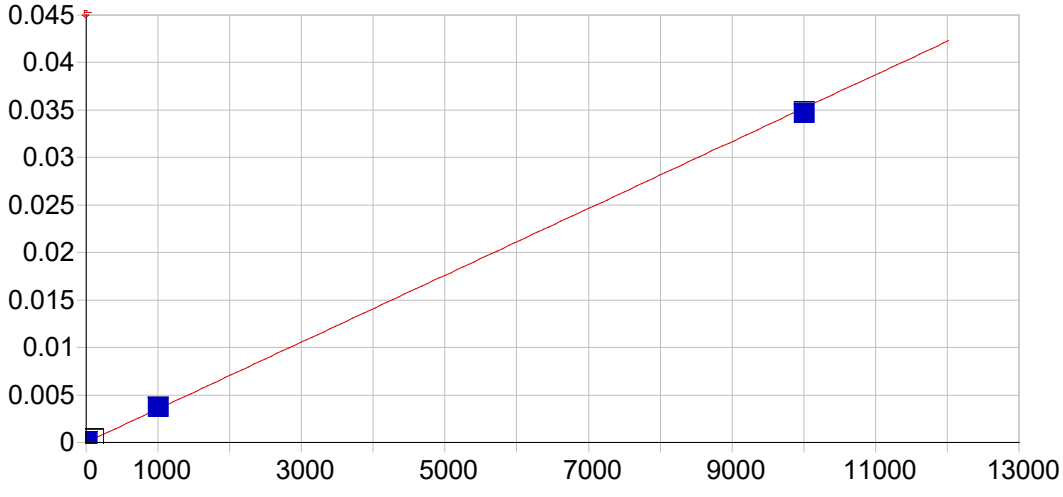


Sr 421.552 { 80}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000075	Re-Slope:	1.000000
A1 (Gain):	0.000083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999949	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	0.197430		
Predicted MQL:	0.658101		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00007	-.000	.000	.00008	.000	1
CalStd3=1	1.0000	.93923	-.061	-6.08	.00015	.000	1
CalStd4=5	5.0000	5.2744	.274	5.49	.00051	.000	1
CalStd5=10	10.000	10.206	.206	2.06	.00092	.000	1
CalStd8=100	100.00	102.45	2.45	2.45	.00858	.000	1
CalStd9=100	1000.0	1030.6	30.6	3.06	.08566	.001	1
CalStd10=10	10000.	9966.6	-33.4	-.334	.82778	.003	1

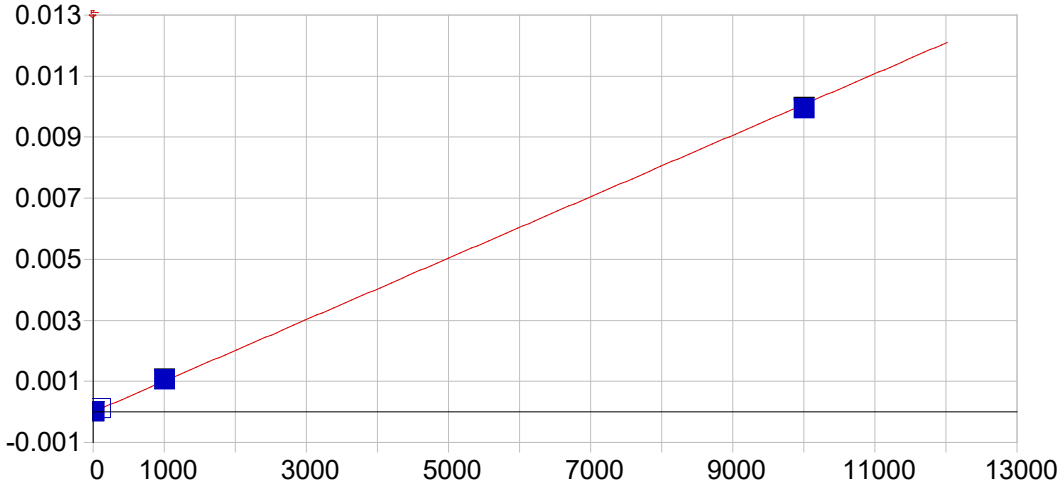


Sn 189.989 {477}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999704	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.633440		
Predicted MQL:	2.111468		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2926	-1.29	.000	.00000	.000	1
CalStd10=10	10000.	9853.9	-146.	-1.46	.03468	.000	1
CalStd9=100	1000.0	1040.8	40.8	4.08	.00367	.000	1
CalStd8=100	100.00	101.66	1.66	1.66	.00037	.000	1
CalStd5=10	10.000	10.294	.294	2.94	.00005	.000	1

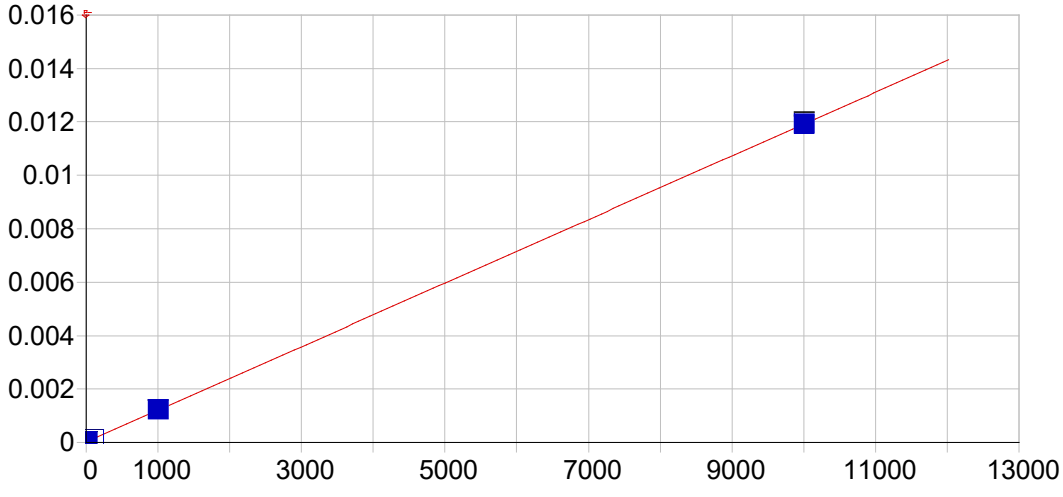


Sn 189.989 {478}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999695	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	1.604221		
Predicted MQL:	5.347403		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.90076	-.901	.000	.00000	.000	1
CalStd10=10	10000.	9863.8	-136.	-1.36	.00993	.000	1
CalStd9=100	1000.0	1044.5	44.5	4.45	.00105	.000	1
CalStd8=100	100.00	102.93	2.93	2.93	.00010	.000	1
CalStd5=10	10.000	10.685	.685	6.85	.00001	.000	1

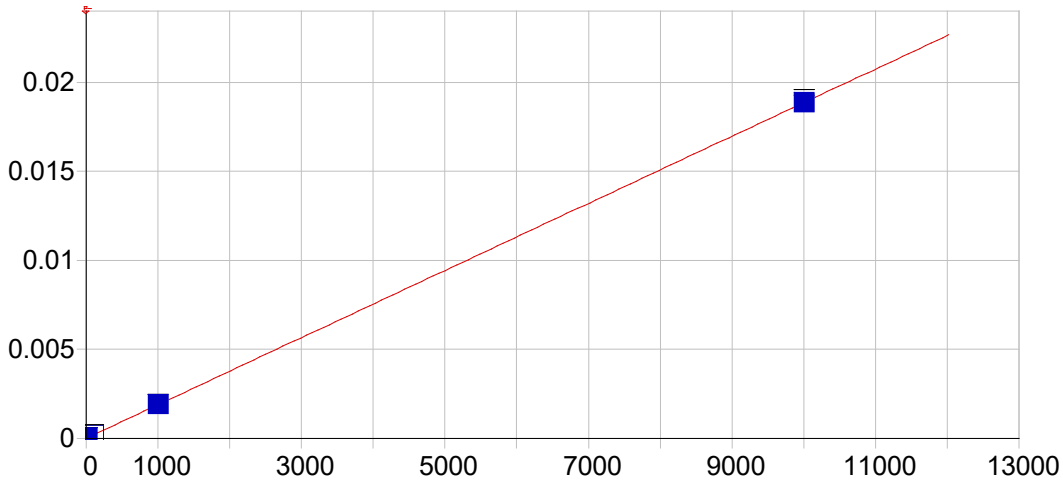


B 249.678 {135}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999995	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.100258		
Predicted MQL:	3.667527		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00030	.000	.000	.00001	.000	1
CalStd8=100	100.00	97.185	-2.81	-2.81	.00013	.000	1
CalStd5=10	10.000	9.9297	-.070	-.703	.00002	.000	1
CalStd9=100	1000.0	1005.2	5.17	.517	.00121	.000	1
CalStd10=10	10000.	9997.7	-2.28	-.023	.01192	.000	1

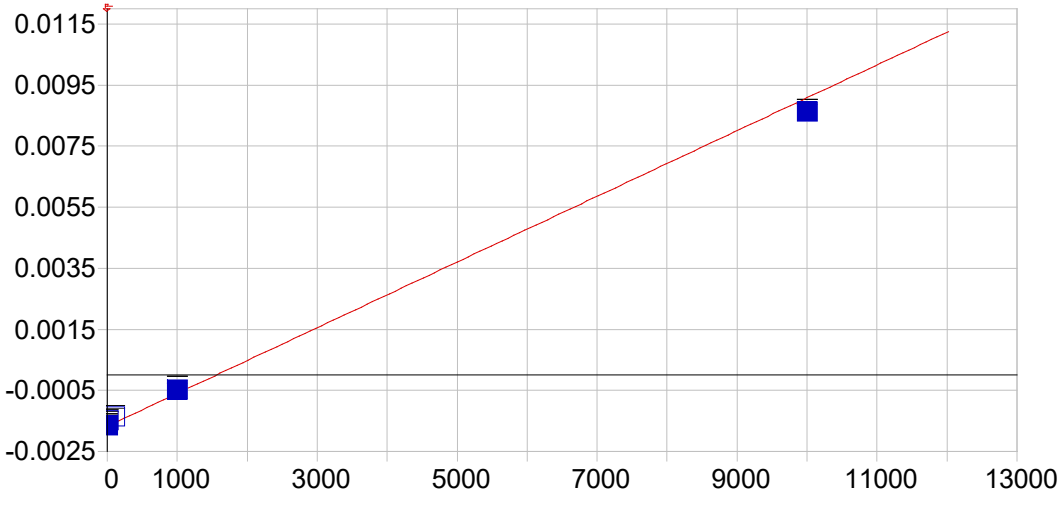


B 249.773 {135}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000008	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.609186		
Predicted MQL:	2.030621		

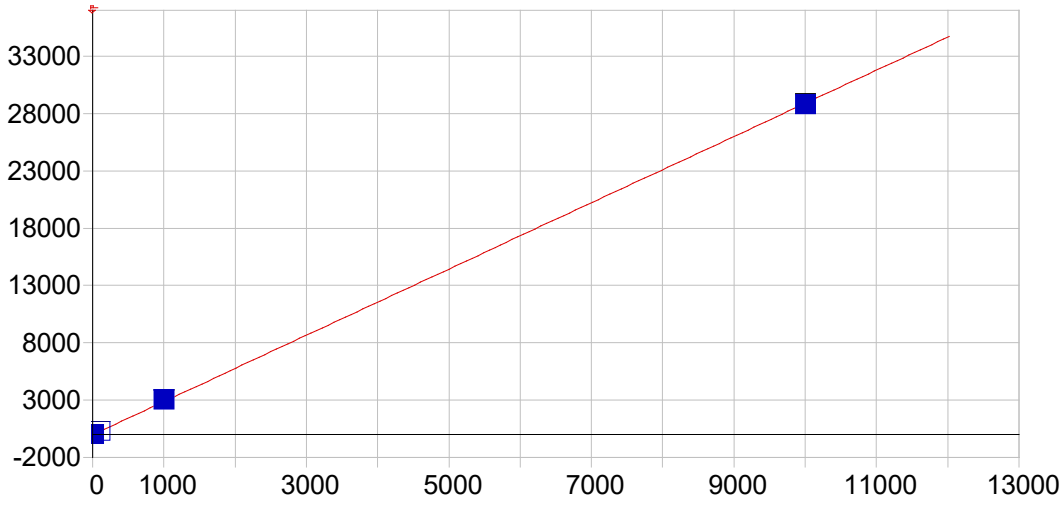
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00022	.000	.000	.00001	.000	1
CalStd8=100	100.00	98.989	-1.01	-1.01	.00019	.000	1
CalStd5=10	10.000	9.8519	-.148	-1.48	.00003	.000	1
CalStd9=100	1000.0	1002.6	2.61	.261	.00190	.000	1
CalStd10=10	10000.	9998.6	-1.45	-.014	.01886	.000	1



Li 610.353 { 55}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.001673		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.887876		Status:	OK.	
Std Error of Est:	0.000008				
Predicted MDL:	49.685459				
Predicted MQL:	165.618197				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.18066	-.181	.000	-.00167	.000	1
CalStd5=10	10.000	172.56	163.	1630.	-.00149	.000	1
CalStd8=100	100.00	275.06	175.	175.	-.00138	.000	1
CalStd9=100	1000.0	1103.1	103.	10.3	-.00049	.000	1
CalStd10=10	10000.	9559.3	-441.	-4.41	.00861	.000	1

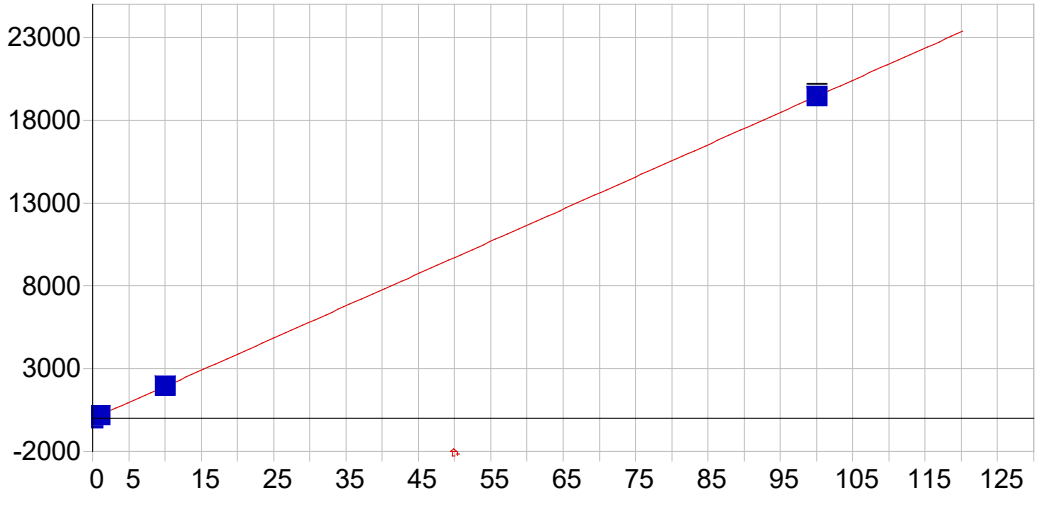


Li 670.776 { 50}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-13.747537	Re-Slope:	1.000000
A1 (Gain):	2.889610	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999871	Status:	OK.
Std Error of Est:	0.630661		
Predicted MDL:	2.402288		
Predicted MQL:	8.007626		

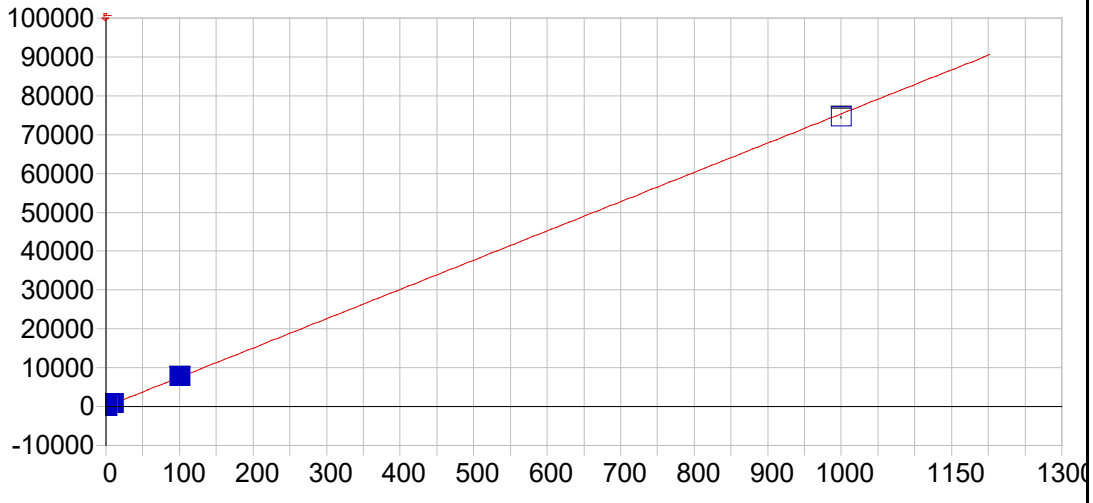
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00250	.002	.000	-13.740	2.63	1
CalStd5=10	10.000	7.1202	-2.88	-28.8	6.8270	6.99	1
CalStd8=100	100.00	99.919	-.081	-.081	274.98	2.54	1
CalStd9=100	1000.0	1043.2	43.2	4.32	3000.8	14.8	1
CalStd10=10	10000.	9959.7	-40.3	-.403	28766.	58.4	1



K 766.490 { 44}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-25.225853		Re-Slope:	1.000000	
A1 (Gain):	194.668728		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999989		Status:	OK.	
Std Error of Est:	0.438948				
Predicted MDL:	0.040705				
Predicted MQL:	0.135685				

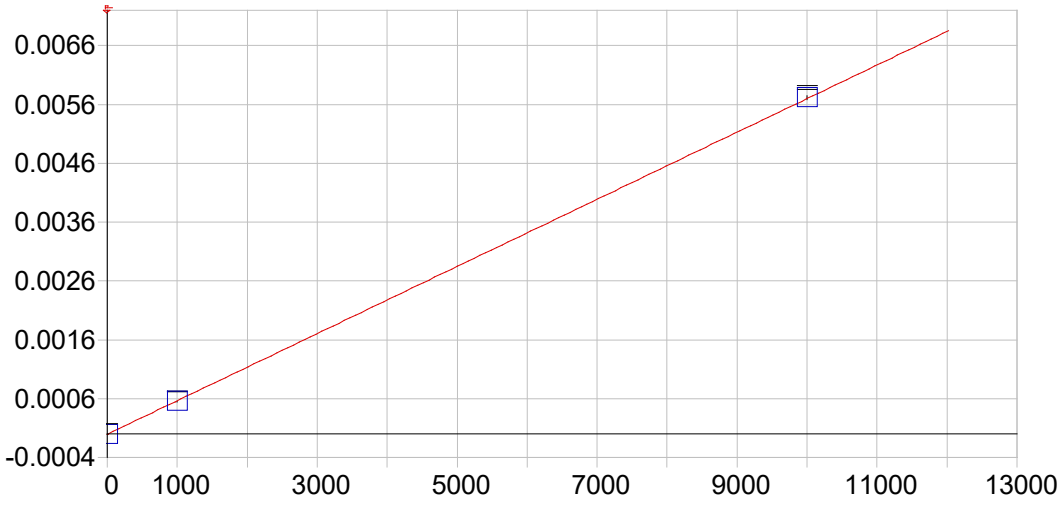
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00001	.000	.000	-25.223	2.97	1
CalStd9=100	1.0000	.97412	-.026	-2.59	164.99	4.93	1
CalStd10=10	10.000	10.133	.133	1.33	1953.1	8.52	1
CalStd13=10	100.00	99.893	-.107	-.107	19479.	118.	1



K 769.896 { 44}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	4.004528		Re-Slope:	1.000000	
A1 (Gain):	75.355169		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999742		Status:	OK.	
Std Error of Est:	37.298057				
Predicted MDL:	0.085581				
Predicted MQL:	0.285271				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.25049	-.250	.000	-14.871	3.63	1
CalStd10=10	10.000	10.494	.494	4.94	795.54	5.40	1
CalibStd15=	1000.0	988.46	-11.5	-1.15	74489.	198.	1
CalStd13=10	100.00	101.48	1.48	1.48	7658.4	34.3	1
CalStd9=100	1.0000	1.0770	.077	7.70	85.234	8.25	1

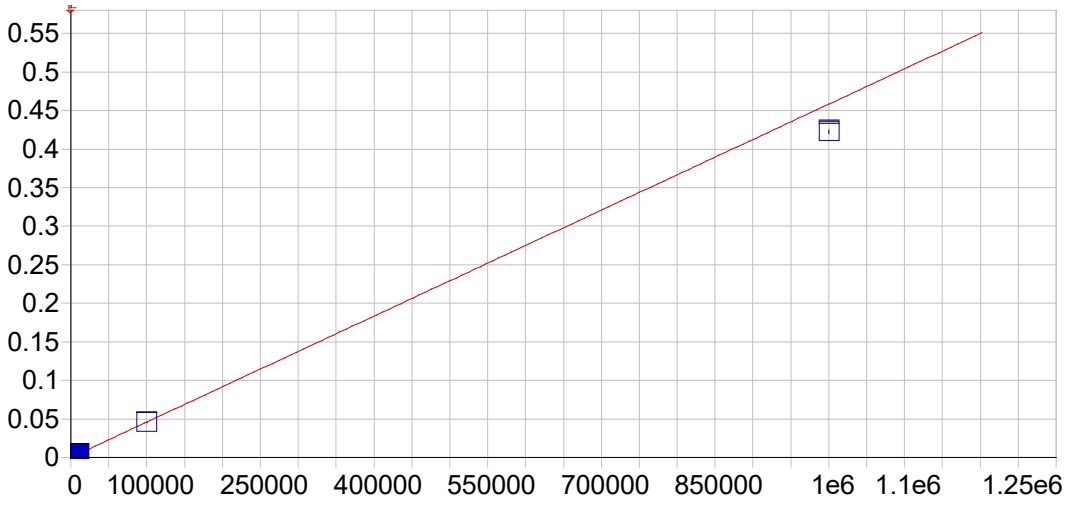


P 177.495 {489}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	2.251268		
Predicted MQL:	7.504227		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02522	.025	.000	-.00001	.000	1
CalStd10=10	10000.	10028.	28.0	.280	.00571	.000	1
CalStd9=100	1000.0	971.98	-28.0	-2.80	.00055	.000	1

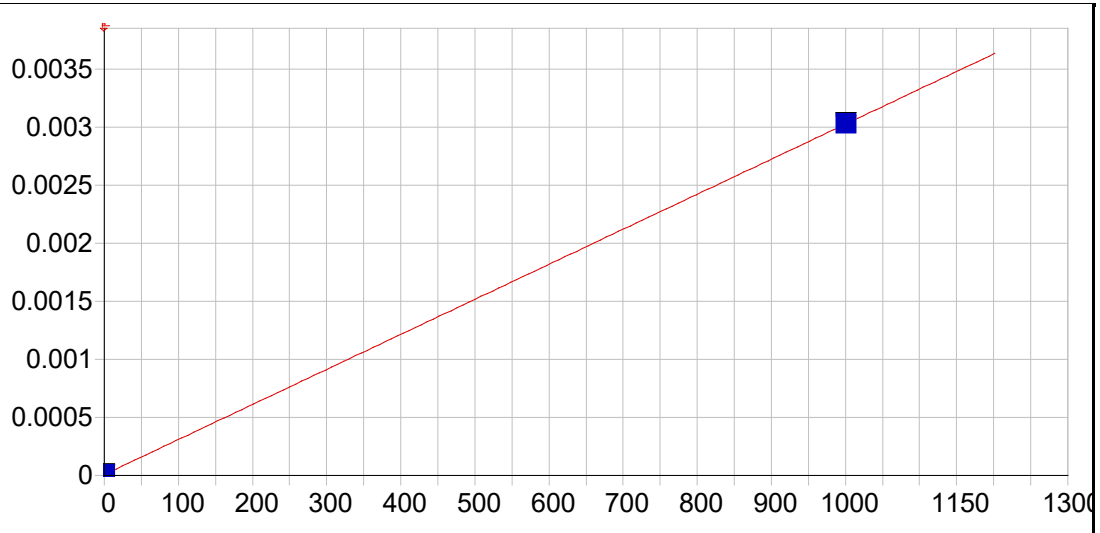


S 182.034 {485}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000019	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	3.717848		
Predicted MQL:	12.392827		

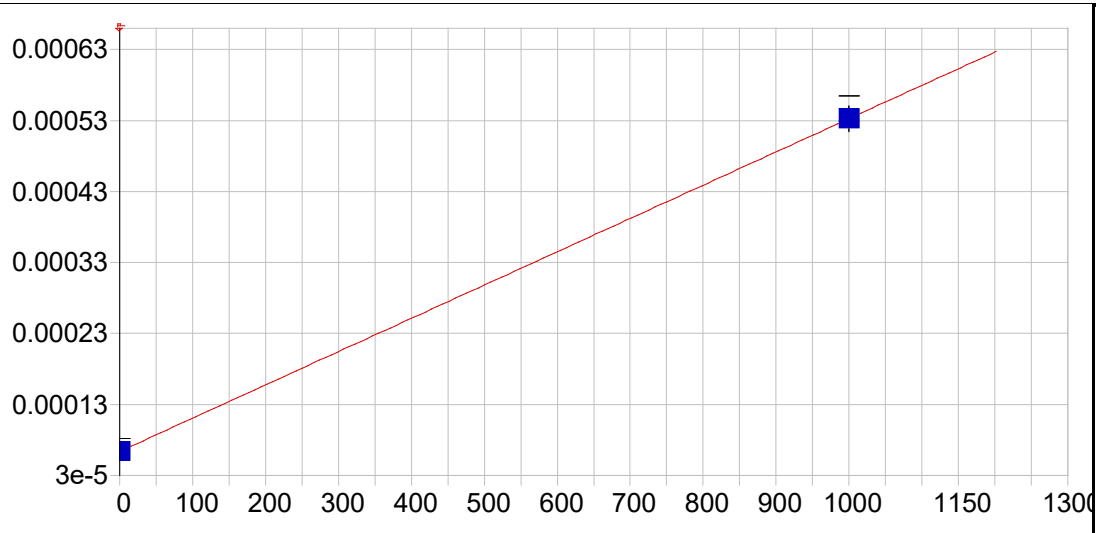
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04928	.049	.000	.00002	.000	1
CalStd9=100	1000.0	963.13	-36.9	-3.69	.00046	.000	1
CalStd10=10	10000.	9847.4	-153.	-1.53	.00454	.000	1
CalibStd15=	1000000.	921820.	-78200.	-7.82	.42245	.002	1
CalStd13=10	100000.	99419.	-581.	-.581	.04558	.000	1



Hg 184.950 {482}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000008		Re-Slope:	1.000000	
A1 (Gain):	0.000003		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	1.000000		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	0.592781				
Predicted MQL:	1.975937				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00001	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00302	.000	1



Ce 404.076 { 83}

Date of Fit:	05/10/2022 09:24:21	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000064		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	1.000000		Status:	OK.	
Std Error of Est:	0.000000				
Predicted MDL:	33.453712				
Predicted MQL:	111.512374				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00006	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00053	.000	1

Sample Name: Blank Acquired: 05/09/2022 07:32:55 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**52.8**	**.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.015**	**-.000**	**.000**	**.000**	**-.000**
Stddev	.000	1.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.16	1.85	12.7	2.75	195.	26.6	19.4	29.2	.685	32.2	6.42	4.92	113.

Elem	Ca3968	Cd2265	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**-.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	435.	101.	180.	45.8	44.3	21.5	28.6	60.2	4.48	60.6	340.	11.8	155.

Elem	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.01	5.32	111.	27.3	174.	71.9	180.	212.	32.6	223.	8.17	261.	80.5

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**.000**	**.000**	**48.4**	**-25.2**	**-14.9**
Stddev	.000	.000	.000	.000	.000	8.1	3.0	3.6
%RSD	39.7	11.6	118.	112.	167.	16.6	11.8	24.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**452790.**	**2929000.**	**234250.**
Stddev	1709.	8635.	1079.
%RSD	.37740	.29481	.46046

Sample Name: CalStd2=0.5 Acquired: 05/09/2022 07:40:19 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Be2348	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000
%RSD	344.	1.32	30.5	52.4

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**443030.**	**2844100.**	**228550.**
Stddev	1320.	15451.	804.
%RSD	.29795	.54326	.35163

Sample Name: CalStd3=1 Acquired: 05/09/2022 07:47:44 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.79	18.7	38.3	.784	5.93	42.3	20.4	20.2	44.9

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**439460.**	**2859000.**	**228880.**
Stddev	2696.	24252.	263.
%RSD	.61356	.84826	.11469

Sample Name: CalStd4=5 Acquired: 05/09/2022 07:55:06 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.57	3.24	7.69	1.01	1.91	10.9	5.24	5.34	8.65	.871	5.04	11.2	4.09

Elem	Pb2203	Sb2175
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	11.6	8.90

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**441920.**	**2820800.**	**228410.**
Stddev	1972.	30558.	214.
%RSD	.44616	1.0833	.09354

Sample Name: CalStd5=10 Acquired: 05/09/2022 08:02:27 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Be2348	Be3130	Cd2265	Cd2288	Co2286	Cr2055
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**102.**	**.000**	**.000**	**.000**	**-.000**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	5.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	3.81	5.26	2.22	2.16	10.4	91.8	2.19	6.23	.913	1.65	3.02	2.36	2.25

Elem	Cr2677	Cu2230	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.62	6.30	1.01	1.96	6.84	4.14	39.5	3.14	16.7	11.8	21.2	11.9	2.28

Elem	Zn2062	Zn2138
Units	Cts/S	Cts/S
Avg	**.000**	**.000**
Stddev	.000	.000
%RSD	1.75	.957

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**439840.**	**2833300.**	**227180.**
Stddev	3747.	27988.	995.
%RSD	.85200	.98782	.43793

Sample Name: CalStd6=20 Acquired: 05/09/2022 08:09:48 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ba2335	Mn2576	Mo2020	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000
%RSD	.853	.859	1.03	1.37	5.53	1.91

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**439670.**	**2797800.**	**226470.**
Stddev	2959.	18328.	807.
%RSD	.67304	.65509	.35617

Sample Name: CalStd7=50 Acquired: 05/09/2022 08:17:06 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	As1937	As1972	Ca3933	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2045	Ni2316	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.009**	**.001**	**.000**	**.001**	**.001**	**.000**	**.001**	**.000**	**.000**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.69	13.9	.285	1.14	1.78	1.37	1.16	1.42	.548	1.19	.687	1.64	3.94

Elem	V_2924
Units	Cts/S
Avg	**.000**
Stddev	.000
%RSD	.349

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**438030.**	**2794700.**	**228020.**
Stddev	5063.	9273.	325.
%RSD	1.1558	.33181	.14243

Sample Name: CalStd8=100 Acquired: 05/09/2022 08:24:20 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3933	Ca3968	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**572.**	**.000**	**.000**	**.000**	**.000**	**.001**	**.020**	**.001**	**.007**	**.017**	**.008**	**.003**
Stddev	.000	5.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.942	.896	.749	2.12	2.20	3.79	.507	.259	.977	.946	.066	.294	.582

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Mg2802	Mn2576	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.002**	**.000**	**.001**	**.000**	**.000**	**.004**	**.001**	**.000**	**.000**	**.001**	**.001**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.851	.387	.624	.359	1.05	.279	.952	.968	.748	.852	.805	.389	5.39

Elem	Pb2203	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.003**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.56	1.78	3.05	7.65	.222	.932	.351	.636

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**436590.**	**2790200.**	**223890.**
Stddev	2162.	23018.	757.
%RSD	.49520	.82496	.33824

Sample Name: CalStd9=1000 Acquired: 05/09/2022 08:31:24 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al1670	Al3092	Al3961	As1937	As1972	Ba2335	Ba4934	Be2348	Be3130	Ca3158	Ca3933	Ca3968	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.002**	**.001**	**.001**	**.001**	**.000**	**.007**	**.057**	**.007**	**.069**	**.001**	**.163**	**.073**	*****
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	-----
%RSD	.347	.937	1.22	.816	1.01	.705	.414	.670	.647	1.29	.360	.357	-----

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.017**	**.002**	**.012**	**.003**	**.004**	**.000**	**.001**	**.002**	**.001**	**.000**	**.043**	**.010**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.689	.552	.852	.676	.602	.600	.796	.790	.280	.602	3.38	.717	.786

Elem	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.005**	**.003**	**.012**	**.010**	**.001**	**.003**	**.001**	**.001**	**.001**	**.000**	**.002**	**.006**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.285	.638	.602	.539	.670	1.27	.645	.555	.724	.879	4.64	.731	.854

Elem	Zn2062	Zn2138	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.022**	**.031**	**591.**	**165.**	**85.2**
Stddev	.000	.000	8.	5.	8.3
%RSD	.671	.511	1.41	2.99	9.68

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**437810.**	**2779000.**	**225690.**
Stddev	2392.	24189.	1040.
%RSD	.54645	.87041	.46075

Sample Name: CalStd10=10000 Acquired: 05/09/2022 08:38:20 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	As1972	Ba2335	Ba4934	Ca3158	Ca3968	Co2286	Co2388	Cr2055	Cr2677	Cu2230	Fe2343
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.005**	**.014**	**.004**	**.068**	**.410**	**.006**	**.706**	**.158**	**.018**	**.112**	**.027**	**.034**	**.004**
Stddev	.000	.000	.000	.000	.001	.000	.012	.001	.000	.001	.000	.000	.000
%RSD	.581	.410	.341	.439	.187	.263	1.63	.366	.640	.451	.767	.323	.701

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2216	Ni2316	Pb2169	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.023**	**.010**	**.001**	**.386**	**.094**	**.089**	**.045**	**.025**	**.112**	**.096**	**.005**	**.010**
Stddev	.000	.000	.000	.000	.002	.001	.000	.000	.000	.000	.000	.000	.000
%RSD	.315	.208	.327	.749	.535	1.29	.253	.408	.467	.316	.399	.503	.379

Elem	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062	Na5895	K_7664	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.010**	**.006**	**.002**	**.017**	**.061**	**.205**	**5430.**	**1950.**	**796.**
Stddev	.000	.000	.000	.000	.000	.001	14.	9.	5.
%RSD	.402	.314	.455	.399	.637	.506	.249	.436	.679

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434700.**	**2693300.**	**224930.**
Stddev	1870.	19654.	430.
%RSD	.43008	.72975	.19108

Sample Name: CalStd12=100K Acquired: 05/09/2022 08:45:32 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Cr2055	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.14**	**.972**	**.054**	**1.96**
Stddev	.01	.003	.000	.01
%RSD	.708	.279	.295	.635

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434710.**	**2732600.**	**221950.**
Stddev	1931.	21635.	1258.
%RSD	.44426	.79173	.56657

Sample Name: CalStd13=100000 Acquired: 05/09/2022 08:53:29 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2343	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.055**	**.139**	**.066**	**.040**	**.098**	**.235**	**.106**	**.007**	**.001**	**52700.**	**19500.**
Stddev	.000	.001	.000	.000	.000	.001	.000	.000	.000	192.	118.
%RSD	.298	.452	.398	.473	.363	.373	.218	.271	3.34	.363	.605

Elem	K_7698
Units	Cts/S
Avg	**7660.**
Stddev	34.
%RSD	.448

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**421880.**	**2676200.**	**221410.**
Stddev	1412.	10401.	191.
%RSD	.33482	.38864	.08616

Sample Name: CalStd14=500000 Acquired: 05/09/2022 09:01:01 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.263**	**.686**	**.312**	**.450**	**1.11**	**.495**	**.033**	**.003**
Stddev	.000	.001	.000	.001	.00	.003	.000	.000
%RSD	.110	.209	.085	.191	.344	.656	.226	.198

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**389090.**	**213510.**
Stddev	2633.	528.
%RSD	.67678	.24750

Sample Name: CalibStd15=1000k Acquired: 05/09/2022 09:08:49 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Al3092	Al3961	Ca3158	Fe2395	Fe2599	Mg2025	Mg2790	Na3302	K_7698
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.538**	**1.35**	**.606**	**.862**	**2.08**	**.951**	**.065**	**.006**	**74500.**
Stddev	.002	.02	.003	.002	.03	.004	.000	.000	198.
%RSD	.426	1.16	.417	.175	1.22	.378	.562	.676	.265

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	**363820.**	**205870.**
Stddev	1597.	788.
%RSD	.43889	.38275

Sample Name: Ag 1000 Acquired: 05/09/2022 09:17:00 Type: Cal
Method: DOD Calibration Updated 060614(v5023) Mode: IR Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3382
Units	Cts/S
Avg	**4960.**
Stddev	5.
%RSD	.097

Sample Name: icv Acquired: 05/09/2022 09:31:49 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1972	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.3**	**48.0**	**12300.**	**2110.**	**2050.**	**51.6**	**11000.**	**9550.**	**48.5**	**520.**	**208.**	**248.**
Stddev	.5	.6	78.	15.	6.	.3	49.	47.	.2	3.	1.	1.
%RSD	1.04	1.35	.635	.700	.280	.580	.445	.488	.482	.497	.492	.598
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Se2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**5240.**	**5320.**	**10100.**	**10700.**	**522.**	**516.**	**514.**	**502.**	**478.**	**524.**	**2090.**	**1980.**
Stddev	25.	53.	59.	26.	3.	2.	3.	8.	4.	4.	18.	22.
%RSD	.479	1.00	.582	.248	.513	.410	.501	1.50	.753	.708	.861	1.12
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Avg	**2010.**	**516.**	**513.**	**512.**	**103.**	**102.**
Stddev	12.	3.	2.	3.	.	.
%RSD	.571	.670	.371	.635	.246	.093
Check ?	None	None	None	None	None	None
Value						
Range						

Sample Name: icv Acquired: 05/09/2022 09:31:49 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**432500.**	**2659100.**	**216000.**
Stddev	1628.	14114.	1070.
%RSD	.37647	.53079	.49539

Sample Name: ICVLL Acquired: 05/09/2022 09:46:06 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	F **26.6**	**1340.**	**1330.**	**57.5**	**33.3**	**12.8**	**1730.**	**1540.**	**1590.**	**15.9**	**33.2**	**31.7**	**34.0**
Stddev	.8	20.	5.	4.1	.4	.2	8.	2.	2.	.2	.6	.6	.6
%RSD	3.07	1.53	.398	7.04	1.27	1.31	.449	.106	.097	1.22	1.92	1.92	1.64
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0												
Range	30.0%												

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**987.**	**985.**	**1700.**	**32.7**	**31.1**	**32.8**	**28.7**	**61.0**	**67.4**	**59.8**	**31.5**	**32.8**	**6.23**
Stddev	12.	7.	17.	.4	.3	.7	1.1	3.8	3.6	2.4	.5	.3	.03
%RSD	1.25	.678	1.01	1.23	1.10	2.01	3.71	6.17	5.34	4.08	1.66	1.05	.407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7664	K_7698
Units	mg/L	mg/L
Avg	**3.70**	**3.74**
Stddev	.04	.05
%RSD	1.01	1.37
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: ICVLL Acquired: 05/09/2022 09:46:06 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**438110.**	**2758300.**	**217500.**
Stddev	3905.	29901.	483.
%RSD	.89122	1.0840	.22221

Sample Name: icb Acquired: 05/09/2022 10:00:47 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.723**	**-.325**	**-2.12**	**.015**	**.011**	**.806**	**.750**	**.090**	**.192**	**.236**	**-.187**	**.879**	**.248**
Stddev	.529	.556	3.52	.395	.009	.051	.136	.088	.197	.656	.885	.916	.027
%RSD	73.3	171.	166.	2620.	77.8	6.28	18.1	97.5	102.	278.	474.	104.	11.0
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.001**	**-.063**	**.040**	**.842**	**-.648**	**1.28**	**-2.37**	**-.061**	**.340**	**.032**	**.246**	**.182**
Stddev	.033	.295	.726	.437	.572	2.43	1.18	.261	.110	.011	.032	.071
%RSD	2220.	467.	1800.	51.9	88.2	190.	49.8	427.	32.4	34.0	13.1	39.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**443350.**	**2773700.**	**219900.**
Stddev	1032.	12021.	297.
%RSD	.23269	.43341	.13505

Sample Name: ICSA Acquired: 05/09/2022 10:15:25 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.093**	**520000.**	**491000.**	**-.026**	**.627**	**.201**	**528000.**	**.998**	**-.329**	**-8.45**	**-1.43**
Stddev	.498	346.	1470.	10.3	.408	.021	487.	.188	.395	.60	1.16
%RSD	535.	.066	.298	39000.	65.1	10.2	.092	18.8	120.	7.08	81.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**524000.**	**479000.**	**497000.**	**527000.**	**-5.06**	**-2.15**	**5.40**	**-.000**	**-3.66**	**-2.63**	**-.733**
Stddev	808.	240.	1750.	1110.	.13	.49	.63	2.97	.95	4.51	1.16
%RSD	.154	.050	.351	.210	2.65	23.0	11.7	1280000.	26.0	171.	158.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**10000.**	**-6.08**	**-.294**	**-.912**	**-.024**
Stddev	53.	.24	.007	.032	.127
%RSD	.529	3.99	2.30	3.47	520.
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICSA Acquired: 05/09/2022 10:15:25 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**395850.**	**2527700.**	**208460.**
Stddev	1122.	12069.	585.
%RSD	.28340	.47746	.28069

Sample Name: ICSAB Acquired: 05/09/2022 10:22:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	Al3961	As1937	Ba2335	Be2348	Ca3158	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**456.**	**465.**	**523000.**	**486000.**	**524.**	**527.**	**486.**	**530000.**	**504.**	**504.**	**490.**
Stddev	2.	2.	488.	994.	13.	4.	3.	644.	6.	4.	2.
%RSD	.442	.381	.093	.204	2.53	.703	.519	.122	1.11	.808	.497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Cu2230	Fe2395	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**538.**	**523000.**	**480000.**	**490000.**	**524000.**	**509.**	**505.**	**497.**	**450.**	**507.**	**516.**
Stddev	6.	1270.	475.	4070.	727.	2.	5.	3.	5.	9.	10.
%RSD	1.03	.242	.099	.832	.139	.473	.916	.683	1.00	1.77	1.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Tl1908	V_2924	Zn2062	Zn2138	Na3302	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**494.**	**504.**	**464.**	**507.**	**53.5**	**49.9**	**52.2**
Stddev	4.	3.	5.	5.	1.0	.2	.3
%RSD	.873	.571	.990	.897	1.84	.352	.499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: ICSAB Acquired: 05/09/2022 10:22:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**400160.**	**2512300.**	**209460.**
Stddev	3546.	14077.	811.
%RSD	.88615	.56032	.38740

Sample Name: ICVLL ag Acquired: 05/09/2022 10:37:17 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.87**	**7.08**	**-35.9**	**-2.42**	**.410**	**.016**	**6.65**	**6.82**	**.078**	**.185**	**.285**	**.889**	**58.5**
Stddev	.50	.28	16.9	2.92	.081	.006	.16	.28	.095	.243	.094	1.46	5.9
%RSD	5.06	3.98	46.9	121.	19.9	39.0	2.44	4.13	122.	132.	33.0	164.	10.0

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**4.53**	**.150**	**.370**	**.141**	**-.722**	**.128**	**.726**	**-2.17**	**.168**	**.374**	**.042**	**.226**	**.269**
Stddev	.04	.057	.149	.530	2.26	2.36	.769	.65	.446	.111	.010	.007	.084
%RSD	.957	38.1	40.2	377.	314.	1840.	106.	29.8	265.	29.7	23.0	3.21	31.3

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**436130.**	**2753900.**	**216970.**
Stddev	2827.	11357.	536.
%RSD	.64828	.41238	.24724

Sample Name: ccv1 Acquired: 05/09/2022 11:52:15 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	As1972	Ba4934	Be2348	Ca3158	Ca3933	Ca3968	Cd2288	Co2286	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**482.**	**5120.**	**5210.**	**4930.**	**460.**	**5360.**	**4740.**	**4870.**	**481.**	**5120.**	**5090.**	**4950.**	**5100.**
Stddev	2.	23.	39.	12.	2.	7.	13.	14.	2.	27.	19.	25.	31.
%RSD	.417	.449	.745	.247	.472	.135	.277	.280	.315	.518	.382	.499	.616
Check ?	None	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**5160.**	**4920.**	**5070.**	**5100.**	**5100.**	**5130.**	**5030.**	**5140.**	**5020.**	**5000.**	**5160.**	**5000.**	**97.0**
Stddev	20.	16.	32.	70.	25.	28.	23.	33.	32.	22.	22.	20.	.9
%RSD	.377	.323	.635	1.38	.489	.552	.450	.637	.628	.444	.417	.405	.945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**101.**
Stddev	.
%RSD	.263
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 05/09/2022 11:52:15 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**433470.**	**2691800.**	**219110.**
Stddev	1819.	15054.	512.
%RSD	.41964	.55923	.23378

Sample Name: ccv2 Acquired: 05/09/2022 11:58:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**46.2**	**52.7**	**506.**	**507.**	**531.**	**50.9**	**487.**	**504.**	**50.3**	**528.**	**508.**	**537.**	**534.**
Stddev	1.0	.7	10.	2.	3.	.6	1.	.	.3	3.	5.	3.	8.
%RSD	2.20	1.27	1.92	.389	.481	1.12	.228	.091	.621	.617	.959	.564	1.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**508.**	**550.**	**527.**	**505.**	**526.**	**539.**	**492.**	**527.**	**526.**	**535.**	**515.**	**512.**	**510.**
Stddev	4.	6.	6.	3.	3.	5.	4.	7.	3.	4.	6.	1.	4.
%RSD	.689	1.18	1.22	.584	.614	.849	.835	1.24	.623	.757	1.13	.290	.688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Na5895	K_7664	K_7698
Units	mg/L	mg/L	mg/L
Avg	**9.86**	**10.4**	**10.6**
Stddev	.02	.1	.1
%RSD	.232	.553	.550
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: ccv2 Acquired: 05/09/2022 11:58:51 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**437110.**	**2755500.**	**218660.**
Stddev	2249.	31581.	678.
%RSD	.51462	1.1461	.31000

Sample Name: ccb Acquired: 05/09/2022 12:05:40 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.002**	**-.337**	**-5.00**	**.200**	**-.003**	**.009**	**-.107**	**-.012**	**.175**	**-.031**	**-1.24**	**-.360**	**-.064**
Stddev	.395	.522	3.30	.133	.007	.039	.211	.092	.057	.335	1.74	.712	.011
%RSD	26300.	155.	65.9	66.8	203.	455.	196.	735.	32.5	1080.	140.	198.	17.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.009**	**.560**	**.234**	**-.162**	**-.106**	**1.96**	**-1.35**	**-.079**	**.217**	**.018**	**.508**	**.226**
Stddev	.059	.516	.537	2.25	.990	4.16	.56	.335	.091	.012	.034	.057
%RSD	696.	92.2	229.	1390.	937.	212.	41.1	423.	42.1	70.3	6.76	25.2
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**447280.**	**2857300.**	**224050.**
Stddev	2775.	13781.	1002.
%RSD	.62044	.48231	.44715

Sample Name: lcsw95267 Acquired: 05/09/2022 12:20:04 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**19.0**	**890.**	**1010.**	**880.**	**876.**	**21.2**	**219000.**	**20.5**	**217.**	**85.6**	**112.**
Stddev	.5	2.	19.	3.	2.	.1	171.	.2	1.	.8	1.
%RSD	2.41	.276	1.89	.356	.279	.436	.078	.779	.370	.882	1.33

Elem	Fe2343	Mg2025	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**436.**	**104000.**	**103000.**	**215.**	**2140.**	**217.**	**201.**	**225.**	**895.**	**855.**	**213.**
Stddev	2.	406.	373.	1.	9.	1.	2.	5.	6.	7.	1.
%RSD	.503	.392	.363	.394	.398	.343	.762	2.11	.621	.839	.593

Elem	Zn2062	Zn2138	Na3302	K_7698
Units	ug/L	ug/L	mg/L	mg/L
Avg	**216.**	**220.**	**105.**	**105.**
Stddev	1.	1.	2.	.
%RSD	.555	.375	2.26	.337

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**415510.**	**2652100.**	**216770.**
Stddev	1688.	11631.	875.
%RSD	.40614	.43857	.40364

Sample Name: mbw95267 Acquired: 05/09/2022 12:27:14 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.100**	**3.06**	**-4.63**	**.031**	**.012**	**7.74**	**7.80**	**.003**	**.101**	**-.180**	**3.29**	**6.11**	**1.06**
Stddev	.248	.52	2.08	.169	.020	1.12	1.18	.051	.224	.182	.54	.45	.17
%RSD	247.	16.9	45.0	537.	174.	14.5	15.2	1500.	222.	101.	16.4	7.35	16.5

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.032**	**.897**	**-.294**	**.411**	**.282**	**1.76**	**-1.58**	**-.263**	**.713**	**.043**	**.588**	**.468**
Stddev	.059	.367	.415	.592	1.50	1.33	1.83	.439	.082	.006	.051	.073
%RSD	184.	40.9	141.	144.	531.	75.7	116.	167.	11.5	13.5	8.65	15.6

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**435260.**	**2766800.**	**217450.**
Stddev	452.	10675.	913.
%RSD	.10378	.38581	.41973

Sample Name: 1137439 Acquired: 05/09/2022 12:34:38 Type: Unk
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-.251**	**286.**	**305.**	**-1.27**	**36.9**	**.133**	**73600.**	**.027**	**1.04**	**3.22**	**1.06**	**690.**
Stddev	.395	2.	26.	2.66	.5	.010	149.	.077	.13	.15	1.78	5.
%RSD	157.	.527	8.58	209.	1.29	7.70	.203	281.	12.3	4.57	167.	.762

Elem	Fe2599	Mg2025	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**664.**	**36200.**	**34100.**	**84.9**	**.812**	**.706**	**2.31**	**-2.33**	**1.55**	**-1.74**	**.457**	**57.4**
Stddev	2.	192.	89.	.4	.455	.617	1.59	3.01	2.72	.49	.189	.2
%RSD	.288	.530	.260	.491	56.1	87.4	68.6	129.	175.	28.2	41.3	.395

Elem	Na5895	K_7664	K_7698
Units	mg/L	mg/L	mg/L
Avg	**28.8**	**2.30**	**2.00**
Stddev	.2	.05	.12
%RSD	.806	2.25	6.12

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**432090.**	**2781900.**	**227490.**
Stddev	2303.	16463.	1026.
%RSD	.53297	.59178	.45113

Sample Name: ccv1 Acquired: 05/09/2022 13:26:20 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al3092	As1972	Ba4934	Be3130	Ca3158	Ca3933	Ca3968	Cd2288	Co2286	Co2388	Cr2055	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**482.**	**5000.**	**5190.**	**4940.**	**495.**	**5270.**	**4760.**	**4880.**	**492.**	**5140.**	**5020.**	**4990.**	**5090.**
Stddev	3.	15.	17.	10.	3.	3.	6.	5.	2.	10.	26.	12.	3.
%RSD	.636	.295	.331	.194	.519	.058	.123	.101	.455	.197	.511	.249	.061
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2790	Mn2576	Mo2045	Ni2216	Pb2169	Sb2068	Se2062	Tl1908	V_2924	Zn2062	Na3302
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Avg	**5090.**	**4800.**	**4890.**	**5060.**	**5200.**	**5060.**	**5090.**	**5150.**	**5100.**	**5100.**	**5080.**	**5050.**	**98.7**
Stddev	29.	9.	18.	42.	14.	4.	14.	8.	21.	9.	34.	14.	.9
%RSD	.568	.181	.365	.822	.264	.074	.279	.161	.411	.181	.668	.270	.945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	K_7698
Units	mg/L
Avg	**104.**
Stddev	1.
%RSD	.517
Check ?	Chk Pass
Value	
Range	

Sample Name: ccv1 Acquired: 05/09/2022 13:26:20 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**426290.**	**2705800.**	**223550.**
Stddev	812.	14821.	1469.
%RSD	.19042	.54774	.65725

Sample Name: ccv2 Acquired: 05/09/2022 13:32:58 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Ag3382	Al1670	Al3092	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**45.6**	**52.6**	**542.**	**489.**	**511.**	**534.**	**49.9**	**484.**	**499.**	**50.7**	**527.**	**498.**	**532.**
Stddev	1.0	.6	7.	10.	3.	2.	.6	1.	1.	.3	4.	6.	4.
%RSD	2.11	1.17	1.24	2.12	.575	.453	1.14	.226	.138	.612	.707	1.21	.736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**523.**	**493.**	**541.**	**516.**	**508.**	**528.**	**544.**	**496.**	**525.**	**531.**	**544.**	**502.**	**520.**
Stddev	7.	2.	7.	6.	3.	3.	2.	4.	3.	6.	4.	6.	2.
%RSD	1.34	.493	1.23	1.16	.646	.506	.439	.830	.560	1.05	.643	1.10	.454
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value													
Range													

Elem	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	mg/L	mg/L	mg/L
Avg	**508.**	**10.0**	**10.4**	**10.7**
Stddev	3.	.0	.1	.1
%RSD	.665	.455	.559	.597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv2 Acquired: 05/09/2022 13:32:58 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**434020.**	**2788500.**	**220180.**
Stddev	1968.	34706.	842.
%RSD	.45348	1.2446	.38242

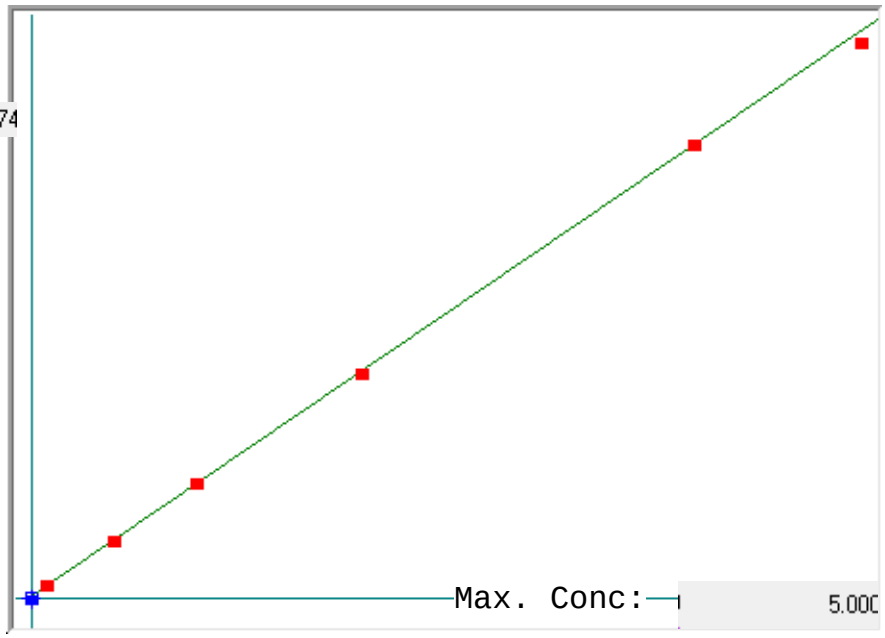
Sample Name: ccb Acquired: 05/09/2022 13:39:45 Type: QC
Method: DOD Calibration Updated 060614(v5023) Mode: CONC Corr. Factor: 1.000000
User: NAH ICP6500: Prep Batch: Post Digestion Dilution:
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Ca3968	Cd2265	Co2286	Cr2677	Cu2230	Fe2343	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.096**	**-.139**	**-3.42**	**.321**	**.007**	**.528**	**.494**	**.021**	**.219**	**.078**	**-.227**	**-.120**	**.015**
Stddev	.354	.321	4.22	.086	.003	.113	.121	.103	.032	.410	.521	.842	.012
%RSD	367.	231.	123.	26.7	40.4	21.4	24.6	479.	14.6	524.	229.	700.	76.8
Check ?	None	None	None	None	None	None	None	None	None	None	None	None	None
Value													
Range													

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5895	K_7664	K_7698
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L
Avg	**.052**	**.424**	**.158**	**-.760**	**-2.64**	**1.96**	**-.060**	**-.468**	**.416**	**.016**	**.263**	**.197**
Stddev	.041	.304	.338	.926	1.03	2.16	1.38	.371	.038	.008	.050	.067
%RSD	78.1	71.7	214.	122.	39.0	111.	2310.	79.4	9.14	46.8	19.1	34.1
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**444540.**	**2845800.**	**222460.**
Stddev	1815.	17054.	1175.
%RSD	.40830	.59926	.52831

Hg LIQUIDS



A= 0.0000e+000

B= 1.7697e-004

C= -1.5585e-002

Rho= 0.9998995

Accept= Accepted

Accepted Date=

05/04/22 10:19

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	-0.000	-0.000	87	3.419	84	92	89	84	
0.1	0.100	0.106	0.006	684	3.1 %	658	671	697	713	
0.5	0.500	0.500	-0.000	2911	1.4 %	2849	2901	2935	2960	
1.0	1.000	1.008	0.008	5786	1.4 %	5666	5757	5840	5883	
2.0	2.000	1.977	-0.023	11261	1.9 %	10968	11175	11371	11532	
4.0	4.000	4.015	0.015	22773	1.4 %	22314	22696	22936	23146	
5.0	5.000	4.900	-0.100	27774	1.8 %	27076	27562	28009	28450	

050422W

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 09:45:51

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
CALIBRATION BLANK	04 May 2022 09:57:16	Hg			87.250
0.1	04 May 2022 10:00:25	Hg			684.750
0.5	04 May 2022 10:03:37	Hg			2911.250
1.0	04 May 2022 10:06:48	Hg			5786.500
2.0	04 May 2022 10:09:59	Hg			11261.500
4.0	04 May 2022 10:13:09	Hg			22773.000
5.0	04 May 2022 10:16:19	Hg			27774.250
ICV	04 May 2022 10:19:29	Hg			3.023
ICB	04 May 2022 10:25:48	Hg			0.000
LCSW	04 May 2022 10:28:57	Hg			1.907
MBW	04 May 2022 10:35:16	Hg			0.007
1136212	04 May 2022 10:38:25	Hg			-0.003
1137439	04 May 2022 10:41:34	Hg			-0.010
1135451	04 May 2022 10:44:44	Hg			0.007
1135486	04 May 2022 10:47:53	Hg			-0.001
1135487	04 May 2022 10:51:03	Hg			0.005
1135488	04 May 2022 10:54:12	Hg			0.002
1136308	04 May 2022 10:57:23	Hg			0.010
CCV	04 May 2022 11:00:34	Hg			2.772
CCB	04 May 2022 11:06:53	Hg			0.002

050422W DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 09:45:51

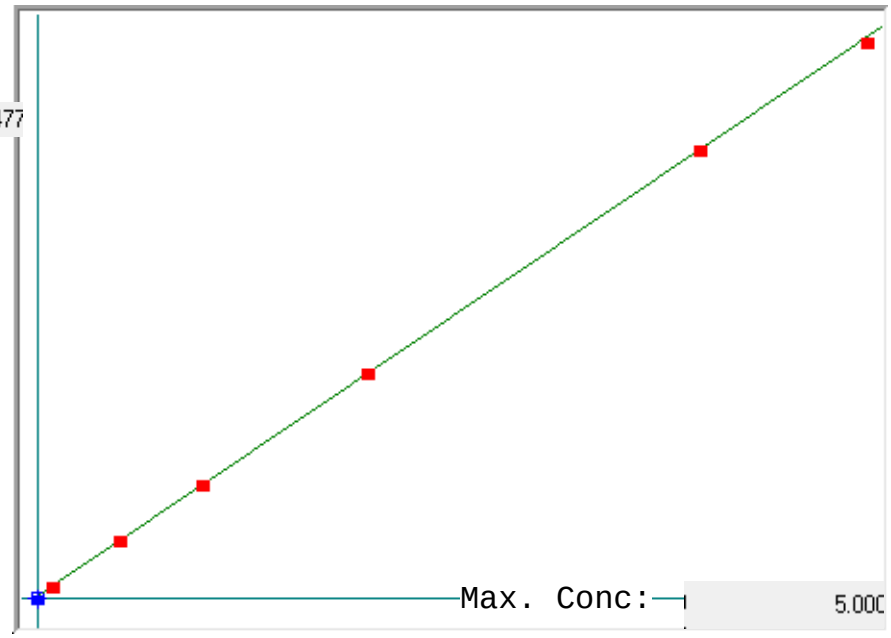
Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	04 May 2022 09:57:16	Hg			84	-
CALIBRATION BLANK - 2	04 May 2022 09:57:16	Hg			92	-
CALIBRATION BLANK - 3	04 May 2022 09:57:16	Hg			89	-
CALIBRATION BLANK - 4	04 May 2022 09:57:16	Hg			84	-
0.1 - 1	04 May 2022 10:00:25	Hg			658	-
0.1 - 2	04 May 2022 10:00:25	Hg			671	-
0.1 - 3	04 May 2022 10:00:25	Hg			697	-
0.1 - 4	04 May 2022 10:00:25	Hg			713	-
0.5 - 1	04 May 2022 10:03:37	Hg			2849	-
0.5 - 2	04 May 2022 10:03:37	Hg			2901	-
0.5 - 3	04 May 2022 10:03:37	Hg			2935	-
0.5 - 4	04 May 2022 10:03:37	Hg			2960	-
1.0 - 1	04 May 2022 10:06:48	Hg			5666	-
1.0 - 2	04 May 2022 10:06:48	Hg			5757	-
1.0 - 3	04 May 2022 10:06:48	Hg			5840	-
1.0 - 4	04 May 2022 10:06:48	Hg			5883	-
2.0 - 1	04 May 2022 10:09:59	Hg			10968	-
2.0 - 2	04 May 2022 10:09:59	Hg			11175	-
2.0 - 3	04 May 2022 10:09:59	Hg			11371	-
2.0 - 4	04 May 2022 10:09:59	Hg			11532	-
4.0 - 1	04 May 2022 10:13:09	Hg			22314	-
4.0 - 2	04 May 2022 10:13:09	Hg			22696	-
4.0 - 4	04 May 2022 10:13:09	Hg			23146	-
4.0 - 3	04 May 2022 10:13:09	Hg			22936	-
5.0 - 1	04 May 2022 10:16:19	Hg			27076	-
5.0 - 2	04 May 2022 10:16:19	Hg			27562	-
5.0 - 3	04 May 2022 10:16:19	Hg			28009	-
5.0 - 4	04 May 2022 10:16:19	Hg			28450	-
ICV - 1	04 May 2022 10:19:29	Hg			16723	98.1% 2.944
ICV - 2	04 May 2022 10:19:29	Hg			17057	100.1% 3.003
ICV - 3	04 May 2022 10:19:29	Hg			17326	101.7% 3.051
ICV - 4	04 May 2022 10:19:29	Hg			17579	103.2% 3.095
ICB - 1	04 May 2022 10:25:48	Hg			88	-0.000
ICB - 2	04 May 2022 10:25:48	Hg			79	-0.002
ICB - 3	04 May 2022 10:25:48	Hg			85	-0.001
ICB - 4	04 May 2022 10:25:48	Hg			105	0.003
LCSW - 1	04 May 2022 10:28:57	Hg			10610	1.862
LCSW - 2	04 May 2022 10:28:57	Hg			10779	1.892
LCSW - 3	04 May 2022 10:28:57	Hg			10952	1.923
LCSW - 4	04 May 2022 10:28:57	Hg			11104	1.949
MBW - 1	04 May 2022 10:35:16	Hg			122	0.006
MBW - 2	04 May 2022 10:35:16	Hg			127	0.007
MBW - 3	04 May 2022 10:35:16	Hg			121	0.006
MBW - 4	04 May 2022 10:35:16	Hg			133	0.008
1136212 - 1	04 May 2022 10:38:25	Hg			81	-0.001
1136212 - 2	04 May 2022 10:38:25	Hg			72	-0.003
1136212 - 3	04 May 2022 10:38:25	Hg			69	-0.003
1136212 - 4	04 May 2022 10:38:25	Hg			64	-0.004
1137439 - 1	04 May 2022 10:41:34	Hg			29	-0.010
1137439 - 2	04 May 2022 10:41:34	Hg			34	-0.010
1137439 - 3	04 May 2022 10:41:34	Hg			32	-0.010
1137439 - 4	04 May 2022 10:41:34	Hg			21	-0.012
1135451 - 1	04 May 2022 10:44:44	Hg			120	0.006
1135451 - 2	04 May 2022 10:44:44	Hg			128	0.007
1135451 - 3	04 May 2022 10:44:44	Hg			136	0.008
1135451 - 4	04 May 2022 10:44:44	Hg			136	0.008
1135486 - 1	04 May 2022 10:47:53	Hg			80	-0.001
1135486 - 2	04 May 2022 10:47:53	Hg			77	-0.002
1135486 - 3	04 May 2022 10:47:53	Hg			89	0.000
1135486 - 4	04 May 2022 10:47:53	Hg			94	0.001
1135487 - 1	04 May 2022 10:51:03	Hg			106	0.003
1135487 - 2	04 May 2022 10:51:03	Hg			112	0.004
1135487 - 3	04 May 2022 10:51:03	Hg			124	0.006
1135487 - 4	04 May 2022 10:51:03	Hg			122	0.006
1135488 - 1	04 May 2022 10:54:12	Hg			99	0.002
1135488 - 2	04 May 2022 10:54:12	Hg			97	0.002
1135488 - 3	04 May 2022 10:54:12	Hg			100	0.002
1135488 - 4	04 May 2022 10:54:12	Hg			93	0.001
1136308 - 1	04 May 2022 10:57:23	Hg			136	0.008
1136308 - 2	04 May 2022 10:57:23	Hg			146	0.010
1136308 - 3	04 May 2022 10:57:23	Hg			153	0.011
1136308 - 4	04 May 2022 10:57:23	Hg			151	0.011
CCV - 1	04 May 2022 11:00:34	Hg			15371	90.2% 2.705
CCV - 2	04 May 2022 11:00:34	Hg			15635	91.7% 2.751
CCV - 3	04 May 2022 11:00:34	Hg			15890	93.2% 2.796
CCV - 4	04 May 2022 11:00:34	Hg			16120	94.6% 2.837
CCB - 1	04 May 2022 11:06:53	Hg			92	0.001
CCB - 2	04 May 2022 11:06:53	Hg			100	0.002
CCB - 3	04 May 2022 11:06:53	Hg			107	0.003

050422W DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 09:45:51

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CCB - 4	04 May 2022 11:06:53	Hg			108	0.004

Hg LIQUIDS



A= 0.0000e+000

B= 1.5304e-004

C= -1.6606e-002

Rho= 0.9999778

Accept= Accepted

Accepted Date=

05/04/22 12:22

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	-0.000	-0.000	108	1.118	107	110	109	108	
0.1	0.100	0.100	0.000	762	2.6 %	733	761	768	788	
0.5	0.500	0.500	0.000	3376	1.5 %	3297	3367	3410	3430	
1.0	1.000	1.013	0.013	6724	1.7 %	6552	6698	6789	6860	
2.0	2.000	2.004	0.004	13201	1.5 %	12911	13158	13313	13425	
4.0	4.000	3.996	-0.004	26220	1.6 %	25678	25983	26398	26821	
5.0	5.000	4.954	-0.046	32477	1.4 %	31851	32276	32708	33073	

050422BW

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 11:52:33

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
CALIBRATION BLANK	04 May 2022 12:00:28	Hg			108.500
0.1	04 May 2022 12:03:38	Hg			762.500
0.5	04 May 2022 12:06:49	Hg			3376.000
1.0	04 May 2022 12:10:00	Hg			6724.750
2.0	04 May 2022 12:13:11	Hg			13201.750
4.0	04 May 2022 12:16:22	Hg			26220.000
5.0	04 May 2022 12:19:32	Hg			32477.000
ICV	04 May 2022 12:22:42	Hg			3.125
ICB	04 May 2022 12:29:01	Hg			0.003
LCSW	04 May 2022 12:32:10	Hg			2.175
MBW	04 May 2022 12:38:29	Hg			0.006
1136309	04 May 2022 12:41:38	Hg			0.003
1136389	04 May 2022 12:44:49	Hg			0.002
DUP1136212	04 May 2022 12:48:00	Hg			-0.011
DUP1135486	04 May 2022 12:51:09	Hg			0.002
MSW1136212	04 May 2022 12:54:19	Hg			0.095
MSDW1136212	04 May 2022 12:57:28	Hg			0.505
MSW1135486	04 May 2022 13:00:38	Hg			2.116
CCV	04 May 2022 13:03:47	Hg			3.058
CCB	04 May 2022 13:10:06	Hg			-0.001
MSDW1135486	04 May 2022 13:13:15	Hg			2.136
MSW1136309	04 May 2022 13:16:25	Hg			2.160
MSDW1136309	04 May 2022 13:19:35	Hg			2.195
MSW1136389	04 May 2022 13:22:45	Hg			1.630
MSDW1136389	04 May 2022 13:25:55	Hg			1.627
MBW95279	04 May 2022 13:32:17	Hg			0.004
1135387	04 May 2022 13:35:28	Hg			0.003
1135433	04 May 2022 13:38:37	Hg			0.003
1136525	04 May 2022 13:41:47	Hg			0.009
CCV	04 May 2022 13:44:57	Hg			3.042
CCB	04 May 2022 13:51:16	Hg			0.005
DUP1135433	04 May 2022 13:54:25	Hg			0.003
MSW1135433	04 May 2022 13:57:35	Hg			2.153
MSDW1135433	04 May 2022 14:00:44	Hg			2.193
CCV	04 May 2022 14:03:54	Hg			3.054
CCB	04 May 2022 14:10:13	Hg			0.003

050422BW DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 11:52:33

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	04 May 2022 12:00:28	Hg			107	-
CALIBRATION BLANK - 2	04 May 2022 12:00:28	Hg			110	-
CALIBRATION BLANK - 3	04 May 2022 12:00:28	Hg			109	-
CALIBRATION BLANK - 4	04 May 2022 12:00:28	Hg			108	-
0.1 - 1	04 May 2022 12:03:38	Hg			733	-
0.1 - 2	04 May 2022 12:03:38	Hg			761	-
0.1 - 3	04 May 2022 12:03:38	Hg			768	-
0.1 - 4	04 May 2022 12:03:38	Hg			788	-
0.5 - 1	04 May 2022 12:06:49	Hg			3297	-
0.5 - 2	04 May 2022 12:06:49	Hg			3367	-
0.5 - 3	04 May 2022 12:06:49	Hg			3410	-
0.5 - 4	04 May 2022 12:06:49	Hg			3430	-
1.0 - 1	04 May 2022 12:10:00	Hg			6552	-
1.0 - 2	04 May 2022 12:10:00	Hg			6698	-
1.0 - 3	04 May 2022 12:10:00	Hg			6789	-
1.0 - 4	04 May 2022 12:10:00	Hg			6860	-
2.0 - 1	04 May 2022 12:13:11	Hg			12911	-
2.0 - 2	04 May 2022 12:13:11	Hg			13158	-
2.0 - 3	04 May 2022 12:13:11	Hg			13313	-
2.0 - 4	04 May 2022 12:13:11	Hg			13425	-
4.0 - 1	04 May 2022 12:16:22	Hg			25678	-
4.0 - 2	04 May 2022 12:16:22	Hg			25983	-
4.0 - 3	04 May 2022 12:16:22	Hg			26398	-
4.0 - 4	04 May 2022 12:16:22	Hg			26821	-
5.0 - 1	04 May 2022 12:19:32	Hg			31851	-
5.0 - 2	04 May 2022 12:19:32	Hg			32276	-
5.0 - 3	04 May 2022 12:19:32	Hg			32708	-
5.0 - 4	04 May 2022 12:19:32	Hg			33073	-
ICV - 1	04 May 2022 12:22:42	Hg			20151	102.2% 3.067
ICV - 2	04 May 2022 12:22:42	Hg			20408	103.6% 3.107
ICV - 3	04 May 2022 12:22:42	Hg			20601	104.5% 3.136
ICV - 4	04 May 2022 12:22:42	Hg			20944	106.3% 3.189
ICB - 1	04 May 2022 12:29:01	Hg			125	0.003
ICB - 2	04 May 2022 12:29:01	Hg			131	0.003
ICB - 3	04 May 2022 12:29:01	Hg			129	0.003
ICB - 4	04 May 2022 12:29:01	Hg			133	0.004
LCSW - 1	04 May 2022 12:32:10	Hg			14039	2.132
LCSW - 2	04 May 2022 12:32:10	Hg			14232	2.161
LCSW - 3	04 May 2022 12:32:10	Hg			14415	2.189
LCSW - 4	04 May 2022 12:32:10	Hg			14606	2.219
MBW - 1	04 May 2022 12:38:29	Hg			152	0.007
MBW - 2	04 May 2022 12:38:29	Hg			147	0.006
MBW - 3	04 May 2022 12:38:29	Hg			149	0.006
MBW - 4	04 May 2022 12:38:29	Hg			154	0.007
1136309 - 1	04 May 2022 12:41:38	Hg			127	0.003
1136309 - 2	04 May 2022 12:41:38	Hg			123	0.002
1136309 - 3	04 May 2022 12:41:38	Hg			130	0.003
1136309 - 4	04 May 2022 12:41:38	Hg			122	0.002
1136389 - 1	04 May 2022 12:44:49	Hg			117	0.001
1136389 - 2	04 May 2022 12:44:49	Hg			125	0.003
1136389 - 3	04 May 2022 12:44:49	Hg			121	0.002
1136389 - 4	04 May 2022 12:44:49	Hg			127	0.003
DUP1136212 - 1	04 May 2022 12:48:00	Hg			34	-0.011
DUP1136212 - 2	04 May 2022 12:48:00	Hg			40	-0.010
DUP1136212 - 3	04 May 2022 12:48:00	Hg			27	-0.012
DUP1136212 - 4	04 May 2022 12:48:00	Hg			45	-0.010
DUP1135486 - 1	04 May 2022 12:51:09	Hg			117	0.001
DUP1135486 - 2	04 May 2022 12:51:09	Hg			123	0.002
DUP1135486 - 3	04 May 2022 12:51:09	Hg			123	0.002
DUP1135486 - 4	04 May 2022 12:51:09	Hg			116	0.001
MSW1136212 - 1	04 May 2022 12:54:19	Hg			792	0.105
MSW1136212 - 2	04 May 2022 12:54:19	Hg			752	0.098
MSW1136212 - 3	04 May 2022 12:54:19	Hg			705	0.091
MSW1136212 - 4	04 May 2022 12:54:19	Hg			668	0.086
MSDW1136212 - 1	04 May 2022 12:57:28	Hg			3607	0.535
MSDW1136212 - 2	04 May 2022 12:57:28	Hg			3446	0.511
MSDW1136212 - 3	04 May 2022 12:57:28	Hg			3318	0.491
MSDW1136212 - 4	04 May 2022 12:57:28	Hg			3275	0.485
MSW1135486 - 1	04 May 2022 13:00:38	Hg			13818	2.098
MSW1135486 - 2	04 May 2022 13:00:38	Hg			13873	2.107
MSW1135486 - 3	04 May 2022 13:00:38	Hg			13946	2.118
MSW1135486 - 4	04 May 2022 13:00:38	Hg			14111	2.143
CCV - 1	04 May 2022 13:03:47	Hg			19825	100.6% 3.017
CCV - 2	04 May 2022 13:03:47	Hg			20106	102.0% 3.060
CCV - 3	04 May 2022 13:03:47	Hg			20185	102.4% 3.073
CCV - 4	04 May 2022 13:03:47	Hg			20249	102.7% 3.082
CCB - 1	04 May 2022 13:10:06	Hg			105	-0.001
CCB - 2	04 May 2022 13:10:06	Hg			93	-0.002
CCB - 3	04 May 2022 13:10:06	Hg			93	-0.002

050422BW DETAILED

Method: Hg LIQUIDS Operator: Admin Date of Analysis: 04 May 2022 11:52:33

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CCB - 4	04 May 2022 13:10:06	Hg			104	-0.001
MSDW1135486 - 1	04 May 2022 13:13:15	Hg			13793	2.094
MSDW1135486 - 2	04 May 2022 13:13:15	Hg			14011	2.128
MSDW1135486 - 3	04 May 2022 13:13:15	Hg			14176	2.153
MSDW1135486 - 4	04 May 2022 13:13:15	Hg			14289	2.170
MSW1136309 - 1	04 May 2022 13:16:25	Hg			13990	2.124
MSW1136309 - 2	04 May 2022 13:16:25	Hg			14169	2.152
MSW1136309 - 3	04 May 2022 13:16:25	Hg			14328	2.176
MSW1136309 - 4	04 May 2022 13:16:25	Hg			14397	2.187
MSDW1136309 - 1	04 May 2022 13:19:35	Hg			14013	2.128
MSDW1136309 - 2	04 May 2022 13:19:35	Hg			14349	2.179
MSDW1136309 - 3	04 May 2022 13:19:35	Hg			14631	2.223
MSDW1136309 - 4	04 May 2022 13:19:35	Hg			14823	2.252
MSW1136389 - 1	04 May 2022 13:22:45	Hg			10437	1.581
MSW1136389 - 2	04 May 2022 13:22:45	Hg			10667	1.616
MSW1136389 - 3	04 May 2022 13:22:45	Hg			10887	1.650
MSW1136389 - 4	04 May 2022 13:22:45	Hg			11048	1.674
MSDW1136389 - 1	04 May 2022 13:25:55	Hg			10320	1.563
MSDW1136389 - 2	04 May 2022 13:25:55	Hg			10592	1.604
MSDW1136389 - 3	04 May 2022 13:25:55	Hg			10888	1.650
MSDW1136389 - 4	04 May 2022 13:25:55	Hg			11151	1.690
MBW95279 - 1	04 May 2022 13:32:17	Hg			139	0.005
MBW95279 - 2	04 May 2022 13:32:17	Hg			136	0.004
MBW95279 - 3	04 May 2022 13:32:17	Hg			137	0.004
MBW95279 - 4	04 May 2022 13:32:17	Hg			129	0.003
1135387 - 1	04 May 2022 13:35:28	Hg			120	0.002
1135387 - 2	04 May 2022 13:35:28	Hg			130	0.003
1135387 - 3	04 May 2022 13:35:28	Hg			126	0.003
1135387 - 4	04 May 2022 13:35:28	Hg			135	0.004
1135433 - 1	04 May 2022 13:38:37	Hg			126	0.003
1135433 - 2	04 May 2022 13:38:37	Hg			125	0.003
1135433 - 3	04 May 2022 13:38:37	Hg			134	0.004
1135433 - 4	04 May 2022 13:38:37	Hg			131	0.003
1136525 - 1	04 May 2022 13:41:47	Hg			158	0.008
1136525 - 2	04 May 2022 13:41:47	Hg			167	0.009
1136525 - 3	04 May 2022 13:41:47	Hg			176	0.010
1136525 - 4	04 May 2022 13:41:47	Hg			167	0.009
CCV - 1	04 May 2022 13:44:57	Hg			19620	99.5% 2.986
CCV - 2	04 May 2022 13:44:57	Hg			19785	100.4% 3.011
CCV - 3	04 May 2022 13:44:57	Hg			20075	101.9% 3.056
CCV - 4	04 May 2022 13:44:57	Hg			20470	103.9% 3.116
CCB - 1	04 May 2022 13:51:16	Hg			142	0.005
CCB - 2	04 May 2022 13:51:16	Hg			135	0.004
CCB - 3	04 May 2022 13:51:16	Hg			143	0.005
CCB - 4	04 May 2022 13:51:16	Hg			137	0.004
DUP1135433 - 1	04 May 2022 13:54:25	Hg			120	0.002
DUP1135433 - 2	04 May 2022 13:54:25	Hg			125	0.003
DUP1135433 - 3	04 May 2022 13:54:25	Hg			135	0.004
DUP1135433 - 4	04 May 2022 13:54:25	Hg			133	0.004
MSW1135433 - 1	04 May 2022 13:57:35	Hg			13894	2.110
MSW1135433 - 2	04 May 2022 13:57:35	Hg			14124	2.145
MSW1135433 - 3	04 May 2022 13:57:35	Hg			14268	2.167
MSW1135433 - 4	04 May 2022 13:57:35	Hg			14426	2.191
MSDW1135433 - 1	04 May 2022 14:00:44	Hg			14234	2.162
MSDW1135433 - 2	04 May 2022 14:00:44	Hg			14319	2.175
MSDW1135433 - 3	04 May 2022 14:00:44	Hg			14468	2.198
MSDW1135433 - 4	04 May 2022 14:00:44	Hg			14728	2.237
CCV - 1	04 May 2022 14:03:54	Hg			19593	99.4% 2.982
CCV - 2	04 May 2022 14:03:54	Hg			19821	100.6% 3.017
CCV - 3	04 May 2022 14:03:54	Hg			20213	102.6% 3.077
CCV - 4	04 May 2022 14:03:54	Hg			20626	104.7% 3.140
CCB - 1	04 May 2022 14:10:13	Hg			129	0.003
CCB - 2	04 May 2022 14:10:13	Hg			120	0.002
CCB - 3	04 May 2022 14:10:13	Hg			130	0.003
CCB - 4	04 May 2022 14:10:13	Hg			127	0.003

METALS
LOGBOOK
DOCUMENTS

MICP WATER QSM Analytical Run
211581 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138569								MICP WATER QSM				
					ICV					0			
	1138570								MICP WATER QSM				
					ICVLL					0			
	1138571								MICP WATER QSM				
					ICB					0			
	1138572								MICP WATER QSM				
					ICSA					0			
	1138573								MICP WATER QSM				
					ICSAB					0			
	1138574								MICP WATER QSM				
					ICV					0			
	1136456								ICP K TOTAL QSM 5.0				
					LCSW					95236			
	1136456								ICP NA TOTAL QSM 5.0				
					LCSW					95236			
	1136456								ICP TOTAL QSM 5.0				
					LCSW					95236			
	1136455								ICP K TOTAL QSM 5.0				
					MBW					95236			
	1136455								ICP NA TOTAL QSM 5.0				
					MBW					95236			
	1136455								ICP TOTAL QSM 5.0				
					MBW					95236			
169156	1136212		4/26/2022	17:44			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP TOTAL QSM 5.0		GW	**4**	
		54IDW								95236			
	1138575								ICP TOTAL QSM 5.0				
					L	1136212				0			
	1136457		4/26/2022	17:44					ICP TOTAL QSM 5.0				
		54IDW			DUP	1136212				95236			
	1136458		4/26/2022	17:44					ICP TOTAL QSM 5.0				
		54IDW			MSW	1136212				95236			
	1136459		4/26/2022	17:44					ICP TOTAL QSM 5.0				
		54IDW			MSDW	1136458				95236			
	1138576								ICP TOTAL QSM 5.0				
					PDSW	1136212				0			
	1138577								MICP WATER QSM				
					CCV1					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD6B5.tmp

MICP WATER QSM Analytical Run
211581 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138578						MICP WATER QSM				
				CCV2				0			
	1138579						MICP WATER QSM				
				CCB				0			
	1141002						MICP WATER QSM				
				ICV				0			
	1141003						MICP WATER QSM				
				ICVLL				0			
	1141004						MICP WATER QSM				
				ICB				0			
	1141005						MICP WATER QSM				
				ICSA				0			
	1141006						MICP WATER QSM				
				ICSAB				0			
	1141007						MICP WATER QSM				
				ICVLL				0			
	1141008						MICP WATER QSM				
				CCV1				0			
	1141009						MICP WATER QSM				
				CCV2				0			
	1141010						MICP WATER QSM				
				CCB				0			
	1141011						MICP WATER QSM				
				CCV1				0			
	1141012						MICP WATER QSM				
				CCV2				0			
	1141013						MICP WATER QSM				
				CCB				0			

33 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD6B5.tmp

MICP WATER QSM K&Na Analytical Run
211582 on 5/11/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1141417							MICP WATER QSM K&Na				
				ICV					0			
	1141418							MICP WATER QSM K&Na				
				ICVLL					0			
	1141419							MICP WATER QSM K&Na				
				ICB					0			
	1141420							MICP WATER QSM K&Na				
				ICSA					0			
	1141421							MICP WATER QSM K&Na				
				ICSAB					0			
169156	1136212		4/26/2022 17:44			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP K TOTAL QSM 5.0		GW	4	
		54IDW							95236			
169156	1136212		4/26/2022 17:44			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP NA TOTAL QSM 5.0		GW	4	
		54IDW							95236			
	1141432							ICP K TOTAL QSM 5.0				
				L	1136212							
	1141433							ICP NA TOTAL QSM 5.0				
				L	1136212							
	1136457		4/26/2022 17:44					ICP K TOTAL QSM 5.0				
		54IDW		DUP	1136212				95236			
	1136457		4/26/2022 17:44					ICP NA TOTAL QSM 5.0				
		54IDW		DUP	1136212				95236			
	1136458		4/26/2022 17:44					ICP K TOTAL QSM 5.0				
		54IDW		MSW	1136212				95236			
	1136458		4/26/2022 17:44					ICP NA TOTAL QSM 5.0				
		54IDW		MSW	1136212				95236			
	1136459		4/26/2022 17:44					ICP K TOTAL QSM 5.0				
		54IDW		MSDW	1136458				95236			
	1136459		4/26/2022 17:44					ICP NA TOTAL QSM 5.0				
		54IDW		MSDW	1136458				95236			
	1141434							ICP K TOTAL QSM 5.0				
				PDSW	1136212							
	1141435							ICP NA TOTAL QSM 5.0				
				PDSW	1136212							
	1141425							MICP WATER QSM K&Na				
				CCV1					0			
	1141426							MICP WATER QSM K&Na				
				CCV2					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp3EBC.tmp

MICP WATER QSM K&Na Analytical Run
211582 on 5/11/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1141427						MICP WATER QSM K&Na				
				CCB				0			

20 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp3EBC.tmp

MICP WATER QSM Analytical Run
211628 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138666							MICP WATER QSM				
					ICV				0			
	1138667							MICP WATER QSM				
					ICVLL				0			
	1138668							MICP WATER QSM				
					ICB				0			
	1138669							MICP WATER QSM				
					ICSA				0			
	1138670							MICP WATER QSM				
					ICSAB				0			
	1138671							MICP WATER QSM				
					ICV				0			
	1138694							MICP WATER QSM				
					CCV1				0			
	1138695							MICP WATER QSM				
					CCV2				0			
	1138696							MICP WATER QSM				
					CCB				0			
	1137454							ICP K TOTAL QSM 5.0				
					LCSW				95267			
	1137454							ICP NA TOTAL QSM 5.0				
					LCSW				95267			
	1137454							ICP TOTAL QSM 5.0				
					LCSW				95267			
	1138672							MICP WATER QSM				
					CCV1				0			
	1138673							MICP WATER QSM				
					CCV2				0			
	1138674							MICP WATER QSM				
					CCB				0			
	1137453							ICP K TOTAL QSM 5.0				
					MBW				95267			
	1137453							ICP NA TOTAL QSM 5.0				
					MBW				95267			
	1137453							ICP TOTAL QSM 5.0				
					MBW				95267			
169227	1137439	49IDW	4/29/2022	09:45		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP TOTAL QSM 5.0	95267	GW		**4**

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Metals C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpC50A.tmp

MICP WATER QSM Analytical Run
211628 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138675						ICP TOTAL QSM 5.0				
				L	1137439			0			
	1137455		4/29/2022 09:45				ICP TOTAL QSM 5.0				
		49IDW		DUP	1137439			95267			
	1137456		4/29/2022 09:45				ICP TOTAL QSM 5.0				
		49IDW		MSW	1137439			95267			
	1137457		4/29/2022 09:45				ICP TOTAL QSM 5.0				
		49IDW		MSDW	1137456			95267			
	1138676						ICP TOTAL QSM 5.0				
				PDSW	1137439			0			
	1138677						MICP WATER QSM				
				CCV1				0			
	1138678						MICP WATER QSM				
				CCV2				0			
	1138679						MICP WATER QSM				
				CCB				0			
	1140978						MICP WATER QSM				
				ICV				0			
	1140979						MICP WATER QSM				
				ICVLL				0			
	1140980						MICP WATER QSM				
				ICB				0			
	1140981						MICP WATER QSM				
				ICSA				0			
	1140982						MICP WATER QSM				
				ICSAB				0			
	1140983						MICP WATER QSM				
				ICVLL				0			
	1140984						MICP WATER QSM				
				CCV1				0			
	1140985						MICP WATER QSM				
				CCV2				0			
	1140986						MICP WATER QSM				
				CCB				0			
	1140987						MICP WATER QSM				
				CCV1				0			
	1140988						MICP WATER QSM				
				CCV2				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpC50A.tmp

MICP WATER QSM Analytical Run
211628 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1140989						MICP WATER QSM				
				CCB				0			

39 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpC50A.tmp

MICP WATER QSM K&Na Analytical Run
211629 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138680								MICP WATER QSM K&Na				
					ICV					0			
	1138681								MICP WATER QSM K&Na				
					ICVLL					0			
	1138682								MICP WATER QSM K&Na				
					ICB					0			
	1138683								MICP WATER QSM K&Na				
					ICSA					0			
	1138684								MICP WATER QSM K&Na				
					ICSAB					0			
	1138697								MICP WATER QSM K&Na				
					CCV1					0			
	1138698								MICP WATER QSM K&Na				
					CCV2					0			
	1138699								MICP WATER QSM K&Na				
					CCB					0			
	1138686								MICP WATER QSM K&Na				
					CCV1					0			
	1138687								MICP WATER QSM K&Na				
					CCV2					0			
	1138688								MICP WATER QSM K&Na				
					CCB					0			
169227	1137439		4/29/2022	09:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP K TOTAL QSM 5.0		GW	**4**	
		49IDW								95267			
169227	1137439		4/29/2022	09:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ICP NA TOTAL QSM 5.0		GW	**4**	
		49IDW								95267			
	1141389								ICP K TOTAL QSM 5.0				
					L	1137439							
	1141390								ICP NA TOTAL QSM 5.0				
					L	1137439							
	1137455		4/29/2022	09:45					ICP K TOTAL QSM 5.0				
		49IDW			DUP	1137439				95267			
	1137455		4/29/2022	09:45					ICP NA TOTAL QSM 5.0				
		49IDW			DUP	1137439				95267			
	1137456		4/29/2022	09:45					ICP K TOTAL QSM 5.0				
		49IDW			MSW	1137439				95267			
	1137456		4/29/2022	09:45					ICP NA TOTAL QSM 5.0				
		49IDW			MSW	1137439				95267			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp4F2A.tmp

MICP WATER QSM K&Na Analytical Run
211629 on 5/10/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1137457		4/29/2022	09:45					ICP K TOTAL QSM 5.0				
		49IDW			MSDW	1137456				95267			
	1137457		4/29/2022	09:45					ICP NA TOTAL QSM 5.0				
		49IDW			MSDW	1137456				95267			
	1141391								ICP K TOTAL QSM 5.0				
					PDSW	1137439							
	1141392								ICP NA TOTAL QSM 5.0				
					PDSW	1137439							
	1138691								MICP WATER QSM K&Na				
					CCV1					0			
	1138692								MICP WATER QSM K&Na				
					CCV2					0			
	1138693								MICP WATER QSM K&Na				
					CCB					0			

26 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp4F2A.tmp

MERCURY QSM 5.0 Analytical Run
211699 on 5/5/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139472								MERCURY QSM 5.0				
					ICV					0			
	1139473								MERCURY QSM 5.0				
					ICB					0			
	1136566								MERCURY TOTAL QSM 5.0				
					LCSW					95243			
	1136565								MERCURY TOTAL QSM 5.0				
					MBW					95243			
169156	1136212		4/26/2022	17:44			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	MERCURY TOTAL QSM 5.0		GW	4	
		54IDW								95243			
169227	1137439		4/29/2022	09:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	MERCURY TOTAL QSM 5.0		GW	4	
		49IDW								95243			
	1139474								MERCURY QSM 5.0				
					CCV					0			
	1139475								MERCURY QSM 5.0				
					CCB					0			
	1139484								MERCURY QSM 5.0				
					ICV					0			
	1139485								MERCURY QSM 5.0				
					ICB					0			
	1136567		4/26/2022	17:44					MERCURY TOTAL QSM 5.0				
		54IDW			DUP	1136212				95243			
	1136568		4/26/2022	17:44					MERCURY TOTAL QSM 5.0				
		54IDW			MSW	1136212				95243			
	1136569		4/26/2022	17:44					MERCURY TOTAL QSM 5.0				
		54IDW			MSDW	1136568				95243			
	1139486								MERCURY QSM 5.0				
					CCV					0			
	1139487								MERCURY QSM 5.0				
					CCB					0			

15 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PrepWrkSht2
on 5/10/2022

Prep Batch: **95236**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1136455	MBW	0	ICP K TOTAL QSM 5.0			LIQUID				
	1136455	MBW	0	ICP NA TOTAL QSM 5.0			LIQUID				
	1136455	MBW	0	ICP TOTAL QSM 5.0			LIQUID				
	1136456	LCSW	0	ICP K TOTAL QSM 5.0			LIQUID				
	1136456	LCSW	0	ICP NA TOTAL QSM 5.0			LIQUID				
	1136456	LCSW	0	ICP TOTAL QSM 5.0			LIQUID				
169156	1136212			ICP K TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	4/26/22	17:44	5/10/22	4
	1136212			ICP NA TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	4/26/22	17:44	5/10/22	4
	1136212			ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	4/26/22	17:44	5/10/22	4
	1136457	DUP	1136212	ICP K TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136457	DUP	1136212	ICP NA TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136457	DUP	1136212	ICP TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136458	MSW	1136212	ICP K TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136458	MSW	1136212	ICP NA TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136458	MSW	1136212	ICP TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136459	MSDW	1136458	ICP K TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136459	MSDW	1136458	ICP NA TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		

PrepWrkSht2
on 5/10/2022

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1136459	MSDW	1136458	ICP TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22 17:44		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpB549.tmp

PrepWrkSht2
on 5/10/2022

Prep Batch: **95267**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1137453	MBW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1137453	MBW	0	ICP NA TOTAL QSM 5.0			LIQUID			
	1137453	MBW	0	ICP TOTAL QSM 5.0			LIQUID			
	1137453	MBW	0	ICP TOTAL QSM 5.0			LIQUID			
	1137454	LCSW	0	ICP K TOTAL QSM 5.0			LIQUID			
	1137454	LCSW	0	ICP NA TOTAL QSM 5.0			LIQUID			
	1137454	LCSW	0	ICP TOTAL QSM 5.0			LIQUID			
	1137454	LCSW	0	ICP TOTAL QSM 5.0			LIQUID			
169227	1137439			ICP K TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22 09:45	5/12/22	4
	1137439			ICP NA TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22 09:45	5/12/22	4
	1137439			ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22 09:45	5/12/22	4
	1137439		0	ICP TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22 09:45	5/12/22	4
	1137455	DUP	1137439	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137455	DUP	1137439	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137455	DUP	1137439	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137456	MSW	1137439	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137456	MSW	1137439	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpAD38.tmp

PrepWrkSht2
on 5/10/2022

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1137456	MSW	1137439	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137457	MSDW	1137456	ICP K TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137457	MSDW	1137456	ICP NA TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		
	1137457	MSDW	1137456	ICP TOTAL QSM 5.0		49IDW	GROUND WATER	4/29/22 09:45		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpAD38.tmp

PrepWrkSht2
on 5/16/2022

Prep Batch: **95243**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1136565	MBW		MERCURY TOTAL QSM 5.0			LIQUID				
	1136566	LCSW		MERCURY TOTAL QSM 5.0			LIQUID				
169156	1136212			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	4/26/22	17:44	5/10/22	4
169227	1137439			MERCURY TOTAL QSM 5.0	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22	09:45	5/12/22	4
	1136567	DUP	1136212	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136568	MSW	1136212	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		
	1136569	MSDW	1136568	MERCURY TOTAL QSM 5.0		54IDW	GROUND WATER	4/26/22	17:44		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpFFBC.tmp

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	95236
Prep Method:	200.2
Analyst:	NAH
Date:	04/29/2022
Start Time:	10:19

Prep Analyst: BMM
Balance ID:

End Date: 04/29/2022
End Time: 21:04

Reagent:	Ref. #
Nitric Acid:	AB.711
Hydrochloric Acid:	AB.706
Hydrogen Peroxide:	

Digestion Tube Lot #: 3591
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 94
Final-Digestion Temp (ºC,corrected): 93

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1136455	(MB)			50.0	50
1136456	(LCS)			50.0	50
1136212				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1136457	(DUP)			50.0	50
1136458	(MS)	Parent Sample		50.0	50
1136459	(MSD)	1136212		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M15170
0.2	M15277
0.5	M15069
0.5	M15113

LCS Spike Amount (ml)	Spike Ref. #
0.1	M15170
0.2	M15277
0.5	M15069
0.5	M15113

Reviewed x

Metals Digestion Bench Sheet

Program: QSM
*Matrix: GW

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA As & Se Liquids

Prep Batch #:	95267
Prep Method:	200.2
Analyst:	NAH
Date:	05/02/2022
Start Time:	09:24

Prep Analyst: BMM
Balance ID: VOB01

End Date: 05/02/2022
End Time: 20:09

Reagent:	Ref. #
Nitric Acid:	AB.711
Hydrochloric Acid:	AB.706
Hydrogen Peroxide:	AB.709

Digestion Tube Lot #: 3591
Block Used: D2
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC,corrected): 93
Final-Digestion Temp (ºC,corrected): 92

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
1137453	(MB)			50.0	50
1137454	(LCS)			50.0	50
1137439				50.0	50
	Comments:				50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
1137455	(DUP)			50.0	50
1137456	(MS)	Parent Sample		50.0	50
1137457	(MSD)	1137439		50.0	50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
0.1	M15170
0.2	M15277
0.5	M15069
0.5	M15113

LCS Spike Amount (ml)	Spike Ref. #
0.1	M15170
0.2	M15277
0.5	M15069
0.5	M15113

Reviewed x

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M15388
ICV/LCSW ID: M15389

*Matrix: GW
Balance ID:

Prep Batch #:	95243
Prep Method:	7470A
Analyst:	MDS
Date:	05/03/2022
Start Time:	14:15

7470A= Hg Liquids
7471A= Hg Solids

End Date: 05/03/2022
End Time: 16:15

Digestion Tube Lot #: 10521010
Block Used: A
Cell Position for Temp. Check: B-3
Initial-DigestionTemp (ºC,corrected): 90.8
Final-Digestion Temp (ºC,corrected): 91
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M15387

Reagent:	Ref. #
HNO3:	AB.711
H2SO4:	AB.713
NaCl/Hydrox.SO4:	M15393
KMnO4:	M15390
K2S2O8:	M15391
Aqua-Regia:	

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	1136565	(MB)			25.0	25
	1136566	(LCS)			25.0	25
	1136212				25.0	25
	1137439	**Comments:**			25.0	25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	1136567	(DUP) if applicable			25.0	25
	1136568	(MS)	Parent Sample		25.0	25
	1136569	(MSD)	1136212		25.0	25
Leave >>		(DUP) if applicable				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP) if applicable				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100	M15389

B:

Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date: X

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 5/3/22	Data File: 000 results	Date of review: 5/11/22
Cal Std ID: M1523 LIMS #: 211581, 82	Analyst: [illegible]	Reviewer: MOS	Approved? Yes / No
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)			
Prep Batch Check —			

QC Parameters : 6010 / 200.7 / OSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r ≥ 0.995 / r > 0.998	✓		✓		
2) ICV: 90-110% / 95-105%	✓		✓		
2) ICVLL: 70-130% / 80-120%	✓		✓		
3) ICB: < 3X IDL / <LOD / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		See ICVLL for RR
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%	✓		✓		Ag RR
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO
Prep Batch ID#: 95256 Dig. Meth. 200.2	✓		✓	
LCS - generated limits or project specific limits	✓		✓	
MB - <LOD or ≤ ½ RL	✓		✓	
Spiked samples in batch:				
a) 1136212 matrix = DW	✓		✓	
b) matrix =				
c) matrix =				
PDS: ±15% / 20% / 25% Sample#:				
Prep Batch ID#: Dig. Meth.				
LCS - generated limits or project specific limits				
MB - <LOD or ≤ ½ RL				
Spiked samples in batch:				
a) matrix =				
b) matrix =				
c) matrix =				
PDS: ±15% / 20% / 25% Sample#:				
Prep Batch ID#: Dig. Meth.				
LCS - generated limits or project specific limits				
MB - <LOD or ≤ ½ RL				
Spiked samples in batch:				
a) matrix =				
b) matrix =				
c) matrix =				
PDS: ±15% / 20% / 25% Sample#:				
Prep Batch ID#: Dig. Meth.				
LCS - generated limits or project specific limits				
MB - <LOD or ≤ ½ RL				
Spiked samples in batch:				
a) matrix =				
b) matrix =				
c) matrix =				
PDS: ±15% / 20% / 25% Sample#:				

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 5/3/22	Data File: 220503w2	Date of review: 5/10/22
Cal Std ID: M15243 LIMS # : 211628, 29	Analyst: [illegible]	Reviewer: MOS	Approved? Yes No
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)			
Prep Batch Check			

QC Parameters : 6010 / 200.7 / QSM / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: r ≥ 0.995 / r > 0.998	✓		✓		
2) ICV: (90-110%) / 95-105%	✓		✓		
2) ICVLL: 70-130% (80-120%)	✓		✓		
3) ICB: < 3X IDL / <LOD) <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: 80-120%	✓		✓		
6) MRL: 70-130% / 80-120%					
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	Comments:
Prep Batch ID#: 95267 Dig. Meth. 200.2	—		✓		
LCS - generated limits or project specific limits	—		✓		
MB - <LOD or ≤ ½ RL	—	✓	✓	✓	Ag >LOD <½RL "B"
Spiked samples in batch:					
a) 117439 matrix = DW	✓		✓		
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#: _____					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#: _____					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#: _____					
Prep Batch ID#: _____ Dig. Meth. _____					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a) _____ matrix = _____					
b) _____ matrix = _____					
c) _____ matrix = _____					
PDS: ±15% / 20% / 25% Sample#: _____					

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA			Hydra II Hg ANALYZER		
Analysis Date: 5/4/22	Data File: 050422W, 050422BW	Date Review: 5/6/22		Analyte: Hg		
Cal Std ID: M15387	LIMS #: 211699	Analyst: MOS	Reviewer:	Approved?	Yes	No

Prep Batch Check ✓

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓				
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓				
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓				
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					

Preparation Batch Parameters	YES	NO	YES	NO	Comments:
Prep Batch ID#: 95243 Dig. Meth. 7470a	✓		—		
LCS - generated limits or project specific limits	✓				
MB - <LOD / <2.2X LOD / ≤ ½RL	✓				
Spiked samples in batch:					
a) 1136212 matrix = GW	✓	✓			Dup invalid → MSD RPD "Y" MS/MSD Failed "M"
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
4/13/22	0910 / 0434	[illegible]	041322	DODCal U	211033 211015,16 211031 211086 211032 211074	270	M15243 M15246 M15244	V4993 V4992	M15249,50 M15245,58 M15247
4/14/22	0950 / 2056	[illegible]	041422	DODCal U	211097 211087 211090 211088 211092 211091	270	M15243 M15246 M15244	V4994	M15249,50 M15245,58 M15247
4/15/22	1022 / 2124	[illegible]	041522	DODCal U	211114,15 C09,10A 211113 211120 211125 211147	240	M15243 M15246 M15244	V4997	M15249,50 M15245,58 M15247
4/18/22	1254 / 2103	[illegible]	041822	DODCal U	211190 211148,49	260	M15243 M15246 M15244	V4998	M15249,50 M15245,58 M15247
4/19/22	1111 / 1823	[illegible]	041922	DODCal U	211219 211218	250	M15243 M15246 M15244	V5000	M15249,50 M15245,58 M15247
4/20/22	1252 / 2010	[illegible]	042022	DODCal U	211113 211279 211278	250	M15243 M15246 M15244	V5002	M15249,50 M15245,58 M15247
4/25/22	0940 / 0323	[illegible]	042522	DODCal W	211306,307 211358,359 211350,51 211360 211098 211383 211358 211304,02 211092 211359	240	M15243 M15246 M15244	V5006,07 V5005	M15249,50 M15245,58 M15247
4/26/22	1233 / 0039	[illegible]	042622	DODCal U	211379,80,81 211098 211358 211360 211378,80,81 211098 211358 211359 211188,89 211424,25, 211385	240	M15243 M15246 M15244	V5011 V5009 V5008	M15249,50 M15245,58 M15247
4/27/22	0934 / 1720	[illegible]	042722	DODCal U	211481 211480	240	M15243 M15246 M15244	V5012	M15249,50,48 M15247,55,5
4/28/22	1251 / 2345	[illegible]	042822	DODCal U	211379 211511 2 211527 211521 211510	240	M15243 M15246 M15244	V5014	M15249,50,4 M15247,55
4/29/22	0944 / 2219	[illegible]	042922	DODCal U	211559 211544 211586 211540 211543 211542 211485	240	M15243 M15246 M15244	V5015	M15249,15250 M15245,58 M15247
5/3/22	0944 / 0113	[illegible]	050322	DODCal U	211559 211584 211608,29 211582,81 211652 211583 211661	240	M15243 M15246 M15244	V5019	M15249,50,4 M15245,58 M15247

Comments: _____

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Checked By / Date: _____

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version V5023	Comments
5/9/22	0732/0822	[signature]	050922	DODCal W	211673 211814 211711 211759 211675 211758 211760 211763 211762 211782 211764 211761 211678	220	M15243 M15246 M15244	M15243 M15246 M15244	M15249, 50, 48 M15245, 58 M15247
5/10/22	1103 / 2151	[signature]	051022	DODCal W	211671 211660 211581, 82 211584 211863, 67, 211841, 211833 211873 211857, 211882	220	M15243 M15246 M15244	V5025 V5024	
5/18/22	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								
	/								

Comments: _____

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Checked By / Date: _____

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: Cetac M-6000A

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
4/6/22	0852	0952	MDS	210763	0406225	M15344	7.221	J533110-2104	$SnCl_2$: M15351
4/13/22	0914	1421	MDS	211064 ~~210~~ 211059, 211060, 211061, 211062, 211063	041322W	M15354	7.243	J533110-2104	$SnCl_2$: M15361
4/14/22	0953	1122	MDS	211066, 211065	041422S	M15354	7.163	J533110-2104	$SnCl_2$: M15361
4/20/22	0900	1218	MDS	211257, 211244, 211246, 211248 211261, 211260, 211256, 211253,	042022W	M15367	7.368	J533110-2104	$SnCl_2$: M15373
4/20/22	1231	1440	MDS	211252	042022BW	M15367	7.343	J533110-2104	$SnCl_2$: M15373
4/21/22	0900	1501	MDS	211259 211245, 211250, 211251, 211253, 211254	042122W	M15367	7.454	J533110-2104	$SnCl_2$: M15373
4/22/22	0829	0958	MDS	211340, 211341, 211342, 211343	042222S	M15367	7.442	J533110-2104	$SnCl_2$: M15373
4/27/22	1009	1116	MDS	211341, 211482	042722S	M15376	7.497	J533110-2104	$SnCl_2$: M15383
4/27/22	1135	1345	MDS	211260, 211493, 211494, 211495, 211496	042722W	M15376	7.523	J533110-2104	$SnCl_2$: M15383
5/4/22	0957	1144	MDS	211699, 211700, 211701	050422W	M15387	7.813	J533110-2104	$SnCl_2$: M15394
5/4/22	1200	1410	MDS	211699, 211700, 211701, 211702	050422BW	M15387	7.688	J533110-2104	$SnCl_2$: M15394
5/5/22	0853	1000	MDS	211703	050522S	M15387	7.651	J533110-2104	$SnCl_2$: M15394
5/11/22	0949	1431	MDS	211903, 211904 211898, 211899, 211900, 211901, 211902,	051122W	M15401	8.045	J533110-2104	$SnCl_2$: M15407
5/18/22	0922	1429	MDS	212106, 212107, 212108, 212109	051822S	M15408	7.964	J533110-2104	$SnCl_2$: M15415

Reviewed By/Date:_____

Type	Date/Time	Message	User name	Application	Sequence Name
	05/03/2022 11:00:23	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:08:48	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:16:15	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:24:36	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:33:18	Running Ag 1000 (15)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:40:53	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:48:31	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/03/2022 11:55:49	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:03:06	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:10:47	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:18:27	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:19:37	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:21:49	Autosampler Run Started	NAH	Analyst	
	05/03/2022 12:21:49	Sequence Started	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:22:10	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:22:38	Closing will close the method and all associated samples.	NAH	Analyst	
	05/03/2022 12:29:50	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:37:31	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:45:12	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	05/03/2022 12:52:53	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:00:34	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:08:13	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:15:39	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:22:59	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:30:07	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:37:59	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:46:24	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	05/03/2022 13:53:50	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:02:15	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:10:56	Running Ag 1000 (15)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:18:36	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:26:16	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:28:33	Closing will close the method and all associated samples.	NAH	Analyst	
	05/03/2022 14:33:33	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:40:51	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:48:26	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/03/2022 14:56:07	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:03:49	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:11:26	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:19:35	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:27:15	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:34:55	Running ICV LL ag (1)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:42:36	Running lcsw95236 (2)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:49:51	Running mbw95236 (3)	NAH	Analyst	S_DOD Calibration
	05/03/2022 15:57:30	Running 1136212 (4)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:05:19	Running l1136212 (5)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:13:24	Running dup1136212 (6)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:21:13	Running msw1136212 (7)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:28:17	Running msdw1136212 (8)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:35:21	Running pdsw1136212 (9)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:42:24	Running lcsw95234 (10)	NAH	Analyst	S_DOD Calibration
	05/03/2022 16:49:37	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	05/03/2022 16:56:39	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:03:37	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:11:18	Running mbw95234 (11)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:19:00	Running 1136444 (12)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:26:25	Running msw1136444 (13)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:33:38	Running msdw1136444 (14)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:40:53	Running pdsw1136444 (15)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:48:09	Running lcsw95233 (16)	NAH	Analyst	S_DOD Calibration
	05/03/2022 17:55:30	Running mbw95233 (17)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:03:10	Running 1136312 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:11:10	Running 1136316 (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:19:05	Running 1136320 (20)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:27:18	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:34:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:41:16	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:48:58	Running 1136389 (21)	NAH	Analyst	S_DOD Calibration
	05/03/2022 18:56:50	Running 1136441 (22)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:04:45	Running msw1136441 (23)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:11:57	Running msdw1136441 (24)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:19:13	Running pdsw1136441 (25)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:26:16	Running 1137499 (26)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:33:49	Running msw1137499 (27)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:41:07	Running msdw1137499 (28)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:48:25	Running lcsw95266 (29)	NAH	Analyst	S_DOD Calibration
	05/03/2022 19:55:43	Running mbw95266 (30)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:03:23	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:10:23	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:17:21	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:25:02	Running 1136732 (31)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:32:45	Running 1136764 (32)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:40:23	Running 1136774 (33)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:48:30	Running 1136775 (34)	NAH	Analyst	S_DOD Calibration
	05/03/2022 20:56:41	Running 1136779 (35)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:04:47	Running 1136777 (36)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:12:58	Running msw1136777 (37)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:20:31	Running msdw1136777 (38)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:28:02	Running pdsw1139777 (39)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:35:19	Running lcsw95267 (40)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:42:32	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:49:33	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 21:56:31	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:04:12	Running mbw95267 (41)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:11:53	Running 1137439 (42)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:19:41	Running l1137439 (43)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:27:42	Running dup1137439 (44)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:35:30	Running msw1137439 (45)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:42:33	Running msdw1137439 (46)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:49:36	Running pdsw1137439 (47)	NAH	Analyst	S_DOD Calibration
	05/03/2022 22:56:41	Running lcsw1 (48)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:03:51	Running mbw1 (49)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:11:33	Running 1136768 (50)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:19:51	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	05/03/2022 23:26:52	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:33:51	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:41:31	Running msw1136768 (51)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:49:20	Running vess b 3238 (52)	NAH	Analyst	S_DOD Calibration
	05/03/2022 23:57:08	Running lcsw95220 (53)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:04:30	Running mbw95220 (54)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:12:12	Running 1135451 (55)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:20:09	Running 1135486 (56)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:27:47	Running 1135487 (57)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:35:33	Running 1135488 (58)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:43:11	Running 1136308 (59)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:51:14	Running 1136309 (60)	NAH	Analyst	S_DOD Calibration
	05/04/2022 00:59:18	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:06:19	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:13:17	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:20:58	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:28:35	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:35:38	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:42:38	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	05/04/2022 01:50:19	Plasma off	NAH	iTEVA Control Center	
	05/04/2022 01:50:20	Plasma extinguished successfully	NAH	Analyst	
	05/04/2022 01:50:22	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	05/04/2022 06:47:08	Plasma On	NAH	iTEVA Control Center	
	05/04/2022 06:47:14	Plasma ignition successful	NAH	Analyst	
	05/04/2022 08:00:52	E9000 - : Plasma went out unexpectedly; please refer to error messages	NAH	iTEVA Control Center	
	05/04/2022 10:00:49	Plasma ignition successful	NAH	Analyst	
	05/04/2022 10:01:03	E1133 - : Plasma went out during the exposure; please refer to error me	NAH	Analyst	
	05/04/2022 10:02:01	Plasma ignition successful	NAH	Analyst	
	05/04/2022 12:13:53	Sequence Started	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:13:53	Autosampler Run Started	NAH	Analyst	
	05/04/2022 12:14:13	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:15:04	Closing will close the method and all associated samples.	NAH	Analyst	
	05/04/2022 12:21:43	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:23:06	Unable to calculate IEC factors. Not enough standards or concentration	NAH	Analyst	
	05/04/2022 12:29:26	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:36:56	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:44:31	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:45:55	Unable to calculate IEC factors. Not enough standards or concentration	NAH	Analyst	
	05/04/2022 12:47:06	Unable to calculate IEC factors. Not enough standards or concentration	NAH	Analyst	
	05/04/2022 12:52:10	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	05/04/2022 12:59:45	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:07:07	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:14:19	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:21:16	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:29:19	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:37:36	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:39:47	Closing will close the method and all associated samples.	NAH	Analyst	
	05/04/2022 13:45:26	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	05/04/2022 13:54:08	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:01:41	Closing will close the method and all associated samples.	NAH	Analyst	
	05/04/2022 14:03:17	Running Ag 1000 (15)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:10:48	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	05/04/2022 14:18:15	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:25:23	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:32:33	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:39:52	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:47:21	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/04/2022 14:54:51	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:02:09	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:10:29	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:18:26	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:25:55	Running ICV LL ag (1)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:33:25	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:40:44	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:48:06	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/04/2022 15:54:57	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/04/2022 16:02:28	Plasma extinguished successfully	NAH	Analyst	
	05/04/2022 16:02:30	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	05/06/2022 06:52:00	Plasma ignition successful	NAH	Analyst	
	05/06/2022 14:37:33	Plasma extinguished successfully	NAH	Analyst	
	05/09/2022 06:40:45	Plasma On	NAH	iTEVA Control Center	
	05/09/2022 06:40:50	Plasma ignition successful	NAH	Analyst	
	05/09/2022 07:32:34	Sequence Started	NAH	Analyst	S_DOD Calibration
	05/09/2022 07:32:34	Autosampler Run Started	NAH	Analyst	
	05/09/2022 07:32:55	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	05/09/2022 07:40:19	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	05/09/2022 07:47:44	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	05/09/2022 07:55:06	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:02:27	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:09:48	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:17:06	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:24:20	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:31:24	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:38:20	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:45:32	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	05/09/2022 08:53:29	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:01:01	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:08:49	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:17:00	Running Ag 1000 (15)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:24:25	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:31:49	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:38:57	Running icv (16)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:46:06	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	05/09/2022 09:53:24	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:00:47	Running icb (17)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:08:10	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:15:25	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:22:51	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:29:55	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:37:17	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:44:41	Running lcss zn (2)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:51:27	Running mbszn (3)	NAH	Analyst	S_DOD Calibration
	05/09/2022 10:58:51	Running 1130577 (4)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:06:34	Running 1030577 (5)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	05/09/2022 11:14:18	Running 1030577 (6)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:22:02	Running mss1030577 (7)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:29:01	Running 1133268 (8)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:36:46	Running 1133268 (9)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:44:30	Running 1133268 (10)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:52:15	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/09/2022 11:58:51	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:05:40	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:13:04	Running mss1133268 (11)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:20:04	Running lcsw95267 (12)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:27:14	Running mbw95267 (13)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:34:38	Running 1137439 (14)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:42:10	Running lcsw95233 (15)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:49:19	Running mbw95233 (16)	NAH	Analyst	S_DOD Calibration
	05/09/2022 12:56:43	Running 1136389 (17)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:04:17	Running lcsw95236 (18)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:11:25	Running mbw95236 (19)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:18:48	Running 1136212 (20)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:26:20	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:32:58	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:39:45	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:47:10	Running lcsw95274 (21)	NAH	Analyst	S_DOD Calibration
	05/09/2022 13:54:19	Running mbw95274 (22)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:01:44	Running 1138097 (23)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:09:25	Running msw1138097 (24)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:16:51	Running msdw1138097 (25)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:24:18	Running pdsw1138097 (26)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:31:24	Running 1139106 (27)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:39:13	Running lcsw95316 (28)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:46:22	Running mbw95316 (29)	NAH	Analyst	S_DOD Calibration
	05/09/2022 14:53:46	Running 1138553 (30)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:01:52	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:08:20	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:15:09	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:22:33	Running msw1138553 (31)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:30:13	Running msdw1138553 (32)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:37:55	Running pdsw1138553 (33)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:45:26	Running 1138554 (34)	NAH	Analyst	S_DOD Calibration
	05/09/2022 15:52:59	Running 1138555 (35)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:00:49	Running 1138622 (36)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:08:25	Running 1138623 (37)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:16:02	Running 1138624 (38)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:23:39	Running 1138626 (39)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:31:17	Running 1138641 (40)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:38:53	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:45:28	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:52:16	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	05/09/2022 16:59:42	Running 1138642 (41)	NAH	Analyst	S_DOD Calibration
	05/09/2022 17:07:18	Running 1138643 (42)	NAH	Analyst	S_DOD Calibration
	05/09/2022 17:15:00	Running 1138899 (43)	NAH	Analyst	S_DOD Calibration
	05/09/2022 17:22:42	Running 1139105 (44)	NAH	Analyst	S_DOD Calibration
	05/09/2022 17:30:14	Running msw1139105 (45)	NAH	Analyst	S_DOD Calibration

Standard Log #:	M15411	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15412	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	06/17/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15413	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/17/2022	Expiration Date:	05/18/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.715 in a hood.		

Standard Log #:	M15414	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15415	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/18/2022	Expiration Date:	06/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15408	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15409	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/17/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15410	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/17/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15404	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15405	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/10/2022	Expiration Date:	06/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

Standard Log #:	M15406	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15407	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/11/2022	Expiration Date:	06/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15401	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15402	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/10/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15403	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/10/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15395	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1154439-14
Expiration Date (if any):	10/2023	Catalog #:	4400-10M544

Standard ID#:	M15396	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1191653-5
Expiration Date (if any):	10/2023	Catalog #:	4400-10M311

Standard ID#:	M15397	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1144484-28
Expiration Date (if any):	10/2023	Catalog #:	4400-10M11

Standard ID#:	M15398	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	05/03/2022	Lot #:	1197533-32
Expiration Date (if any):	10/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15399	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 ug/mL
Date Received:	05/03/2022	Lot #:	1112960-63
Expiration Date (if any):	10/2023	Catalog #:	4400-10M91

Standard ID#:	M15400	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	05/04/2022	Lot #:	276712
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15390	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15391	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	06/03/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15392	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/03/2022	Expiration Date:	05/04/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15393	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15394	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/04/2022	Expiration Date:	06/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15387	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15388	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/03/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15389	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/03/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15385	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15386	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/02/2022	Expiration Date:	05/02/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15384. Dilute to 20 L and mix.		

Standard Log #:	M15382	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15383	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/27/2022	Expiration Date:	05/27/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

Standard Log #:	M15384	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	04/27/2022	Expiration Date:	09/27/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15379	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15380	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	05/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15381	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/26/2022	Expiration Date:	04/27/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15376	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15377	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/26/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15378	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/26/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15374	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15375	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/21/2022	Expiration Date:	05/21/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15372	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15373	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/20/2022	Expiration Date:	05/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15307 and brought up to volume.		

Standard Log #:	M15370	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15371	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/19/2022	Expiration Date:	05/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M15305 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15367	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15368	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/19/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15369	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/19/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15366	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/18/2022	Expiration Date:	04/18/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15365	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/15/2022	Expiration Date:	08/31/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M15174 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M15362	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15363	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M15316 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15364	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/13/2022	Expiration Date:	04/13/2023
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M15317 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15357	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15358	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	05/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15359	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/12/2022	Expiration Date:	04/13/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15360	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15361	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/13/2022	Expiration Date:	05/13/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15354	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15355	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/12/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15356	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/12/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15352	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	04/06/2022	Expiration Date:	04/06/2023
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.711 in a hood.		

Standard ID#:	M15353	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	04/06/2022	Lot #:	1-129AJ
Expiration Date (if any):	04/30/2022	Catalog #:	XCTWI-1-500

Standard Log #:	M15347	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15348	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	05/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15349	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/04/2022	Expiration Date:	04/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15350	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15351	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/05/2022	Expiration Date:	05/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15344	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15345	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15346	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M15342	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M152027 0.5 **mL** 10000 mg/L Cu M15021 5.0 **mL** 1000 mg/L Co M15019 5.0 **mL** 1000 mg/L Mo M15170 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15343	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	03/29/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M15095 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15338	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15339	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/29/2022	Expiration Date:	03/29/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	ICP 6500
Standard Log #:	M15340	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	02/2023
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M15023 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15341	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/29/2022	Expiration Date:	09/2022
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 1000 mg/L Be M15091 5.0 **mL** 1000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M15333	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15334	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	04/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15335	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/28/2022	Expiration Date:	03/29/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15336	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15337	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/29/2022	Expiration Date:	04/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15330	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15331	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/28/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15332	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/28/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP
Standard Log #:	M15329	Standard:	Pb ICV
Analyst:	NAH	Concentrations:	500 ug/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	06/23
Prep:	Into a 1 L volumetric flask, pipetted **0.5 mL** Pb (1000 mg/L) M15289 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

		Instrument:	ICP 6500
Standard Log #:	M15326	Standard:	Pb ICAL
Analyst:	NAH	Concentrations:	10,100, 1000, and 10,000, 100,000 µg/L (Pb)
Prep Date:	03/21/2022	Expiration Date:	03/2023
Prep:	Into four, 1 L volumetric flasks, pipetted the following from Pb (10000 µg/mL) M15045 and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) *10 µg/L std.* - **0.001mL** *100 µg/L std.* - **0.01mL** 1000 µg/L std - **0.10 mL** *10,000 µg/L std.* - **1.0 mL** 100,000 µg/L std -**10.0 mL**		

		Instrument:	ICP 6500
Standard Log #:	M15327	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Pb
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted 0.5 **mL** 10,000 mgL M15045 Pb and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15328	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Pb,
Prep Date:	03/21/2022	Expiration Date:	03/23
Prep:	Into a 1 L volumetric flask, pipetted .05 **mL** ml 10,000 mg/L M15045 Pb and brought up to volume with milli-Q H_2O.		

Standard Log #:	M15321	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15322	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	04/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15323	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/22/2022	Expiration Date:	03/23/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.711 in a hood.		

Standard Log #:	M15324	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15325	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/23/2022	Expiration Date:	04/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15318	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15319	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/22/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15320	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/22/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15316	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	03/18/2022	Lot #:	T2-MEB716384
Expiration Date (if any):		Catalog #:	CTI-SPK-1

Standard ID#:	M15317	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/Spike
Date Received:	03/18/2022	Lot #:	T2-MEB716383
Expiration Date (if any):		Catalog #:	CTI-GFCAL-1

Standard Log #:	M15311	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15312	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	04/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15313	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/15/2022	Expiration Date:	03/16/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15314	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15315	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/16/2022	Expiration Date:	04/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15308	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15309	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15310	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15305	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate 99%
Date Received:	03/10/2022	Lot #:	A0426185
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M15306	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15307	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	03/10/2022	Lot #:	M012-04
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M15300	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15301	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	04/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15302	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/08/2022	Expiration Date:	03/09/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15303	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15304	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/09/2022	Expiration Date:	04/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15165 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15297	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15298	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/08/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15299	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/08/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15296	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M15292	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15293	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15294	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/07/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15295	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/07/2022	Expiration Date:	03/07/2023
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15291	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	03/04/2022	Expiration Date:	01/2023

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M15222	1000	0.01
As	2	M15223	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M15220	1000	0.1
Se	2	M15217	1000	0.1
Tl	2	M15221	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15290	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	03/04/2022	Expiration Date:	01/2023

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M15223	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M15221	10,000
Se	1	1000	M15217	10,000
Sb	1	1000	M15220	10,000
Ag	0.1	1000	M15222	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard ID#:	M15286	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	03/02/2022	Lot #:	211029
Expiration Date (if any):	04/30/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15287	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

Standard ID#:	M15288	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 ug/mL
Date Received:	03/02/2022	Lot #:	1137797-18
Expiration Date (if any):	06/2023	Catalog #:	4400-10M411

Standard ID#:	M15289	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 1000 ug/mL
Date Received:	03/02/2022	Lot #:	1046594-72
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000281

Standard Log #:	M15281	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	04/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15282	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2022	Expiration Date:	03/02/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15283	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15284	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15285	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2022	Expiration Date:	04/02/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15278	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15279	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15280	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15277	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/28/2022	Lot #:	58-137CR
Expiration Date (if any):	02/28/2023	Catalog #:	XSPIKE-1-250

Standard Log #:	M15275	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15276	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/23/2022	Expiration Date:	03/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15270	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	03/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15271	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/21/2022	Expiration Date:	02/22/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15272	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15273	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/22/2022	Expiration Date:	03/22/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

Standard ID#:	M15274	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/23/2022	Lot #:	1-021JA
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-5-500

		Instrument:	HydraII
Standard Log #:	M15267	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15268	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/21/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15269	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/21/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15263	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M15264 and brought up to volume.		

Standard Log #:	M15264	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/15/2022	Expiration Date:	03/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15265	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15266	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/16/2022	Expiration Date:	03/16/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15260	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15261	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/15/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15262	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/15/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15259	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	100 mg/mL Custom Standard
Date Received:	02/11/2022	Lot #:	58-054CR
Expiration Date (if any):	02/28/2023	Catalog #:	XCTWI-4-500

Standard Log #:	M15254	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15255	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	03/09/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15256	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/09/2022	Expiration Date:	02/10/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15257	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15258	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2022	Expiration Date:	03/10/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15251	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15252	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15253	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15250	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 10 ICVLL
Date Received:	02/08/2022	Lot #:	.01 mls m15222 into 1000 ml vol.
Expiration Date (if any):	06/2023	Catalog #:	

MRL BASE STD M15249 Analyst NAH

Prep Date 02/08/2022

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M15222	1000	1	07/2022
Al	400	M15112	10000	2	xx
Ba	10	M14772	1000	0.5	xx
Be	4	M15091	1000	0.2	xx
Cd	5	M15098	1000	0.25	xx
Co	10	M15019	1000	0.5	xx
Cr	10	M15027	10000	0.05	xx
Cu	10	M15021	10000	0.05	xx
Mg	500	M15174	10000	2.5	xx
Mn	10	M15023	10000	0.05	xx
Mo	10	M15170	1000	0.5	xx
Ni	10	M15095	1000	0.5	xx
Pb	10	M15045	10000	0.05	xx
Sb	20	M15229	1000	1	xx
V	10	M15020	1000	0.5	xx
Zn	10	M15114	10000	0.05	xx
K	1000	M15173	10000	5	xx
Na	1000	M15172	10000	5	xx
As	20	M15223	1000	1	xx
Ca	500	M15026	10000	2.5	xx
Fe	300	M15169	10000	1.5	xx
Se	20	M15217	1000	1	xx
Tl	20	M15221	1000	1	xx
Si	100	M15171	1000	5	xx
B	20	M14966	1000	1	xx
Li	20	M14681	1000	1	xx
W	50	Mxxxxxxx	1000	2.5	xx
Ti	10	M14674	1000	0.5	xx
Sr	10	M14775	1000	0.5	xx
Sn	50	M14774	1000	2.5	xx
S	300	M15025	10000	1.5	xx

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15248	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M15068 and 15 **mL** 10000 mg/L Fe M15169 5.0 **mL** 1000 mg/L V M15020 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15246	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	02/0/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M15167, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14775, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) Mxxxxxxx, **0.5 mL** Si (1000 mg/L) M15219,**0.5 mL** S (10000 mg/L) M14677, **0.5 mL** K (10000 mg/L) M15116, and **0.5 mL** K (10000 mg/L) Na M15097		

		Instrument:	ICP 6500
Standard Log #:	M15247	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/08/2022	Expiration Date:	11/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M15068, **15 mL** Fe (10,000 mg/L) M15169, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M15134, **2.5 mLs Na 10,000 ug/mL** M15172, **2.5 mLs k 10,000 ug/mL** M15173 **2.5 mLs S 10,000 ug/mL** M15025, **0.5 mls Si 1000 ug/mL** M15088 and brought up to volume with milli-Q .		

		Instrument:	ICP 6500
Standard Log #:	M15244	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **100,000 ug/L** K, Na, S. **500 µg/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn Si) M15134,M15 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) 0.5 ml M150 10 mls of 10,000 mgL M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15245	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 ug/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn, Si. **10,000 ug/L** K, Na, S **50 ug/L** Ag, Be, Cd
Prep Date:	02/08/2022	Expiration Date:	07/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134 and 0.5 **mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) .05 ml M152 and .5 ml M15171 Si and 1 ml 10,000 mg/L M15173 K, M15172 Na, M15025 S and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15243	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/08/2022	Expiration Date:	11/2022

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15134, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) 1ml M15098,M and **1 mL** of Si (1000 mg/L) M15171 and 1 mL M14682 Ce and 1 ml M15108 Hg and 0.1 ml of 10,000 mg/L M15173 K and M15172 Na and M15025 S and M15166 P. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M15114.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M15174, **10 mL** of Fe (10,000 mg/L) M15169, **10 mL** of Ca (10,000 mg/L) M15026 and **10 mL** Al (10,000 mg/L) M15112,10 mL of Na (10000) M15172, 10 mL K (10,000) M15173, 10 mL S (10,000) M15025,10 mL P (10,1000), M15166 10 mL Si (1000) M15171.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L),**50 mL** of Al (10,000 mg/L), 50 mL of Na (10,000), 50 mL of K (10,000).
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) **100 mL** of Al (10,000 mg/L),100 mL of Na (10,000 mg/L)100 mL of K (10,000 mg/L) 100 mL S (10,000 mg/L) 100 ml of P (10,000 mg/L).

Standard Log #:	M15242	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL Spike Soln
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	20	M14772	1000	1
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15241	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ solid QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M15222	1000	2
Al	800	M15112	**10000**	4
As	40	M15223	1000	2
Ba	40	M14772	1000	2
Be	8	M15091	1000	0.4
Ca	1000	M15026	**10000**	5
Cd	10	M15098	1000	0.5
Co	20	M15019	1000	1
Cr	20	M15027	**10000**	0.1
Cu	20	M15021	**10000**	0.1
Fe	600	M15169	**10000**	3
Mg	1000	M15174	**10000**	5
Mn	20	M15023	**10000**	0.1
Mo	20	M15170	1000	1
Ni	20	M15095	1000	1
Pb	20	M15045	**10000**	0.1
Sb	40	M15220	1000	2
Se	40	M15217	1000	2
Tl	40	M15221	1000	2
V	20	M15020	1000	1
Zn	20	M15114	**10000**	0.1
Na	10000	M15172	**10000**	50
K	10000	M15173	**10000**	50
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15240	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	02/08/2022	Expiration Date:	07/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M15222	1000	0.25
Al	120	M15112	**10000**	0.6
As	40	M15223	1000	2
Ba	4	M14772	1000	0.2
Be	8	M15091	1000	0.4
Ca	100	M15026	**10000**	0.5
Cd	2	M15098	1000	0.1
Co	5	M15019	1000	0.25
Cr	5	M15027	**10000**	0.025
Cu	40	M15021	**10000**	0.2
Fe	80	M15169	**10000**	0.4
Mg	40	M15174	**10000**	0.2
Mn	5	M15023	**10000**	0.025
Mo	5	M15170	1000	0.25
Ni	5	M15095	1000	0.25
Pb	20	M15045	**10000**	0.1
Sb	20	M15220	1000	1.0
Se	20	M15217	1000	2
Tl	40	M15221	1000	2
V	5	M15020	1000	0.25
Zn	20	M15114	**10000**	0.1
Na	700	M15172	**10000**	3.5
K	500	M15173	**10000**	2.5
B	40	M14966	1000	2
Si	200	M15171	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M15025	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M15236	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15237	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/25/2022	Expiration Date:	02/25/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15238	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15239	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/26/2022	Expiration Date:	02/26/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15233	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15234	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/25/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15235	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/25/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15232	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod
Date Received:	01/18/2022	Lot #:	276713
Expiration Date (if any):	07/31/2023	Catalog #:	39043

Standard Log #:	M15227	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15228	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	02/18/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15229	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/18/2022	Expiration Date:	01/19/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15230	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15231	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/19/2022	Expiration Date:	02/19/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15164 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15224	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15225	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/18/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15226	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/18/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15217	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	01/13/2022	Lot #:	1135995-21
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000491

Standard ID#:	M15218	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	01/13/2022	Lot #:	1157358-14
Expiration Date (if any):	06/2023	Catalog #:	4400-10M671

Standard ID#:	M15219	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/13/2022	Lot #:	211029
Expiration Date (if any):	04/30/2022	Catalog #:	S4400-1000504F

Standard ID#:	M15220	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	1/13/2022	Lot #:	1129139-6
Expiration Date (if any):	06/2023	Catalog #:	S4400-100023

Standard ID#:	M15221	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	01/13/2022	Lot #:	1025512-61
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000581

Standard ID#:	M15222	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	01/13/2022	Lot #:	1106123-69
Expiration Date (if any):	06/2023	Catalog #:	S4400-1000511

Standard ID#:	M15223	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	01/13/2022	Lot #:	1103713-64
Expiration Date (if any):	06/2023	Catalog #:	S4400-100031

Standard Log #:	M15213	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15214	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2022	Expiration Date:	02/11/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

Standard Log #:	M15215	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15216	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2022	Expiration Date:	02/12/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15210	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15211	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15212	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15205	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15206	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	02/04/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15207	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/04/2022	Expiration Date:	01/05/2022
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15208	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15209	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/05/2022	Expiration Date:	02/05/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15202	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15203	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/04/2022	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15204	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/04/2022	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M15199	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15200	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15201	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/03/2022	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M15194	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15195	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	01/28/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15196	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/28/2021	Expiration Date:	12/29/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15197	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15198	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/29/2021	Expiration Date:	01/29/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15191	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15192	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/28/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15193	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/28/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15186	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15187	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	01/20/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15188	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/20/2021	Expiration Date:	12/21/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15189	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15190	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/21/2021	Expiration Date:	01/21/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15183	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15184	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/20/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15185	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/20/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15180	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15144 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15181	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/15/2021	Expiration Date:	01/15/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15182	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/20/2021	Expiration Date:	12/20/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M15153. Dilute to 20 L and mix.		

Standard Log #:	M15178	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15179	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/14/2021	Expiration Date:	01/14/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15175	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15176	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/14/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15177	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/14/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15169	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Iron
Date Received:	12/13/2021	Lot #:	1034257-77
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M261

Standard ID#:	M15170	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Molybdenum
Date Received:	12/13/2021	Lot #:	1138256-5
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000343

Standard ID#:	M15171	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15172	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Sodium
Date Received:	12/13/2021	Lot #:	1122472-6
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M521

Standard ID#:	M15173	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Potassium
Date Received:	12/13/2021	Lot #:	1137797-18
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M411

Standard ID#:	M15174	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	10,000 ug/mL Magnesium
Date Received:	12/13/2021	Lot #:	1075232-54
Expiration Date (if any):	06/13/2023	Catalog #:	4400-10M311

Standard ID#:	M15164	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15165	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/10/2021	Lot #:	L259-10
Expiration Date (if any):	N/A	Catalog #:	LC251701

Standard ID#:	M15166	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	10,000 ug/mL Phosphorus
Date Received:	12/13/2021	Lot #:	AR18-111PY
Expiration Date (if any):	12/30/2022	Catalog #:	PLP9-3Y

Standard ID#:	M15167	Vendor:	SPEX CERTIPREP
Analyst:	BMM	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	12/13/2021	Lot #:	57-204CR
Expiration Date (if any):	12/30/2022	Catalog #:	XSPIKE-1-250

Standard ID#:	M15168	Vendor:	CPI INTERNATIONAL
Analyst:	BMM	Chemical:	1,000 ug/mL Silicon
Date Received:	12/13/2021	Lot #:	1198119-3
Expiration Date (if any):	06/13/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15163	Vendor:	Decon Labs
Analyst:	NAH	Chemical:	Dri-Clean lab detergent
Date Received:	12/08/2021	Lot #:	1J519
Expiration Date (if any):	----------	Catalog #:	2502

Standard Log #:	M15158	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15159	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	01/07/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15160	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/07/2021	Expiration Date:	12/08/2021
Prep:	Carefully mixed **3** parts HCl AB.706 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15161	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15162	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/08/2021	Expiration Date:	01/08/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.706 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15155	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15156	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/07/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15157	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/07/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15153	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	12/01/2021	Expiration Date:	05/01/2022
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC310 and brought up to volume.		

Standard Log #:	M15154	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	12/01/2021	Expiration Date:	12/01/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard Log #:	M15148	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15149	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15150	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/30/2021	Expiration Date:	12/01/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.708 in a hood.		

Standard Log #:	M15151	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15152	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/01/2021	Expiration Date:	01/01/2022
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15145	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15146	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/30/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15147	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/30/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15144	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	11/29/2021	Lot #:	A0431536
Expiration Date (if any):		Catalog #:	198530010

Standard ID#:	M15143	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	11/22/2021	Lot #:	2123812-500
Expiration Date (if any):	05/31/2023	Catalog #:	HP10M67-1-500

Standard Log #:	M15138	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15139	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	12/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15140	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/16/2021	Expiration Date:	11/17/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15141	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M15056 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15142	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/17/2021	Expiration Date:	12/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15135	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15136	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/16/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15137	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/16/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15134	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/11/2021	Lot #:	1-040EL
Expiration Date (if any):	11/20/2022	Catalog #:	XCTWI-5-500

Standard Log #:	M15129	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15130	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	12/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15131	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/10/2021	Expiration Date:	11/11/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15132	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15133	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/11/2021	Expiration Date:	12/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15126	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15127	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/10/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15128	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/10/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15124	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/04/2021	Expiration Date:	12/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15125	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/05/2021	Expiration Date:	12/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15057 and brought up to volume.		

Standard Log #:	M15121	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15122	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	12/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15123	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/03/2021	Expiration Date:	11/04/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard ID#:	M15117	Vendor:	SPEX CertiPrep
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/03/2021	Lot #:	CL12-145HGY
Expiration Date (if any):	10/30/2022	Catalog #:	CLHG4-2Y

		Instrument:	HydraII
Standard Log #:	M15118	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15119	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/03/2021	Expiration Date:	01/22/2023
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M15108 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15120	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/03/2021	Expiration Date:	10/30/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M15117 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15112	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1144484-5
Expiration Date (if any):	04/2023	Catalog #:	4400-10M11

Standard ID#:	M15113	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	KD37797-20
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411-500

Standard ID#:	M15114	Vendor:	CPI
Analyst:	NAH	Chemical:	ZN 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1149838-4
Expiration Date (if any):	04/2023	Catalog #:	S4400-10M681

Standard ID#:	M15115	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1157358-4
Expiration Date (if any):	04/2023	Catalog #:	4400-10M671

Standard ID#:	M15116	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 mg/L
Date Received:	10/25/2021	Lot #:	1137797-18
Expiration Date (if any):	04/2023	Catalog #:	4400-10M411

		Instrument:	GFAA
Standard Log #:	M15109	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15110	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M15111	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/25/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M15108	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	10/21/2021	Lot #:	1084154-49
Expiration Date (if any):	01/22/2023	Catalog #:	S4400-1000331

Standard Log #:	M15103	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15104	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	11/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15105	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/19/2021	Expiration Date:	10/20/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15106	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15107	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/20/2021	Expiration Date:	11/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M15058 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15100	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15101	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15102	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15099	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	10/15/2021	Expiration Date:	02/2022

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M15045	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M15094	Vendor:	CPI
Analyst:	NAH	Chemical:	MG 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1075232-5
Expiration Date (if any):	09/2022	Catalog #:	4400-10M311

Standard ID#:	M15095	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	10/14/2021	Lot #:	1049780-73
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000361

Standard ID#:	M15096	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	10/14/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15097	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1055526-35
Expiration Date (if any):	11/2022	Catalog #:	4400-10M521

Standard ID#:	M15098	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	10/14/2021	Lot #:	1080470-23
Expiration Date (if any):	01/2023	Catalog #:	S4400-100081

Standard ID#:	M15090	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1079898-11
Expiration Date (if any):	01/2023	Catalog #:	S4400-10M391

Standard ID#:	M15091	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	10/14/2021	Lot #:	1072683-57
Expiration Date (if any):	01/2023	Catalog #:	S4400-100051

Standard ID#:	M15092	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1072921-23
Expiration Date (if any):	01/2023	Catalog #:	4400-10M91

Standard ID#:	M15093	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	10/14/2021	Lot #:	1034257-71
Expiration Date (if any):	03/2023	Catalog #:	4400-10M261

Standard Log #:	M15086	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15087	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/13/2021	Expiration Date:	11/13/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14949 and brought up to volume.		

Standard ID#:	M15088	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/L
Date Received:	10/13/2021	Lot #:	1047570-102
Expiration Date (if any):	03/2023	Catalog #:	S4400-1000504F

Standard ID#:	M15089	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/13/2021	Lot #:	57-130CR
Expiration Date (if any):	10/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M15083	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15084	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	11/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15085	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/12/2021	Expiration Date:	10/13/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

		Instrument:	HydraII
Standard Log #:	M15080	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15081	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/12/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15082	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/12/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15079	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/11/2021	Expiration Date:	02/2022

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M15045	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

Standard Log #:	M15074	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15075	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	11/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15076	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/05/2021	Expiration Date:	10/06/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15077	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15078	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/06/2021	Expiration Date:	11/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15071	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15072	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/05/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15073	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/05/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15067	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/04/2021	Expiration Date:	08/20/2022
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M15008 and **10 mL** Mg (10,000 mg/L) M14739 and brought up to volume.		

Standard ID#:	M15068	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/4/2021	Lot #:	18-102WLX
Expiration Date (if any):	09/22	Catalog #:	INT-A1

Standard ID#:	M15069	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	10/04/2021	Lot #:	1-181-PC
Expiration Date (if any):	09/30/2022	Catalog #:	XCTWI-1-500

MRL BASE STD M15066 Analyst NAH

Prep Date 10/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M15098	10000	2	02/23
Ba	10	M14772	1000	0.5	09/22
Be	4	M15203	1000	0.2	09/22
Cd	5	M14201	1000	0.25	09/22
Co	10	M15019	1000	0.5	02/23
Cr	10	M15027	10000	0.05	02/23
Cu	10	M15021	10000	0.05	02/23
Mg	500	M14739	10000	2.5	08/22
Mn	10	M15023	10000	0.05	02/23
Mo	10	M15022	1000	0.5	02/23
Ni	10	M14196	1000	0.5	xx
Pb	10	M15045	10000	0.05	03/23
Sb	20	M14622	1000	1	02/22
V	10	M15020	1000	0.5	02/23
Zn	10	M14197	10000	0.05	xx
K	1000	M14887	10000	5	11/22
Na	1000	M14969	10000	5	01/23
As	20	M14621	1000	1	02/22
Ca	500	M15026	10000	2.5	02/23
Fe	300	M15024	10000	1.5	02/23
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14968	1000	5	01/23
B	20	M14966	1000	1	01/23
Li	20	M14681	1000	1	07/22
W	50	xxxxx	1000	2.5	xxxxx
Ti	10	M14674	1000	0.5	07/22
Sr	10	M14683	1000	0.5	07/22
Sn	50	M14774	1000	2.5	09/22
S	300	M14773	10000	1.5	09/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M15064	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M15204, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15065	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833 and **15 mL** Fe (10000 mg/L) M15024 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15061	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15062	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15028 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M15063	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	10/04/2021	Expiration Date:	01/30/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14988, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M15022, **0.5 mL** B (1000 mg/L) M14966, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774 and **0.5 mL** Ti (1000 mg/L) M14674.		

		Instrument:	ICP 6500
Standard Log #:	M15060	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	10/14/2021	Expiration Date:	01/30/2022
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M15828, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14968 and 1 mL M14682 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M15046. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M15021, **10 mL** of Mn (10,000 mg/L) M15023, **10 mL** of Cr (10,000 mg/L) M15027, **10 mL** Pb (10,000 mg/L) M15045, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14969. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14739, **10 mL** of Fe (10,000 mg/L) M15024, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14737. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

Standard Log #:	M15059	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/29/2021	Expiration Date:	10/29/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14946. Dilute to 20 L and mix.		

Standard ID#:	M15057	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15058	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	09/23/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M15056	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	09/22/2021	Lot #:	A0428169
Expiration Date (if any):		Catalog #:	198531000

Standard Log #:	M15051	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15052	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	10/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15053	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/20/2021	Expiration Date:	09/21/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15054	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15055	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/21/2021	Expiration Date:	10/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15048	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15049	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15050	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15047	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MRZ	pH:	4.93 ± 0.05
Prep Date:	09/09/2021	Expiration Date:	09/09/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard ID#:	M15045	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10,000 mg/L
Date Received:	09/15/2021	Lot #:	1035677-18
Expiration Date (if any):	03/2023	Catalog #:	4400-10M281

Standard ID#:	M15046	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,1000 mg/L
Date Received:	09/15/2021	Lot #:	1137797-13
Expiration Date (if any):	03/2023	Catalog #:	4400-10M411-500

Standard Log #:	M15040	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15041	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	10/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15042	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/14/2021	Expiration Date:	09/15/2021
Prep:	Carefully mixed **3** parts HCl AB.707 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15043	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15044	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/15/2021	Expiration Date:	10/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.707 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15037	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15038	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15039	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M15032	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15033	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	10/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15034	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/01/2021	Expiration Date:	09/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15035	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15036	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/02/2021	Expiration Date:	10/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14940 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15029	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15030	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/01/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15031	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/01/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15023	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10,000 mg/L
Date Received:	08/30/2021	Lot #:	985851-80
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M321

Standard ID#:	M15024	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1034257-71
Expiration Date (if any):	02/2023	Catalog #:	4400-10M261

Standard ID#:	M15025	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1050965-59
Expiration Date (if any):	02/2023	Catalog #:	4400-10M544

Standard ID#:	M15026	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1072921-23
Expiration Date (if any):	02/2023	Catalog #:	4400-10M91

Standard ID#:	M15027	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1076194-26
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M121

Standard ID#:	M15028	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	NAH	Lot #:	17-023AB
Expiration Date (if any):	AUG 30,2022	Catalog #:	XCTWI-5-500

Standard ID#:	M15018	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1077245-48
Expiration Date (if any):	02/2023	Catalog #:	4400-10M11

Standard ID#:	M15019	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	08/30/2021	Lot #:	1107088-1
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000131

Standard ID#:	M15020	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/30/2021	Lot #:	1055682-88
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000651

Standard ID#:	M15021	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10,000 mg/L
Date Received:	08/30/2021	Lot #:	1063159-57
Expiration Date (if any):	02/2023	Catalog #:	S4400-10M141

Standard ID#:	M15022	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	08/30/2021	Lot #:	1075718-15
Expiration Date (if any):	02/2023	Catalog #:	S4400-1000343

Standard Log #:	M15013	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15014	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	09/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15015	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/24/2021	Expiration Date:	08/25/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15016	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15017	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/25/2021	Expiration Date:	09/25/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15010	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15011	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/24/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15012	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/24/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M15009	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	08/23/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

Standard ID#:	M15008	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Palladium Matrix Modifier
Date Received:	08/19/2021	Lot #:	2113302-100
Expiration Date (if any):	08/31/2022	Catalog #:	HP1900-100

Standard Log #:	M15003	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M15004	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15005	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	08/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M15006	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M15007	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/18/2021	Expiration Date:	09/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14939 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M15000	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M15001	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/18/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M15002	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/18/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14997	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14998	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14999	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	08/13/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14992	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14993	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	09/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14994	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/10/2021	Expiration Date:	08/11/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14995	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14996	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/11/2021	Expiration Date:	09/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14989	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14990	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/10/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14991	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/10/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14987	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-190MF
Expiration Date (if any):	08/30/2022	Catalog #:	XCTWI-1-500

Standard ID#:	M14988	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/09/2021	Lot #:	5-189MF
Expiration Date (if any):	08/30/2021	Catalog #:	XSPIKE-1-250

Standard Log #:	M14982	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14983	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	09/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14984	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/03/2021	Expiration Date:	08/04/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14985	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14986	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/04/2021	Expiration Date:	09/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14979	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14980	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/03/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14981	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/03/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14978	Vendor:	Enviromental Express
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	05/20/2021	Lot #:	400175-1116-T
Expiration Date (if any):		Catalog #:	FG77150MM

Standard Log #:	M14973	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14974	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	08/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14975	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/27/2021	Expiration Date:	07/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14976	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14977	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2021	Expiration Date:	08/29/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14970	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14971	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/27/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14972	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/27/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14966	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 10,000 mg/L
Date Received:	07/27/2021	Lot #:	1101946-16
Expiration Date (if any):	01/2023	Catalog #:	S4400-100074

Standard ID#:	M14967	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 mk/L
Date Received:	07/27/2021	Lot #:	1109477-26
Expiration Date (if any):	01/2023	Catalog #:	4400-10M671

Standard ID#:	M14968	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2021	Lot #:	1047570-64
Expiration Date (if any):	01/2023	Catalog #:	S4400-1000504F

Standard ID#:	M14969	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000
Date Received:	07/27/2021	Lot #:	1055526-35
Expiration Date (if any):	01/2023	Catalog #:	4400-10M521

		Instrument:	CETAC
Standard Log #:	M14963	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

Standard Log #:	M14964	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/22/2021	Expiration Date:	07/22/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14964. Dilute to 20 L and mix.		

Standard Log #:	M14965	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	07/23/2021	Expiration Date:	07/23/2022
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.704 and brought up to volume.		

Standard Log #:	M14959	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14960	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	08/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14961	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/20/2021	Expiration Date:	07/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14962	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/21/2021	Expiration Date:	08/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14956	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14957	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/20/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14958	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/20/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14955	Vendor:	GFS Chemicals
Analyst:	NAH	Chemical:	AMCO Clear 2.0 NTU
Date Received:	07/16/2021	Lot #:	21150075
Expiration Date (if any):	07/22/2022	Catalog #:	8008

Standard Log #:	M14950	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14951	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	08/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14952	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/14/2021	Expiration Date:	07/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14953	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14954	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/15/2021	Expiration Date:	08/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14947	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14948	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/14/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14949	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/14/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14944	Standard:	ICV Std.
Analyst:	nah	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	07/09/2021	Expiration Date:	08/2022
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14874, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **0.5 mL** Mo (1000 mg/L) M14888, **0.5 mL** B (1000 mg/L) M14675, **0.5 mL** Sr (1000 mg/L) M14683, **0.5 mL** Li (1000 mg/L) M14681, **0.5 mL** Sn (1000 mg/L) M14774, **0.5 mL** Ti (1000 mg/L) M14674, **0.5 mL** W (1000 mg/L) XXXXXXX, **0.5 mL** Si (1000 mg/L) M14680, **0.5 mL** S (10000 mg/L) M14570, **0.5 mL** K (10000 mg/L) M14887, and **0.5 mL** Na (10000 mg/L) M14736		

Standard Log #:	M14945	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/12/2021	Expiration Date:	07/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14946	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/14/2021	Expiration Date:	12/14/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC272 and brought up to volume.		

Standard ID#:	M14939	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14940	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	07/09/2021	Lot #:	L069-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14941	Vendor:	GFS
Analyst:	NAH	Chemical:	AMCO Clear 0.1 ntu
Date Received:	07/12/2021	Lot #:	Returned to manufacturer
Expiration Date (if any):	not used	Catalog #:	not used

		Instrument:	ICP 6500
Standard Log #:	M14942	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	07/09/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14833 and 15 **mL** 10000 mg/L Fe M14676 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14943	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	07/09/2021	Expiration Date:	12/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14833, **15 mL** Fe (10,000 mg/L) M14676, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788, **2.5 mLs Na 10,000 ug/mL** M14736 **,2.5 mLs k 10,000 ug/mL** M14370 **2.5 mLs S 10,000 ug/mL** M14677, **0.5 mls Si 1000 ug/mL** M14735 and brought up to volume with milli-Q .		

Standard Log #:	M14938	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	07/08/2021	Expiration Date:	07/08/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703. Dilute to 20 L and mix.		

Standard Log #:	M14933	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14934	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	08/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14935	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/07/2021	Expiration Date:	07/08/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14936	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14937	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/08/2021	Expiration Date:	08/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14844 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14930	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14931	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/07/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14932	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/07/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14925	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14926	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14799 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14927	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	07/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14928	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14929	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/01/2021	Expiration Date:	08/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14922	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14923	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/30/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14924	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/30/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14921	Vendor:	LabChem
Analyst:	NAH	Chemical:	Turbidity Standard(Formazin) 4000NT
Date Received:	06/25/2021	Lot #:	L147-07
Expiration Date (if any):	06/08/2022	Catalog #:	LC26290

		Instrument:	ICP 6500
Standard Log #:	M14919	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M14205 0.5 **mL** 10000 mg/L Cu M14199 5.0 **mL** 1000 mg/L Co M14204 5.0 **mL** 1000 mg/L Mo M14888 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14920	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M14196 5.0 **mL** 10000 mg/L Ti M14674 brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M14916	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14917	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M14200 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14918	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	06/24/2021	Expiration Date:	09/2021
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14772 5.0 **mL** 10000 mg/L Be M14203 5.0 **mL** 10000 mg/L Sn M14774 brought up to volume with milli-Q H_2O.		

Standard Log #:	M14912	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14913	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	07/22/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14914	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/22/2021	Expiration Date:	06/23/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14915	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/23/2021	Expiration Date:	07/23/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14909	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14910	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/22/2021	Expiration Date:	11/30/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14911	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/22/2021	Expiration Date:	05/02/2022
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14904	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14905	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	07/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14906	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/16/2021	Expiration Date:	06/17/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14907	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14908	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/17/2021	Expiration Date:	07/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

Standard Log #:	M14903	Instrument:	ICP 6500
Analyst:	NAH	Standard:	Dissolved MDL Verificaion
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	2.7	M14623	1000	0.135
Al	10	M14736	**10000**	.05
As	20	M14621	1000	1
Ba	2	M14772	1000	0.1
Be	1	M14203	1000	0.05
Ca	50	M14740	**10000**	0.25
Cd	0.5	M14201	1000	.025
Co	2.5	M14204	1000	0.125
Cr	5	M14205	**10000**	.025
Cu	10	M14199	**10000**	.05
Fe	40	M14738	**10000**	0.2
Mg	25	M14676	**10000**	0.125
Mn	3	M14200	**10000**	.015
Mo	2.5	M14888	1000	0.125
Ni	3	M14196	1000	0.15
Pb	20	M14202	**10000**	0.1
Sb	10	M14622	1000	0.5
Se	20	M14624	1000	1
Tl	20	M14626	1000	1
V	3	M14198	1000	0.15
Zn	5	M14197	**10000**	0.025
Na	150	M14736	**10000**	0.75
K	150	M14741	**10000**	0.75
B	20	M14675	1000	1
Si	200	M14735	1000	10
Li	10	M14681	1000	0.5
Sr	20	M14775	1000	1
Sn	20	M14774	1000	1
Ti	5	M14674	1000	0.25
S	200	M14773	**10000**	10

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14902	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL spike Soln.
Prep Date:	06/16/2021	Expiration Date:	09//2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	20	M14772	1000	1
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14901	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ Solid QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M14623	1000	2
Al	800	M14736	**10000**	4
As	40	M14621	1000	2
Ba	40	M14772	1000	2
Be	8	M14203	1000	0.4
Ca	1000	M14740	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14738	**10000**	3
Mg	1000	M14676	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14888	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M14622	1000	2
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14736	**10000**	50
K	10000	M14741	**10000**	50
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14900	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ water QSM
Prep Date:	06/16/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M14623	1000	0.25
Al	120	M14737	**10000**	0.6
As	40	M14621	1000	2
Ba	4	M14772	1000	0.2
Be	8	M14203	1000	0.4
Ca	100	M14740	**10000**	0.5
Cd	2	M14201	1000	0.1
Co	5	M14204	1000	0.25
Cr	5	M14205	**10000**	0.025
Cu	40	M14199	**10000**	0.2
Fe	80	M14738	**10000**	0.4
Mg	40	M14676	**10000**	0.2
Mn	5	M14200	**10000**	0.025
Mo	5	M14888	1000	0.25
Ni	5	M14196	1000	0.25
Pb	20	M14202	**10000**	0.1
Sb	20	M14622	1000	1.0
Se	40	M14624	1000	2
Tl	40	M14626	1000	2
V	5	M14198	1000	0.25
Zn	20	M14197	**10000**	0.1
Na	700	M14736	**10000**	3.5
K	500	M14741	**10000**	2.5
B	40	M14675	1000	2
Si	200	M14735	1000	10
Li	20	M14681	1000	1
Sr	20	M14775	1000	1
Sn	40	M14774	1000	2
Ti	20	M14674	1000	1
S	400	M14773	**10000**	20

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14897	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14898	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14899	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/14/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14892	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14893	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	07/08/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14894	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/08/2021	Expiration Date:	06/09/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.705 in a hood.		

Standard Log #:	M14895	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14886 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14896	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/09/2021	Expiration Date:	07/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14889	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14890	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/08/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14891	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/08/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14886	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	06/04/2021	Lot #:	Y20F051
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M14887	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	06/04/2021	Lot #:	1053109-69
Expiration Date (if any):	11/2022	Catalog #:	4400-10M411500

Standard ID#:	M14888	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06/04/2021	Lot #:	1075718-15
Expiration Date (if any):	11/2022	Catalog #:	S4400-1000343

Standard Log #:	M14885	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14883	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14884	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/03/2021	Expiration Date:	06/03/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14878	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14879	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	07/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14880	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/01/2021	Expiration Date:	06/02/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14881	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14882	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/02/2021	Expiration Date:	07/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14845 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14875	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14876	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14877	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14874	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/24/2021	Lot #:	16-115AB
Expiration Date (if any):	05/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14869	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14870	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	06/18/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14871	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/18/2021	Expiration Date:	05/19/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14872	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14873	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/19/2021	Expiration Date:	06/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14866	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14867	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/18/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14868	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/18/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14865	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/12/2021	Expiration Date:	09/30/2021
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M14508 and **10 mL** Mg (10,000 mg/L) M14676 and brought up to volume.		

Standard Log #:	M14860	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M14724 and brought up to volume.		

Standard Log #:	M14861	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	06/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14862	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/11/2021	Expiration Date:	05/12/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14863	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14864	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/12/2021	Expiration Date:	06/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14857	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14858	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14859	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14854	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14855	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/05/2021	Expiration Date:	05/05/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14850	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14851	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	06/04/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14852	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/04/2021	Expiration Date:	05/05/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14853	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/05/2021	Expiration Date:	06/05/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14847	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/04/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14848	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/04/2021	Expiration Date:	05/02/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14849	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/04/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14846	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	ACID WASHED TCLP FILTERS
Date Received:	04/29/2021	Lot #:	400175-1081-AG
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

		Instrument:	CETAC
Standard Log #:	M14842	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard Log #:	M14843	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/19/2021	Expiration Date:	04/19/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard ID#:	M14844	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14845	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	04/28/2021	Lot #:	L060-06
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M14838	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14839	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	05/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14840	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/27/2021	Expiration Date:	04/28/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14841	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/28/2021	Expiration Date:	05/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14835	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14836	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14837	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14832	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14713 and brought up to volume.		

Standard ID#:	M14833	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	04/21/2021	Lot #:	18-102WLX
Expiration Date (if any):	04/30/2022	Catalog #:	INT-A1

Standard ID#:	M14834	Vendor:	Custom Assurance Std
Analyst:	NAH	Chemical:	Ca 20000 Mg,Na 10000: THardness
Date Received:	04/21/2021	Lot #:	16-022AB
Expiration Date (if any):	04/30/2022	Catalog #:	XCTIWI-1-500

Standard Log #:	M14828	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14829	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	05/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14830	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/20/2021	Expiration Date:	04/21/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14831	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/21/2021	Expiration Date:	05/21/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14825	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14826	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/20/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14827	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/20/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14824	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14821	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14395 , **15 mL** Fe (10,000 mg/L) M14738 , **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 , **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14788 , **2.5 mLs Na 10,000 ug/mL** M14736 ,**2.5 mLs k 10,000 ug/mL** 14625 **2.5 mLs S 10,000 ug/mL** M14570 , **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14822	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	04/15/2021	Expiration Date:	06/21
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14395 and 15 **mL** 10000 mg/L Fe M14738 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M14682 and brought up to volume with milli-Q H_2O.	

		Instrument:	ICP 6500
Standard Log #:	M14823	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	04/15/2021	Expiration Date:	09/21
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14685 and brought up to volume with milli-Q H_2O.	

MRL BASE STD M14820 Analyst NAH

Prep Date 04/15/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	XX
Al	400	M14737	10000	2	XX
Ba	10	M14772	1000	0.5	XX
Be	4	M14203	1000	0.2	09/21
Cd	5	M14740	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14676	10000	2.5	XX
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14684	1000	0.5	XX
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	XX
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14741	10000	5	XX
Na	1000	M14736	10000	5	XX
As	20	M14621	1000	1	XX
Ca	500	M14740	10000	2.5	XX
Fe	300	M14738	10000	1.5	XX
Se	20	M14624	1000	1	XX
Tl	20	M14674	1000	1	XX
Si	100	M14735	1000	5	XX
B	20	M14675	1000	1	09/21
Li	20	M14681	1000	1	XX
W	50	MXXX	1000	2.5	XXXXX
Ti	10	M14674	1000	0.5	XX
Sr	10	M14775	1000	0.5	XX
Sn	50	M14774	1000	2.5	XX
S	300	M14773	10000	1.5	XX

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M14815	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14816	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	05/14/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14817	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/14/2021	Expiration Date:	04/15/2021
Prep:	Carefully mixed **3** parts HCl AB.704 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14818	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14819	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/15/2021	Expiration Date:	05/15/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.704 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14812	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14813	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/14/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14814	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/14/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6500
Standard Log #:	M14811	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	04/13/2021	Expiration Date:	09/2021
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14788, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14685 and **1 mL** of Si (1000 mg/L) M14477. *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14736. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14676, **10 mL** of Fe (10,000 mg/L) M14676, **10 mL** of Ca (10,000 mg/L) M14740 and **10 mL** Al (10,000 mg/L) M14478. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	GFAA
Standard Log #:	M14808	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14809	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14797 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14810	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/12/2021	Expiration Date:	04/12/2022
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14798 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14803	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14804	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	05/06/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14805	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/06/2021	Expiration Date:	04/07/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14806	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14807	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/07/2021	Expiration Date:	05/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14800	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14801	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/06/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14802	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/06/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14799	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	04/06/2021	Lot #:	A0417285
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M14797	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	04/05/2021	Lot #:	S2-MEB703691
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-SPK-1

Standard ID#:	M14798	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	04/05/2021	Lot #:	S2-MEB703690
Expiration Date (if any):	04/12/2021	Catalog #:	CTI-GFCAL-1

Standard Log #:	M14792	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	04/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14793	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/30/2021	Expiration Date:	03/31/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

Standard Log #:	M14795	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14796	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/31/2021	Expiration Date:	05/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14789	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14790	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/30/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14791	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/30/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14787	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Phosphorus 10,000 mg/L
Date Received:	03/29/2021	Lot #:	AR18-111PY
Expiration Date (if any):	3/29/2022	Catalog #:	PLP9-3Y

Standard ID#:	M14788	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/29/2021	Lot #:	4-070MF
Expiration Date (if any):	03/29/2021	Catalog #:	XCTWI-5-500

Standard Log #:	M14786	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/25/2021	Expiration Date:	03/25/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14785. Dilute to 20 L and mix.		

Standard Log #:	M14785	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/24/2021	Expiration Date:	08/24/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC208 and brought up to volume.		

Standard Log #:	M14780	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14781	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	04/23/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14782	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/23/2021	Expiration Date:	03/24/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14783	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14611 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14784	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/24/2021	Expiration Date:	04/24/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14777	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14778	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/23/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14779	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/23/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14772	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/mL
Date Received:	03/22/2021	Lot #:	994634-134
Expiration Date (if any):	09/2022	Catalog #:	S4400-100041

Standard ID#:	M14773	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/mL
Date Received:	03/22/2021	Lot #:	1050965-34
Expiration Date (if any):	09/2022	Catalog #:	4400-10M544

Standard ID#:	M14774	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1066479-21
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000613

Standard ID#:	M14775	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/mL
Date Received:	03/22/2021	Lot #:	1096004-1
Expiration Date (if any):	09/2022	Catalog #:	S4400-1000531

Standard ID#:	M14776	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	03/23/2021	Lot #:	56-049CR
Expiration Date (if any):	03/30/2022	Catalog #:	XSPIKE-1-250

Standard Log #:	M14767	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14768	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	03/17/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14769	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/16/2021	Expiration Date:	04/16/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14770	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14771	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/17/2021	Expiration Date:	04/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14764	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14765	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14766	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14763	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	TCLP Acid Washed Filters
Date Received:	01/05/21	Lot #:	400182-0364-T
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

Standard Log #:	M14758	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	04/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14759	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/09/2021	Expiration Date:	03/10/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14760	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

Standard Log #:	M14761	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14762	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/10/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14755	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14756	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14757	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14754	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Mod.
Date Received:	03/04/2021	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

		Instrument:	GFAA
Standard Log #:	M14751	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14752	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14753	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/03/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14748	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14749	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/02/2021	Expiration Date:	04/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14750	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/02/2021	Expiration Date:	03/02/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14745	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14746	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	04/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14747	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/01/2021	Expiration Date:	03/02/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14742	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14743	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/01/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14744	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/01/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14740	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Calcium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1072921-23
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M91

Standard ID#:	M14741	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Potassium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1053109-37
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M411

Standard ID#:	M14735	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Silicon 1000 µg/mL
Date Received:	02/25/2021	Lot #:	1047570-64
Expiration Date (if any):	08/20/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14736	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Sodium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1055526-35
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M521

Standard ID#:	M14737	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Aluminum 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1077245-17
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M11

Standard ID#:	M14738	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Iron 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1034257-40
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M261

Standard ID#:	M14739	Vendor:	CPI INTERNATIONAL
Analyst:	MDS	Chemical:	Magnesium 10,000 µg/mL
Date Received:	02/25/2021	Lot #:	1075232-5
Expiration Date (if any):	08/20/2022	Catalog #:	4400-10M311

Standard Log #:	M14731	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14732	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/16/2021	Expiration Date:	03/16/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14733	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14734	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/17/2021	Expiration Date:	03/17/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14728	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14729	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/16/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14730	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/16/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14725	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14726	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14727	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	02/15/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14720	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14721	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/09/2021	Expiration Date:	03/09/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

Standard Log #:	M14722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14723	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/10/2021	Expiration Date:	03/10/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard ID#:	M14724	Vendor:	ThermoFisher Scientific
Analyst:	MDS	Chemical:	Potassium Permanganate
Date Received:	02/08/2021	Lot #:	201466
Expiration Date (if any):	Suggested Retest 04/202	Catalog #:	P279

		Instrument:	HydraII
Standard Log #:	M14717	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14718	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/09/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14719	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/09/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14713	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14714	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	02/05/2021	Lot #:	L022-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14715 (1) & (2)	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	02/3/2021	Lot #:	2023715-500
Expiration Date (if any):	08/31/2022	Catalog #:	10M67-1-500

Standard ID#:	M14716	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Phosphorus 10000 mg/L
Date Received:	02/08/2021	Lot #:	AR18-111PY
Expiration Date (if any):	02/28/2022	Catalog #:	PLP9--3Y

Standard Log #:	M14708	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14709	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	03/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14710	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	02/02/2021	Expiration Date:	02/03/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14711	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14712	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/03/2021	Expiration Date:	03/03/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14705	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14706	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/02/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14707	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/02/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14702	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/27/2022
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14703	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14704	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/28/2021	Expiration Date:	02/28/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

Standard Log #:	M14699	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14700	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	02/27/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14701	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/27/2021	Expiration Date:	01/28/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14696	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14697	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/27/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14698	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/27/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14694	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) N/A **3.2 mL** of As (1000 mg/L) M14621 **3.2 mL** of Se (1000 mg/L) M14624 **0.08 mL** of Pb (10,000 mg/L) M14202 **1.0 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M14695	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/26/2021	Expiration Date:	09/2021
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M14622 **1.0 mL** of As (1000 mg/L) M14621 **2.0 mL** of Se (1000 mg/L) M14624 **0.045 mL** of Pb (10,000 mg/L) M14202 **0.4 mL** of Tl (1000 mg/L) M14626 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M14689	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14690	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	02/19/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14691	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/19/2021	Expiration Date:	01/20/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14692	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14693	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/20/2021	Expiration Date:	02/20/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14598 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14686	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14687	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/19/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14688	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/19/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14680	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	01/15/2021	Lot #:	1047870-29
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14681	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	01/15/2021	Lot #:	104768-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000291

Standard ID#:	M14682	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	01/15/2021	Lot #:	S4400-1000101
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000101

Standard ID#:	M14683	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	01/15/2021	Lot #:	1096004-1
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000531

Standard ID#:	M14684	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	01/15/2021	Lot #:	1075718-2
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000343

Standard ID#:	M14685	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	01/18/2021	Lot #:	XCTWI-4-500
Expiration Date (if any):	01/30/2022	Catalog #:	14-242AB

Standard ID#:	M14674	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	01/15/2021	Lot #:	1038255-27
Expiration Date (if any):	07/2022	Catalog #:	S4400-1000623

Standard ID#:	M14675	Vendor:	CPI
Analyst:	NAH	Chemical:	B 1000 mg/L
Date Received:	01/15/2021	Lot #:	1024903-65
Expiration Date (if any):	07/2022	Catalog #:	S4400-100074

Standard ID#:	M14676	Vendor:	CPI
Analyst:	NAH	Chemical:	M 10000 mg/L
Date Received:	01/15/2021	Lot #:	1013353
Expiration Date (if any):	07/2022	Catalog #:	4400-10M311

Standard ID#:	M14677	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	01/15/2021	Lot #:	1050965-25
Expiration Date (if any):	07/2022	Catalog #:	4400-10M544

Standard ID#:	M14678	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 mg/L
Date Received:	01/15/2021	Lot #:	1079898-6
Expiration Date (if any):	07/2022	Catalog #:	S4400-10M391

Standard ID#:	M14679	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	01/15/2021	Lot #:	1034527-40
Expiration Date (if any):	07/2022	Catalog #:	4400-10M261

Standard Log #:	M14673	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	01/13/2021	Expiration Date:	09/2021

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M14623	1000	0.01
As	2	M14621	1000	0.1
Pb	2	M14202	10000	0.01
Sb	2	M14622	1000	0.1
Se	2	M14624	1000	0.1
Tl	2	M14626	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14670	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14544 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14671	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/12/2021	Expiration Date:	02/12/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14597 and brought up to volume.		

Standard Log #:	M14672	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	01/12/2021	Expiration Date:	01/12/2022
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.703 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14667	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14668	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	02/11/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14669	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	01/11/2021	Expiration Date:	01/12/2021
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14664	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14665	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/11/2021	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14666	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/11/2021	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14663	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	8 µg/L As 10 µg/L Pb 8 µg/L Sb 16 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	01/06/2021	Expiration Date:	09/2021

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M14621	10,000
Pb	0.1	10,000	M14202	10,000
Tl	1	1000	M14626	10,000
Se	1	1000	M14624	10,000
Sb	1	1000	M14622	10,000
Ag	0.1	1000	M14623	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	0.8	10,000	8
Pb	1.0	10,000	10
Tl	1.0	10,000	10
Se	1.6	10,000	16
Sb	0.8	10,000	8
Ag	0.6	1000	0.6

		Instrument:	GFAA
Standard Log #:	M14660	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14661	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14662	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/04/2021	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

MRL BASE STD M14659 Analyst NAH

Prep Date 01/04/2021

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M14623	1000	1	02/22
Al	400	M14478	10000	2	02/22
Ba	10	M14568	1000	0.5	05/22
Be	4	M14203	1000	0.2	09/21
Cd	5	M14201	1000	0.25	09/21
Co	10	M14204	1000	0.5	09/21
Cr	10	M14205	10000	0.05	09/21
Cu	10	M14199	10000	0.05	09/21
Mg	500	M14472	10000	2.5	02/22
Mn	10	M14200	10000	0.05	09/21
Mo	10	M14569	1000	0.5	05/22
Ni	10	M14196	1000	0.5	09/21
Pb	10	M14202	10000	0.05	09/21
Sb	20	M14622	1000	1	02/22
V	10	M14198	1000	0.5	09/21
Zn	10	M14197	10000	0.05	09/21
K	1000	M14436	10000	5	02/22
Na	1000	M14559	10000	5	02/22
As	20	M14621	1000	1	02/22
Ca	500	M14476	10000	2.5	02/22
Fe	300	M14470	10000	1.5	02/22
Se	20	M14624	1000	1	02/22
Tl	20	M14626	1000	1	02/22
Si	100	M14435	1000	5	02/22
B	20	M14131	1000	1	07/21
Li	20	M14127	1000	1	07/21
W	50	xxxxxxxx	1000	2.5	xxxxxx
Ti	10	M14009	1000	0.5	04/21
Sr	10	M14007	1000	0.5	04/21
Sn	50	M14008	1000	2.5	04/21
S	300	M14570	10000	1.5	05/22

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	ICP 6500
Standard Log #:	M14658	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	1/04/2021	Expiration Date:	03/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **15 mL** Fe (10,000 mg/L) M14470, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14628, **2.5 mLs Na 10,000 ug/mL** M14473 ,**2.5 mLs k 10,000 ug/mL** M14436 **2.5 mLs S 10,000 ug/mL** M14570, **0.5 mls Si 1000 ug/mL** M14477 and brought up to volume with milli-Q .	

		Instrument:	ICP 6500
Standard Log #:	M14656	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14639, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14359, **0.5 mL** Mo (1000 mg/L) M14569, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008, **0.5 mL** Ti (1000 mg/L) M14009, **0.5 mL** W (1000 mg/L) xxxxxxx, **0.5 mL** Si (1000 mg/L) M14567, **0.5 mL** S (10000 mg/L) M14372, **0.5 mL** K (10000 mg/L) M14436, and **0.5 mL** Na (10000 mg/L) M14559		

		Instrument:	ICP 6500
Standard Log #:	M14657	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	01/04/2021	Expiration Date:	06/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14359 and 15 **mL** 10000 mg/L Fe M14470 5.0 **mL** 1000 mg/L V M14198 5.0 **mL** 1000 mg/L Ce M1359 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14655	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	01/04/2021	Expiration Date:	03/30/2021

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14628, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **1 mL** of Si (1000 mg/L) M14435 and 1 mL M13859 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14625.
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14559.
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M14472, **10 mL** of Fe (10,000 mg/L) M14470, **10 mL** of Ca (10,000 mg/L) M14476 and **10 mL** Al (10,000 mg/L) M14478.
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136208
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:35
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.9		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.30	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	45		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136208
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:17
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 10:52
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 15:34
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 15:36
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136204
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 14:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136204
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.57	H	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	51		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 08:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120	M	4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 13:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.82	H	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9056A	Date Received:	04/30/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211602	Analysis Date/Time	05/02/2022 10:55
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	63		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9060A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/05/2022 11:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9056A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211602	Analysis Date/Time	04/30/2022 12:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	9.9		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.5		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136216
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 13:57
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.3	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.78		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.4		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136216
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 18:49
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 01:48
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.5		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 13:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.3		1.0	1.5	3.0	3.0
14808-79-8	Sulfate	35		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 18:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	12		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.0		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 15:51
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	74		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 19:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.50	J	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136674
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 16:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.1		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	4.1	M	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136674
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 21:02
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 410.4	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211650	Analysis Date/Time	05/03/2022 13:32
Analytical Prep Batch #:	95270	Prep. Date/Time:	05/03/2022 08:31
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	85		18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 9040C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211639	Analysis Date/Time	05/02/2022 15:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.61		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136672
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:43
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.41		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.0		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136672
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:27
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136214
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:46
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.35	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	13		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136214
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136673
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 16:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.2		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	4.6		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136673
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136206
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:06
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	8.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.40		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	69		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136206
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 15:48
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136213
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.4		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	53		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136213
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 01:34
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	67		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	8.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.39	J	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:02
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 14:46
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.8		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.2		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	80		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 19:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:14
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.8		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.2		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:28
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	82		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 9040C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211555	Analysis Date/Time	04/28/2022 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.37		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 410.4	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211565	Analysis Date/Time	04/29/2022 16:52
Analytical Prep Batch #:	95239	Prep. Date/Time:	04/29/2022 09:05
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	160		18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:53
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	60		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:17
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.13	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	31		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:07
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211530	Analysis Date/Time	04/28/2022 10:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	78		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 13:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	1.0000	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 19:08
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.30	J	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 19:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	72		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	82		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:49
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.5		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.73		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:37
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211530	Analysis Date/Time	04/28/2022 10:12
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	83		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 12:22
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	1.0000	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 17:55
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.5		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.64		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33	M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:40
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	83		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:03
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.3		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.75		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:52
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211440

Lab Sample ID: 1135344

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/11/22	13:30	15.00	13.51	90	90	110
Nitrate Nitrogen	4/11/22	13:30	3.50	3.443	98	90	110
Sulfate	4/11/22	13:30	25.00	23.73	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211592 Lab Sample ID: 1143758

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/26/22	08:16	15.00	13.70	91	90	110
Nitrate Nitrogen	4/26/22	08:16	3.50	3.489	100	90	110
Sulfate	4/26/22	08:16	25.00	23.72	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211565 Lab Sample ID: 1137654

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	4/29/22 16:52	400.0	401.8	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211650 Lab Sample ID: 1138178

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	5/3/22	13:32	400.0	394.6	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211696 Lab Sample ID: 1140057

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	4/27/22	11:14	50.0	49.82	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211440

Lab Sample ID: 1135214

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/26/22	12:11	15.00	13.88	93	90	110
Nitrate Nitrogen	4/26/22	12:11	3.500	3.546	101	90	110
Sulfate	4/26/22	12:11	25.00	24.00	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211440

Lab Sample ID: 1135217

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/26/22	16:06	15.00	13.83	92	90	110
Nitrate Nitrogen	4/26/22	16:06	3.500	3.536	101	90	110
Sulfate	4/26/22	16:06	25.00	23.97	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211440 Lab Sample ID: 1135226

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/26/22	19:44	15.00	13.70	91	90	110
Nitrate Nitrogen	4/26/22	19:44	3.500	3.511	100	90	110
Sulfate	4/26/22	19:44	25.00	23.78	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211565

Lab Sample ID: 1137656

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	4/29/22	16:52	400.0	389.8	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211565

Lab Sample ID: 1137658

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	4/29/22	16:52	400.0	392.2	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211650

Lab Sample ID: 1138180

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	5/3/22	13:32	400.0	392.2	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211650

Lab Sample ID: 1138182

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
COD	5/3/22	13:32	400.0	392.2	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211602

Lab Sample ID: 1138735

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/30/22	12:02	15.00	14.98	100	90	110
Nitrate Nitrogen	4/30/22	12:02	3.50	3.705	106	90	110
Sulfate	4/30/22	12:02	25.00	22.99	92	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211602

Lab Sample ID: 1138741

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/30/22	13:56	15.00	15.06	100	90	110
Nitrate Nitrogen	4/30/22	13:56	3.50	3.735	107	90	110
Sulfate	4/30/22	13:56	25.00	23.87	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211602

Lab Sample ID: 1138743

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	5/2/22	08:57	15.00	14.25	95	90	110
Nitrate Nitrogen	5/2/22	08:57	3.50	3.659	105	90	110
Sulfate	5/2/22	08:57	25.00	23.43	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211602

Lab Sample ID: 1138748

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	5/2/22	10:08	15.00	14.40	96	90	110
Nitrate Nitrogen	5/2/22	10:08	3.50	3.682	105	90	110
Sulfate	5/2/22	10:08	25.00	23.68	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211602

Lab Sample ID: 1138750

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	5/2/22	11:09	15.00	14.37	96	90	110
Nitrate Nitrogen	5/2/22	11:09	3.50	3.681	105	90	110
Sulfate	5/2/22	11:09	25.00	23.91	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211592

Lab Sample ID: 1139743

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	14:03	15.00	14.75	98	90	110
Nitrate Nitrogen	4/29/22	14:03	3.50	3.782	108	90	110
Sulfate	4/29/22	14:03	25.00	24.47	98	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211592

Lab Sample ID: 1139746

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	17:08	15.00	14.84	99	90	110
Nitrate Nitrogen	4/29/22	17:08	3.50	3.760	107	90	110
Sulfate	4/29/22	17:08	25.00	24.32	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211592

Lab Sample ID: 1139751

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	19:44	15.00	14.99	100	90	110
Nitrate Nitrogen	4/29/22	19:44	3.50	3.783	108	90	110
Sulfate	4/29/22	19:44	25.00	24.71	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211613

Lab Sample ID: 1139918

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
	5/2/22	09:41	50.0	48.66	97	90	110
Total Inorganic Carbon	5/2/22	09:41	50.0	48.66	97	90	110
Total Organic Carbon	5/2/22	09:41	50.0	48.66	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211613 Lab Sample ID: 1139921

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
	5/2/22	11:06	50.0	49.89	100	90	110
Total Inorganic Carbon	5/2/22	11:06	50.0	49.89	100	90	110
Total Organic Carbon	5/2/22	11:06	50.0	49.89	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1139923

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	11:38	50.0	48.53	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1139931

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	14:49	50.0	47.13	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1139934

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	18:18	50.0	47.18	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1139936

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	21:20	50.0	48.21	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1139943

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	14:49	50.0	47.13	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1139946

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	18:18	50.0	47.18	94	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1139951

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/4/22	21:20	50.0	48.21	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1139965

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/28/22	10:23	15.00	14.41	96	90	110
Nitrate Nitrogen	4/28/22	10:23	3.50	3.565	102	90	110
Sulfate	4/28/22	10:23	25.00	24.17	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1139967

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/28/22	13:14	15.00	14.70	98	90	110
Nitrate Nitrogen	4/28/22	13:14	3.50	3.611	103	90	110
Sulfate	4/28/22	13:14	25.00	24.34	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1139973

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/28/22	16:19	15.00	14.70	98	90	110
Nitrate Nitrogen	4/28/22	16:19	3.50	3.591	103	90	110
Sulfate	4/28/22	16:19	25.00	24.12	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211530 Lab Sample ID: 1140048

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
	4/28/22	09:28	50.0	49.79	100	90	110
Total Inorganic Carbon	4/28/22	09:28	50.0	49.79	100	90	110
Total Organic Carbon	4/28/22	09:28	50.0	49.79	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211530 Lab Sample ID: 1140051

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
	4/28/22	10:39	50.0	50.06	100	90	110
Total Inorganic Carbon	4/28/22	10:39	50.0	50.06	100	90	110
Total Organic Carbon	4/28/22	10:39	50.0	50.06	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1140070

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/5/22	10:31	50.0	49.66	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1140072

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Total Organic Carbon	5/5/22	13:51	50.0	46.41	93	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140132

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	01:05	15.00	14.64	98	90	110
Nitrate Nitrogen	4/29/22	01:05	3.50	3.631	104	90	110
Sulfate	4/29/22	01:05	25.00	24.16	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140134

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	02:16	15.00	14.75	98	90	110
Nitrate Nitrogen	4/29/22	02:16	3.50	3.631	104	90	110
Sulfate	4/29/22	02:16	25.00	24.73	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140136

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	08:10	15.00	14.78	99	90	110
Nitrate Nitrogen	4/29/22	08:10	3.50	3.627	104	90	110
Sulfate	4/29/22	08:10	25.00	23.99	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 4

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140138

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Chloride	4/29/22	11:01	15.00	14.90	99	90	110
Nitrate Nitrogen	4/29/22	11:01	3.50	3.636	104	90	110
Sulfate	4/29/22	11:01	25.00	24.31	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211565

Lab Sample ID: 1137655

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	04/29/2022 16:52	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211650

Lab Sample ID: 1138179

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	05/03/2022 13:32	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1140058

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	04/27/2022 11:28	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211440

Lab Sample ID: 1135345

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/11/2022 14:34	0.4397	U	1.0	1.5
Nitrate Nitrogen	04/11/2022 14:34	0	U	0.12	0.20
Sulfate	04/11/2022 14:34	0.5356	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211592

Lab Sample ID: 1143759

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/26/2022 08:35	0.6519	U	1.0	1.5
Nitrate Nitrogen	04/26/2022 08:35	0	U	0.12	0.20
Sulfate	04/26/2022 08:35	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211440 Lab Sample ID: 1135219

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/26/2022 16:25	0.3858	U	1.0	1.5
Nitrate Nitrogen	04/26/2022 16:25	0	U	0.12	0.20
Sulfate	04/26/2022 16:25	0.5290	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211440 Lab Sample ID: 1135228

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/26/2022 20:02	0.3881	U	1.0	1.5
Nitrate Nitrogen	04/26/2022 20:02	0	U	0.12	0.20
Sulfate	04/26/2022 20:02	0.5365	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211565

Lab Sample ID: 1137657

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	04/29/2022 16:52	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211565

Lab Sample ID: 1137659

Analytical Prep Batch #

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	04/29/2022 16:52	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211650

Lab Sample ID: 1138181

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	05/03/2022 13:32	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211650

Lab Sample ID: 1138183

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
COD	05/03/2022 13:32	0			37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211613

Lab Sample ID: 1139922

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
	05/02/2022 11:20	0	U	0.5	1.5
Total Inorganic Carbon	05/02/2022 11:20	0	U	0.5	1.5
Total Organic Carbon	05/02/2022 11:20	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1139935

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 18:31	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211696 Lab Sample ID: 1139937

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 21:34	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1139947

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 18:31	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1139952

Analytical Prep Batch # 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 21:34	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211530 Lab Sample ID: 1140052

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
	04/28/2022 10:53	0	U	0.5	1.5
Total Inorganic Carbon	04/28/2022 10:53	0	U	0.5	1.5
Total Organic Carbon	04/28/2022 10:53	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211696

Lab Sample ID: 1140060

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 15:16	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1140071

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/05/2022 10:58	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211697

Lab Sample ID: 1140073

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/05/2022 14:05	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211602 Lab Sample ID: 1138742

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/30/2022 14:10	0.5497	U	1.0	1.5
Nitrate Nitrogen	04/30/2022 14:10	0	U	0.12	0.20
Sulfate	04/30/2022 14:10	0.8302		0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211602 Lab Sample ID: 1138744

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	05/02/2022 09:11	0.6230	U	1.0	1.5
Nitrate Nitrogen	05/02/2022 09:11	0	U	0.12	0.20
Sulfate	05/02/2022 09:11	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211602 Lab Sample ID: 1138749

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	05/02/2022 10:22	0.5884	U	1.0	1.5
Nitrate Nitrogen	05/02/2022 10:22	0	U	0.12	0.20
Sulfate	05/02/2022 10:22	0.8811		0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211602 Lab Sample ID: 1138751

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	05/02/2022 11:23	0.5588	U	1.0	1.5
Nitrate Nitrogen	05/02/2022 11:23	0	U	0.12	0.20
Sulfate	05/02/2022 11:23	0.8190		0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211592 Lab Sample ID: 1139747

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 17:22	0	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 17:22	0	U	0.12	0.20
Sulfate	04/29/2022 17:22	0.8078		0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211592 Lab Sample ID: 1139752

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 19:58	0.6049	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 19:58	0	U	0.12	0.20
Sulfate	04/29/2022 19:58	0.7889	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534 Lab Sample ID: 1139966

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/28/2022 10:38	0.6607	U	1.0	1.5
Nitrate Nitrogen	04/28/2022 10:38	0	U	0.12	0.20
Sulfate	04/28/2022 10:38	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534 Lab Sample ID: 1139974

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/28/2022 16:33	0.6731	U	1.0	1.5
Nitrate Nitrogen	04/28/2022 16:33	0	U	0.12	0.20
Sulfate	04/28/2022 16:33	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140133

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 01:19	0.5609	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 01:19	0	U	0.12	0.20
Sulfate	04/29/2022 01:19	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534

Lab Sample ID: 1140135

Analytical Prep Batch #:

Preparation Date/Time:

ICAL Calibration #:

Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 02:30	0.5798	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 02:30	0	U	0.12	0.20
Sulfate	04/29/2022 02:30	0.7962	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534 Lab Sample ID: 1140137

Analytical Prep Batch #: Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 08:24	0.6056	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 08:24	0	U	0.12	0.20
Sulfate	04/29/2022 08:24	0.7956	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534 Lab Sample ID: 1140139

Analytical Prep Batch #: Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 11:32	0.6306	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 11:32	0	U	0.12	0.20
Sulfate	04/29/2022 11:32	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211440 Lab Sample ID: 1135216

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/26/2022 12:47	0.3897	U	1.0	1.5
Nitrate Nitrogen	04/26/2022 12:47	0	U	0.12	0.20
Sulfate	04/26/2022 12:47	0.5311	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211565 Lab Sample ID: 1136533

Analytical Prep Batch # 95239 Preparation Date/Time: 04/29/2022 09:05

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total COD	04/29/2022 16:52	0	U	18	37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211650 Lab Sample ID: 1138063

Analytical Prep Batch # 95270 Preparation Date/Time: 05/03/2022 08:31

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total COD	05/03/2022 13:32	0	U	18	37

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211613 Lab Sample ID: 1139920

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
	05/02/2022 10:08	0	U	0.5	1.5
Total Inorganic Carbon	05/02/2022 10:08	0	U	0.5	1.5
Total Organic Carbon	05/02/2022 10:08	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211696 Lab Sample ID: 1139925

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 12:04	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211697 Lab Sample ID: 1139945

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Total Organic Carbon	05/04/2022 15:16	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211530 Lab Sample ID: 1140050

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: ICAL0590 Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
	04/28/2022 09:55	0	U	0.5	1.5
Total Inorganic Carbon	04/28/2022 09:55	0	U	0.5	1.5
Total Organic Carbon	04/28/2022 09:55	0	U	0.5	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211602 Lab Sample ID: 1138737

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/30/2022 12:31	0.6361	U	1.0	1.5
Nitrate Nitrogen	04/30/2022 12:31	0	U	0.12	0.20
Sulfate	04/30/2022 12:31	0.7902	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211592 Lab Sample ID: 1139745

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/29/2022 14:31	0.5769	U	1.0	1.5
Nitrate Nitrogen	04/29/2022 14:31	0	U	0.12	0.20
Sulfate	04/29/2022 14:31	0.7930	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

SDG No.: 169098

Analytical Run #: 211534 Lab Sample ID: 1139969

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: mg/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Chloride	04/28/2022 13:43	0.6847	U	1.0	1.5
Nitrate Nitrogen	04/28/2022 13:43	0	U	0.12	0.20
Sulfate	04/28/2022 13:43	0	U	0.8	1.5

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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5A

SPIKE SAMPLE RECOVERY

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1135224	Parent Sample No.:	1134804
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211440	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	04/26/2022	Analysis Time: --------	18:31

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	13.7		6.5		8.00	90			
Nitrate Nitrogen	88-111	2.60		0.64		2.00	98			
Sulfate	87-112	39.1		33		8.00	76			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1136536	Parent Sample No.:	1136212
Analytical Prep Batch #	95239	Analytical Preparation Date/Time:	04/29/2022 09:05
Analytical Run #:	211565	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 04/29/2022 Analysis Time: -------- 16:52

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
COD	90-110	306		160		148	99		SP

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1138066	Parent Sample No.:	1137439
Analytical Prep Batch #	95270	Analytical Preparation Date/Time:	05/03/2022 08:31
Analytical Run #:	211650	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 13:32

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
COD	90-110	234		85		148	101		SP

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139927	Parent Sample No.:	1134804
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211696	ICAL Calibration #:	ICAL0590

Analysis Type *Initial Analysis* Analysis Date: ----- 05/04/2022 Analysis Time: -------- 12:54

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.9		BDL	U	50.0	98		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139929	Parent Sample No.:	1136203
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211696	ICAL Calibration #:	ICAL0590

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/04/2022 Analysis Time: -------- 14:07

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	47.1		BDL	U	50.0	94		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139949	Parent Sample No.:	1136588
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211697	ICAL Calibration #:	ICAL0590

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/04/2022	Analysis Time: --------	19:51

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	47.4		BDL	U	50.0	95		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1138739	Parent Sample No.:	1137438
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211602	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	04/30/2022	Analysis Time: --------	13:27

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	17.2		9.9		8.0	91		IC
Nitrate Nitrogen	88-111	4.63		2.5		2.0	106		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1138739	Parent Sample No.:	1137438
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211602	ICAL Calibration #:	

Analysis Type	*Re-Analysis #1*	Analysis Date: -----	05/02/2022	Analysis Time: --------	09:40

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	94.8		63		40.0	80		IC	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139749	Parent Sample No.:	1136674
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211592	ICAL Calibration #:	

Analysis Type: *Initial Analysis* Analysis Date: ----- 04/29/2022 Analysis Time: -------- 17:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	9.09		1.6	J	8.0	94		IC	
Nitrate Nitrogen	88-111	3.24		1.1		2.0	107		IC	
Sulfate	87-112	10.6		4.1		8.0	81		IC	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139971	Parent Sample No.:	1136203
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211534	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	04/28/2022	Analysis Time: --------	15:08

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	12.4		5.0		8.0	92		IC
Nitrate Nitrogen	88-111	2.95		0.82		2.0	106		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5A

SPIKE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139971	Parent Sample No.:	1136203
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211534	ICAL Calibration #:	

Analysis Type	*Re-Analysis #1*	Analysis Date: -----	04/29/2022	Analysis Time: --------	09:07

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	153		120		40.0	82		IC	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1135225	Parent Sample No.:	1135224
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211440	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	04/26/2022	Analysis Time: --------	18:50

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	13.9		6.5		8.00	92			
Nitrate Nitrogen	88-111	2.65		0.64		2.00	100			
Sulfate	87-112	39.3		33		8.00	79			*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **54IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: mg/L
Sample No: 1136537
Parent Sample No.: 1136536
Analytical Prep Batch #: 95239
Analytical Preparation Date/Time: 04/29/2022 09:05
Analytical Run #: 211565
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 04/29/2022 Analysis Time: -------- 16:52

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
COD	90-110	306		160		148	99		SP

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solids for Sample:
Concentration Units: mg/L
Sample No: 1138067
Parent Sample No.: 1138066
Analytical Prep Batch #: 95270
Analytical Preparation Date/Time: 05/03/2022 08:31
Analytical Run #: 211650
ICAL Calibration #:

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/03/2022 Analysis Time: -------- 13:32

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
COD	90-110	229		85		148	97		SP

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139930	Parent Sample No.:	1139929
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211696	ICAL Calibration #:	ICAL0590

Analysis Type: *Initial Analysis* Analysis Date: ----- 05/04/2022 Analysis Time: -------- 14:19

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	47.2		BDL	U	50.0	94		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139950	Parent Sample No.:	1139949
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211697	ICAL Calibration #:	ICAL0590

Analysis Type *Initial Analysis* Analysis Date: ----- 05/04/2022 Analysis Time: -------- 20:03

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.2		BDL	U	50.0	96		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1140061	Parent Sample No.:	1139927
Analytical Prep Batch #		Analytical Preparation Date/Time:	
Analytical Run #:	211696	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	05/04/2022	Analysis Time: --------	13:07

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Total Organic Carbon	85-111	48.4		BDL	U	50.0	97		TOC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1138740	Parent Sample No.:	1138739
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211602	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 04/30/2022 Analysis Time: -------- 13:42

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	17.2		9.9		8.0	91		IC
Nitrate Nitrogen	88-111	4.65		2.5		2.0	108		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1138740	Parent Sample No.:	1138739
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211602	ICAL Calibration #:	

Analysis Type	*Re-Analysis #1*	Analysis Date: -----	05/02/2022	Analysis Time: --------	09:54

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Sulfate	87-112	94.4		63		40.0	78		IC	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139750	Parent Sample No.:	1139749
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211592	ICAL Calibration #:	

Analysis Type	*Initial Analysis*	Analysis Date: -----	04/29/2022	Analysis Time: --------	18:05

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M	
Chloride	87-111	9.02		1.6	J	8.0	93		IC	
Nitrate Nitrogen	88-111	3.24		1.1		2.0	107		IC	
Sulfate	87-112	10.4		4.1		8.0	79		IC	*FAIL*

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139972	Parent Sample No.:	1139971
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211534	ICAL Calibration #:	

Analysis Type *Initial Analysis* Analysis Date: ----- 04/28/2022 Analysis Time: -------- 15:22

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Chloride	87-111	12.3		5.0		8.0	91		IC
Nitrate Nitrogen	88-111	2.93		0.82		2.0	106		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

5C

SPIKE DUPLICATE SAMPLE RECOVERY

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	LIQUID	SDG No.:	169098
% Solids for Sample:		Concentration Units:	mg/L
Sample No	1139972	Parent Sample No.:	1139971
Analytical Prep Batch #	0	Analytical Preparation Date/Time:	
Analytical Run #:	211534	ICAL Calibration #:	

Analysis Type	*Re-Analysis #1*	Analysis Date: -----	04/29/2022	Analysis Time: --------	09:21

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Sulfate	87-112	156		120		40.0	90		IC

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54MW13

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211440

ICAL Calibration #:

Sample #: 1135223

Parent Sample #: 1134804

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/26/2022	18:13	10	6.5		6.46		1		
Nitrate Nitrogen	04/26/2022	18:13	10	0.64		0.644		1		
Sulfate	04/26/2022	18:13	10	33		32.7		1		

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95239

Analytical Run #: 211565

ICAL Calibration #:

Sample #: 1136535

Parent Sample #: 1136212

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
COD	04/29/2022 16:52	20	160		159		1		SP

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211555

ICAL Calibration #:

Sample #: 1137194

Parent Sample #: 1136212

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	04/28/2022	15:00	1	7.37		7.37		0		ELEC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 95270

Analytical Run #: 211650

ICAL Calibration #:

Sample #: 1138065

Parent Sample #: 1137439

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
COD	05/03/2022 13:32	20	85		80.2		6		SP

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

49IDW

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211639

ICAL Calibration #:

Sample #: 1138141

Parent Sample #: 1137439

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	05/02/2022	15:20	1	7.61		7.62		0		ELEC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

54MW13

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211696

ICAL Calibration #: ICAL0590

Sample #: 1139926

Parent Sample #: 1134804

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	12:36	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

13MW5

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211696

ICAL Calibration #: ICAL0590

Sample #: 1139928

Parent Sample #: 1136203

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	13:49	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

50MW2

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211697

ICAL Calibration #: ICAL0590

Sample #: 1139948

Parent Sample #: 1136588

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	19:32	20	0.5	U	0.5	U	0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

48MW1

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID
SDG No.: 169098

% Solid for Sample:
Concentration Units: mg/L

Analytical Prep Batch # 1
Analytical Preparation Date/Time 0

Analytical Run #: 211602
ICAL Calibration #:

Sample #: 1138738
Parent Sample #: 1137438

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/30/2022	13:13	10	9.9		9.86		0		IC
Nitrate Nitrogen	04/30/2022	13:13	10	2.5		2.55		2		IC

Analytical Prep Batch # 2
Analytical Preparation Date/Time 0

Analytical Run #: 211602
ICAL Calibration #:

Sample #: 1138738
Parent Sample #: 1137438

Analysis Type *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	05/02/2022	09:25	10	63		61.0		3		IC

CT LABORATORIES
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6

DUPLICATES

Sample Description

48MW7

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID

SDG No.: 169098

% Solid for Sample:

Concentration Units: mg/L

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 211592

ICAL Calibration #:

Sample #: 1139748

Parent Sample #: 1136674

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/29/2022	17:36	10	1.6	J	1.65	J	3		IC
Nitrate Nitrogen	04/29/2022	17:36	10	1.1		1.09		1		IC
Sulfate	04/29/2022	17:36	10	4.1		3.90		5		IC

CT LABORATORIES
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6

DUPLICATES

Sample Description

13MW5

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID
SDG No.: 169098

% Solid for Sample:
Concentration Units: mg/L

Analytical Prep Batch # 1
Analytical Preparation Date/Time 0

Analytical Run #: 211534
ICAL Calibration #:

Sample #: 1139970
Parent Sample #: 1136203

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/28/2022	14:54	10	5.0		5.03		1		IC
Nitrate Nitrogen	04/28/2022	14:54	10	0.82		0.822		0		IC

Analytical Prep Batch # 2
Analytical Preparation Date/Time 0

Analytical Run #: 211534
ICAL Calibration #:

Sample #: 1139970
Parent Sample #: 1136203

Analysis Type *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	04/29/2022	08:53	10	120		120		0		IC

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description: **54MW13**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211440
ICAL Calibration #:
Sample #: 1135225
Parent Sample #: 1135224

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/26/2022	18:50	15	13.7		13.9		2		
Nitrate Nitrogen	04/26/2022	18:50	15	2.60		2.65		2		
Sulfate	04/26/2022	18:50	15	39.1		39.3		1		

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description: **54IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 95239
Analytical Preparation Date/Time: 04/29/2022 09:05
Analytical Run #: 211565
ICAL Calibration #:
Sample #: 1136537
Parent Sample #: 1136536

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
COD	04/29/2022	16:52	20	306		306		0		SP

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6A

MATRIX SPIKE DUPLICATES

Sample Description: **49IDW**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 95270
Analytical Preparation Date/Time: 05/03/2022 08:31
Analytical Run #: 211650
ICAL Calibration #:
Sample #: 1138067
Parent Sample #: 1138066

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
COD	05/03/2022	13:32	20	234		229		2		SP

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211696
ICAL Calibration #: ICAL0590
Sample #: 1139930
Parent Sample #: 1139929

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	14:19	20	47.1		47.2		0		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **50MW2**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211697
ICAL Calibration #: ICAL0590
Sample #: 1139950
Parent Sample #: 1139949

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	20:03	20	47.4		48.2		2		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **54MW13**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #:
Analytical Preparation Date/Time:
Analytical Run #: 211696
ICAL Calibration #:
Sample #: 1140061
Parent Sample #: 1139927

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Total Organic Carbon	05/04/2022	13:07	20	48.9		48.4		1		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW1**

Lab Name: CT Laboratories | Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

Matrix: LIQUID | SDG No.: 169098

% Solid for Sample: | Concentration Units: mg/L

Analytical Prep Batch #: 0 | Analytical Preparation Date/Time:

Analytical Run #: 211602 | ICAL Calibration #:

Sample #: 1138740 | Parent Sample #: 1138739

Analysis Type: *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/30/2022	13:42	15	17.2		17.2		0		IC
Nitrate Nitrogen	04/30/2022	13:42	15	4.63		4.65		0		IC

Analytical Prep Batch #: 0 | Analytical Preparation Date/Time:

Analytical Run #: 211602 | ICAL Calibration #:

Sample #: 1138740 | Parent Sample #: 1138739

Analysis Type: *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	05/02/2022	09:54	15	94.8		94.4		0		IC

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description: **48MW7**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L
Analytical Prep Batch #: 0
Analytical Preparation Date/Time:
Analytical Run #: 211592
ICAL Calibration #:
Sample #: 1139750
Parent Sample #: 1139749

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/29/2022	18:05	15	9.09		9.02		1		IC
Nitrate Nitrogen	04/29/2022	18:05	15	3.24		3.24		0		IC
Sulfate	04/29/2022	18:05	15	10.6		10.4		2		IC

CT LABORATORIES
delivering more than data from your environmental analyses

6A

MATRIX SPIKE DUPLICATES

Sample Description: **13MW5**

Lab Name: CT Laboratories
Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix: LIQUID
SDG No.: 169098
% Solid for Sample:
Concentration Units: mg/L

Analytical Prep Batch # 0
Analytical Preparation Date/Time
Analytical Run #: 211534
ICAL Calibration #:
Sample #: 1139972
Parent Sample #: 1139971

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Chloride	04/28/2022	15:22	15	12.4		12.3		0		IC
Nitrate Nitrogen	04/28/2022	15:22	15	2.95		2.93		0		IC

Analytical Prep Batch # 0
Analytical Preparation Date/Time
Analytical Run #: 211534
ICAL Calibration #:
Sample #: 1139972
Parent Sample #: 1139971

Analysis Type *Re-Analysis #1*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Sulfate	04/29/2022	09:21	15	153		156		2		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211440

Sample No.:#: 1135215

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	04/26/2022 12:29	87-111	13.85		15.00	92		
Nitrate Nitrogen	04/26/2022 12:29	88-111	3.507		3.500	100		
Sulfate	04/26/2022 12:29	87-112	24.20		25.00	97		

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211565 Sample No.:#: 1136534

Analytical Prep Batch #: 95239 Preparation Date/Time: 04/29/2022 09:05

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
COD	04/29/2022 16:52	90-110	404.2		400.0	101		SP

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories Contract WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211650 Sample No.:#: 1138064

Analytical Prep Batch #: 95270 Preparation Date/Time: 05/03/2022 08:31

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
COD	05/03/2022 13:32	90-110	394.6		400.0	99		SP

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211613

Sample No.:#: 1139919

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
	05/02/2022 09:54	85-111	48.64		50.0	97		TOC
Total Inorganic Carbon	05/02/2022 09:54	85-111	48.64		50.0	97		TOC
Total Organic Carbon	05/02/2022 09:54	85-111	48.64		50.0	97		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211696

Sample No.:#: 1139924

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	05/04/2022 11:51	85-111	48.33		50.0	97		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211697

Sample No.:#: 1139944

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Total Organic Carbon	05/04/2022 15:03	85-111	47.48		50.0	95		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211530

Sample No.:#: 1140049

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #: ICAL0590

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
	04/28/2022 09:41	85-111	49.87		50.0	100		TOC
Total Inorganic Carbon	04/28/2022 09:41	85-111	49.87		50.0	100		TOC
Total Organic Carbon	04/28/2022 09:41	85-111	49.87		50.0	100		TOC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211602

Sample No.:#: 1138736

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	04/30/2022 12:16	87-111	15.01		15.00	100		IC
Nitrate Nitrogen	04/30/2022 12:16	88-111	3.704		3.50	106		IC
Sulfate	04/30/2022 12:16	87-112	23.46		25.00	94		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211592

Sample No.:#: 1139744

Analytical Prep Batch #: 0

Preparation Date/Time:

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	04/29/2022 14:17	87-111	14.49		15.00	97		IC
Nitrate Nitrogen	04/29/2022 14:17	88-111	3.721		3.50	106		IC
Sulfate	04/29/2022 14:17	87-112	24.63		25.00	99		IC

CT LABORATORIES
delivering more than data from your environmental analyses

7-1

Sample No:

LABORATORY CONTROL SAMPLE - AQUEOUS

LCS

Lab Name: CT Laboratories

Contract: WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54

LCS Source: SPEX and Ultra

SDG No.: 169098

Concentration Units: mg/L

Analytical Run #: 211534

Sample No.:#: 1139968

Analytical Prep Batch #: 0

Preparation Date/Time:

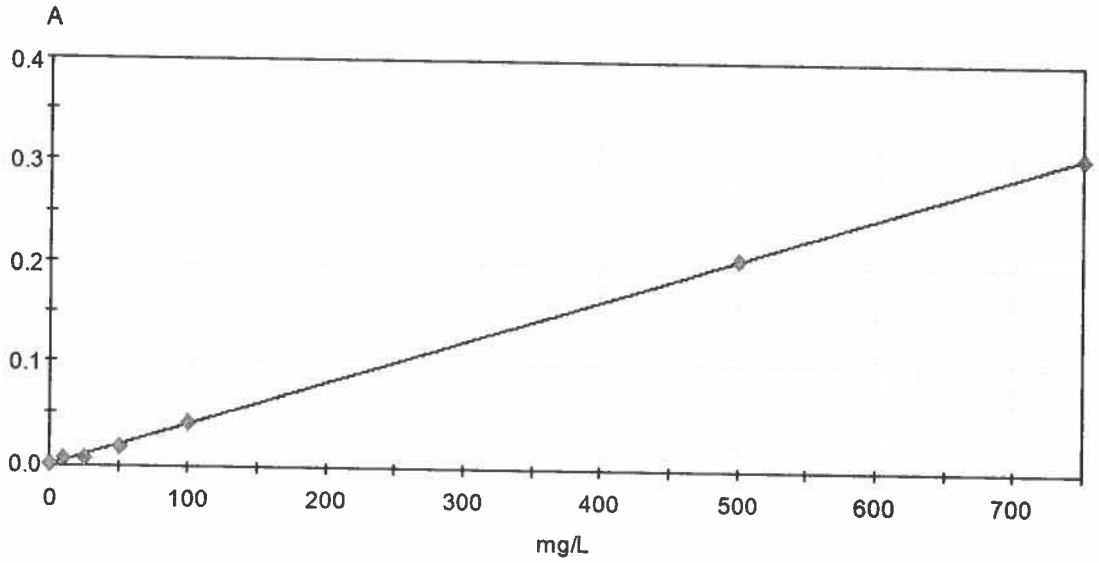
ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Chloride	04/28/2022 13:28	87-111	14.58		15.00	97		IC
Nitrate Nitrogen	04/28/2022 13:28	88-111	3.553		3.50	102		IC
Sulfate	04/28/2022 13:28	87-112	24.46		25.00	98		IC

INORGANIC
CLP FORMS
DOCUMENTS

Method:	W52634.mqa (600 nm)
Last modified:	04/12/2022 15:08:02 by CTLABORATORIES\SPEC
Spectrophotometer:	GENESYS 30
Serial number:	9A1W117104
Firmware:	104
Autozero:	04/29/2022 16:49:21
Measured:	04/29/2022 16:52:37 by CTLABORATORIES\SPEC
Result filename:	211565 DATA.rqa

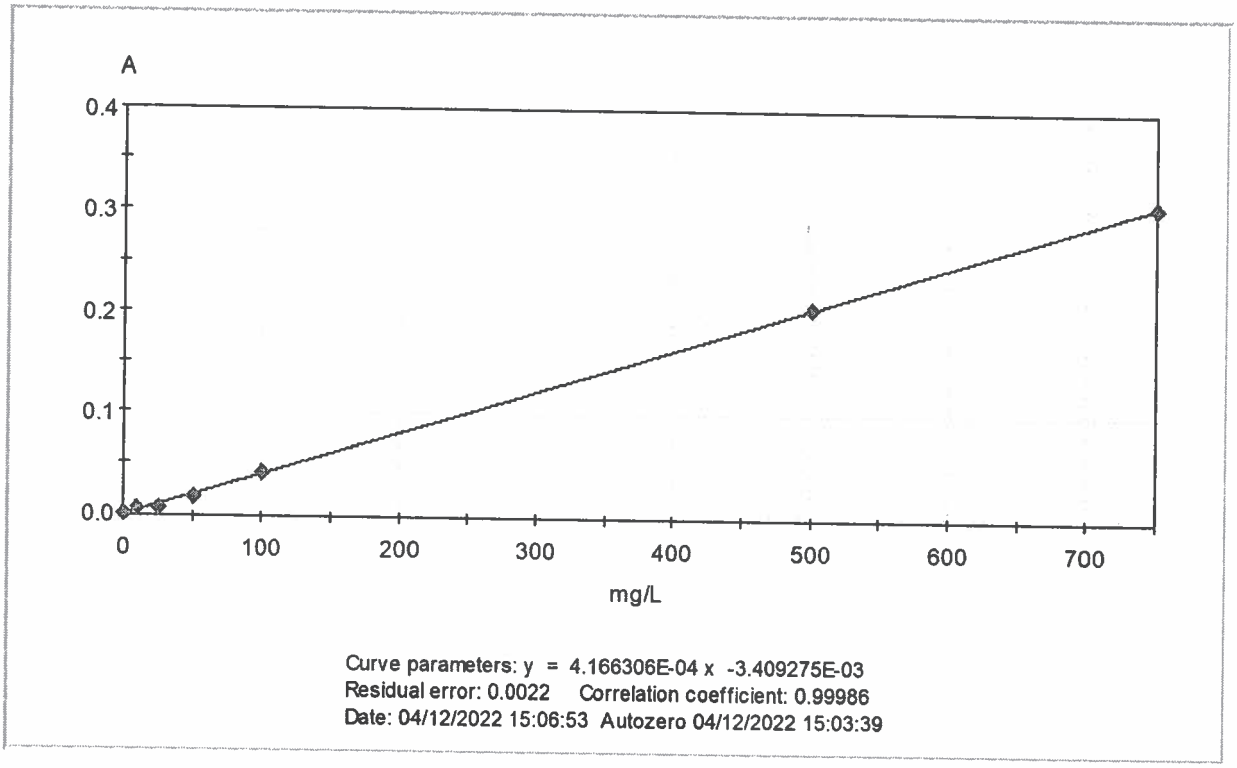


Curve parameters: y = 4.166306E-04 x -3.409275E-03
Residual error: 0.0022 Correlation coefficient: 0.99986
Date: 04/12/2022 15:06:53 Autozero 04/12/2022 15:03:39

Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.164	401.8
ICB	1	-0.005	-3.8
CCV	1	0.159	389.8
CCB	1	-0.005	-3.8
1136534	1	0.165	404.2
1136533	1	-0.005	-3.8
1136212	1	0.063	159.4
1136212DUP	1	0.063	159.4
1136212MS	1	0.124	305.8
1136212MSD	1	0.124	305.8
CCV	1	0.160	392.2
CCB	1	-0.005	-3.8

RCB
5/2/22

Method:	W52634.mqa (600 nm)
Last modified:	04/12/2022 15:08:02 by CTLABORATORIES\SPEC
Spectrophotometer:	GENESYS 30
Serial number:	9A1W117104
Firmware:	104
Autozero:	05/03/2022 13:28:37
Measured:	05/03/2022 13:32:08 by CTLABORATORIES\SPEC
Result filename:	211650 DATA.rqa

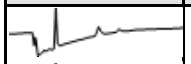
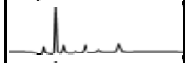
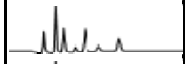
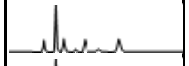
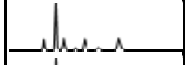
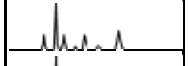
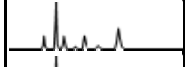
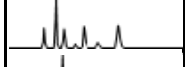
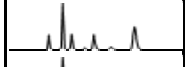


Curve parameters: y = 4.166306E-04 x -3.409275E-03
Residual error: 0.0022 Correlation coefficient: 0.99986
Date: 04/12/2022 15:06:53 Autozero 04/12/2022 15:03:39

Sample	Dilution Factor	Ordinate [A]	Concentration [mg/L]
ICV	1	0.161	394.6
ICB	1	-0.008	-11.0
CCV	1	0.160	392.2
CCB	1	-0.009	-13.4
1138064	1	0.161	394.6
1138063	1	-0.008	-11.0
1137439	1	0.032	85.0
1137439DUP	1	0.030	80.2
1137439MS	1	0.094	233.8
1137439MSD	1	0.092	229.0
CCV	1	0.160	392.2
CCB	1	-0.008	-11.0

RCB
5/3/22

Sequence: 041122 - IC4083A
Last Update Operator: aquion

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	STD1	1.0000	Calibration Standard	1	2	5000	Anions 1.0	IC4083A	Finished
	STD2	1.0000	Calibration Standard	2	3	5000	Anions 1.0	IC4083A	Finished
	STD3	1.0000	Calibration Standard	3	4	5000	Anions 1.0	IC4083A	Finished
	STD4	1.0000	Calibration Standard	4	5	5000	Anions 1.0	IC4083A	Finished
	STD5	1.0000	Calibration Standard	5	6	5000	Anions 1.0	IC4083A	Finished
	STD6	1.0000	Calibration Standard	6	7	5000	Anions 1.0	IC4083A	Finished
	STD7	1.0000	Calibration Standard	7	8	5000	Anions 1.0	IC4083A	Finished
	STD8	1.0000	Calibration Standard	8	9	5000	Anions 1.0	IC4083A	Finished
	STD9	1.0000	Calibration Standard	9	10	5000	Anions 1.0	IC4083A	Finished
	ICV	1.0000	Unknown		14	5000	Anions	IC4083A	Finished
	ICB	1.0000	Unknown		18	5000	Anions	IC4083A	Finished

Calibration Concentrations

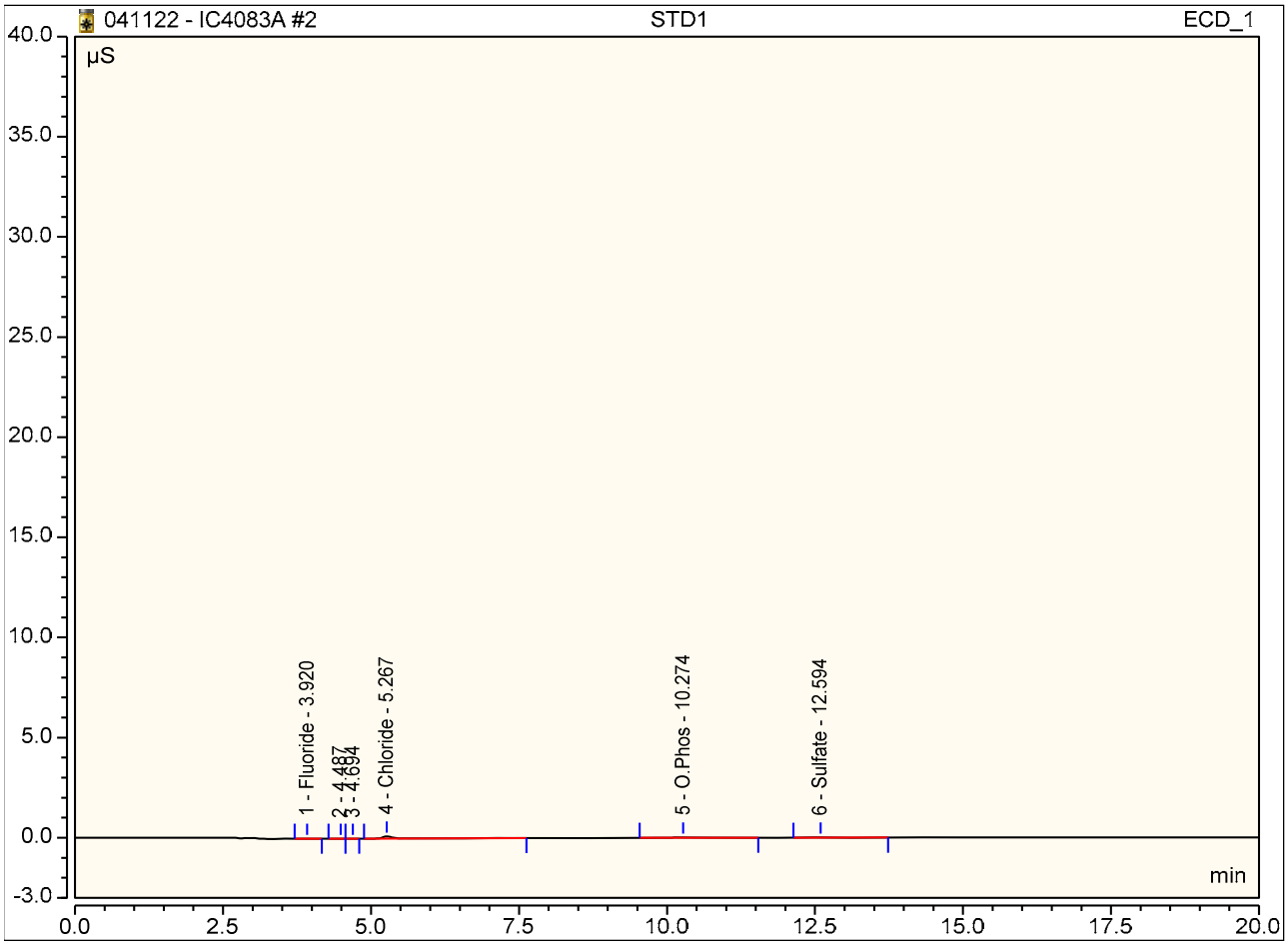
Instrument:AQUION 4	Cal. File:	IC4083A			ICV	IC4077 IC4080		Analyst/Date: TMG 04/11/2022		
Analyte	Cal Level 1 (mg/L)	Cal Level 2 (mg/L)	Cal Level 3 (mg/L)	Cal Level 4 (mg/L)	Cal Level 5 (mg/L)	Cal Level 6 (mg/L)	Cal Level 7 (mg/L)	Cal Level 8 (mg/L)	Cal Level 9 (mg/L)	ICV (mg/L)
Fluoride	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Chloride	0.0	0.5	0.75	1.0	5.0	10.0	20.0	30.0	40.0	15.0
Bromide	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrite	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrate	0.0	0.1	0.30	0.5	1.0	2.0	5.0	7.0		3.5
O-Phoshorous	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Sulfate	0.0	0.5	0.75	1.0	5.0	10.0	30.0	50.0	70.0	25.0

RJ 05/05/2022

Peak Integration Report

Sample Name:	**STD1**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 09:27**	*Run Time:*	**20.00**

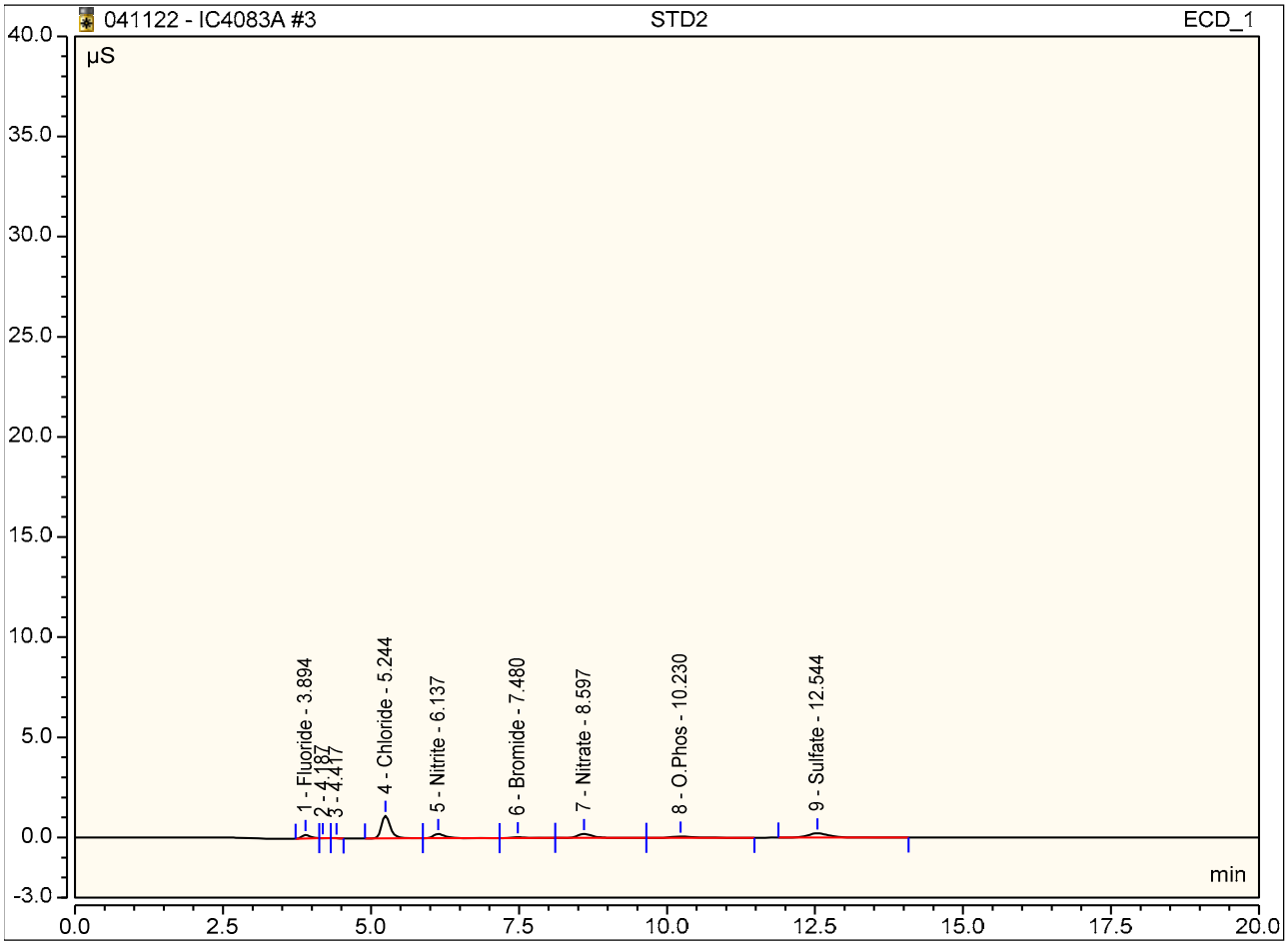
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.92	Fluoride	0.001	0.005	0.0508
4	5.27	Chloride	0.024	0.105	0.4541
5	10.27	O.Phos	0.011	0.023	0.0721
6	12.59	Sulfate	0.004	0.008	0.5401



Peak Integration Report

Sample Name:	**STD2**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 09:47**	*Run Time:*	**20.00**

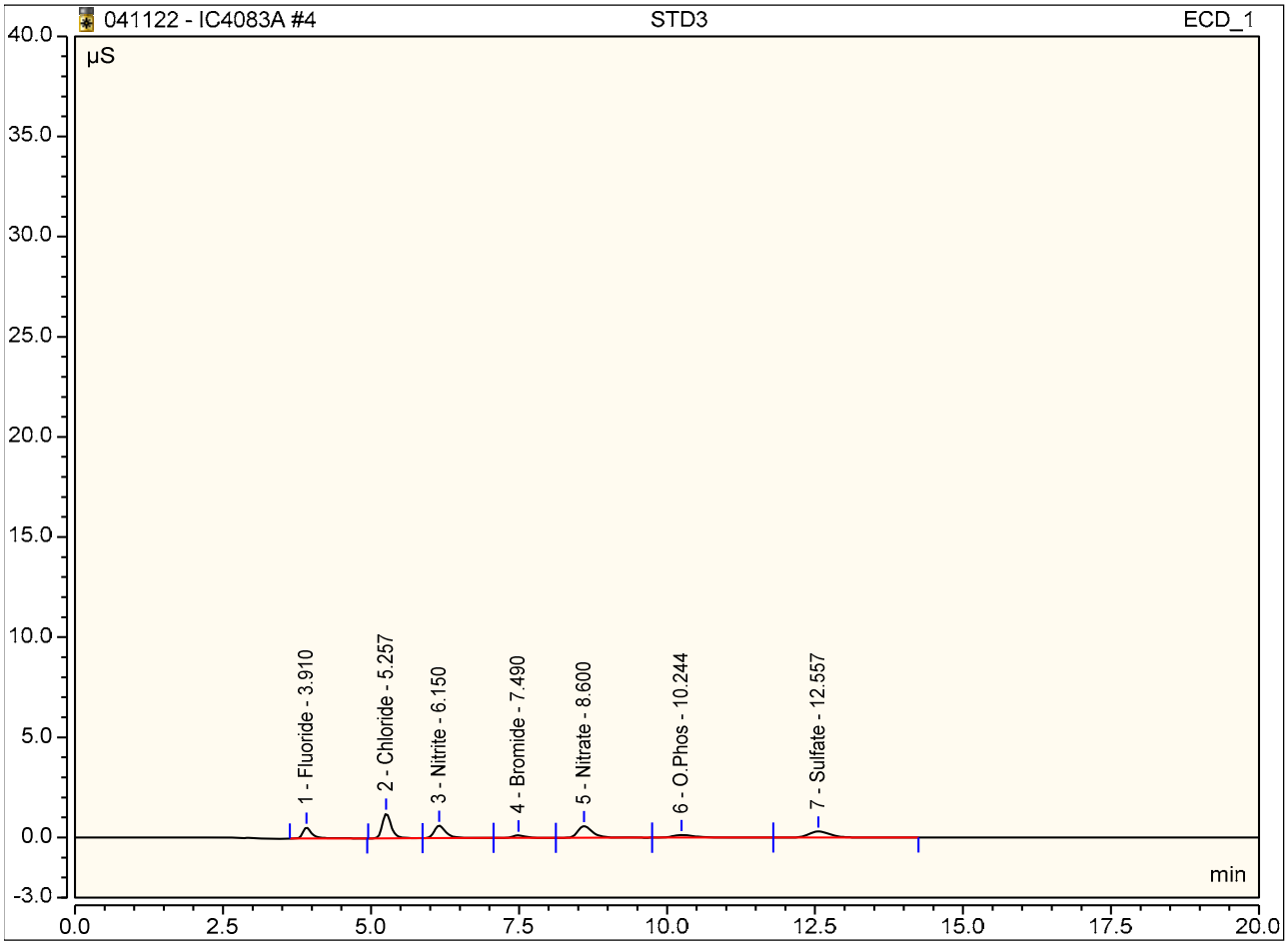
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.89	Fluoride	0.027	0.178	0.1199
4	5.24	Chloride	0.200	1.134	1.0325
5	6.14	Nitrite	0.048	0.212	0.1239
6	7.48	Bromide	0.011	0.043	0.1100
7	8.60	Nitrate	0.059	0.203	0.1671
8	10.23	O.Phos	0.028	0.065	0.1554
9	12.54	Sulfate	0.091	0.216	0.9711



Peak Integration Report

Sample Name:	**STD3**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 10:07**	*Run Time:*	**20.00**

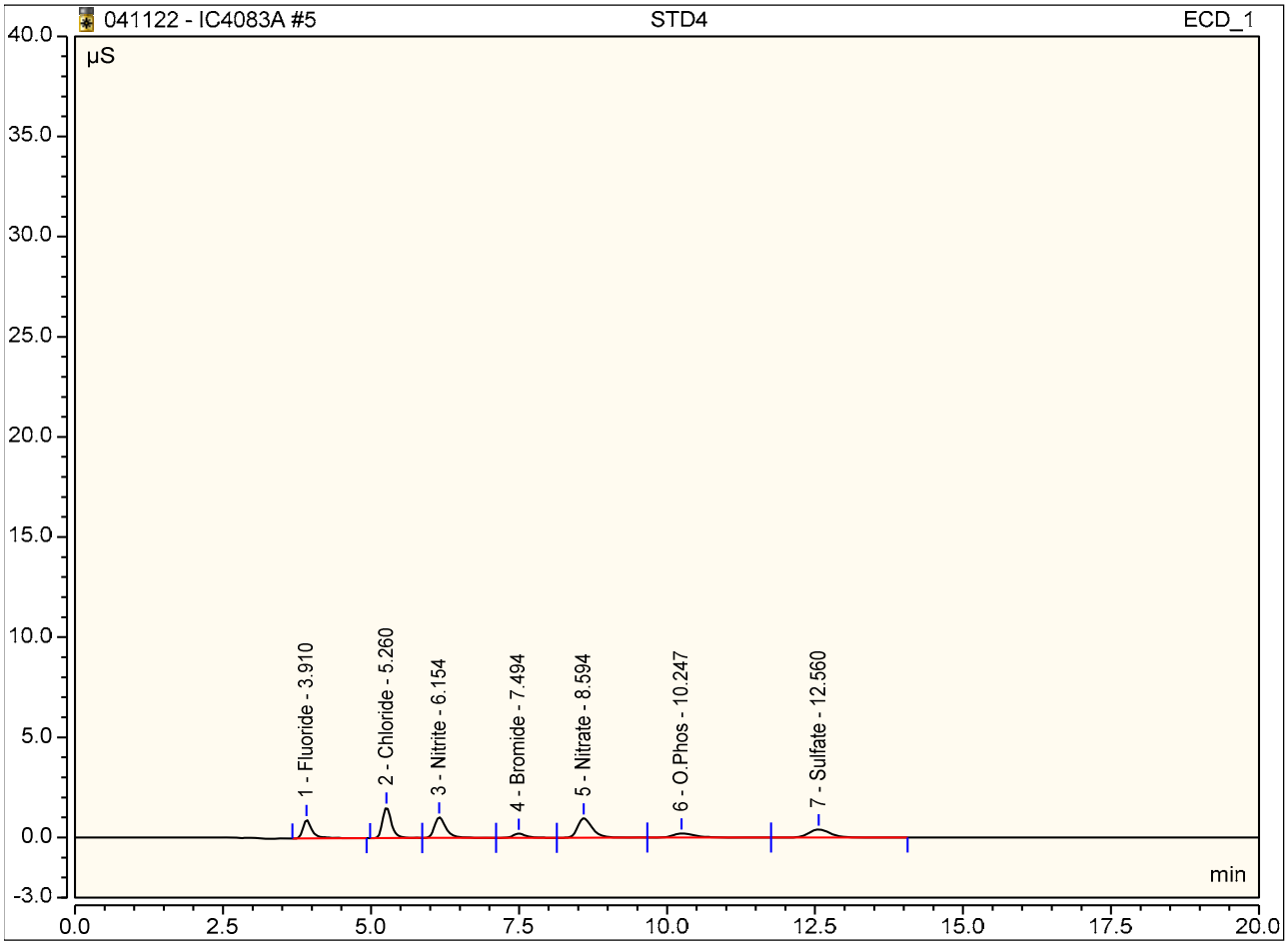
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.91	Fluoride	0.104	0.551	0.3222
2	5.26	Chloride	0.218	1.236	1.0927
3	6.15	Nitrite	0.141	0.619	0.3118
4	7.49	Bromide	0.030	0.123	0.3033
5	8.60	Nitrate	0.169	0.585	0.3420
6	10.24	O.Phos	0.059	0.133	0.3096
7	12.56	Sulfate	0.132	0.313	1.1764



Peak Integration Report

Sample Name:	**STD4**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 10:27**	*Run Time:*	**20.00**

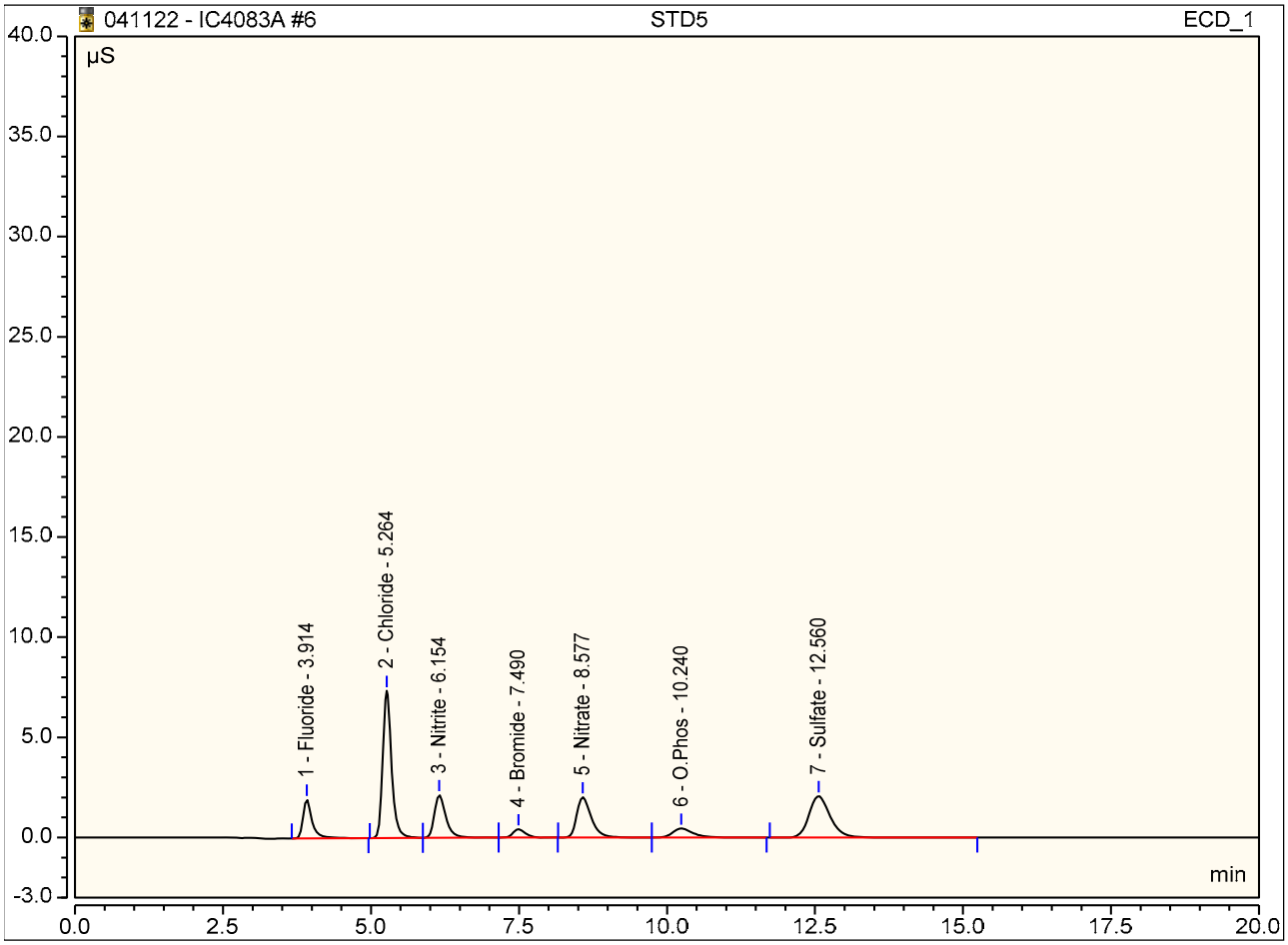
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.91	Fluoride	0.173	0.923	0.5036
2	5.26	Chloride	0.271	1.532	1.2680
3	6.15	Nitrite	0.236	1.030	0.5038
4	7.49	Bromide	0.050	0.204	0.5010
5	8.59	Nitrate	0.279	0.970	0.5179
6	10.25	O.Phos	0.092	0.213	0.4772
7	12.56	Sulfate	0.172	0.410	1.3735



Peak Integration Report

Sample Name:	**STD5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 10:48**	*Run Time:*	**20.00**

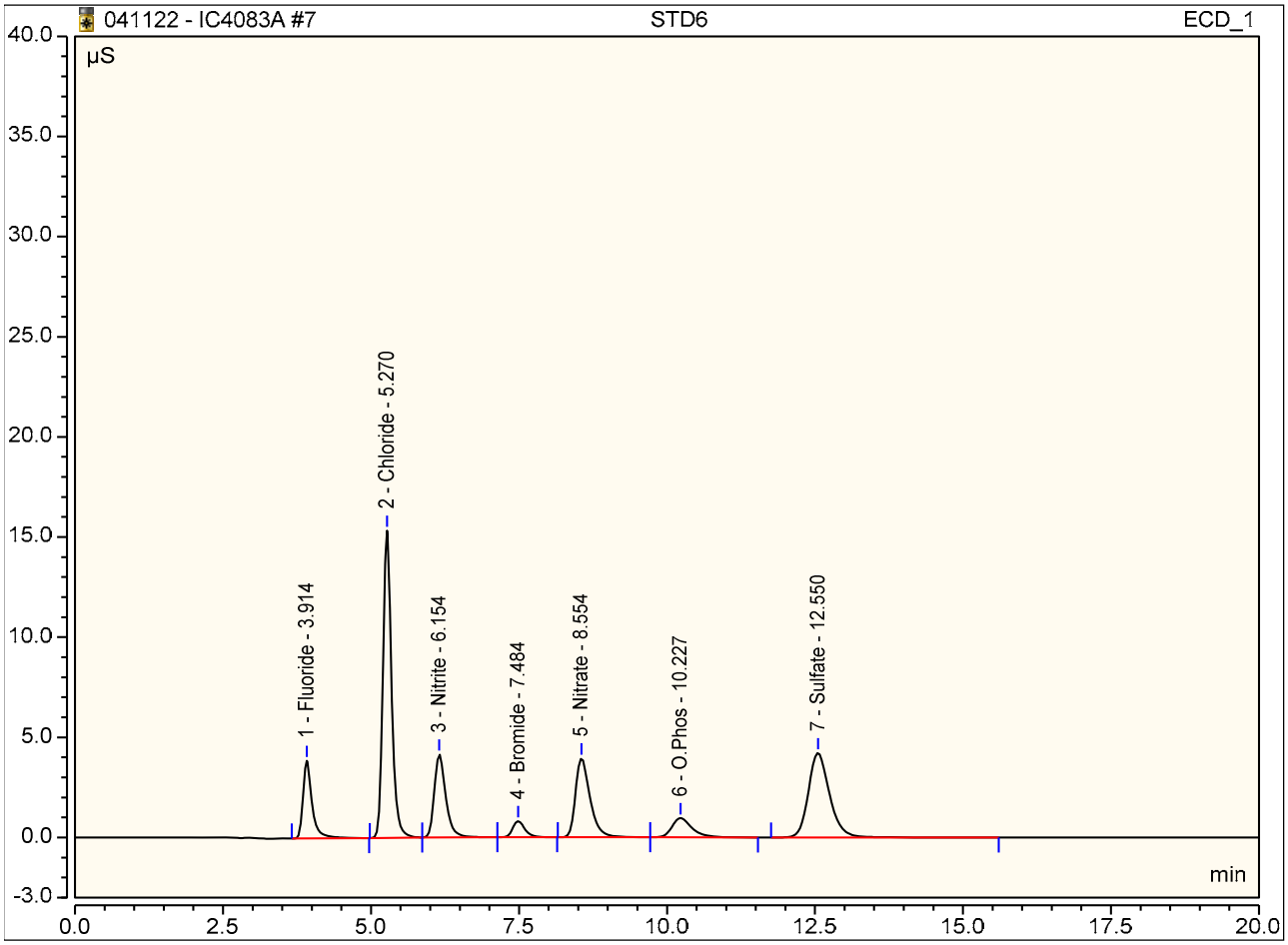
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.91	Fluoride	0.354	1.942	0.9782
2	5.26	Chloride	1.265	7.347	4.5416
3	6.15	Nitrite	0.485	2.133	1.0079
4	7.49	Bromide	0.102	0.420	1.0209
5	8.58	Nitrate	0.580	2.012	0.9959
6	10.24	O.Phos	0.185	0.456	0.9383
7	12.56	Sulfate	0.869	2.071	4.8214



Peak Integration Report

Sample Name:	**STD6**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 11:08**	*Run Time:*	**20.00**

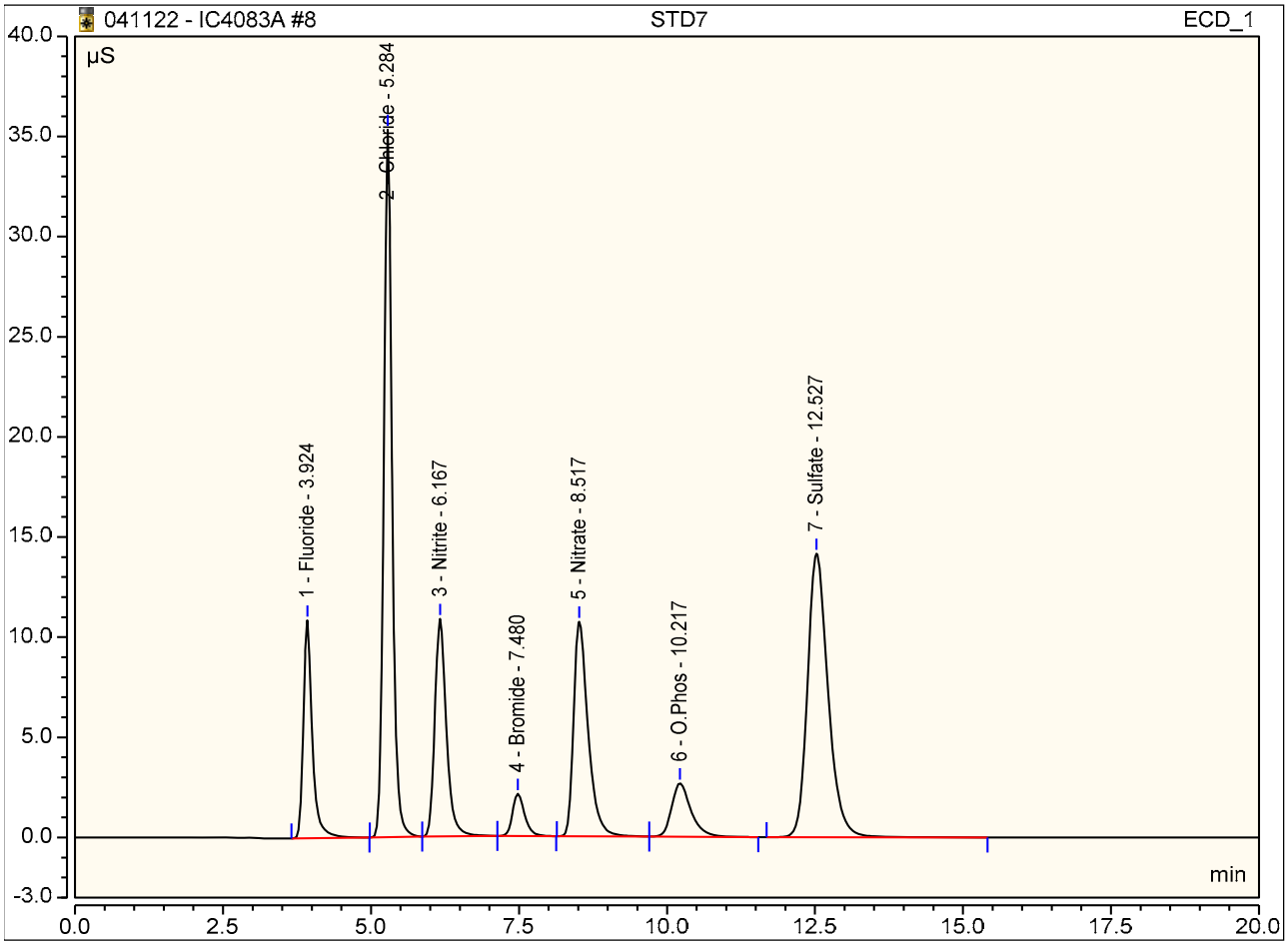
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.91	Fluoride	0.694	3.884	1.8717
2	5.27	Chloride	2.574	15.345	8.8517
3	6.15	Nitrite	0.939	4.150	1.9263
4	7.48	Bromide	0.195	0.809	1.9493
5	8.55	Nitrate	1.128	3.941	1.8679
6	10.23	O.Phos	0.376	0.958	1.8907
7	12.55	Sulfate	1.750	4.210	9.1773



Peak Integration Report

Sample Name:	**STD7**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 11:28**	*Run Time:*	**20.00**

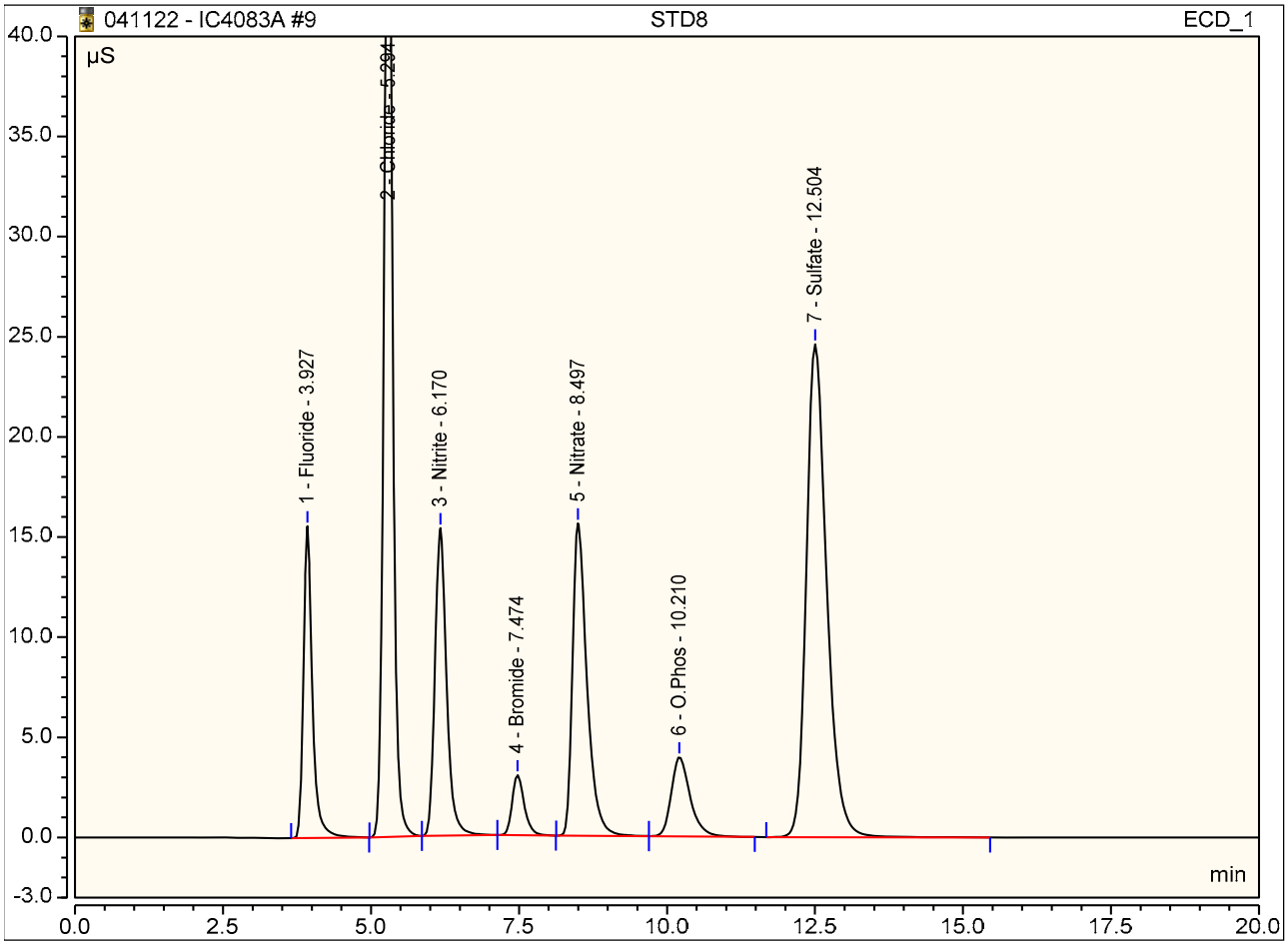
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.92	Fluoride	1.905	10.877	5.0536
2	5.28	Chloride	5.815	35.327	19.5301
3	6.17	Nitrite	2.471	10.869	5.0264
4	7.48	Bromide	0.503	2.102	5.0156
5	8.52	Nitrate	3.041	10.716	4.9121
6	10.22	O.Phos	1.011	2.665	5.0567
7	12.53	Sulfate	5.712	14.162	28.7813



Peak Integration Report

Sample Name:	**STD8**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 11:48**	*Run Time:*	**20.00**

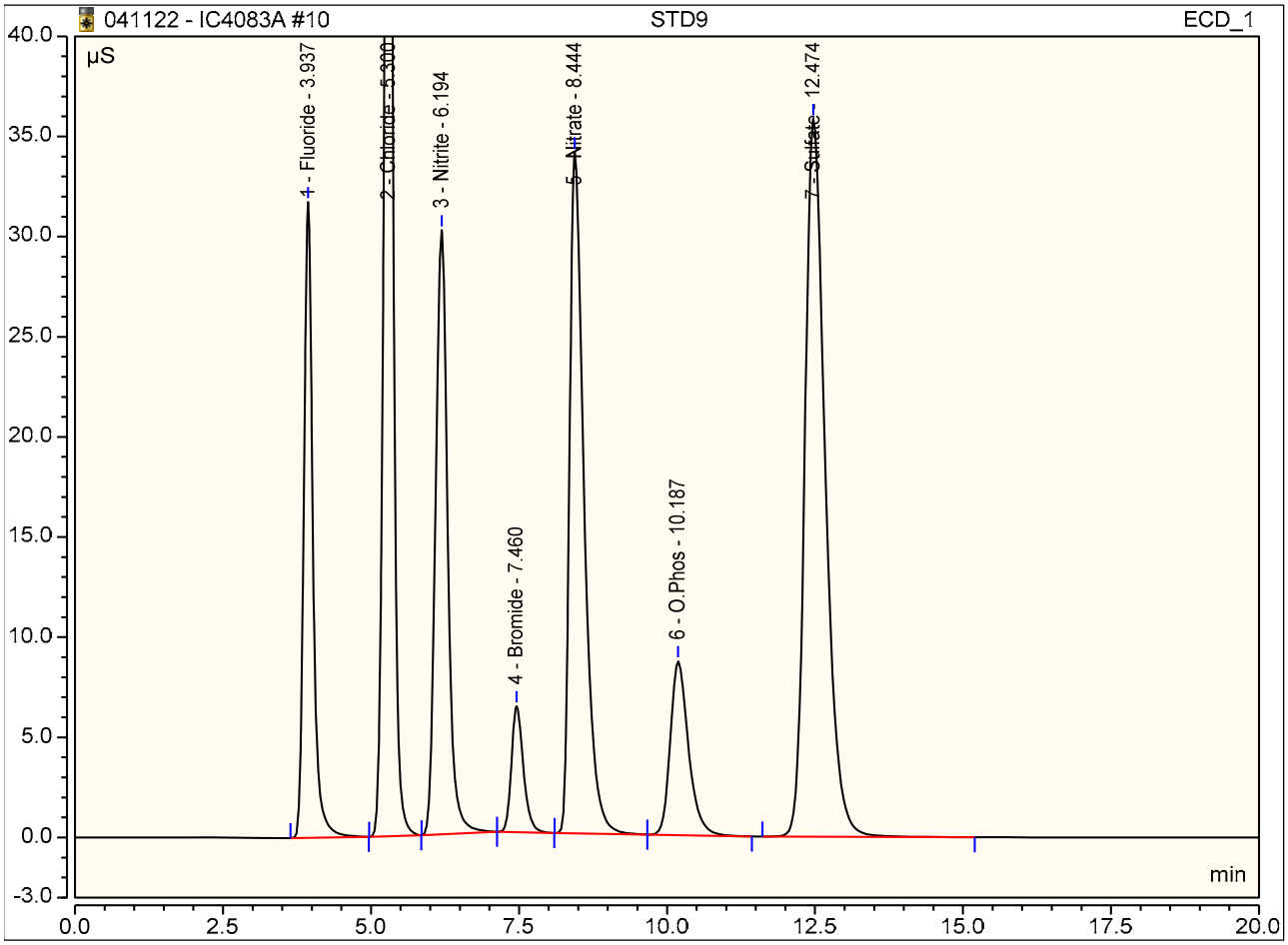
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.93	Fluoride	2.717	15.561	7.1878
2	5.29	Chloride	8.896	53.860	29.6784
3	6.17	Nitrite	3.517	15.355	7.1440
4	7.47	Bromide	0.714	2.995	7.1136
5	8.50	Nitrate	4.415	15.589	7.0971
6	10.21	O.Phos	1.465	3.953	7.3214
7	12.50	Sulfate	9.838	24.609	49.1936



Peak Integration Report

Sample Name:	**STD9**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 12:08**	*Run Time:*	**20.00**

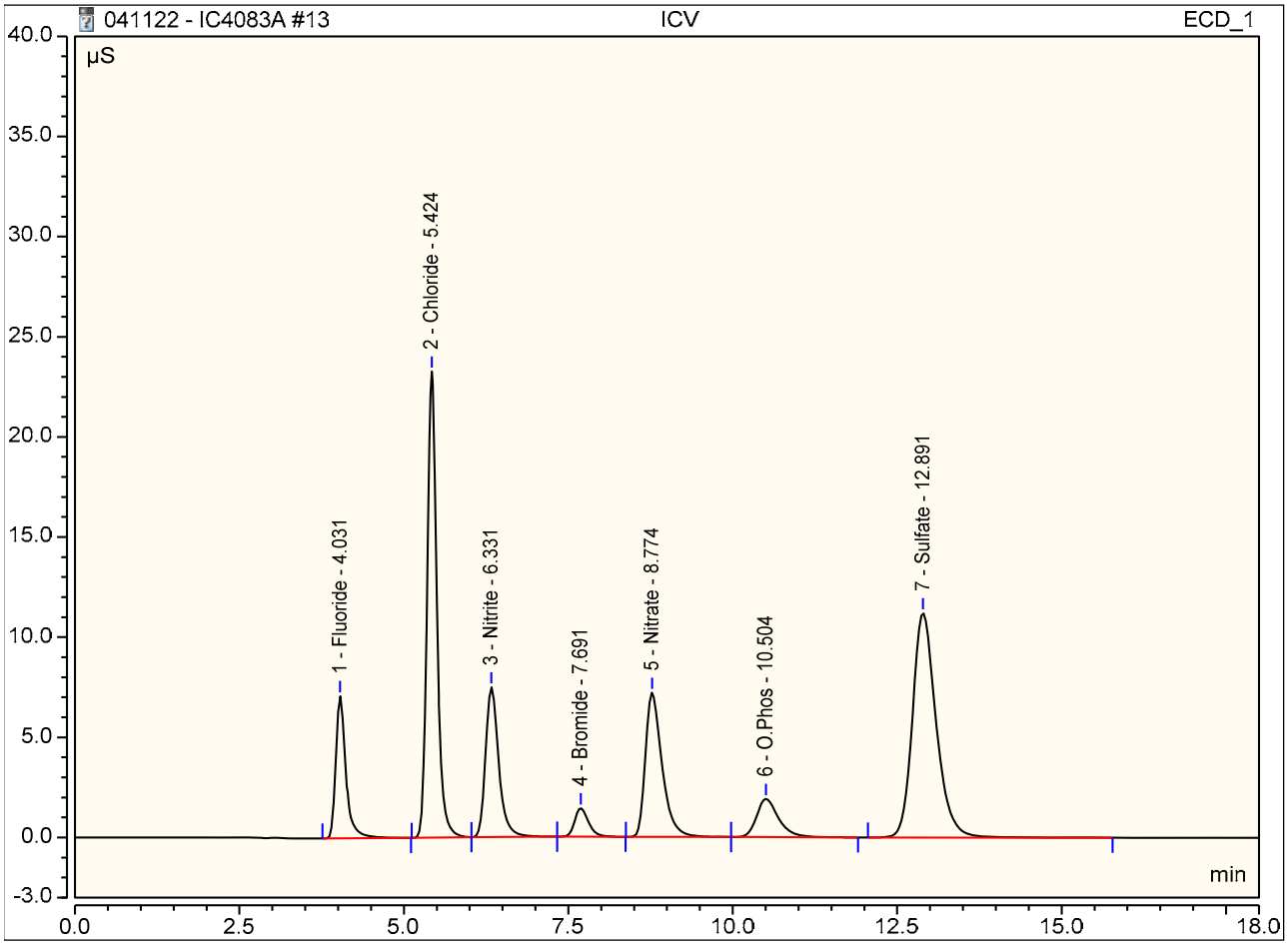
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	3.94	Fluoride	5.599	31.745	14.7622
2	5.30	Chloride	12.273	73.119	40.8007
3	6.19	Nitrite	7.180	30.163	14.5558
4	7.46	Bromide	1.474	6.295	14.6885
5	8.44	Nitrate	9.649	34.001	15.4239
6	10.19	O.Phos	3.093	8.686	15.4418
7	12.47	Sulfate	14.290	35.833	71.2153



Peak Integration Report

Sample Name:	**ICV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 13:30**	*Run Time:*	**18.00**

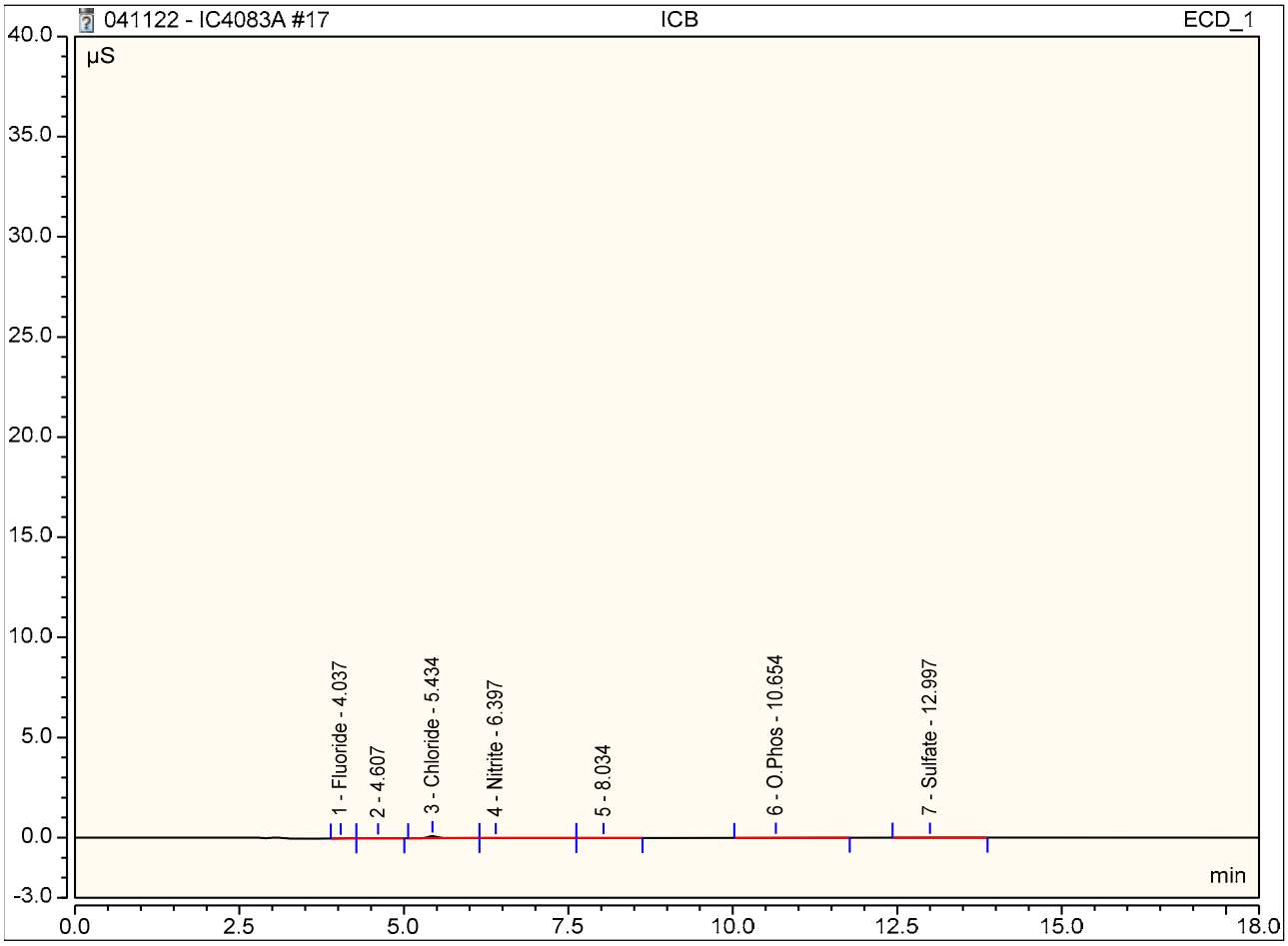
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	1.272	7.107	3.3920
2	5.42	Chloride	3.988	23.280	13.5114
3	6.33	Nitrite	1.743	7.475	3.5533
4	7.69	Bromide	0.353	1.423	3.5169
5	8.77	Nitrate	2.118	7.203	3.4426
6	10.50	O.Phos	0.743	1.906	3.7220
7	12.89	Sulfate	4.690	11.208	23.7252



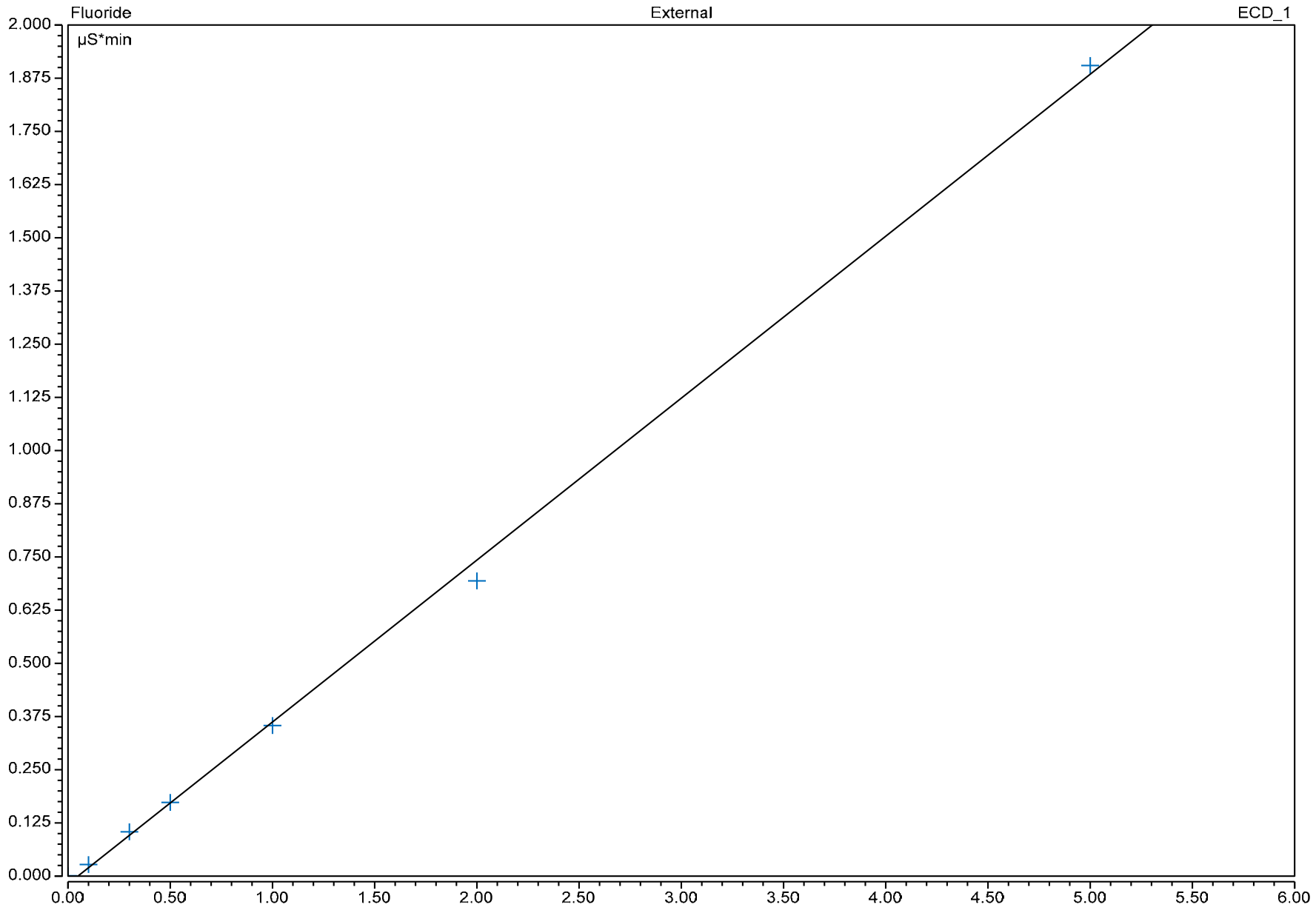
Peak Integration Report

Sample Name:	**ICB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**aquion**
Inj. Date / Time:	**11-Apr-2022 / 14:34**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.001	0.004	0.0503
3	5.43	Chloride	0.020	0.102	0.4397
4	6.40	Nitrite	0.001	0.001	0.0280
6	10.65	O.Phos	0.005	0.009	0.0420
7	13.00	Sulfate	0.003	0.006	0.5356



Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	Fluoride	Lin, WithOffset	Area	7	5.5819	0.99878	-0.0185	0.3805	0.0000
2	Chloride	Lin, WithOffset	Area	9	5.8328	0.99819	-0.1136	0.3036	0.0000
3	Nitrite	Lin, WithOffset	Area	6	2.8537	0.99960	-0.0129	0.4941	0.0000
4	Bromide	Lin, WithOffset	Area	6	1.9626	0.99980	-0.0005	0.1004	0.0000
5	Nitrate	Lin, WithOffset	Area	7	4.1303	0.99905	-0.0463	0.6286	0.0000
6	O.Phos	Lin, WithOffset	Area	7	5.9443	0.99854	-0.0032	0.2005	0.0000
7	*Sulfate*	*Lin, WithOffset*	*Area*	*9*	*4.7518*	*0.99903*	*-0.1055*	*0.2021*	*0.0000*
Maximum					**5.9443**	0.99980			
Minimum					1.9626	**0.99819**			


Fluoride
External
ECD_1
µS*min
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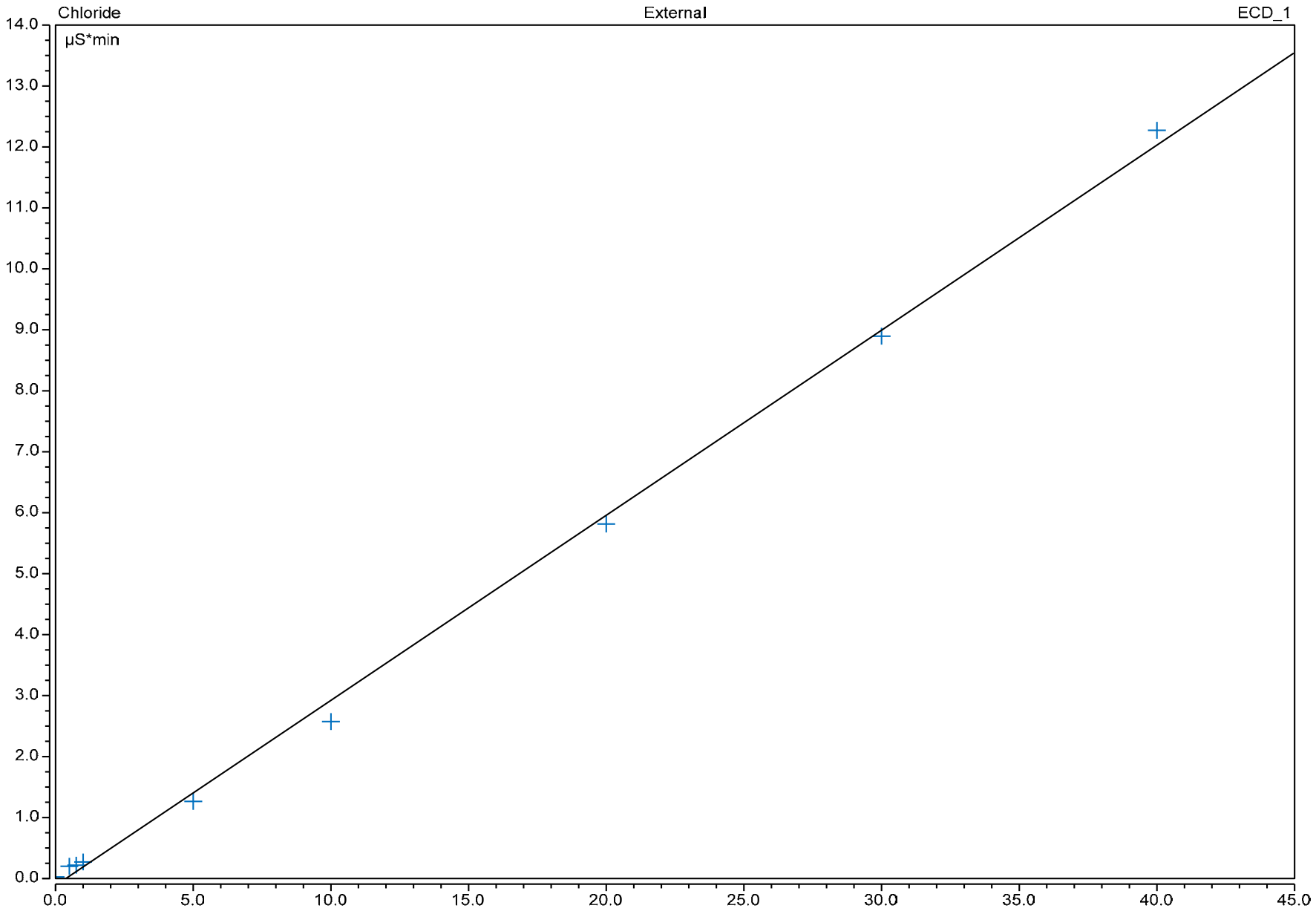
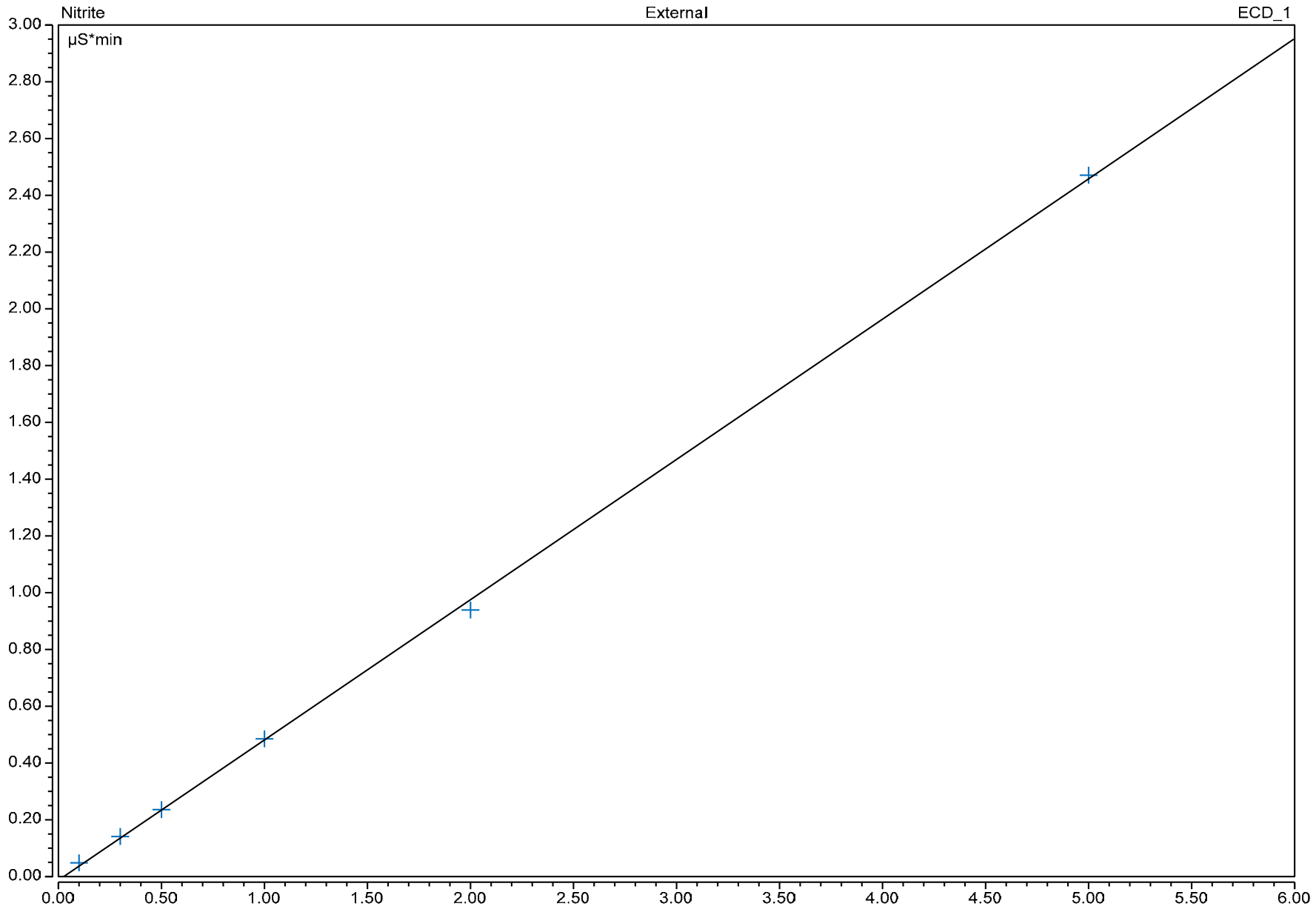
1.875
1.750
1.625
1.500
1.375
1.250
1.125
1.000
0.875
0.750
0.625
0.500
0.375
0.250
0.125
0.000
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

RJ 05/05/2022


Chloride
External
ECD_1
µS*min
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0

RJ 05/05/2022


Nitrite
External
ECD_1
µS*min
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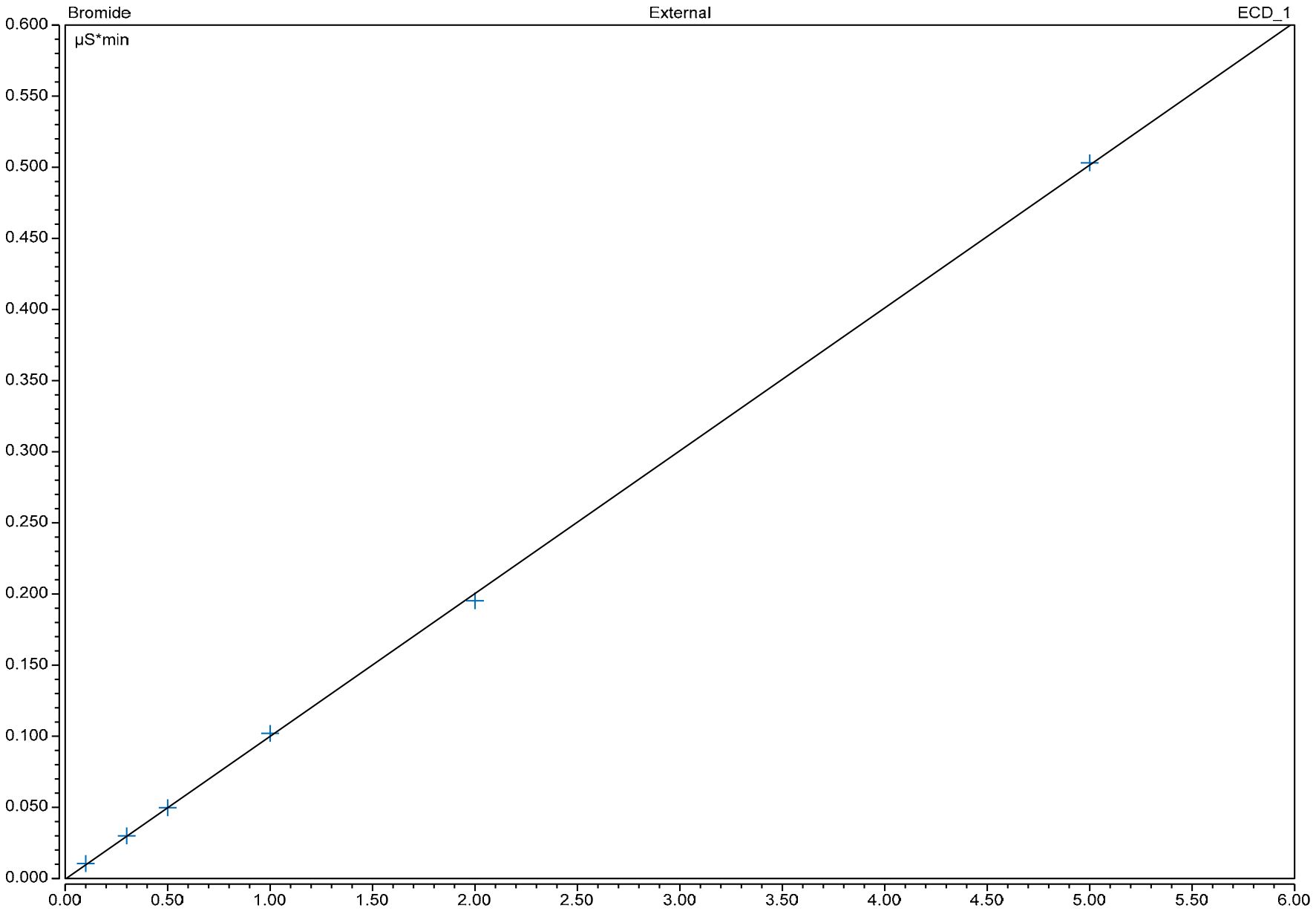
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0.00
0.50
1.00
1.50
2.00
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

RJ 05/05/2022


Bromide
External
ECD_1
µS*min
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0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.00
0.50
1.00
1.50
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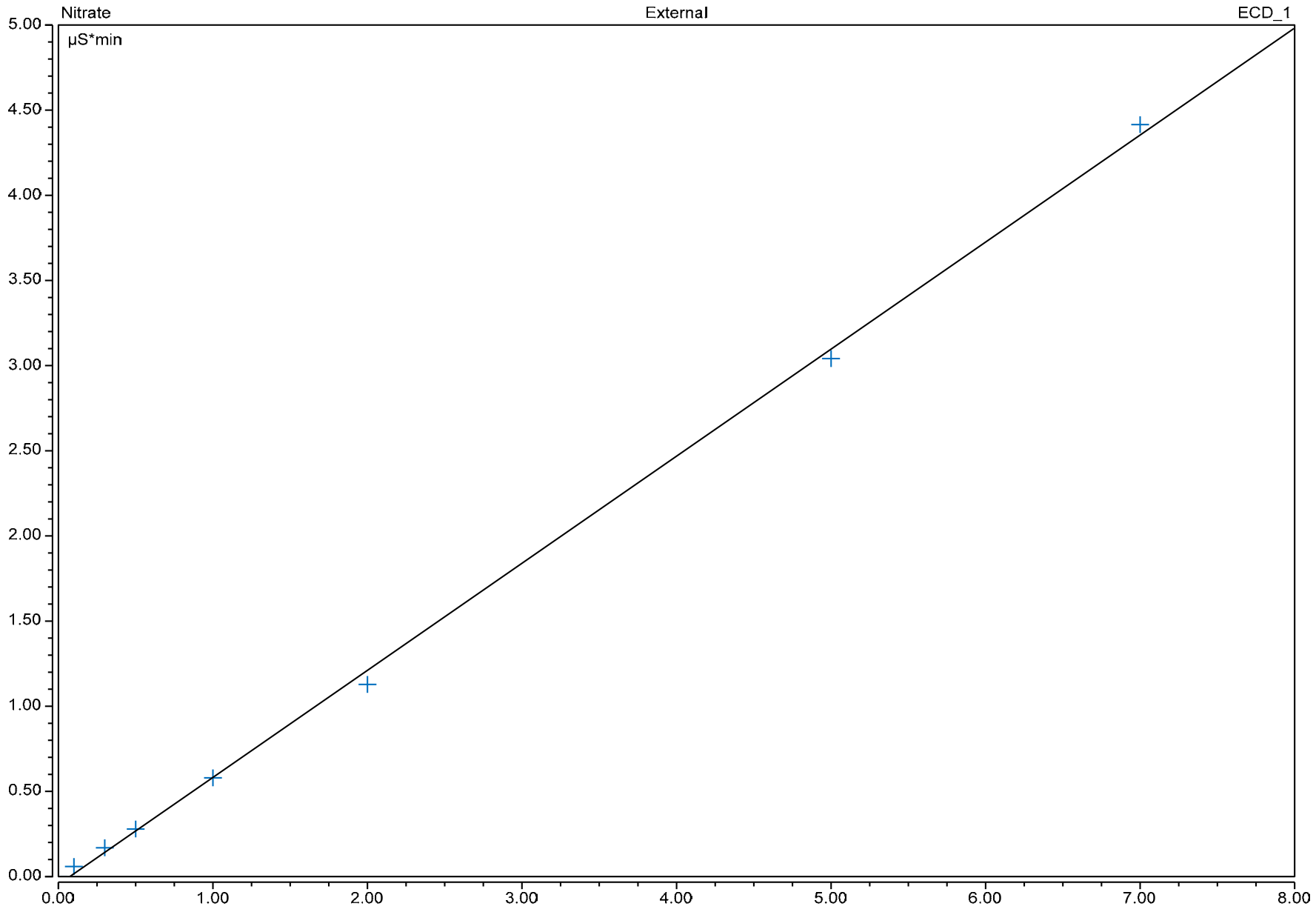
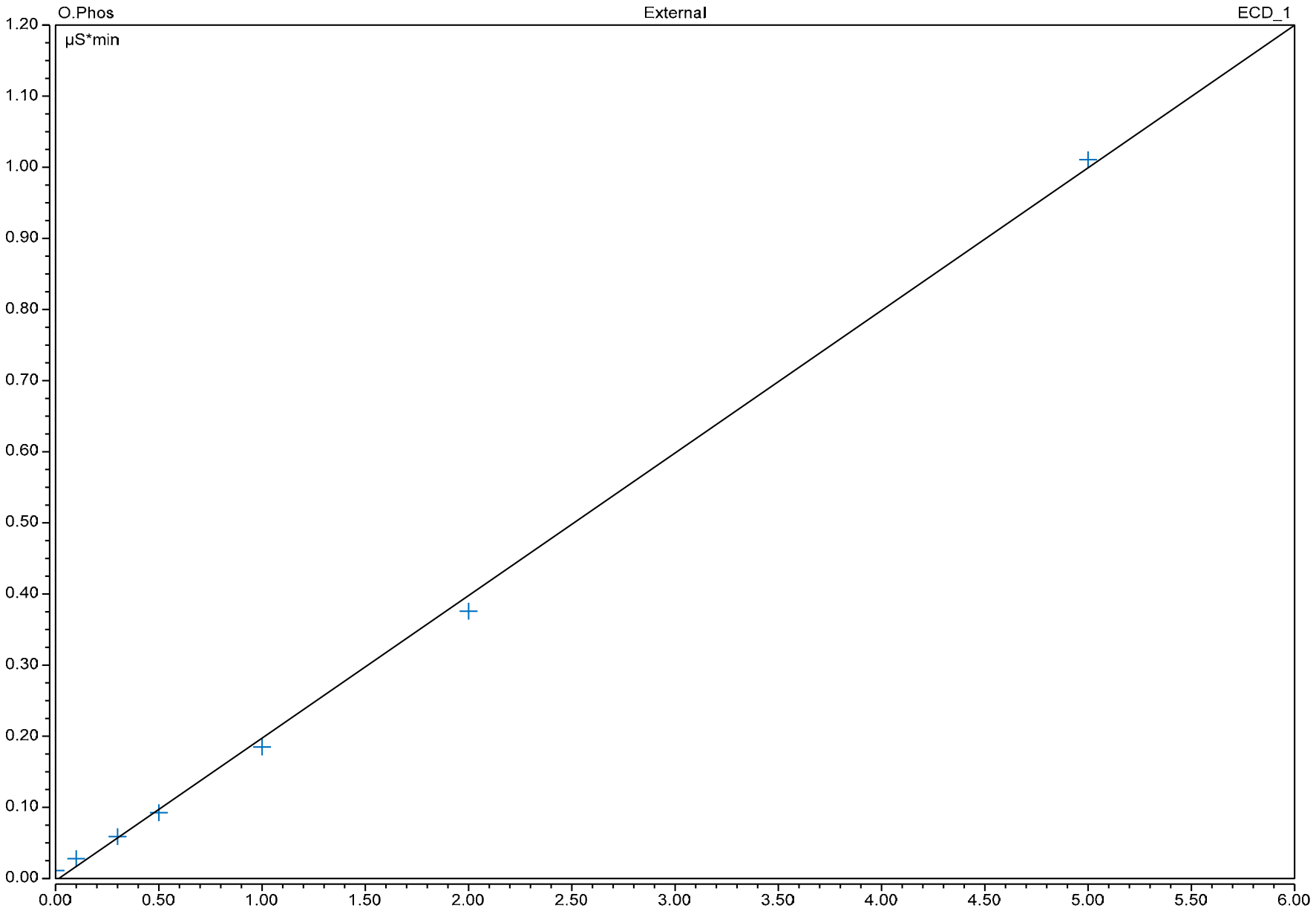
2.50
3.00
3.50
4.00
4.50
5.00
5.50
6.00

RJ 05/05/2022


Nitrate
External
ECD_1
µS*min
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00

RJ 05/05/2022


O.Phos
External
ECD_1
µS*min
1.20
1.10
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.00
0.50
1.00
1.50
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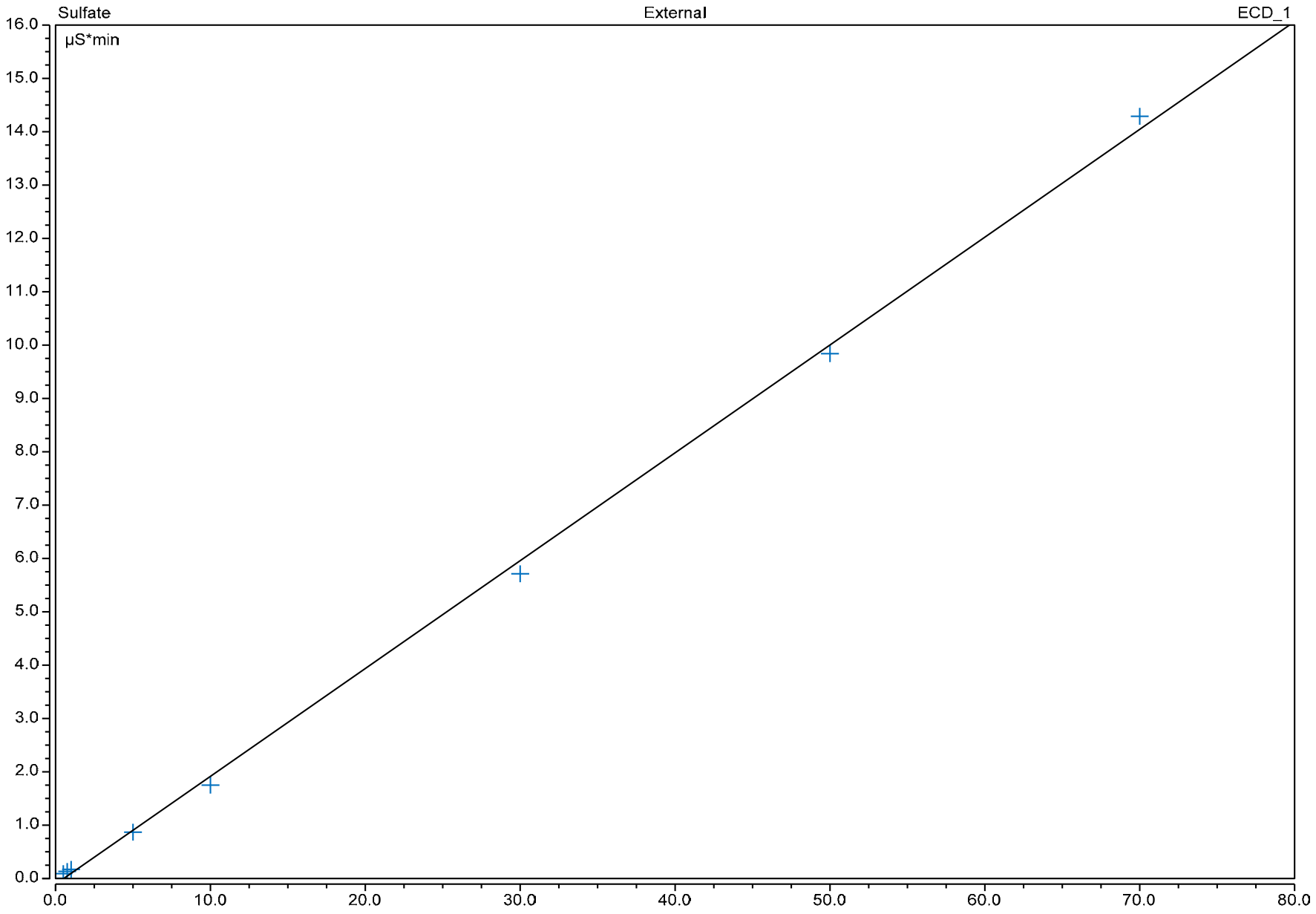
3.00
3.50
4.00
4.50
5.00
5.50
6.00

RJ 05/05/2022


Sulfate
External
ECD_1
µS*min
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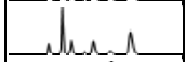
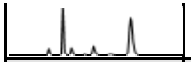
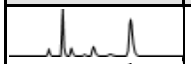
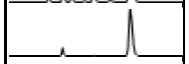
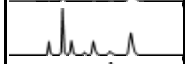
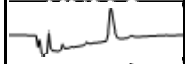
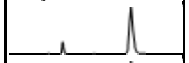
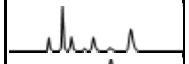
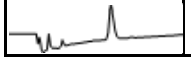
15.0
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0

RJ 05/05/2022

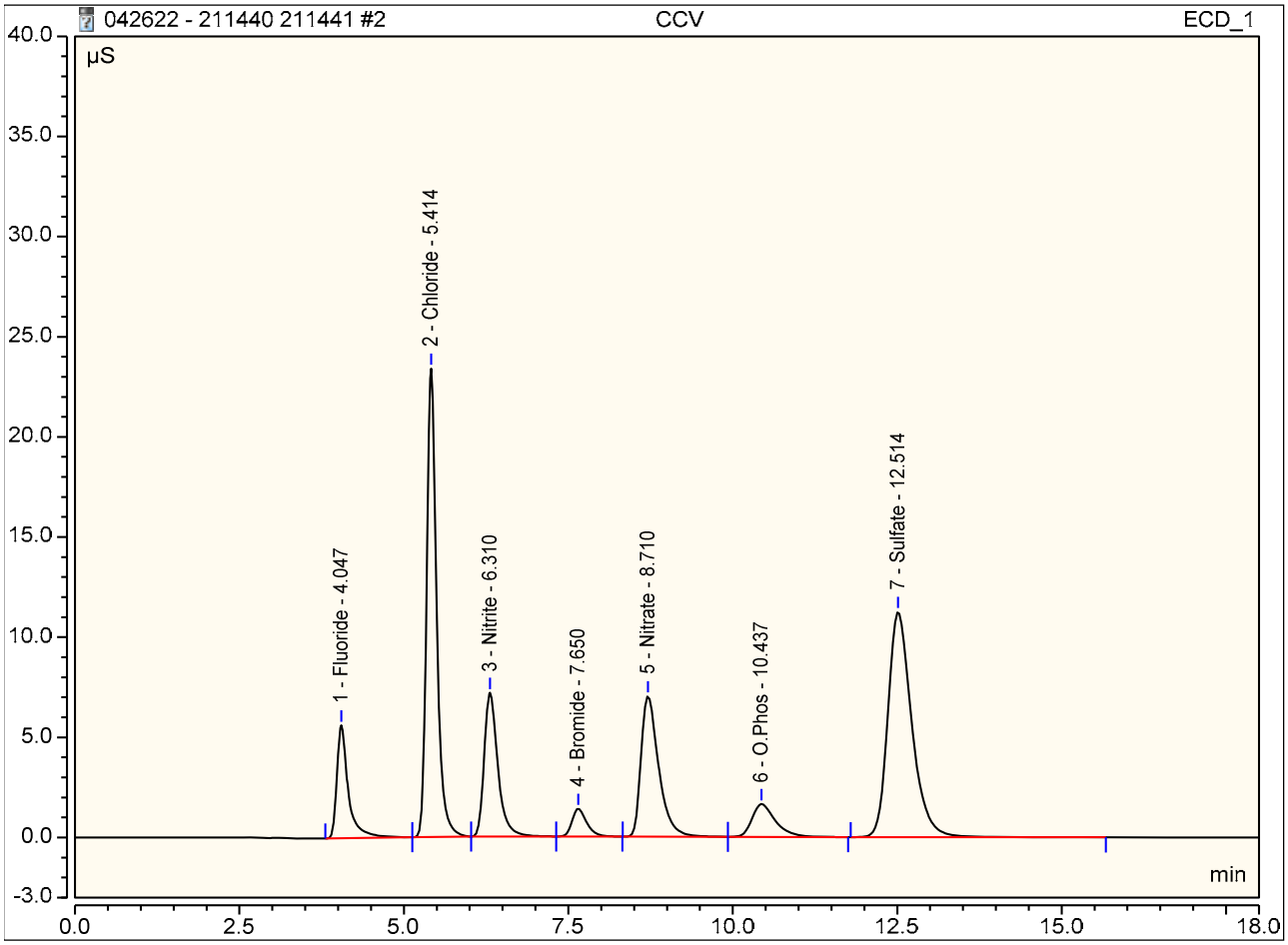
ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	CCV	1.0000	Unknown		2	5000	Anions	IC4083A	Finished
	LCSW	1.0000	Unknown		3	5000	Anions	IC4083A	Finished
	MBW	1.0000	Unknown		4	5000	Anions	IC4083A	Finished
	CCV	1.0000	Unknown		15	5000	Anions	IC4083A	Finished
	CCB	1.0000	Unknown		16	5000	Anions	IC4083A	Finished
	1134804	1.0000	Unknown		21	5000	Anions	IC4083A	Finished
	DUP1134804	1.0000	Unknown		22	5000	Anions	IC4083A	Finished

ECD_1	Name	Dilution	Type	Level	Position	Volume	Instrument Method	Processing Method	Status
	MSW1134804	1.0000	Unknown		23	5000	Anions	IC4083A	Finished
	MSDW1134804	1.0000	Unknown		24	5000	Anions	IC4083A	Finished
	1134805	1.0000	Unknown		25	5000	Anions	IC4083A	Finished
	1134805X5	1.0000	Unknown		26	5000	Anions	IC4083A	Finished
	CCV	1.0000	Unknown		27	5000	Anions	IC4083A	Finished
	CCB	1.0000	Unknown		28	5000	Anions	IC4083A	Finished
									
									
									

Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 12:11**	*Run Time:*	**18.00**

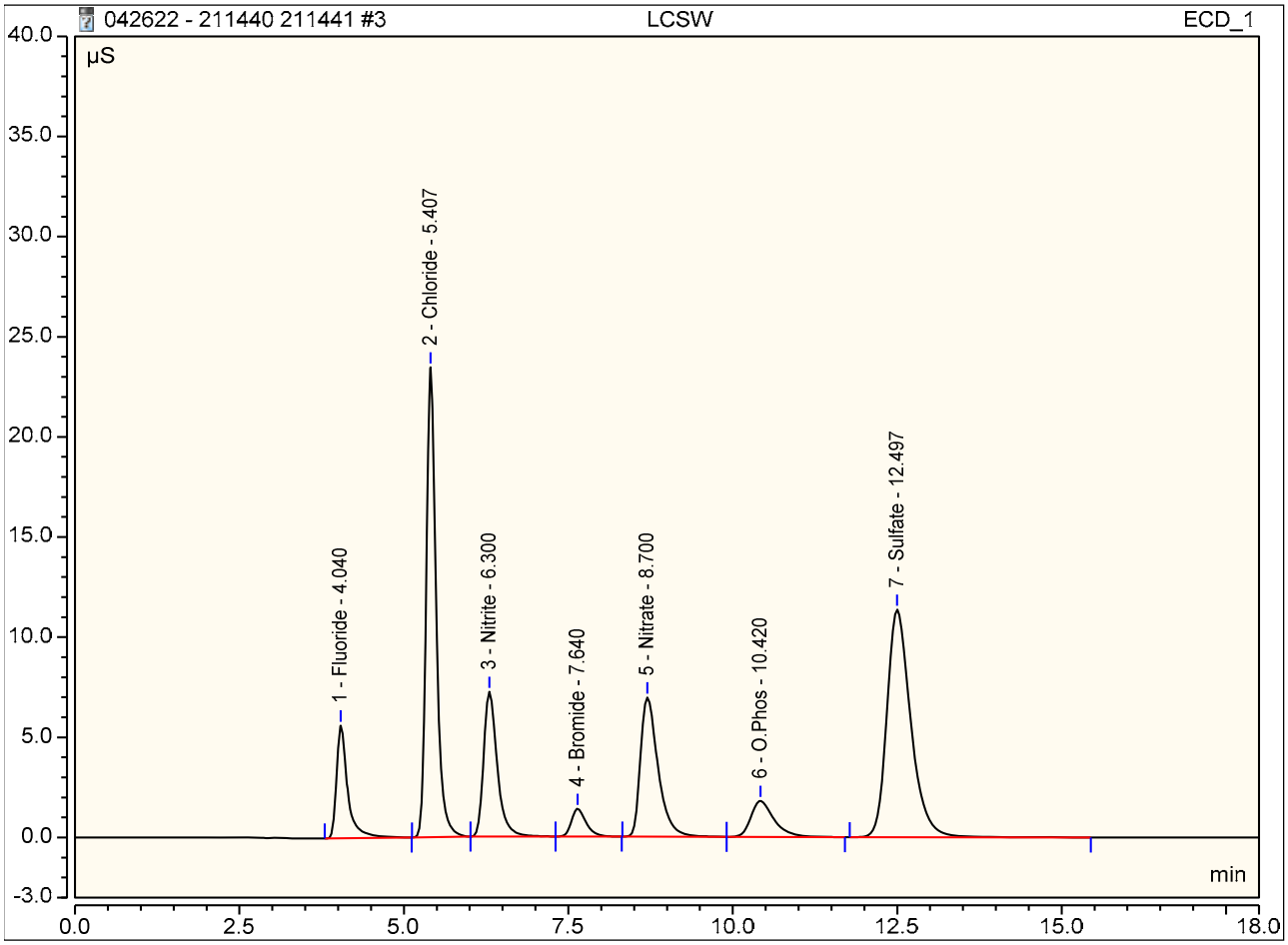
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.05	Fluoride	1.140	5.631	3.0456
2	5.41	Chloride	4.099	23.392	13.8757
3	6.31	Nitrite	1.735	7.174	3.5365
4	7.65	Bromide	0.360	1.388	3.5925
5	8.71	Nitrate	2.183	7.018	3.5462
6	10.44	O.Phos	0.679	1.638	3.4002
7	12.51	Sulfate	4.745	11.257	23.9956



Peak Integration Report

Sample Name:	**LCSW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 12:29**	*Run Time:*	**18.00**

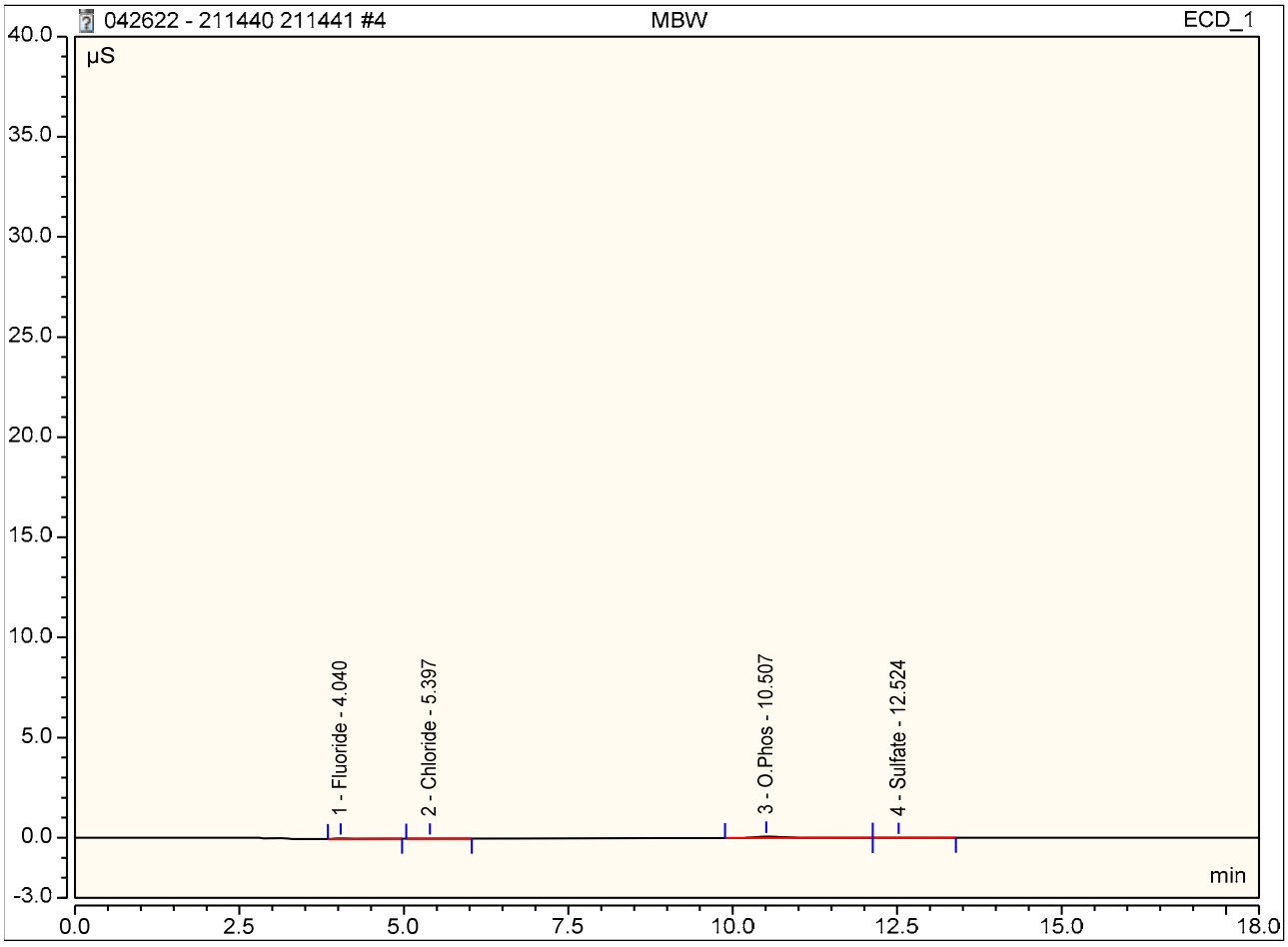
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	1.111	5.633	2.9670
2	5.41	Chloride	4.090	23.464	13.8457
3	6.30	Nitrite	1.739	7.234	3.5458
4	7.64	Bromide	0.359	1.388	3.5781
5	8.70	Nitrate	2.158	6.955	3.5074
6	10.42	O.Phos	0.732	1.800	3.6656
7	12.50	Sulfate	4.786	11.362	24.2013



Peak Integration Report

Sample Name:	**MBW**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 12:47**	*Run Time:*	**18.00**

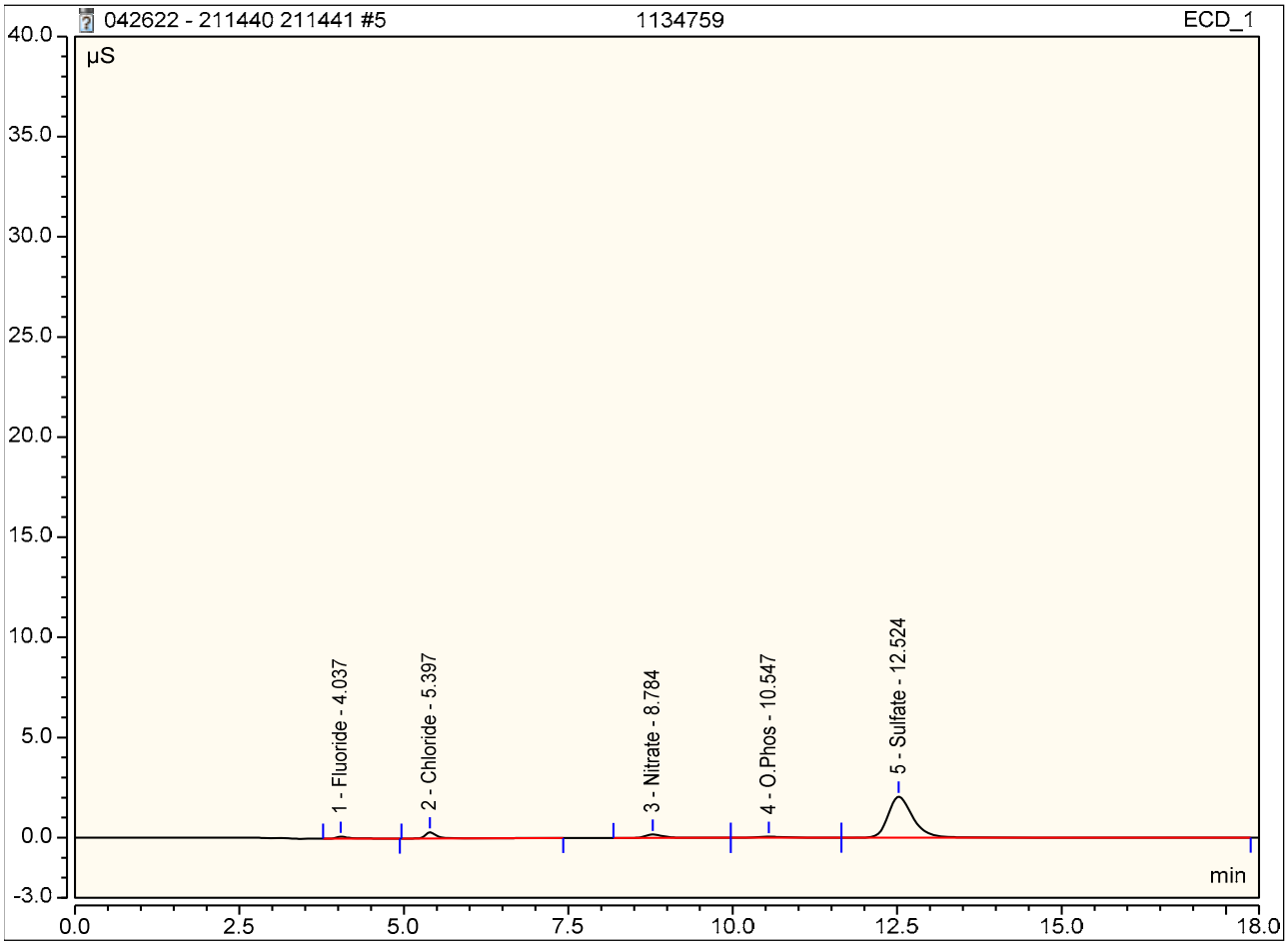
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.008	0.028	0.0706
2	5.40	Chloride	0.005	0.021	0.3897
3	10.51	O.Phos	0.040	0.072	0.2180
4	12.52	Sulfate	0.002	0.004	0.5311



Peak Integration Report

Sample Name:	**1134759**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 13:06**	*Run Time:*	**18.00**

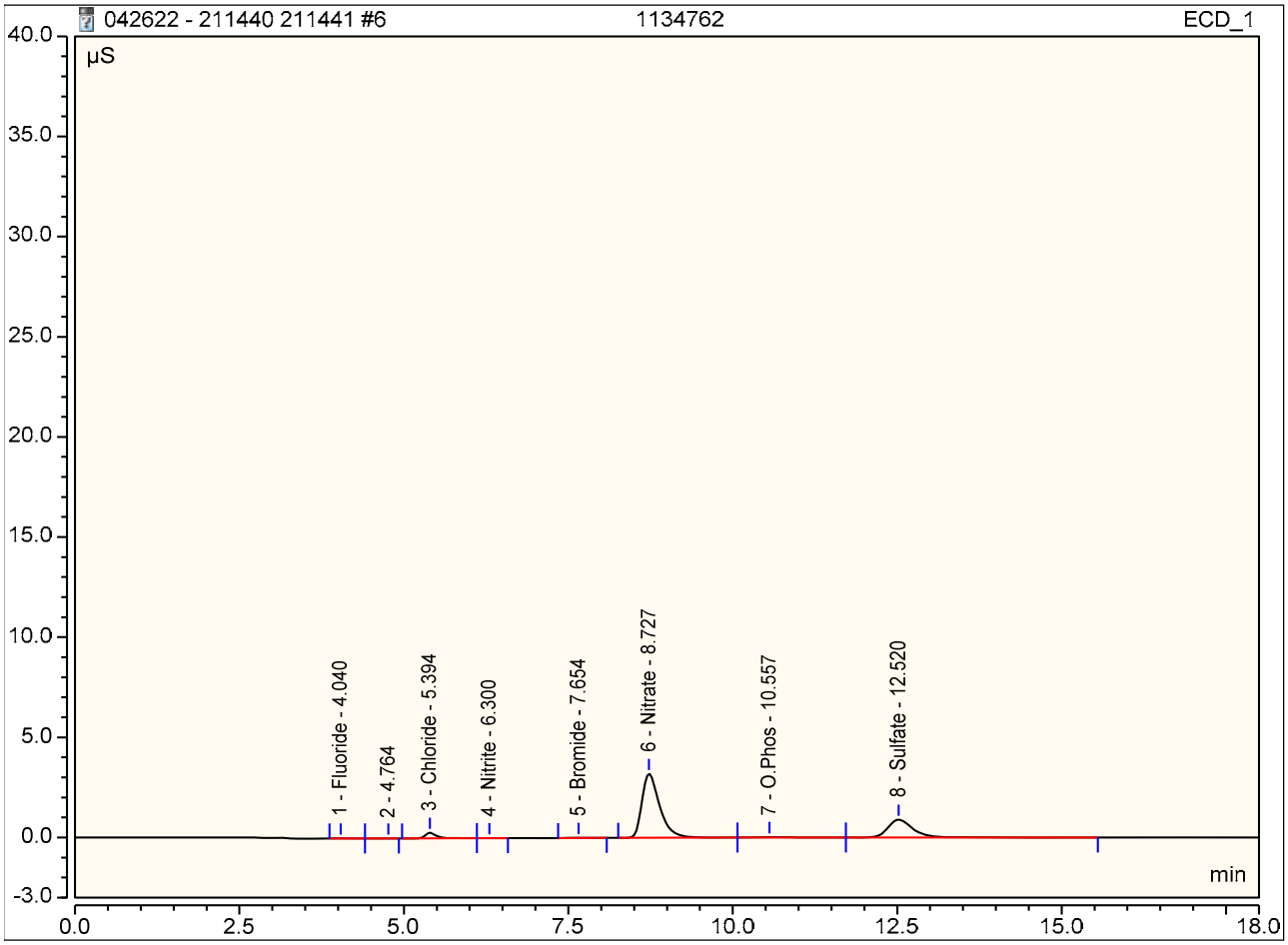
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.025	0.104	0.1153
2	5.40	Chloride	0.067	0.309	0.5932
3	8.78	Nitrate	0.053	0.166	0.1572
4	10.55	O.Phos	0.027	0.049	0.1528
5	12.52	Sulfate	0.910	2.053	5.0230



Peak Integration Report

Sample Name:	**1134762**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 13:24**	*Run Time:*	**18.00**

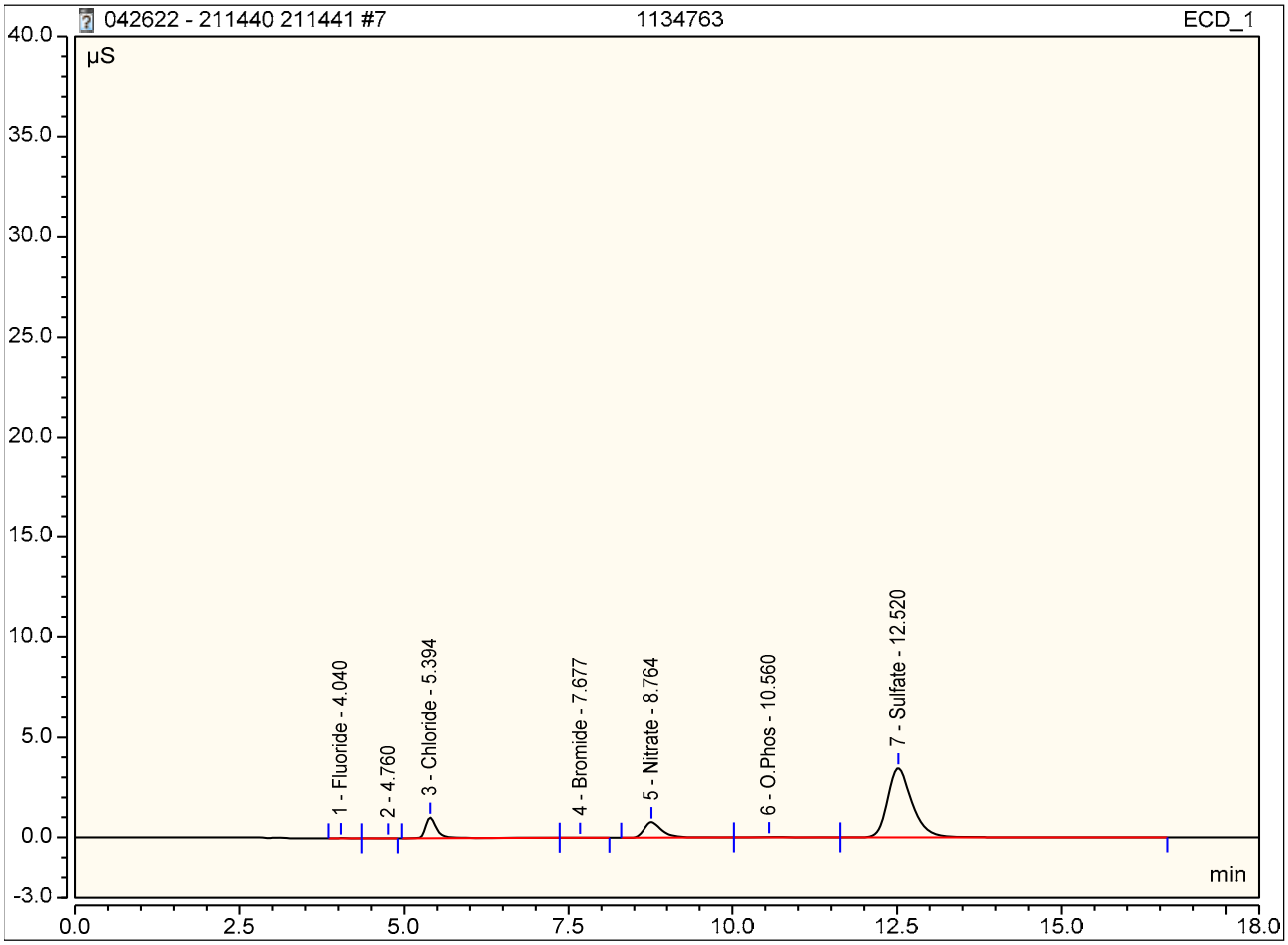
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.002	0.010	0.0540
3	5.39	Chloride	0.055	0.279	0.5543
4	6.30	Nitrite	0.000	0.002	0.0272
5	7.65	Bromide	0.001	0.004	0.0145
6	8.73	Nitrate	1.000	3.198	1.6643
7	10.56	O.Phos	0.015	0.028	0.0918
8	12.52	Sulfate	0.398	0.893	2.4921



Peak Integration Report

Sample Name:	**1134763**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 13:42**	*Run Time:*	**18.00**

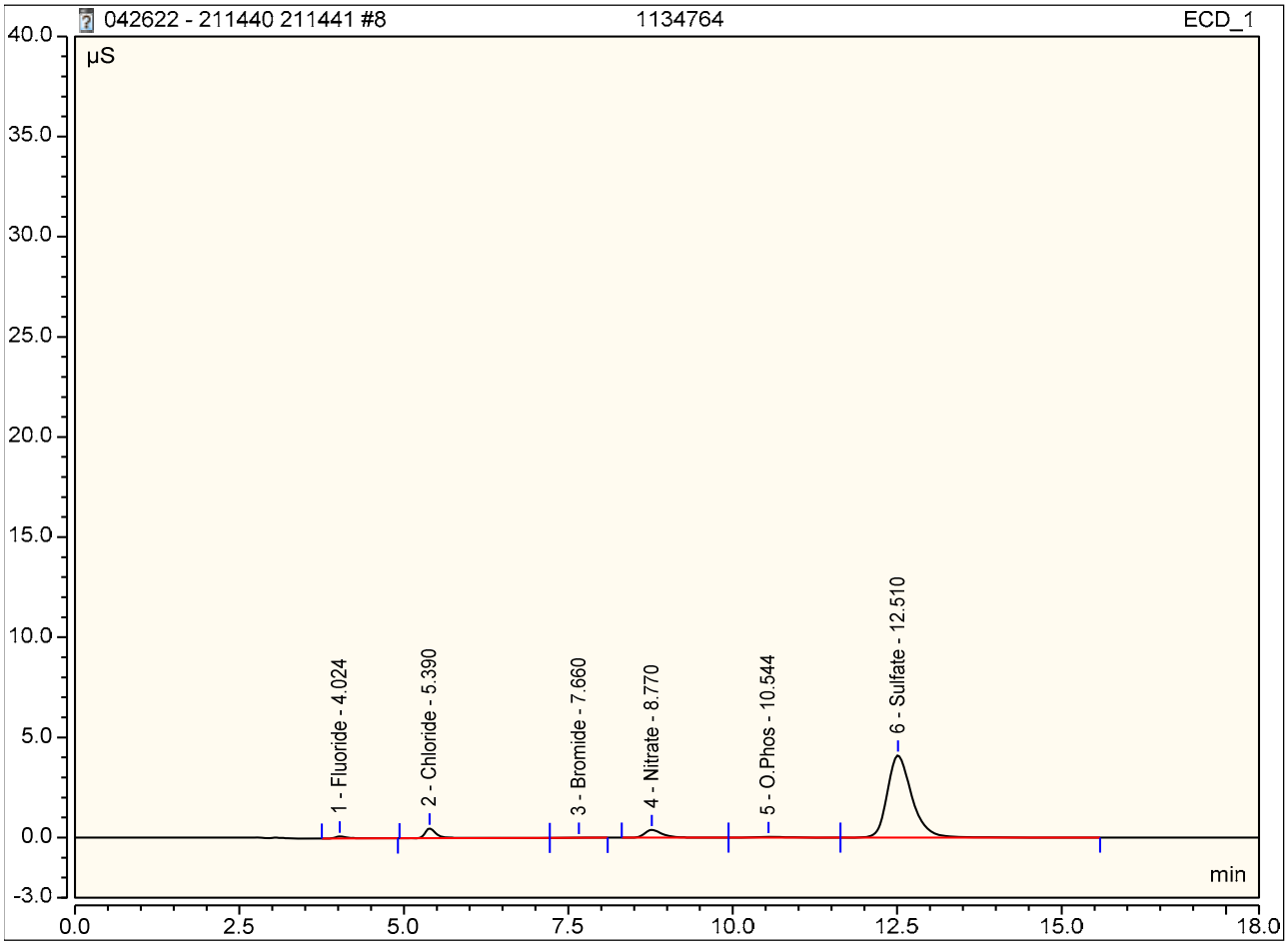
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.001	0.008	0.0523
3	5.39	Chloride	0.205	1.030	1.0477
4	7.68	Bromide	0.001	0.003	0.0123
5	8.76	Nitrate	0.243	0.773	0.4599
6	10.56	O.Phos	0.012	0.022	0.0758
7	12.52	Sulfate	1.513	3.472	8.0066



Peak Integration Report

Sample Name:	**1134764**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 14:00**	*Run Time:*	**18.00**

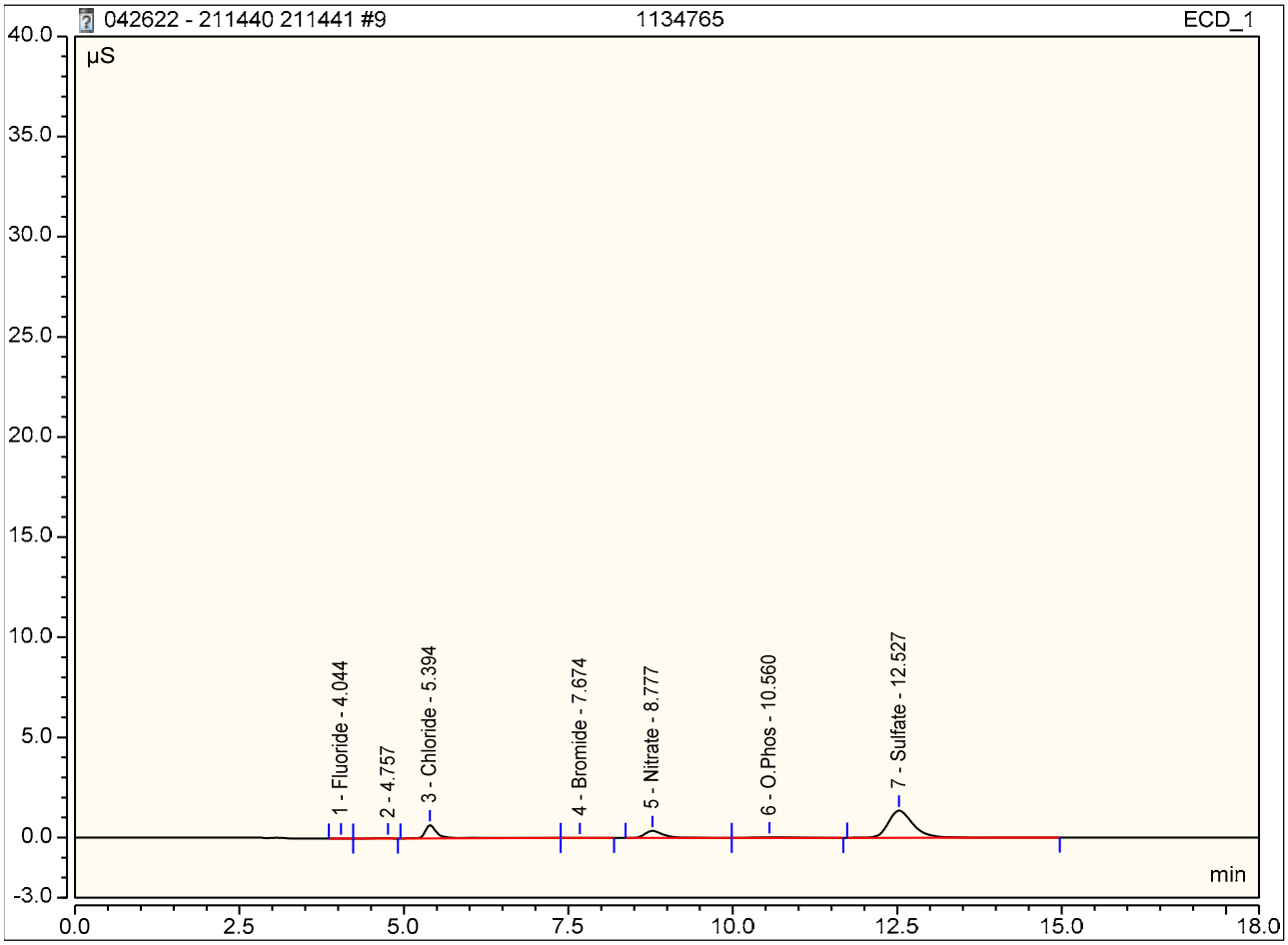
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.02	Fluoride	0.025	0.101	0.1138
2	5.39	Chloride	0.105	0.492	0.7212
3	7.66	Bromide	0.001	0.003	0.0142
4	8.77	Nitrate	0.121	0.388	0.2663
5	10.54	O.Phos	0.019	0.034	0.1108
6	12.51	Sulfate	1.770	4.102	9.2797



Peak Integration Report

Sample Name:	**1134765**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 14:18**	*Run Time:*	**18.00**

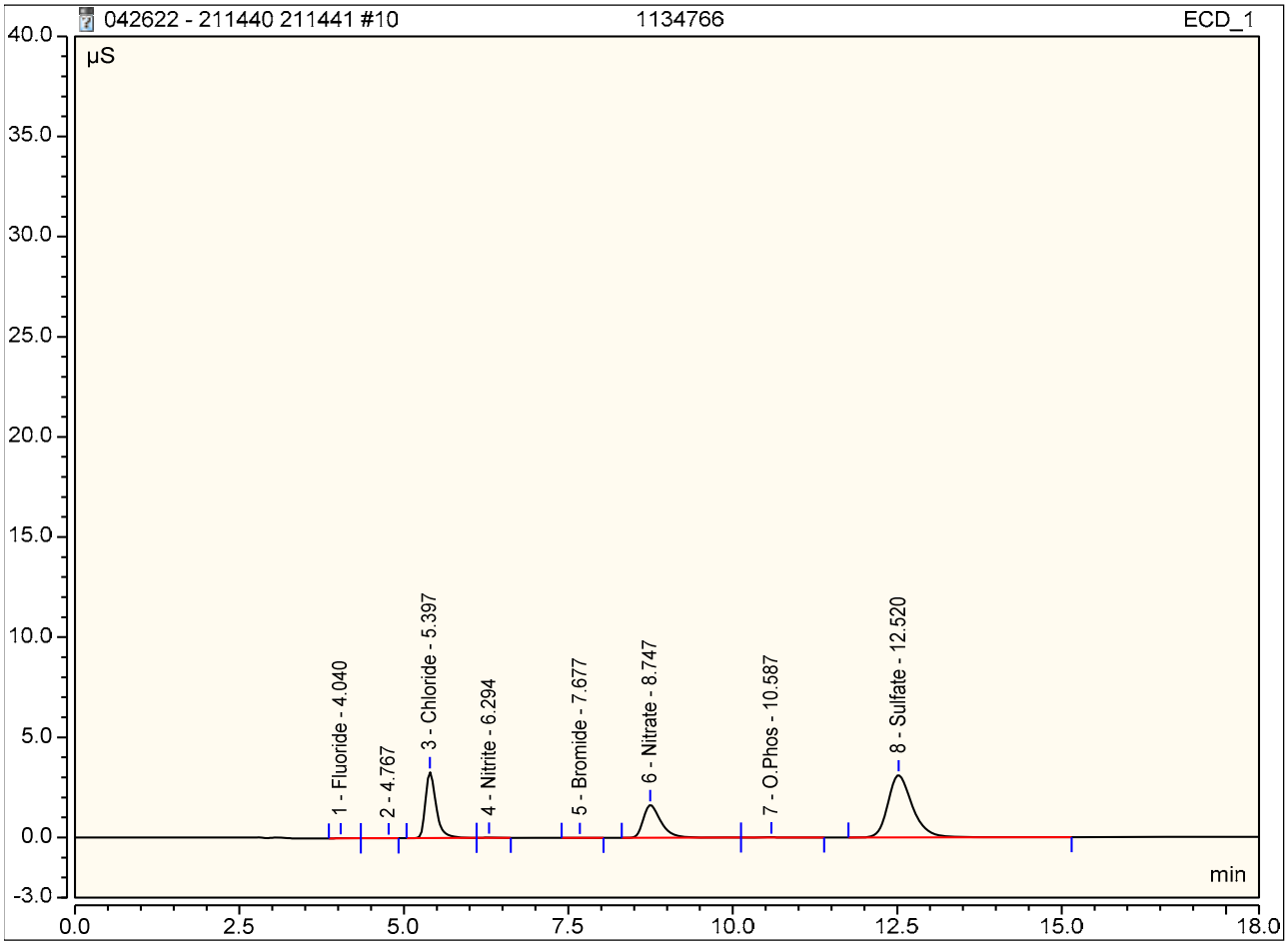
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.001	0.005	0.0509
3	5.39	Chloride	0.135	0.659	0.8198
4	7.67	Bromide	0.001	0.003	0.0131
5	8.78	Nitrate	0.110	0.351	0.2491
6	10.56	O.Phos	0.013	0.024	0.0819
7	12.53	Sulfate	0.592	1.357	3.4505



Peak Integration Report

Sample Name:	**1134766**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 14:36**	*Run Time:*	**18.00**

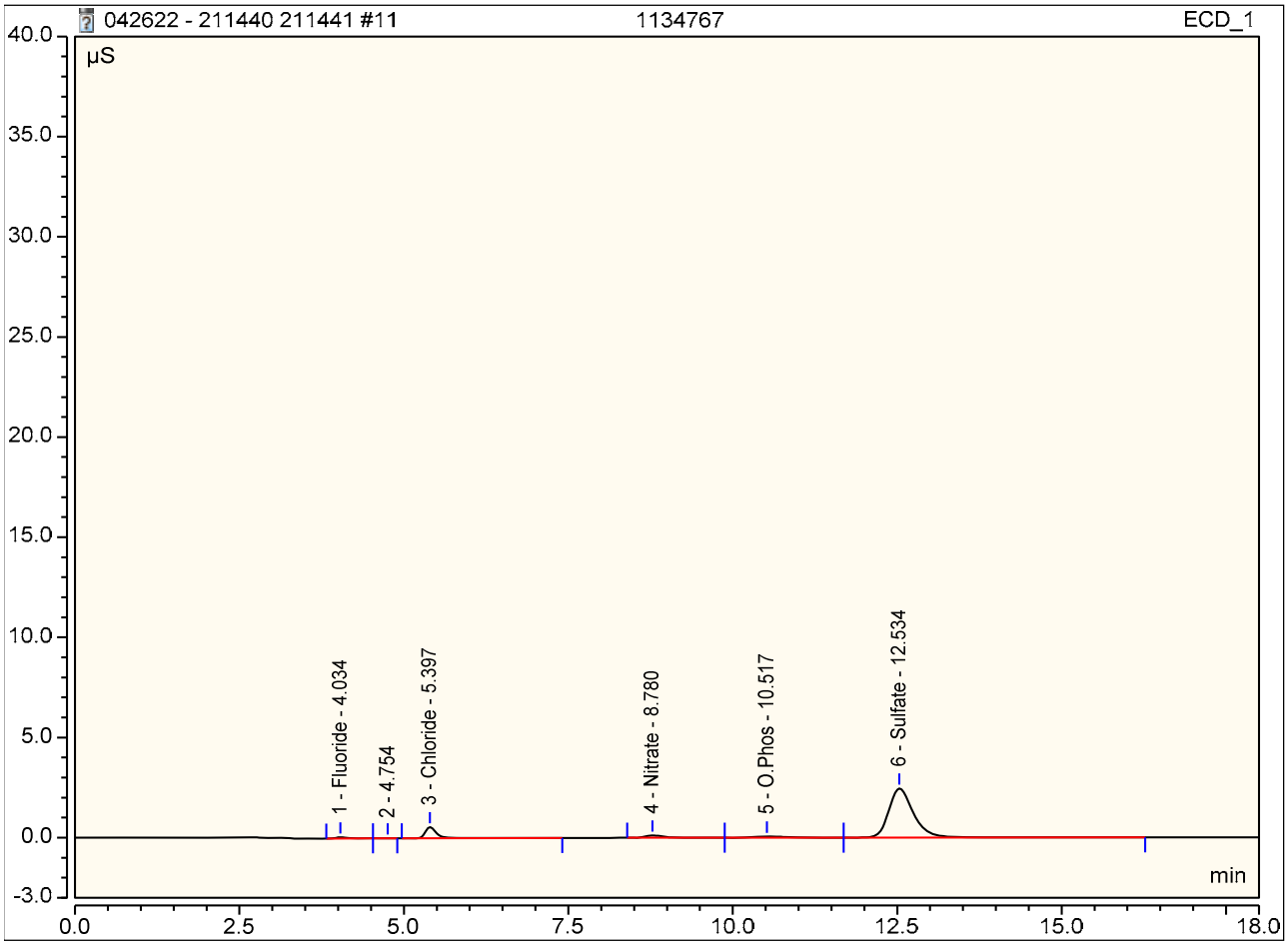
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.002	0.009	0.0528
3	5.40	Chloride	0.618	3.297	2.4104
4	6.29	Nitrite	0.003	0.017	0.0333
5	7.68	Bromide	0.001	0.002	0.0106
6	8.75	Nitrate	0.510	1.632	0.8852
7	10.59	O.Phos	0.007	0.014	0.0531
8	12.52	Sulfate	1.348	3.112	7.1895



Peak Integration Report

Sample Name:	**1134767**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 14:54**	*Run Time:*	**18.00**

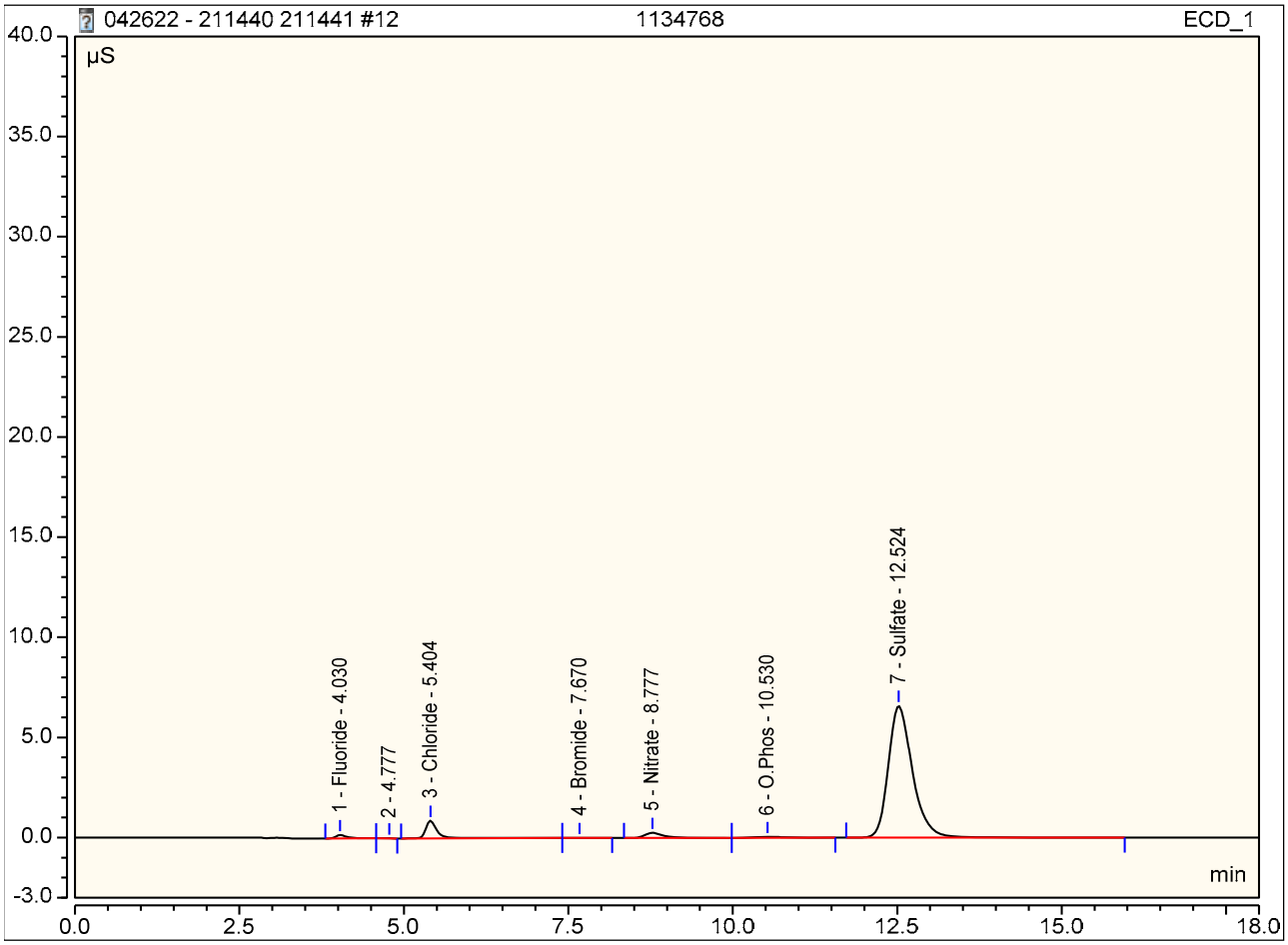
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.011	0.054	0.0763
3	5.40	Chloride	0.115	0.564	0.7542
4	8.78	Nitrate	0.037	0.118	0.1332
5	10.52	O.Phos	0.030	0.056	0.1671
6	12.53	Sulfate	1.066	2.449	5.7973



Peak Integration Report

Sample Name:	**1134768**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 15:12**	*Run Time:*	**18.00**

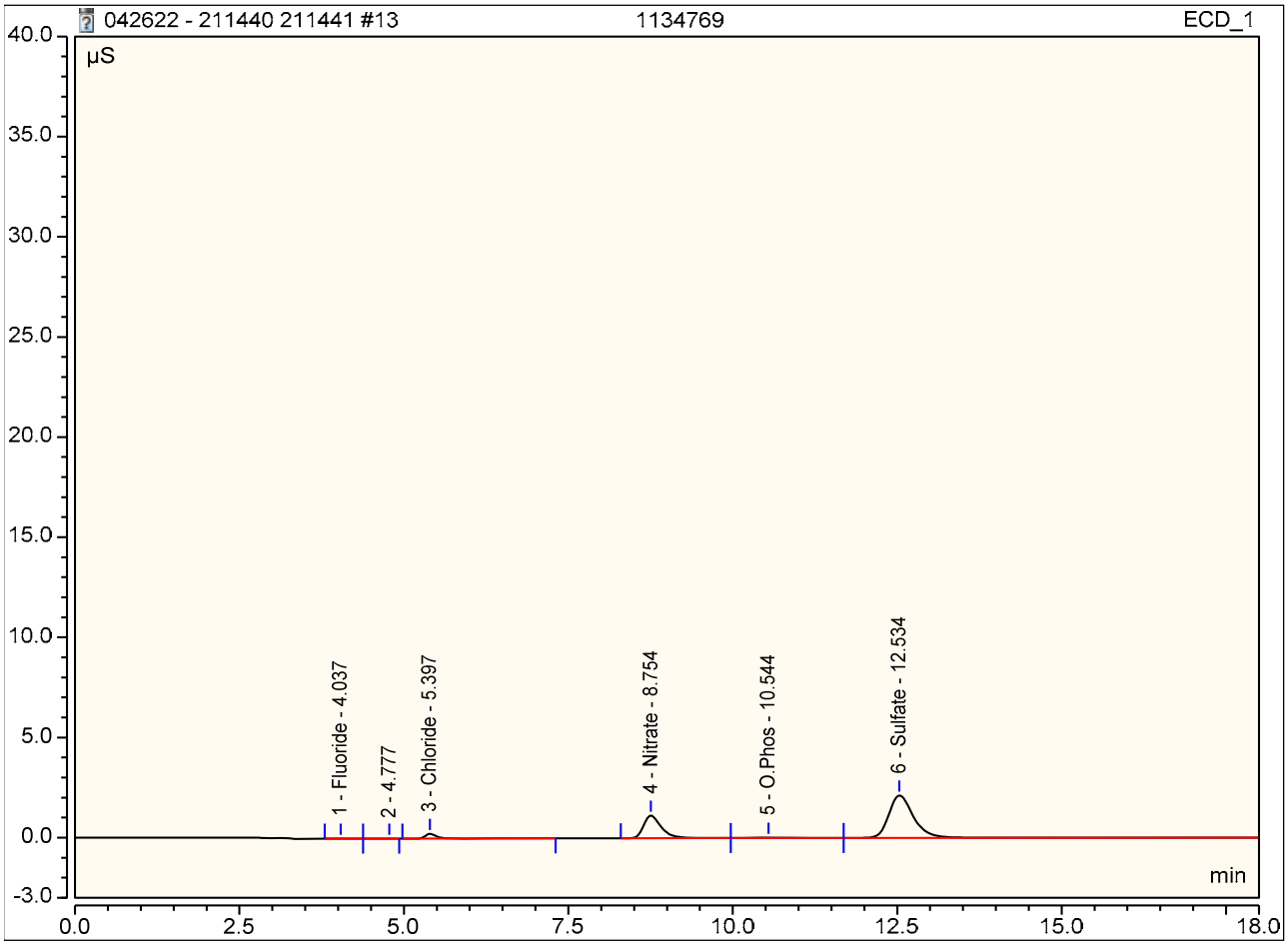
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.033	0.170	0.1353
3	5.40	Chloride	0.180	0.880	0.9655
4	7.67	Bromide	0.001	0.003	0.0152
5	8.78	Nitrate	0.080	0.256	0.2012
6	10.53	O.Phos	0.024	0.044	0.1336
7	12.52	Sulfate	2.806	6.587	14.4026



Peak Integration Report

Sample Name:	**1134769**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 15:30**	*Run Time:*	**18.00**

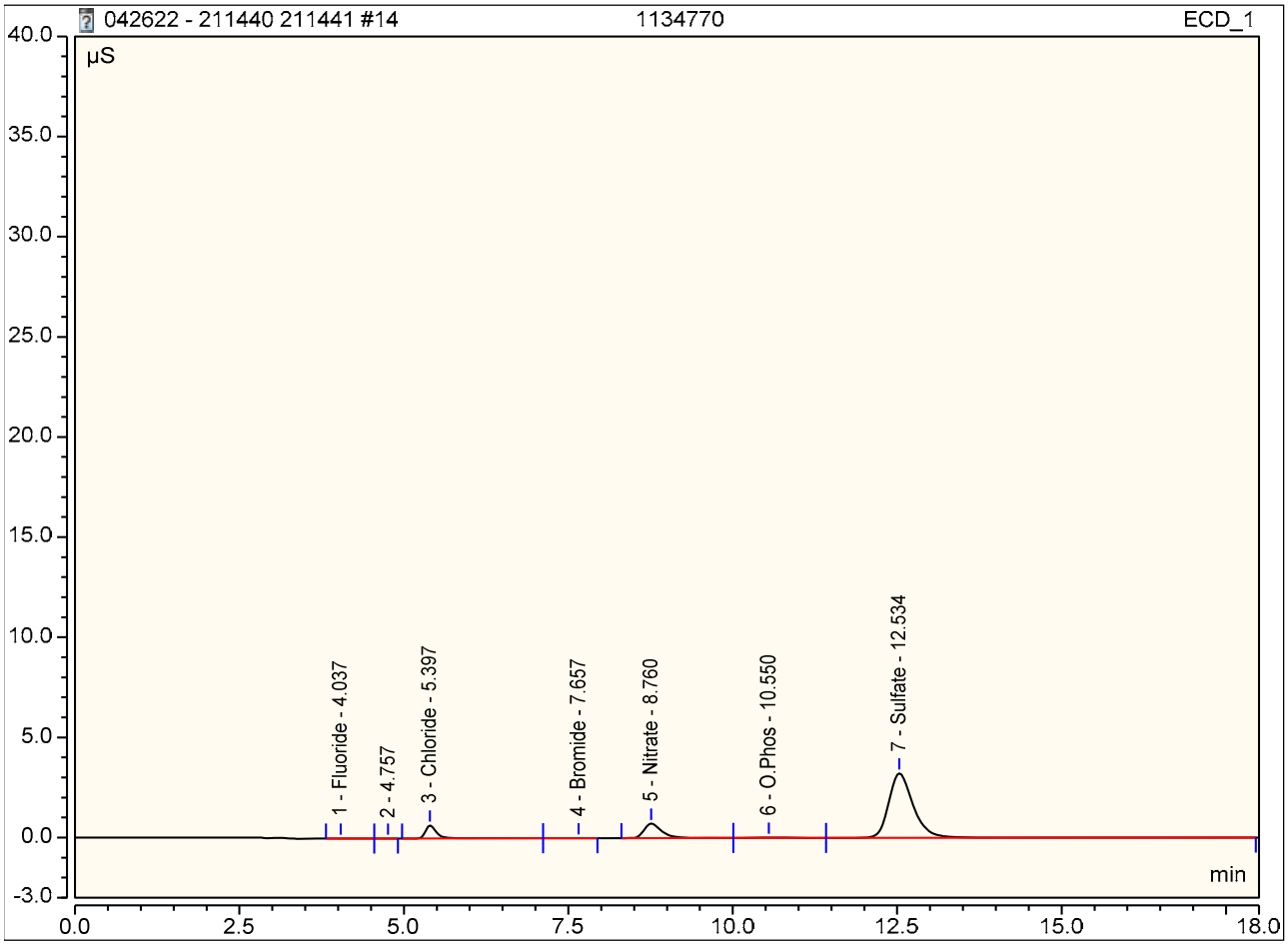
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.002	0.010	0.0533
3	5.40	Chloride	0.049	0.239	0.5360
4	8.75	Nitrate	0.350	1.129	0.6310
5	10.54	O.Phos	0.013	0.023	0.0803
6	12.53	Sulfate	0.934	2.125	5.1433



Peak Integration Report

Sample Name:	**1134770**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 15:48**	*Run Time:*	**18.00**

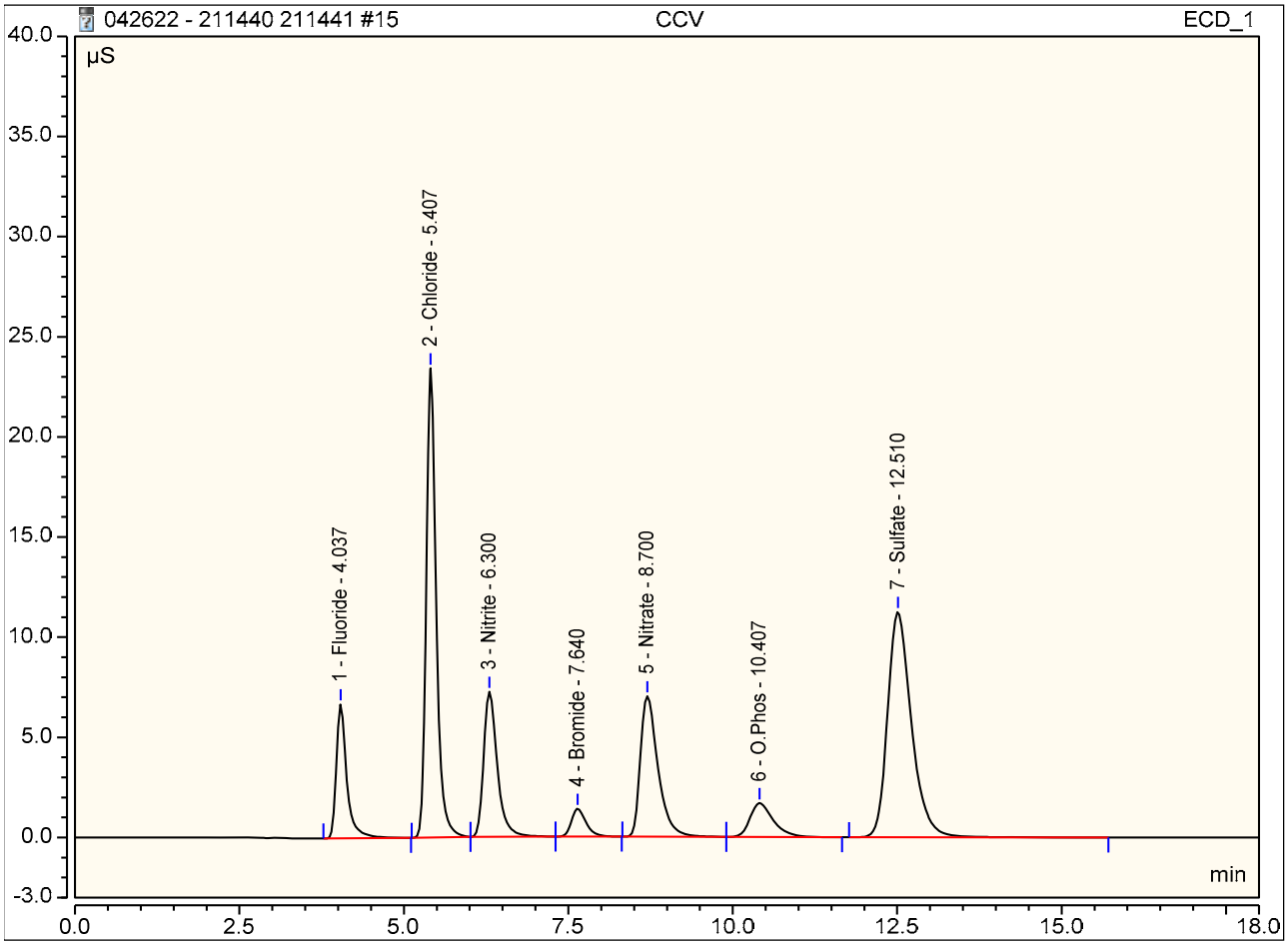
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	0.002	0.009	0.0534
3	5.40	Chloride	0.129	0.653	0.8000
4	7.66	Bromide	0.001	0.002	0.0108
5	8.76	Nitrate	0.223	0.721	0.4290
6	10.55	O.Phos	0.012	0.023	0.0781
7	12.53	Sulfate	1.406	3.225	7.4774



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 16:06**	*Run Time:*	**18.00**

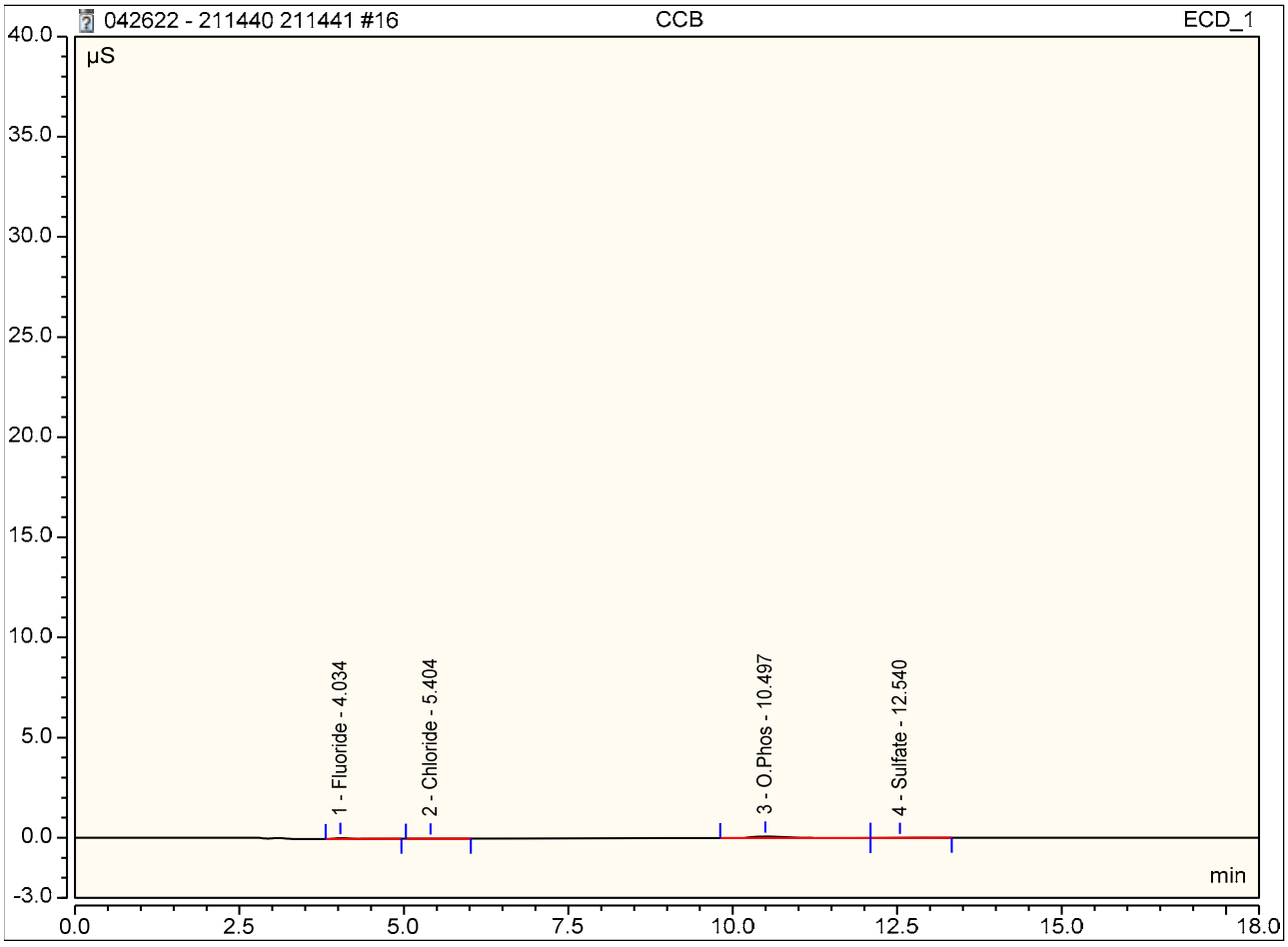
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.04	Fluoride	1.238	6.699	3.3027
2	5.41	Chloride	4.086	23.423	13.8321
3	6.30	Nitrite	1.742	7.247	3.5523
4	7.64	Bromide	0.360	1.393	3.5895
5	8.70	Nitrate	2.176	7.021	3.5361
6	10.41	O.Phos	0.694	1.690	3.4786
7	12.51	Sulfate	4.739	11.256	23.9679



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 16:25**	*Run Time:*	**18.00**

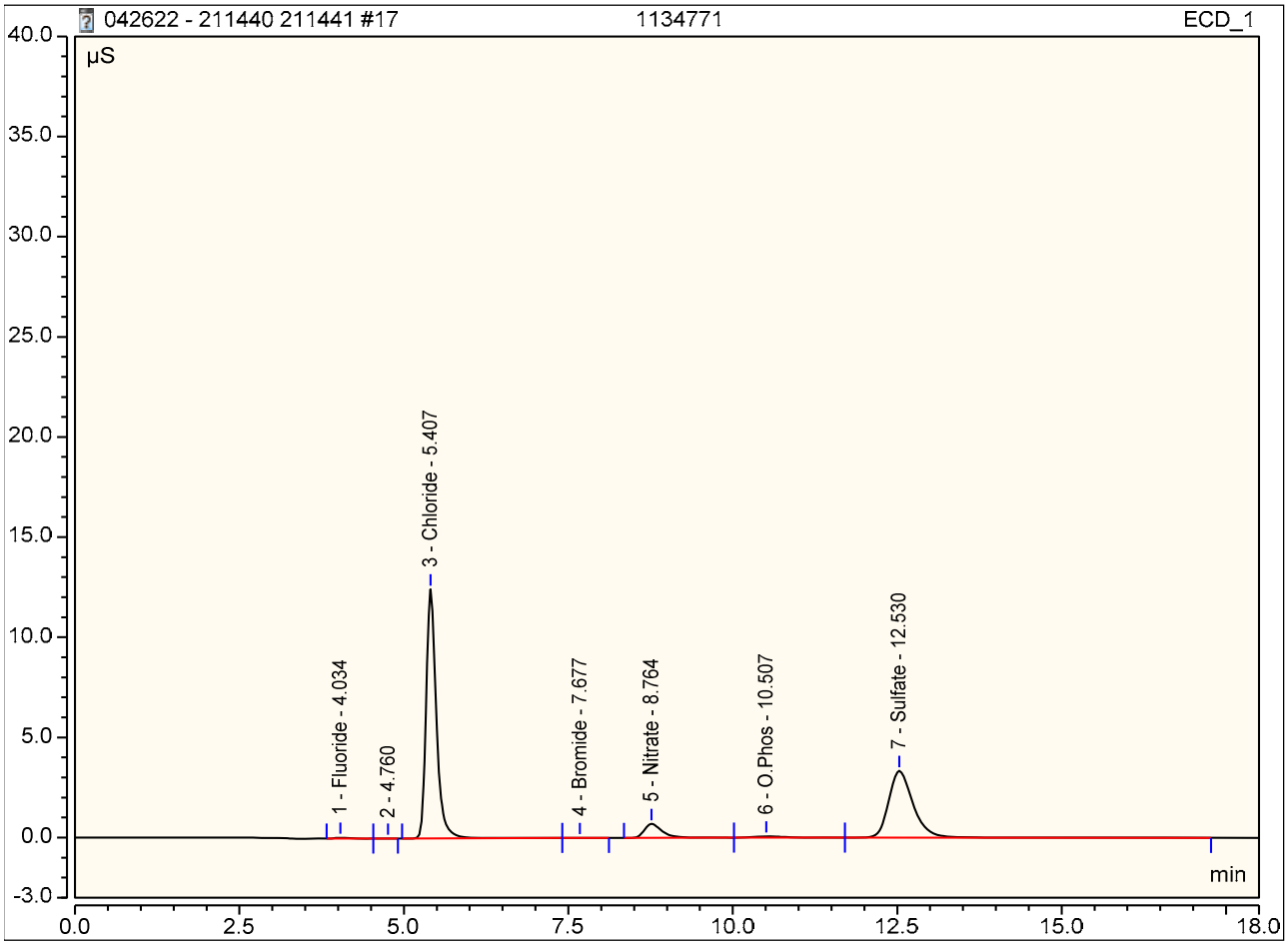
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.012	0.049	0.0800
2	5.40	Chloride	0.004	0.015	0.3858
3	10.50	O.Phos	0.047	0.086	0.2487
4	12.54	Sulfate	0.001	0.003	0.5290



Peak Integration Report

Sample Name:	**1134771**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 16:43**	*Run Time:*	**18.00**

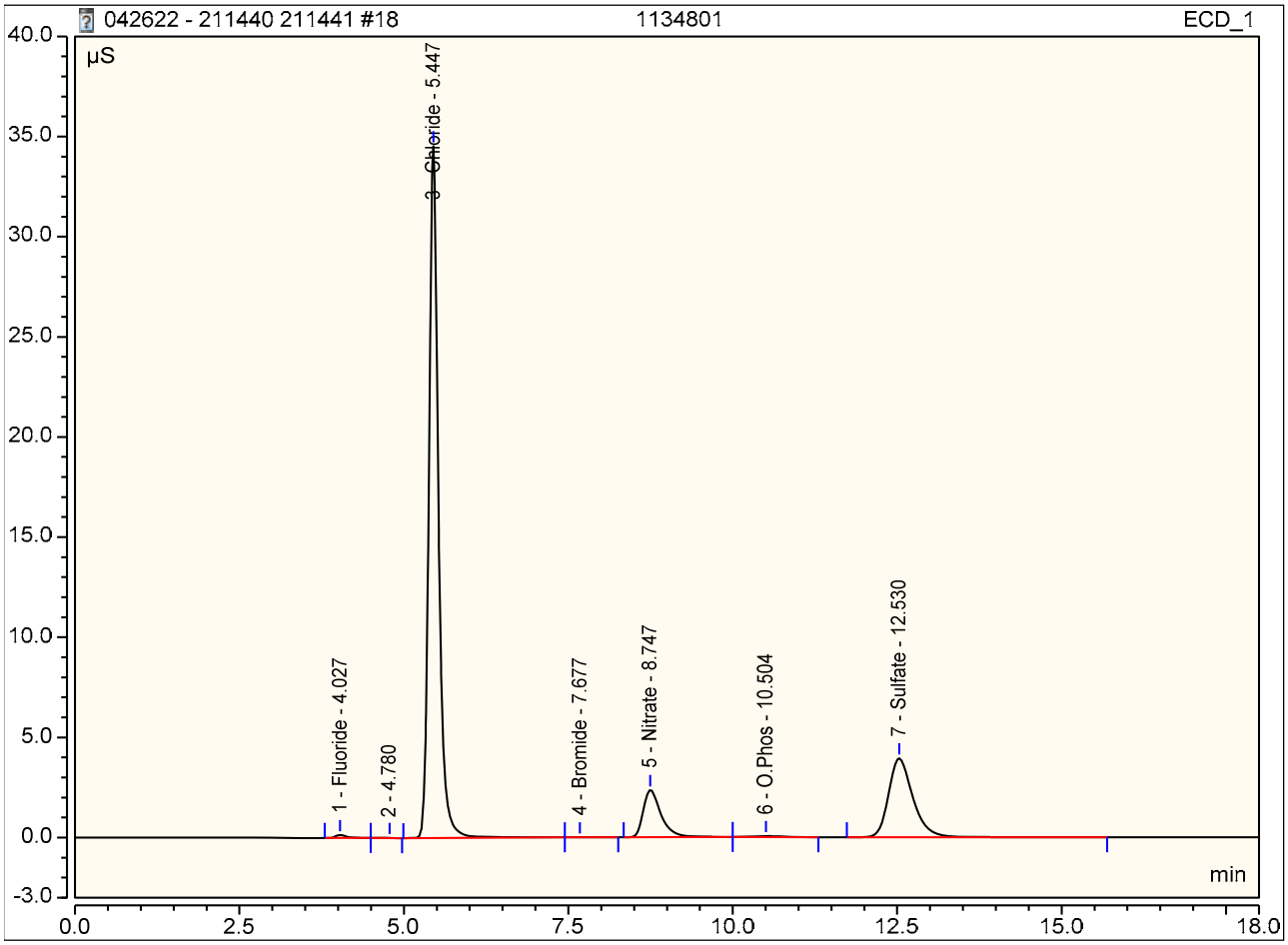
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.011	0.056	0.0768
3	5.41	Chloride	2.237	12.440	7.7414
4	7.68	Bromide	0.001	0.002	0.0112
5	8.76	Nitrate	0.222	0.695	0.4266
6	10.51	O.Phos	0.034	0.066	0.1864
7	12.53	Sulfate	1.448	3.335	7.6861



Peak Integration Report

Sample Name:	**1134801**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 17:01**	*Run Time:*	**18.00**

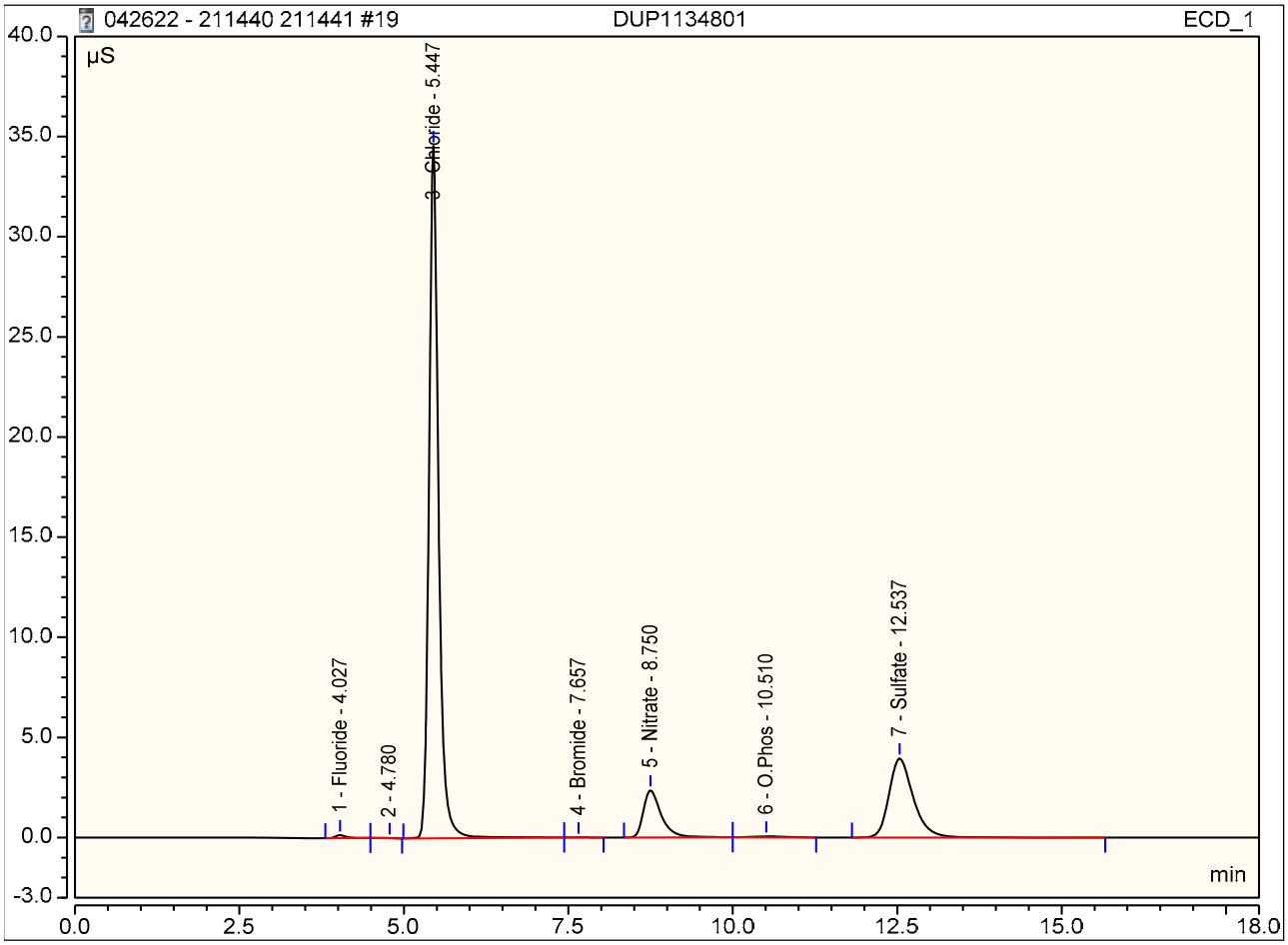
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.028	0.147	0.1223
3	5.45	Chloride	5.781	34.553	19.4180
4	7.68	Bromide	0.002	0.005	0.0252
5	8.75	Nitrate	0.740	2.353	1.2513
6	10.50	O.Phos	0.024	0.048	0.1348
7	12.53	Sulfate	1.700	3.949	8.9323



Peak Integration Report

Sample Name:	**DUP1134801**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 17:19**	*Run Time:*	**18.00**

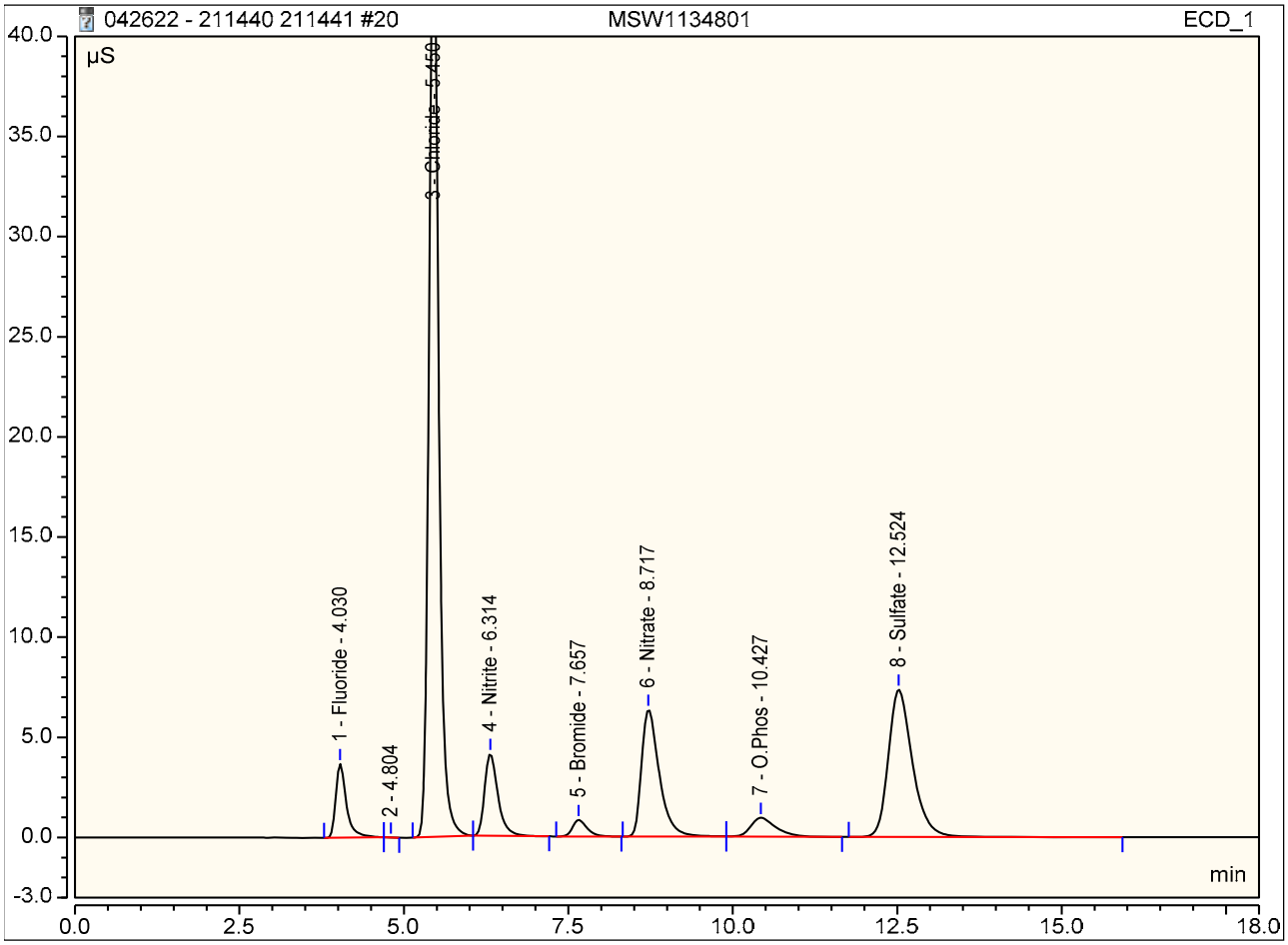
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.027	0.146	0.1208
3	5.45	Chloride	5.791	34.560	19.4507
4	7.66	Bromide	0.001	0.005	0.0175
5	8.75	Nitrate	0.739	2.356	1.2499
6	10.51	O.Phos	0.023	0.048	0.1329
7	12.54	Sulfate	1.701	3.955	8.9387



Peak Integration Report

Sample Name:	**MSW1134801**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 17:37**	*Run Time:*	**18.00**

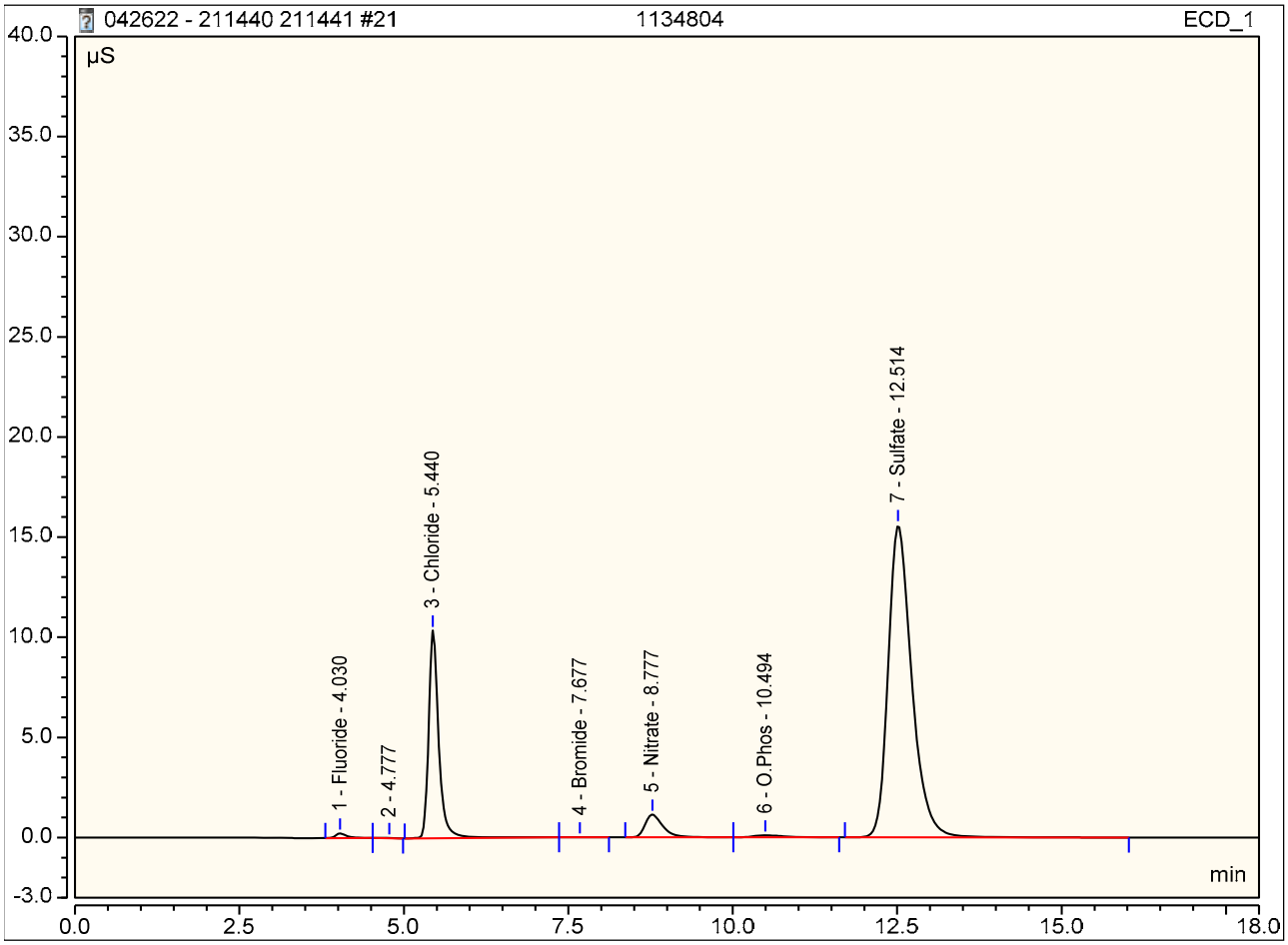
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.693	3.688	1.8688
3	5.45	Chloride	8.018	48.239	26.7868
4	6.31	Nitrite	0.965	4.094	1.9787
5	7.66	Bromide	0.215	0.826	2.1433
6	8.72	Nitrate	1.984	6.334	3.2300
7	10.43	O.Phos	0.412	0.936	2.0704
8	12.52	Sulfate	3.136	7.366	16.0343



Peak Integration Report

Sample Name:	**1134804**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 17:55**	*Run Time:*	**18.00**

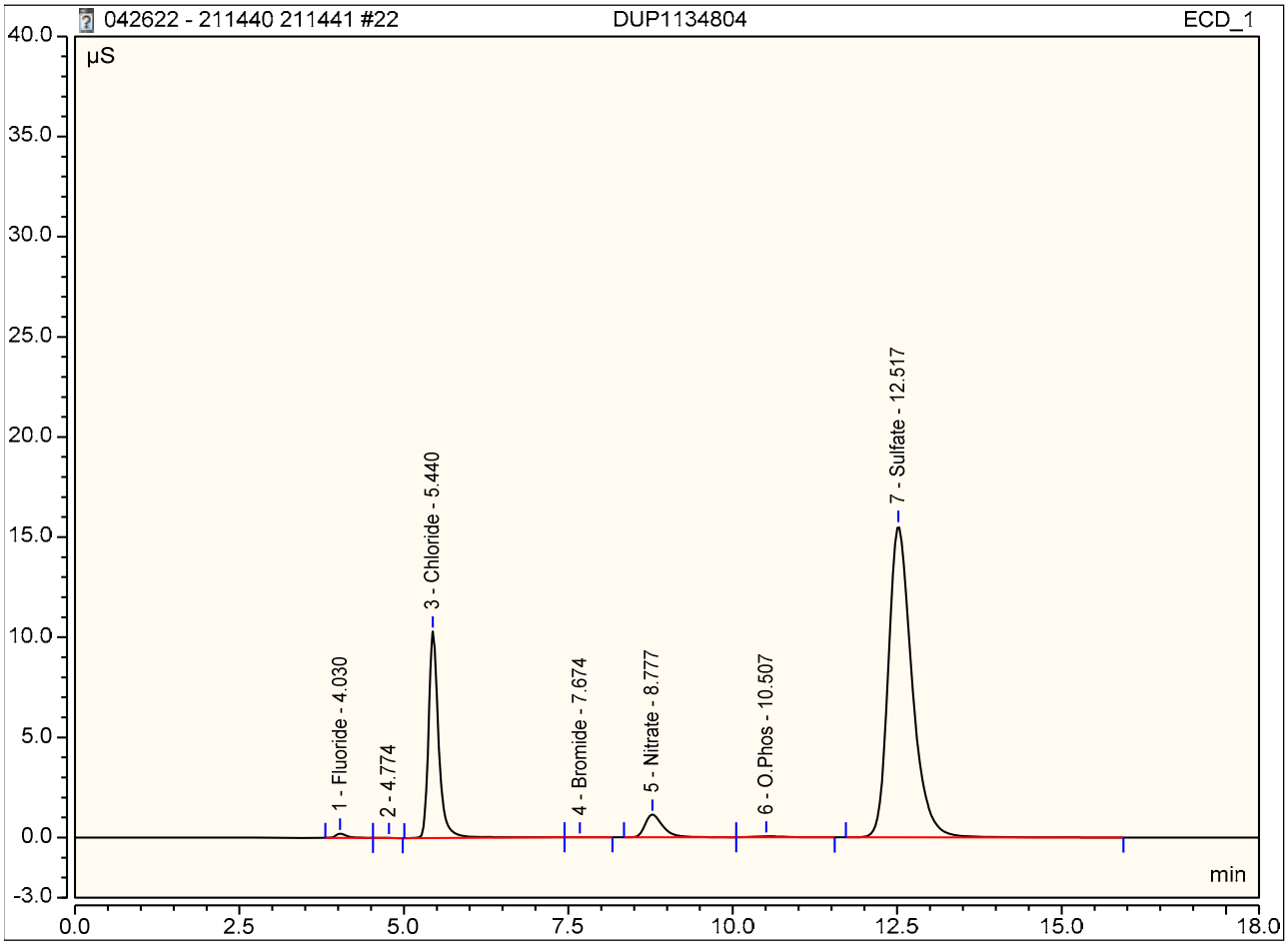
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.045	0.232	0.1656
3	5.44	Chloride	1.845	10.367	6.4525
4	7.68	Bromide	0.002	0.009	0.0271
5	8.78	Nitrate	0.359	1.139	0.6442
6	10.49	O.Phos	0.052	0.101	0.2741
7	12.51	Sulfate	6.494	15.597	32.6467



Peak Integration Report

Sample Name:	**DUP1134804**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 18:13**	*Run Time:*	**18.00**

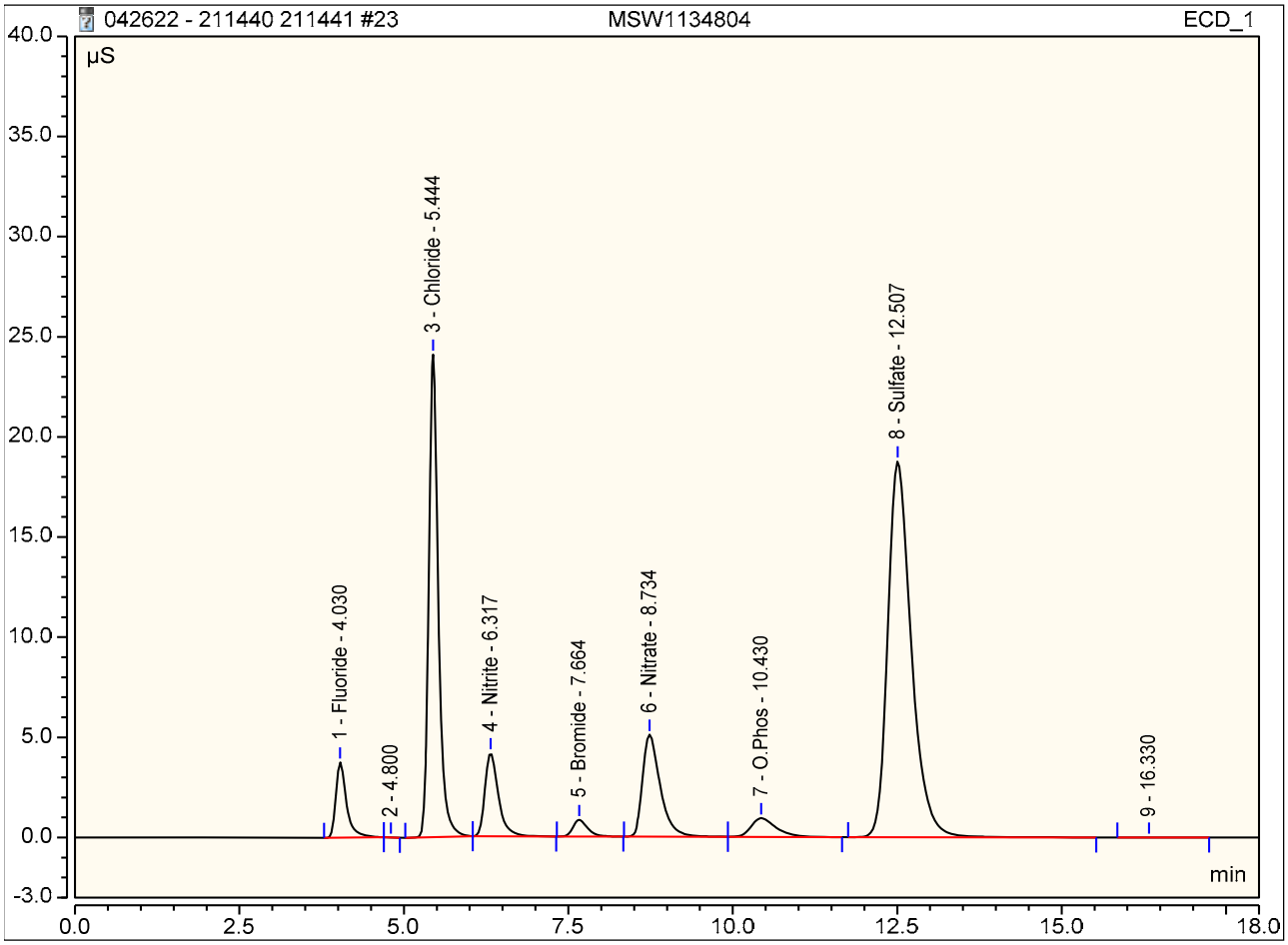
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.042	0.219	0.1591
3	5.44	Chloride	1.847	10.320	6.4589
4	7.67	Bromide	0.002	0.008	0.0262
5	8.78	Nitrate	0.358	1.137	0.6439
6	10.51	O.Phos	0.027	0.052	0.1512
7	12.52	Sulfate	6.497	15.563	32.6627



Peak Integration Report

Sample Name:	**MSW1134804**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 18:31**	*Run Time:*	**18.00**

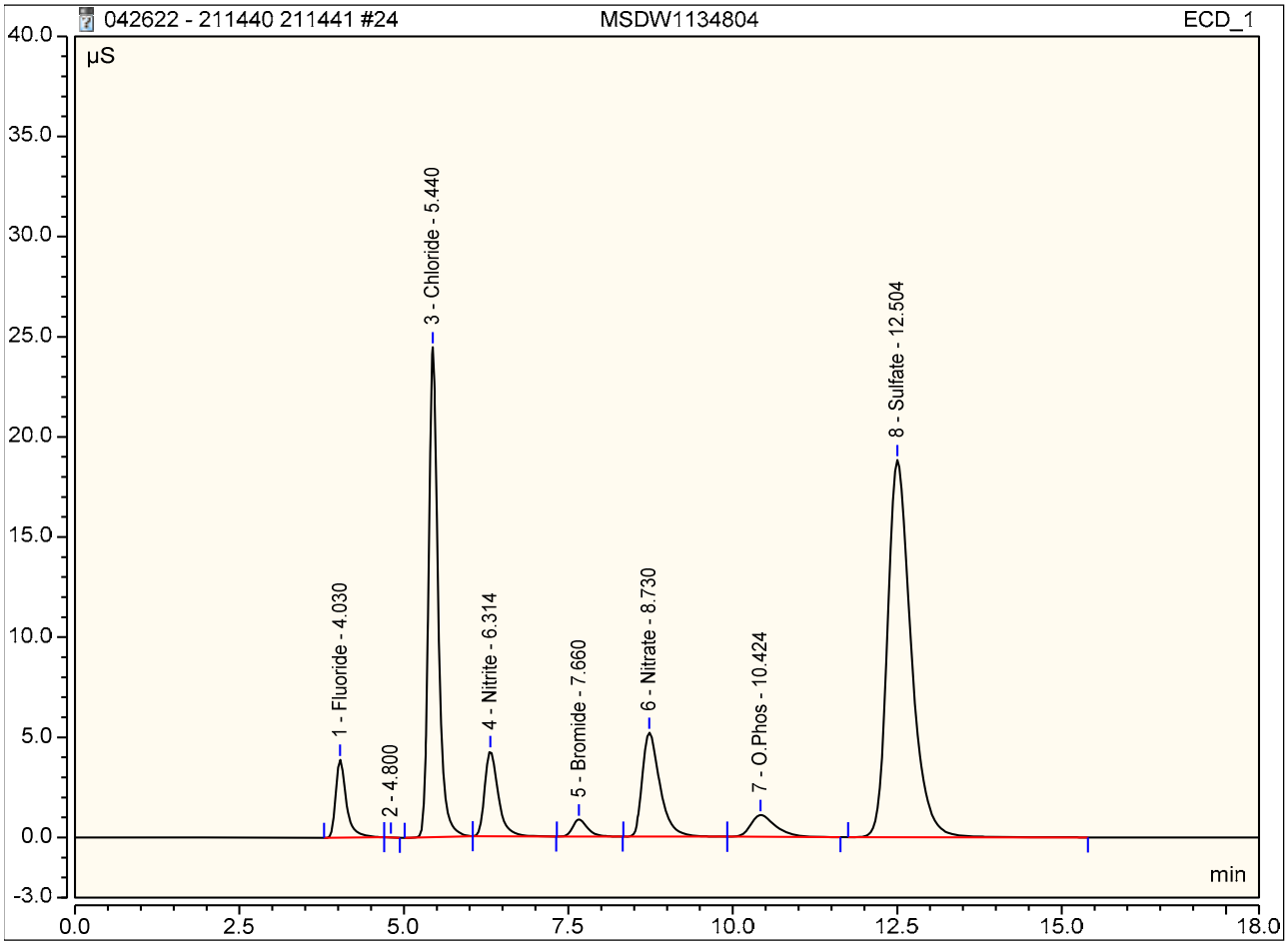
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.708	3.757	1.9079
3	5.44	Chloride	4.053	24.103	13.7261
4	6.32	Nitrite	0.987	4.150	2.0227
5	7.66	Bromide	0.216	0.831	2.1581
6	8.73	Nitrate	1.587	5.090	2.5981
7	10.43	O.Phos	0.411	0.934	2.0674
8	12.51	Sulfate	7.790	18.768	39.0617



Peak Integration Report

Sample Name:	**MSDW1134804**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 18:50**	*Run Time:*	**18.00**

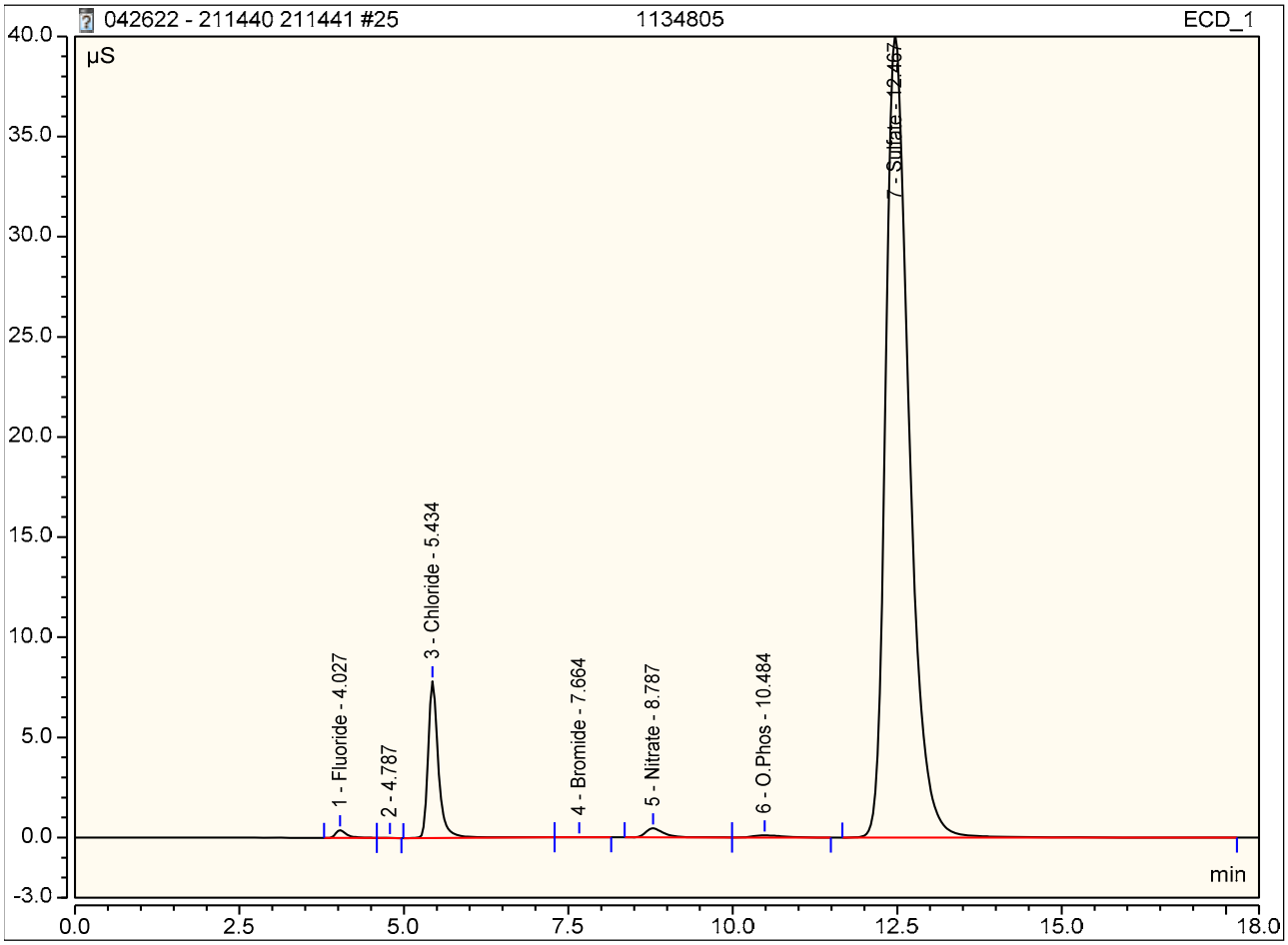
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.732	3.898	1.9730
3	5.44	Chloride	4.117	24.463	13.9345
4	6.31	Nitrite	1.013	4.252	2.0752
5	7.66	Bromide	0.223	0.853	2.2217
6	8.73	Nitrate	1.622	5.196	2.6547
7	10.42	O.Phos	0.478	1.092	2.4010
8	12.50	Sulfate	7.833	18.837	39.2710



Peak Integration Report

Sample Name:	**1134805**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 19:08**	*Run Time:*	**18.00**

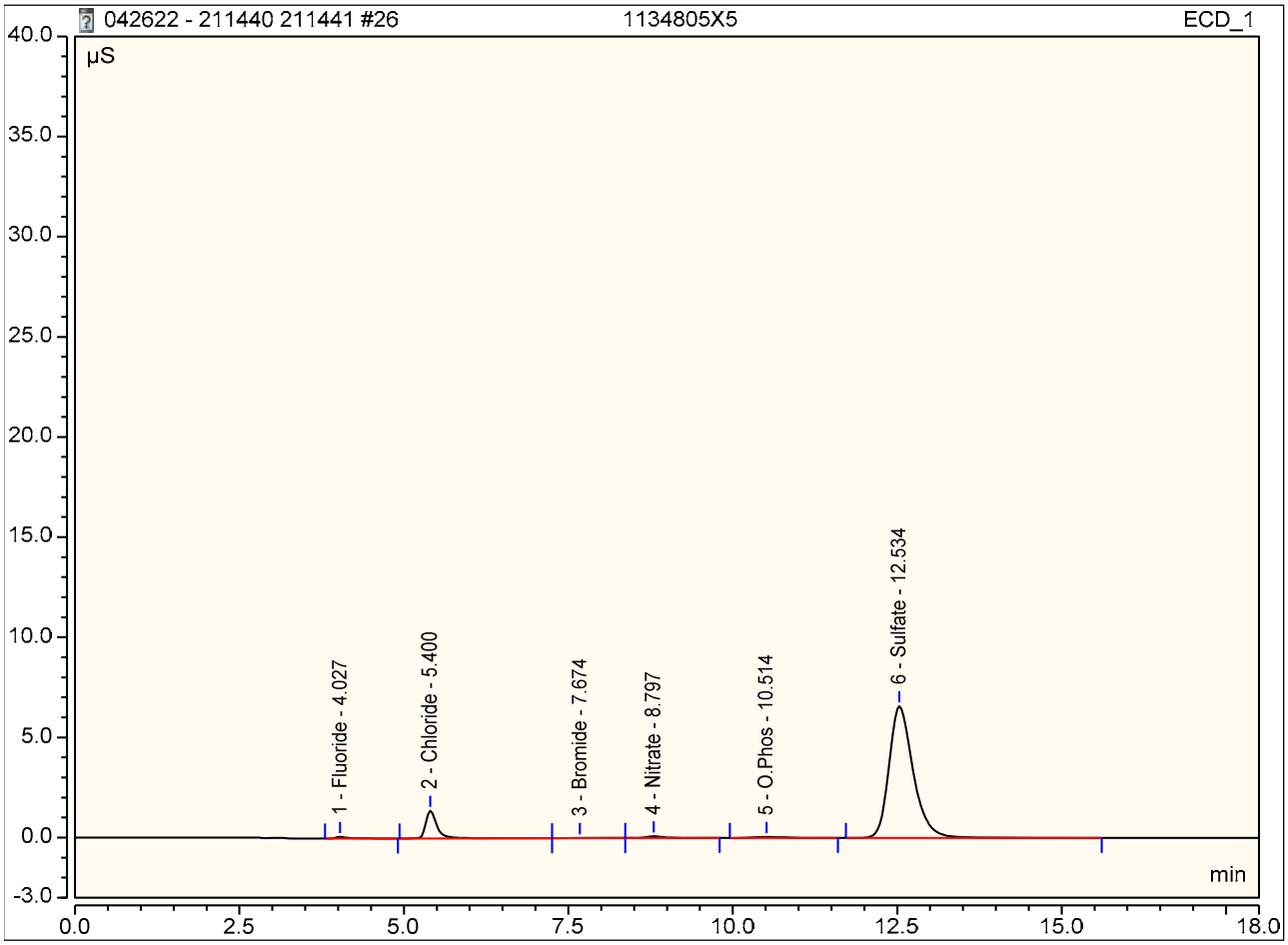
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.075	0.387	0.2449
3	5.43	Chloride	1.424	7.831	5.0641
4	7.66	Bromide	0.002	0.008	0.0290
5	8.79	Nitrate	0.144	0.454	0.3030
6	10.48	O.Phos	0.053	0.104	0.2811
7	12.47	Sulfate	16.700	40.102	83.1406



Peak Integration Report

Sample Name:	**1134805X5**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 19:26**	*Run Time:*	**18.00**

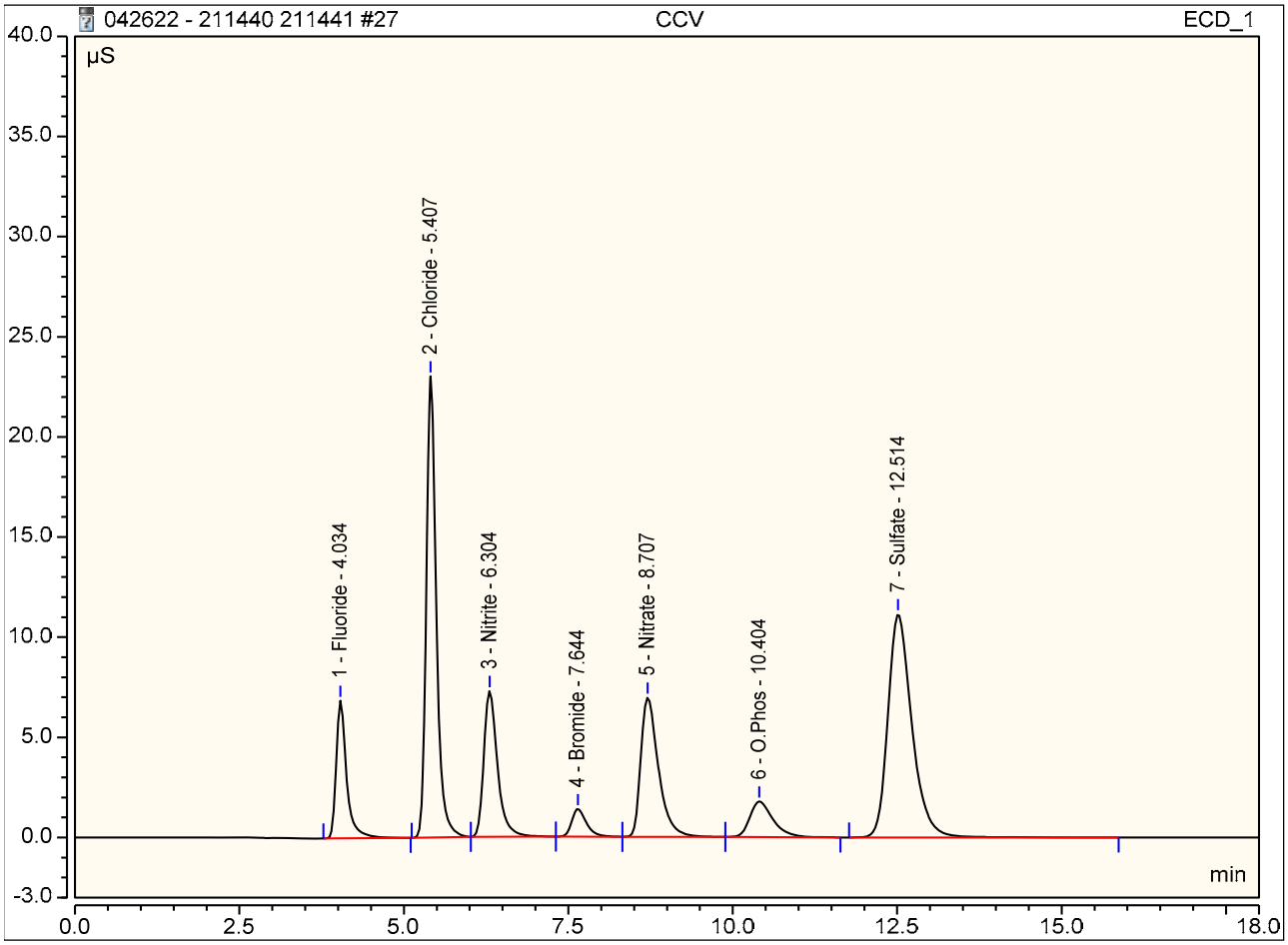
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.019	0.086	0.0991
2	5.40	Chloride	0.273	1.386	1.2747
3	7.67	Bromide	0.001	0.002	0.0126
4	8.80	Nitrate	0.028	0.089	0.1179
5	10.51	O.Phos	0.029	0.054	0.1602
6	12.53	Sulfate	2.807	6.581	14.4096



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 19:44**	*Run Time:*	**18.00**

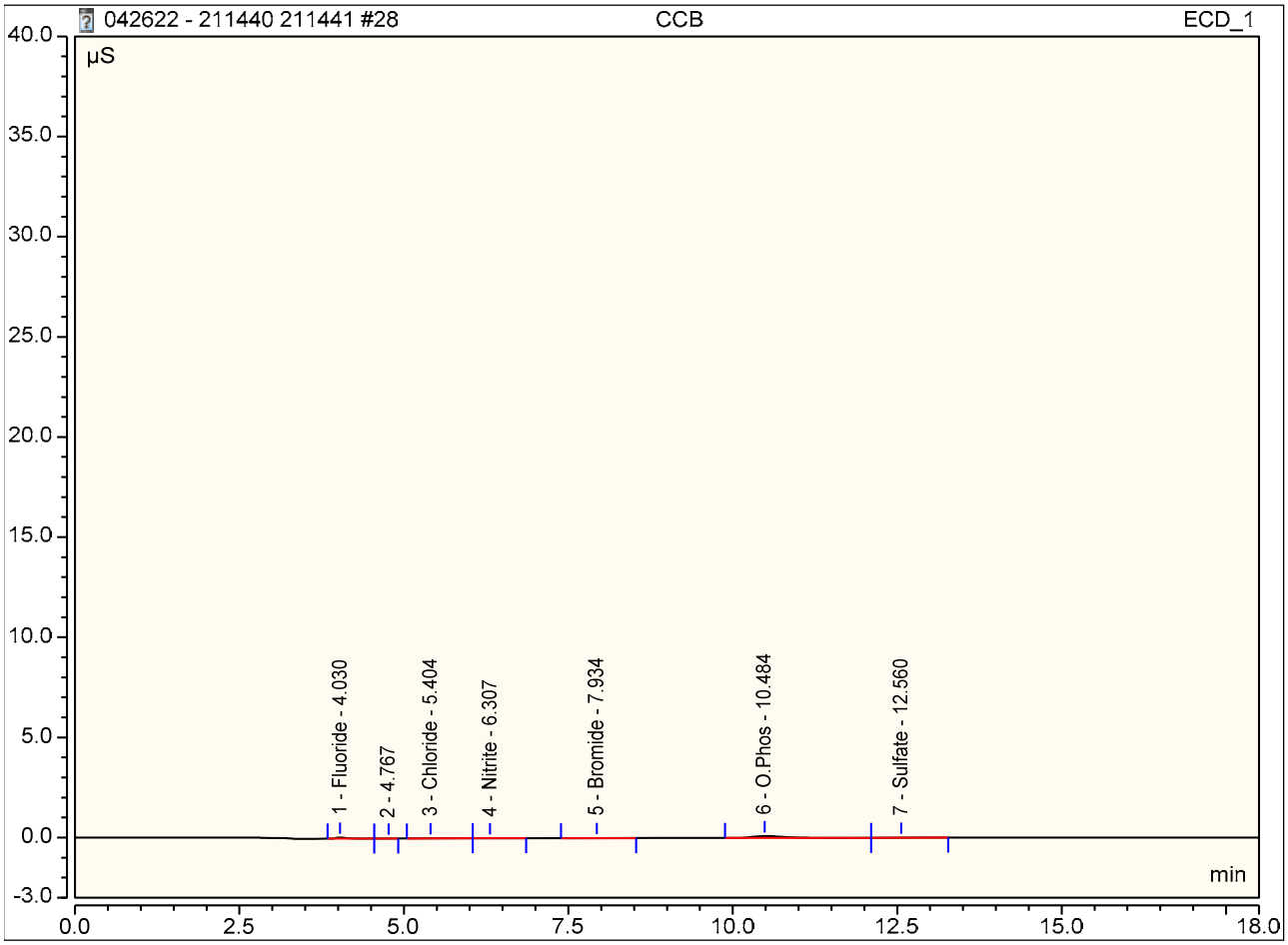
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	1.258	6.875	3.3551
2	5.41	Chloride	4.046	23.030	13.7017
3	6.30	Nitrite	1.758	7.282	3.5845
4	7.64	Bromide	0.358	1.379	3.5686
5	8.71	Nitrate	2.161	6.950	3.5108
6	10.40	O.Phos	0.725	1.779	3.6321
7	12.51	Sulfate	4.702	11.153	23.7830



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 20:02**	*Run Time:*	**18.00**

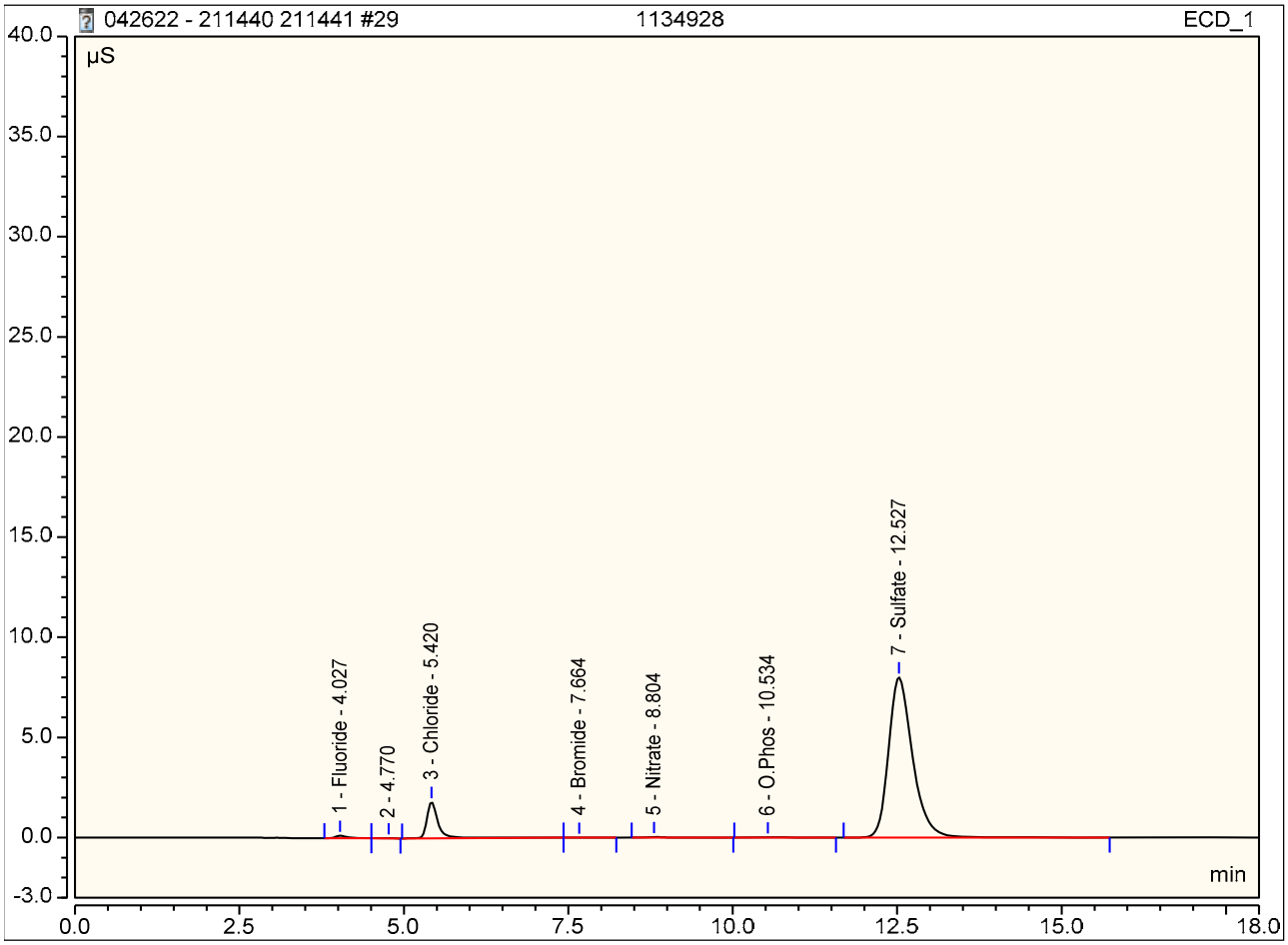
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.011	0.059	0.0785
3	5.40	Chloride	0.004	0.018	0.3881
4	6.31	Nitrite	0.001	0.003	0.0279
5	7.93	Bromide	0.004	0.011	0.0401
6	10.48	O.Phos	0.048	0.092	0.2573
7	12.56	Sulfate	0.003	0.006	0.5365



Peak Integration Report

Sample Name:	**1134928**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 20:20**	*Run Time:*	**18.00**

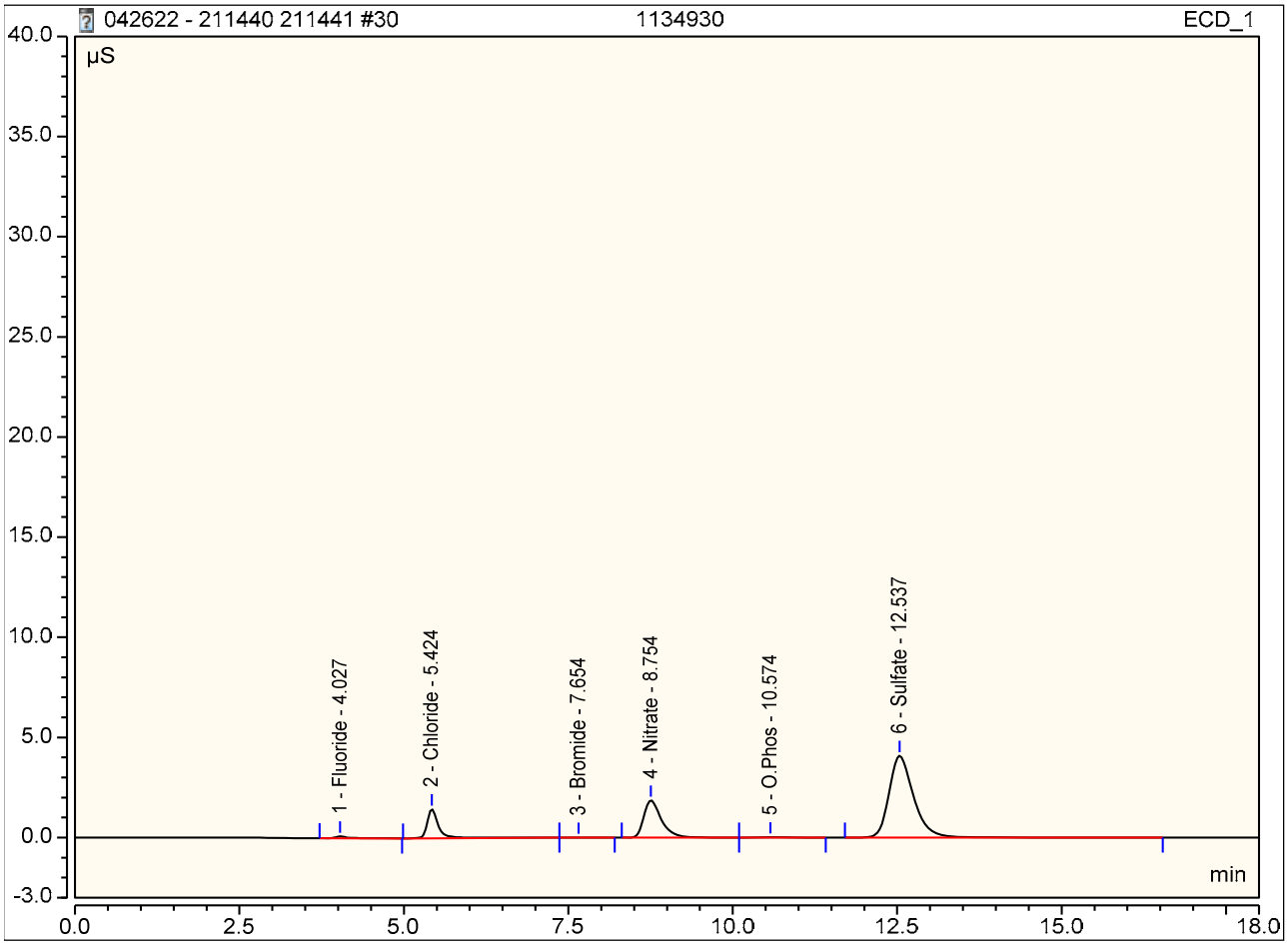
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.023	0.124	0.1095
3	5.42	Chloride	0.365	1.820	1.5774
4	7.66	Bromide	0.001	0.006	0.0199
5	8.80	Nitrate	0.012	0.036	0.0931
6	10.53	O.Phos	0.013	0.025	0.0824
7	12.53	Sulfate	3.397	8.007	17.3254



Peak Integration Report

Sample Name:	**1134930**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 20:38**	*Run Time:*	**18.00**

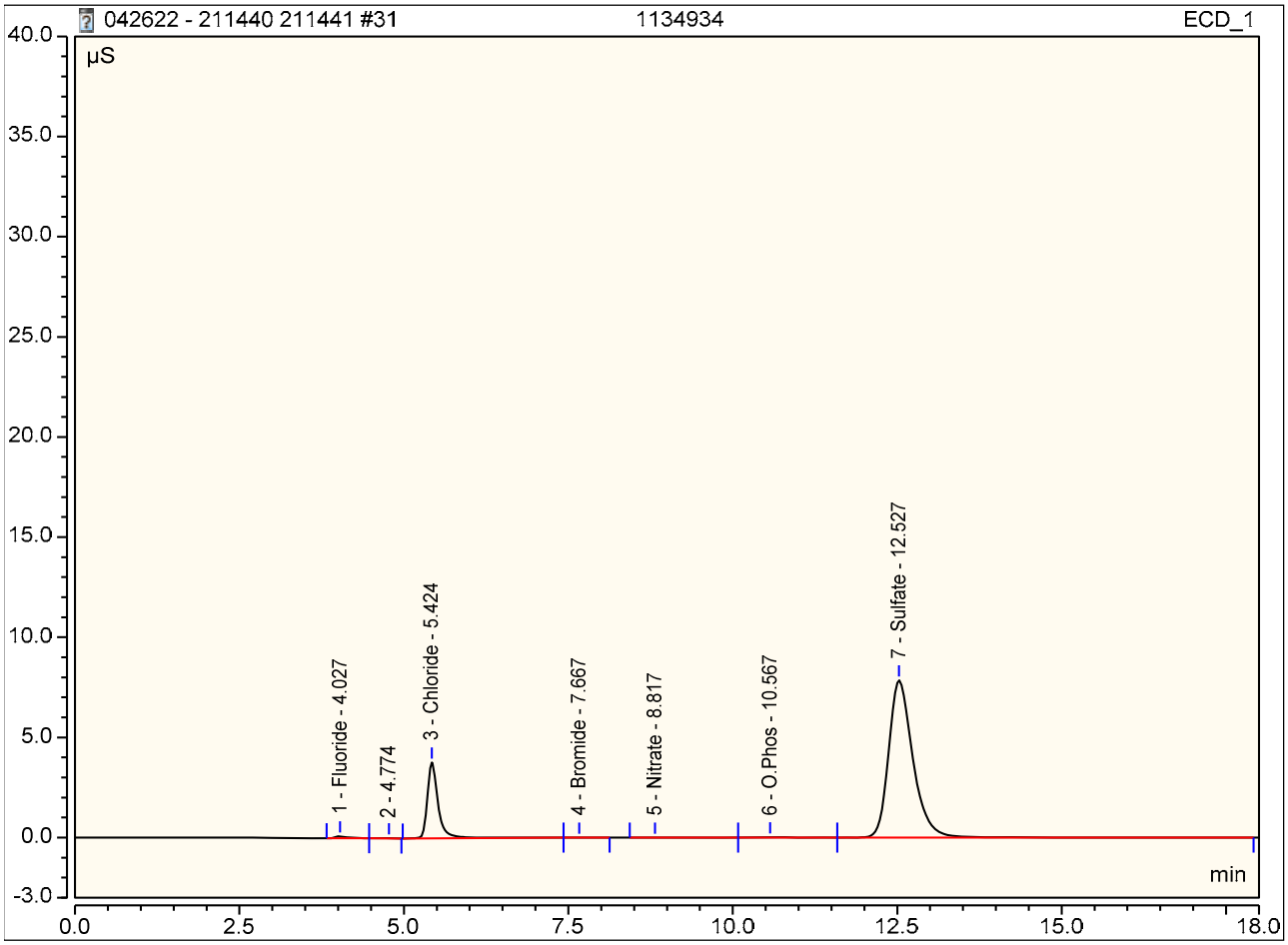
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.028	0.094	0.1211
2	5.42	Chloride	0.303	1.455	1.3710
3	7.65	Bromide	0.001	0.003	0.0151
4	8.75	Nitrate	0.582	1.862	0.9994
5	10.57	O.Phos	0.010	0.018	0.0648
6	12.54	Sulfate	1.770	4.082	9.2772



Peak Integration Report

Sample Name:	**1134934**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 20:56**	*Run Time:*	**18.00**

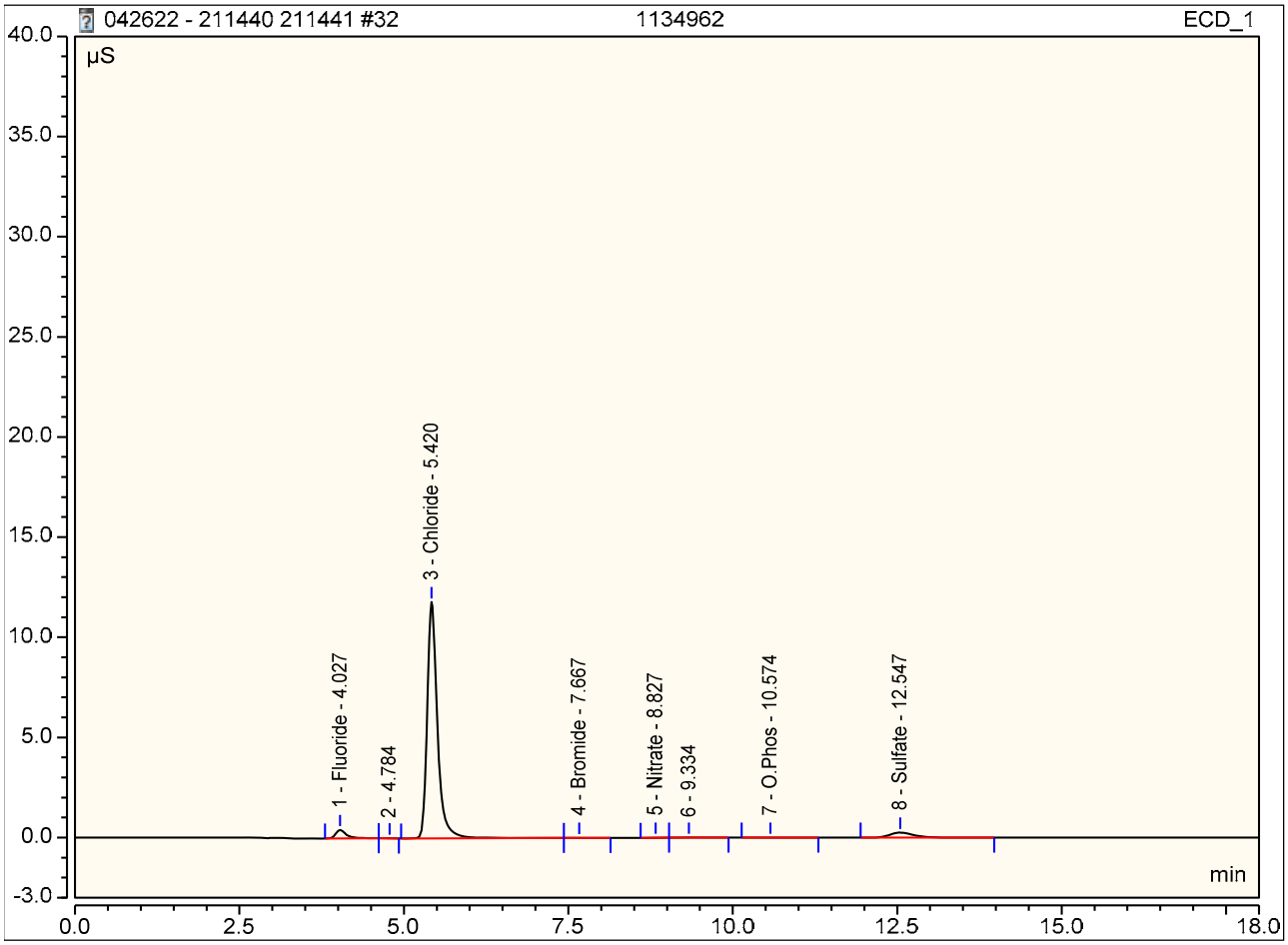
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.018	0.097	0.0958
3	5.42	Chloride	0.727	3.788	2.7695
4	7.67	Bromide	0.001	0.005	0.0188
5	8.82	Nitrate	0.005	0.009	0.0808
6	10.57	O.Phos	0.007	0.014	0.0532
7	12.53	Sulfate	3.370	7.852	17.1938



Peak Integration Report

Sample Name:	**1134962**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 21:14**	*Run Time:*	**18.00**

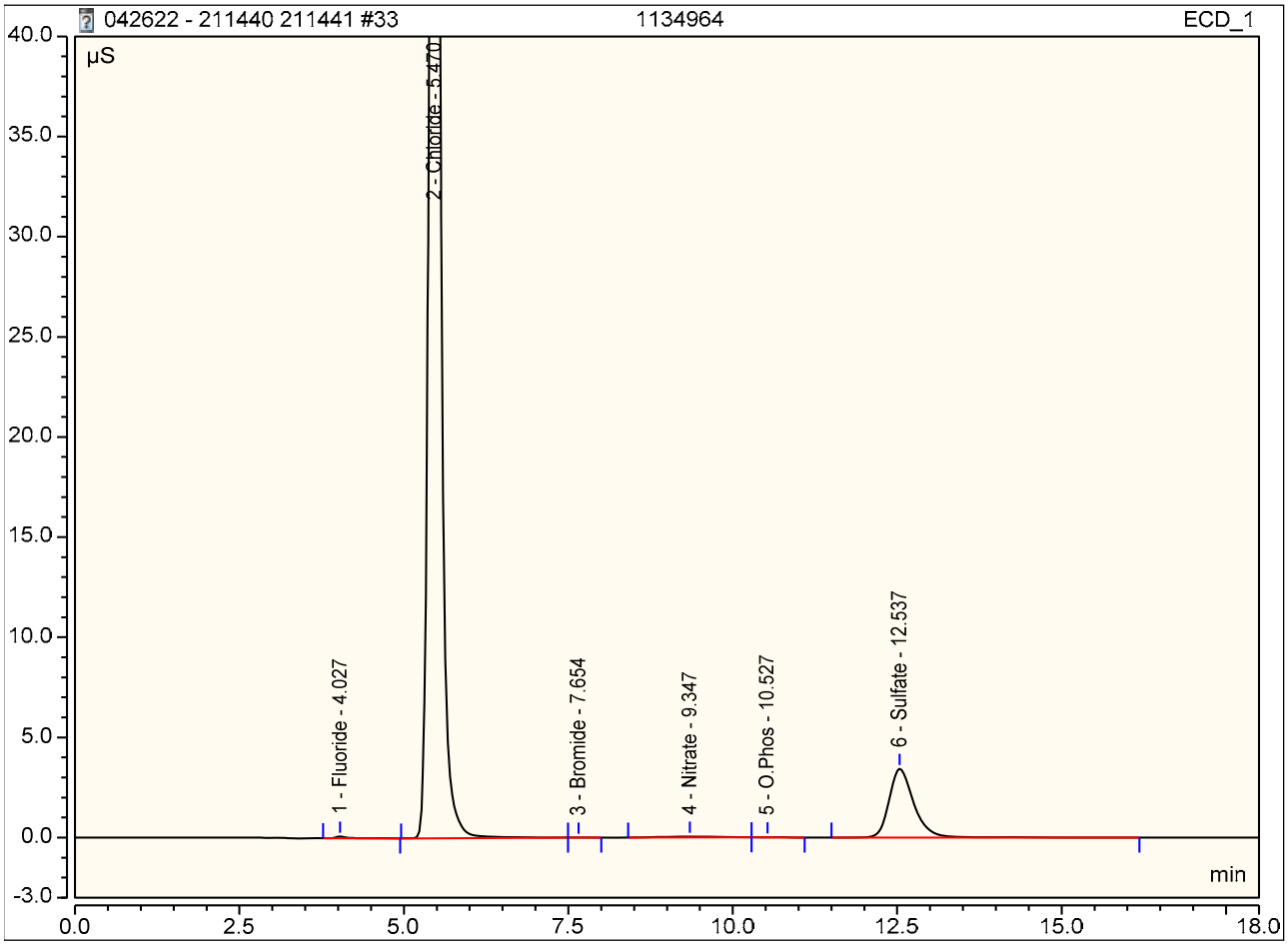
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.079	0.420	0.2570
3	5.42	Chloride	2.120	11.796	7.3588
4	7.67	Bromide	0.001	0.005	0.0194
5	8.83	Nitrate	0.001	0.002	0.0745
7	10.57	O.Phos	0.006	0.011	0.0444
8	12.55	Sulfate	0.111	0.254	1.0713



Peak Integration Report

Sample Name:	**1134964**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 21:32**	*Run Time:*	**18.00**

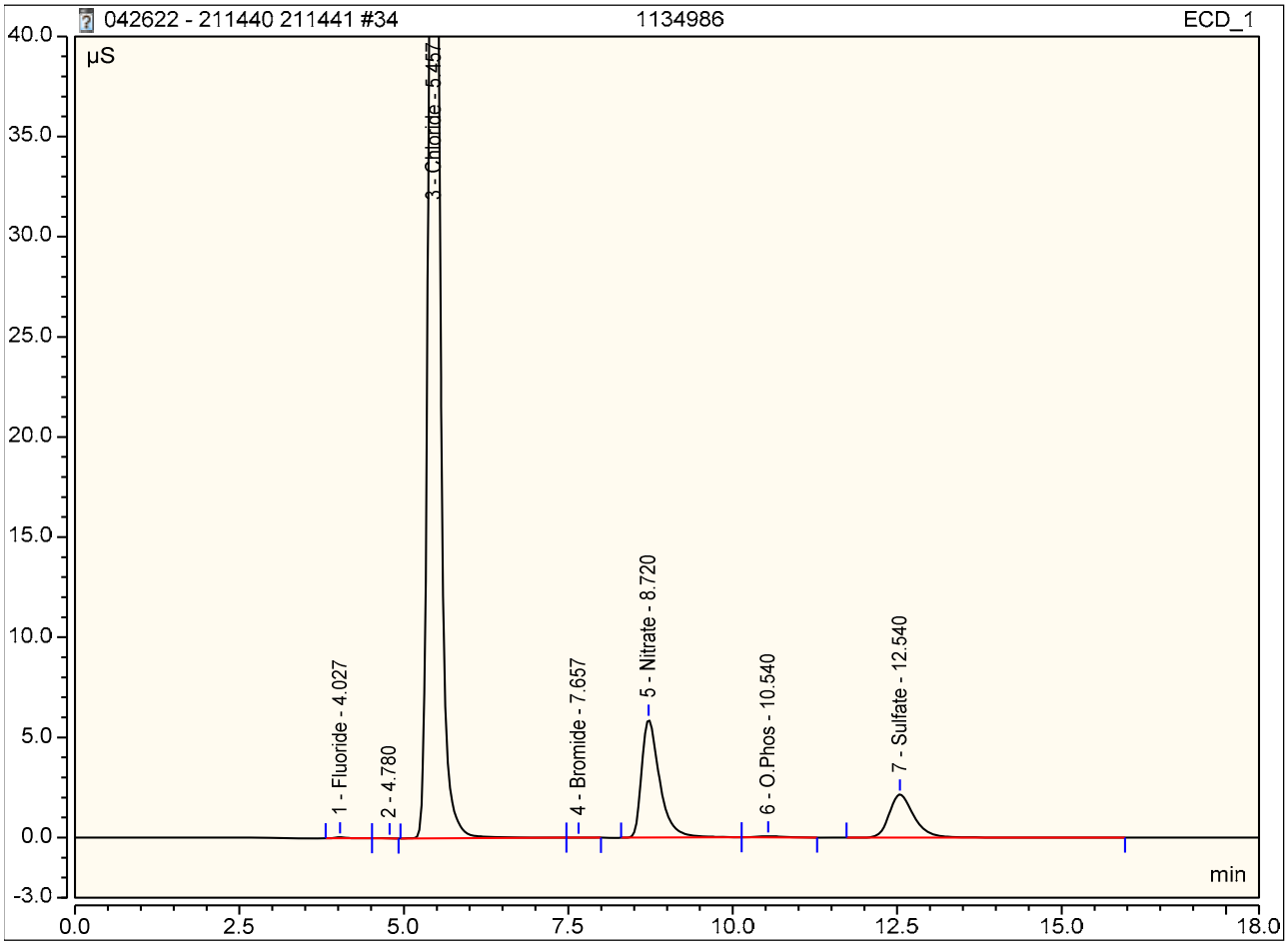
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.023	0.093	0.1100
2	5.47	Chloride	15.924	92.171	52.8296
3	7.65	Bromide	0.001	0.003	0.0107
4	9.35	Nitrate	0.044	0.047	0.1438
5	10.53	O.Phos	0.003	0.006	0.0289
6	12.54	Sulfate	1.498	3.432	7.9342



Peak Integration Report

Sample Name:	**1134986**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 21:50**	*Run Time:*	**18.00**

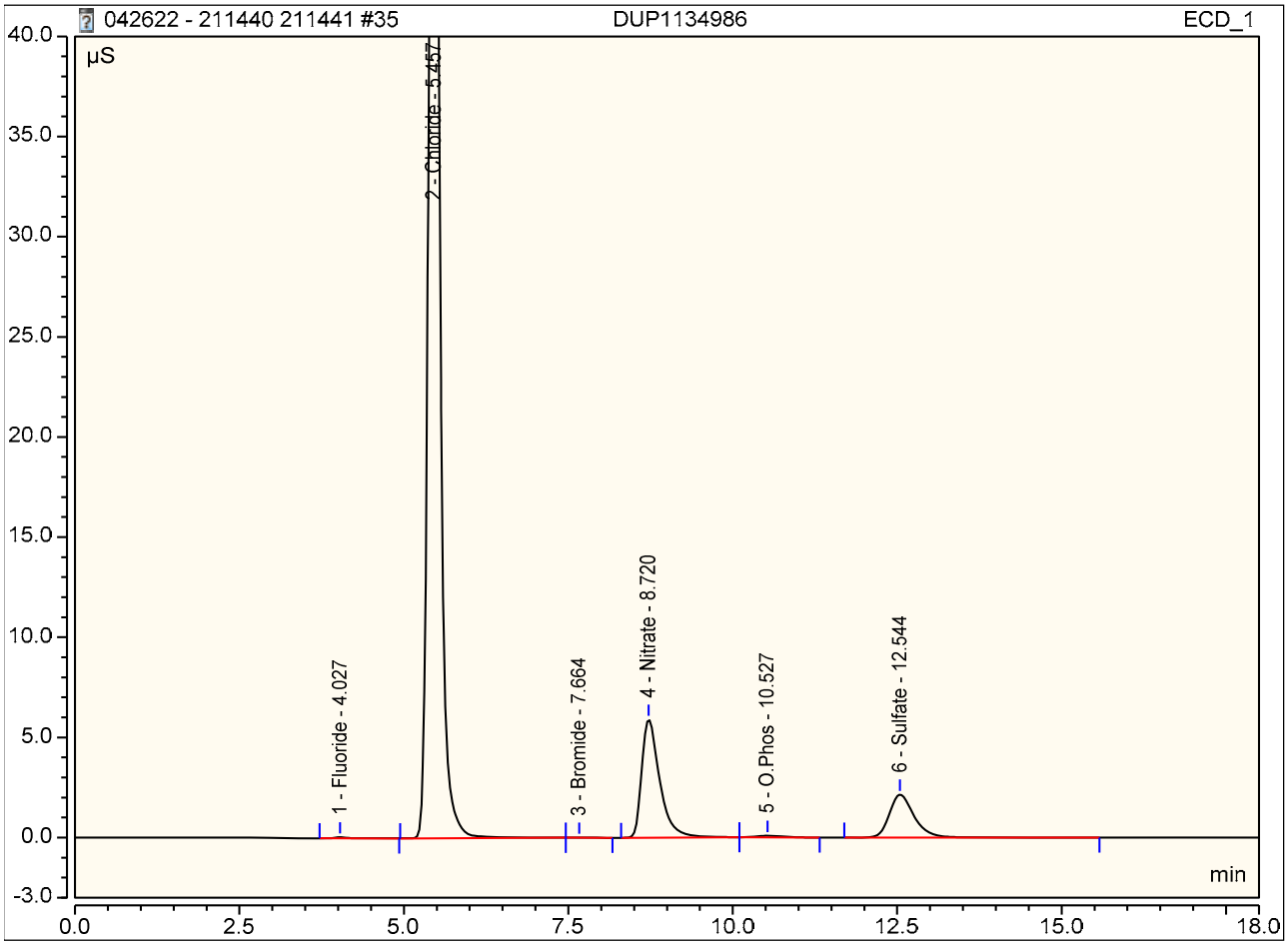
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.011	0.056	0.0765
3	5.46	Chloride	13.699	79.556	45.4978
4	7.66	Bromide	0.001	0.005	0.0174
5	8.72	Nitrate	1.879	5.887	3.0621
6	10.54	O.Phos	0.029	0.058	0.1594
7	12.54	Sulfate	0.949	2.155	5.2148



Peak Integration Report

Sample Name:	**DUP1134986**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 22:08**	*Run Time:*	**18.00**

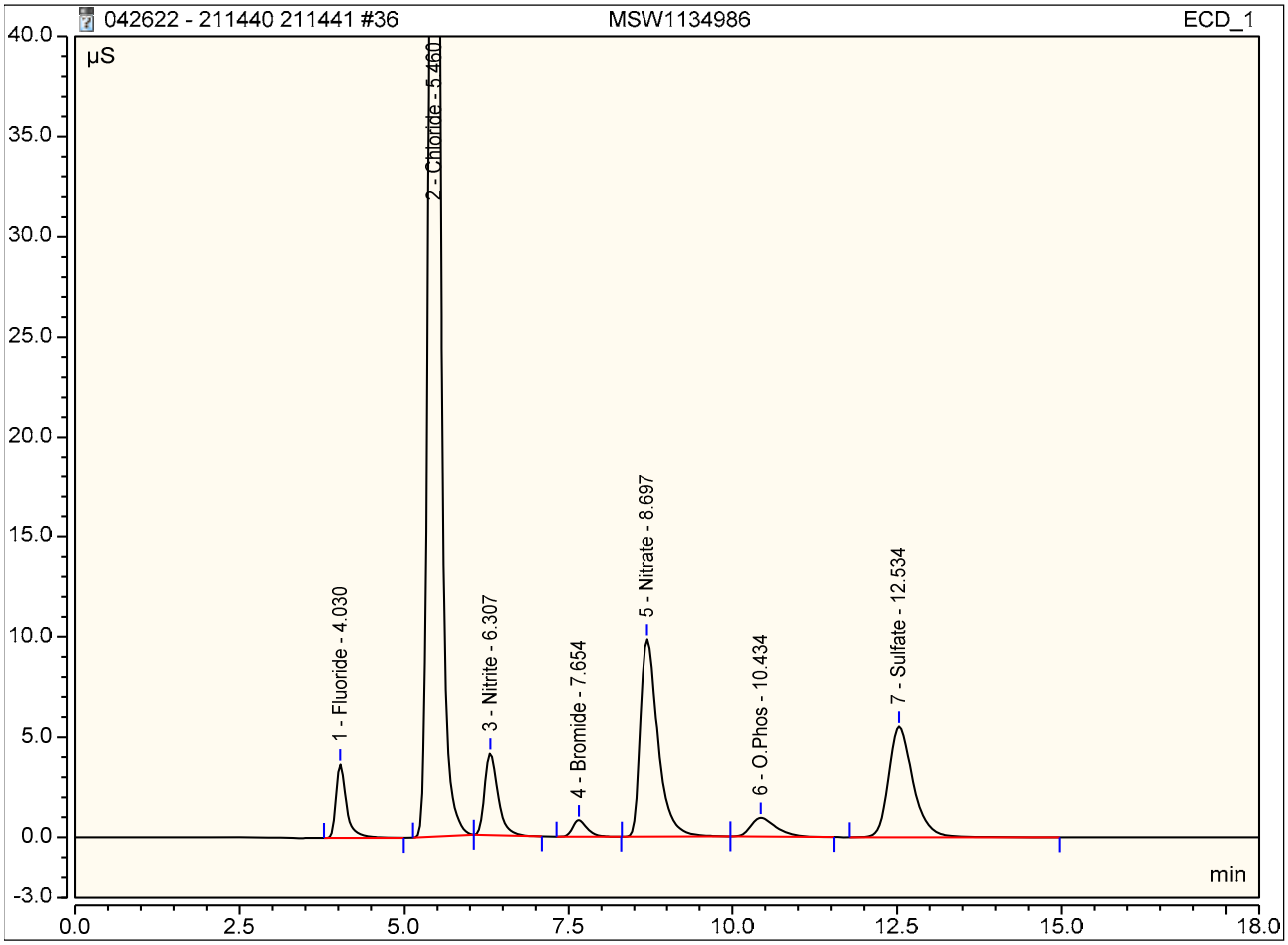
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.015	0.058	0.0884
2	5.46	Chloride	13.685	79.385	45.4532
3	7.66	Bromide	0.002	0.006	0.0207
4	8.72	Nitrate	1.879	5.897	3.0633
5	10.53	O.Phos	0.039	0.079	0.2124
6	12.54	Sulfate	0.947	2.152	5.2072



Peak Integration Report

Sample Name:	**MSW1134986**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 22:26**	*Run Time:*	**18.00**

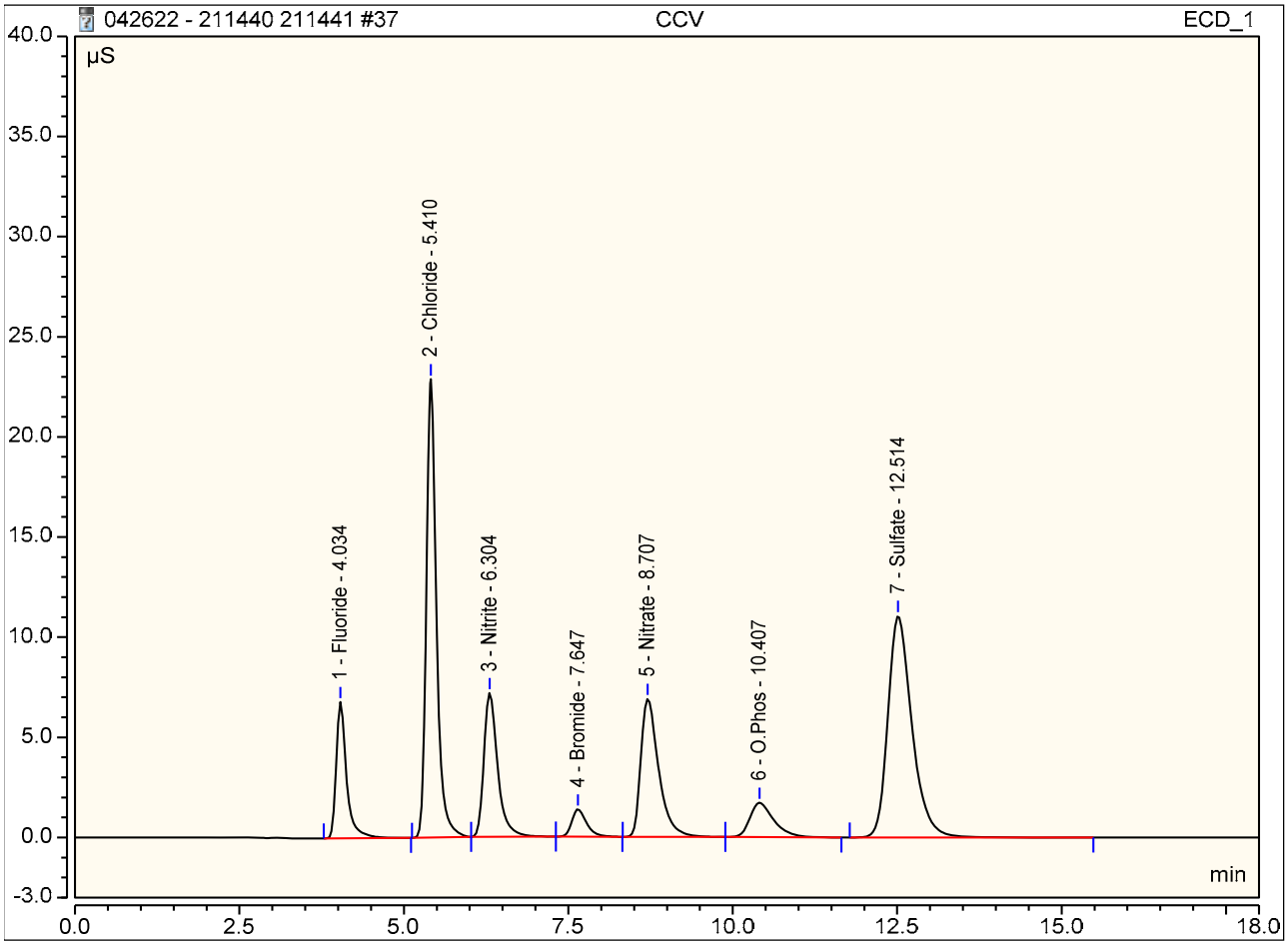
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.688	3.684	1.8556
2	5.46	Chloride	15.532	89.806	51.5360
3	6.31	Nitrite	0.963	4.086	1.9752
4	7.65	Bromide	0.214	0.824	2.1393
5	8.70	Nitrate	3.104	9.847	5.0119
6	10.43	O.Phos	0.423	0.946	2.1249
7	12.53	Sulfate	2.380	5.525	12.2980



Peak Integration Report

Sample Name:	**CCV**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 22:44**	*Run Time:*	**18.00**

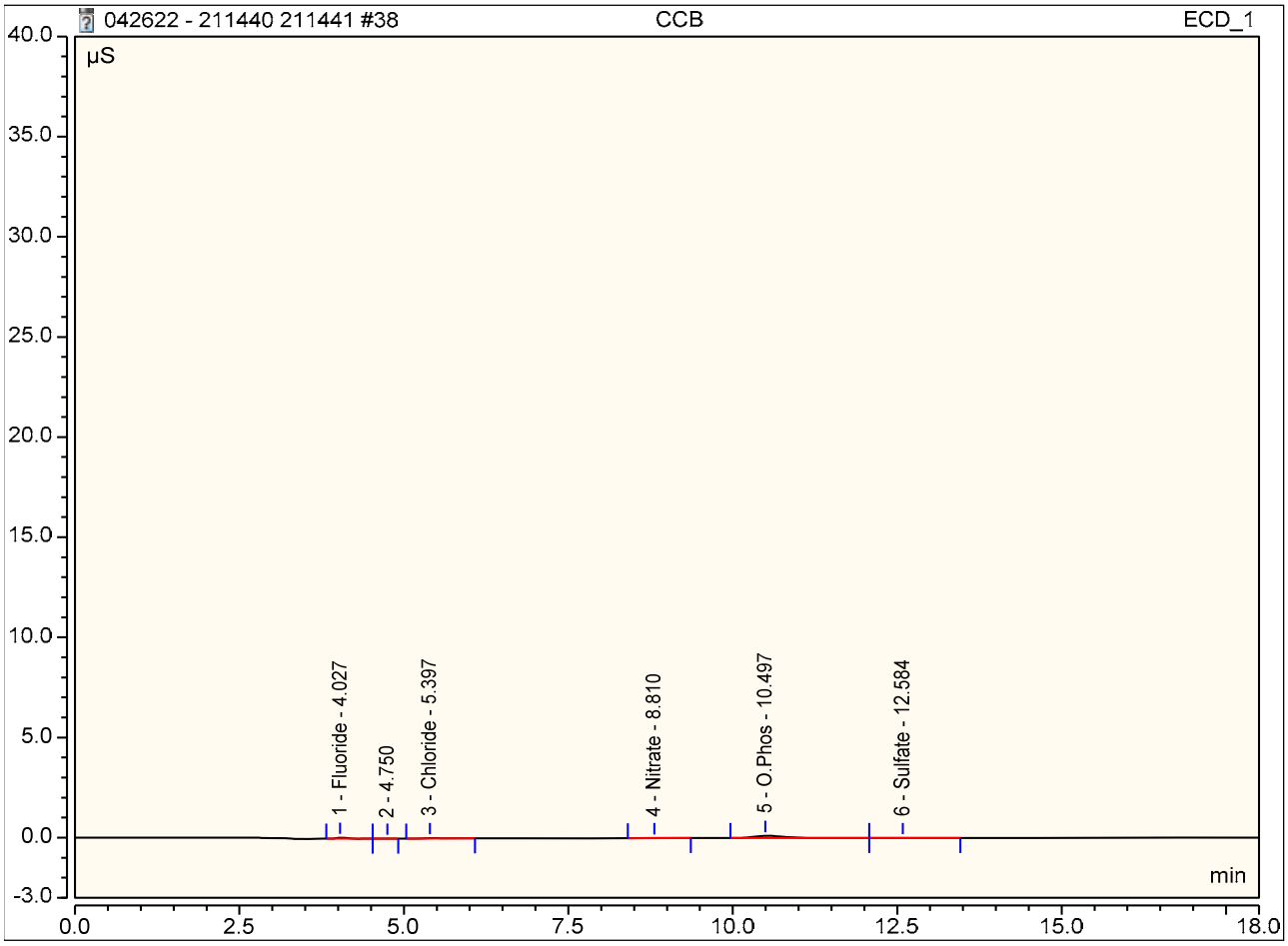
No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	1.246	6.810	3.3220
2	5.41	Chloride	4.052	22.885	13.7206
3	6.30	Nitrite	1.746	7.178	3.5592
4	7.65	Bromide	0.357	1.367	3.5653
5	8.71	Nitrate	2.163	6.893	3.5140
6	10.41	O.Phos	0.724	1.719	3.6261
7	12.51	Sulfate	4.696	11.068	23.7549



Peak Integration Report

Sample Name:	**CCB**	*Sequence Date:*	**05/04/2018**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Processing Method:	**IC4083A**	*Operator:*	**AQUION**
Inj. Date / Time:	**26-Apr-2022 / 23:02**	*Run Time:*	**18.00**

No.	Time min	Peak Name	Area µS*min	Height µS	Amount
1	4.03	Fluoride	0.010	0.052	0.0746
3	5.40	Chloride	0.005	0.024	0.3918
4	8.81	Nitrate	0.001	0.002	0.0749
5	10.50	O.Phos	0.058	0.109	0.3075
6	12.58	Sulfate	0.002	0.004	0.5313



Schedule File: C:\INSTARCH\Sequences\System 2\042522 - ic4106.SCH

Line	Sample	Sample Type	Level	Method	Data File	Volume	Dilution
4	STD1	Calibration St	1	ic4106.met	std1_004.dxd	1	1
6	STD3	Calibration St	3	ic4106.met	std3_006.dxd	1	1
7	STD4	Calibration St	4	ic4106.met	std4_007.dxd	1	1
8	STD5	Calibration St	5	ic4106.met	std5_008.dxd	1	1
9	STD6	Calibration St	6	ic4106.met	std6_009.dxd	1	1
10	STD7	Calibration St	7	ic4106.met	std7_010.dxd	1	1
11	STD8	Calibration St	8	ic4106.met	std8_011.dxd	1	1
12	STD9	Calibration St	9	ic4106.met	std9_012.dxd	1	1
15	STD2	Calibration St	2	ic4106.met	std2_015.dxd	1	1
17	ICV	Sample		ic4106.met	icv_017.dxd	1	1
18	ICB	Sample		ic4106.met	icb_018.dxd	1	1

Calibration Concentrations

Instrument:	DX-120 (2)	Cal. File:	IC4106		ICV	IC4096 IC4107		Analyst/Date: TMG 04/25/2022		
Analyte	Cal Level 1 (mg/L)	Cal Level 2 (mg/L)	Cal Level 3 (mg/L)	Cal Level 4 (mg/L)	Cal Level 5 (mg/L)	Cal Level 6 (mg/L)	Cal Level 7 (mg/L)	Cal Level 8 (mg/L)	Cal Level 9 (mg/L)	ICV (mg/L)
Fluoride	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Chloride	0.0	0.5	0.75	1.0	5.0	10.0	20.0	30.0	40.0	15.0
Bromide	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrite	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Nitrate	0.0	0.1	0.30	0.5	1.0	2.0	5.0	7.0		3.5
O-Phoshorous	0.0	0.1	0.30	0.5	1.0	2.0	5.0			3.5
Sulfate	0.0	0.5	0.75	1.0	5.0	10.0	30.0	50.0	70.0	25.0

RJ 05/05/2022

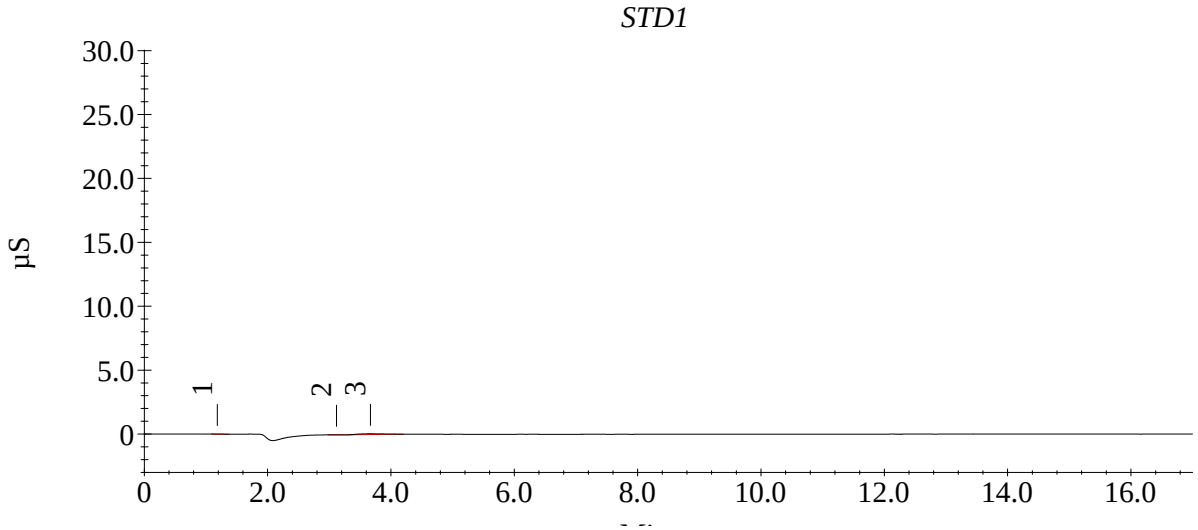
Calibration Update Report

Sample Name : STD1
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD1_004.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 11:23
Calibration Date : 4/25/22 11:40
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
3	Chloride	3.67	0	18900	18900



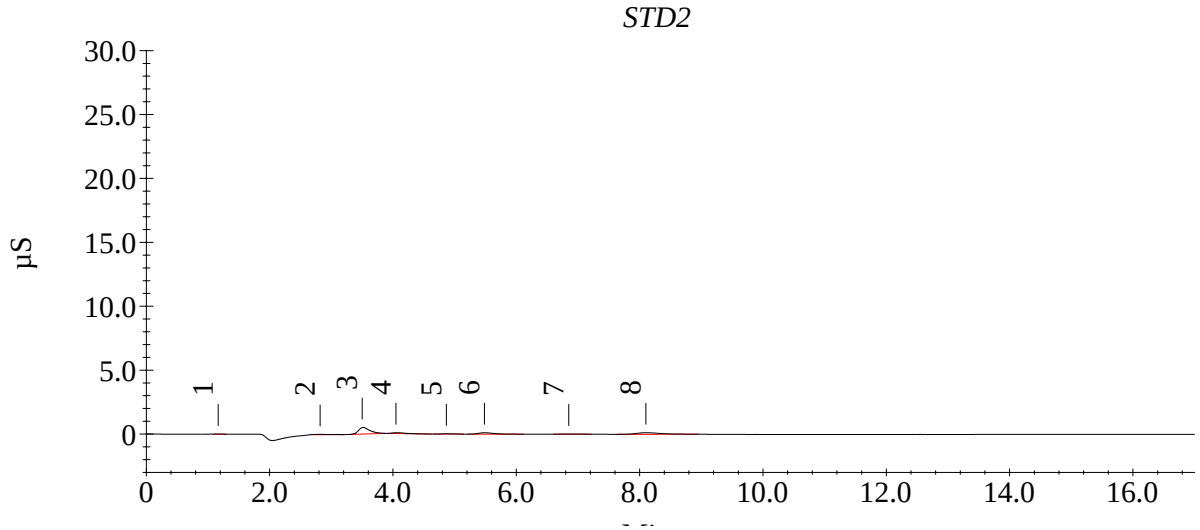
Calibration Update Report

Sample Name : STD2
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD2_015.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/26/22 07:26
Calibration Date : 4/26/22 07:43
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.82	3393	3742	3742
3	Chloride	3.50	58532	66760	66760
4	Nitrite	4.05	10247	8762	8762
5	Bromide	4.87	2603	3133	3133
6	Nitrate	5.48	14170	19634	19634
7	O.Phos	6.85	0	3287	3287
8	Sulfate	8.10	36226	34896	34896



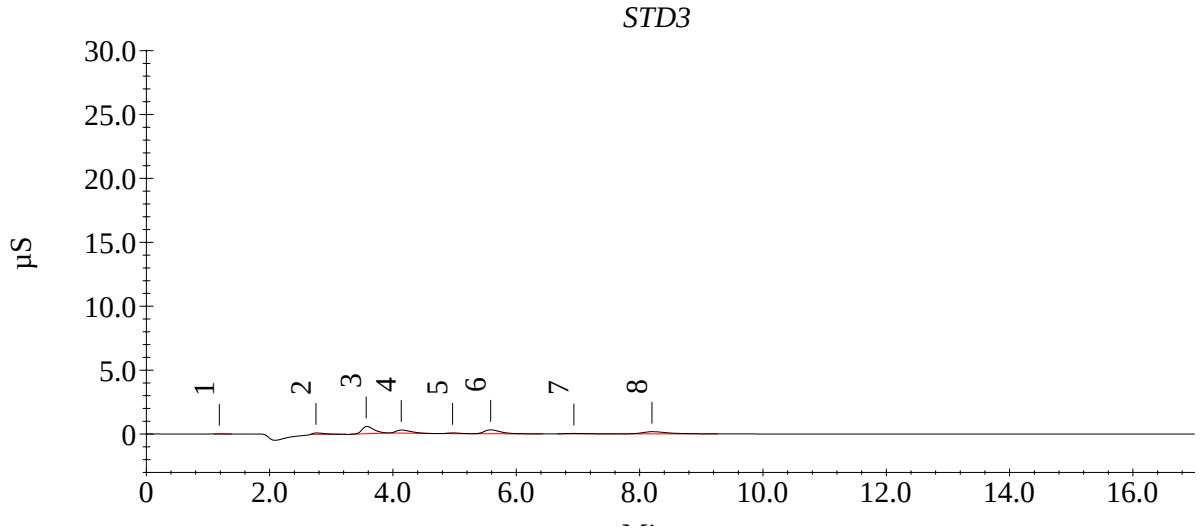
Calibration Update Report

Sample Name : STD3
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD3_006.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 12:02
Calibration Date : 4/25/22 12:19
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.75	0	16550	16550
3	Chloride	3.57	0	77712	77712
4	Nitrite	4.13	0	40550	40550
5	Bromide	4.97	0	8290	8290
6	Nitrate	5.58	0	56688	56688
7	O.Phos	6.93	0	8534	8534
8	Sulfate	8.20	0	52945	52945



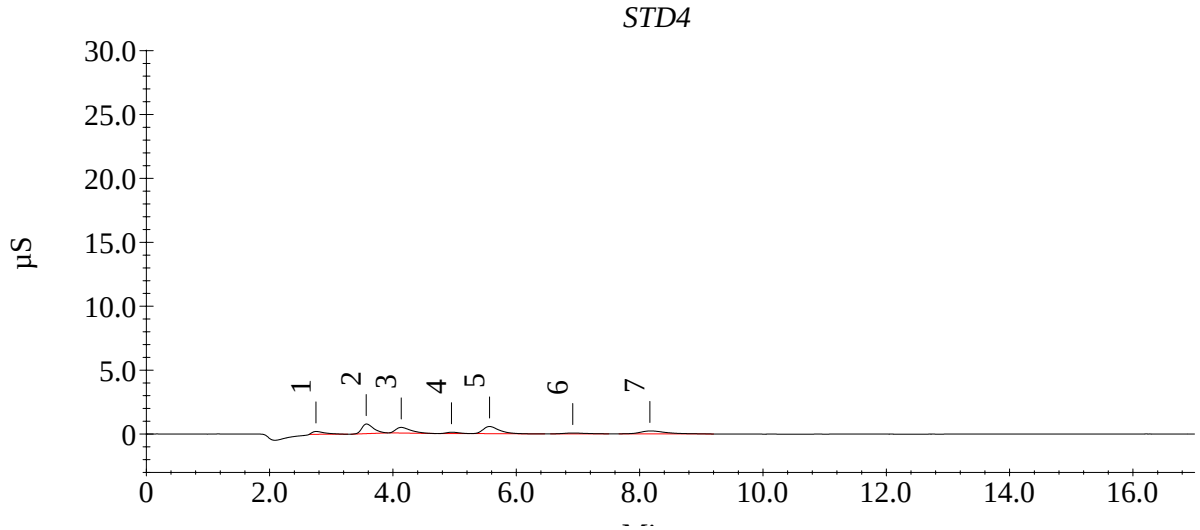
Calibration Update Report

Sample Name : STD4
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD4_007.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 12:21
Calibration Date : 4/25/22 12:38
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	Fluoride	2.75	0	32713	32713
2	Chloride	3.57	0	100073	100073
3	Nitrite	4.13	0	75003	75003
4	Bromide	4.95	0	14703	14703
5	Nitrate	5.57	0	102565	102565
6	O.Phos	6.92	0	16500	16500
7	Sulfate	8.17	0	66370	66370



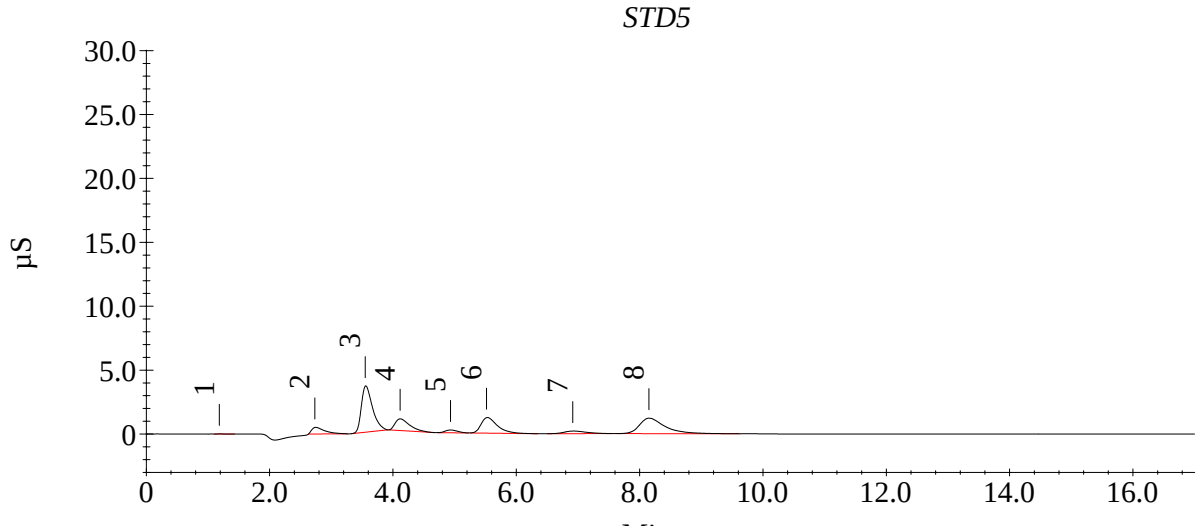
Calibration Update Report

Sample Name : STD5
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD5_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 12:40
Calibration Date : 4/25/22 12:57
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.73	0	75670	75670
3	Chloride	3.55	0	453771	453771
4	Nitrite	4.12	0	149999	149999
5	Bromide	4.93	0	29660	29660
6	Nitrate	5.52	0	223393	223393
7	O.Phos	6.92	0	50889	50889
8	Sulfate	8.15	0	349509	349509



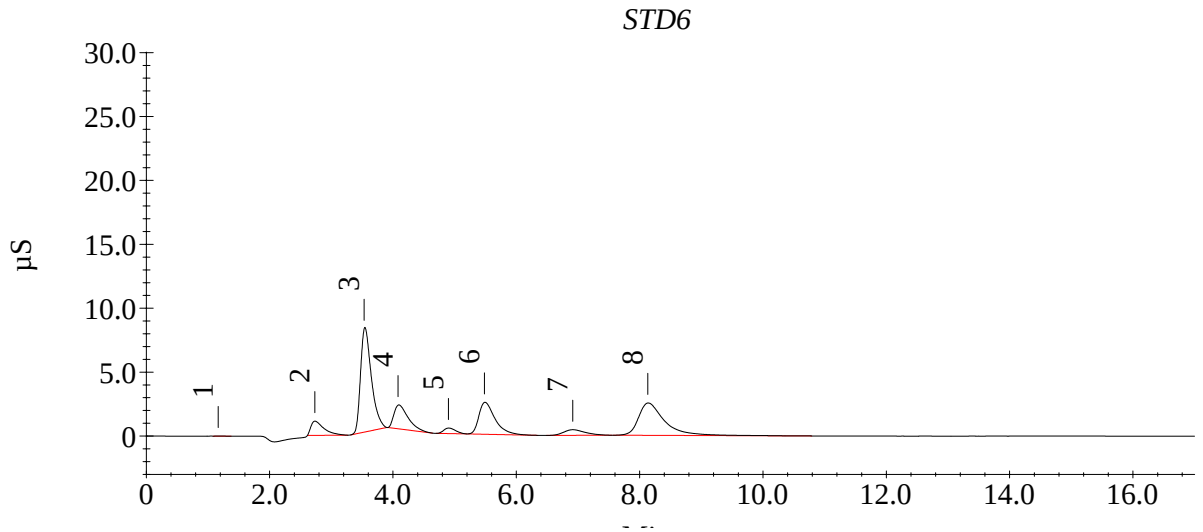
Calibration Update Report

Sample Name : STD6
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD6_009.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 12:59
Calibration Date : 4/25/22 13:16
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.73	0	162835	162835
3	Chloride	3.53	0	992280	992280
4	Nitrite	4.08	0	299933	299933
5	Bromide	4.90	0	57987	57987
6	Nitrate	5.48	0	455799	455799
7	O.Phos	6.92	0	105704	105704
8	Sulfate	8.13	0	746183	746183



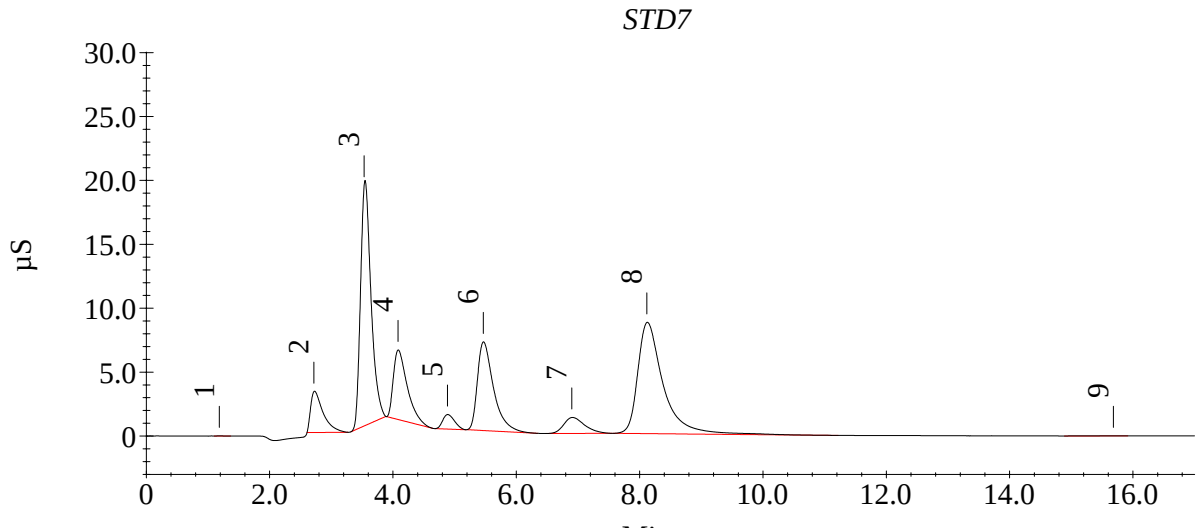
Calibration Update Report

Sample Name : STD7
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD7_010.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 13:19
Calibration Date : 4/25/22 13:36
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.72	0	451065	451065
3	Chloride	3.53	0	2255652	2255652
4	Nitrite	4.08	0	856341	856341
5	Bromide	4.88	0	151609	151609
6	Nitrate	5.47	0	1257180	1257180
7	O.Phos	6.90	0	295059	295059
8	Sulfate	8.12	0	2491289	2491289



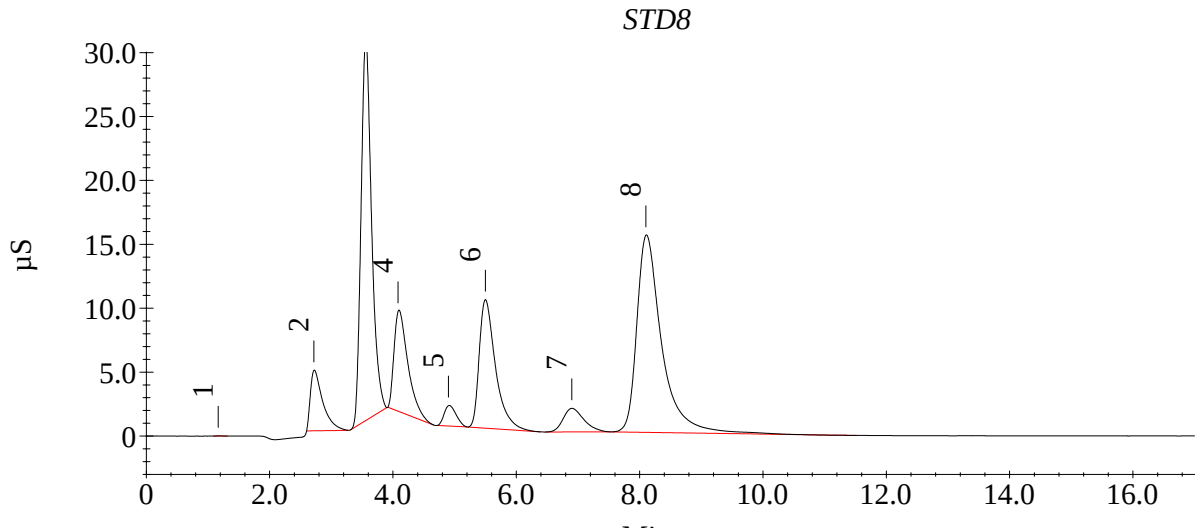
Calibration Update Report

Sample Name : STD8
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD8_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 13:38
Calibration Date : 4/25/22 13:55
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.72		659356	
3	Chloride	3.55	0	3540151	3540151
4	Nitrite	4.08		1241640	
5	Bromide	4.90		216515	
6	Nitrate	5.50	0	1840060	1840060
7	O.Phos	6.90		430569	
8	Sulfate	8.10	0	4329587	4329587



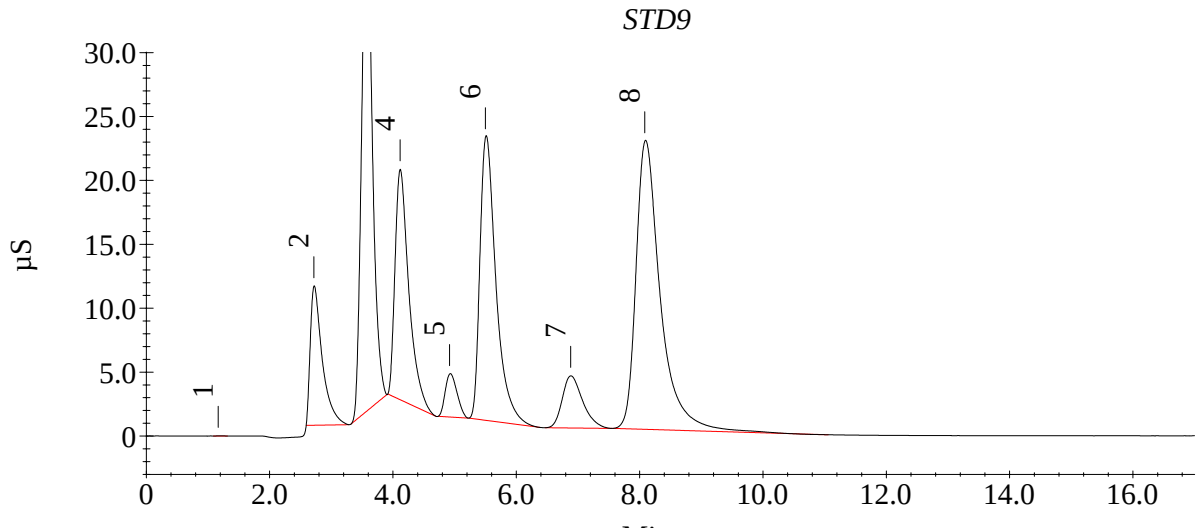
Calibration Update Report

Sample Name : STD9
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\STD9_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Schedule File Name : c:\instarch\sequences\system 2\042522 - ic4106.sch
Date Time Collected : 4/25/22 13:57
Calibration Date : 4/25/22 14:14
System Operator : TMG

Peak Information : All Components

Peak #	Component Name	Retention Time	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
2	Fluoride	2.72		1469940	
3	Chloride	3.57	0	4824843	4824843
4	Nitrite	4.12		2806329	
5	Bromide	4.92		450026	
6	Nitrate	5.50		4018108	
7	O.Phos	6.88		934962	
8	Sulfate	8.08	0	6201093	6201093



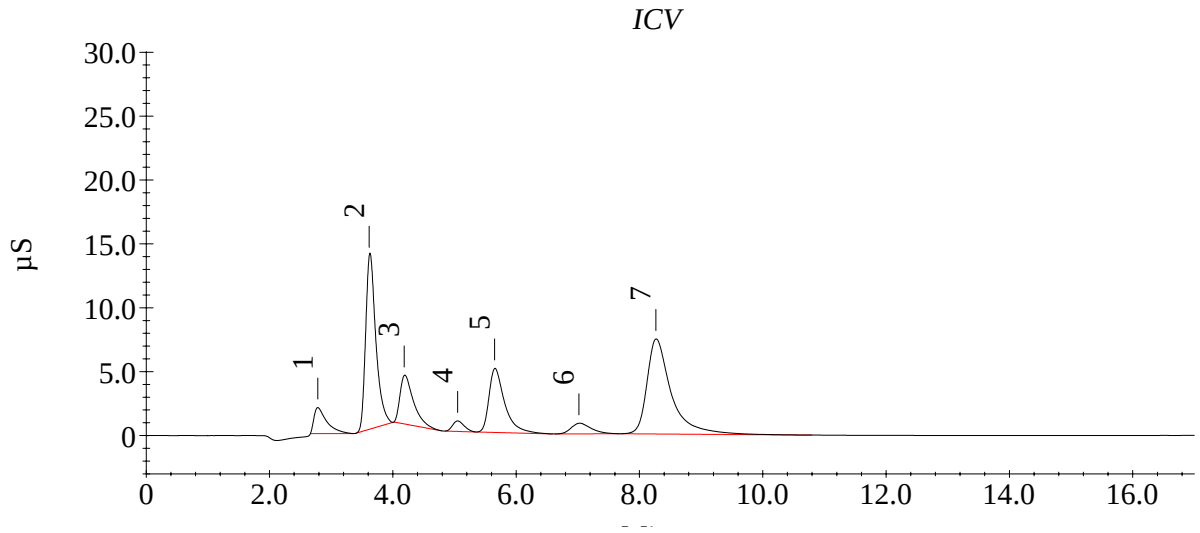
Sample Analysis Report

Sample Name : ICV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\ICV_017.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/26/22 08:16
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.78	3.3039	291348	20311	
2	Chloride	3.62	13.7024	1584710	135614	
3	Nitrite	4.18	3.4882	585230	37872	
4	Bromide	5.05	3.5600	107246	8245	
5	Nitrate	5.65	3.4894	886258	49985	
6	O.Phos	7.02	3.2698	188180	8309	
7	Sulfate	8.27	23.7168	2032871	74250	



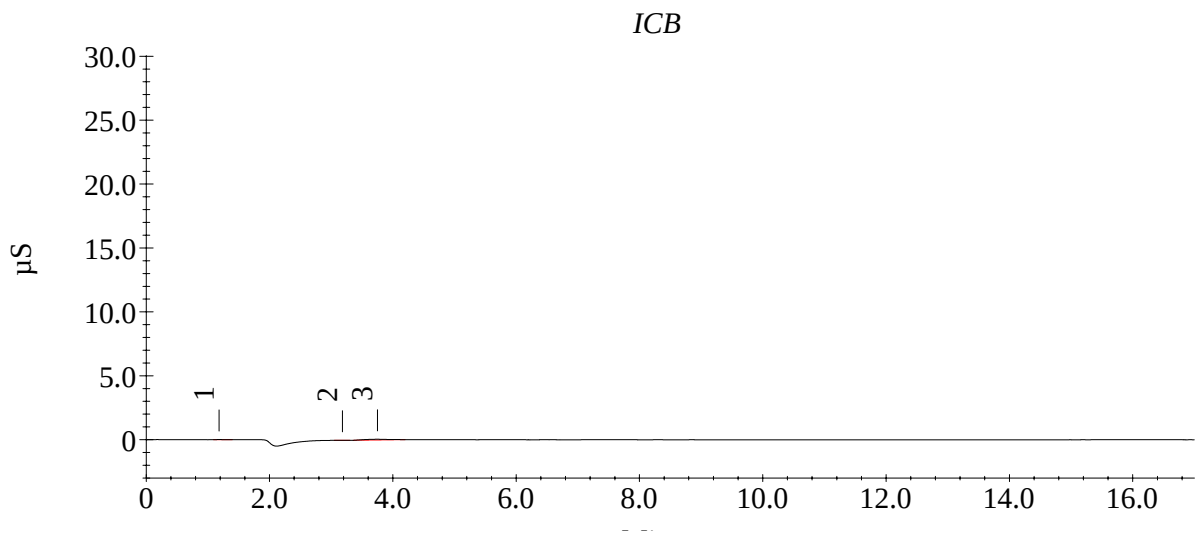
Sample Analysis Report

Sample Name : ICB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042522 -\ICB_018.DXD

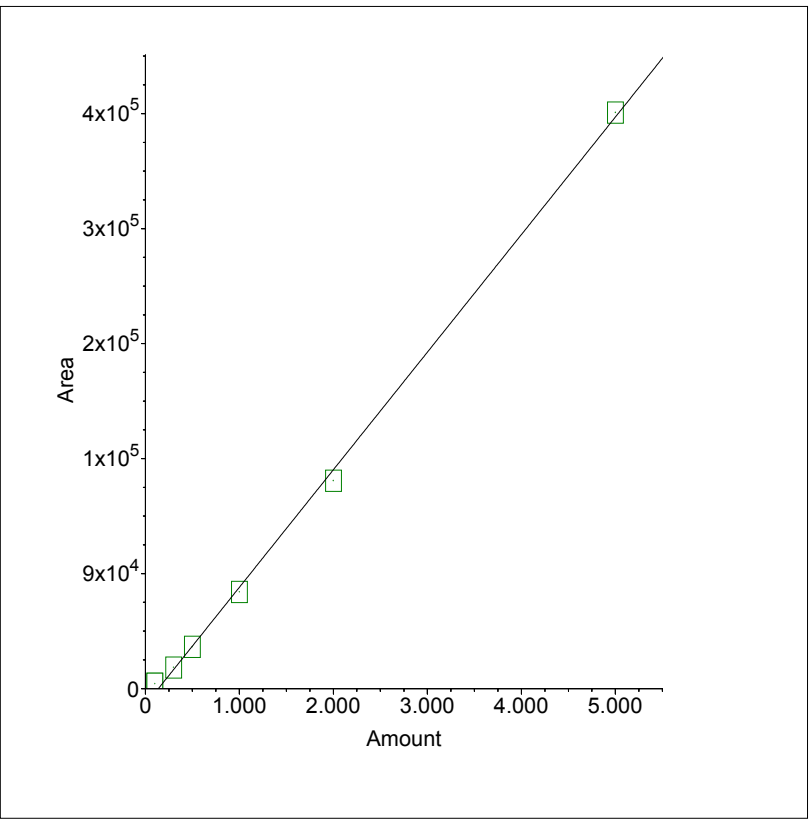
Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/26/22 08:35
System Operator : TMG

Peak Information : Found Components

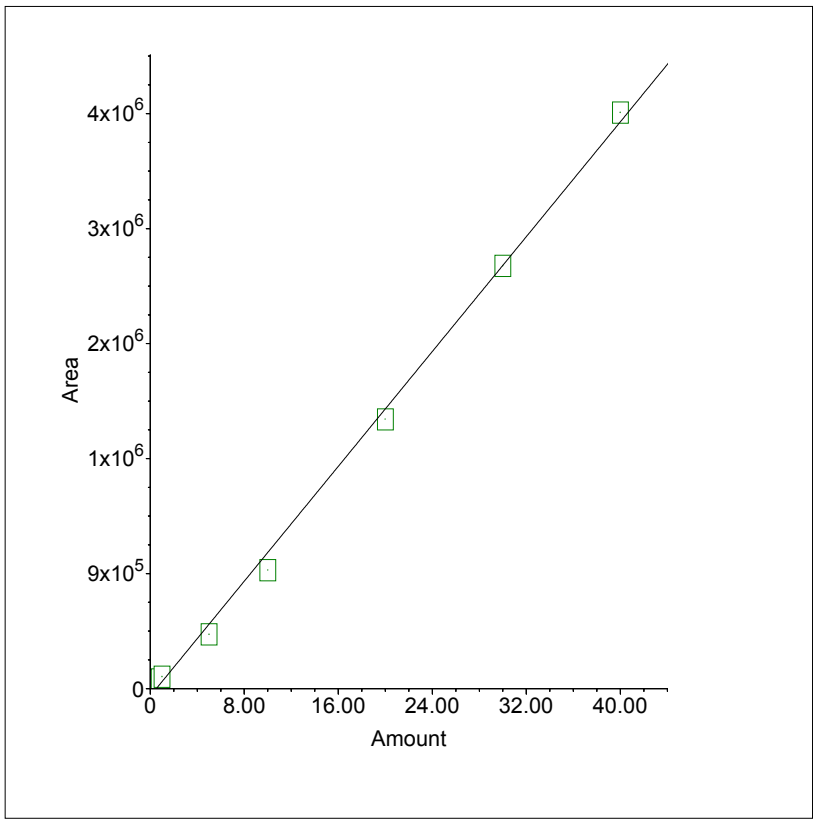
Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.75	0.6519	15693	555	



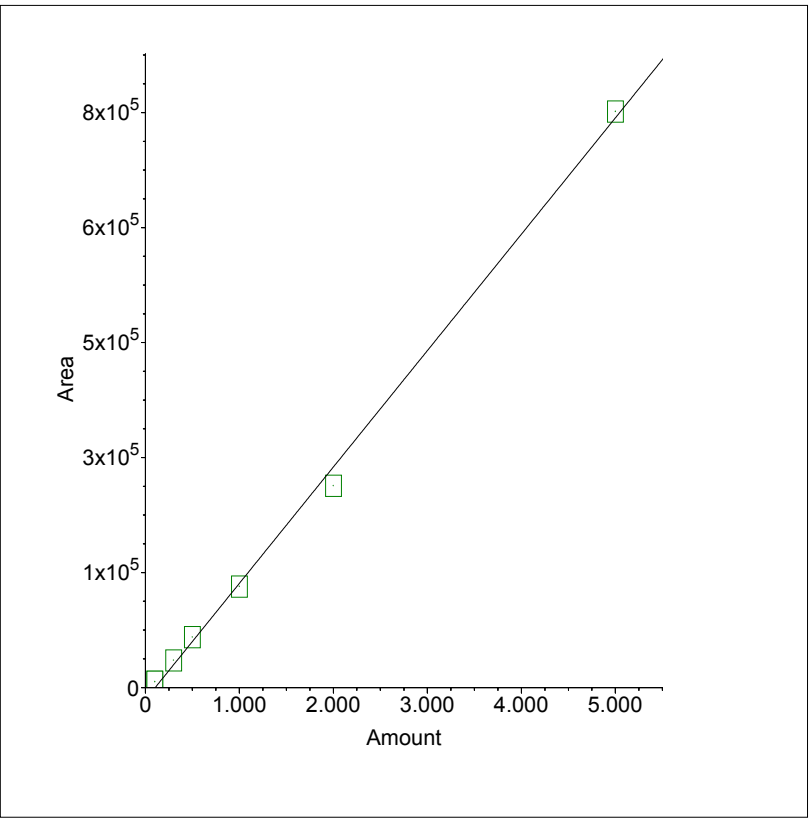
1. Component:Fluoride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998936
Amt=1.086e-005*Resp+0.1389



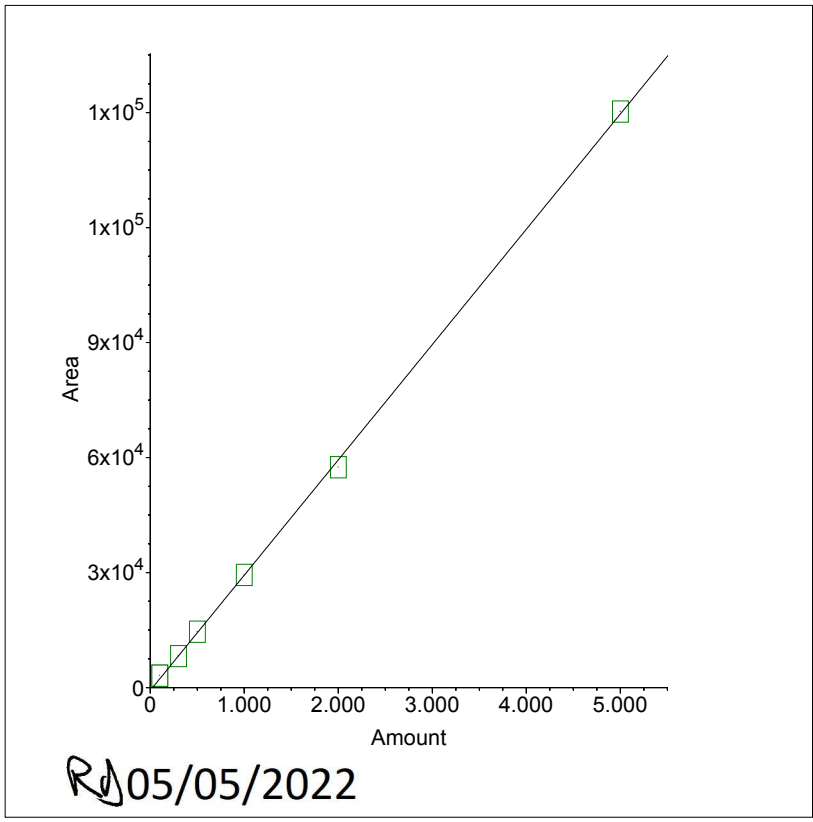
2. Component:Chloride
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.997695
Amt=8.318e-006*Resp+0.5213



3. Component:Nitrite
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.997904
Amt=5.781e-006*Resp+0.1049

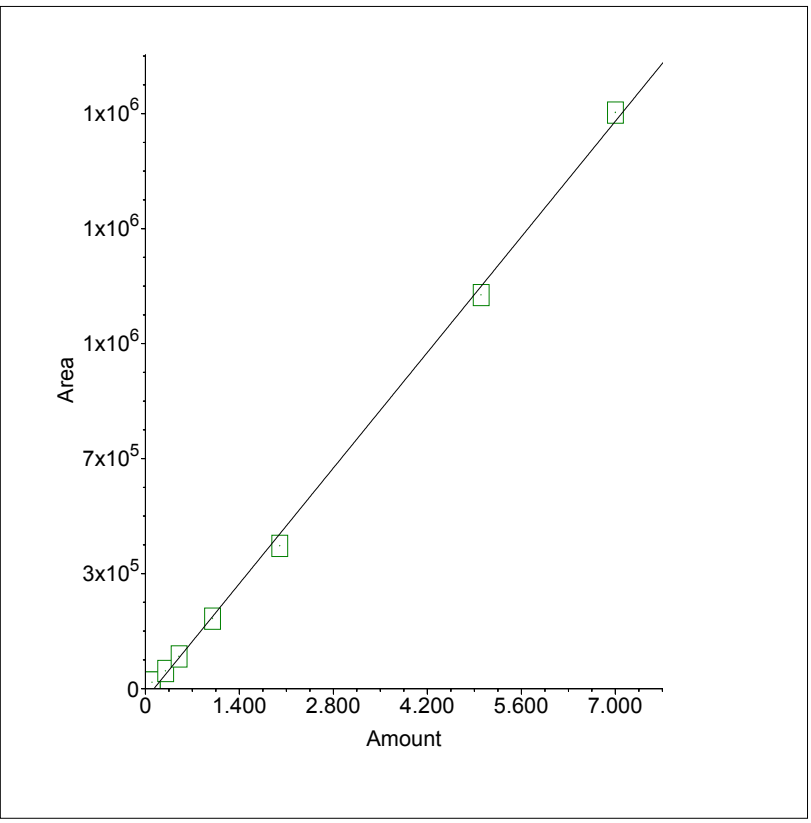


4. Component:Bromide
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999682
Amt=3.296e-005*Resp+0.02571

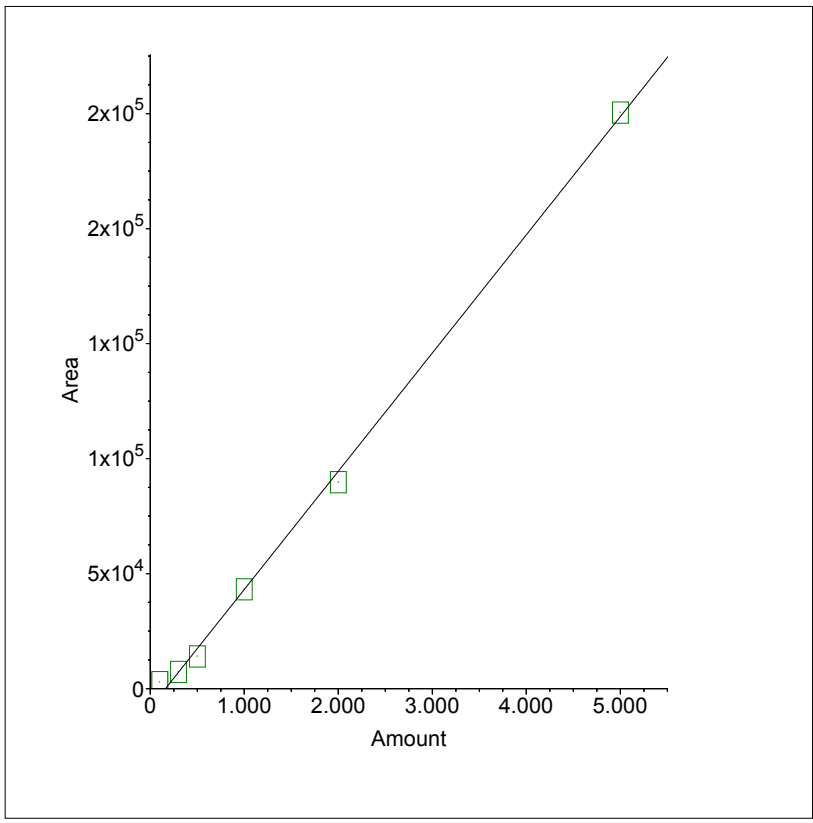


RJ 05/05/2022

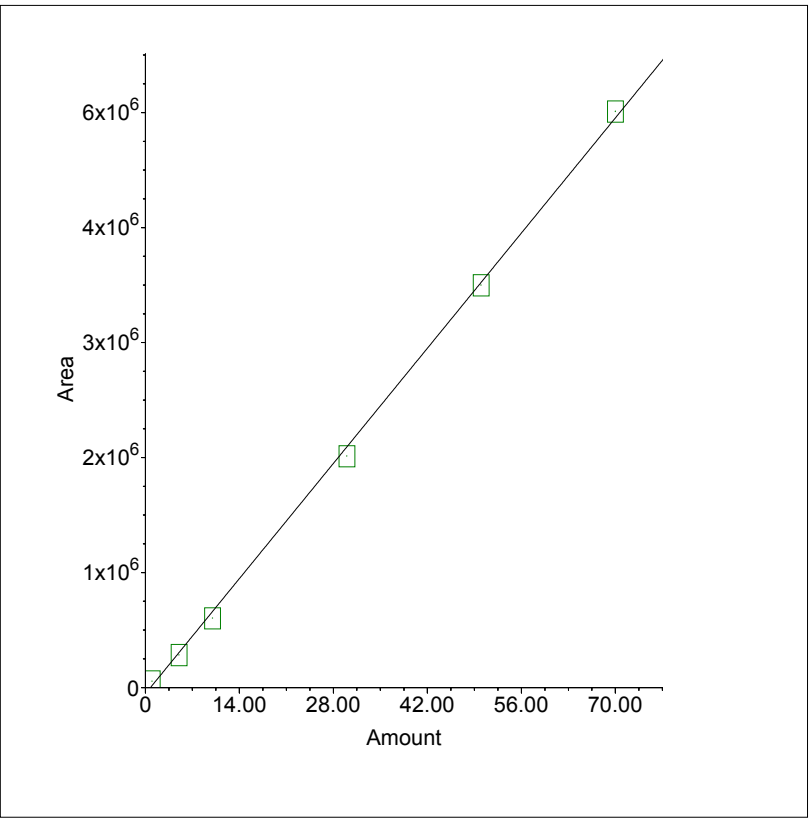
5. Component:Nitrate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998705
Amt=3.792e-006*Resp+0.1289



6. Component:O.Phos
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.998393
Amt=1.651e-005*Resp+0.1623



7. Component:Sulfate
Standard:External Fit Type:Linear
Origin:Ignore Calibration:Area
r^2=0.999235
Amt=1.129e-005*Resp+0.7604



RJ 05/05/2022

Schedule File: C:\INSTARCH\Sequences\System 2\042822 -.sch

Line	Sample	Sample Type	Level	Method	Data File
1	CCV	Sample		ic4106.met	ccv_001.dxd
2	CCB	Sample		ic4106.met	ccb_002.dxd
3	1136205	Sample		ic4106.met	1136205_003.dxd
4	1136206	Sample		ic4106.met	1136206_004.dxd
5	1136207	Sample		ic4106.met	1136207_005.dxd
6	1136208	Sample		ic4106.met	1136208_006.dxd
7	1136209	Sample		ic4106.met	1136209_007.dxd
8	1136210	Sample		ic4106.met	1136210_008.dxd
9	1136211	Sample		ic4106.met	1136211_009.dxd
10	1136213	Sample		ic4106.met	1136213_010.dxd
11	1136214	Sample		ic4106.met	1136214_011.dxd
12	1136215	Sample		ic4106.met	1136215_012.dxd
13	CCV	Sample		ic4106.met	ccv_013.dxd
14	LCSW	Sample		ic4106.met	lcsw_014.dxd
15	MBW-CCB	Sample		ic4106.met	mbw-ccb_015.dxd
16	1136216	Sample		ic4106.met	1136216_016.dxd
17	1136217	Sample		ic4106.met	1136217_017.dxd
18	1136203	Sample		ic4106.met	1136203_018.dxd
19	1136204	Sample		ic4106.met	1136204_019.dxd
20	DUP1136203	Sample		ic4106.met	dup1136203_020.dxd
21	MSW1136203	Sample		ic4106.met	msw1136203_021.dxd
22	MSDW1136203	Sample		ic4106.met	msdw1136203_022.dxd
23	1136205X5	Sample		ic4106.met	1136205x5_023.dxd
24	1136217X5	Sample		ic4106.met	1136217x5_024.dxd
26	CCV	Sample		ic4106.met	ccv_026.dxd
27	CCB	Sample		ic4106.met	ccb_027.dxd

63	CCV	Sample		ic4106.met	ccv_063.dxd

Schedule File: C:\INSTARCH\Sequences\System 2\042822 -.sch

Line	Sample	Sample Type	Level	Method	Data File
64	CCB	Sample		ic4106.met	ccb_064.dxd
65	1136207X5	Sample		ic4106.met	1136207x5_065.dxd
66	1136215X5	Sample		ic4106.met	1136215x5_066.dxd
67	1136412	Sample		ic4106.met	1136412_067.dxd
68	CCV	Sample		ic4106.met	ccv_068.dxd
69	CCB	Sample		ic4106.met	ccb_069.dxd
70	CCV	Sample		ic4106.met	ccv_070.dxd
71	CCB	Sample		ic4106.met	ccb_071.dxd
72	1136203X5	Sample		ic4106.met	1136203x5_072.dxd
73	DUP1136203X5	Sample		ic4106.met	dup1136203x5_073.dxd
74	MSW1136203X5	Sample		ic4106.met	msw1136203x5_074.dxd
75	MSDW1136203X5	Sample		ic4106.met	msdw1136203x5_075.dxd
82	CCV	Sample		ic4106.met	ccv_082.dxd
83	CCB	Sample		ic4106.met	ccb_083.dxd
93	CCV	Sample		ic4106.met	ccv
94	LCSW	Sample		ic4106.met	lcsw
95	MBW-CCB	Sample		ic4106.met	mbw-ccb
96	1136588	Sample		ic4106.met	1136588
97	1136588X5	Sample		ic4106.met	1136588x5
98	1136671	Sample		ic4106.met	1136671
99	1136671X5	Sample		ic4106.met	1136671x5
100	1136672	Sample		ic4106.met	1136672
101	1136672X5	Sample		ic4106.met	1136672x5
102	1136673	Sample		ic4106.met	1136673
103	1136673X5	Sample		ic4106.met	1136673x5
104	1136674	Sample		ic4106.met	1136674
105	1136674X5	Sample		ic4106.met	1136674x5
106	CCV	Sample		ic4106.met	ccv
107	CCB	Sample		ic4106.met	ccb
108	DUP1136674	Sample		ic4106.met	dup1136674
109	MSW1136674	Sample		ic4106.met	msw1136674
110	MSDW1136674	Sample		ic4106.met	msdw1136674
117	CCV	Sample		ic4106.met	ccv
118	CCB	Sample		ic4106.met	ccb

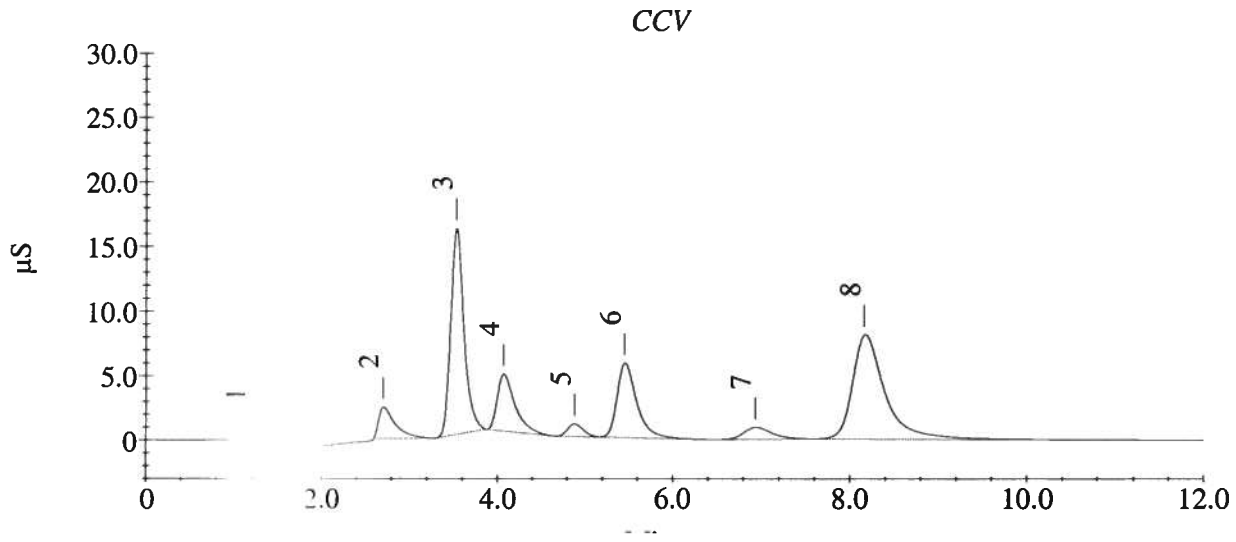
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_001.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 10:23
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	3.5637	315266	24141	
3	Chloride	3.53	14.4085	1669595	159256	
4	Nitrite	4.07	3.7227	625789	43966	
5	Bromide	4.88	3.9293	118450	9742	
6	Nitrate	5.45	3.5648	906148	57456	
7	O.Phos	6.93	3.5321	204059	9293	
8	Sulfate	8.17	24.1662	2072663	80563	



Page 1665

Sample Analysis Report

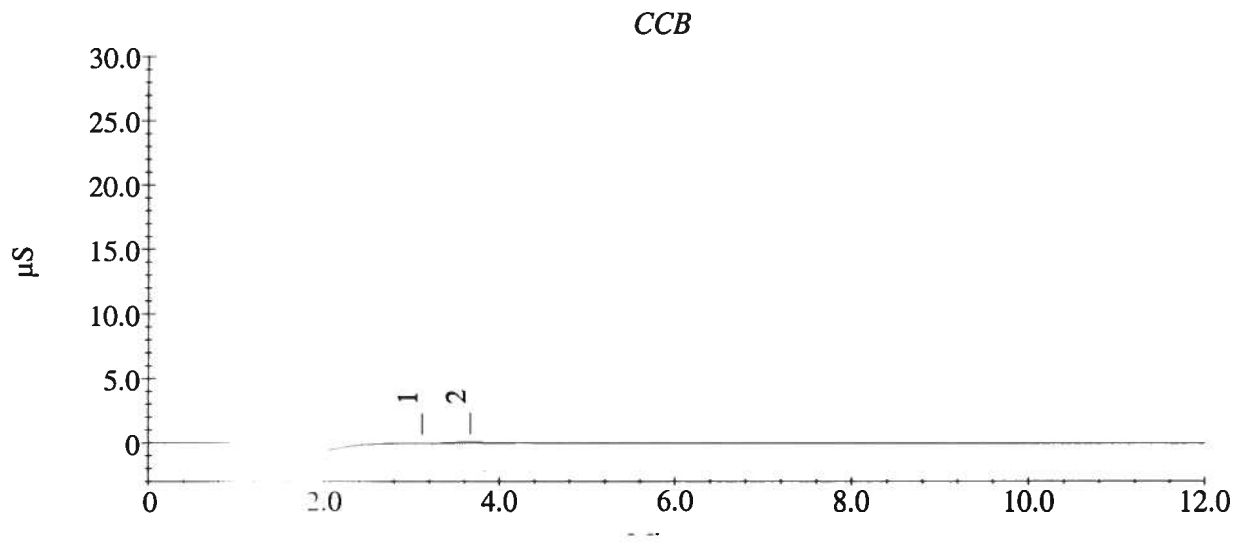
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\042822 -\CCB_002.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 10:38
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.67	0.6607	16755	563	

Page 1666



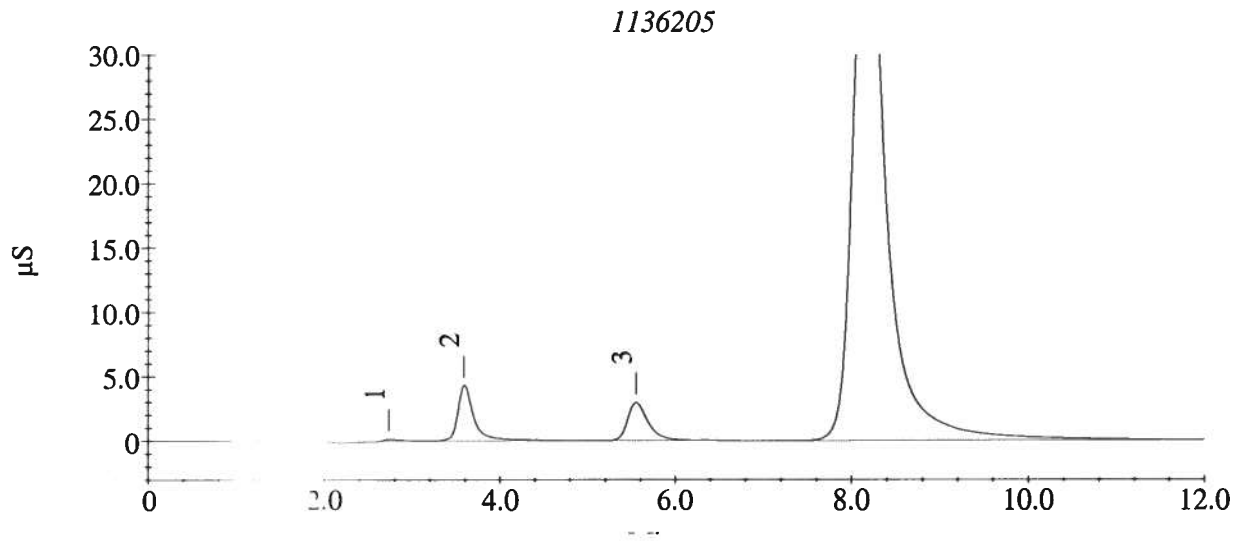
Sample Analysis Report

Sample Name : 1136205
Data File Name : c:\instarch\data\system 2\042822 -\1136205_003.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 10:52
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.73	0.2907	13974	1142	
2	Chloride	3.58	5.1385	555104	42725	
3	Nitrate	5.55	1.9401	477660	29399	
4	Sulfate	8.15	132.0624	11627247	458935	+



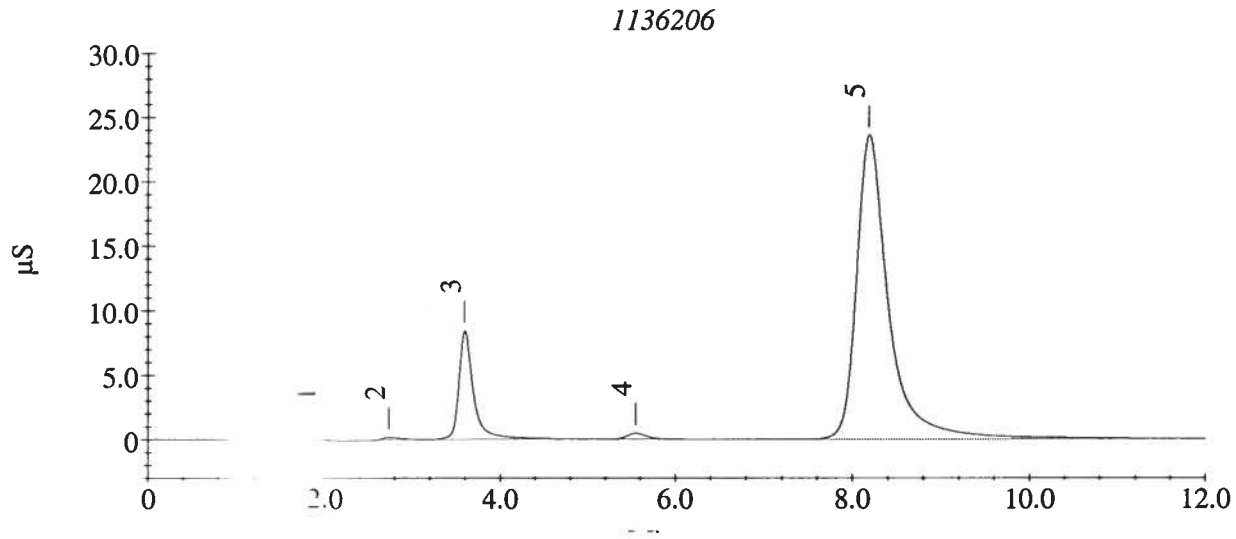
Sample Analysis Report

Sample Name : 1136206
Data File Name : c:\instarch\data\system 2\042822 -\1136206_004.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 11:06
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.3717	21435	1615	
3	Chloride	3.60	8.6578	978211	84041	
4	Nitrate	5.55	0.3954	70293	4619	
5	Sulfate	8.18	68.6102	6008329	235380	



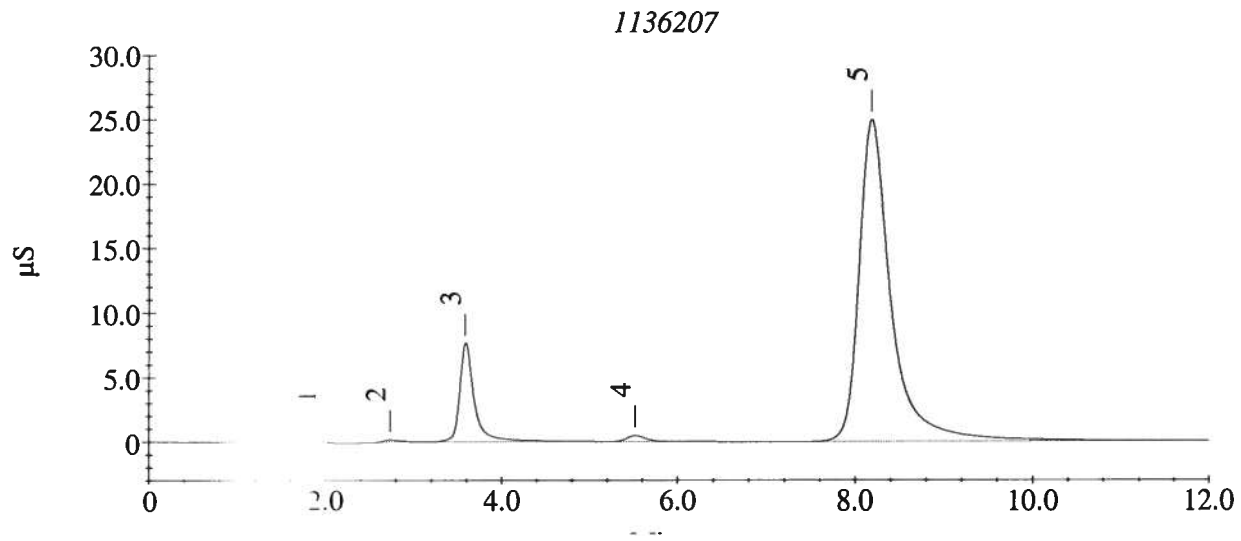
Sample Analysis Report

Sample Name : 1136207
Data File Name : c:\instarch\data\system 2\042822 -\1136207_005.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 11:20
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.3592	20280	1550	
3	Chloride	3.58	7.9825	897026	75780	
4	Nitrate	5.52	0.3893	68685	4647	
5	Sulfate	8.18	71.7667	6287855	249144	+



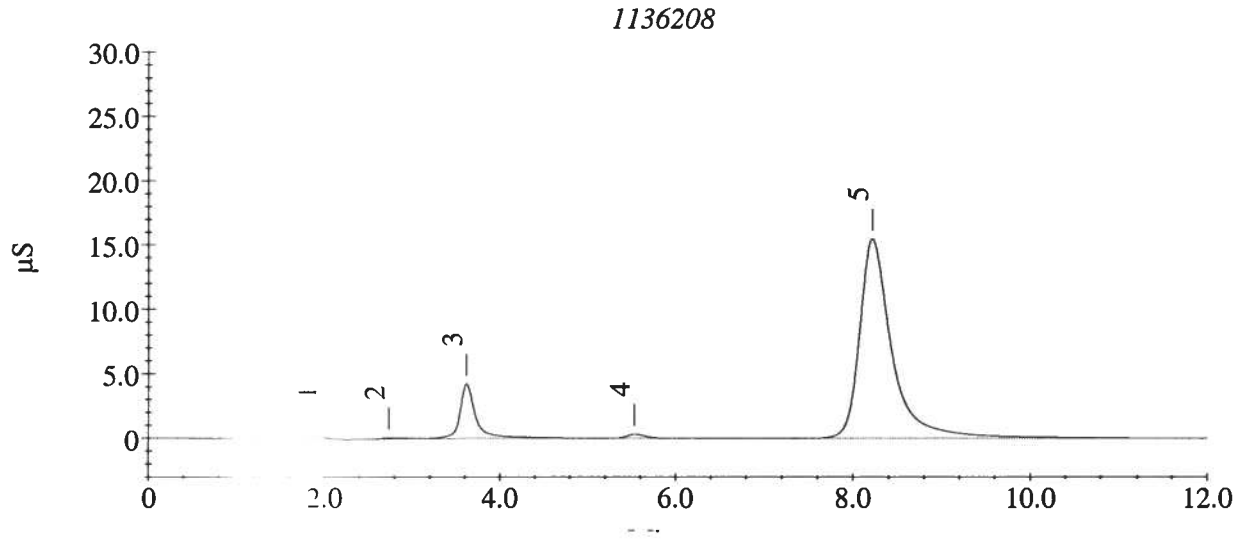
Sample Analysis Report

Sample Name : 1136208
Data File Name : c:\instarch\data\system 2\042822 -\1136208_006.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 11:35
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.3118	15916	930	
3	Chloride	3.62	4.9125	527935	41974	
4	Nitrate	5.53	0.2987	44779	3168	
5	Sulfate	8.22	45.3294	3946736	154713	



Sample Analysis Report

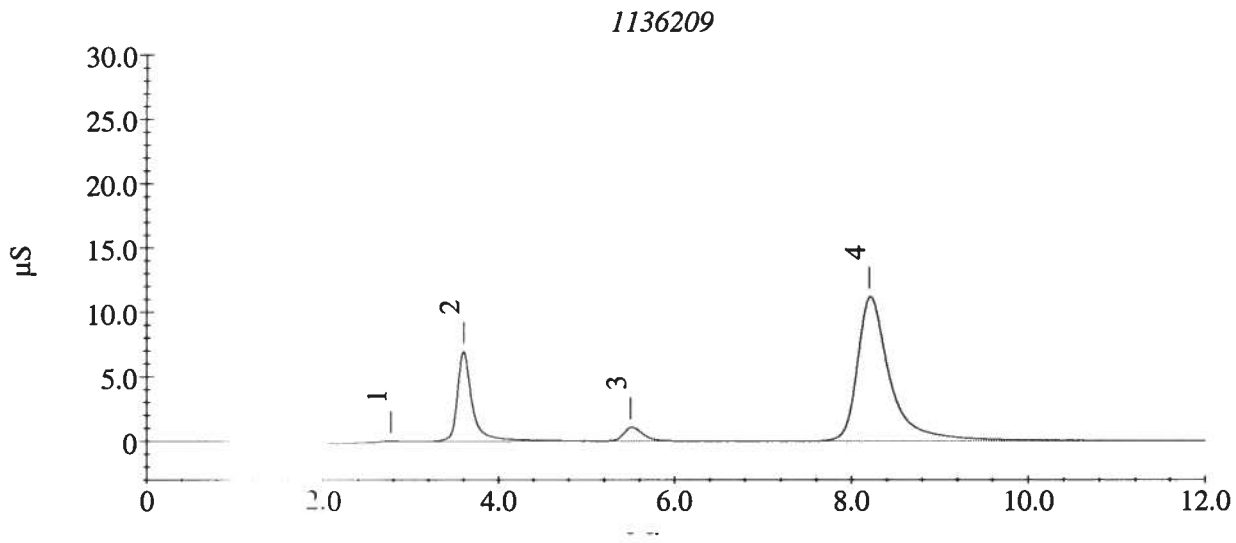
Sample Name : 1136209
Data File Name : c:\instarch\data\system 2\042822 -\1136209_007.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 11:49
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.77	0.1828	4046	319	
2	Chloride	3.60	7.5298	842602	69334	
3	Nitrate	5.50	0.7327	159240	10447	
4	Sulfate	8.20	33.2460	2876709	111592	

Page 1671



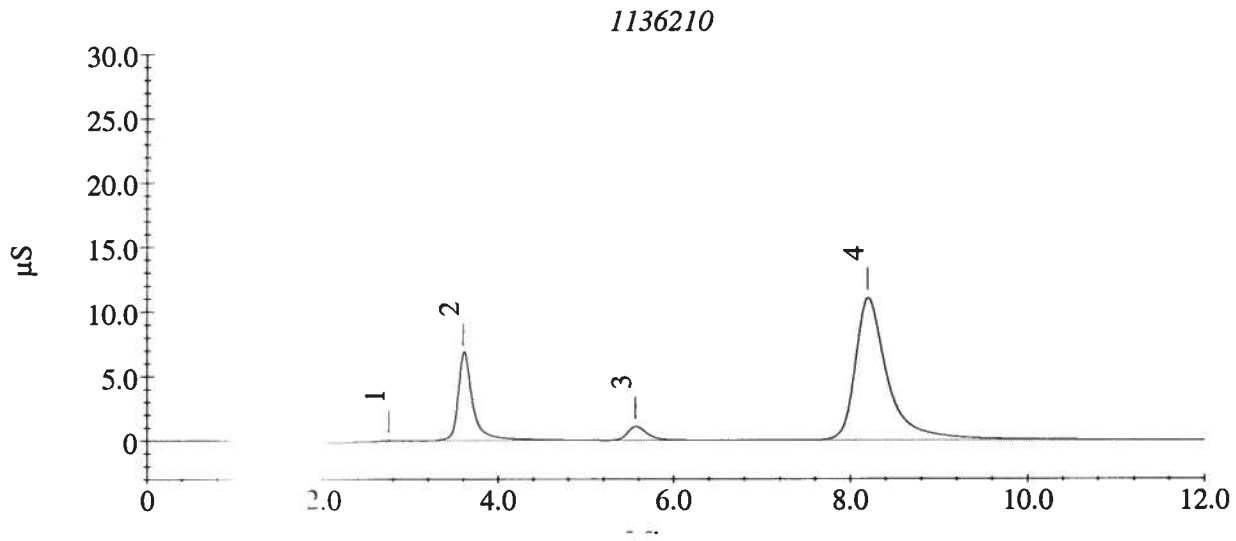
Sample Analysis Report

Sample Name : 1136210
Data File Name : c:\instarch\data\system 2\042822 -\1136210_008.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 12:03
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.75	0.1810	3875	288	
2	Chloride	3.60	7.3480	820746	67323	
3	Nitrate	5.57	0.7497	163727	10668	
4	Sulfate	8.20	32.6091	2820315	110164	



Sample Analysis Report

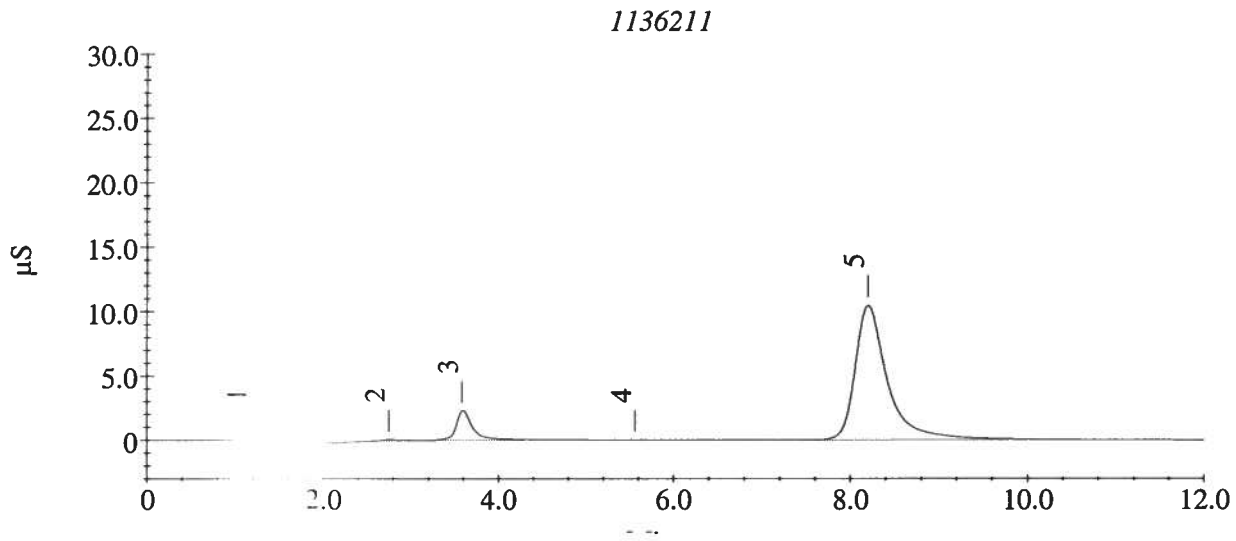
Sample Name : 1136211
Data File Name : c:\instarch\data\system 2\042822 -\1136211_009.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 12:17
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.75	0.1865	4390	374	
3	Chloride	3.58	3.0662	305957	22725	
4	Nitrate	5.57	0.1340	1345	108	
5	Sulfate	8.20	30.9313	2671734	104336	

Page 1673



Sample Analysis Report

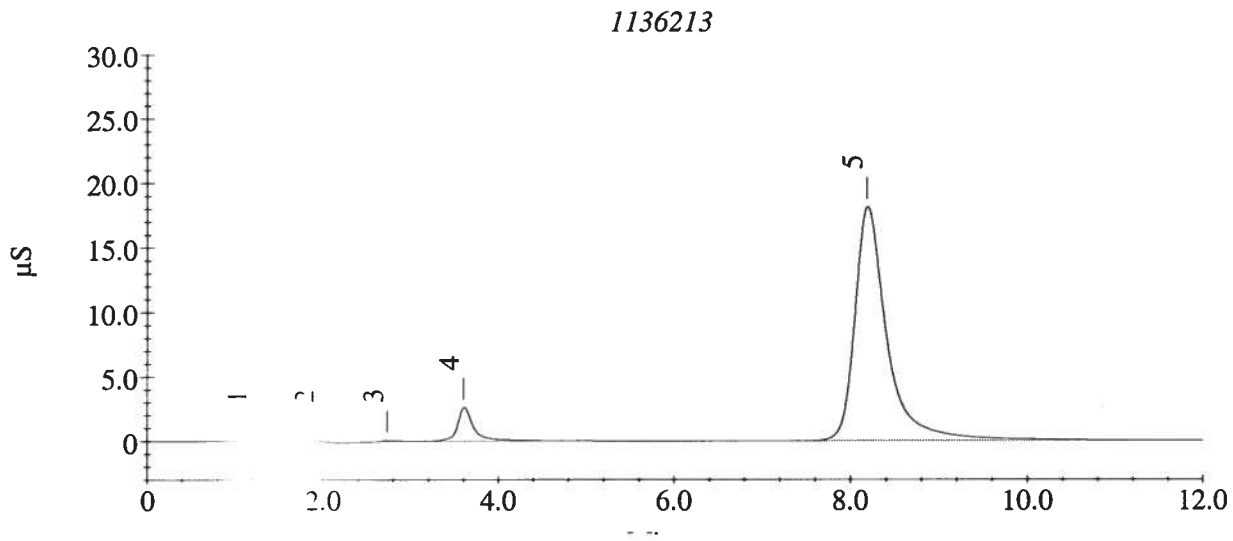
Sample Name : 1136213
Data File Name : c:\instarch\data\system 2\042822 -\1136213_010.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 12:31
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.73	0.2121	6742	569	
4	Chloride	3.60	3.4165	348081	26006	
5	Sulfate	8.18	52.9757	4623842	180866	

Page 1674



Sample Analysis Report

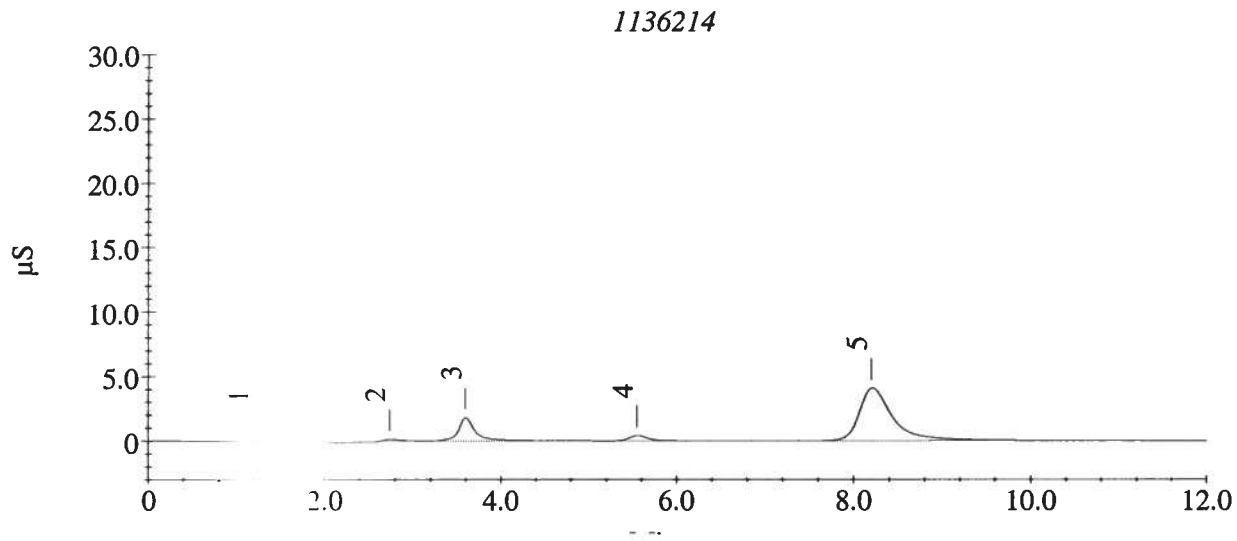
Sample Name : 1136214
Data File Name : c:\instarch\data\system 2\042822 -\1136214_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 12:46
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.3056	15353	1186	
3	Chloride	3.60	2.5853	248146	17980	
4	Nitrate	5.55	0.3521	58866	3971	
5	Sulfate	8.20	12.8662	1072013	40714	

Page 1675



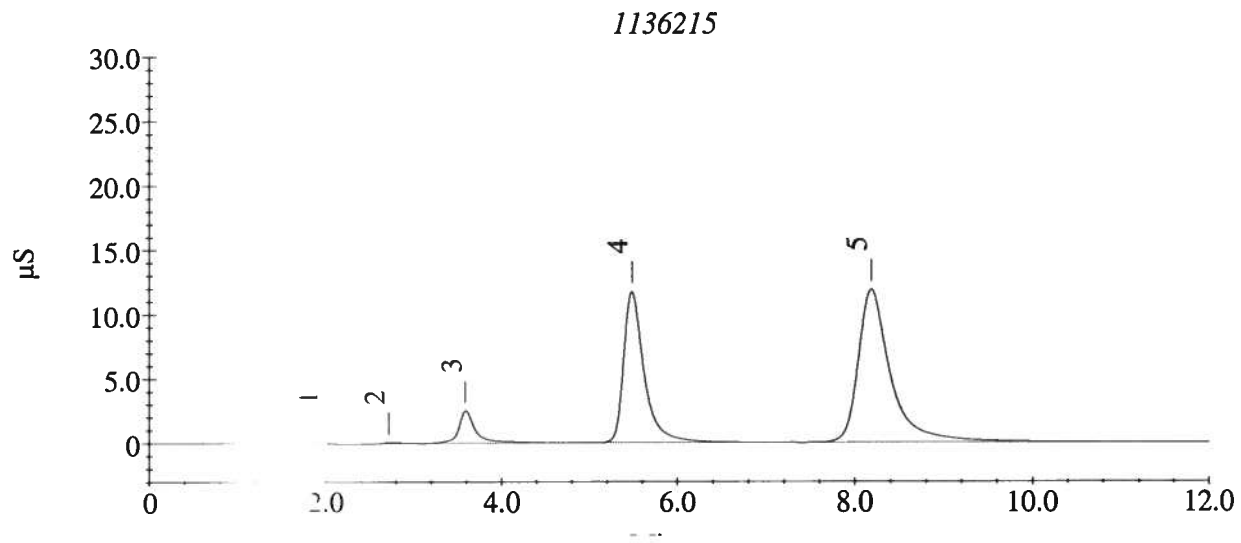
Sample Analysis Report

Sample Name : 1136215
Data File Name : c:\instarch\data\system 2\042822 -\1136215_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 13:00
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	0.2115	6690	543	
3	Chloride	3.58	3.3339	338150	24803	
4	Nitrate	5.48	7.3228	1897225	117168	+
5	Sulfate	8.18	35.1194	3042606	118818	



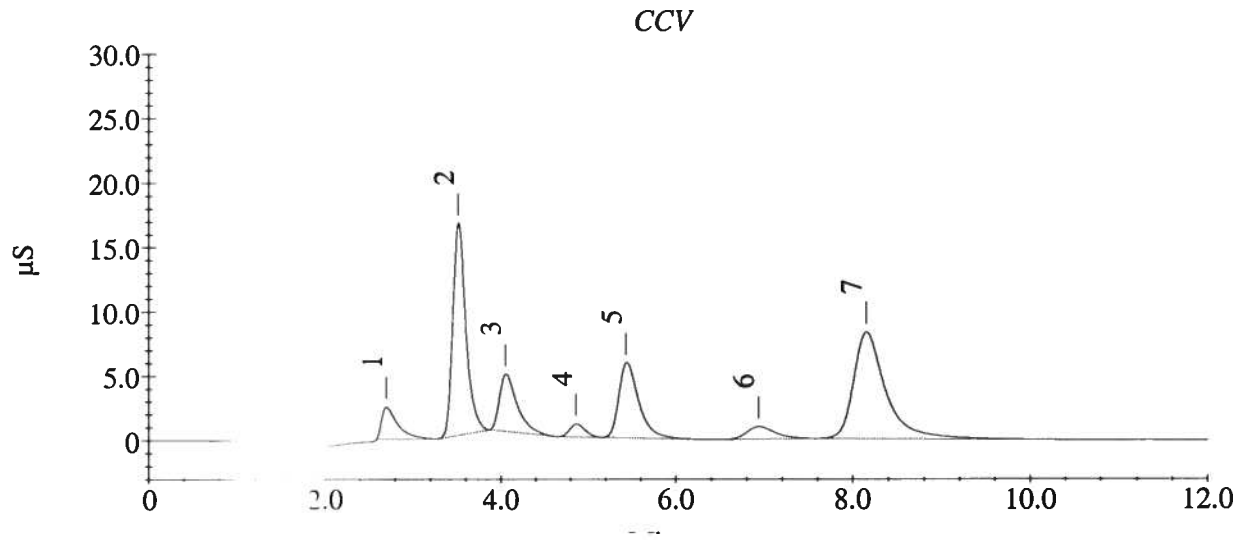
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_013.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 13:14
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.70	3.6067	319227	24903	
2	Chloride	3.52	14.7016	1704841	164370	
3	Nitrite	4.05	3.7144	624355	44091	
4	Bromide	4.87	3.9891	120265	9859	
5	Nitrate	5.43	3.6113	918416	58024	
6	O.Phos	6.93	3.7213	215518	9695	
7	Sulfate	8.15	24.3426	2088281	82777	



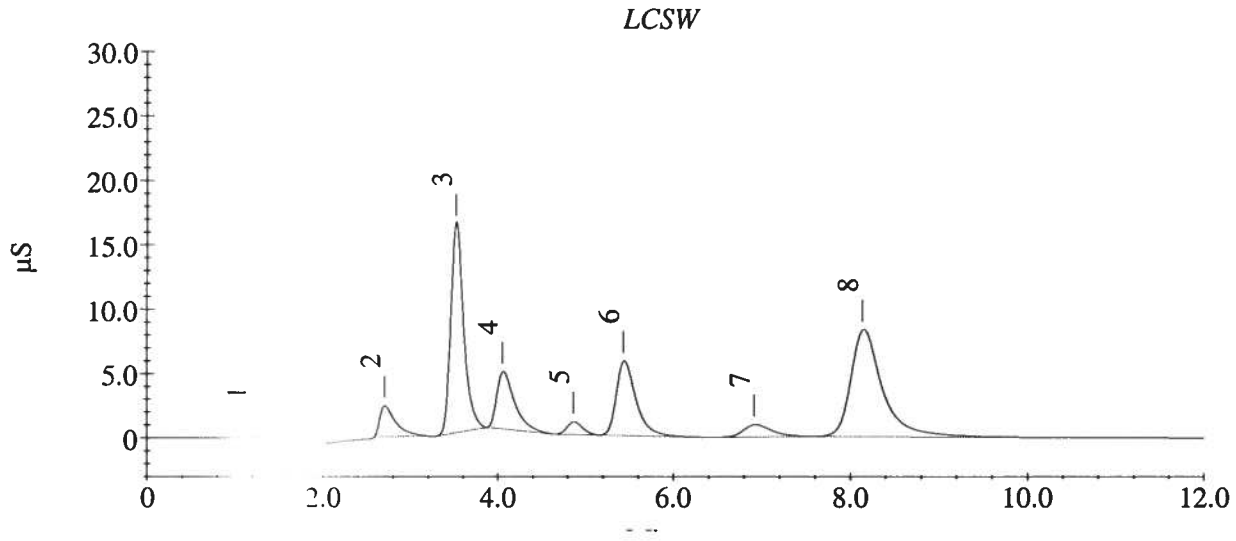
Sample Analysis Report

Sample Name : LCSW
Data File Name : c:\instarch\data\system 2\042822 -\LCSW_014.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 13:28
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	3.4468	304501	23830	
3	Chloride	3.52	14.5795	1690158	162039	
4	Nitrite	4.05	3.7274	626611	44079	
5	Bromide	4.87	3.9740	119807	9858	
6	Nitrate	5.43	3.5527	902959	57781	
7	O.Phos	6.92	3.6889	213555	9647	
8	Sulfate	8.13	24.4559	2098320	82968	



Sample Analysis Report

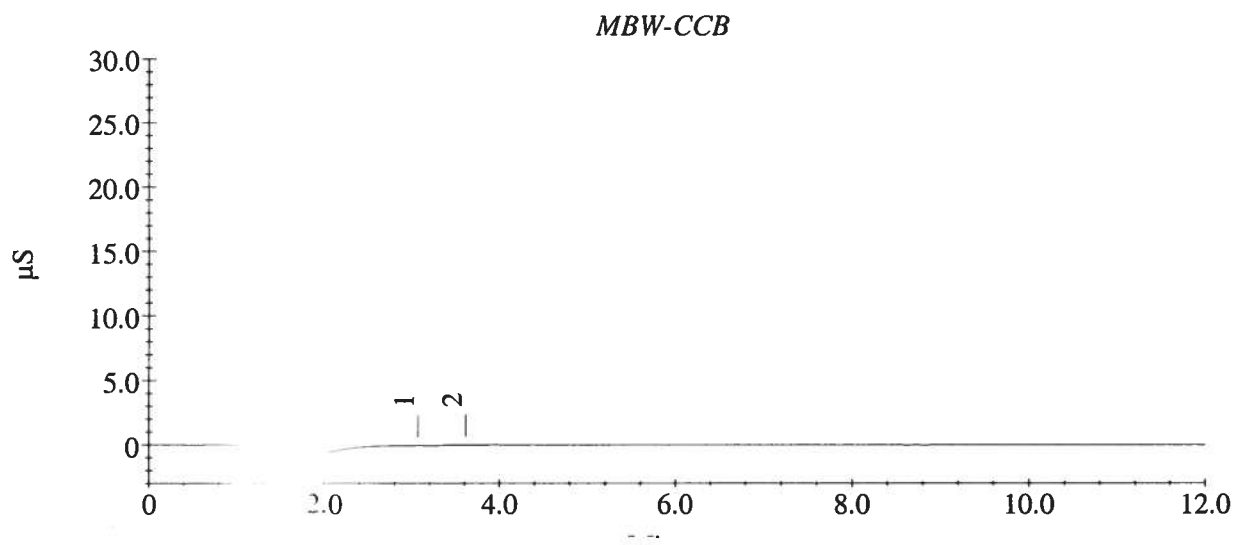
Sample Name : MBW-CCB
Data File Name : c:\instarch\data\system 2\042822 -\MBW-CCB_015.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 13:43
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.62	0.6847	19638	627	

Page 1679



Sample Analysis Report

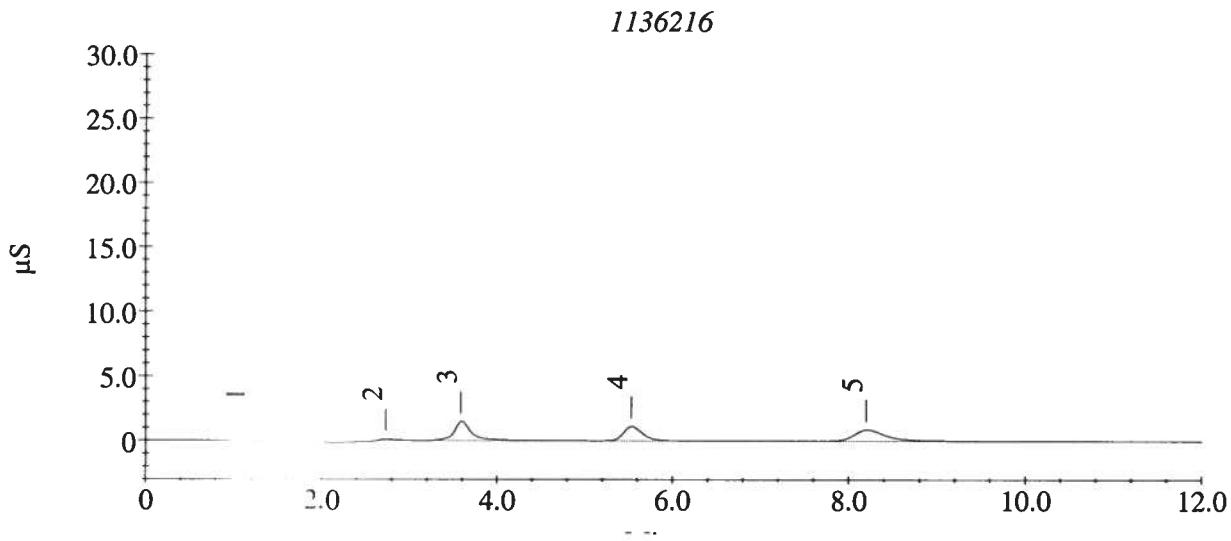
Sample Name : 1136216
Data File Name : c:\instarch\data\system 2\042822 -\1136216_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 13:57
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.3045	15249	1240	
3	Chloride	3.58	2.3108	215142	14664	
4	Nitrate	5.53	0.7808	171920	11090	
5	Sulfate	8.20	3.4016	233888	8785	

Page 1680



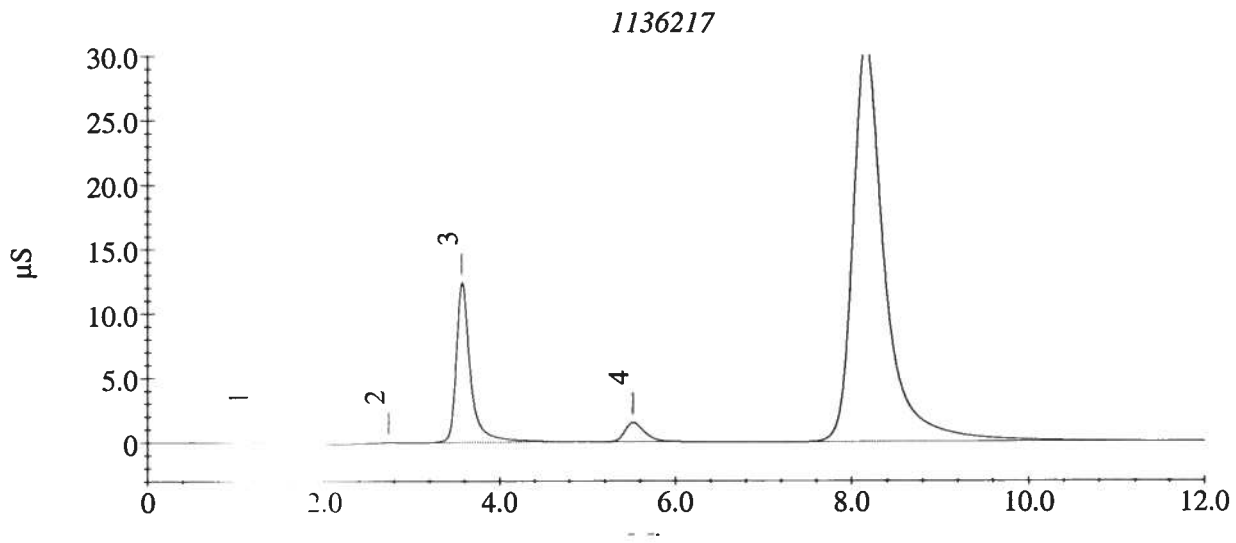
Sample Analysis Report

Sample Name : 1136217
Data File Name : c:\instarch\data\system 2\042822 -\1136217_017.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 14:11
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	0.1567	1645	205	
3	Chloride	3.57	12.3747	1425085	123592	
4	Nitrate	5.52	1.0328	238383	15000	
5	Sulfate	8.15	88.7961	7795860	310716	+



Sample Analysis Report

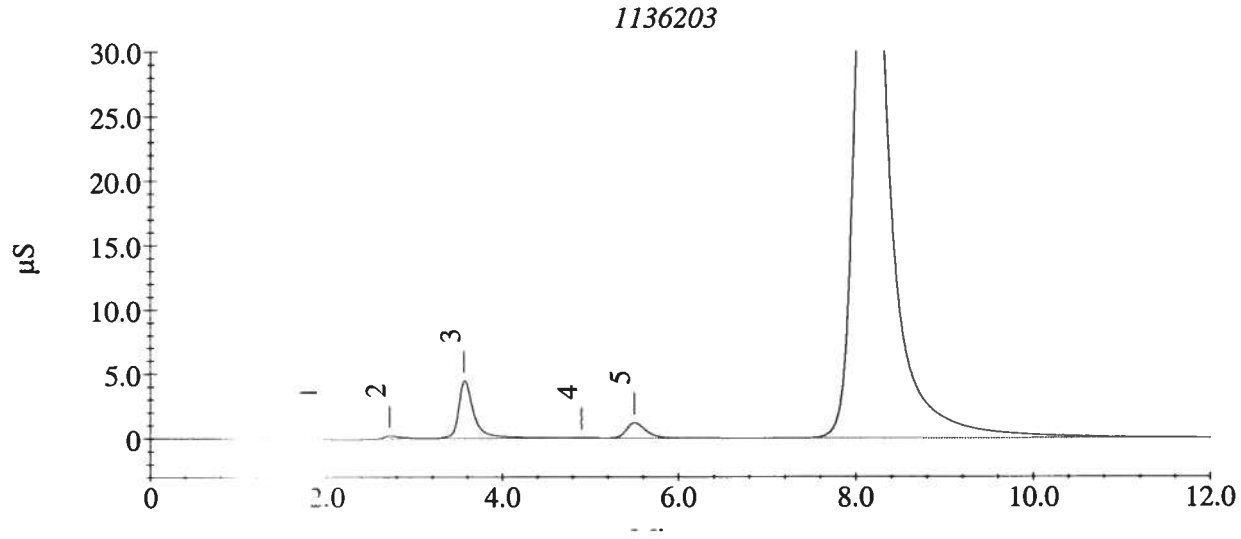
Sample Name : 1136203
Data File Name : c:\instarch\data\system 2\042822 -\1136203_018.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 14:25
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	0.4045	24457	1941	
3	Chloride	3.57	5.0282	541844	44345	
4	Bromide	4.90	0.1903	4994	376	
5	Nitrate	5.50	0.8210	182538	11851	
6	Sulfate	8.13	155.8337	13732273	545306	+

Page 1682



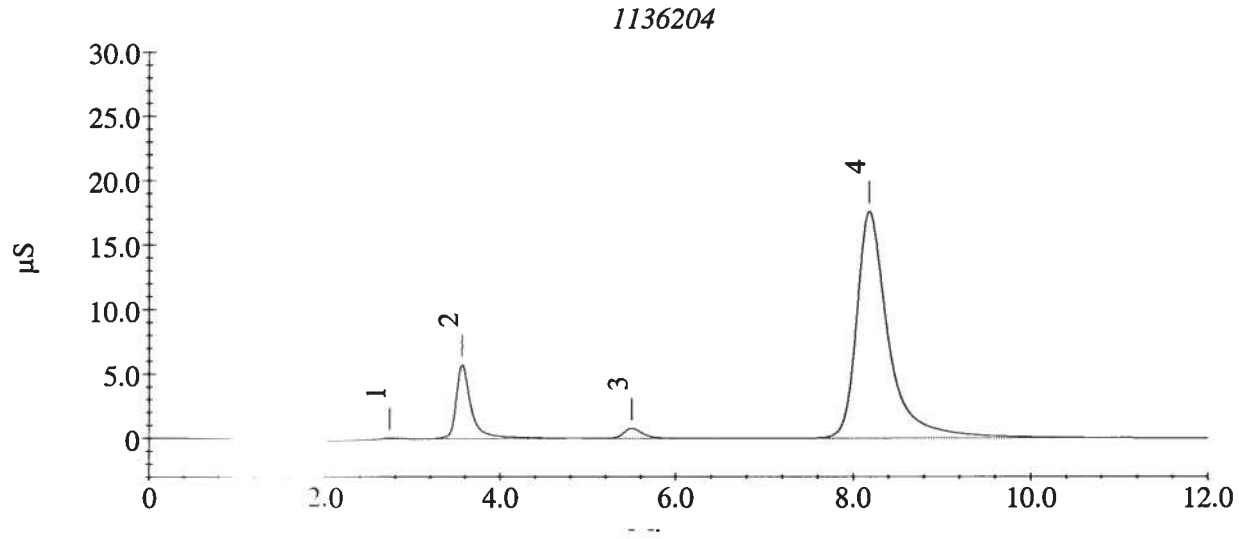
Sample Analysis Report

Sample Name : 1136204
Data File Name : c:\instarch\data\system 2\042822 -\1136204_019.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 14:39
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.73	0.2120	6733	598	
2	Chloride	3.57	6.2285	686145	57219	
3	Nitrate	5.50	0.5734	117236	7790	
4	Sulfate	8.18	50.6230	4415502	175623	



Sample Analysis Report

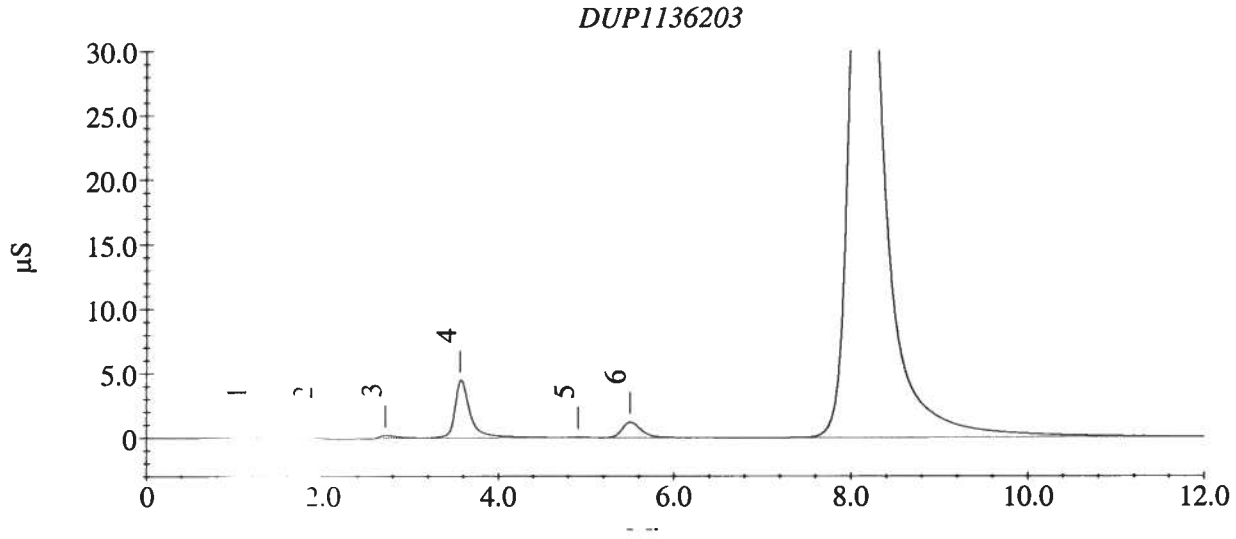
Sample Name : DUP1136203
Data File Name : c:\instarch\data\system 2\042822 -\DUP1136203_020.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 14:54
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.72	0.3969	23757	1914	
4	Chloride	3.57	5.0344	542588	44252	
5	Bromide	4.92	0.1985	5244	416	
6	Nitrate	5.50	0.8224	182894	12028	
7	Sulfate	8.13	155.7298	13723073	547304	+

Page 1684



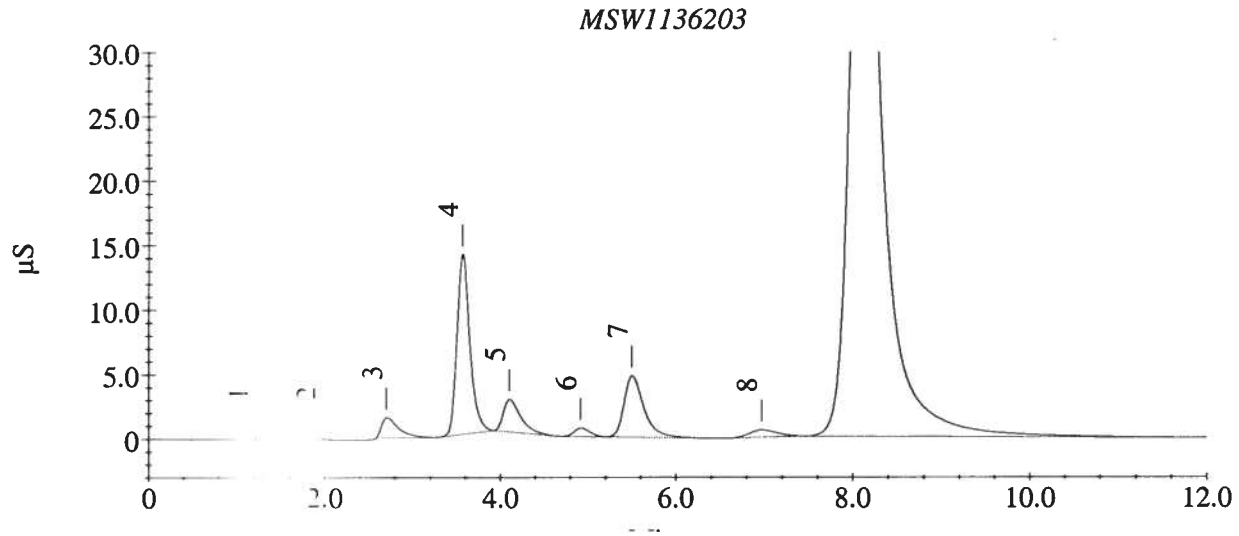
Sample Analysis Report

Sample Name : MSW1136203
Data File Name : c:\instarch\data\system 2\042822 -\MSW1136203_021.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 15:08
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.70	2.3760	205931	15368	
4	Chloride	3.57	12.3541	1422611	139116	
5	Nitrite	4.10	2.1255	349515	25090	
6	Bromide	4.92	2.7039	81268	6581	
7	Nitrate	5.50	2.9457	742877	47495	
8	O.Phos	6.97	2.1605	121002	5602	
9	Sulfate	8.10	152.8689	13469731	543166	+



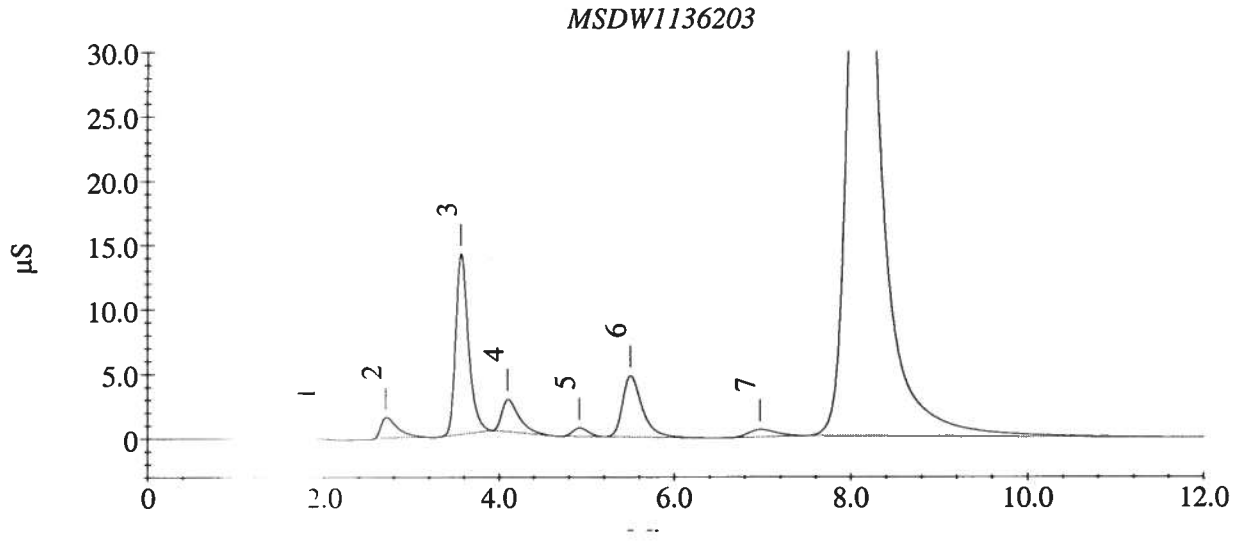
Sample Analysis Report

Sample Name : MSDW1136203
Data File Name : c:\instarch\data\system 2\042822 -\MSDW1136203_022.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 15:22
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	2.3975	207917	15431	
3	Chloride	3.57	12.3357	1420396	139261	
4	Nitrite	4.10	2.1030	345628	24966	
5	Bromide	4.92	2.6879	80781	6602	
6	Nitrate	5.50	2.9325	739382	47349	
7	O.Phos	6.97	2.2400	125818	5718	
8	Sulfate	8.10	153.0277	13483796	543738	+



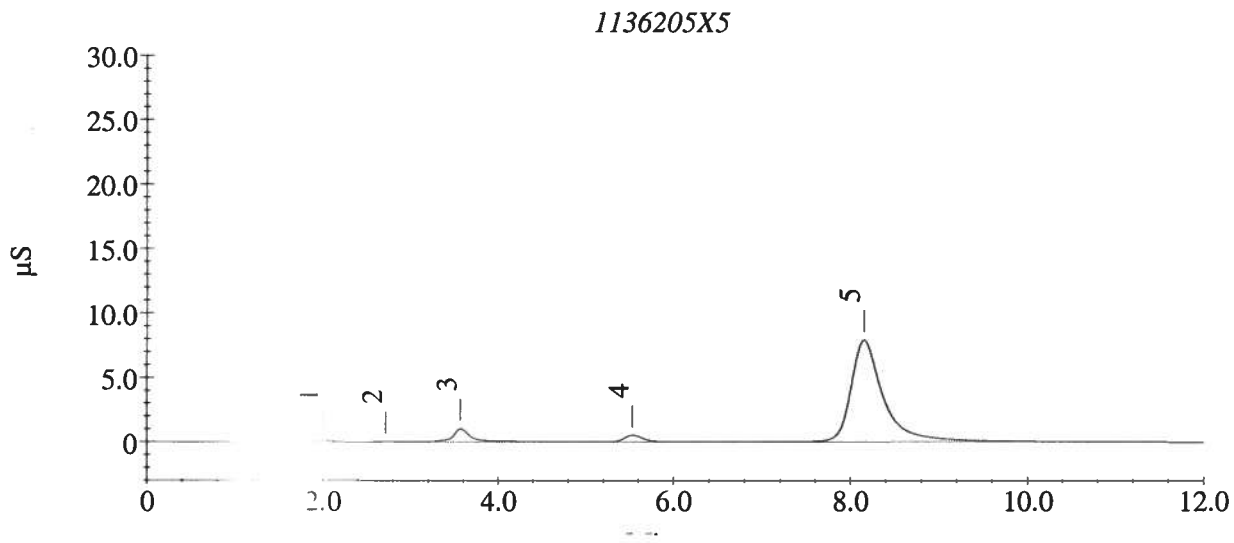
Sample Analysis Report

Sample Name : 1136205X5
Data File Name : c:\instarch\data\system 2\042822 -\1136205X5_023.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 15:36
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	0.1845	4205	324	
3	Chloride	3.57	1.7711	150261	10143	
4	Nitrate	5.53	0.4274	78716	5177	
5	Sulfate	8.15	23.7197	2033125	78683	



Sample Analysis Report

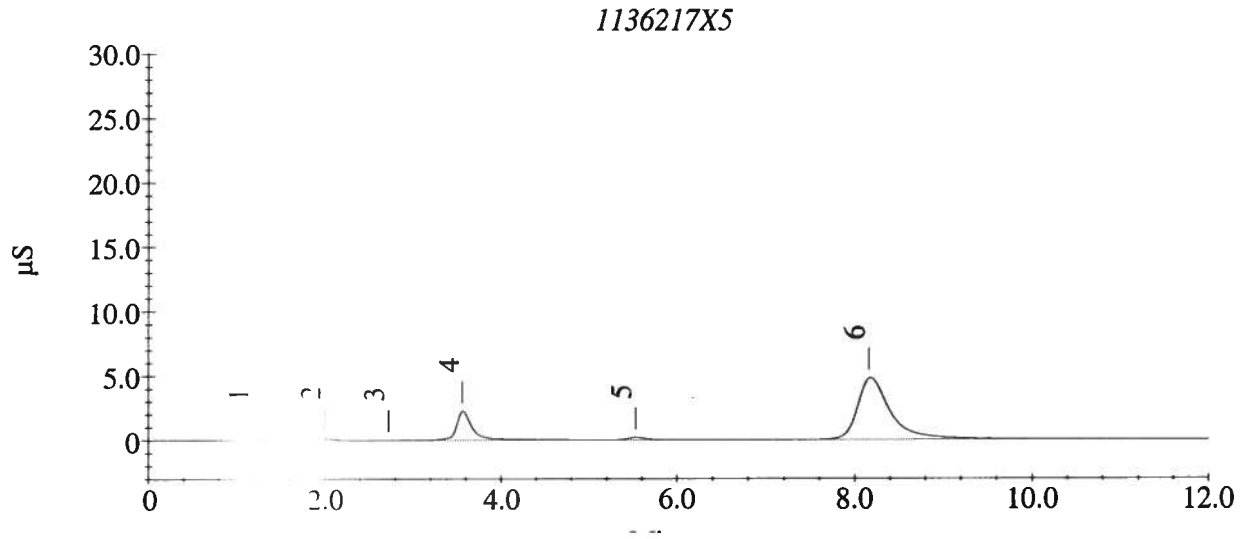
Sample Name : 1136217X5
Data File Name : c:\instarch\data\system 2\042822 -\1136217X5_024.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 15:51
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
4	Chloride	3.57	2.9547	292558	22443	
5	Nitrate	5.53	0.2345	27852	1978	
6	Sulfate	8.17	14.8728	1249700	47611	

Page 1688



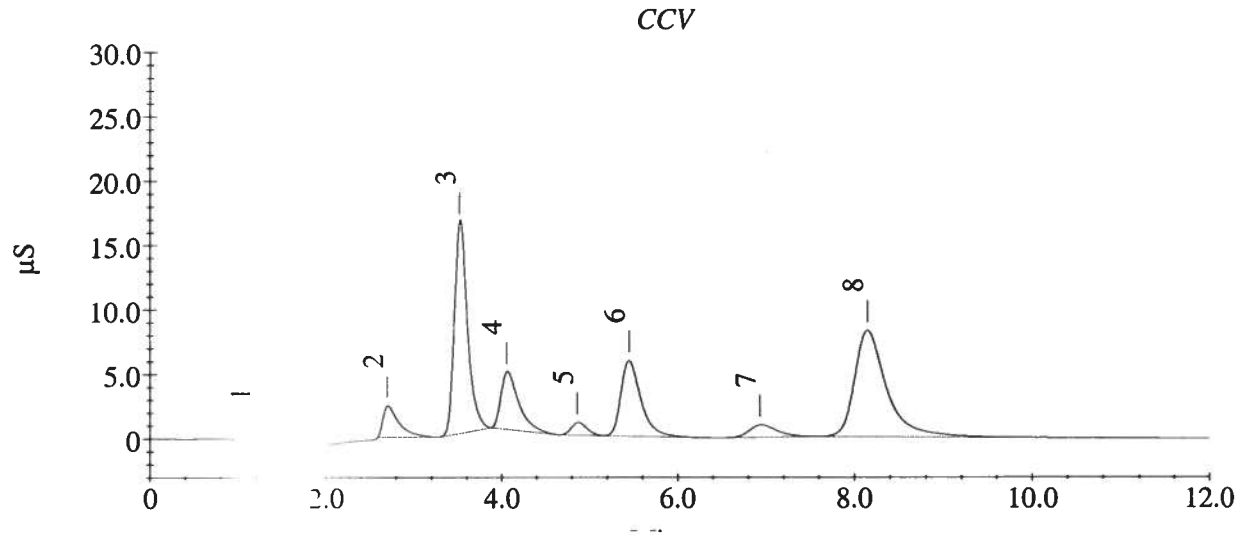
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_026.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 16:19
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	3.4958	309014	24141	
3	Chloride	3.52	14.6987	1704483	163560	
4	Nitrite	4.05	3.7632	632797	44063	
5	Bromide	4.87	3.9950	120445	9827	
6	Nitrate	5.45	3.5914	913146	58493	
7	O.Phos	6.93	3.6864	213404	9579	
8	Sulfate	8.15	24.1174	2068338	82542	



Sample Analysis Report

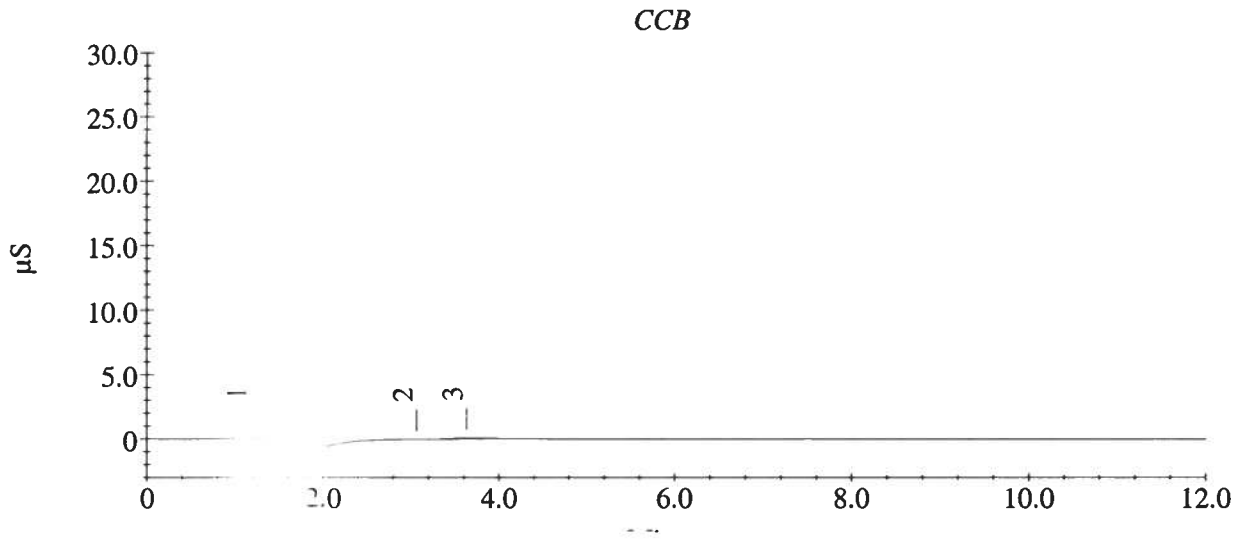
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\042822 -\CCB_027.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/28/22 16:33
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.63	0.6731	18245	686	

Page 1690



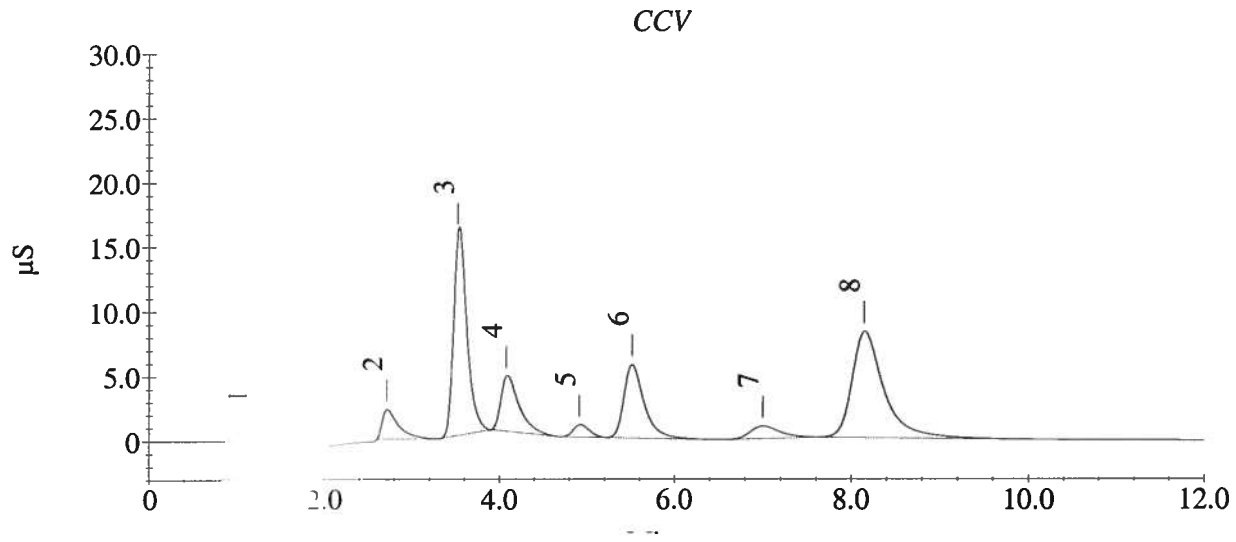
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_063.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 01:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	3.3789	298253	22805	
3	Chloride	3.53	14.6396	1697379	157012	
4	Nitrite	4.08	3.7534	631105	42519	
5	Bromide	4.92	4.0068	120803	9455	
6	Nitrate	5.52	3.6311	923627	56861	
7	O.Phos	7.00	3.8949	226033	9791	
8	Sulfate	8.15	24.1644	2072507	82212	



Sample Analysis Report

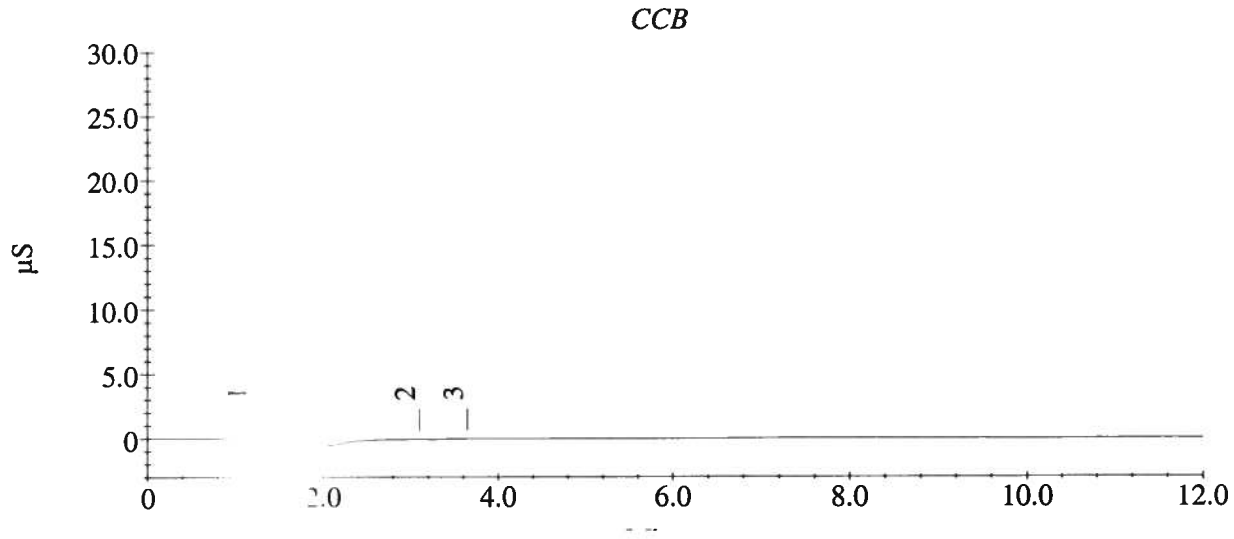
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\042822 -\CCB_064.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 01:19
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.65	0.5609	4763	207	

Page 1692



Sample Analysis Report

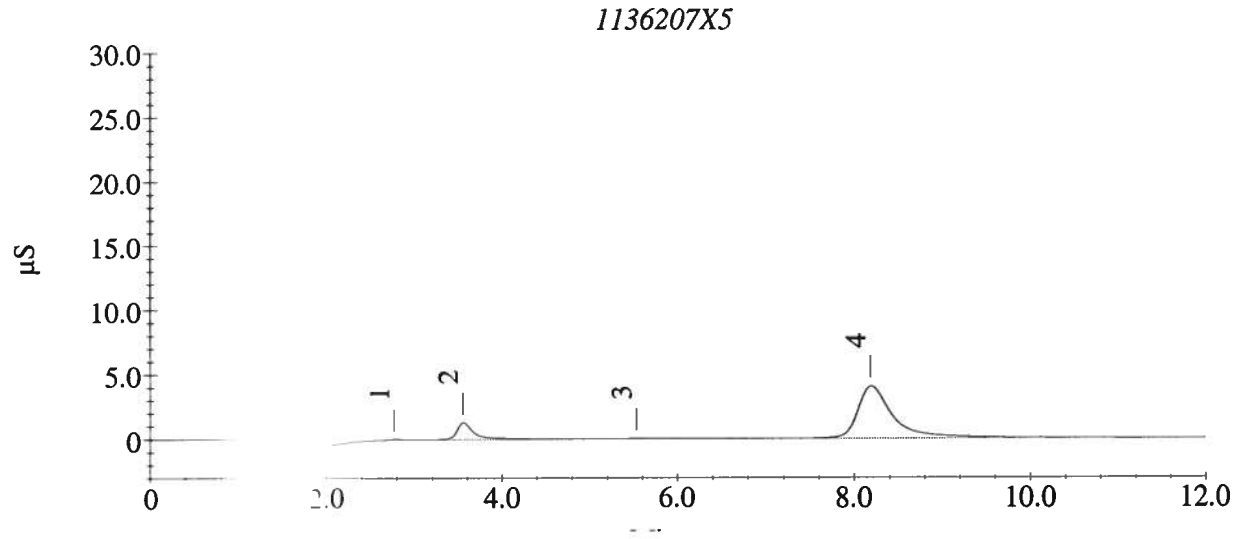
Sample Name : 1136207X5
Data File Name : c:\instarch\data\system 2\042822 -\1136207X5_065.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 01:34
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.55	2.0065	178561	12885	
3	Nitrate	5.53	0.1421	3477	289	
4	Sulfate	8.18	13.4094	1120111	40133	

Page 1693



Sample Analysis Report

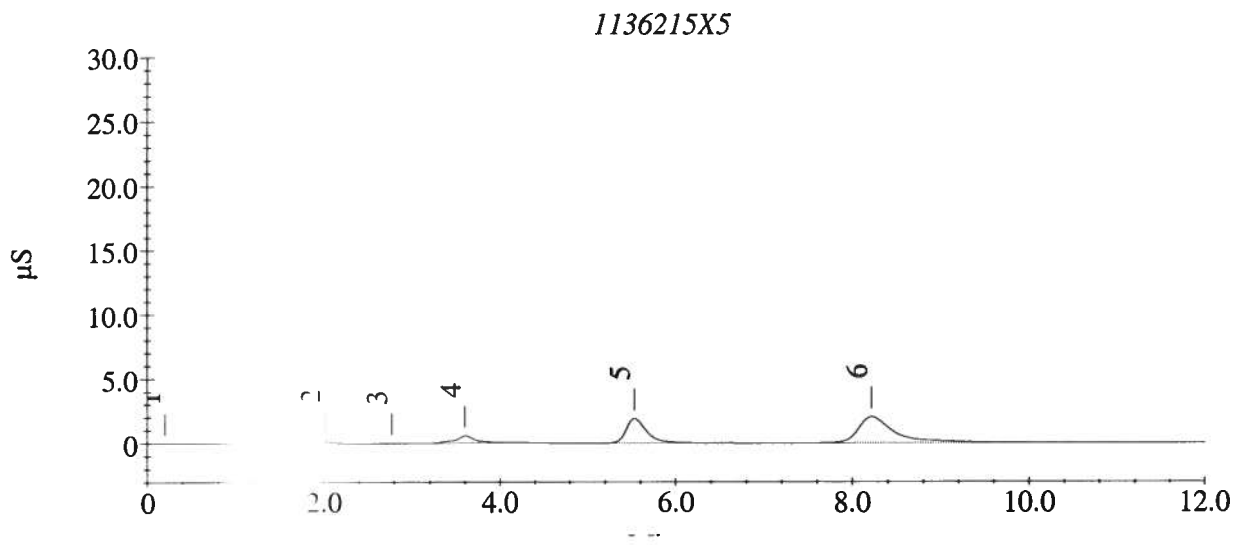
Sample Name : 1136215X5
Data File Name : c:\instarch\data\system 2\042822 -\1136215X5_066.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 01:48
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.77	0.1637	2290	168	
4	Chloride	3.60	1.2389	86274	5575	
5	Nitrate	5.53	1.3064	310548	19013	
6	Sulfate	8.22	7.3110	580074	20256	

Page 1694



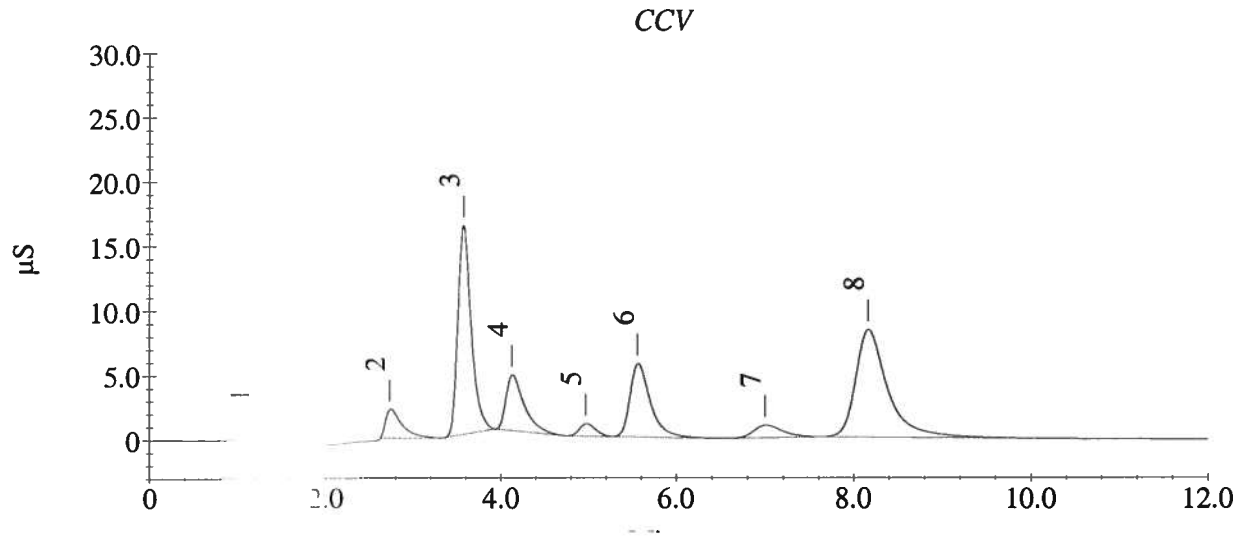
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_068.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 02:16
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	3.3483	295440	22093	
3	Chloride	3.58	14.7541	1711144	161613	
4	Nitrite	4.13	3.7783	635410	43144	
5	Bromide	4.97	4.0347	121649	9457	
6	Nitrate	5.57	3.6311	923617	56898	
7	O.Phos	7.00	3.7781	218958	9738	
8	Sulfate	8.17	24.7306	2122645	83412	



Sample Analysis Report

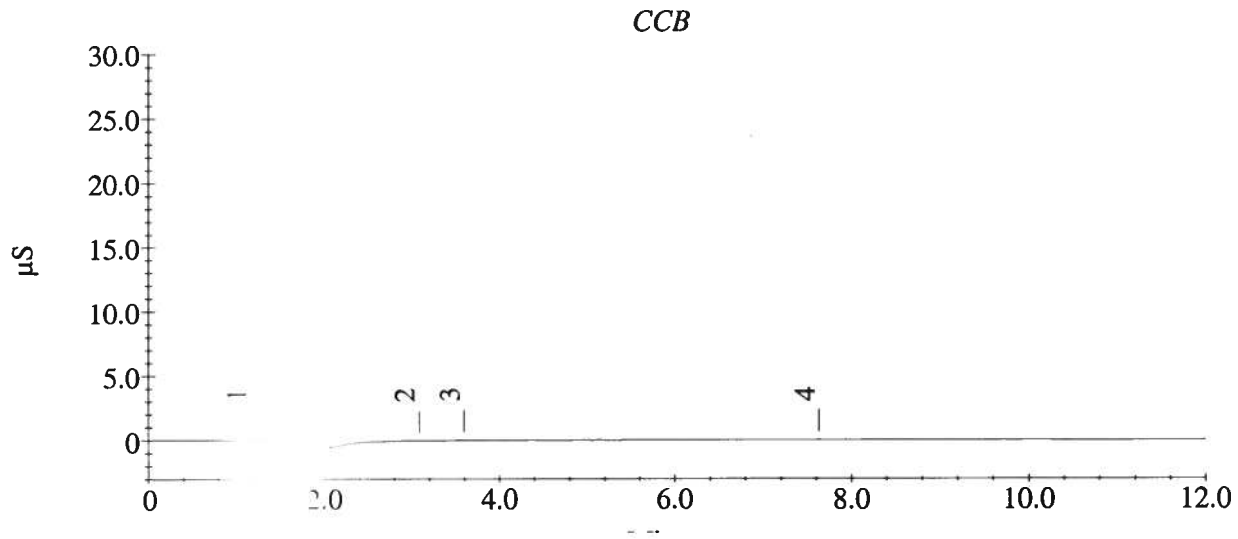
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\042822 -\CCB_069.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 02:30
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.60	0.5798	7036	327	
4	Sulfate	7.63	0.7962	3171	71	

Page 1696



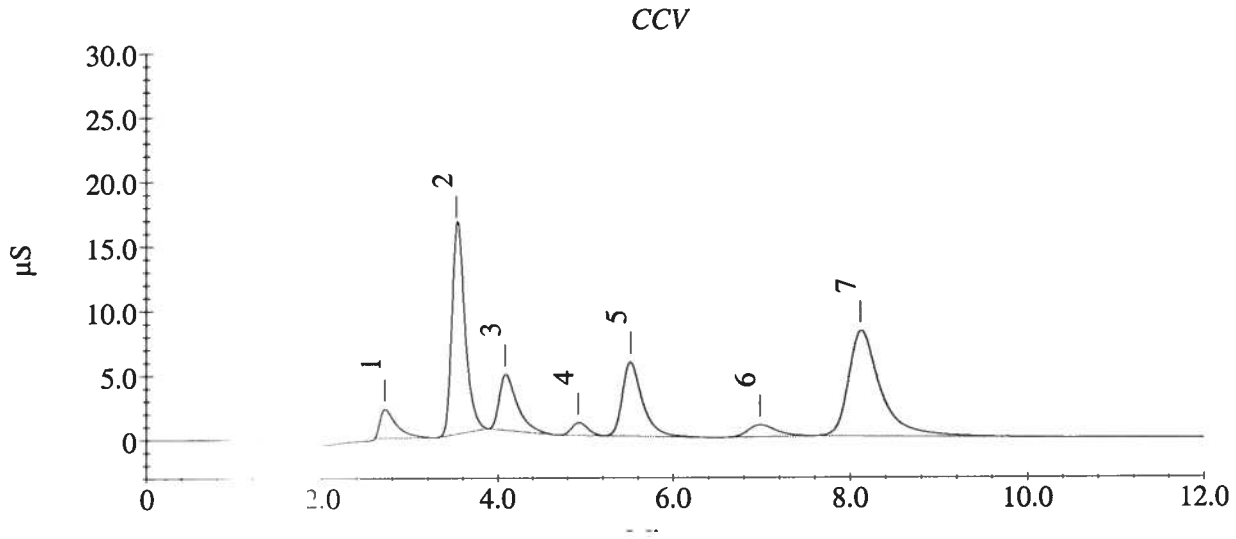
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_070.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 08:10
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.72	3.3216	292984	22495	
2	Chloride	3.53	14.7803	1714304	161114	
3	Nitrite	4.08	3.7500	630509	43080	
4	Bromide	4.92	4.0684	122671	9766	
5	Nitrate	5.52	3.6268	922488	57424	
6	O.Phos	6.98	3.5127	202887	9164	
7	Sulfate	8.12	23.9917	2057207	81368	



Page 1697

Sample Analysis Report

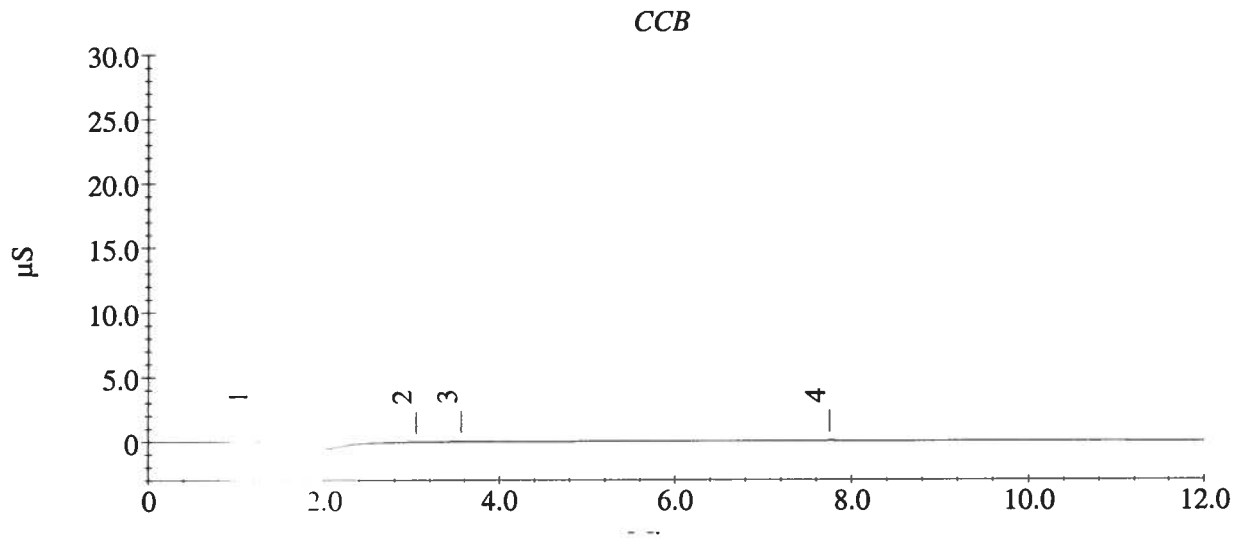
Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\CCB_071.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 08:24
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.57	0.6056	10134	453	
4	Sulfate	7.75	0.7956	3117	307	

Page 1698



Sample Analysis Report

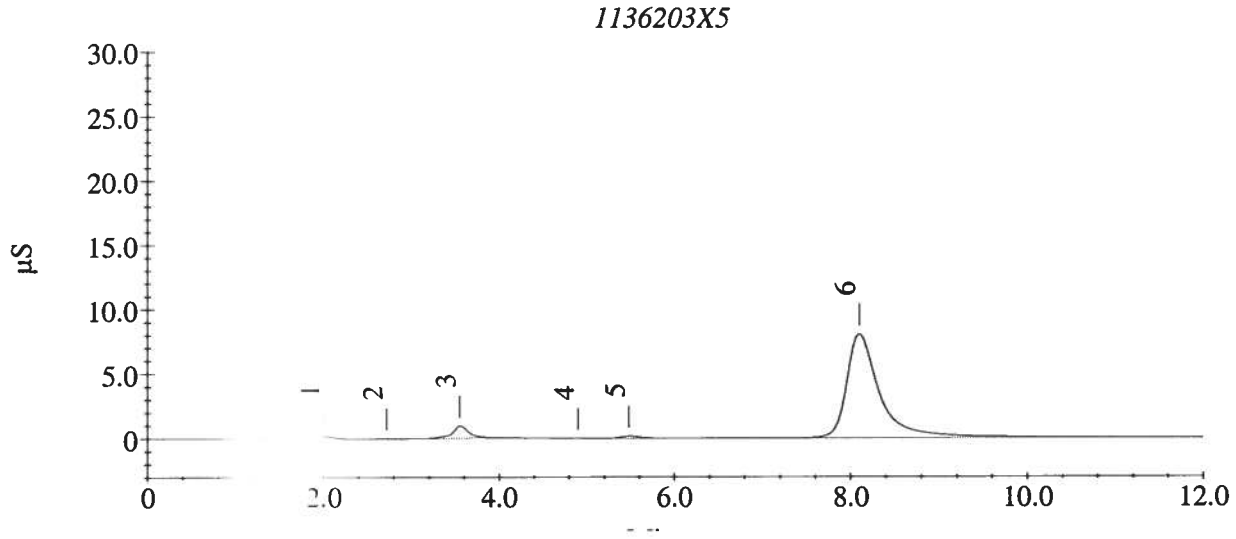
Sample Name : 1136203X5
Data File Name : c:\instarch\data\system 2\042822 -\1136203X5_072.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 08:39
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	0.1878	4504	352	
3	Chloride	3.55	1.5645	125421	9345	
4	Bromide	4.90	0.0697	1334	107	
5	Nitrate	5.48	0.2235	24946	1705	
6	Sulfate	8.10	24.5298	2104865	80292	

Page 1699



Sample Analysis Report

Sample Name : DUP1136203X5
Data File Name : c:\instarch\data\system 2\042822 -\DUP1136203X5_073.DXD

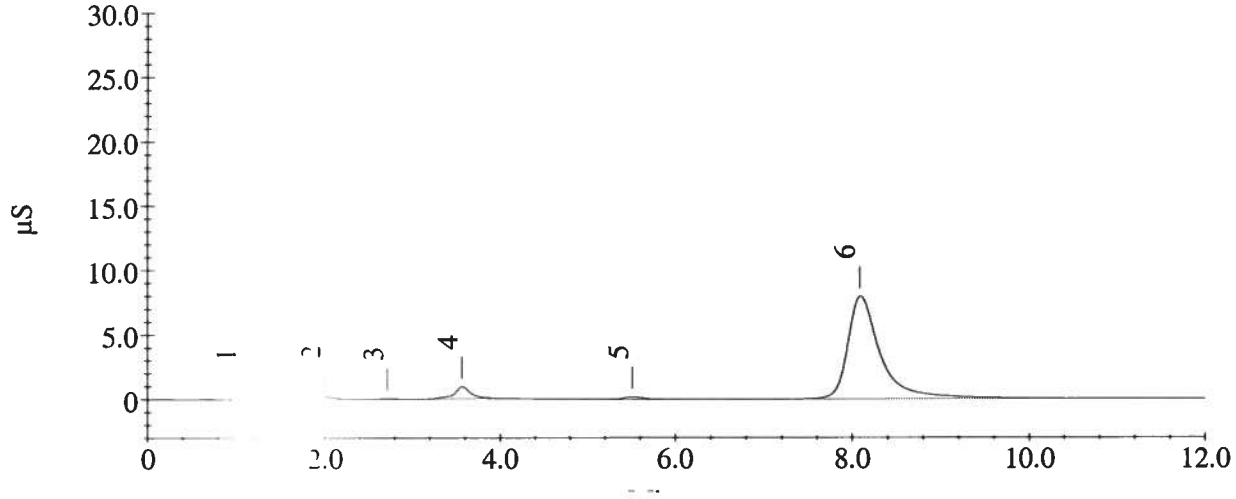
Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 08:53
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.72	0.1931	4991	381	
4	Chloride	3.57	1.5747	126643	9371	
5	Nitrate	5.52	0.2190	23775	1694	
6	Sulfate	8.08	24.0460	2062019	79389	

Page 1700

DUP1136203X5



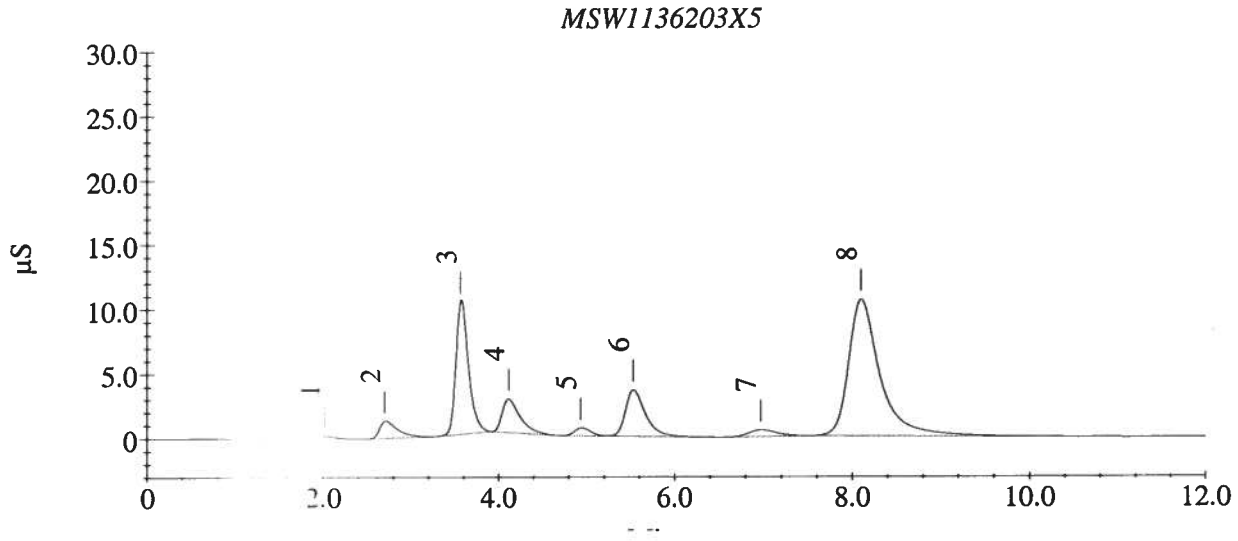
Sample Analysis Report

Sample Name : MSW1136203X5
Data File Name : c:\instarch\data\system 2\042822 -\MSW1136203X5_074.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 09:07
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	2.1731	187261	13075	
3	Chloride	3.57	9.1067	1032180	102339	
4	Nitrite	4.12	2.2410	369497	26067	
5	Bromide	4.93	2.5069	75291	6036	
6	Nitrate	5.53	2.2812	567622	35897	
7	O.Phos	6.97	2.0576	114769	5222	
8	Sulfate	8.10	30.5595	2638809	105733	



Sample Analysis Report

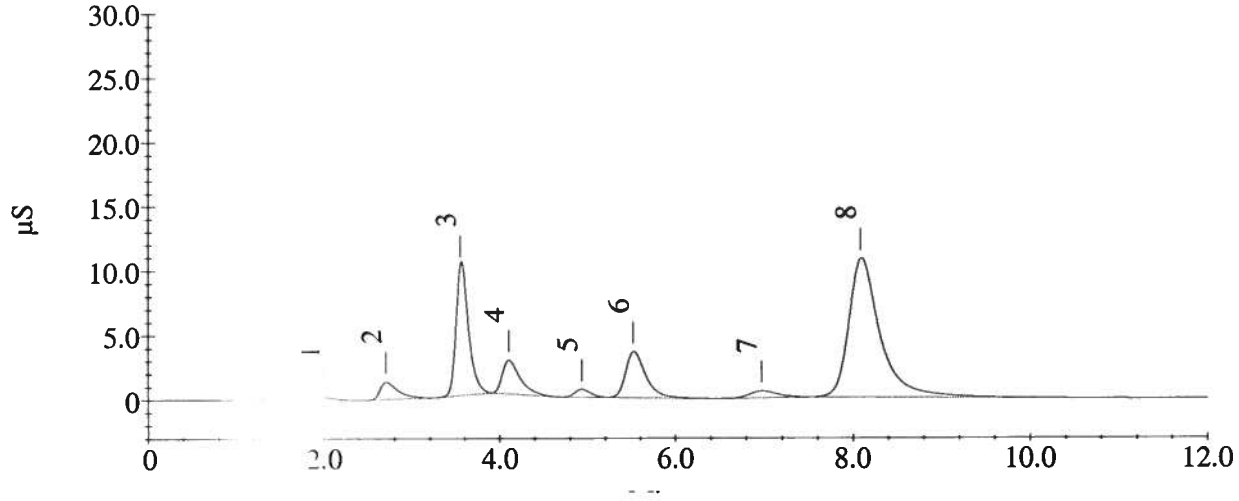
Sample Name : MSDW1136203X5
Data File Name : c:\instarch\data\system 2\042822 -\MSDW1136203X5_075.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 09:21
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.70	2.1920	188994	13354	
3	Chloride	3.55	9.1116	1032774	100660	
4	Nitrite	4.10	2.2522	371428	26114	
5	Bromide	4.93	2.5173	75604	6107	
6	Nitrate	5.52	2.2963	571614	35593	
7	O.Phos	6.97	2.1037	117560	5360	
8	Sulfate	8.08	31.1073	2687325	107620	

MSDW1136203X5



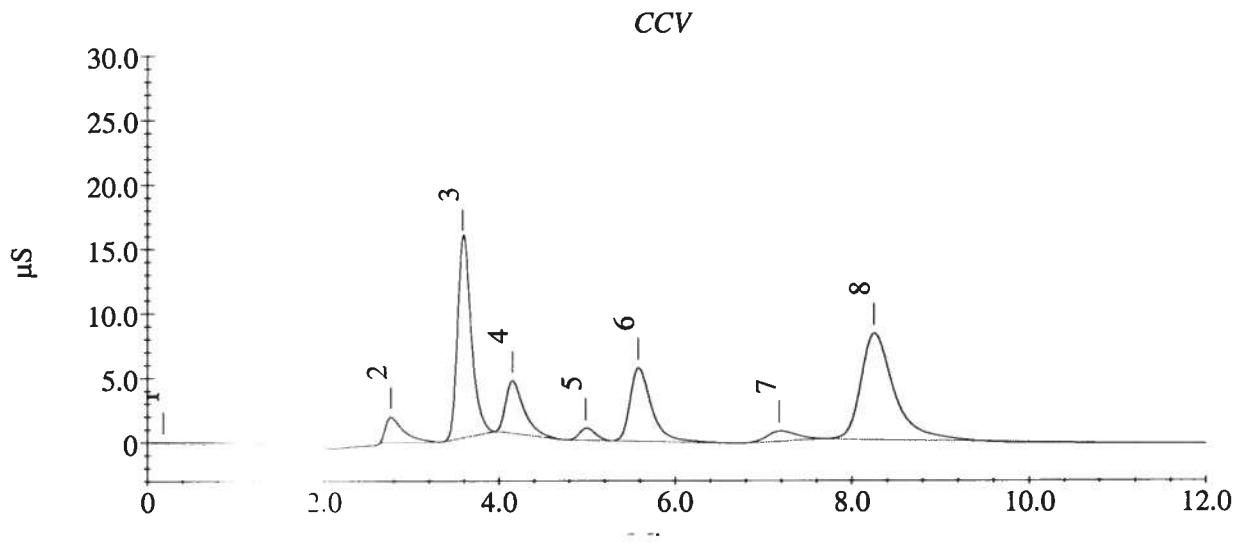
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\042822 -\CCV_093.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 14:03
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.77	3.1595	278054	19593	
3	Chloride	3.58	14.7476	1710367	154047	
4	Nitrite	4.15	3.5175	590303	40563	
5	Bromide	4.98	3.9996	120584	9364	
6	Nitrate	5.58	3.7820	963433	56881	
7	O.Phos	7.18	3.1274	179556	7794	
8	Sulfate	8.25	24.4745	2099967	82258	



Page 1703

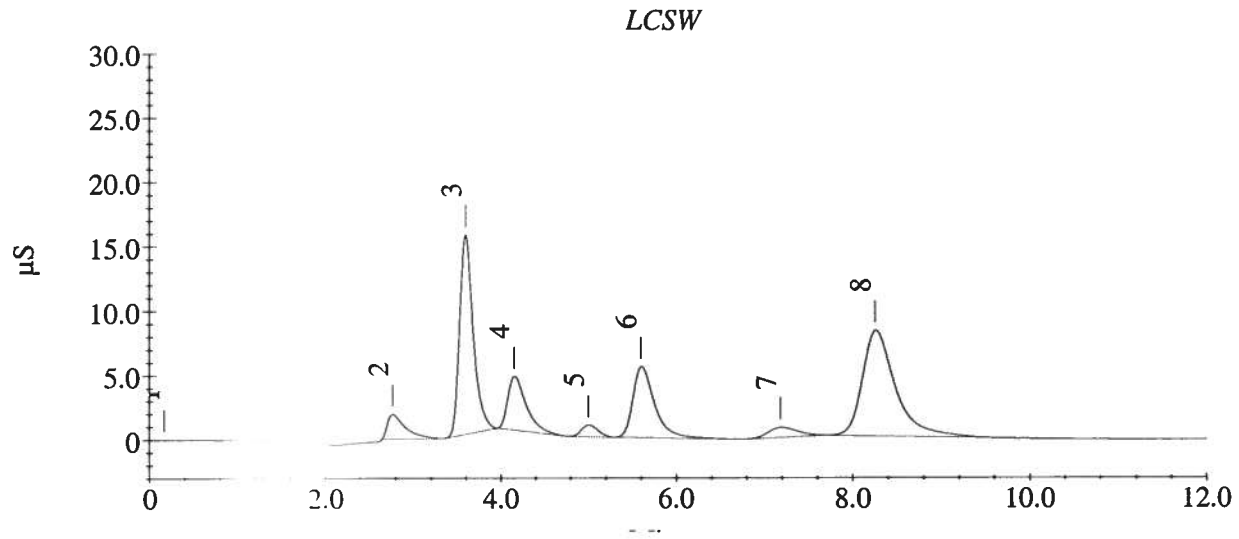
Sample Analysis Report

Sample Name : LCSW
Data File Name : c:\instarch\data\system 2\042822 -\LCSW_094.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 14:17
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.77	3.0634	269212	19035	
3	Chloride	3.60	14.4910	1679514	154214	
4	Nitrite	4.15	3.6682	616373	41499	
5	Bromide	5.00	3.9160	118046	9122	
6	Nitrate	5.60	3.7206	947234	55138	
7	O.Phos	7.18	3.1117	178601	7714	
8	Sulfate	8.25	24.6274	2113503	81847	



Sample Analysis Report

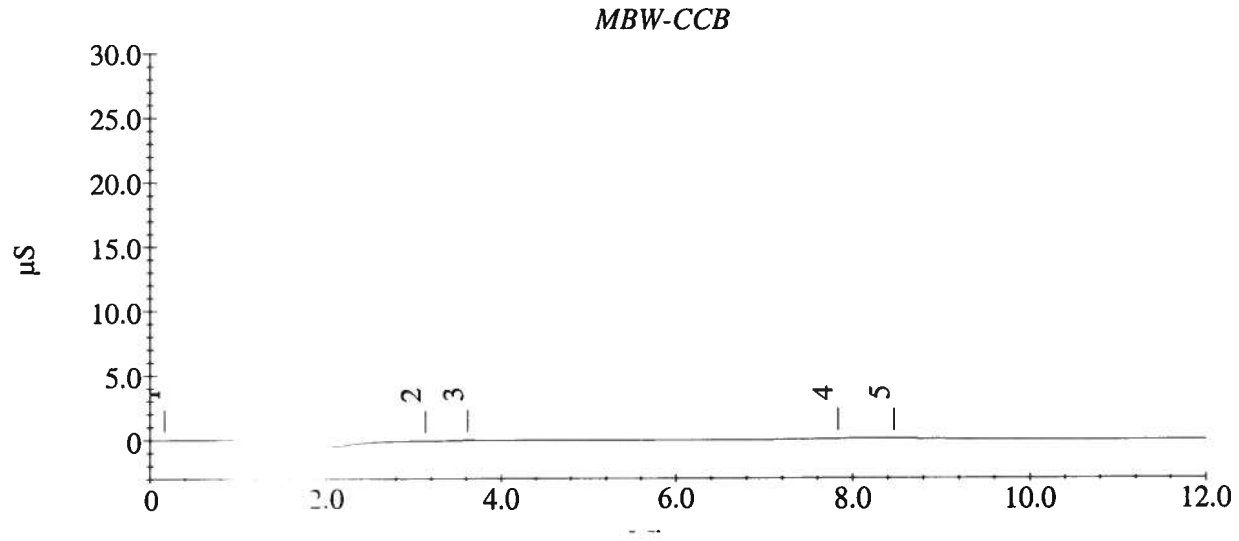
Sample Name : MBW-CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\MBW-CCB_095.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 14:31
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.62	0.5769	6678	403	
4	Sulfate	7.83	0.7930	2883	173	

Page 1705



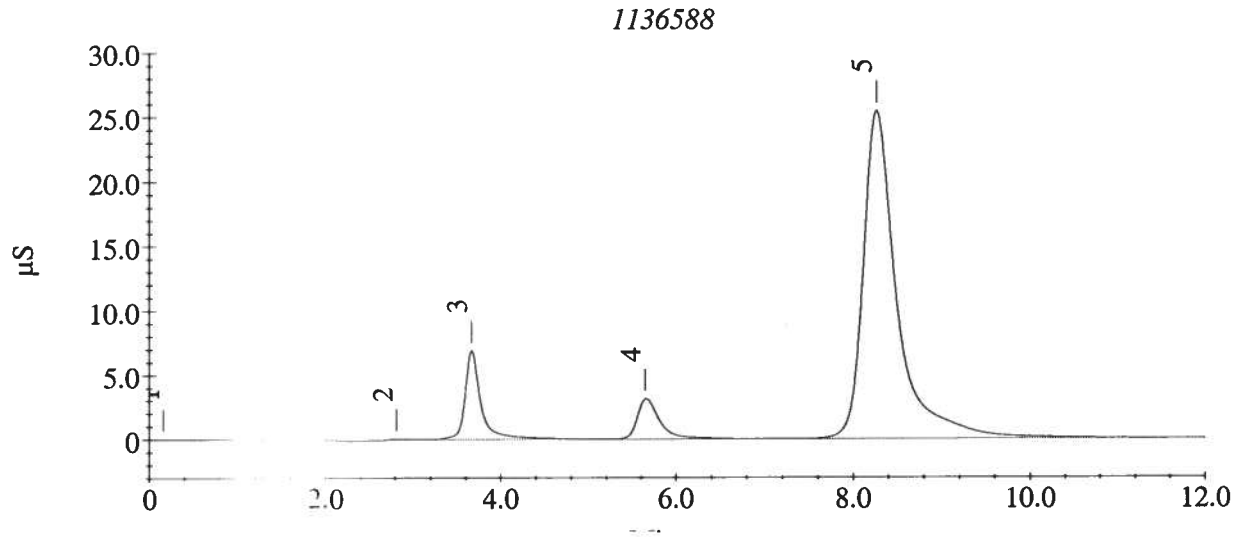
Sample Analysis Report

Sample Name : 1136588
Data File Name : c:\instarch\data\system 2\042822 -\1136588_096.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 14:46
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.82	0.1929	4976	388	
3	Chloride	3.67	7.7730	871844	68721	
4	Nitrate	5.65	2.2472	558654	31048	
5	Sulfate	8.27	77.4732	6793186	254013	+



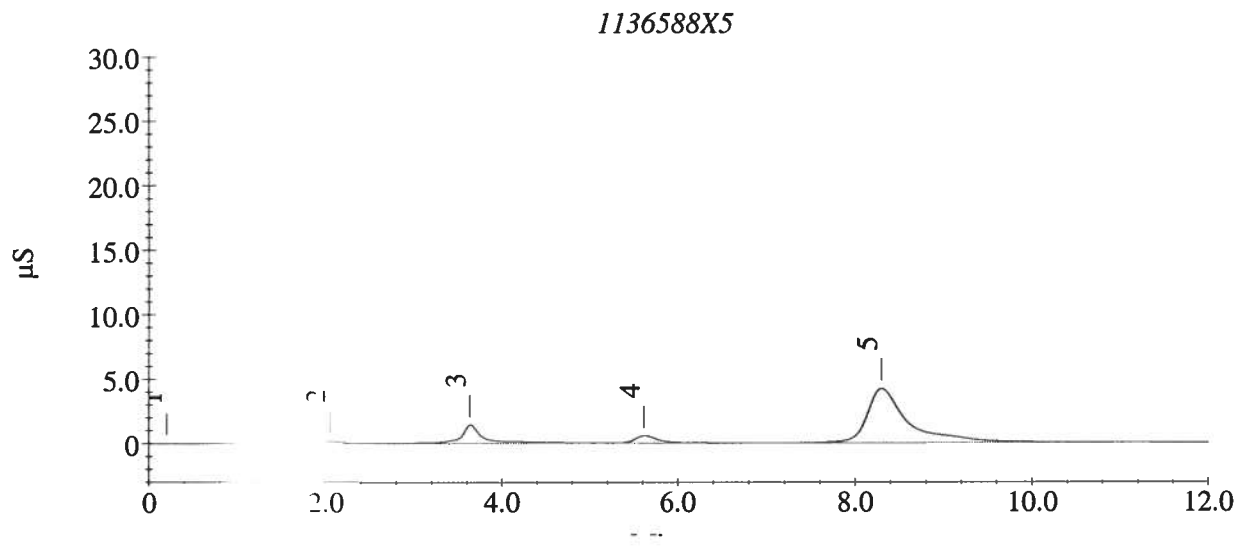
Sample Analysis Report

Sample Name : 1136588X5
Data File Name : c:\instarch\data\system 2\042822 -\1136588X5_097.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 15:00
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.63	2.5704	246350	14115	
4	Nitrate	5.62	0.4943	96376	5606	
5	Sulfate	8.30	15.9633	1346269	41815	



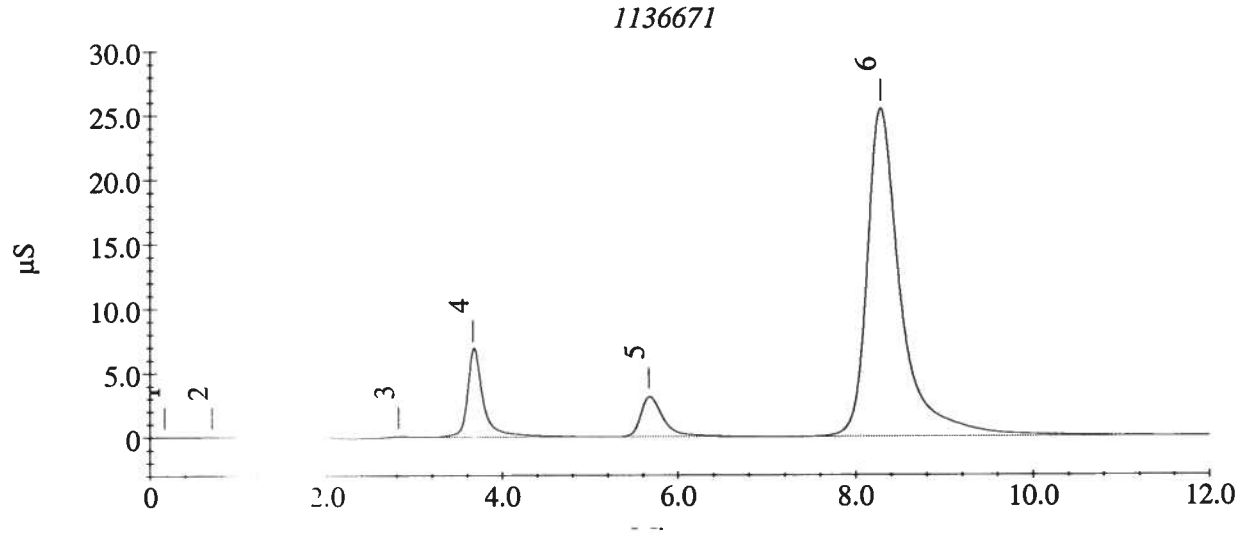
Sample Analysis Report

Sample Name : 1136671
Data File Name : c:\instarch\data\system 2\042822 -\1136671_098.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 15:14
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.82	0.1926	4944	425	
4	Chloride	3.67	7.8012	875230	67569	
5	Nitrate	5.67	2.2354	555532	31052	
6	Sulfate	8.28	76.7102	6725614	254367	+



Sample Analysis Report

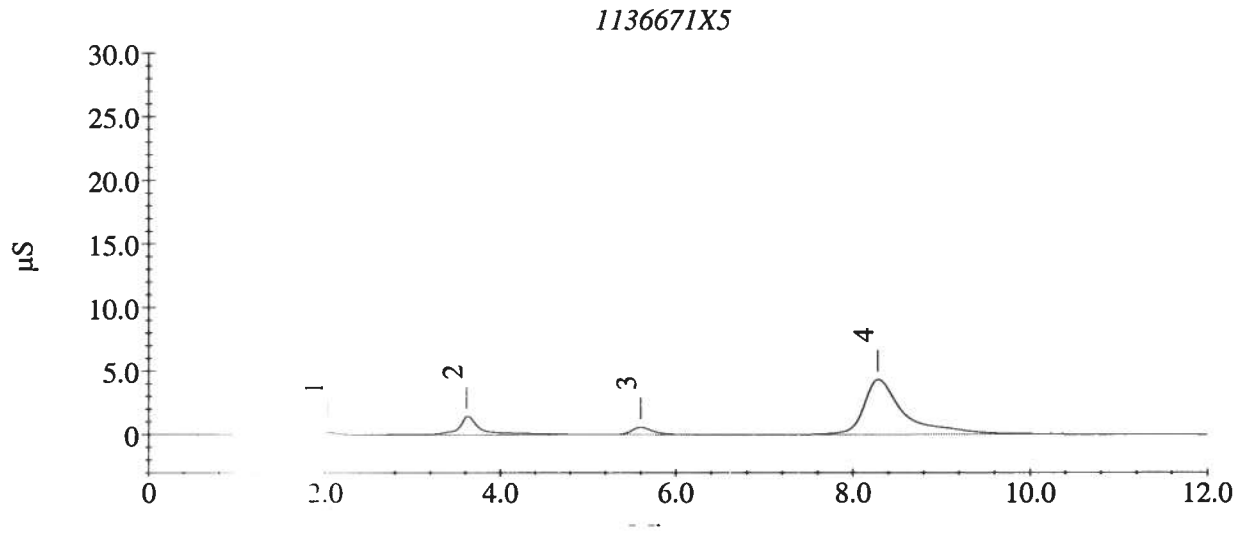
Sample Name : 1136671X5
Data File Name : c:\instarch\data\system 2\042822 -\1136671X5_099.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 15:28
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.62	2.6912	260870	14217	
3	Nitrate	5.60	0.4888	94921	5736	
4	Sulfate	8.28	16.3574	1381165	43123	

Page 1709



Sample Analysis Report

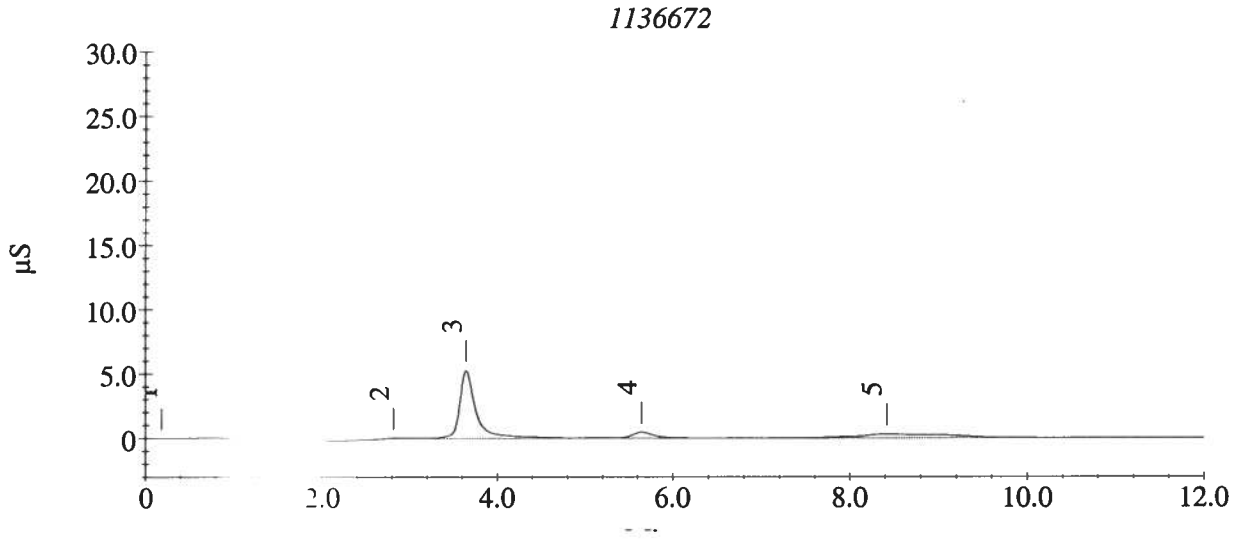
Sample Name : 1136672
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\1136672_100.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 15:43
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.82	0.1672	2608	242	
3	Chloride	3.65	6.2646	690496	52410	
4	Nitrate	5.65	0.4114	74499	4522	
5	Sulfate	8.42	3.0083	199063	2968	

Page 1710



Sample Analysis Report

Not used

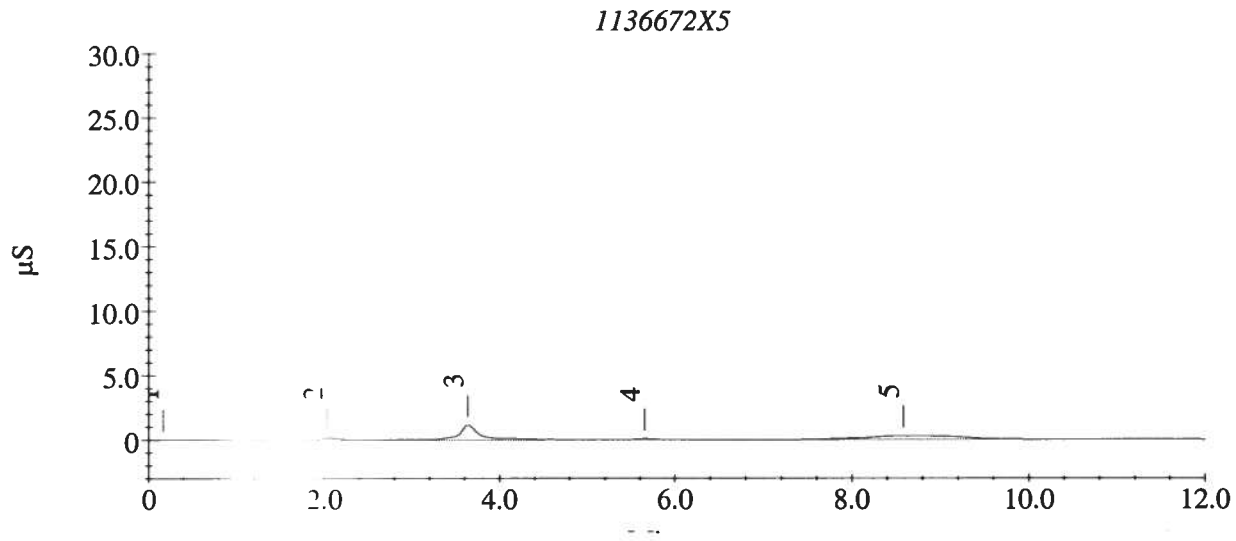
Sample Name : 1136672X5
Data File Name : c:\instarch\data\system 2\042822 -\1136672X5_101.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 15:57
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.63	2.2761	210968	11441	
4	Nitrate	5.65	0.1700	10832	715	
5	Sulfate	8.58	3.1731	213652	2895	

Page 1711



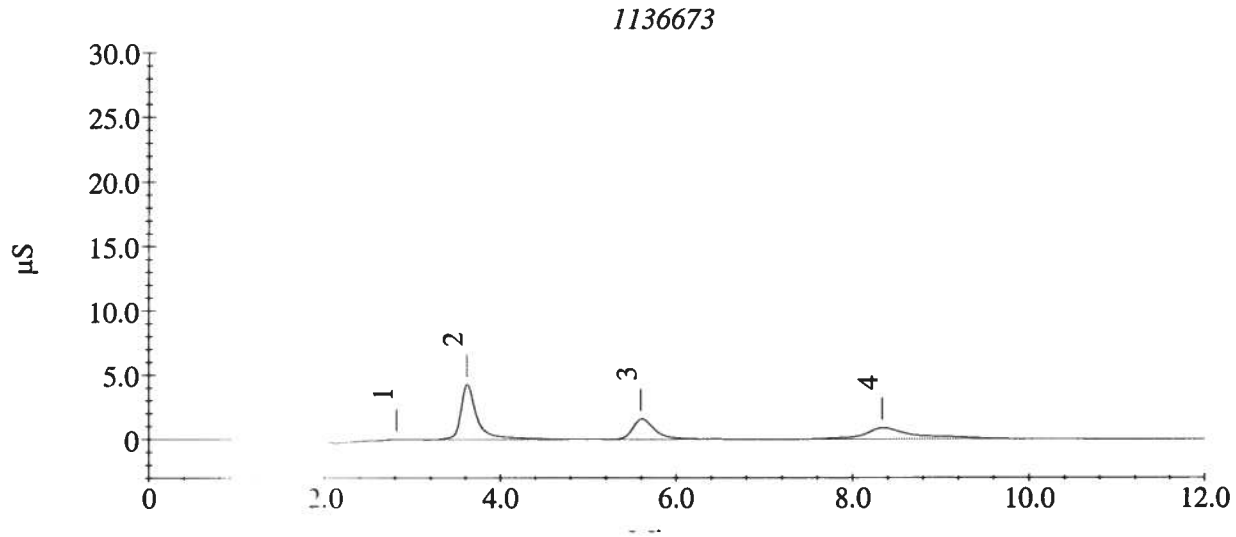
Sample Analysis Report

Sample Name : 1136673
Data File Name : c:\instarch\data\system 2\042822 -\1136673_102.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 16:11
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.82	0.1755	3374	264	
2	Chloride	3.62	5.2193	564818	42602	
3	Nitrate	5.60	1.1828	277950	15669	
4	Sulfate	8.33	4.6397	343528	8741	



Sample Analysis Report

Not used

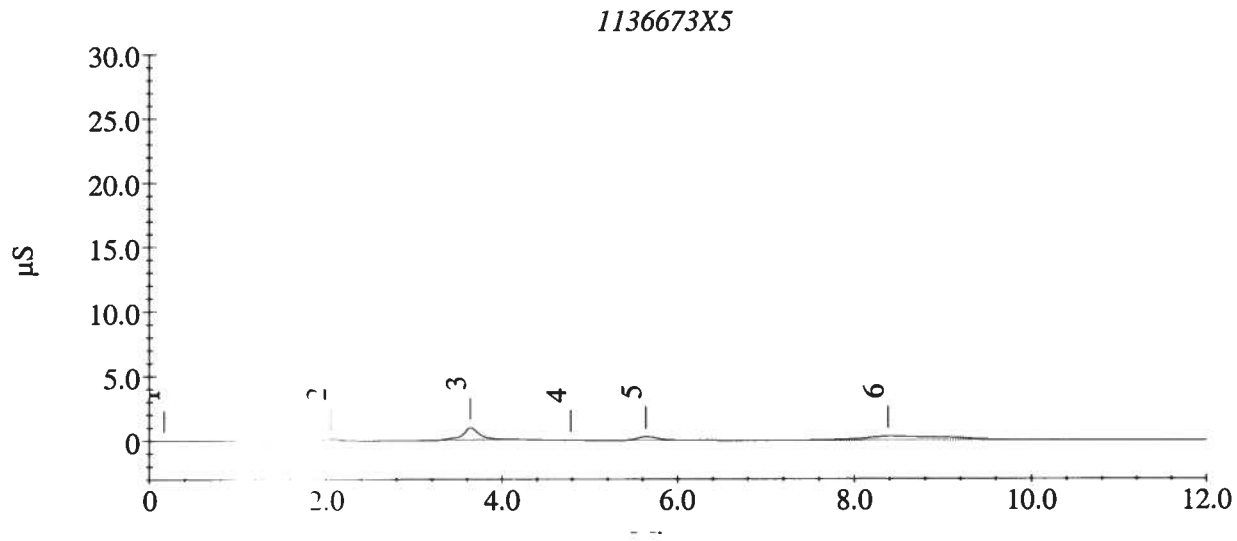
Sample Name : 1136673X5
Data File Name : c:\instarch\data\system 2\042822 -\1136673X5_103.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 16:25
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.63	1.5431	122847	9143	
4	Bromide	4.78	0.0872	1866	114	
5	Nitrate	5.63	0.3049	46418	2781	
6	Sulfate	8.38	3.0110	199300	3045	

Page 1713



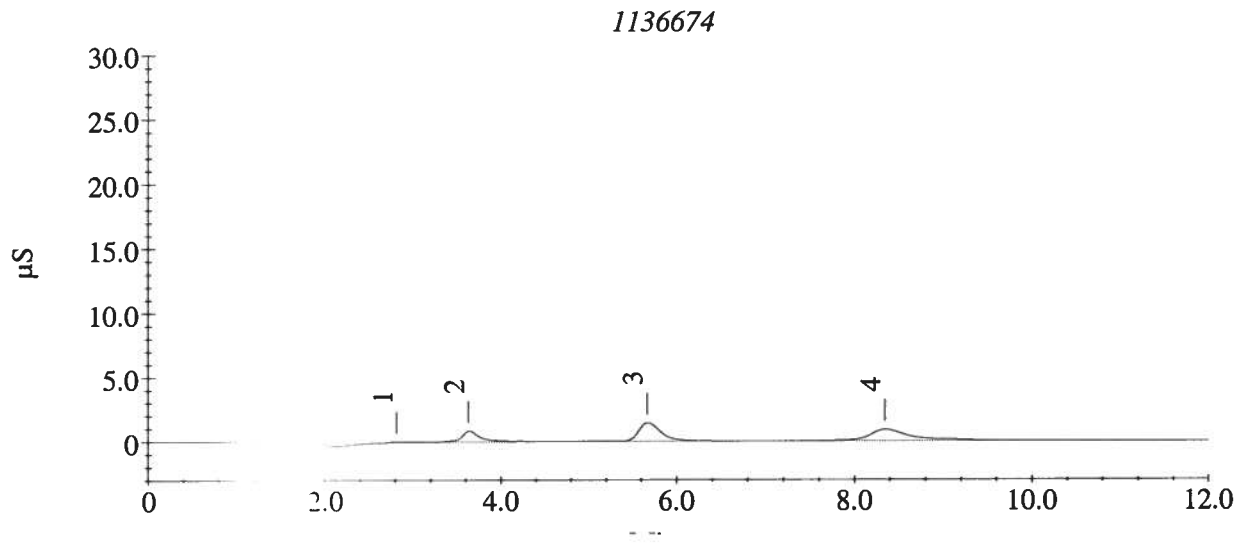
Sample Analysis Report

Sample Name : 1136674
Data File Name : c:\instarch\data\system 2\042822 -\1136674_104.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 16:39
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.82	0.1670	2590	224	
2	Chloride	3.63	1.5891	128374	8443	
3	Nitrate	5.67	1.1003	256196	14353	
4	Sulfate	8.35	4.0756	293573	8912	



Sample Analysis Report

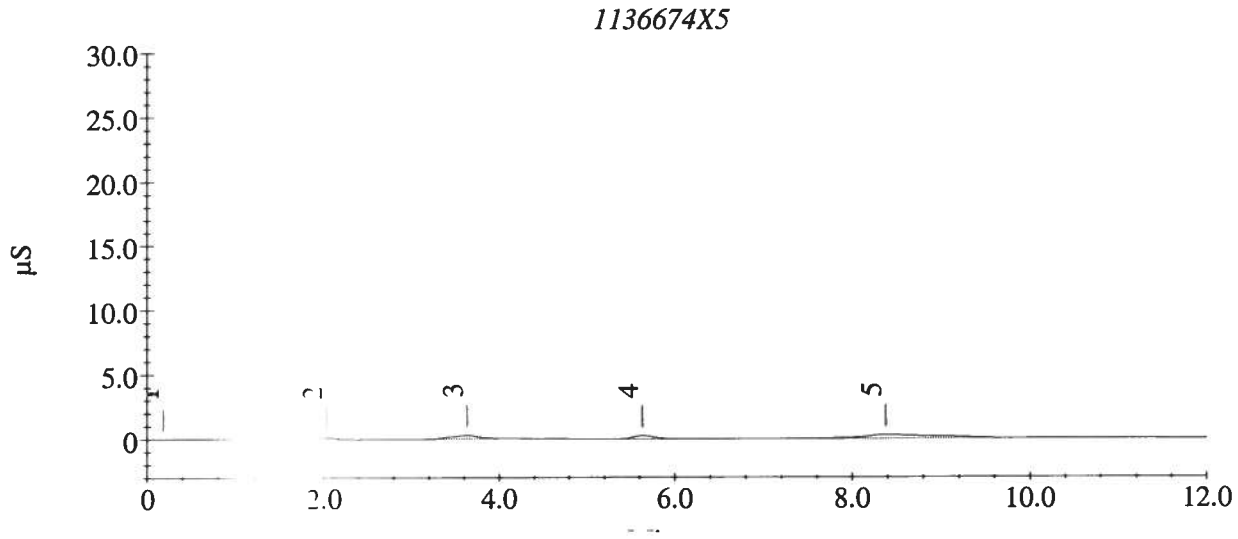
Not used

Sample Name : 1136674X5
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\1136674X5_105.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 16:54
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.63	1.0073	58425	2857	
4	Nitrate	5.63	0.2880	41957	2602	
5	Sulfate	8.38	2.5854	161613	2908	



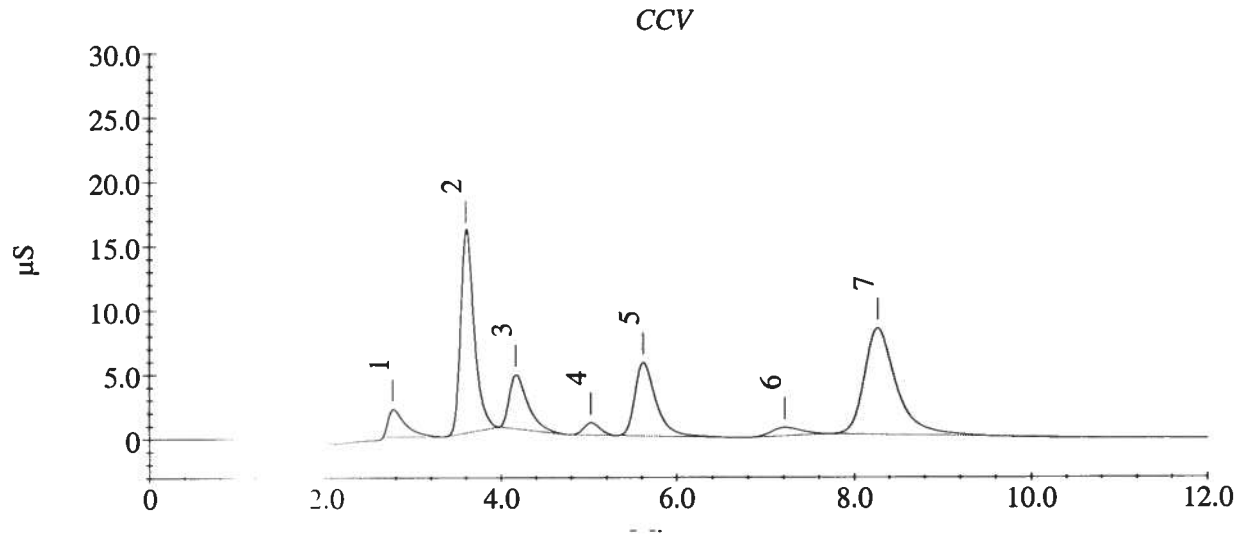
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\CCV_106.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 17:08
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.77	3.3028	291253	21167	
2	Chloride	3.60	14.8435	1721893	156746	
3	Nitrite	4.17	3.6597	614904	41860	
4	Bromide	5.02	4.0268	121409	9433	
5	Nitrate	5.62	3.7605	957750	56890	
6	O.Phos	7.22	2.6913	153147	6441	
7	Sulfate	8.27	24.3228	2086532	82713	



Sample Analysis Report

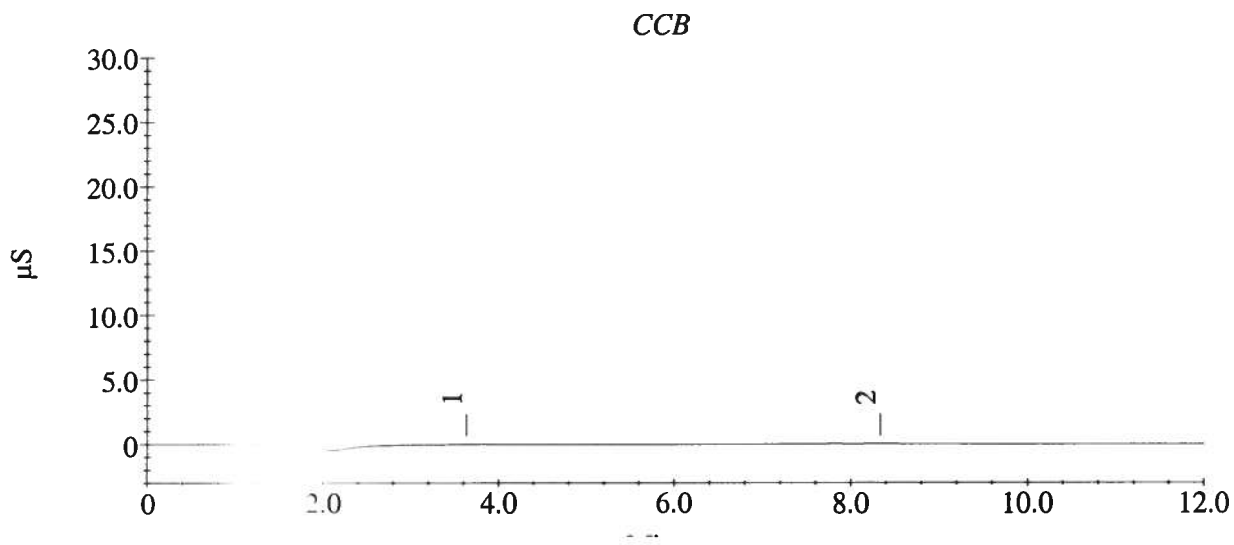
Sample Name : CCB
Data File Name : c:\instarch\data\system 2\042822 -\CCB_107.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 17:22
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Sulfate	8.33	0.8078	4196	172	

Page 1717



Sample Analysis Report

Sample Name : DUP1136674
Data File Name : c:\instarch\data\system 2\042822 -\DUP1136674_108.DXD

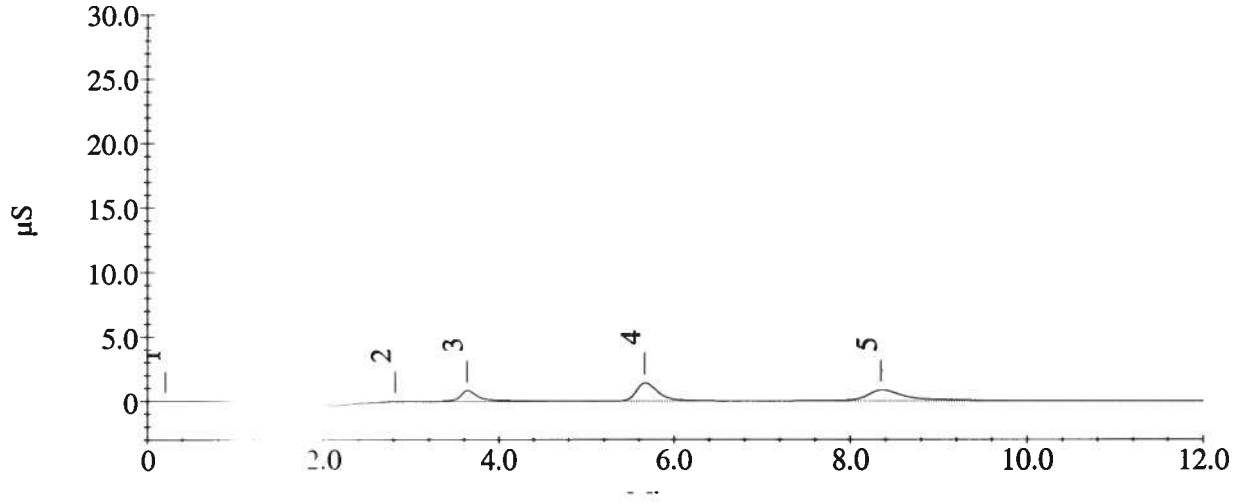
Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 17:36
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.82	0.1713	2988	237	
3	Chloride	3.63	1.6527	136025	8519	
4	Nitrate	5.67	1.0888	253154	14164	
5	Sulfate	8.35	3.9025	278247	8527	

Page 1718

DUP1136674



Sample Analysis Report

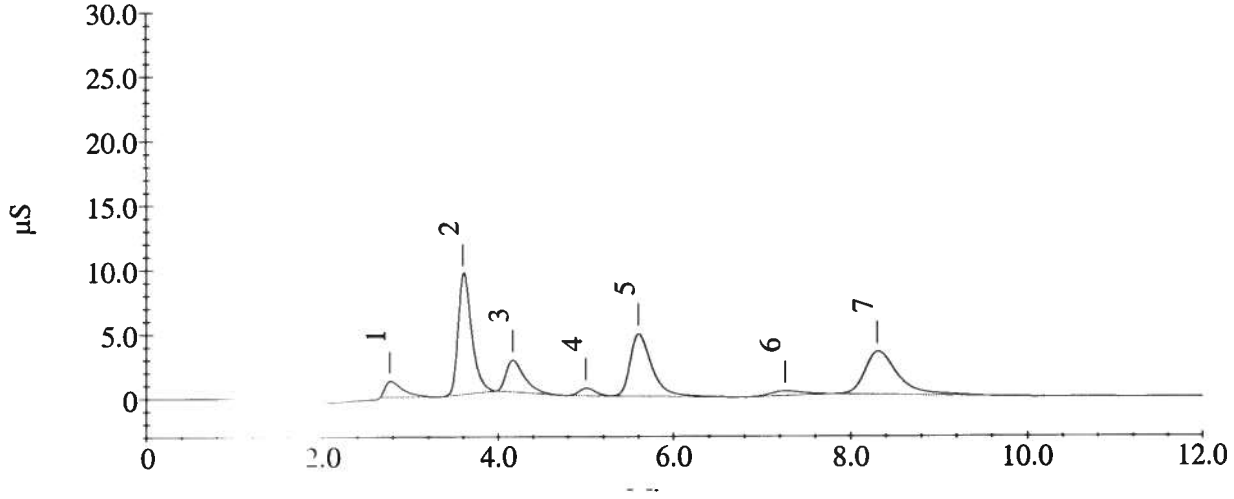
Sample Name : MSW1136674
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\MSW1136674_109.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 17:50
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.77	2.0013	171447	12316	
2	Chloride	3.60	9.0876	1029892	93080	
3	Nitrite	4.17	2.1856	359917	24599	
4	Bromide	5.00	2.4470	73472	5745	
5	Nitrate	5.60	3.2440	821551	48404	
6	O.Phos	7.27	1.6564	90475	3671	
7	Sulfate	8.30	10.5669	868397	33328	

MSW1136674



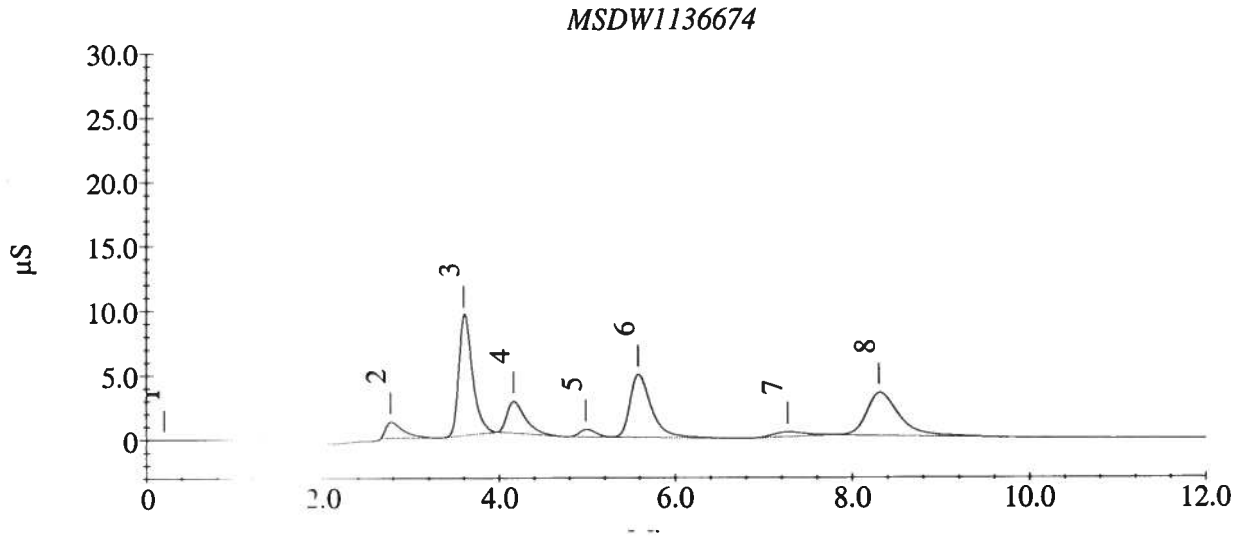
Sample Analysis Report

Sample Name : MSDW1136674
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\MSDW1136674_110.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 18:05
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.77	2.0090	172153	12396	
3	Chloride	3.60	9.0216	1021959	92520	
4	Nitrite	4.17	2.1651	356361	24493	
5	Bromide	4.98	2.4286	72913	5725	
6	Nitrate	5.58	3.2355	819309	48644	
7	O.Phos	7.27	1.6559	90443	3686	
8	Sulfate	8.30	10.3723	851170	33114	



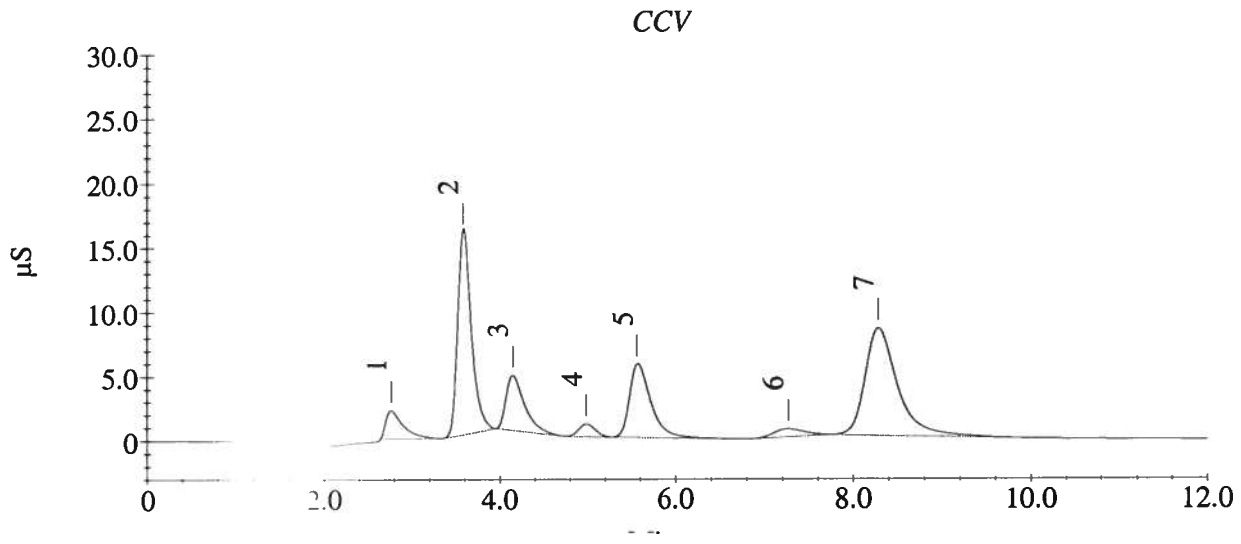
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\CCV_117.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 19:44
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.77	3.4110	301205	21896	
2	Chloride	3.58	14.9868	1739120	156845	
3	Nitrite	4.15	3.7133	624160	42615	
4	Bromide	4.98	4.1089	123901	9636	
5	Nitrate	5.57	3.7829	963665	56859	
6	O.Phos	7.27	2.5853	146728	6157	
7	Sulfate	8.28	24.7050	2120374	83385	



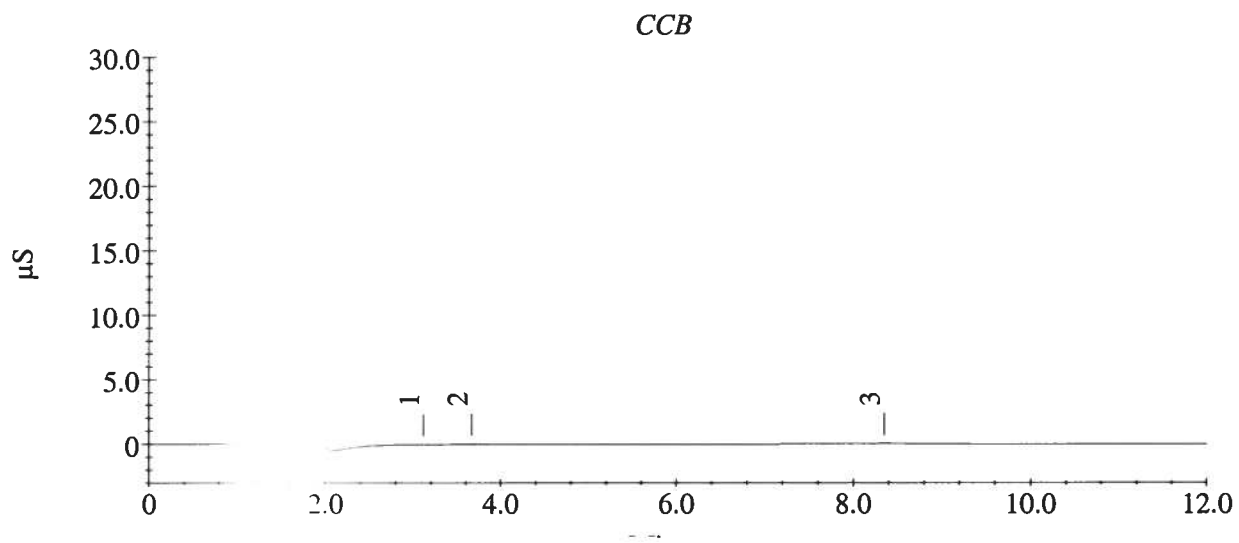
Sample Analysis Report

Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\042822 -\CCB_118.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 4/29/22 19:58
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.67	0.6049	10044	404	
3	Sulfate	8.35	0.7889	2527	141	



Schedule File: C:\INSTARCH\Sequences\System 2\043022 -.sch

Line	Sample	Sample Type	Level	Method	Data File
1	CCV	Sample		ic4106.met	ccv_001.dxd
2	LCSW	Sample		ic4106.met	lcsw_002.dxd
3	MBW	Sample		ic4106.met	mbw_003.dxd
4	1137438	Sample		ic4106.met	1137438_004.dxd
5	1137438X5	Sample		ic4106.met	1137438x5_005.dxd
6	DUP1137438	Sample		ic4106.met	dup1137438_006.dxd
7	MSW1137438	Sample		ic4106.met	msw1137438_007.dxd
8	MSDW1137438	Sample		ic4106.met	msdw1137438_008.dxd
9	CCV	Sample		ic4106.met	ccv_009.dxd
10	CCB	Sample		ic4106.met	ccb_010.dxd
11	CCV	Sample		ic4106.met	ccv_011.dxd
12	CCB	Sample		ic4106.met	ccb_012.dxd
13	DUP1137438X5	Sample		ic4106.met	dup1137438x5_013.dxd
14	MSW1137438X5	Sample		ic4106.met	msw1137438x5_014.dxd
15	MSDW1137438X5	Sample		ic4106.met	msdw1137438x5_015.dxd
16	CCV	Sample		ic4106.met	ccv_016.dxd
17	CCB	Sample		ic4106.met	ccb_017.dxd
18	1137438X5	Sample		ic4106.met	1137438x5_018.dxd
19	CCV	Sample		ic4106.met	ccv_019.dxd
20	CCB	Sample		ic4106.met	ccb_020.dxd

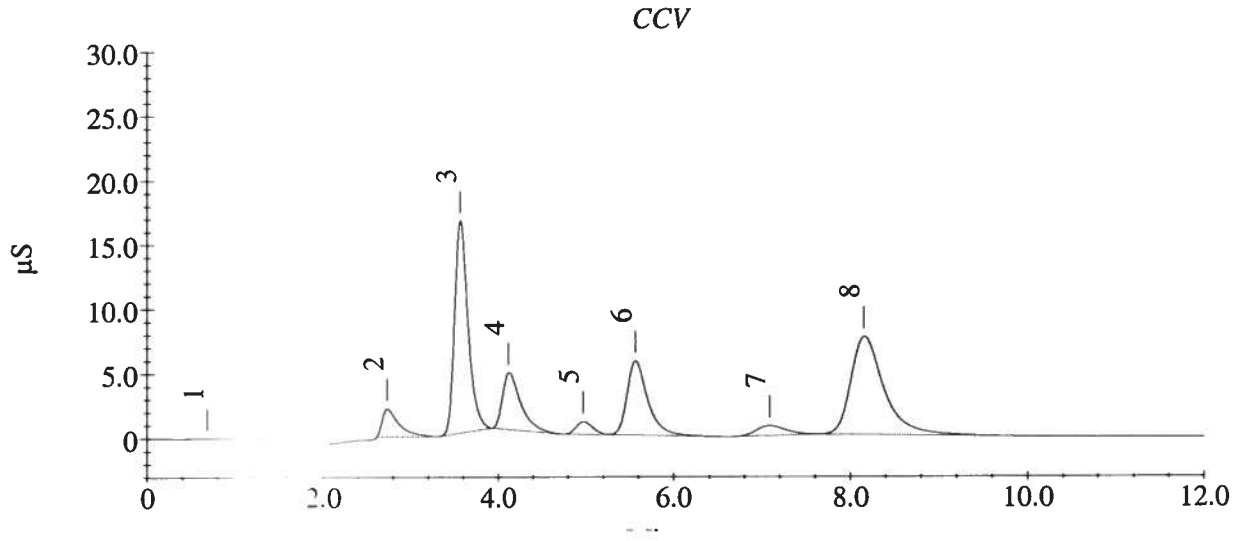
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\CCV_001.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 12:02
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	3.2555	286891	21592	
3	Chloride	3.57	14.9762	1737850	164308	
4	Nitrite	4.12	3.8162	641959	43657	
5	Bromide	4.97	4.1390	124813	9711	
6	Nitrate	5.57	3.7054	943226	57212	
7	O.Phos	7.08	3.0690	176016	7554	
8	Sulfate	8.15	22.9922	1968705	75717	



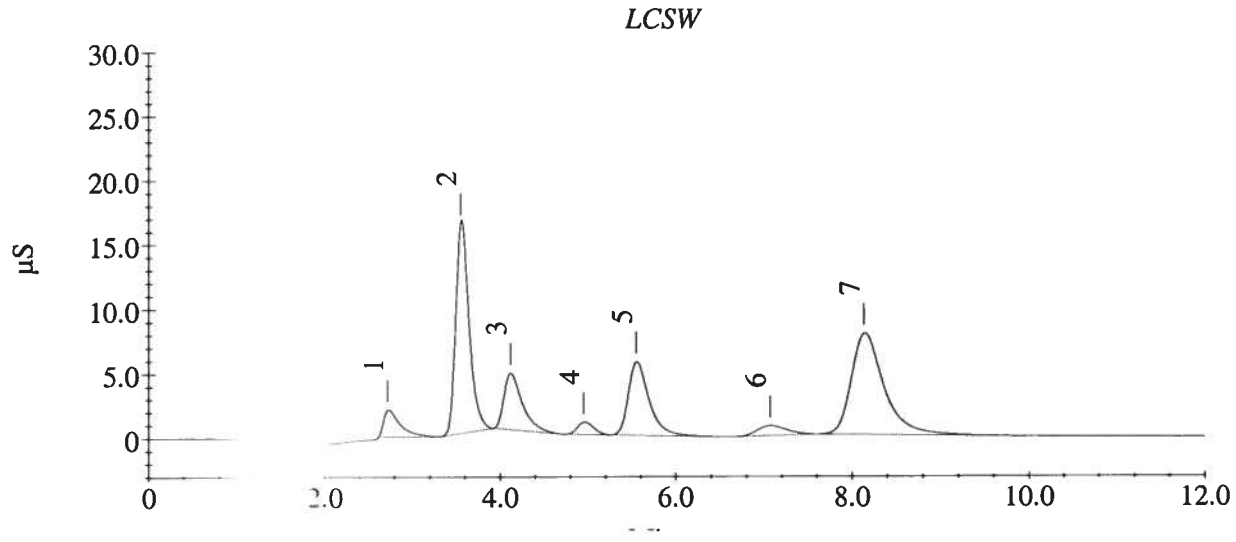
Sample Analysis Report

Sample Name : LCSW
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\LCSW_002.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 12:16
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.72	3.1656	278621	20666	
2	Chloride	3.55	15.0107	1741999	162484	
3	Nitrite	4.12	3.7937	638079	43669	
4	Bromide	4.95	4.0662	122604	9461	
5	Nitrate	5.55	3.7036	942762	56821	
6	O.Phos	7.07	3.1028	178066	7734	
7	Sulfate	8.13	23.4613	2010245	78403	



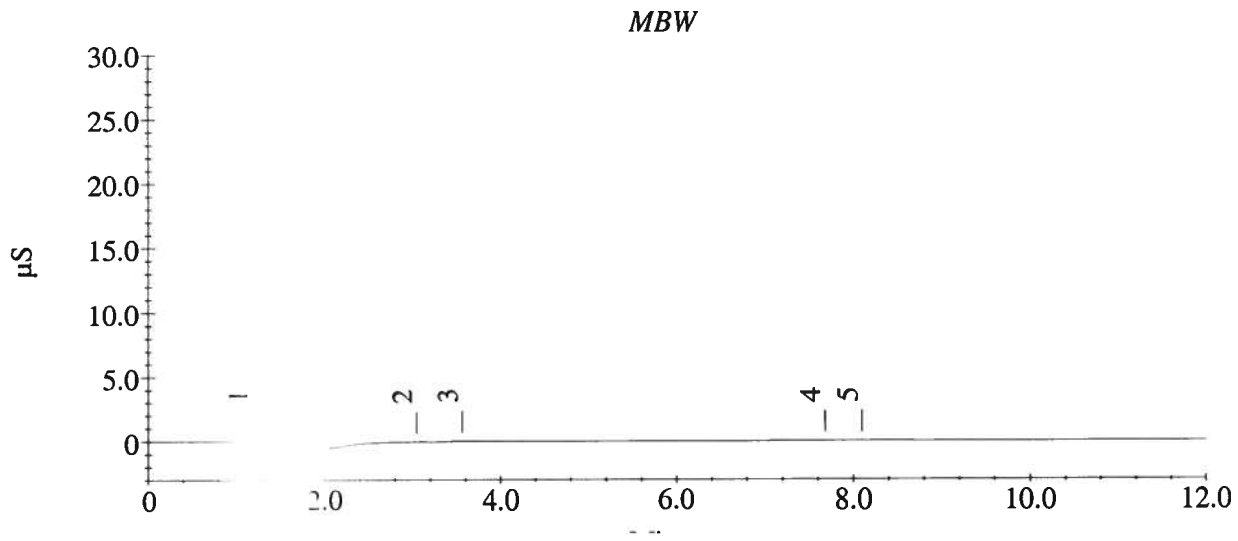
Sample Analysis Report

Sample Name : MBW
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\MBW_003.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 12:31
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.57	0.6361	13800	533	
5	Sulfate	8.10	0.7902	2640	91	



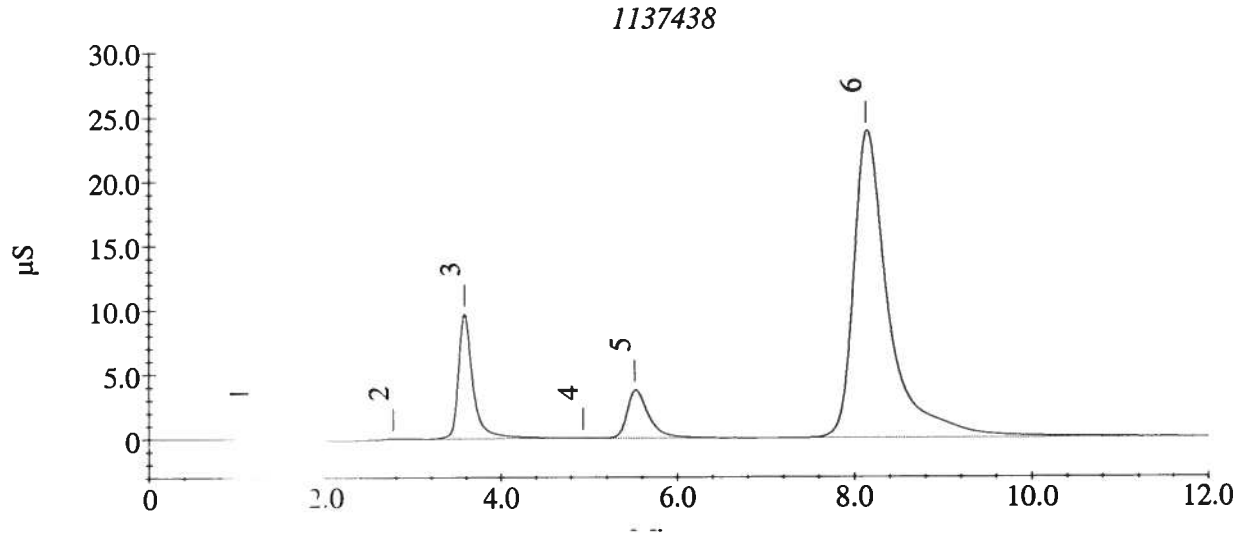
Sample Analysis Report

Sample Name : 1137438
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\1137438_004.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 12:45
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.77	0.1597	1918	214	
3	Chloride	3.58	9.8753	1124594	96368	
4	Bromide	4.93	0.0658	1215	118	
5	Nitrate	5.52	2.5362	634867	37035	
6	Sulfate	8.13	74.6384	6542150	237733	+



Sample Analysis Report

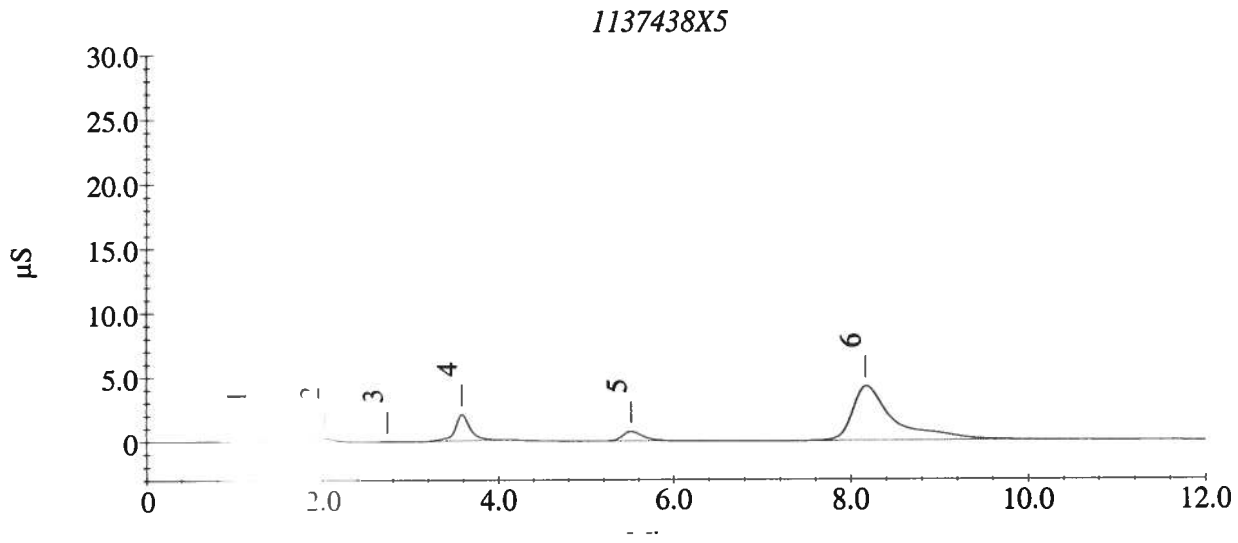
Not used

Sample Name : 1137438X5
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\1137438X5_005.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 12:59
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.73	0.1498	1009	93	
4	Chloride	3.58	2.5393	242613	20268	
5	Nitrate	5.52	0.5847	120210	7365	
6	Sulfate	8.17	16.2197	1368977	42248	



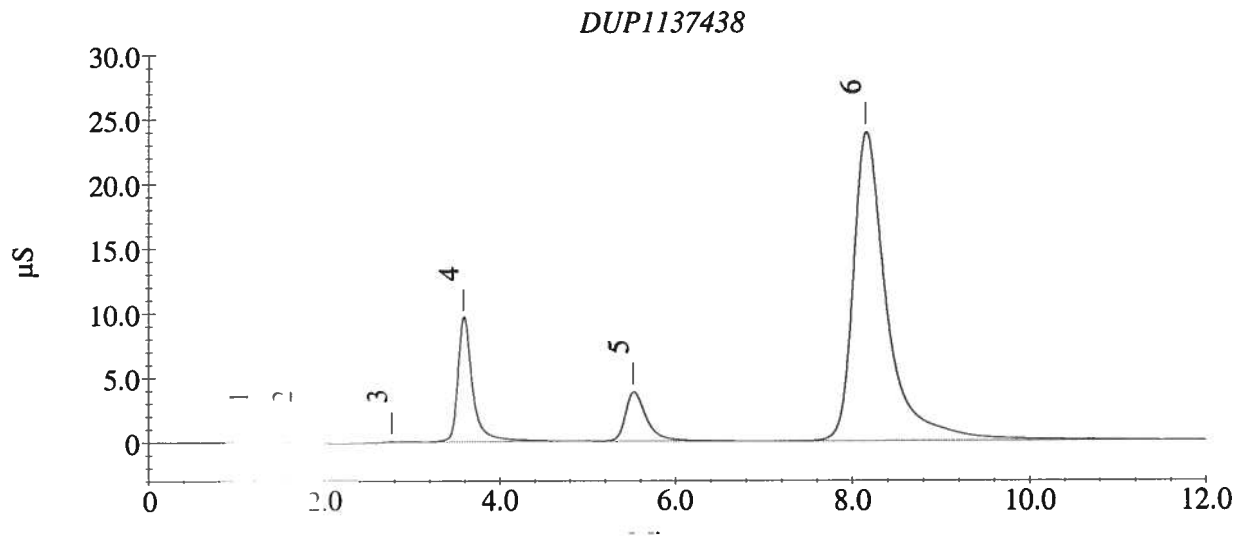
Sample Analysis Report

Sample Name : DUP1137438
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\DUP1137438_006.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 13:13
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Fluoride	2.77	0.1641	2324	277	
4	Chloride	3.58	9.8627	1123076	95136	
5	Nitrate	5.52	2.5479	637957	37841	
6	Sulfate	8.15	72.6434	6365483	239050	+



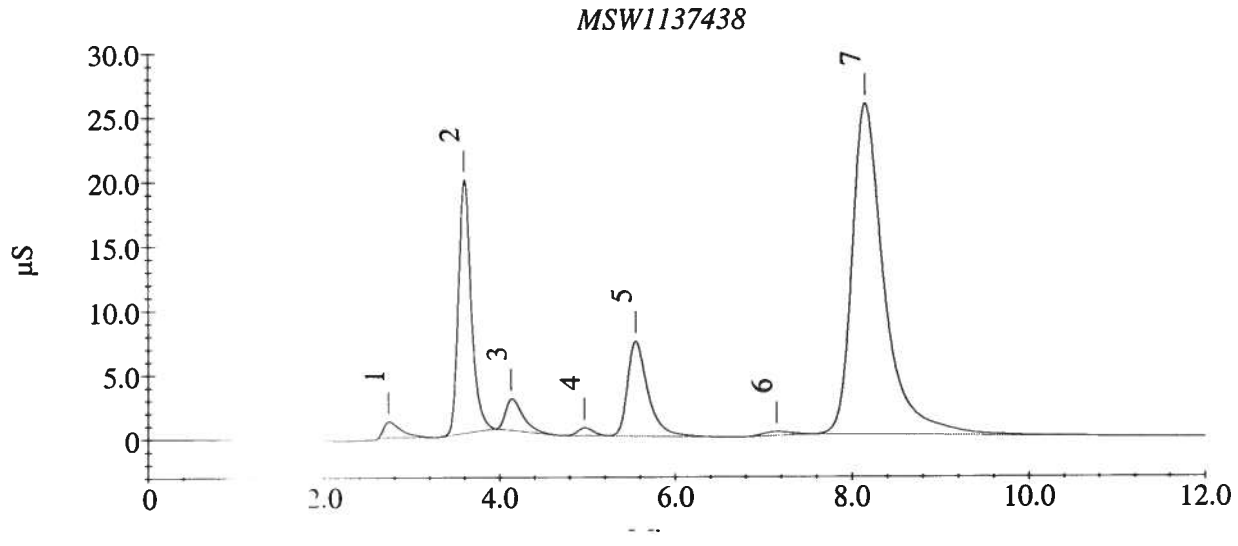
Sample Analysis Report

Sample Name : MSW1137438
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\MSW1137438_007.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 13:27
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.73	2.0110	172332	12393	
2	Chloride	3.60	17.1585	2000222	196073	
3	Nitrite	4.13	2.0677	339513	24467	
4	Bromide	4.97	2.4843	74603	6138	
5	Nitrate	5.55	4.6286	1186690	73595	
6	O.Phos	7.15	1.2946	68565	3097	
7	Sulfate	8.15	74.3380	6515553	256675	+



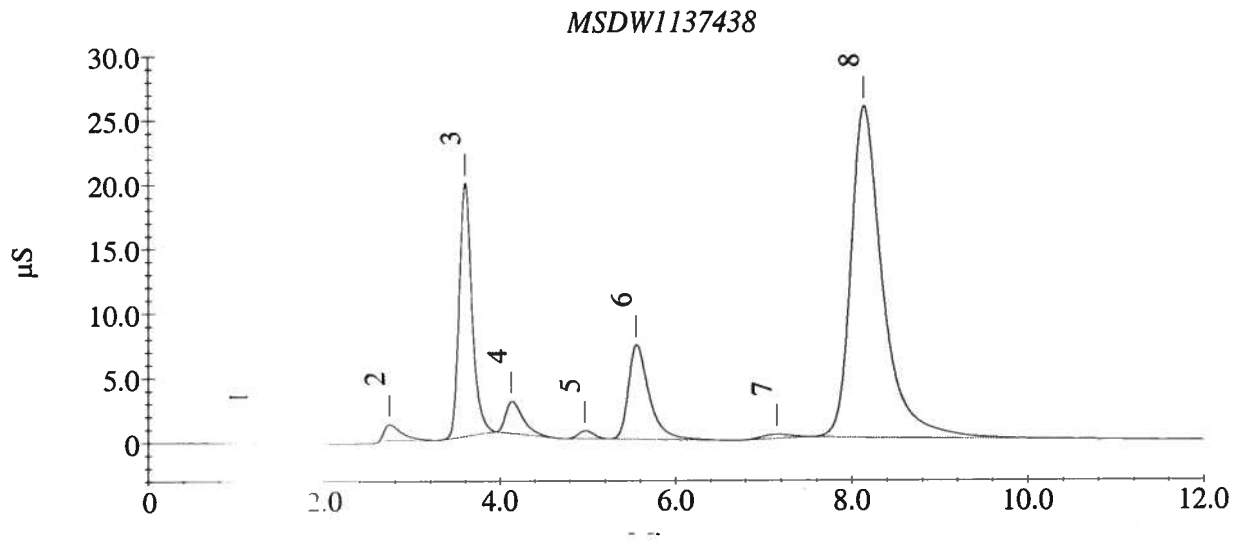
Sample Analysis Report

Sample Name : MSDW1137438
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\MSDW1137438_008.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 13:42
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.73	1.9872	170143	12382	
3	Chloride	3.60	17.2275	2008515	195779	
4	Nitrite	4.13	2.0772	341152	24494	
5	Bromide	4.97	2.4953	74938	6042	
6	Nitrate	5.55	4.6493	1192153	72269	
7	O.Phos	7.15	1.3336	70931	3238	
8	Sulfate	8.13	73.4938	6440795	256784	+



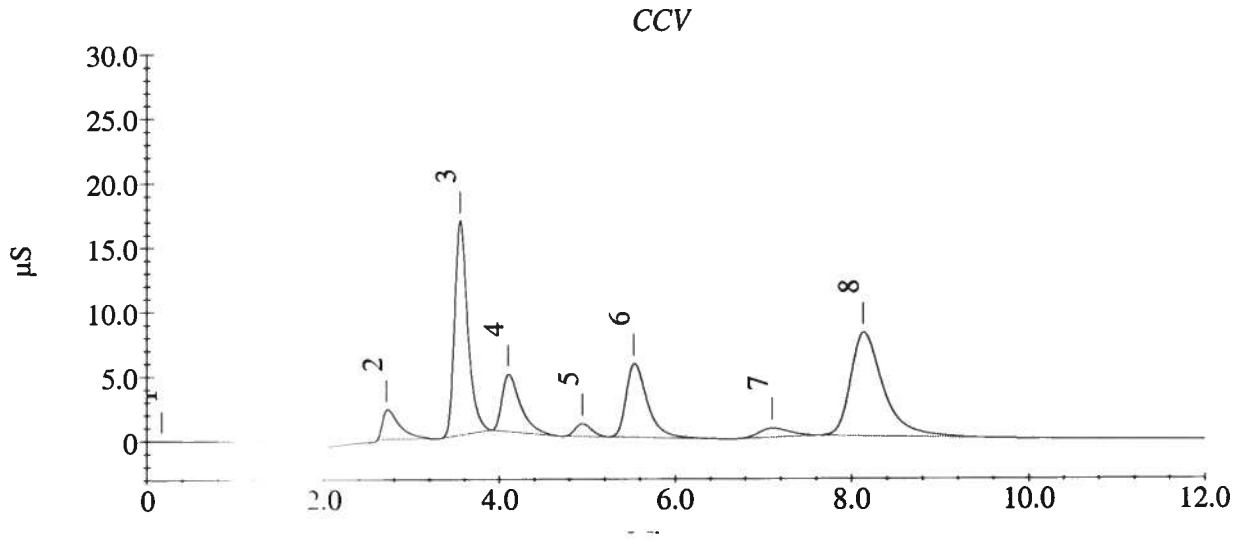
Sample Analysis Report

Sample Name : CCV
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\CCV_009.dxd

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 13:56
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.72	3.4591	305635	22666	
3	Chloride	3.55	15.0624	1748219	165593	
4	Nitrite	4.10	3.8526	648260	44062	
5	Bromide	4.95	4.1552	125305	9802	
6	Nitrate	5.53	3.7351	951069	56880	
7	O.Phos	7.10	2.8828	164739	6943	
8	Sulfate	8.13	23.8718	2046596	80234	



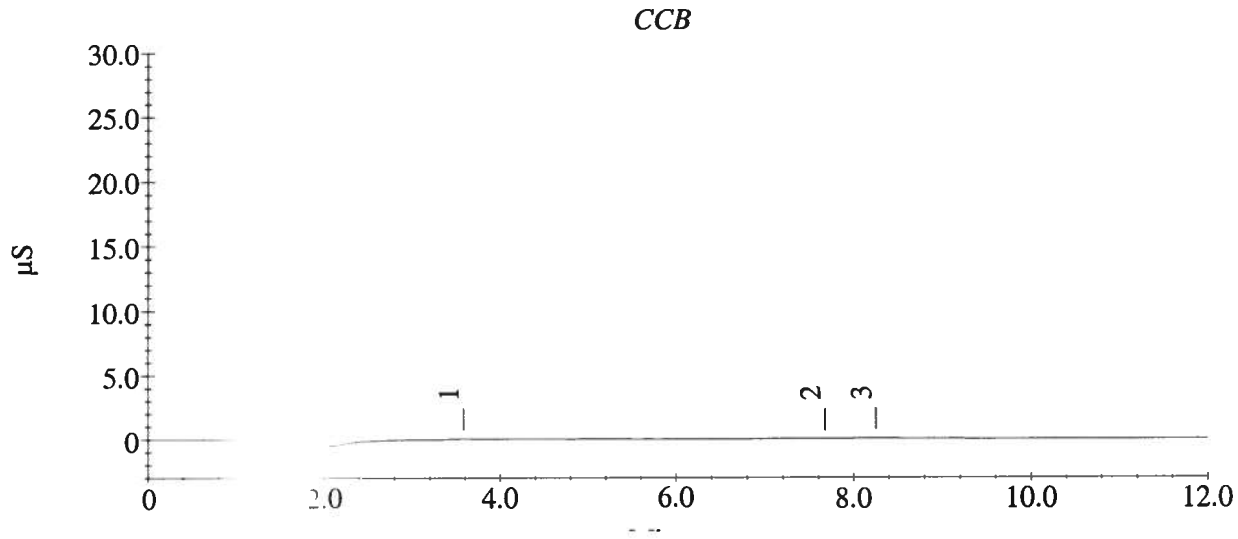
Sample Analysis Report

Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\CCB_010.DXD

Method File Name : C:\INSTARCH\METHODS\SYSTEM 2\IC4106.met
Date Time Collected : 4/30/22 14:10
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	3.58	0.5497	3417	205	
3	Sulfate	8.25	0.8302	6180	263	



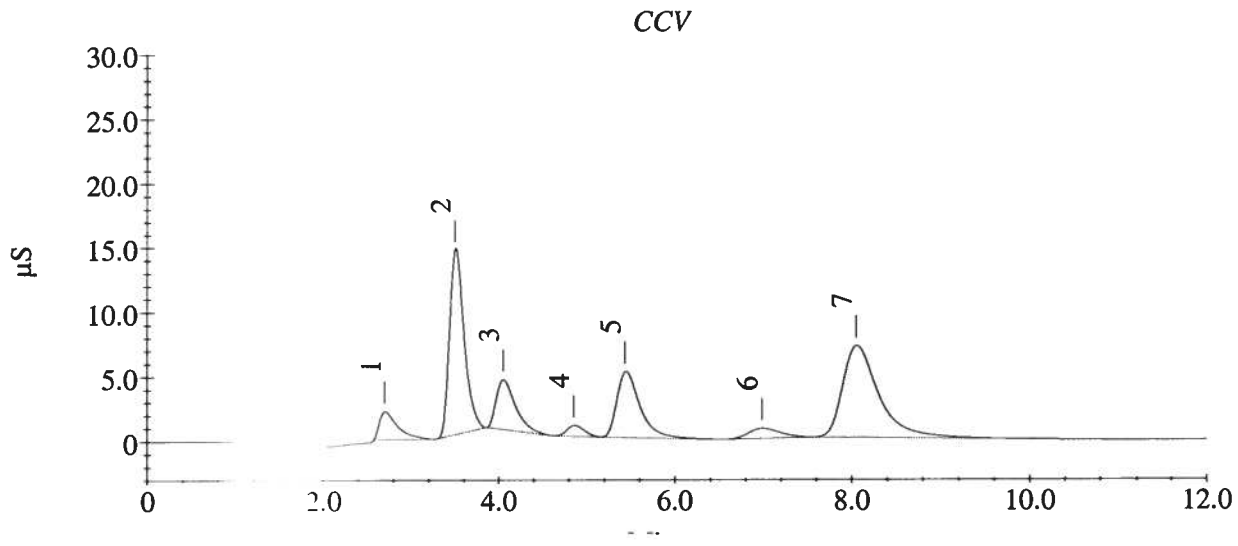
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\043022 -\CCV_011.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 08:57
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.70	3.5004	309442	21525	
2	Chloride	3.50	14.2531	1650917	142356	
3	Nitrite	4.05	3.5249	591574	38428	
4	Bromide	4.85	3.8098	114824	8307	
5	Nitrate	5.43	3.6586	930873	50726	
6	O.Phos	6.98	3.3323	191965	7735	
7	Sulfate	8.05	23.4315	2007604	71030	



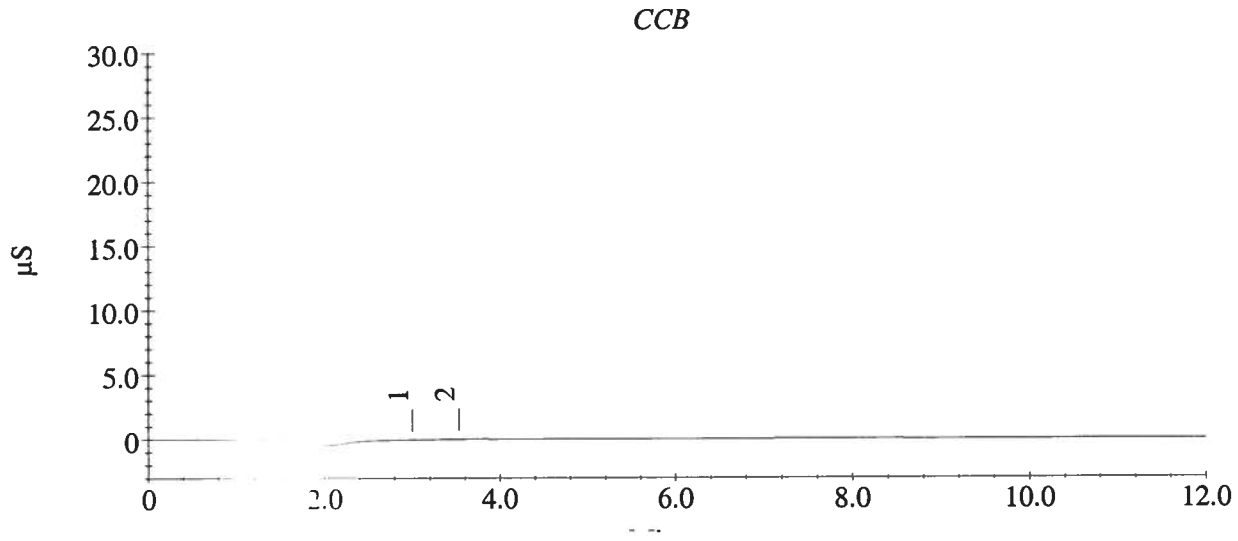
Sample Analysis Report

Sample Name : CCB
Data File Name : c:\instarch\data\system 2\043022 -\CCB_012.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 09:11
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.53	0.6230	12228	516	



Sample Analysis Report

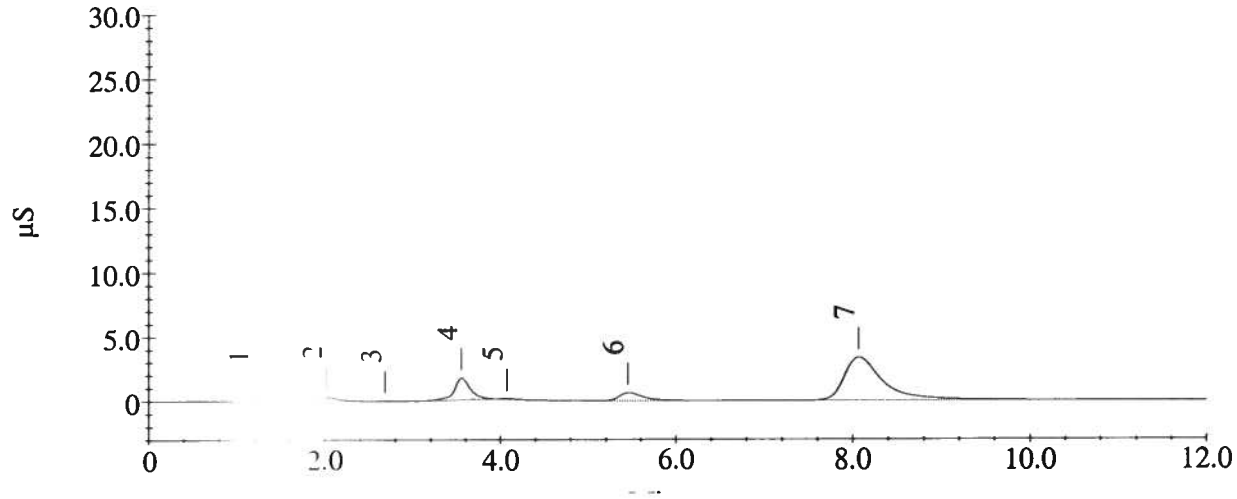
Sample Name : DUP1137438X5
Data File Name : c:\instarch\data\system 2\043022 -\DUP1137438X5_013.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 09:25
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
4	Chloride	3.55	2.3653	221697	16898	
5	Nitrite	4.07	0.1465	7183	571	
6	Nitrate	5.45	0.5713	116670	6112	
7	Sulfate	8.07	12.2022	1013210	33547	

DUP1137438X5



Sample Analysis Report

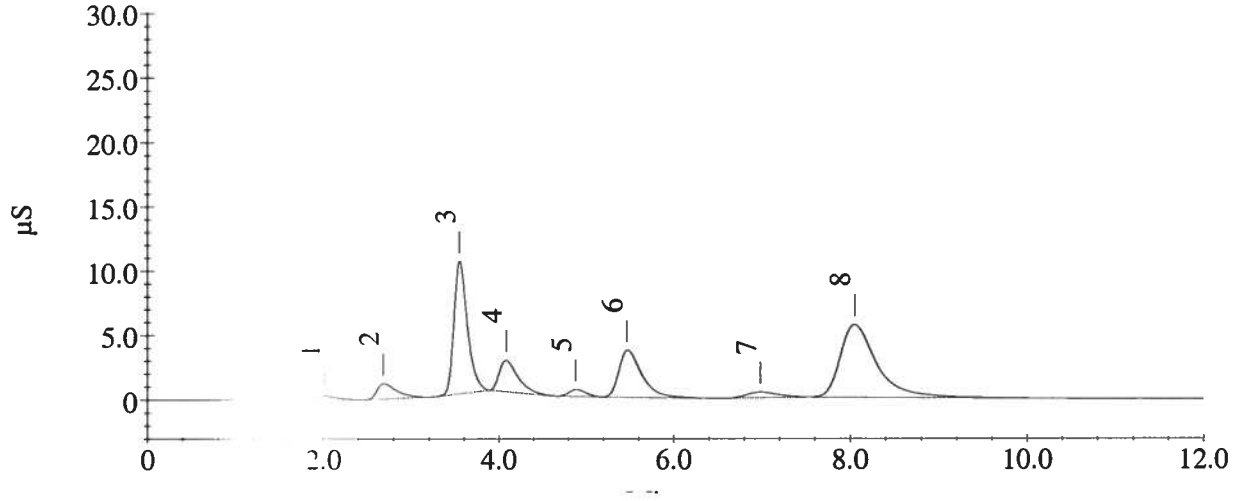
Sample Name : MSW1137438X5
Data File Name : c:\instarch\data\system 2\043022 -\MSW1137438X5_014.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 09:40
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.68	2.1079	181257	11602	
3	Chloride	3.55	9.6690	1099785	102615	
4	Nitrite	4.08	2.2022	362781	24120	
5	Bromide	4.88	2.3259	69796	5167	
6	Nitrate	5.47	2.6383	661796	36151	
7	O.Phos	6.98	1.9461	108021	4354	
8	Sulfate	8.05	18.9659	1612155	56378	

MSW1137438X5



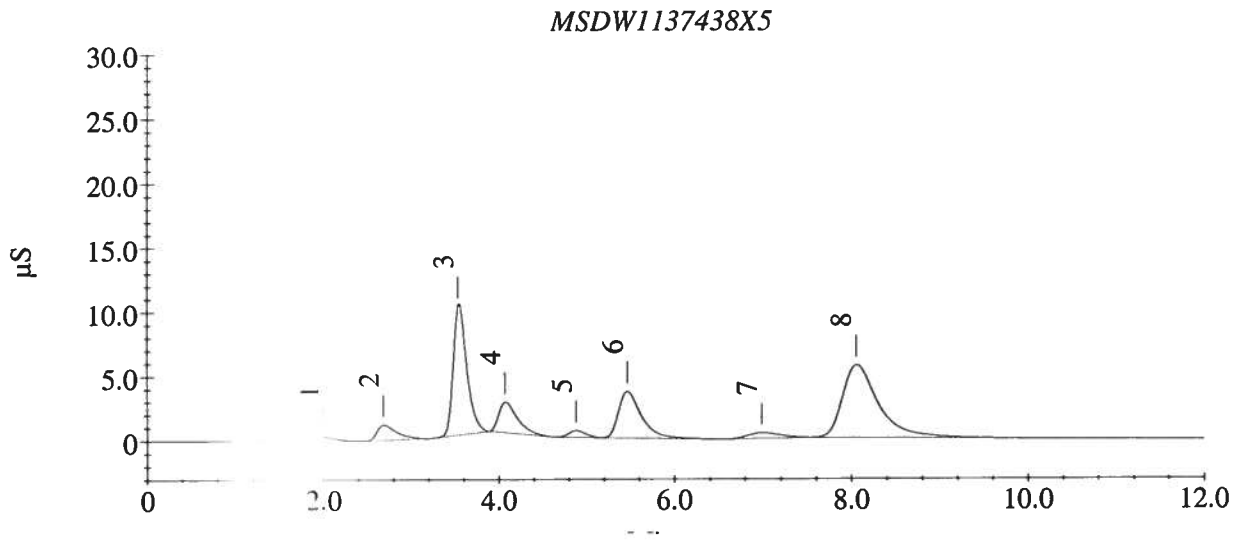
Sample Analysis Report

Sample Name : MSDW1137438X5
Data File Name : c:\instarch\data\system 2\043022 -\MSDW1137438X5_015.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 09:54
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Fluoride	2.68	2.1200	182372	11721	
3	Chloride	3.53	9.6341	1095598	99891	
4	Nitrite	4.07	2.1601	355498	23618	
5	Bromide	4.88	2.2939	68825	5164	
6	Nitrate	5.47	2.6223	657570	36213	
7	O.Phos	6.98	1.9723	109607	4352	
8	Sulfate	8.05	18.8750	1604109	56301	



Page 1738

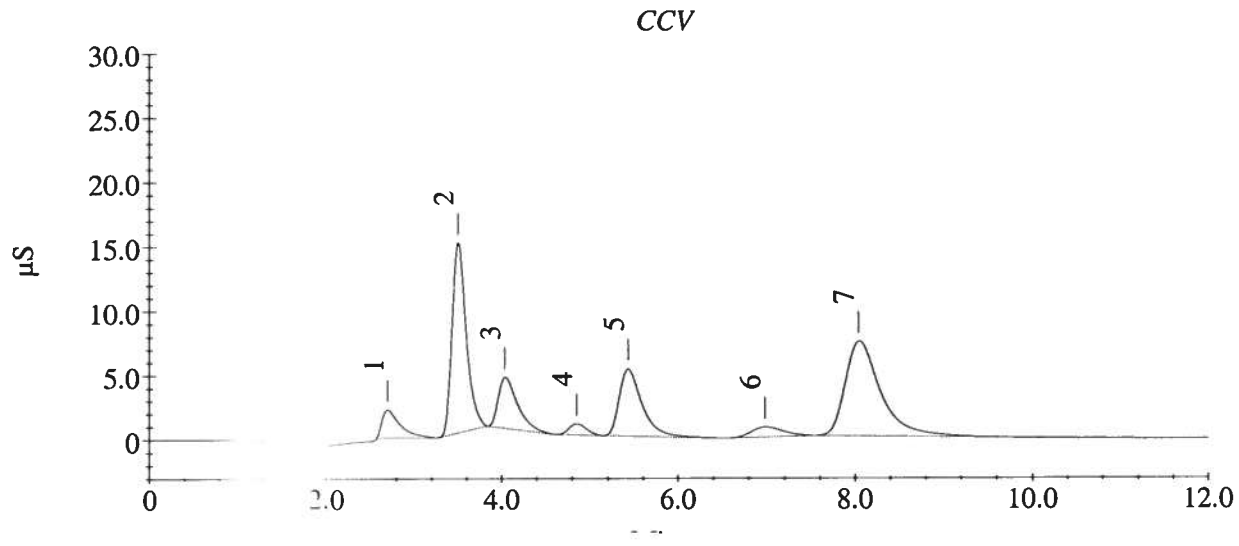
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\043022 -\CCV_016.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 10:08
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.70	3.4694	306585	21640	
2	Chloride	3.50	14.4040	1669057	147314	
3	Nitrite	4.03	3.6113	606518	39442	
4	Bromide	4.85	3.8359	115617	8566	
5	Nitrate	5.43	3.6820	937048	52103	
6	O.Phos	6.98	3.3018	190118	7695	
7	Sulfate	8.03	23.6835	2029920	73340	



Sample Analysis Report

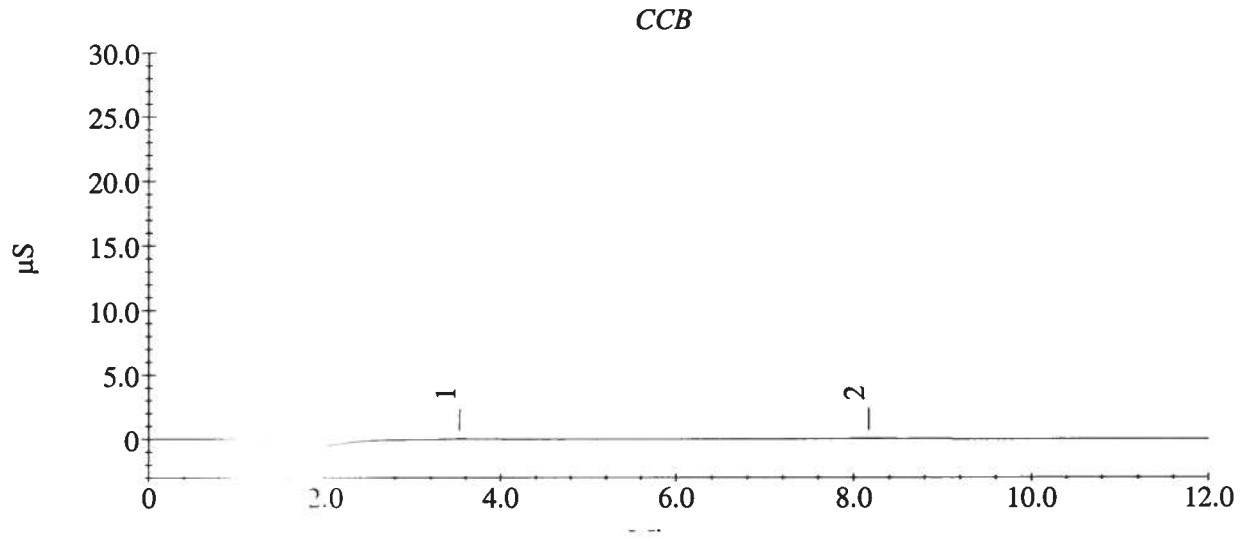
Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\CCB_017.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 10:22
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Chloride	3.53	0.5884	8067	326	
2	Sulfate	8.17	0.8811	10686	412	

Page 1740



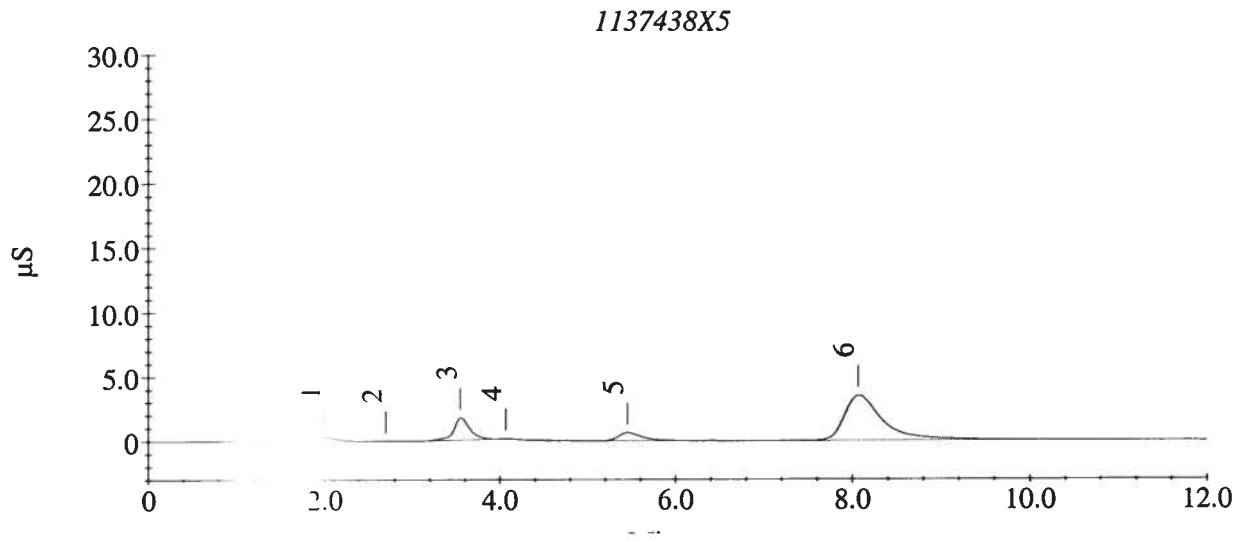
Sample Analysis Report

Sample Name : 1137438X5
Data File Name : c:\instarch\data\system 2\043022 -\1137438X5_018.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 10:55
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
3	Chloride	3.55	2.4021	226117	17250	
4	Nitrite	4.07	0.1338	4994	517	
5	Nitrate	5.45	0.5747	117581	6201	
6	Sulfate	8.07	12.6739	1054983	34908	



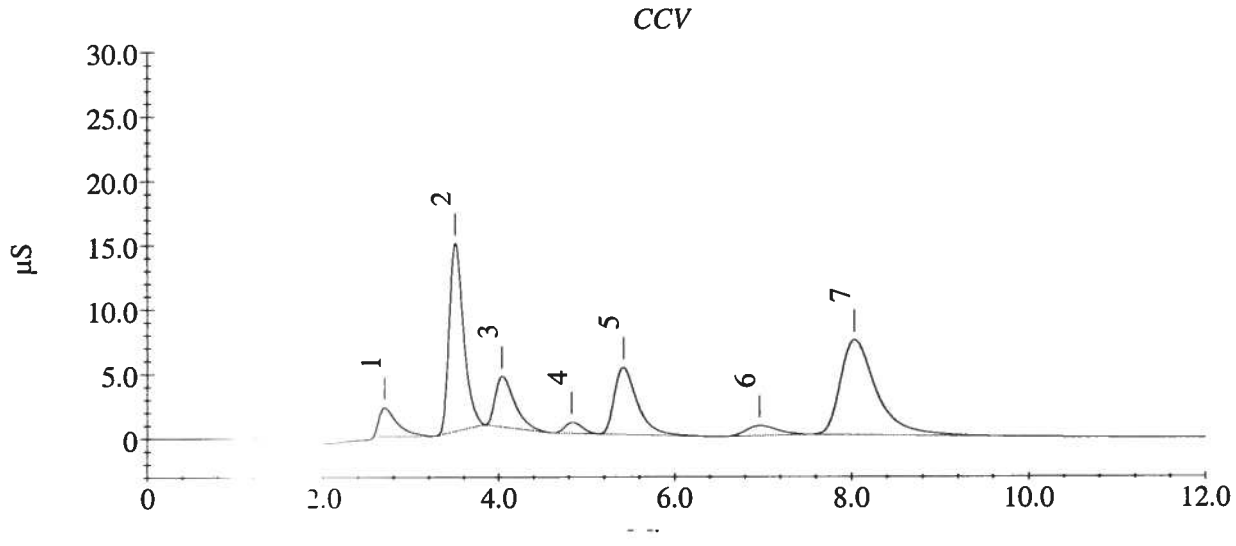
Sample Analysis Report

Sample Name : CCV
Data File Name : c:\instarch\data\system 2\043022 -\CCV_019.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 11:09
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
1	Fluoride	2.70	3.5771	316504	22187	
2	Chloride	3.50	14.3706	1665043	145662	
3	Nitrite	4.03	3.5799	601094	38873	
4	Bromide	4.83	3.8197	115126	8451	
5	Nitrate	5.42	3.6807	936718	51830	
6	O.Phos	6.97	3.3125	190766	7687	
7	Sulfate	8.03	23.9081	2049810	73441	



Sample Analysis Report

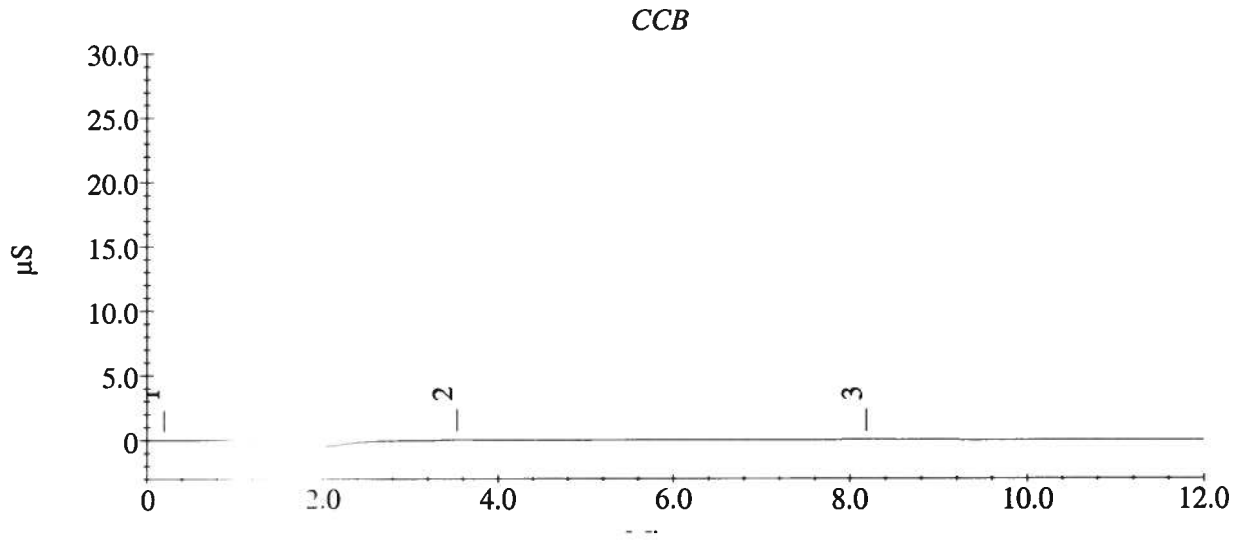
Sample Name : CCB
Data File Name : C:\INSTARCH\DATA\SYSTEM 2\043022 -\CCB_020.DXD

Method File Name : c:\instarch\methods\system 2\ic4106.met
Date Time Collected : 5/2/22 11:23
System Operator : TMG

Peak Information : Found Components

Peak #	Component Name	Retention Time	Amount	Peak Area	Peak Height	Limit Exceeded
2	Chloride	3.53	0.5588	4501	283	
3	Sulfate	8.18	0.8190	5185	261	

Page 1743



pH - Mettler Toledo Seven Easy

Date:	04/28/2022	Analyst:	HLB	Lims #:	211555	Slope (%)	98%

GRP	Sample ID#	Matrix	DF	Corrected Temp (°C)*	Result	
1	BUFFER 7	QC	1			
2			1			
3			1			
4			1			
5			1			
6			1			
7			1			
8			1			
9			1			
10			1			
11	1136212	GW	1	8.1	7.37	
dup 11	1136212	GW	1	8.2	7.37	
12	BUFFER 7	QC	1			
13			1			
14			1			
15			1			
16			1			
17			1			
18			1			
19			1			
20			1			
21			1			
23			1			
dup 23			1			
24	BUFFER 7		1			
25			1			
dup 25			1			
26			1			
dup 26			1			

To datacapture: Save CSV file under the TSS datacapture folder.

*Temperature of samples should be room temperature around 25°C

Buffer Standard IDs:

pH 4: WC205 pH 7: WC398 pH 10: WC275

pH - Mettler Toledo Seven Easy

Date:	05/02/2022	Analyst:	RLB	Lims #:	211639	Slope (%)	98%

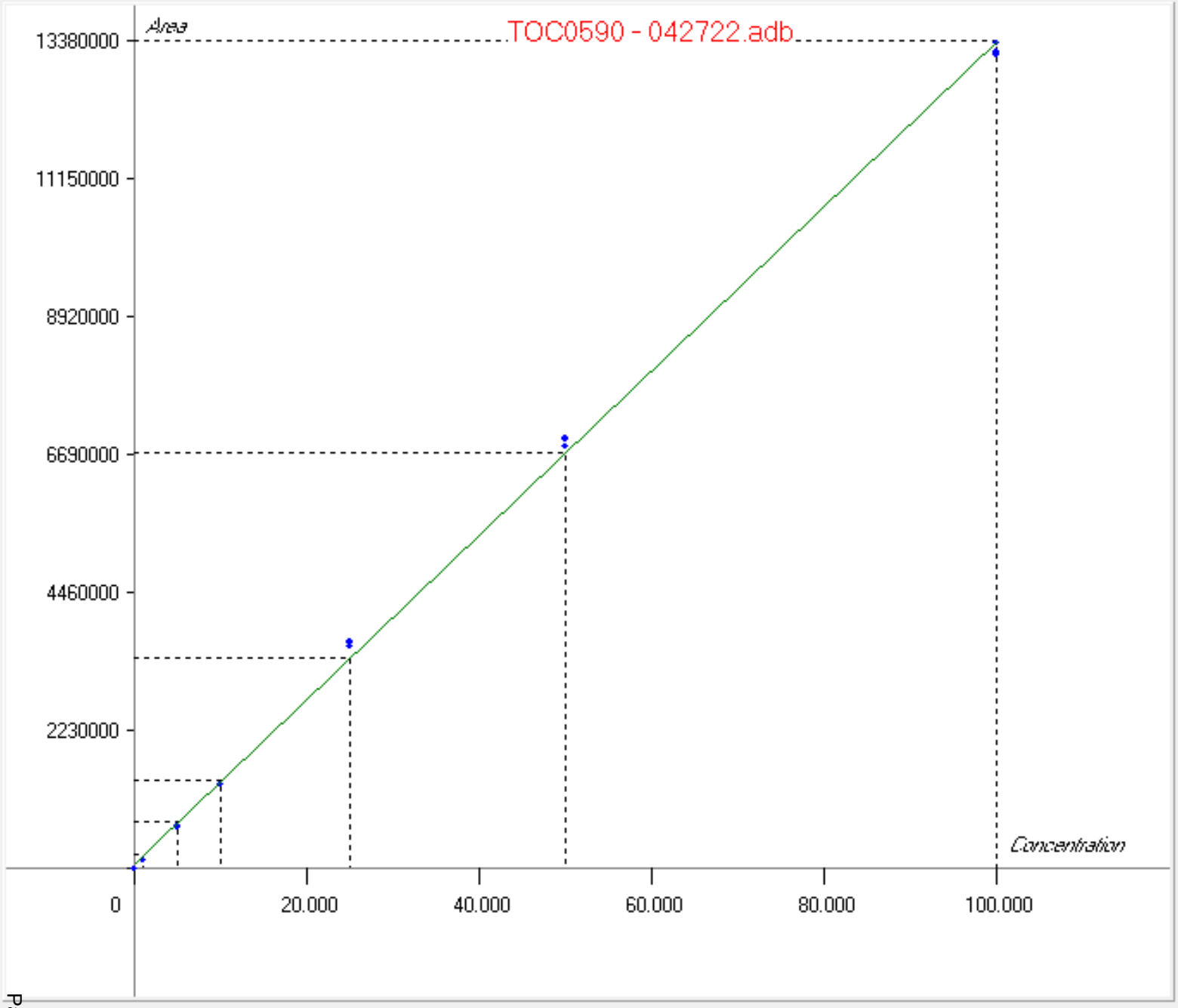
GRP	Sample ID#	Matrix	DF	Corrected Temp (°C)*	Result	
1	BUFFER 7	QC	1	23.9	7.02	
2			1			
3			1			
4			1			
5			1			
6			1			
7			1			
8			1			
9			1			
10			1			
11	1137439	GW	1	12.4	7.61	
dup 11	1137439	GW	1	12.5	7.62	
12	BUFFER 7	QC	1	22.0	7.09	
13			1			
14			1			
15			1			
16			1			
17			1			
18			1			
19			1			
20			1			
21			1			
23	1137501	WW	1	14.6	7.32	
dup 23	1137501	WW	1	14.7	7.35	
24	BUFFER 7	QC	1	21.1	7.08	
25			1			
dup 25			1			
26			1			
dup 26			1			

To datacapture: Save CSV file under the TSS datacapture folder.

*Temperature of samples should be room temperature around 25°C

Buffer Standard IDs:

pH 4: WC205 pH 7: WC398 pH 10: WC275



Cursor Position

Concentration	Area
117.200 mg/l	-1059250

A2	0
A1	132871
A0	95820
Correlation	0.99952
Order	1
Volume	100 µl
Conc.	100.00
Area	13373923

☐ Confidence Intervals 95%

☐ Detection/Determination 95%

Conc.	Area	Sel.
0	0	☑
0	0	☑
0	0	☑
0	0	☑
1	165320	☑
1	148018	☑
1	166376	☑
1	149662	☑

• Used Value
• Ignored Value

CurveNo:1 CurveType:TC

<-- --> Print... Exit

RJ 05/05/2022

Analysis Name TOC0590 - 042722.adb

Template Name CURVE TEMP.tdb
Method Name N / A
Operator TMG

Date Wednesday, April 27, 2022
Time 9:08

Start Oven Temp. 752 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL: TOC0590 INSTRUMENT:TOCW

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %

SampleTime 240 s

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	This Analysis	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	BLANK	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:19:28	ZERO !	86217	1	756	2	-	-
2	4/27/2022 9:22:21	0.00	0	0	755	2	-	Yes
3	4/27/2022 9:26:23	0.00	0	0	757	2	-	Yes
4	4/27/2022 9:30:24	0.00	0	0	758	2	-	Yes
5	4/27/2022 9:34:26	0.00	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Standard	TC Std 0.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:39:18	0.00	0	1	760	2	-	Yes
2	4/27/2022 9:43:56	0.00	0	1	759	2	-	Yes
3	4/27/2022 9:47:58	0.00	0	1	759	2	-	Yes
4	4/27/2022 9:52:00	0.00	0	1	759	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S2	Standard	TC Std 1.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.46**	**157344**	**6.26**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 9:56:53	0.52	165320	1	758	2	-	Yes
2	4/27/2022 9:59:54	0.39	148018	1	758	2	-	Yes
3	4/27/2022 10:02:12	0.53	166376	1	757	2	-	Yes
4	4/27/2022 10:04:34	0.41	149662	1	757	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	S3	Standard	TC Std. 5.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**4.56**	**700856**	**0.90**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 10:08:04	4.62	709067	1	757	2	-	Yes
2	4/27/2022 10:11:22	4.51	695235	1	756	2	-	Yes
3	4/27/2022 10:13:57	4.57	702460	1	757	2	-	Yes
4	4/27/2022 10:16:36	4.52	696665	1	756	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	S4	Standard	TC Std. 10.00 mg/l	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**9.67**	**1380399**	**0.64**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.

1		4/27/2022 10:20:05	9.63	1375951	1	757	2	-	Yes
2		4/27/2022 10:23:28	9.59	1370364	1	757	2	-	Yes
3		4/27/2022 10:26:11	9.71	1385504	1	756	2	-	Yes
4		4/27/2022 10:28:58	9.74	1389779	1	756	2	-	Yes

---

6 S5 Standard TC Std. 25.00 mg/l 1 x

	TC	**26.66**	**3638253**	**0.96**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 10:32:38	26.77	3653032	1	757	2	-	Yes
2	4/27/2022 10:36:19	26.47	3612880	1	757	2	-	Yes
3	4/27/2022 10:39:12	26.42	3606492	1	757	2	-	Yes
4	4/27/2022 10:42:08	26.98	3680609	1	756	2	-	Yes

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7 S6 Standard TC Std. 50.00 mg/l 1 x

	TC	**51.46**	**6933403**	**0.82**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 10:45:53	50.86	6853888	1	756	2	-	Yes
2	4/27/2022 10:49:34	51.52	6941430	1	756	2	-	Yes
3	4/27/2022 10:52:51	51.88	6989245	1	755	2	-	Yes
4	4/27/2022 10:55:58	51.58	6949049	1	756	2	-	Yes

---

8 S7 Standard TC Std. 100.00 mg/l 1 x

	TC	**98.91**	**13238800**	**0.71**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 10:59:59	98.31	13158295	1	755	2	-	Yes
2	4/27/2022 11:03:59	99.93	13373923	1	755	2	-	Yes
3	4/27/2022 11:07:16	98.77	13219156	1	755	2	-	Yes
4	4/27/2022 11:10:35	98.65	13203826	1	754	2	-	Yes

---

9 S8 Unknown ICV - 50.00 mg/L 1 x

	TC	**49.82**	**6715782**	**0.53**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 11:14:34	49.90	6726441	1	754	2	-	Yes
2	4/27/2022 11:18:15	49.63	6689710	1	754	2	-	Yes
3	4/27/2022 11:21:15	50.16	6761041	1	754	2	-	Yes
4	4/27/2022 11:24:16	49.60	6685936	1	754	2	-	Yes

---

10 2 Unknown ICB 1 x

	TC	**0.00**	**0**	**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/27/2022 11:28:12	0	0	0	754	2	-	Yes
2	4/27/2022 11:32:49	0	0	0	754	2	-	Yes
3	4/27/2022 11:36:50	0	0	0	754	2	-	Yes
4	4/27/2022 11:40:52	0	0	0	753	2	-	Yes

Analysis Name 042822 - 211530.adb

Template Name 042822 - 211530.tdb
Method Name N / A
Operator TMG

Date Thursday, April 28, 2022
Time 9:07

Start Oven Temp. 758 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0590 INSTRUMENT:TOCW
CCV0588 LCS0589 SPIKE0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0590 - 042722	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 9:08:05	0.62	177591	1	757	2	-	-
2	4/28/2022 9:11:12	0	0	0	757	2	-	Yes
3	4/28/2022 9:15:13	0	0	0	757	2	-	Yes
4	4/28/2022 9:19:14	0	0	0	757	2	-	Yes
5	4/28/2022 9:23:15	0	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**49.79**	**6711776**	**0.50**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 9:28:06	50.17	6761745	1	759	2	-	Yes
2	4/28/2022 9:31:51	49.65	6693210	1	758	2	-	Yes
3	4/28/2022 9:34:51	49.65	6692668	1	758	2	-	Yes
4	4/28/2022 9:37:50	49.70	6699483	1	757	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**49.87**	**6722497**	**0.56**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 9:41:40	49.98	6737172	1	757	2	-	Yes
2	4/28/2022 9:45:24	49.50	6673212	1	757	2	-	Yes
3	4/28/2022 9:48:16	50.18	6763077	1	756	2	-	Yes
4	4/28/2022 9:51:13	49.83	6716529	1	756	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 9:55:12	0	0	0	756	2	-	Yes
2	4/28/2022 9:59:50	0	0	0	756	2	-	Yes
3	4/28/2022 10:03:52	0	0	0	756	2	-	Yes
4	4/28/2022 10:07:53	0	0	0	755	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	3	Unknown	1134804	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**83.44**	**11182032**	**0.93**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 10:12:45	84.33	11300990	1	755	2	-	Yes
2	4/28/2022 10:16:34	83.78	11227151	1	756	2	-	Yes
3	4/28/2022 10:19:25	82.53	11061544	1	755	2	-	Yes
4	4/28/2022 10:22:23	83.11	11138446	1	755	2	-	Yes

---

6 4 Unknown 1134805 1 x

	TC	**77.99**	**10458599**	**0.24**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 10:26:25	77.99	10458237	1	756	2	-	Yes
2	4/28/2022 10:29:52	77.75	10426111	1	756	2	-	Yes
3	4/28/2022 10:32:45	78.02	10462149	1	755	2	-	Yes
4	4/28/2022 10:35:46	78.21	10487900	1	755	2	-	Yes

---

7 S1 Unknown CCV 1 x

	TC	**50.06**	**6747477**	**1.41**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 10:39:34	50.98	6869076	1	755	2	-	Yes
2	4/28/2022 10:43:15	49.82	6715815	1	755	2	-	Yes
3	4/28/2022 10:46:12	50.18	6762981	1	754	2	-	Yes
4	4/28/2022 10:49:10	49.27	6642039	1	754	2	-	Yes

---

8 5 Unknown CCB 1 x

	TC	**0.00**	**0**	**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	4/28/2022 10:53:09	0	0	0	755	2	-	Yes
2	4/28/2022 10:57:46	ZERO !	58557	1	754	2	-	-
3	4/28/2022 10:59:59	0	0	0	753	2	-	Yes
4	4/28/2022 11:04:00	0	0	0	754	2	-	Yes
5	4/28/2022 11:08:02	0	0	0	754	2	-	Yes

Analysis Name 050222 - 211613.adb

Template Name 050222 - 211613.tdb
Method Name N / A
Operator TMG

Date Monday, May 2, 2022
Time 9:21

Start Oven Temp. 758 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0590 INSTRUMENT:TOCW
CCV0588 LCS0589 SPIKE 0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0590 - 042722	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 9:21:32	ZERO !	74819	1	758	2	-	-
2	5 2 2022 9:24:21	0	0	0	757	2	-	Yes
3	5 2 2022 9:28:23	0	0	0	758	2	-	Yes
4	5 2 2022 9:32:25	0	0	0	758	2	-	Yes
5	5 2 2022 9:36:25	0	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**48.66**	**6561892**	**0.52**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 9:41:18	48.97	6602820	1	759	2	-	Yes
2	5 2 2022 9:45:02	48.70	6567133	1	759	2	-	Yes
3	5 2 2022 9:48:00	48.35	6520193	1	758	2	-	Yes
4	5 2 2022 9:50:56	48.63	6557424	1	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**48.64**	**6558063**	**1.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 9:54:48	47.93	6464807	1	759	2	-	Yes
2	5 2 2022 9:58:35	48.88	6590110	1	758	2	-	Yes
3	5 2 2022 10:01:34	48.68	6563621	1	758	2	-	Yes
4	5 2 2022 10:04:43	49.05	6613714	1	757	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 10:08:33	0	0	0	758	2	-	Yes
2	5 2 2022 10:13:10	0	0	0	758	2	-	Yes
3	5 2 2022 10:17:12	0	0	0	758	2	-	Yes
4	5 2 2022 10:21:14	0	0	0	758	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	3	Unknown	1136209	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**82.05**	**10997649**	**0.64**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 10:26:08	82.73	11087565	1	758	2	-	Yes
2	5 2 2022 10:29:52	82.22	11020884	1	758	2	-	Yes
3	5 2 2022 10:33:04	81.62	10940951	1	757	2	-	Yes
4	5 2 2022 10:36:05	81.62	10941198	1	756	2	-	Yes

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6 4 Unknown 1136210 1 x

TC **83.00** **11124933** **1.74** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 10:40:03	84.60	11336559	1	756	2	-	Yes
2	5 2 2022 10:43:44	83.60	11204116	1	756	2	-	Yes
3	5 2 2022 10:46:49	82.65	11077746	1	756	2	-	Yes
4	5 2 2022 10:49:43	81.17	10881311	1	755	2	-	Yes

---

7 5 Unknown 1136211 1 x

TC **60.18** **8092121** **0.36** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 10:53:33	59.87	8050888	1	755	2	-	Yes
2	5 2 2022 10:57:02	60.38	8118211	1	755	2	-	Yes
3	5 2 2022 10:59:53	60.28	8105217	1	755	2	-	Yes
4	5 2 2022 11:02:51	60.20	8094169	1	755	2	-	Yes

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8 S1 Unknown CCV 1 x

TC **49.89** **6725032** **0.44** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 11:06:42	49.61	6687338	1	755	2	-	Yes
2	5 2 2022 11:10:21	50.04	6744593	1	754	2	-	Yes
3	5 2 2022 11:13:30	50.09	6751891	1	754	2	-	Yes
4	5 2 2022 11:16:33	49.83	6716306	1	754	2	-	Yes

---

9 6 Unknown CCB 1 x

TC **0.00** **0** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 2 2022 11:20:24	0	0	0	754	2	-	Yes
2	5 2 2022 11:25:02	0	0	0	753	2	-	Yes
3	5 2 2022 11:29:03	0	0	0	753	2	-	Yes
4	5 2 2022 11:33:04	0	0	0	754	2	-	Yes

Analysis Name 050422 - 211696 211697.adb

Template Name 050422 - 211696 211697.tdb
Method Name N / A
Operator TMG

Date Wednesday, May 4, 2022
Time 11:07

Start Oven Temp. 758 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0590 INSTRUMENT:TOCW
CCV0588 LCS0589 SPIKE0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0590 - 042722	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 11:18:15	ZERO !	78016	1	760	2	-	-
2	5 4 2022 11:21:05	0	0	0	758	2	-	Yes
3	5 4 2022 11:25:07	0	0	0	758	2	-	Yes
4	5 4 2022 11:29:08	0	0	0	757	2	-	Yes
5	5 4 2022 11:33:10	0	0	0	756	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**48.53**	**6544127**	**0.81**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 11:38:02	48.51	6541861	1	756	2	-	Yes
2	5 4 2022 11:41:39	48.53	6544376	1	756	2	-	Yes
3	5 4 2022 11:44:39	48.05	6480492	1	756	2	-	Yes
4	5 4 2022 11:47:39	49.02	6609779	1	756	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
3	S5	Unknown	LCSW	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**48.33**	**6517280**	**0.80**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 11:51:30	47.97	6469799	1	756	2	-	Yes
2	5 4 2022 11:55:10	48.11	6487862	1	756	2	-	Yes
3	5 4 2022 11:58:10	48.38	6524065	1	756	2	-	Yes
4	5 4 2022 12:01:03	48.86	6587397	1	755	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 12:04:56	0	0	0	755	2	-	Yes
2	5 4 2022 12:09:33	0	0	0	755	2	-	Yes
3	5 4 2022 12:13:35	0	0	0	754	2	-	Yes
4	5 4 2022 12:17:37	0	0	0	754	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	3	Unknown	1134804	1 x

	Injection Type	Conc.	Area	CV	Inj. Volume
	TC	**ZERO !**	**84802**	**10.82**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 12:22:31	ZERO !	91816	1	754	2	-	Yes
2	5 4 2022 12:25:21	ZERO !	79578	1	753	2	-	Yes
3	5 4 2022 12:27:31	ZERO !	93246	1	752	2	-	Yes
4	5 4 2022 12:29:42	ZERO !	74569	1	752	2	-	Yes
5	5 4 2022 12:31:49	0	0	0	752	2	-	-

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6 4 Unknown DUP1134804 1 x

	TC	**ZERO !**	**31810**	**115.93**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 12:36:42	0	0	0	753	2	-	Yes
2	5 4 2022 12:41:20	ZERO !	59619	1	753	2	-	Yes
3	5 4 2022 12:43:29	ZERO !	67621	1	753	2	-	Yes
4	5 4 2022 12:45:39	0	0	0	752	2	-	Yes
5	5 4 2022 12:49:41	0	0	0	752	2	-	-

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7 5 Unknown MSW1134804 1 x

	TC	**48.91**	**6594684**	**0.80**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 12:54:34	49.50	6672317	1	753	2	-	Yes
2	5 4 2022 12:58:04	48.83	6584087	1	752	2	-	Yes
3	5 4 2022 13:01:08	48.70	6566422	1	752	2	-	Yes
4	5 4 2022 13:03:55	48.62	6555910	1	752	2	-	Yes

---

8 6 Unknown MDSW1134804 1 x

	TC	**48.40**	**6526963**	**0.42**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 13:07:42	48.57	6548780	1	752	2	-	Yes
2	5 4 2022 13:11:19	48.25	6506747	1	752	2	-	Yes
3	5 4 2022 13:14:16	48.20	6500188	1	752	2	-	Yes
4	5 4 2022 13:17:03	48.59	6552138	1	752	2	-	Yes

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9 7 Unknown 1134805 1 x

	TC	**ZERO !**	**100467**	**9.22**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 13:20:46	0.12	111259	1	752	2	-	Yes
2	5 4 2022 13:23:45	ZERO !	95699	1	752	2	-	Yes
3	5 4 2022 13:25:57	ZERO !	90388	1	751	2	-	Yes
4	5 4 2022 13:28:04	0.07	104524	1	750	2	-	Yes

---

10 8 Unknown 1136203 1 x

	TC	**0.00**	**0**	**0.00**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 13:31:55	0	0	0	751	2	-	Yes
2	5 4 2022 13:36:33	0	0	0	752	2	-	Yes
3	5 4 2022 13:40:35	0	0	0	753	2	-	Yes
4	5 4 2022 13:44:36	0	0	0	753	2	-	Yes

---

11 9 Unknown DUP1136203 1 x

	TC	**0.00**	**0**	**0.00**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 13:49:30	0	0	0	753	2	-	Yes
2	5 4 2022 13:54:08	0	0	0	753	2	-	Yes
3	5 4 2022 13:58:10	0	0	0	752	2	-	Yes
4	5 4 2022 14:02:11	0	0	0	753	2	-	Yes

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12 10 Unknown MSW1136203 1 x

	TC	**47.12**	**6356114**	**1.13**		**100 µl**		
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 14:07:05	46.33	6251997	1	753	2	-	Yes
2	5 4 2022 14:10:30	47.19	6366500	1	752	2	-	Yes
3	5 4 2022 14:13:13	47.48	6404473	1	752	2	-	Yes
4	5 4 2022 14:15:55	47.46	6401486	1	752	2	-	Yes

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13 11 Unknown MSDW1136203 1 x

		TC	**47.22**	**6370169**		**0.88**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 14:19:32	47.09	6352326	1	753	2	-	Yes
	2	5 4 2022 14:22:53	47.63	6424318	1	752	2	-	Yes
	3	5 4 2022 14:25:39	47.48	6404748	1	752	2	-	Yes
	4	5 4 2022 14:28:20	46.69	6299286	1	752	2	-	Yes
14	12	Unknown	1136204				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 14:31:54	0	0	0	752	2	-	Yes
	2	5 4 2022 14:36:32	0	0	0	752	2	-	Yes
	3	5 4 2022 14:40:34	0	0	0	752	2	-	Yes
	4	5 4 2022 14:44:35	0	0	0	752	2	-	Yes
15	S1	Unknown	CCV				1 x		
		TC	**47.13**	**6358800**		**0.62**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 14:49:29	47.18	6365190	1	752	2	-	Yes
	2	5 4 2022 14:53:14	46.94	6332968	1	752	2	-	Yes
	3	5 4 2022 14:56:12	46.89	6325490	1	752	2	-	Yes
	4	5 4 2022 14:59:13	47.53	6411552	1	752	2	-	Yes
16	S5	Unknown	LCSW				1 x		
		TC	**47.48**	**6404663**		**0.52**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 15:03:05	47.34	6386158	1	752	2	-	Yes
	2	5 4 2022 15:06:56	47.60	6419952	1	752	2	-	Yes
	3	5 4 2022 15:09:59	47.22	6369388	1	752	2	-	Yes
	4	5 4 2022 15:12:53	47.77	6443157	1	752	2	-	Yes
17	13	Unknown	MBW-CCB				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 15:16:51	0	0	0	752	2	-	Yes
	2	5 4 2022 15:21:28	0	0	0	752	2	-	Yes
	3	5 4 2022 15:25:29	0	0	0	752	2	-	Yes
	4	5 4 2022 15:29:31	0	0	0	752	2	-	Yes
18	14	Unknown	1136205				1 x		
		TC	**ZERO !**	**52991**		**14.57**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 15:34:25	ZERO !	59634	1	752	2	-	Yes
	2	5 4 2022 15:37:10	ZERO !	52292	1	751	2	-	Yes
	3	5 4 2022 15:39:16	ZERO !	57654	1	751	2	-	Yes
	4	5 4 2022 15:41:22	ZERO !	42385	1	751	2	-	Yes
	5	5 4 2022 15:43:33	0	0	0	751	2	-	-
19	15	Unknown	1136206				1 x		
		TC	**ZERO !**	**106680**		**12.05**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 15:48:27	0.08	107017	1	752	2	-	Yes
	2	5 4 2022 15:51:22	0.07	105074	1	752	2	-	Yes
	3	5 4 2022 15:53:28	0.20	122997	1	752	2	-	Yes
	4	5 4 2022 15:55:36	ZERO !	91633	1	752	2	-	Yes
	5	5 4 2022 15:57:39	0	0	0	751	2	-	-
20	16	Unknown	1136207				1 x		
		TC	**ZERO !**	**68018**		**67.15**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 16:02:33	ZERO !	84964	1	752	2	-	Yes
	2	5 4 2022 16:05:18	ZERO !	89026	1	751	2	-	Yes
	3	5 4 2022 16:07:20	0.02	98082	1	751	2	-	Yes
	4	5 4 2022 16:09:24	ZERO !	-28443	1	751	2	-	-

5	5 4 2022 16:12:57	0	0	0	752	2	-	Yes

21	17	Unknown	1136208					1 x	
		TC	**ZERO !**	**-41353**		**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 16:17:50	ZERO !	-71283	1	753	2	-	Yes	
2	5 4 2022 16:21:42	0	0	0	752	2	-	-	
3	5 4 2022 16:25:43	ZERO !	-59063	1	752	2	-	Yes	
4	5 4 2022 16:29:07	ZERO !	-35067	1	752	2	-	Yes	
5	5 4 2022 16:32:12	0	0	0	751	2	-	Yes	

22	18	Unknown	1136209					1 x	
		TC	**ZERO !**	**60246**		**66.83**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 16:37:06	ZERO !	80193	1	753	2	-	Yes	
2	5 4 2022 16:39:49	ZERO !	76922	1	752	2	-	Yes	
3	5 4 2022 16:41:51	ZERO !	83870	1	751	2	-	Yes	
4	5 4 2022 16:43:51	ZERO !	-17875	1	751	2	-	-	
5	5 4 2022 16:47:26	0	0	0	752	2	-	Yes	

23	19	Unknown	1136210					1 x	
		TC	**ZERO !**	**55863**		**68.12**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 16:52:21	ZERO !	63526	1	753	2	-	Yes	
2	5 4 2022 16:55:06	ZERO !	-48726	1	752	2	-	-	
3	5 4 2022 16:58:48	ZERO !	81352	1	752	2	-	Yes	
4	5 4 2022 17:00:50	ZERO !	78576	1	751	2	-	Yes	
5	5 4 2022 17:02:52	0	0	0	751	2	-	Yes	

24	20	Unknown	1136211					1 x	
		TC	**0.00**	**0**		**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 17:07:46	0	0	0	752	2	-	Yes	
2	5 4 2022 17:12:23	0	0	0	752	2	-	Yes	
3	5 4 2022 17:16:24	0	0	0	752	2	-	Yes	
4	5 4 2022 17:20:26	0	0	0	752	2	-	Yes	

25	21	Unknown	1136213					1 x	
		TC	**0.00**	**0**		**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 17:25:20	0	0	0	752	2	-	Yes	
2	5 4 2022 17:29:57	0	0	0	751	2	-	Yes	
3	5 4 2022 17:33:58	0	0	0	752	2	-	Yes	
4	5 4 2022 17:37:59	0	0	0	752	2	-	Yes	

26	22	Unknown	1136214					1 x	
		TC	**0.00**	**0**		**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 17:42:53	0	0	0	752	2	-	Yes	
2	5 4 2022 17:47:31	0	0	0	752	2	-	Yes	
3	5 4 2022 17:51:33	0	0	0	752	2	-	Yes	
4	5 4 2022 17:55:33	0	0	0	752	2	-	Yes	

27	23	Unknown	1136215					1 x	
		TC	**0.00**	**0**		**0.00**		**100 µl**	
Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
1	5 4 2022 18:00:29	0	0	0	752	2	-	Yes	
2	5 4 2022 18:05:07	0	0	0	752	2	-	Yes	
3	5 4 2022 18:09:08	0	0	0	752	2	-	Yes	
4	5 4 2022 18:13:10	0	0	0	751	2	-	Yes	

28	S1	Unknown	CCV					1 x	
		TC	**47.18**	**6364262**		**0.44**		**100 µl**	

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 18:18:06	47.48	6404529	1	752	2	-	Yes
2	5 4 2022 18:22:01	47.00	6341249	1	751	2	-	Yes
3	5 4 2022 18:25:02	47.11	6355332	1	751	2	-	Yes
4	5 4 2022 18:27:58	47.11	6355941	1	751	2	-	Yes

29 24 Unknown CCB 1 x

TC 0.00 0 0.00 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 18:31:49	0	0	0	751	2	-	Yes
2	5 4 2022 18:36:27	0	0	0	752	2	-	Yes
3	5 4 2022 18:40:28	0	0	0	752	2	-	Yes
4	5 4 2022 18:44:29	0	0	0	752	2	-	Yes

30 25 Unknown 1136216 1 x

TC ZERO ! 94428 6.61 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 18:49:25	0.04	101655	1	752	2	-	Yes
2	5 4 2022 18:52:18	ZERO !	95535	1	752	2	-	Yes
3	5 4 2022 18:54:22	ZERO !	94053	1	751	2	-	Yes
4	5 4 2022 18:56:31	ZERO !	86469	1	751	2	-	Yes

31 26 Unknown 1136217 1 x

TC 0.50 161714 9.58 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 19:00:35	0.65	182357	1	752	2	-	Yes
2	5 4 2022 19:03:30	0.49	160582	1	751	2	-	Yes
3	5 4 2022 19:05:37	0.37	144805	1	751	2	-	Yes
4	5 4 2022 19:07:40	0.48	159112	1	751	2	-	Yes

32 27 Unknown 1136588 1 x

TC ZERO ! -47756 0.00 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 19:11:44	0	0	0	752	2	-	-
2	5 4 2022 19:16:21	ZERO !	-84756	1	752	2	-	Yes
3	5 4 2022 19:19:58	0	0	0	751	2	-	Yes
4	5 4 2022 19:23:59	ZERO !	-106270	1	752	2	-	Yes
5	5 4 2022 19:27:32	0	0	0	752	2	-	Yes

33 28 Unknown DUP1136588 1 x

TC ZERO ! -42597 0.00 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 19:32:29	0	0	0	752	2	-	Yes
2	5 4 2022 19:37:07	ZERO !	-86364	1	752	2	-	Yes
3	5 4 2022 19:40:45	ZERO !	63074	1	752	2	-	-
4	5 4 2022 19:42:48	ZERO !	-84025	1	751	2	-	Yes
5	5 4 2022 19:46:36	0	0	0	752	2	-	Yes

34 29 Unknown MSW1136588 1 x

TC 47.40 6393095 0.76 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 19:51:28	47.05	6347193	1	752	2	-	Yes
2	5 4 2022 19:54:50	47.36	6388177	1	752	2	-	Yes
3	5 4 2022 19:57:34	47.27	6376031	1	751	2	-	Yes
4	5 4 2022 20:00:13	47.90	6460980	1	752	2	-	Yes

35 30 Unknown MSDW1136588 1 x

TC 48.24 6505586 1.50 100 µl

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 20:03:49	49.17	6628951	1	752	2	-	Yes
2	5 4 2022 20:07:18	48.37	6522656	1	752	2	-	Yes
3	5 4 2022 20:09:59	47.41	6394917	1	752	2	-	Yes
4	5 4 2022 20:12:40	48.02	6475823	1	751	2	-	Yes

36	31	Unknown	1136671				1 x		
		TC	**ZERO !**	**92057**		**6.50**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 20:16:19	ZERO !	87877	1	751	2	-	Yes
	2	5 4 2022 20:19:00	0.04	100673	1	751	2	-	Yes
	3	5 4 2022 20:21:01	ZERO !	88122	1	751	2	-	Yes
	4	5 4 2022 20:23:02	ZERO !	91558	1	751	2	-	Yes

37	32	Unknown	1136672				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 20:27:28	0	0	0	752	2	-	Yes
	2	5 4 2022 20:32:05	0	0	0	752	2	-	Yes
	3	5 4 2022 20:36:06	0	0	0	752	2	-	Yes
	4	5 4 2022 20:40:08	0	0	0	752	2	-	Yes

38	33	Unknown	1136673				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 20:45:04	0	0	0	752	2	-	Yes
	2	5 4 2022 20:49:41	0	0	0	752	2	-	Yes
	3	5 4 2022 20:53:43	0	0	0	752	2	-	Yes
	4	5 4 2022 20:57:44	0	0	0	752	2	-	Yes

39	34	Unknown	1136674				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 21:02:39	0	0	0	752	2	-	Yes
	2	5 4 2022 21:07:16	0	0	0	752	2	-	Yes
	3	5 4 2022 21:11:18	0	0	0	752	2	-	Yes
	4	5 4 2022 21:15:20	0	0	0	752	2	-	Yes

40	S2	Unknown	CCV				1 x		
		TC	**48.21**	**6501471**		**0.26**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 21:20:18	48.24	6505854	1	752	2	-	Yes
	2	5 4 2022 21:24:09	48.03	6477604	1	751	2	-	Yes
	3	5 4 2022 21:27:14	48.24	6506089	1	752	2	-	Yes
	4	5 4 2022 21:30:18	48.32	6516338	1	752	2	-	Yes

41	35	Unknown	CCB				1 x		
		TC	**0.00**	**0**		**0.00**		**100 µl**	
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 4 2022 21:34:12	0	0	0	752	2	-	Yes
	2	5 4 2022 21:38:49	0	0	0	752	2	-	Yes
	3	5 4 2022 21:42:50	0	0	0	752	2	-	Yes
	4	5 4 2022 21:46:51	0	0	0	752	2	-	Yes

42	36	Unknown	1137438				1 x			NOT USED
		TC	**ZERO !**	**42261**		**66.97**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	5 4 2022 21:51:47	ZERO !	58667	1	752	2	-	Yes	
	2	5 4 2022 21:54:46	ZERO !	52568	1	751	2	-	Yes	
	3	5 4 2022 21:56:54	0	0	0	751	2	-	Yes	
	4	5 4 2022 22:00:56	ZERO !	57809	1	752	2	-	Yes	
	5	5 4 2022 22:03:03	0	0	0	752	2	-	-	

43	S2	Unknown	CCV				1 x			NOT USED
		TC	**43.22**	**5837452**		**7.87**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.	
	1	5 4 2022 22:07:59	47.34	6385576	1	753	2	-	Yes	

2	5 4 2022 22:11:45	44.45	6001858	1	752	2	-	Yes
3	5 4 2022 22:14:51	41.75	5642571	1	752	2	-	Yes
4	5 4 2022 22:18:01	39.32	5319803	1	752	2	-	Yes

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44 37 Unknown CCB 1 x NOT USED

TC **0.00** **0** **0.00** **100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 4 2022 22:22:23	0	0	0	752	2	-	Yes
2	5 4 2022 22:27:01	0	0	0	752	2	-	Yes
3	5 4 2022 22:31:01	0	0	0	752	2	-	Yes
4	5 4 2022 22:35:03	0	0	0	752	2	-	Yes

Analysis Name 050522 - 211697RR 211734.adb

Template Name 050522 - 211697RR 211734.tdb
Method Name N / A
Operator TMG

Date Thursday, May 5, 2022
Time 10:01

Start Oven Temp. 756 °C
Start Cooler Temp. 2 °C

Version 2.55 Release
Info ICAL0590 INSTRUMENT:TOCW
CCV0588 LCS0589 SPIKE0439

Element	Integration Time	Samples	Extra Samples	Max. CV
Carbon	60 s	4	1	10 %
SampleTime	240 s			

No	Type	FileName	Date/Time	Max. Area	Max Conc.	Order	Correlation	Volume	Sel.
1	TC	TOC0590 - 042722	Apr 27 2022, 9:08	13373923	100	1	0.99952	100 µl	Yes
	A2: 0		*A1: 132870.760830549*		*A0: 95820.1687664372*				

Inj. Order	Position	Type	Identification	Dilution Factor
1	1	Unknown	IB	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 5 2022 10:11:47	ZERO !	79327	1	755	2	-	-
2	5 5 2022 10:14:35	0	0	0	754	2	-	Yes
3	5 5 2022 10:18:37	0	0	0	754	2	-	Yes
4	5 5 2022 10:22:39	0	0	0	755	2	-	Yes
5	5 5 2022 10:26:40	0	0	0	754	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
2	S1	Unknown	CCV	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**49.66**	**6694171**	**1.24**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 5 2022 10:31:32	48.75	6573606	1	754	2	-	Yes
2	5 5 2022 10:35:07	49.98	6736984	1	754	2	-	Yes
3	5 5 2022 10:38:11	50.14	6758198	1	753	2	-	Yes
4	5 5 2022 10:41:13	49.76	6707898	1	753	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
4	2	Unknown	MBW	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**0.00**	**0**	**0.00**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 5 2022 10:58:55	0	0	0	753	2	-	Yes
2	5 5 2022 11:03:32	0	0	0	753	2	-	Yes
3	5 5 2022 11:07:34	0	0	0	753	2	-	Yes
4	5 5 2022 11:11:36	0	0	0	752	2	-	Yes

Inj. Order	Position	Type	Identification	Dilution Factor
5	3	Unknown	1137438	1 x

Injection Type	Conc.	Area	CV	Inj. Volume
TC	**ZERO !**	**45686**	**69.84**	**100 µl**

Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
1	5 5 2022 11:16:29	ZERO !	66716	1	753	2	-	Yes
2	5 5 2022 11:19:16	ZERO !	47503	1	752	2	-	Yes
3	5 5 2022 11:21:27	ZERO !	68527	1	752	2	-	Yes
4	5 5 2022 11:23:33	0	0	0	752	2	-	Yes
5	5 5 2022 11:27:34	0	0	0	752	2	-	-

15	S1	Unknown	CCV				1 x		
		TC	**46.41**	**6262697**	**2.60**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 5 2022 13:51:44	44.65	6028116	1	752	2	-	Yes
	2	5 5 2022 13:55:17	46.53	6278466	1	752	2	-	Yes
	3	5 5 2022 13:58:14	47.14	6359210	1	752	2	-	Yes
	4	5 5 2022 14:01:13	47.33	6384997	1	752	2	-	Yes

16	13	Unknown	CCB				1 x		
		TC	**0.00**	**0**	**0.00**		**100 µl**		
	Sample	Inj. Time	Conc.	Area	Curve	Oven	Cooler	Edited	Sel.
	1	5 5 2022 14:05:07	0	0	0	752	2	-	Yes
	2	5 5 2022 14:09:45	0	0	0	752	2	-	Yes
	3	5 5 2022 14:13:47	0	0	0	752	2	-	Yes
	4	5 5 2022 14:17:48	0	0	0	752	2	-	Yes

INORGANICS
LOGBOOK
DOCUMENTS

WCOD QSM Analytical Run
211565 on 5/2/2022

D1 12

Date Analyzed:

Date Reviewed:

Date Entered:

Date Validated:

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136212		4/26/2022 17:44			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	COD QSM		GW	4	
		54IDW							95239			
	1136533							COD QSM				
				MBW					95239			
	1136534							COD QSM				
				LCSW					95239			
	1136535		4/26/2022 17:44					COD QSM				
		54IDW		DUP	1136212				95239			
	1136536		4/26/2022 17:44					COD QSM				
		54IDW		MSW	1136212				95239			
	1136537		4/26/2022 17:44					COD QSM				
		54IDW		MSDW	1136536				95239			
	1137654							WCOD QSM				
				ICV								
	1137655							WCOD QSM				
				ICB								
	1137656							WCOD QSM				
				CCV								
	1137657							WCOD QSM				
				CCB								
	1137658							WCOD QSM				
				CCV								
	1137659							WCOD QSM				
				CCB								

12 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpADB.tmp

PrepWrkSht2
on 5/17/2022

Prep Batch: **95239**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time	Due Date	SDG Level
	1136533	MBW		COD QSM			LIQUID			
	1136534	LCSW		COD QSM			LIQUID			
169156	1136212			COD QSM	WESTON SOLUTIONS, INC.	54IDW	GROUND WATER	4/26/22 17:44	5/10/22	4
	1136535	DUP	1136212	COD QSM		54IDW	GROUND WATER	4/26/22 17:44		
	1136536	MSW	1136212	COD QSM		54IDW	GROUND WATER	4/26/22 17:44		
	1136537	MSDW	1136536	COD QSM		54IDW	GROUND WATER	4/26/22 17:44		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp93FA.tmp

COD Data Validation Checklist

		Method: Chemical Oxygen Demand EPA 410.4			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
211565	04/29/2022	RLB	etk	05/02/2022	yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Does a digestion sheet accompany the data package?	---	Yes		Yes		
2. Does the digestion sheet include all reagent and standard prep log numbers?	---	Yes		Yes		
3. Was a passing calibration test applied to sample analysis?	≥0.995	Yes		Yes		
4. Was a passing ICV analyzed immediately after the calibration?	90-110%	Yes		Yes		
5. Was a passing ICB analyzed immediately after the ICV?	< |LOD|or client/project specific	Yes		Yes		
6. Were CCVs and CCB analyzed at the required frequency?	1 per 10 samples	Yes		Yes		
7. Did analyzed CCVs meet the required acceptance criteria?	90-110%	Yes		Yes		
8. Did analyzed CCBs meet the acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
9. Was a Method Blank prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
10. Was the method blank within acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
11. Was an LCS prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
12. Did the LCS meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		
13. Was an MS and MSD prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
14. Did the MS/ MSD's meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		

15. Did the MS/MSD's meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
16. Was a Duplicate prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
17. Did the Duplicate meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
18. Were the samples digested within hold time?	28 days	Yes		Yes		
19. Was the max temperature(s) for reactor(s) documented?	---	Yes		Yes		
20. Was the method specifed temperature reached?		Yes		Yes		
21. Were reagents/standards used before expiration date?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		

CHEMICAL OXYGEN DEMAND REAGENT LOG

Prep Batch(es): 95239
Date/Time/Analyst: 04/29/2022 11:00:00 RLB
Run(s): 211565
Date/Time/Analyst: 04/29/2022 16:52 RLB

Reagents:	W #	Exp Date
ICAL Preparation	W52634	07/12/2022
CCV Preparation	W52637	07/12/2022
LCS/ICV Preparation	W52635	07/12/2022
Silver Sulfate Acid	W52533	03/22/2023
Potassium Dichromate Dig Solution	W51903	11/15/2022

Spiked Samples:	W #	Exp Date
Spiking Solution	W52637	07/12/2022

Concentration 2000 mg/L
Volume of Spike Used 0.2 mL
Final Sample Volume 2.5 mL
Final Spike Concentration 148.2 mg/L

Date: 04/29/2022
Time: 14:30

COD DIGESTION BLOCK TEMPS

	A	B
Temperature (Max) 150°C ± 2°C:		

	E	D
Temperature (Max) 150°C ± 2°C:	150.3	

WCOD QSM Analytical Run
211650 on 5/3/2022

Date Analyzed:

Date Reviewed:

Date Entered:

Date Validated:

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169227	1137439		4/29/2022 09:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	COD QSM		GW	4	
		49IDW							95270			
	1138063							COD QSM				
				MBW					95270			
	1138064							COD QSM				
				LCSW					95270			
	1138065		4/29/2022 09:45					COD QSM				
		49IDW		DUP	1137439				95270			
	1138066		4/29/2022 09:45					COD QSM				
		49IDW		MSW	1137439				95270			
	1138067		4/29/2022 09:45					COD QSM				
		49IDW		MSDW	1138066				95270			
	1138178							WCOD QSM				
				ICV								
	1138179							WCOD QSM				
				ICB								
	1138180							WCOD QSM				
				CCV								
	1138181							WCOD QSM				
				CCB								
	1138182							WCOD QSM				
				CCV								
	1138183							WCOD QSM				
				CCB								

12 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PrepWrkSht2
on 5/17/2022

Prep Batch: **95270**

Prepped By: _____

Date Prepped: _____

Date Entered: _____

Folder #	Order	QC Type	Link	Test	Client Company Name	Client Sample Description	Matrix	Sample Date / Time		Due Date	SDG Level
	1138063	MBW		COD QSM			LIQUID				
	1138064	LCSW		COD QSM			LIQUID				
169227	1137439			COD QSM	WESTON SOLUTIONS, INC.	49IDW	GROUND WATER	4/29/22	09:45	5/12/22	4
	1138065	DUP	1137439	COD QSM		49IDW	GROUND WATER	4/29/22	09:45		
	1138066	MSW	1137439	COD QSM		49IDW	GROUND WATER	4/29/22	09:45		
	1138067	MSDW	1138066	COD QSM		49IDW	GROUND WATER	4/29/22	09:45		

Control Spike/Control Spike Dup Reference Number:_____ Methanol Supplier/Lot #:_____

Notes:_____

Distibution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp7651.tmp

COD Data Validation Checklist

		Method: Chemical Oxygen Demand EPA 410.4			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
211650	05/03/2022	RLB	etk	05/03/2022	yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Does a digestion sheet accompany the data package?	---	Yes		Yes		
2. Does the digestion sheet include all reagent and standard prep log numbers?	---	Yes		Yes		
3. Was a passing calibration test applied to sample analysis?	≥0.995	Yes		Yes		
4. Was a passing ICV analyzed immediately after the calibration?	90-110%	Yes		Yes		
5. Was a passing ICB analyzed immediately after the ICV?	< |LOD|or client/project specific	Yes		Yes		
6. Were CCVs and CCB analyzed at the required frequency?	1 per 10 samples	Yes		Yes		
7. Did analyzed CCVs meet the required acceptance criteria?	90-110%	Yes		Yes		
8. Did analyzed CCBs meet the acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
9. Was a Method Blank prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
10. Was the method blank within acceptance criteria?	< |LOD|or client/project specific	Yes		Yes		
11. Was an LCS prepared at the required frequency?	1per 20 samples or at contract/program specific frequencies	Yes		Yes		
12. Did the LCS meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		
13. Was an MS and MSD prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
14. Did the MS/ MSD's meet the acceptance criteria?	90-110% or Within in-house or contract/program specific limits	Yes		Yes		

15. Did the MS/MSD's meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
16. Was a Duplicate prepared at the required frequency?	1per 10 per batch or at contract/program specific frequencies	Yes		Yes		
17. Did the Duplicate meet the RPD criteria?	Within in-house or contract/program specific limits	Yes		Yes		
18. Were the samples digested within hold time?	28 days	Yes		Yes		
19. Was the max temperature(s) for reactor(s) documented?	---	Yes		Yes		
20. Was the method specifed temperature reached?		Yes		Yes		
21. Were reagents/standards used before expiration date?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		

CHEMICAL OXYGEN DEMAND REAGENT LOG

Prep Batch(es): 95270
Date/Time/Analyst: 05/03/2022 9:00:00 RLB
Run(s): 211650
Date/Time/Analyst: 05/03/2022 13:32 RLB

Reagents:	W #	Exp Date
ICAL Preparation	W52634	07/12/2022
CCV Preparation	W52637	07/12/2022
LCS/ICV Preparation	W52635	07/12/2022
Silver Sulfate Acid	W52533	03/22/2023
Potassium Dichromate Dig Solution	W51903	11/15/2022

Spiked Samples:	W #	Exp Date
Spiking Solution	W52637	07/12/2022

Concentration 2000 mg/L
Volume of Spike Used 0.2 mL
Final Sample Volume 2.5 mL
Final Spike Concentration 148.2 mg/L

Date: 05/03/2022
Time: 10:00

COD DIGESTION BLOCK TEMPS

	A	B
Temperature (Max) 150°C ± 2°C:		

	E	D
Temperature (Max) 150°C ± 2°C:	150.3	

WANIONS IC QSM 5.0 Anion Run
211440 on 4/27/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1135344						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
		Sulfate		ICV							
	1135345						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1135214						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1135215						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1135216						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211440 on 4/27/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1135217							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1135219							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
169098	1134804		4/25/2022	12:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride			*							
		Nitrate Nitrogen			*							
		Sulfate			*							
	1135223		4/25/2022	12:10				ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1134804			0			
		Chloride			DUP	1134804			0			
		Sulfate			DUP	1134804			0			
	1135224		4/25/2022	12:10				ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSW	1134804			0			
		Chloride			MSW	1134804			0			
		Sulfate			MSW	1134804			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211440 on 4/27/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1135225		4/25/2022	12:10					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1135224				0			
		Chloride			MSDW	1135224				0			
		Sulfate			MSDW	1135224				0			
169098	1134805		4/25/2022	14:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride											
		Nitrate Nitrogen											
		Sulfate											
169098	1134805		4/25/2022	14:55			WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***										
		Sulfate	***RERUN***										
		Nitrate Nitrogen	***RERUN***										
	1135226								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV					0			
		Chloride			CCV					0			
		Sulfate			CCV					0			
	1135228								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB					0			
		Chloride			CCB					0			
		Sulfate			CCB					0			

45

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Data Review Checklist

	Method: Anions by Ion Chromatography 300.0/9056	Independent Data Review Checklist	Instrument: Aquion - System 4

LIMS Run #(s)	Analysis Date	Analyst/Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes/No)
211440 211441	04/26/2022	TMG	RLD	04/27/2022	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flagged
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

Aquion Run Log - System 4

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviewed/Date
03/21/22	12:11	03/22/22	09:51	TMG	210377 210378	IC4047A	032122 -	IC4040 IC4048	IC4041 IC4049	IC4042 IC4050	21.64	1131.35	0.98		
03/22/22	12:17	03/23/22	09:47	TMG	210433 210434	IC4047A	032222 -	IC4040 IC4048	IC4041 IC4049	IC4042 IC4050	21.93	1127.03	0.98		
03/23/22	10:53	03/24/22	08:19	TMG	ML IC4051	ML IC4051	032322 -	IC4052	IC4053	NA	22.08	1147.9	1		
03/24/22	9:42	03/24/22	13:06	TMG	210475 ML	ML IC4051	032422 -	IC4052	IC4053	IC4056	22.17	1152.07	1		
03/24/22	14:15	03/25/22	03:12	TMG	210506	IC3602A	032422 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	22.16	1128.11	0.98		
03/25/22	9:23	03/25/22	12:42	TMG	210528	IC4047A	032522 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.82	1109.71	0.96		
03/25/22	13:48	03/26/22	02:09	TMG	210540	IC4047A	032522 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.51	1082.87	0.96		
03/26/22	17:04	03/27/22	03:19	TMG	210556 210557	IC4047A	032622 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.12	1092.51	0.96		
03/28/22	8:38	03/29/22	10:44	TMG	210498 210499	IC4047A	032822 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.06	1090.93	0.96		
03/29/22	12:03	03/30/22	00:36	TMG	210498 210499	IC4047A	032922 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.39	1091.59	0.96		
03/30/22	11:28	03/31/22	11:56	TMG	210576 210646	IC4047A	033022 -	IC4054 IC4057	IC4055 IC4058	IC4056 IC4059	21.01	1091.35	0.96		
03/31/22	13:25	04/01/22	01:10	TMG	210662 210679	IC4047A	033122 -	IC4067 IC4070	IC4068 IC4071	IC4069 IC4072	21.34	1087.65	0.96		
04/01/22	11:18	04/02/22	00:34	TMG	210695 210696	IC4047A	040122 -	IC4067 IC4070	IC4068 IC4071	IC4069 IC4072	21.06	1090.04	0.96		
04/02/22	16:39	04/03/22	03:30	TMG	210704	IC4047A	040222 -	IC4067 IC4070	IC4068 IC4071	IC4069 IC4072	21.07	1092.74	0.96		
04/04/22	10:25	04/05/22	09:59	TMG	210706 210724	IC4047A	040422 -	IC4067 IC4070	IC4068 IC4071	IC4069 IC4072	21.08	1091.97	0.96		
04/05/22	12:54	04/06/22	18:40	TMG	210757 210770	IC4047A	040522 -	IC4067 IC4070	IC4068 IC4071	IC4069 IC4072	21.39	1096.87	0.96		
04/06/22	20:07	04/07/22	12:15	TMG	210802 210803	IC4047A	040622 -	IC4067 IC4073	IC4068 IC4074	IC4069 IC4075	21.54	1096.72	0.96		
04/07/22	13:13	04/08/22	09:05	TMG	210831 210842	IC4047A	040722 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.61	1100.23	0.96		
04/08/22	11:26	04/11/22	08:40	TMG	210880 210884	IC4047A	040822 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.55	1097.53	0.96		
04/11/22	15:52	04/12/22	00:17	TMG	210965	IC4047A	041122 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.75	1104.7	0.96		
04/11/22	9:27	04/11/22	14:34	TMG	IC4083A	IC4083A	041122 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.75	1148.79	1		
04/12/22	7:56	04/12/22	14:16	TMG	210988	IC4047A	041222 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.44	1104.85	0.96		
04/12/22	15:00	04/13/22	10:31	TMG	211004 211005	IC4047A	041222 -	IC4076 IC4079	IC4077 IC4080	IC4078 IC4081	21.8	1113.8	0.96		
04/13/22	11:18	04/14/22	11:46	TMG	211044 211046 211082	IC4083A	041322 -	IC4076 IC4086	IC4077 IC4087	IC4078 IC4088	21.88	1098.91	0.96		
04/14/22	12:52	04/14/22	23:25	TMG	211109 211110 211111	IC4083A	041422 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	21.98	1112.76	0.96		
04/15/22	12:43	04/18/22	09:04	TMG	210769 211157	IC4083A	041522 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	21.81	1103.23	0.96		
04/18/22	10:24	04/18/22	20:21	TMG	211188 211198	IC4083A	041822 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	22.07	1105.74	0.96		
04/19/22	14:13	04/20/22	09:01	TMG	211240 211243	4047A	041922 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	21.57	1120.21	0.96		
04/20/22	10:03	04/21/22	10:02	TMG	211280	IC4083A	042022 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	21.53	1104.78	0.96		
04/21/22	12:05	04/22/22	01:38	TMG	211318 211334	IC4083A	042122 -	IC4095 IC4098	IC4096 IC4099	IC4097 IC4100	21.48	1123.56	0.96		
04/22/22	8:36	04/22/22	13:17	TMG	IC4101LL	IC4101LL	042222 -	NA	IC4102	NA	21.39	1150.25	1		
04/22/22	16:11	04/25/22	07:53	TMG	211371 LL	IC4101LL	042222 -	IC4102	IC4102	NA	21.51	1171.04	1		
04/25/22	10:05	04/25/22	15:41	TMG	IC4103 LL	IC4103LL	042522 -	NA	IC4104	NA	21.29	1171.85	1		
04/26/22	11:09	04/27/22	23:52	TMG	211371 LL	IC4103LL	042622 -	IC4104	IC4104	NA	21.47	1174.24	1		
04/26/22	12:15	04/27/22	08:04	TMG	211440 211441 IC4106A	IC4083A	042622B -	IC4095 IC4098	IC4096 IC4107	IC4097 IC4100	21.37	1126.3	0.96		
04/28/22	8:26	04/29/22	01:56	TMG	211371LL	IC4103LL	042822 -	IC4108	IC4108	IC4108B	21.21	1163.44	1		
04/29/22	12:27	04/30/22	00:55	TMG	211579LL	IC4103LL	042922 -	IC4108	IC4108	IC4108B	21.41	1171.47	1		
05/02/22	21:20	05/03/22	11:48	TMG	PTS	IC4116A	050222 -	IC4109 IC4117	IC4110 IC4118	IC4111 IC4119	21.46	1133.2	0.96		
05/02/22	13:30	05/02/22	19:43	TMG	IC4116A	IC4116A	050222B -	IC4109 IC4117	IC4110 IC4118	IC4111 IC4119	21.43	1216.13	1		
05/04/22	10:54	05/04/22	15:35	TMG	IC4120LL	IC4120LL	050422 -	NA	IC4121	NA	21.49	1174.48	1		
05/05/22	9:25	05/05/22	21:08	TMG	211604 LL	IC4120LL	050522 -	IC4121	IC4121	IC4129	21.44	1178.56	1		
05/06/22	10:08	05/06/22	21:51	TMG	211767 LL	IC4120LL	050622 -	IC4128	IC4128	IC4129	21.49	1179.14	1		
05/09/22	14:51	05/10/22	10:57	TMG	IC4136 LL	IC4136LL	050922 -	NA	IC4130	NA	21.6	1178.72	1		
05/12/22	8:36	05/12/22	15:05	TMG	IC4138 LL	IC4138LL	051222 -	NA	IC4139	NA	21.49	1173.4	1		
05/13/22	14:20	05/14/22	02:03	TMG	211810 LL	IC4120LL	051322 -	IC4139	IC4139	IC4146	21.73	1169.65	1		
05/16/22				TMG	212012 LL	IC4120LL	051622 -	IC4149	IC4149	IC4148			1		

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139965							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1139966							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB				0			
		Chloride			CCB				0			
		Sulfate			CCB				0			
169156	1136205		4/26/2022	10:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136206		4/26/2022	11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136207		4/26/2022	11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Chloride										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136208		4/26/2022	12:47		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136209		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136210		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136211		4/26/2022	16:44		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136213		4/27/2022	08:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136214		4/27/2022 11:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
169156	1136215		4/27/2022 12:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
	1139967						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1139968						WANIONS IC QSM 5.0				
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
		Sulfate		LCSW				0			
	1139969						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136216		4/27/2022	14:04		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136217		4/27/2022	15:37		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
169156	1136203		4/26/2022	08:21		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen			*							
		Chloride			*							
		Sulfate			*							
169156	1136204		4/26/2022	09:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
	1139970		4/26/2022	08:21				ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1136203			0			
		Chloride			DUP	1136203			0			
		Sulfate			DUP	1136203			0			

Page 1783

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139971		4/26/2022 08:21				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW 1136203				0			
		Chloride		MSW 1136203				0			
		Sulfate		MSW 1136203				0			
	1139972		4/26/2022 08:21				ANIONS IC QSM 5.0				
		Sulfate		MSDW 1139971				0			
		Nitrate Nitrogen		MSDW 1139971				0			
		Chloride		MSDW 1139971				0			
169156	1136205		4/26/2022 10:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								
169156	1136217		4/27/2022 15:37		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Chloride	***RERUN***								
	1139973						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139974						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1140132						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV							
		Chloride		CCV							
		Sulfate		CCV							
	1140133						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB							
		Chloride		CCB							
		Sulfate		CCB							
169156	1136207		4/26/2022 11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***								
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
169156	1136215		4/27/2022 12:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
		Sulfate	***RERUN***								

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1140134							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV							
		Chloride			CCV							
		Sulfate			CCV							
	1140135							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB							
		Chloride			CCB							
		Sulfate			CCB							
	1140136							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV							
		Chloride			CCV							
		Sulfate			CCV							
	1140137							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB							
		Chloride			CCB							
		Sulfate			CCB							
169156	1136203		4/26/2022	08:21		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate		***RERUN***	*							
		Chloride		***RERUN***	*							
		Nitrate Nitrogen		***RERUN***	*							

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211534 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139970		4/26/2022 08:21					ANIONS IC QSM 5.0				
		Sulfate		DUP	1136203				0			
		Chloride		DUP	1136203				0			
		Nitrate Nitrogen		DUP	1136203				0			
	1139971		4/26/2022 08:21					ANIONS IC QSM 5.0				
		Chloride		MSW	1136203				0			
		Nitrate Nitrogen		MSW	1136203				0			
		Sulfate		MSW	1136203				0			
	1139972		4/26/2022 08:21					ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW	1139971				0			
		Sulfate		MSDW	1139971				0			
		Chloride		MSDW	1139971				0			
	1140138							WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV								
		Chloride		CCV								
		Sulfate		CCV								
	1140139							WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB								
		Chloride		CCB								
		Sulfate		CCB								

120

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211592 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1143758						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICV							
		Chloride		ICV							
		Sulfate		ICV							
	1143759						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		ICB							
		Chloride		ICB							
		Sulfate		ICB							
	1139743						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1139744						WANIONS IC QSM 5.0				
		Sulfate		LCSW				0			
		Chloride		LCSW				0			
		Nitrate Nitrogen		LCSW				0			
	1139745						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		MBW				0			
		Chloride		MBW				0			
		Sulfate		MBW				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211592 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169199	1136588		4/28/2022	09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate										
		Nitrate Nitrogen										
		Chloride										
169199	1136588		4/28/2022	09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***									
		Chloride	***RERUN***									
		Nitrate Nitrogen	***RERUN***									
169199	1136671		4/28/2022	09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Nitrate Nitrogen										
		Sulfate										
		Chloride										
169199	1136671		4/28/2022	09:48		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Sulfate	***RERUN***									
		Chloride	***RERUN***									
		Nitrate Nitrogen	***RERUN***									
169199	1136672		4/28/2022	12:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211592 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169199	1136673		4/28/2022 13:56		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
169199	1136674		4/28/2022 15:20		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride									
		Nitrate Nitrogen									
		Sulfate									
	1139746						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1139747						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1139748		4/28/2022 15:20				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		DUP	1136674			0			
		Chloride		DUP	1136674			0			
		Sulfate		DUP	1136674			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211592 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139749		4/28/2022 15:20				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW 1136674				0			
		Chloride		MSW 1136674				0			
		Sulfate		MSW 1136674				0			
	1139750		4/28/2022 15:20				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW 1139749				0			
		Chloride		MSDW 1139749				0			
		Sulfate		MSDW 1139749				0			
	1139751						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1139752						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

57

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC37-01 Data Review Checklist

		Method: Anions by Ion Chromatography 300.0/9056		Independent Data Review Checklist		Instrument: DX120-System 2
LIMS Run #(s)	**Analysis Date**		**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes/No)**
211534 211537 211538 211592 211593 211714	04/28/2022		TMG	RLD	05/06/2022	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
		Yes	**No**	**Yes**	**No**	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3		No		No	Affected sample results were "H" flaggerd
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits		No		No	Affected sample results were "M" flaggerd
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

WANIONS IC QSM 5.0 Anion Run
211602 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138735							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV				0			
		Chloride			CCV				0			
		Sulfate			CCV				0			
	1138736							WANIONS IC QSM 5.0				
		Chloride			LCSW				0			
		Nitrate Nitrogen			LCSW				0			
		Sulfate			LCSW				0			
	1138737							WANIONS IC QSM 5.0				
		Nitrate Nitrogen			MBW				0			
		Chloride			MBW				0			
		Sulfate			MBW				0			
169227	1137438		4/29/2022	08:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride										
		Nitrate Nitrogen										
		Sulfate										
	1138738		4/29/2022	08:50				ANIONS IC QSM 5.0				
		Nitrate Nitrogen			DUP	1137438			0			
		Chloride			DUP	1137438			0			
		Sulfate			DUP	1137438			0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211602 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138739		4/29/2022 08:50				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSW 1137438				0			
		Chloride		MSW 1137438				0			
		Sulfate		MSW 1137438				0			
	1138740		4/29/2022 08:50				ANIONS IC QSM 5.0				
		Nitrate Nitrogen		MSDW 1138739				0			
		Chloride		MSDW 1138739				0			
		Sulfate		MSDW 1138739				0			
	1138741						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1138742						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
	1138743						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211602 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138744								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCB					0			
		Chloride			CCB					0			
		Sulfate			CCB					0			
	1138738		4/29/2022	08:50					ANIONS IC QSM 5.0				
		Sulfate			DUP	1137438				0			
		Chloride			DUP	1137438				0			
		Nitrate Nitrogen			DUP	1137438				0			
	1138739		4/29/2022	08:50					ANIONS IC QSM 5.0				
		Sulfate			MSW	1137438				0			
		Chloride			MSW	1137438				0			
		Nitrate Nitrogen			MSW	1137438				0			
	1138740		4/29/2022	08:50					ANIONS IC QSM 5.0				
		Nitrate Nitrogen			MSDW	1138739				0			
		Sulfate			MSDW	1138739				0			
		Chloride			MSDW	1138739				0			
	1138748								WANIONS IC QSM 5.0				
		Nitrate Nitrogen			CCV					0			
		Chloride			CCV					0			
		Sulfate			CCV					0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

WANIONS IC QSM 5.0 Anion Run
211602 on 5/17/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	ANALYTE	SAMPLE DATE:	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1138749						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			
169227	1137438		4/29/2022 08:50		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ANIONS IC QSM 5.0		GW	**4**	
		Chloride	***RERUN***								
		Sulfate	***RERUN***								
		Nitrate Nitrogen	***RERUN***								
	1138750						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCV				0			
		Chloride		CCV				0			
		Sulfate		CCV				0			
	1138751						WANIONS IC QSM 5.0				
		Nitrate Nitrogen		CCB				0			
		Chloride		CCB				0			
		Sulfate		CCB				0			

57

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC37-01 Data Review Checklist

		Method: Anions by Ion Chromatography 300.0/9056		Independent Data Review Checklist		Instrument: DX120-System 2
LIMS Run #(s)	**Analysis Date**		**Analyst/Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes/No)**
211602	04/30/2022		DGS/TMG	RLD	05/05/2022	Yes

Instructions: Complete one checklist per *analytical sequence*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments**
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples analyzed within hold time?	28 days for Cl, F, SO_4;14 days for preserved NO_2+NO_3; 48 hours for O.Phos, and unpreserved NO_2 and NO_3	Yes		Yes		
2. Was the calibration performed using the required number of standards?	Minimum three plus a blank	Yes		Yes		
3. Is the standard prep log number noted on the analytical report bench sheet?	---	Yes		Yes		
4. Was the correlation coefficient acceptable?	≥ .995	Yes		Yes		
5. Were the ICV and ICB run immediately after the calibration check standard?	---	Yes		Yes		
6. Was the ICV recovery acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
7. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
8. Were the CCV's and the CCB's analyzed at the required frequency?	1 / 10 samples or contract/program specific	Yes		Yes		
9. Were the CCV recoveries acceptable?	90 – 110 % or contract/program specific	Yes		Yes		
10. Were the CCB results acceptable?	< LOD or program/project specific	Yes		Yes		
11. Was the MB analyzed at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
12. Were the MB results acceptable?	< LOD or contract/program specific	Yes		Yes		

13. Was a LCS run at the required frequency?	1 / 20 samples or contract/program specific	Yes		Yes		
14. Was the LCS recovery acceptable?	Within in-house or contract/program specific limits	Yes		Yes		
15. Was the LCS used before the indicated expiration date?	---	Yes		Yes		
16. Were the MS and MSD (when required) prepared at the required frequency?	1 per 20 samples per matrix or contract/program specific	Yes		Yes		
17. Were the MS and MSD (when required) recoveries acceptable?	Within In-house or contract/program specific limits	Yes		Yes		
18. Was the RPD between the MS and MSD (when required) acceptable?	Within in house or contract/program specific limits	Yes		Yes		
19. Was a sample duplicate prepared at the required frequency?	Contract/program specific or 1 per 20 samples (1 / 10 for SDWA samples)	Yes		Yes		
20. Was the duplicate within precision limits?	Within in-house or contract/program specific limits	Yes		Yes		
21. Were all chromatograms checked to ensure accurate peak identification?	---	Yes		Yes		
22. Are all samples on the job lists accounted for?	---	Yes		Yes		
23. Were all samples having analytes detected in amounts exceeding the calibration range diluted, reanalyzed and DF applied to the final results?	---	Yes		Yes		
24. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments: _____

Dionex Run Log - System 2

Start Date	Start Time	End Date	End Time	Analyst	Lims Run #(s)	Calibration ID#	Data File	CCV ID's	LCS ID's	Spike ID's	Total Cond.	Pressure (Mpa)	Flow (mL/min)	Comments	Reviwed by/Date
01/11/22	13:58	01/12/22	09:13	TMG	198749 198750	IC3675	011122 -	IC3926 IC3929	IC3927 IC3930	IC3928 IC3931	18.8	1630	0.88	IC3857	RLD 03/23/2022
01/17/22	13:55	01/17/22	17:07	TMG	198906	IC3675	011722 -	IC3936 IC3939	IC3937 IC3940	IC3938 IC3941	18.6	1625	0.88	IC3857	RLD 03/23/2022
01/18/22	9:24	01/19/22	11:36	TMG	198917 198922 198953	IC3675	011822 -	IC3936 IC3939	IC3937 IC3940	IC3938 IC3941	19.2	1666	0.91	IC3857	RLD 03/23/2022
01/20/22	12:45	01/20/22	18:50	TMG	198937 198938	IC3675	012022 -	IC3947 IC3950	IC3943	IC3943	18.7	1652	0.91	IC3857	RLD 03/23/2022
01/21/22	9:07	01/21/22	15:04	TMG	199037	IC3675	012122 -	IC3947 IC3950	IC3948 IC3951	IC3949 IC3952	18.8	1640	0.91	IC3857	RLD 03/23/2022
01/26/22	14:13	01/27/22	11:21	TMG	199111 199112	IC3675	012622 -	IC3947 IC3950	IC3948 IC3951	IC3949 IC3952	19.1	1684	0.91	IC3953	RLD 03/23/2022
01/27/22	12:18	01/27/22	22:51	TMG	199001 199004 199006	IC3675	012722 -	IC3957 IC3960	IC3943	IC3943	18.3	1583	0.88	IC3953	RLD 03/23/2022
02/01/22	12:08	02/02/22	10:53	TMG	199229	IC3675	020122 -	IC3957 IC3963	IC3958 IC3964	IC3959 IC3965	18.2	1562	0.86	IC3953	RLD 03/23/2022
02/07/22	11:42	02/08/22	12:17	TMG	199352 199353	IC3675	020722 -	IC3957 IC3963	IC3958 IC3964	IC3959 IC3965	19	1549	0.85	IC3953	RLD 03/23/2022
02/14/22	10:14	02/15/22	12:09	TMG	IC3992	IC3992	021422 -	IC3982 IC3988	IC3983 IC3989	IC3984 IC3990	18.6	1847	1	IC3953	RLD 03/23/2022
02/15/22	12:37	02/17/22	10:27	TMG	199578 199630 MDL	IC3992	021522 -	IC3982 IC3988	IC3983 IC3989	IC3984 IC3990	18.7	1832	0.98	IC3953	RLD 03/23/2022
02/17/22	12:36	02/22/22	10:07	TMG	199675 199676	IC3992	021722 -	IC3995 IC3998	IC3996 IC3999	IC3997 IC4000	19	1742	0.97	IC3953	RLD 03/23/2022
02/22/22	11:06	02/22/22	20:43	TMG	209760	IC3992	022222 -	IC3995 IC3998	IC3996 IC3999	IC3997 IC4000	18.7	1662	0.94	IC3993	RLD 03/23/2022
02/24/22	12:29	02/24/22	22:44	TMG	209808 209809 209823	IC3992	022422 -	IC4006 IC4009	IC4007 IC4010	IC4008 IC4011	18.8	1643	0.93	IC3993	RLD 03/23/2022
03/07/22	9:10	03/07/22	17:11	TMG	209843	IC3992	030722 -	IC4014 IC4017	IC4015 IC4018	IC4016 IC4019	18.9	1662	0.94	IC3993	RLD 03/23/2022
03/23/22	8:23	03/22/22	13:47	TMG	210275	IC3992	032322 -	IC4040 IC4048	IC4041 IC4049	IC4042 IC4050	19.2	1102	1.01	IC3993	RLD 03/23/2022
04/13/22	9:31	04/13/22	13:41	TMG	IC4085	IC4085	041322 -	IC4076 IC4086	IC4077 IC4087	IC4078 IC4088	19.8	1782	1	IC4032	
04/13/22	14:22	04/14/22	10:36	TMG	211089	IC4085	041322 -	IC4076 IC4086	IC4077 IC4087	IC4078 IC4088	20	1795	0.97	IC4032	
04/14/22	10:56	04/15/22	09:28	TMG	211100 211101	IC4085	041422 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	20.5	1785	0.97	IC4032	
04/15/22	11:56	04/19/22	09:38	TMG	211150 211151 211191	IC4085	041522 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	19.1	1825	0.98	IC4032	
04/19/22	10:28	04/20/22	10:02	TMG	211223 211224	IC4085	041822 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	18.9	1840	1.01	IC4032	
04/20/22	10:49	04/21/22	09:17	TMG	211281	IC4085	042022 -	IC4089 IC4092	IC4090 IC4093	IC4091 IC4094	18.6	1882	1.02	IC4032	
04/22/22	11:04	04/22/22	19:05	TMG	211362 211363	IC4085	042222 -	IC4095 IC4098	IC4096 IC4099	IC4097 IC4100	18.8	1872	1.01	IC4032	
04/25/22	11:23	04/26/22	08:35	TMG	IC4106	IC4106	042522 -	IC4095 IC4098	IC4096 IC4107	IC4097 IC4100	18.9	1852	0.99	IC4032	
04/26/22	9:21	04/27/22	09:21	TMG	211420 211436 211438	IC4106	042622 -	IC4095 IC4098	IC4096 IC4107	IC4097 IC4100	18.8	1830	0.99	IC4032	
04/27/22	12:41	04/28/22	09:51	TMG	211504 211505	IC4106	042722 -	IC4095 IC4098	IC4096 IC4107	IC4097 IC4100	18.9	1797	0.99	IC4032	
04/28/22	10:23	05/05/22	11:43	TMG	211534 211537 211538 211592 211593 211714	IC4106	042822 -	IC4109 IC4112	IC4110 IC4113	IC4111 IC4114	18.8	1802	0.99	IC4032	
04/30/22	12:02	05/02/22	11:23	DGS/TMG	211602	IC4106	043022 -	IC4109 IC4112	IC4110 IC4113	IC4111 IC4114	18.4	1806	0.99	IC4032	
05/02/22	14:56	05/02/22	19:12	TMG	211631	IC4106	050222 -	IC4109 IC4117	IC4110 IC4118	IC4111 IC4119	18.5	1810	0.98	IC4032	
05/02/22	21:21	05/03/22	18:35	TMG	211622 211623 211624 211631RR 211669	IC4106	050222B -	IC4109 IC4117	IC4110 IC4118	IC4111 IC4119	18.6	1807	0.98	IC4032	
05/05/22	12:52	05/05/22	19:59	TMG	211745	IC4106	050522 -	IC4122 IC4125	IC4123 IC4126	IC4124 IC4127	18.8	1812	0.98	IC4032	
05/06/22	12:47	05/07/22	00:52	TMG	211750 211786	IC4106	050622 -	IC4122 IC4125	IC4123 IC4126	IC4124 IC4127	18.3	1845	1	IC4032	
05/09/22	12:34	05/10/22	08:56	TMG	211821 211822 211825	IC4106	050922 -	IC4122 IC4125	IC4123 IC4126	IC4124 IC4127	18.6	1813	1	IC4032	
05/10/22	12:09	05/11/22	08:38	TMG	211859 211860 211871	IC4106	051022 -	IC4122 IC4125	IC4123 IC4126	IC4124 IC4127	18.9	1822	1	IC4032	
05/11/22	12:01	05/12/22	08:36	TMG	211905 211908	IC4106	051122 -	IC4122 IC4125	IC4123 IC4126	IC4124 IC4127	20	1812	1	IC4032	
05/12/22	12:23	05/13/22	12:05	TMG	211930 211931	IC4106	051222 -	IC4140 IC4143	IC4141 IC4144	IC4142 IC4145	18.4	1834	1	IC4032	
05/13/22	14:24	05/14/22	00:35	TMG	211888 211889 211977	IC4106	051322 -	IC4140 IC4143	IC4141 IC4144	IC4142 IC4145	18.8	1825	1.01	IC4147	

WPH Analytical Run
211555 on 4/29/2022

Date Analyzed:

Date Reviewed:

Date Entered:

Date Validated:

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136212		4/26/2022 17:44		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	PH		GW	**4**	
		54IDW									
	1137194		4/26/2022 17:44				PH				
		54IDW		DUP 1136212				0			

2 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

pH Data Validation Checklist

		Method: pH EPA 150.1, SM 4500-H+B, EPA 9040C, EPA 9045D			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
211555	04/28/2022	HLB	etk	05/11/2022	yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Was the calibration slope recorded on the bench sheet?	95-110%	Yes		Yes		
2. Were reagents/standards used before expiration date?	---	Yes		Yes		
3. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	Yes		Yes		
4. Were the duplicates within acceptable limits?	Differ by $\leq$ 0.10 pH units	Yes		Yes		
5. Are all samples on the job lists accounted for?	---	Yes		Yes		
6. Were SM 4500-H+B samples bracketed by calibration buffer 7?	Every 10 samples, Differ by $\leq$ 0.10 pH units	Yes		Yes		

WPH Analytical Run
211639 on 5/3/2022

Date Analyzed:

Date Reviewed:

Date Entered:

Date Validated:

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169227	1137439		4/29/2022 09:45			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	PH		GW	**4**	
		49IDW										
169232	1137501		5/2/2022 09:00					PH SM4500H+B		WW	**1**	
		EFFLUENT										
	1138141		4/29/2022 09:45					PH				
		49IDW		DUP	1137439				0			
	1138142		5/2/2022 09:00					PH SM4500H+B				
		EFFLUENT		DUP	1137501				0			

4 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

pH Data Validation Checklist

		Method: pH EPA 150.1, SM 4500-H+B, EPA 9040C, EPA 9045D			
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
211639	05/02/2022	RLB/BRB	etk	05/03/2022	yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Was the calibration slope recorded on the bench sheet?	95-110%	Yes		yes		
2. Were reagents/standards used before expiration date?	---	Yes		Yes		
3. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	Yes		Yes		
4. Were the duplicates within acceptable limits?	Differ by $\leq$ 0.10 pH units	Yes		Yes		
5. Are all samples on the job lists accounted for?	---	Yes		Yes		
6. Were SM 4500-H+B samples bracketed by calibration buffer 7?	Every 10 samples, Differ by $\leq$ 0.10 pH units	Yes		Yes		

Mettler Toledo (Easy Seven) pH Calibration & Maintenance Run Logbook

		pH Buffer Reference ID #			3 Point Calibration						
Date	Analyst	pH 7	pH 4	pH 10	1st Buffer	2nd Buffer	3rd Buffer	Slope (95-110%)	Temp ° C	Comments	Review
04/18/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.03	98%	23.1		
04/19/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.01	98%	24.6		
04/20/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.02	98%	24.5		
04/21/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	100%	24.4		
04/22/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	24.1		
04/23/22	ATJ	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.02	99%	23.5		
04/25/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	99%	24.3		
04/26/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	24.4		
04/26/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	23.9	TITRATION PROBE CHECK	
04/27/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	24.2		
04/27/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.03	98%	23.4	TITRATION PROBE CHECK	
04/27/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	99%	23.9		
04/28/22	HLB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	24.4		
04/29/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.01	98%	24.6		
05/02/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7.01	4	10.02	98%	24.4		
05/03/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.02	97%	24.4		
05/04/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC275 EX:05/04/22	7	4	10.01	98%	24.5		
05/05/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7.01	4	10.06	100%	23.7		
05/06/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7.01	4	10.04	98%	22.4		
05/07/22	ATJ	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7.01	4	10.02	98	23.8		
05/10/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7	4	10.02	99%	24.3		
05/11/22	KMT	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7	4	10.01	98%	24.9		
05/12/22	BRB	WC398 EX: 11/30/22	WC205 EX: 10-31-2022	WC453 EX: 01/31/2024	7	4	10.01	98%	24.3		

Mettler Toledo (Easy Seven) Instrument Run Logbook

Date	Start Time	End Time	Analyst	Analyte	Lims Run #(s)	Comments
04/20/22	15:17	15:48	KMT	PH	211309	
04/21/22	15:00	15:45	HLB	PH	211337, 338	
04/23/22	12:30	12:55	ATJ	PH	211378	
04/25/22	14:00	14:50	RLB	PH	211408	
04/26/22	14:43	15:07	KMT	PH	211463	
04/27/22	15:32	16:53	KMT	PH	211513	
04/28/22	15:00	15:30	HLB	PH	211554, 555	
04/29/22	15:10	15:45	ATJ	JH	211595	
05/02/22	15:20	15:35	RLB	PH	211639	
05/03/22	13:40	14:28	KMT	PH	211668	
05/04/22	14:02	15:19	KMT	PH	211712	
05/05/22	14:00	14:20	HLB	PH	211749	
05/07/22	12:15	12:50	ATJ	PH	211797	
05/09/22	15:00	15:20	RLB	PH	211838, 839	
05/10/22	14:30	14:50	KMT	PH	211877, 878	
05/11/22	14:30	14:55	KMT	PH	211913	
05/12/22	14:00	14:30	HLB	PH	211940	
05/13/22	15:30	16:00	ATJ	PH	211984, 985	
05/16/22	14:10	14:20	RLB	PH	212037	

W CARBON, INORG & ORG Analytical Run
211530 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1140048							W CARBON, INORG & ORG				
					CCV				0			
	1140049							W CARBON, INORG & ORG				
					LCSW				0			
	1140050							W CARBON, INORG & ORG				
					MBW				0			
169098	1134804		4/25/2022	12:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	CARBON, INORG & ORG		GW	4	
		54MW13			Designated MS/MSD							
169098	1134805		4/25/2022	14:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	CARBON, INORG & ORG		GW	4	
		54MW10										
	1140051							W CARBON, INORG & ORG				
					CCV				0			
	1140052							W CARBON, INORG & ORG				
					CCB				0			

7 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
211530	04/28/2022	TMG	RLD	05/06/2022	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	NA		NA		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	NA		NA		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	NA		NA		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	NA		NA		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	NA		NA		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

W CARBON, INORG & ORG Analytical Run
211613 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139918							W CARBON, INORG & ORG				
					CCV				0			
	1139919							W CARBON, INORG & ORG				
					LCSW				0			
	1139920							W CARBON, INORG & ORG				
					MBW				0			
169156	1136209		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	CARBON, INORG & ORG		GW	4	
		54MW12										
169156	1136210		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	CARBON, INORG & ORG		GW	4	
		54TW12										
169156	1136211		4/26/2022	16:44		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	CARBON, INORG & ORG		GW	4	
		54MW1										
	1139921							W CARBON, INORG & ORG				
					CCV				0			
	1139922							W CARBON, INORG & ORG				
					CCB				0			

8 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpEF8C.tmp

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
211613	05/02/2022	TMG	RLD	05/06/2022	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	NA		NA		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	NA		NA		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	NA		NA		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	NA		NA		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	NA		NA		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

WORGANIC CARBON QSM 5.0 Analytical Run
211697 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1139943								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1139944								WORGANIC CARBON QSM 5.0				
					LCSW					0			
	1139945								WORGANIC CARBON QSM 5.0				
					MBW					0			
	1139946								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1139947								WORGANIC CARBON QSM 5.0				
					CCB					0			
169199	1136588		4/28/2022	09:48			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		50MW2											
	1139948		4/28/2022	09:48					ORGAN CARBON T QSM 5.0				
		50MW2			DUP	1136588				0			
	1139949		4/28/2022	09:48					ORGAN CARBON T QSM 5.0				
		50MW2			MSW	1136588				0			
	1139950		4/28/2022	09:48					ORGAN CARBON T QSM 5.0				
		50MW2			MSDW	1139949				0			
169199	1136671		4/28/2022	09:48			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		50TW2											
169199	1136672		4/28/2022	12:26			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49MW01											
169199	1136673		4/28/2022	13:56			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49MW03											
169199	1136674		4/28/2022	15:20			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		48MW7											
	1139951								WORGANIC CARBON QSM 5.0				
					CCV					0			
	1139952								WORGANIC CARBON QSM 5.0				
					CCB					0			
	1140070								WORGANIC CARBON QSM 5.0				
					CCV								
	1140071								WORGANIC CARBON QSM 5.0				
					CCB								
169227	1137438		4/29/2022	08:50			WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		48MW1											

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: WetChem C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpCC8C.tmp Page 1 of 1

WORGANIC CARBON QSM 5.0 Analytical Run
211697 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1140072						WORGANIC CARBON QSM 5.0				
				CCV							
	1140073						WORGANIC CARBON QSM 5.0				
				CCB							

20 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpCC8C.tmp

WORGANIC CARBON QSM 5.0 Analytical Run
211696 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	1140057						WORGANIC CARBON QSM 5.0				
				ICV							
	1140058						WORGANIC CARBON QSM 5.0				
				ICB							
	1139923						WORGANIC CARBON QSM 5.0				
				CCV				0			
	1139924						WORGANIC CARBON QSM 5.0				
				LCSW				0			
	1139925						WORGANIC CARBON QSM 5.0				
				MBW				0			
169098	1134804		4/25/2022 12:10		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ORGAN CARBON T QSM 5.0		GW	4	
		54MW13		Designated MS/MSD							
	1139926		4/25/2022 12:10				ORGAN CARBON T QSM 5.0				
		54MW13		DUP 1134804				0			
	1139927		4/25/2022 12:10				ORGAN CARBON T QSM 5.0				
		54MW13		MSW 1134804				0			
	1140061		4/25/2022 12:10				ORGAN CARBON T QSM 5.0				
		54MW13		MSDW 1139927							
169098	1134805		4/25/2022 14:55		WESTON SOLUTIONS, INC.	RADFORD AAP SWMU 54	ORGAN CARBON T QSM 5.0		GW	4	
		54MW10									
169156	1136203		4/26/2022 08:21		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		13MW5		Designated MS/MSD							
	1139928		4/26/2022 08:21				ORGAN CARBON T QSM 5.0				
		13MW5		DUP 1136203				0			
	1139929		4/26/2022 08:21				ORGAN CARBON T QSM 5.0				
		13MW5		MSW 1136203				0			
	1139930		4/26/2022 08:21				ORGAN CARBON T QSM 5.0				
		13MW5		MSDW 1139929				0			
169156	1136204		4/26/2022 09:25		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		13MW4									
	1139931						WORGANIC CARBON QSM 5.0				
				CCV				0			
	1140060						WORGANIC CARBON QSM 5.0				
				CCB							
169156	1136205		4/26/2022 10:26		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		13MW3									

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: WetChem C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp351C.tmp Page 1 of 1

WORGANIC CARBON QSM 5.0 Analytical Run
211696 on 5/6/2022

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME		QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
169156	1136206		4/26/2022	11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49MW04										
169156	1136207		4/26/2022	11:46		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49TW04										
169156	1136208		4/26/2022	12:47		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		13MW2										
169156	1136209		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		54MW12										
169156	1136210		4/26/2022	14:59		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		54TW12										
169156	1136211		4/26/2022	16:44		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		54MW1										
169156	1136213		4/27/2022	08:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49MW05										
169156	1136214		4/27/2022	11:32		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		49MW02										
169156	1136215		4/27/2022	12:52		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		48MW3										
	1139934							WORGANIC CARBON QSM 5.0				
					CCV				0			
	1139935							WORGANIC CARBON QSM 5.0				
					CCB				0			
169156	1136216		4/27/2022	14:04		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		48MW2										
169156	1136217		4/27/2022	15:37		WESTON SOLUTIONS, INC.	RADFORD AAP SWMUs 49&54	ORGAN CARBON T QSM 5.0		GW	4	
		48MW6										
	1139936							WORGANIC CARBON QSM 5.0				
					CCV				0			
	1139937							WORGANIC CARBON QSM 5.0				
					CCB				0			

33 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp351C.tmp

FWC39-01 Data Review Checklist

	Method: Total Organic Carbon Method 415.1/9060	Independent Data Review Checklist	Instrument: TOCW

LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
211696 211697	05/04/2022	TMG	RLD	05/06/2022	Yes

Instructions: Complete one checklist per *analytical sequence* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(Indicate reference to an attachment if necessary)
1. Were the samples preserved prior to analysis and analyzed within hold time?	pH <2, 28 days or program/project specific	Yes		Yes		
2. Was the calibration curve performed using the required number of standards?	3 standards and a blank	Yes		Yes		
3. Was the correlation coefficient acceptable?	r ≥ .995	Yes		Yes		
4. Were the ICV and ICB analyzed?	---	Yes		Yes		
5. Was the ICV result acceptable?	90 – 110 % Rec. or contract/program specific	Yes		Yes		
6. Was the ICB result acceptable?	< LOD or contract/program specific	Yes		Yes		
7. Was an LCS & MB run with each batch of samples?	One each per analytical batch or contract/program specific frequency.	Yes		Yes		
8. Was the LCS recovery acceptable?	In-house derived or contract/program specific limits.	Yes		Yes		
9. Were the MB results acceptable?	< LOD or project/ program specific (<1/2 RL for DOD-QSM).	Yes		Yes		
10. Were the CCV's analyzed at the required frequency?	Beginning, after every 10 sample, & at the end of a sequence.	Yes		Yes		
11. Were the CCB's analyzed at the required frequency?	After each CCV (unless MB analyzed after CCV)	Yes		Yes		
12. Were the CCV recoveries acceptable?	90 – 110 % Rec. or project/ program specific	Yes		Yes		
13. Were the CCB results acceptable?	< LOD or project/ program specific	Yes		Yes		

14. Were all positive results that were reported within the calibration curve?	---	Yes		Yes		
15. Was an MS and MSD analyzed at the required frequency?	1 / 20 of the same matrix or project/ program specific	Yes		Yes		
16. Were the MS and MSD recoveries acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
17. Was the RPD between the MS and MSD acceptable?	In-house derived or project/ program specific limits	Yes		Yes		
18. Was a Duplicate analyzed at the required frequency?	1 per 20 of the same matrix or contract/program specific	Yes		Yes		
19. Was the RPD between the Duplicate (if valid) and the sample acceptable?	In-house derived or project/ program specific limits (QSM samples, duplicate only valid when sample result ≥5x the LOQ)	Yes		Yes		
20. Are all samples on the job lists accounted for?	---	Yes		Yes		
21. Is the standards prep log numbers noted on the analytical report?	---	Yes		Yes		
22. Were post analysis corrections addressed and/or the Audit Trail function turned on (if available)?	Correction should be initialed, dated, and reason given. Audit trail must be on (if available)	Yes		Yes		
23. Were non-matrix related nonconformities (if applicable) documented in the NCR spreadsheet?	---	Yes		Yes		

Non-Applicable Yes/No Cells Are Left Blank

Comments:

TOC Instrument Run Logbook

Start Date	Start Time	End Date	End Time	Analyst	LIMs Run #	Matrix (S or W)	Calibration ID #	COMMENTS
4/18/2022	10:16	4/18/2022	13:07	TMG	210998	W	0580	LOD, LOQ, MDL1
4/19/2022	8:44	4/19/2022	10:30	TMG	210998	W	0580	MDL2
4/21/2022	9:11	4/21/2022	14:27	TMG	211319	W	0580	
4/27/2022	9:18	4/27/2022	11:40	TMG	TOC0590	W	0590	
4/28/2022	9:08	4/28/2022	11:08	TMG	211530	W	0590	
4/29/2022	12:02	4/29/2022	15:21	TMG	211575, 211576	W	0590	PT
5/2/2022	9:21	5/2/2022	11:33	TMG	211613	W	0590	
5/4/2022	11:18	5/4/2022	22:35	TMG	211696, 211697	W	0590	
5/5/2022	10:11	5/5/2022	15:01	TMG	211734, 211697RR	W	0590	
				TMG	211851	W	0590	
5/11/2022	11:28	5/11/2022	12:53	TMG	~~211851~~ 211886*, 211887	S	0567	LOD, LOQ, MDL1
5/12/2022	10:45	5/12/2022	13:40	TMG	211887, 211922, 211923	S	0567	MDL2, PT
5/13/2022	9:14	5/13/2022	11:48	TMG	211851	W	0590	
5/16/2022				TMG	212006	S	0567	
5/17/2022				TMG	212006	S	0567	

Reviewed By:_____

SUBCONTRACTED ANALYSIS DOCUMENTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Job Number: 810-22631-1

Job Description: 169098

For:
CT Laboratories
Environmental & Analytical Services
1230 Lange Court
Baraboo, WI 53913

Attention: Jodi Serstad

Approved for release.
Traci Chlebowski
Project Manager
5/5/2022 3:02 PM

Traci Chlebowski, Project Manager
110 S Hill Street, South Bend, IN, 46617
(574)233-4777
Traci.Chlebowski@et.eurofinsus.com
05/05/2022

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Cover Title Page 1

Data Summaries 4

Definitions 4

Case Narrative 5

Detection Summary 6

Client Sample Results 7

Action Limits 8

Default Detection Limits 9

QC Sample Results 10

QC Association 11

Chronicle 12

Certification Summary 13

Method Summary 14

Sample Summary 15

Manual Integration Summary 16

Reagent Traceability 18

Organic Sample Data 19

HPLC/IC 19

Method 300.0 19

Method 300.0 QC Summary 20

Method 300.0 Sample Data 25

Standards Data 27

Method 300.0 ICAL Data 27

Method 300.0 CCAL Data 34

Raw QC Data 40

Method 300.0 Blank Data 40

Table of Contents

Method 300.0 LCS/LCSD Data 44

Method 300.0 MS/MSD Data 46

Method 300.0 Run Logs 48

Method 300.0 Prep Data 50

Shipping and Receiving Documents 51

Client Chain of Custody 52

Sample Receipt Checklist 53

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
810-22631-1

Comments
No additional comments.

Receipt
The samples were received on 4/28/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Client Sample ID: 1134804/54MW13 — Lab Sample ID: 810-22631-1

No Detections.

Client Sample ID: 1134805/54MW10 — Lab Sample ID: 810-22631-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Client Sample ID: 1134804/54MW13

Lab Sample ID: 810-22631-1

Date Collected: 04/25/22 12:10
Matrix: Water
Date Received: 04/28/22 08:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			04/28/22 21:56	1
Chlorite	<10		10		ug/L			04/28/22 21:56	1

Client Sample ID: 1134805/54MW10

Lab Sample ID: 810-22631-2

Date Collected: 04/25/22 14:55
Matrix: Water
Date Received: 04/28/22 08:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			04/28/22 23:27	1
Chlorite	<10		10		ug/L			04/28/22 23:27	1

Action Limit Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Client Sample ID: 1134804/54MW13 — Lab Sample ID: 810-22631-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPA MCL P Limit	RL	Method	Prep Type
Chlorite	<10		ug/L	1000	10	300.0	Total/NA

Client Sample ID: 1134805/54MW10 — Lab Sample ID: 810-22631-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPA MCL P Limit	RL	Method	Prep Type
Chlorite	<10		ug/L	1000	10	300.0	Total/NA

Default Detection Limits

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL		Units
Chlorate	10	7.9	ug/L
Chlorite	10	5.9	ug/L

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 810-17793/4
Matrix: Water
Analysis Batch: 17793

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			04/28/22 13:47	1
Chlorite	<10		10		ug/L			04/28/22 13:47	1

Lab Sample ID: LCS 810-17793/5
Matrix: Water
Analysis Batch: 17793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			250	246		ug/L		99	90 - 110		
Chlorite			250	254		ug/L		102	90 - 110		

Lab Sample ID: LLCS 810-17793/1
Matrix: Water
Analysis Batch: 17793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			10.0	13.5		ug/L		135			
Chlorite			10.0	13.4		ug/L		134			

Lab Sample ID: 810-22631-1 MS
Matrix: Water
Analysis Batch: 17793

Client Sample ID: 1134804/54MW13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate	<10		250	243		ug/L		97	90 - 110		
Chlorite	<10		250	268		ug/L		107	90 - 110		

Lab Sample ID: 810-22631-1 MSD
Matrix: Water
Analysis Batch: 17793

Client Sample ID: 1134804/54MW13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorate	<10		250	242		ug/L		97	90 - 110	0	20
Chlorite	<10		250	268		ug/L		107	90 - 110	0	20

QC Association Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

HPLC/IC

Analysis Batch: 17793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-22631-1	1134804/54MW13	Total/NA	Water	300.0	
810-22631-2	1134805/54MW10	Total/NA	Water	300.0	
MB 810-17793/4	Method Blank	Total/NA	Water	300.0	
LCS 810-17793/5	Lab Control Sample	Total/NA	Water	300.0	
LLCS 810-17793/1	Lab Control Sample	Total/NA	Water	300.0	
810-22631-1 MS	1134804/54MW13	Total/NA	Water	300.0	
810-22631-1 MSD	1134804/54MW13	Total/NA	Water	300.0	

Lab Chronicle

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Client Sample ID: 1134804/54MW13

Lab Sample ID: 810-22631-1

Date Collected: 04/25/22 12:10

Matrix: Water

Date Received: 04/28/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17793	04/28/22 21:56	JL	EA SB

Client Sample ID: 1134805/54MW10

Lab Sample ID: 810-22631-2

Date Collected: 04/25/22 14:55

Matrix: Water

Date Received: 04/28/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	17793	04/28/22 23:27	JL	EA SB

Laboratory References:

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Laboratory: Eurofins Eaton South Bend

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999766900	08-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0		Water	Chlorate
300.0		Water	Chlorite

Method Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-22631-1	1134804/54MW13	Water	04/25/22 12:10	04/28/22 08:00
810-22631-2	1134805/54MW10	Water	04/25/22 14:55	04/28/22 08:00

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Instrument ID: IC-FT Analysis Batch Number: 17609

Lab Sample ID: IC 810-17609/1 Client Sample ID:

Date Analyzed: 04/26/22 14:06 Lab File ID: 042622a_CAL_3.d GC Column: IonPac AS-19 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide		Invalid Compound ID	lovickj	04/27/22 13:21

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Instrument ID: IC-FT Analysis Batch Number: 17793

Lab Sample ID: CCB 810-17793/19 Client Sample ID:

Date Analyzed: 04/28/22 21:25 Lab File ID: 042822a_26.d GC Column: IonPac AS-19 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorate		Invalid Compound ID	lovickj	04/29/22 11:07

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
IC-300B CalSS_00004	07/21/22	03/03/22	MilliQ Water, Lot 111021	100 mL	IC-BR-CalSt_00002	2500 uL	Bromide	25 mg/L
					IC-CLO2-CalSt_00002	2500 uL	Chlorite	25 mg/L
					IC-CLO3-CalSt_00002	2500 uL	Chlorate	25 mg/L
.IC-BR-CalSt_00002	07/30/22	Inorganic Venture, Lot S2-BR704965			(Purchased Reagent)		Bromide	1000 ug/mL
.IC-CLO2-CalSt_00002	07/30/22	Inorganic Venture, Lot P2-CLOX687554			(Purchased Reagent)		Chlorite	1000 ug/mL
.IC-CLO3-CalSt_00002	07/30/22	Inorganic Venture, Lot R2-CLOX689874			(Purchased Reagent)		Chlorate	1000 ug/mL

Method 300.0

Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 042822a.d

Lab ID: LCS 810-17793/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chlorate	250	246	99	90-110	
Chlorite	250	254	102	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 042822a_8.d

Lab ID: LLCS 810-17793/1 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
Chlorate	10.0	13.5	135		
Chlorite	10.0	13.4	134		

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 042822a_28.d

Lab ID: 810-22631-1 MS Client ID: 1134804/54MW13 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chlorate	250	<10	243	97	90-110	
Chlorite	250	<10	268	107	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 042822a_29.d

Lab ID: 810-22631-1 MSD Client ID: 1134804/54MW13 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chlorate	250	242	97	0	20	90-110	
Chlorite	250	268	107	0	20	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab File ID: 042822a_11.d Lab Sample ID: MB 810-17793/4

Matrix: Water Date Extracted:

Instrument ID: IC-FT Date Analyzed: 04/28/2022 13:47

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 810-17793/1	042822a_8.d	04/28/2022 12:16
	LCS 810-17793/5	042822a.d	04/28/2022 14:18
1134804/54MW13	810-22631-1	042822a_27.d	04/28/2022 21:56
1134804/54MW13 MS	810-22631-1 MS	042822a_28.d	04/28/2022 22:26
1134804/54MW13 MSD	810-22631-1 MSD	042822a_29.d	04/28/2022 22:57
1134805/54MW10	810-22631-2	042822a_30.d	04/28/2022 23:27

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: 1134804/54MW13 Lab Sample ID: 810-22631-1

Matrix: Water Lab File ID: 042822a_27.d

Analysis Method: 300.0 Date Collected: 04/25/2022 12:10

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 21:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: 1134805/54MW10 Lab Sample ID: 810-22631-2

Matrix: Water Lab File ID: 042822a_30.d

Analysis Method: 300.0 Date Collected: 04/25/2022 14:55

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 23:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1 Analy Batch No.: 17609

SDG No.:

Instrument ID: IC-FT GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2022 14:06 Calibration End Date: 04/26/2022 17:09 Calibration ID: 3440

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-17609/1	042622a_CAL_3.d
Level 2	IC 810-17609/2	042622a_CAL_4.d
Level 3	IC 810-17609/3	042622a_CAL_5.d
Level 4	IC 810-17609/4	042622a_CAL_6.d
Level 5	IC 810-17609/5	042622a_CAL_7.d
Level 6	ICRT 810-17609/6	042622a_CAL_8.d
Level 7	IC 810-17609/7	042622a_CAL_9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Chlorite		5.467	5.497	5.497	5.480	5.497	+++++				0.000 - 0.000	5.488
Bromide		10.543	10.550	10.560	10.540	10.553	10.550				0.000 - 0.000	10.549
Chlorate		11.363	11.390	11.370	11.353	11.373	11.367				0.000 - 0.000	11.369

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1 Analy Batch No.: 17609

SDG No.:

Instrument ID: IC-FT GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2022 14:06 Calibration End Date: 04/26/2022 17:09 Calibration ID: 3440

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-17609/1	042622a_CAL_3.d
Level 2	IC 810-17609/2	042622a_CAL_4.d
Level 3	IC 810-17609/3	042622a_CAL_5.d
Level 4	IC 810-17609/4	042622a_CAL_6.d
Level 5	IC 810-17609/5	042622a_CAL_7.d
Level 6	ICRT 810-17609/6	042622a_CAL_8.d
Level 7	IC 810-17609/7	042622a_CAL_9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Chlorite	44156232	41061800 46747758	40611150 +++++	43433870	Lin	-171842.42	46602522.2							0.9990		0.9950
Bromide	42987416	54836600 44804032	49023650 44737240	42696090	Lin	-61139.060	44740708.2							1.0000		0.9950
Chlorate	39139908	41483200 40735102	50565400 40650421	38563710	Lin	-48368.456	40651084.7							1.0000		0.9950

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1 Analy Batch No.: 17609

SDG No.:

Instrument ID: IC-FT GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2022 14:06 Calibration End Date: 04/26/2022 17:09 Calibration ID: 3440

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-17609/1	042622a_CAL_3.d
Level 2	IC 810-17609/2	042622a_CAL_4.d
Level 3	IC 810-17609/3	042622a_CAL_5.d
Level 4	IC 810-17609/4	042622a_CAL_6.d
Level 5	IC 810-17609/5	042622a_CAL_7.d
Level 6	ICRT 810-17609/6	042622a_CAL_8.d
Level 7	IC 810-17609/7	042622a_CAL_9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorite	Lin	23373879	410618 +++++	812223	4343387	11039058	0.000000 0.500	0.0100 +++++	0.0200	0.100	0.250
Bromide	Lin	22402016	548366 44737240	980473	4269609	10746854	0.000000 0.500	0.0100 1.00	0.0200	0.100	0.250
Chlorate	Lin	20367551	414832 40650421	1011308	3856371	9784977	0.000000 0.500	0.0100 1.00	0.0200	0.100	0.250

Curve Type Legend
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1 Analy Batch No.: 17609

SDG No.:

Instrument ID: IC-FT GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2022 14:06 Calibration End Date: 04/26/2022 17:09 Calibration ID: 3440

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-17609/1	042622a_CAL_3.d
Level 2	IC 810-17609/2	042622a_CAL_4.d
Level 3	IC 810-17609/3	042622a_CAL_5.d
Level 4	IC 810-17609/4	042622a_CAL_6.d
Level 5	IC 810-17609/5	042622a_CAL_7.d
Level 6	ICRT 810-17609/6	042622a_CAL_8.d
Level 7	IC 810-17609/7	042622a_CAL_9.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Chlorite	+++++	25.0 *	5.6	-3.1	-3.8	1.0	50	10	10	10	10	10
Bromide	0.1	36.2 *	16.4 *	-3.2	-3.4	0.4	50 10	10	10	10	10	10
Chlorate	0.1	13.9 *	30.3 *	-3.9	-3.2	0.4	50 10	10	10	10	10	10

Calibration / Chlorite

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

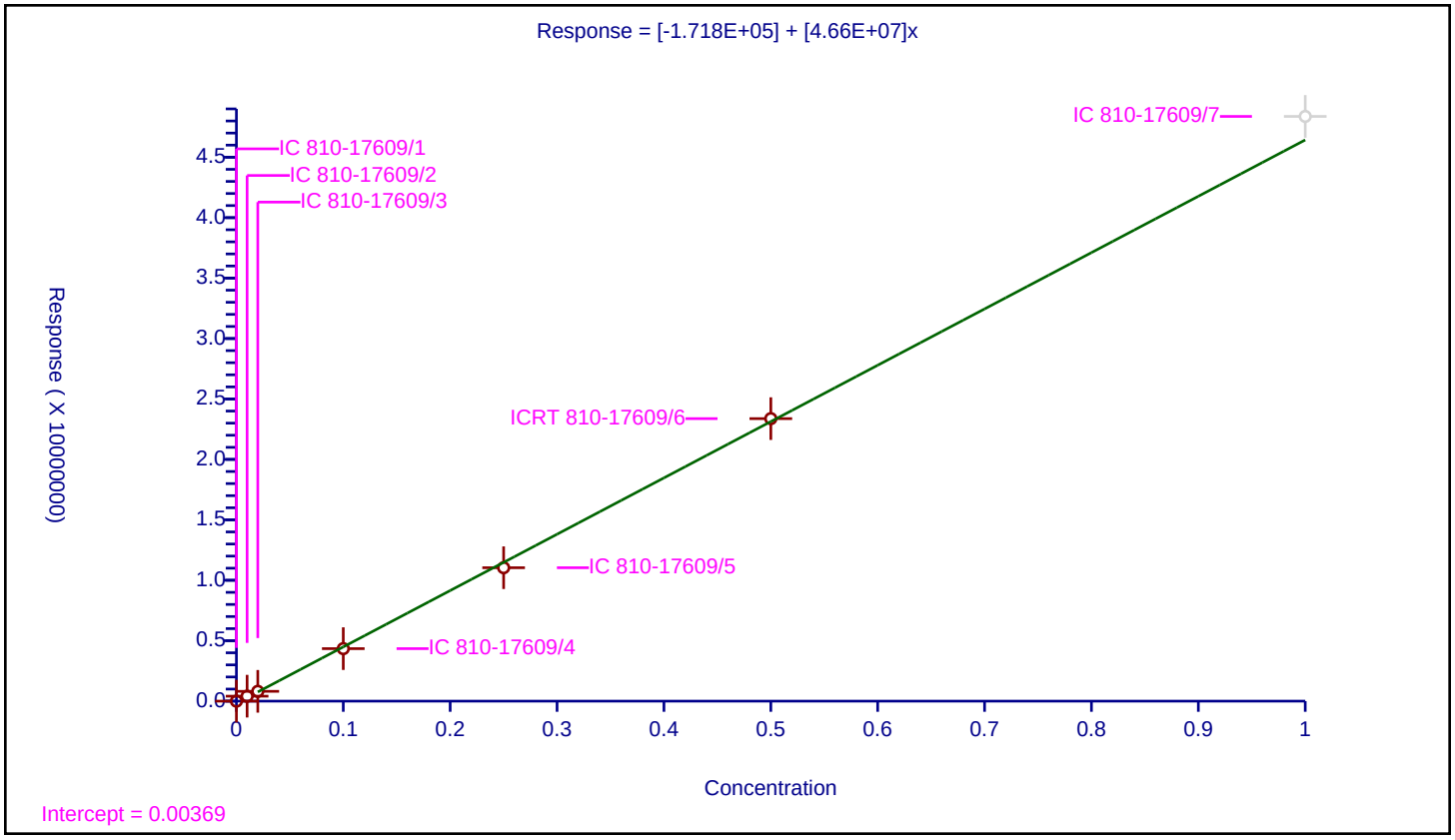
Curve Coefficients

Intercept:	-1.718E+05
Slope:	4.66E+07

Error Coefficients

Standard Error:	283000
Relative Standard Error:	15.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-17609/1	0.0	0.0			NaN	Y
2	IC 810-17609/2	0.01	410618.0			41061800.0	Y
3	IC 810-17609/3	0.02	812223.0			40611150.0	Y
4	IC 810-17609/4	0.1	4343387.0			43433870.0	Y
5	IC 810-17609/5	0.25	11039058.0			44156232.0	Y
6	ICRT 810-17609/6	0.5	23373879.0			46747758.0	Y
7	IC 810-17609/7	1.0	48375869.0			48375869.0	N



Calibration / Bromide

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

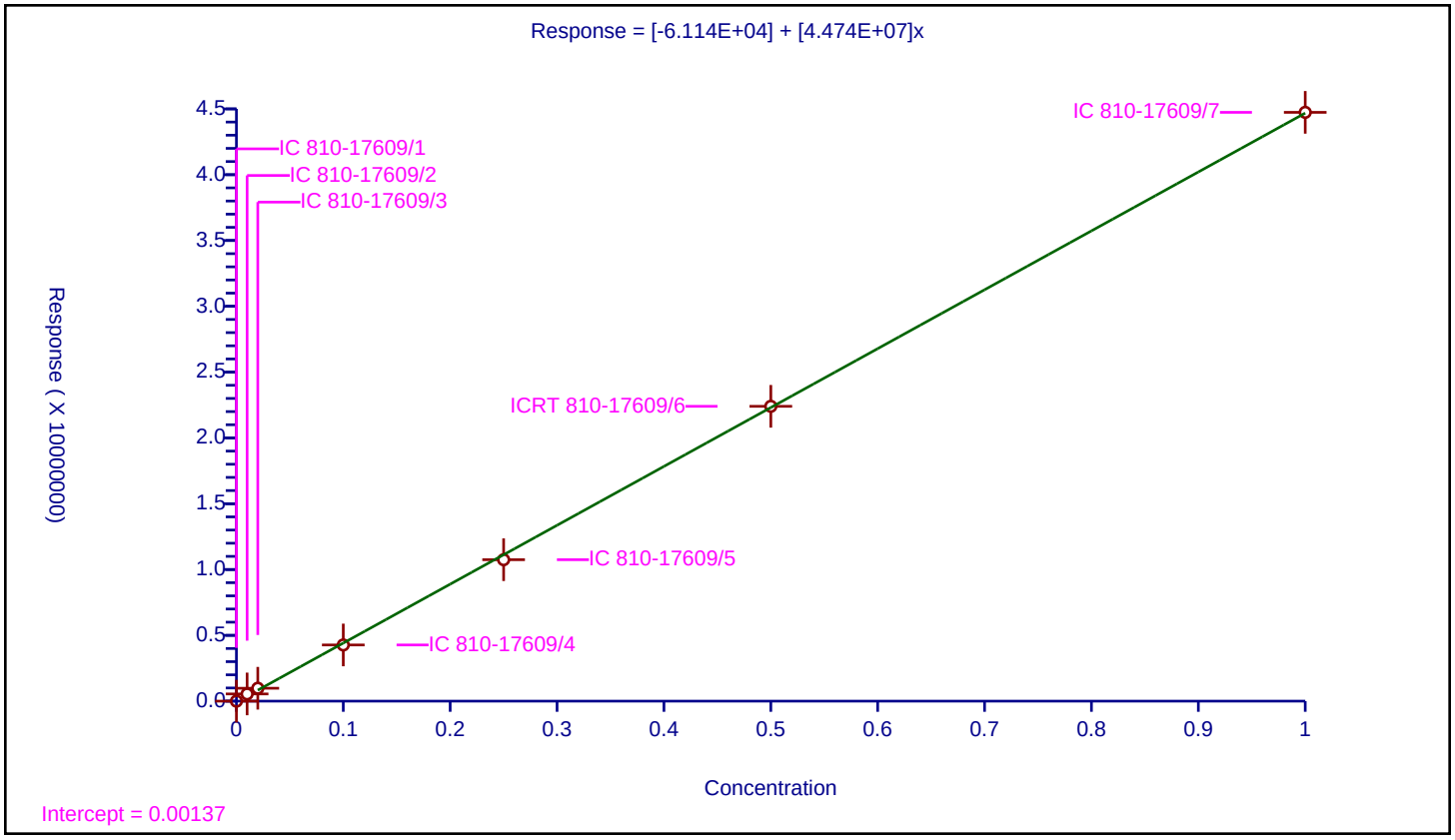
Curve Coefficients

Intercept:	-6.114E+04
Slope:	4.474E+07

Error Coefficients

Standard Error:	213000
Relative Standard Error:	20.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-17609/1	0.0	0.0			NaN	Y
2	IC 810-17609/2	0.01	548366.0			54836600.0	Y
3	IC 810-17609/3	0.02	980473.0			49023650.0	Y
4	IC 810-17609/4	0.1	4269609.0			42696090.0	Y
5	IC 810-17609/5	0.25	10746854.0			42987416.0	Y
6	ICRT 810-17609/6	0.5	22402016.0			44804032.0	Y
7	IC 810-17609/7	1.0	44737240.0			44737240.0	Y



Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

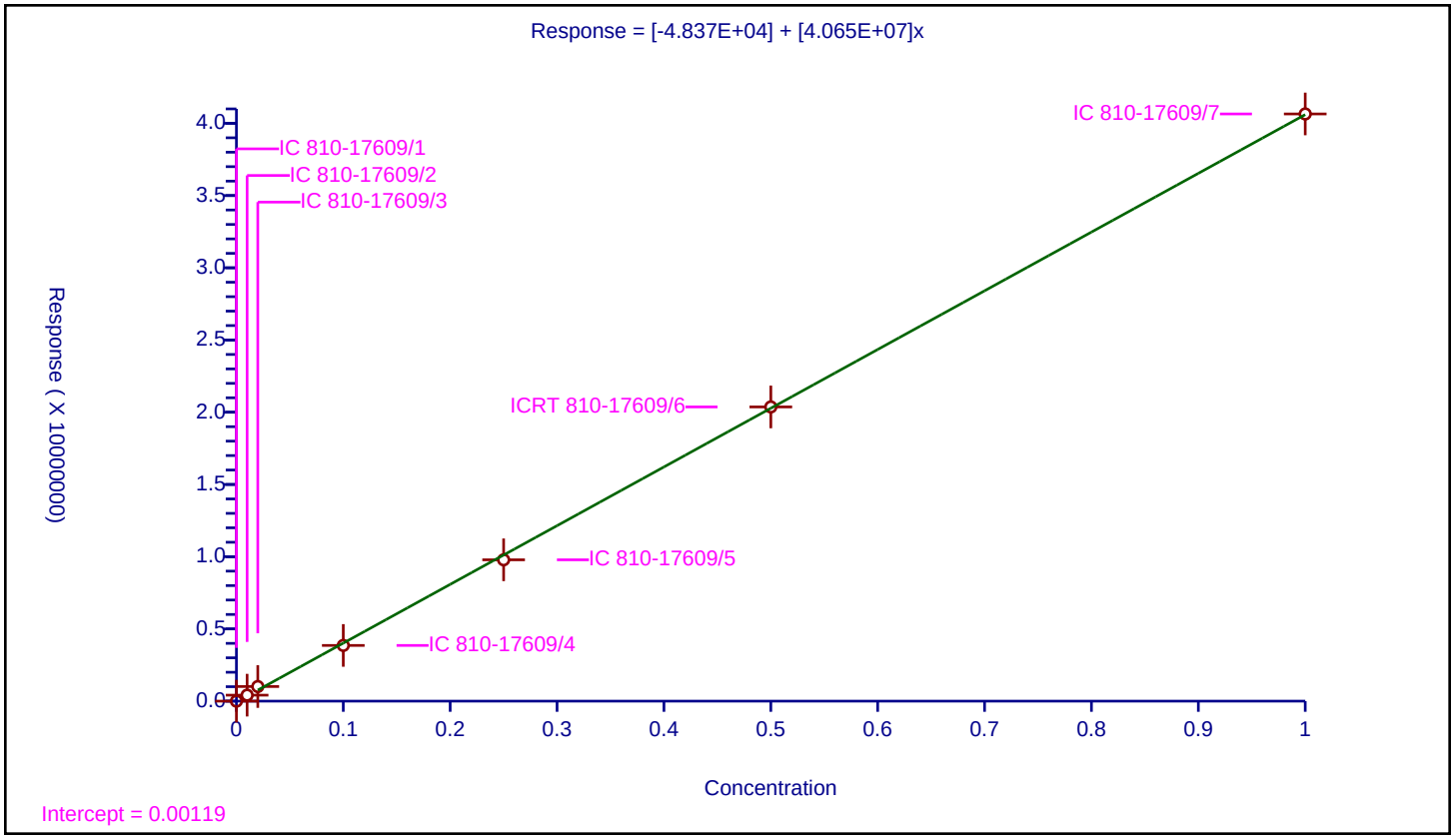
Curve Coefficients

Intercept:	-4.837E+04
Slope:	4.065E+07

Error Coefficients

Standard Error:	205000
Relative Standard Error:	16.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-17609/1	0.0	0.0			NaN	Y
2	IC 810-17609/2	0.01	414832.0			41483200.0	Y
3	IC 810-17609/3	0.02	1011308.0			50565400.0	Y
4	IC 810-17609/4	0.1	3856371.0			38563710.0	Y
5	IC 810-17609/5	0.25	9784977.0			39139908.0	Y
6	ICRT 810-17609/6	0.5	20367551.0			40735102.0	Y
7	IC 810-17609/7	1.0	40650421.0			40650421.0	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/2 Calibration Date: 04/28/2022 12:46

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_9.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		45460120		248	250	99	90-110
Bromide	Lin		44527696		250	250	100	90-110
Chlorate	Lin		40487996		250	250	100	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/2 Calibration Date: 04/28/2022 12:46

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_9.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.46	5.22	5.77
Bromide	10.47	10.03	11.08
Chlorate	11.28	10.81	11.94

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/18 Calibration Date: 04/28/2022 20:55

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_25.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		45900676		250	250	100	90-110
Bromide	Lin		44188824		248	250	99	90-110
Chlorate	Lin		40340196		249	250	100	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/18 Calibration Date: 04/28/2022 20:55

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_25.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.47	5.22	5.77
Bromide	10.48	10.03	11.08
Chlorate	11.29	10.81	11.94

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/28 Calibration Date: 04/29/2022 02:00

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_35.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		46421292		253	250	101	90-110
Bromide	Lin		44151356		248	250	99	90-110
Chlorate	Lin		40051364		248	250	99	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Lab Sample ID: CCV 810-17793/28 Calibration Date: 04/29/2022 02:00

Instrument ID: IC-FT Calib Start Date: 04/26/2022 14:06

GC Column: IonPac AS-19 ID: Calib End Date: 04/26/2022 17:09

Lab File ID: 042822a_35.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.44	5.22	5.77
Bromide	10.45	10.03	11.08
Chlorate	11.25	10.81	11.94

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 810-17793/4

Matrix: Water Lab File ID: 042822a_11.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 13:47

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-17793/3

Matrix: Water Lab File ID: 042822a_10.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 13:17

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-17793/19

Matrix: Water Lab File ID: 042822a_26.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: Date Analyzed: 04/28/2022 21:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-17793/29

Matrix: Water Lab File ID: 042822a_36.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/29/2022 02:30

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 810-17793/5

Matrix: Water Lab File ID: 042822a.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 14:18

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	246		10
14998-27-7	Chlorite	254		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: Lab Sample ID: LLCS 810-17793/1

Matrix: Water Lab File ID: 042822a_8.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 12:16

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	13.5		10
14998-27-7	Chlorite	13.4		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: 1134804/54MW13 MS Lab Sample ID: 810-22631-1 MS

Matrix: Water Lab File ID: 042822a_28.d

Analysis Method: 300.0 Date Collected: 04/25/2022 12:10

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 22:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	243		10
14998-27-7	Chlorite	268		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Client Sample ID: 1134804/54MW13 MSD Lab Sample ID: 810-22631-1 MSD

Matrix: Water Lab File ID: 042822a_29.d

Analysis Method: 300.0 Date Collected: 04/25/2022 12:10

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 04/28/2022 22:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 17793 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	242		10
14998-27-7	Chlorite	268		10

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Instrument ID: IC-FT Start Date: 04/26/2022 14:06

Analysis Batch Number: 17609 End Date: 04/27/2022 10:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 810-17609/1		04/26/2022 14:06	1	042622a_CAL_3.d	IonPac AS-19
IC 810-17609/2		04/26/2022 14:36	1	042622a_CAL_4.d	IonPac AS-19
IC 810-17609/3		04/26/2022 15:07	1	042622a_CAL_5.d	IonPac AS-19
IC 810-17609/4		04/26/2022 15:37	1	042622a_CAL_6.d	IonPac AS-19
IC 810-17609/5		04/26/2022 16:08	1	042622a_CAL_7.d	IonPac AS-19
ICRT 810-17609/6		04/26/2022 16:38	1	042622a_CAL_8.d	IonPac AS-19
IC 810-17609/7		04/26/2022 17:09	1	042622a_CAL_9.d	IonPac AS-19
ICV 810-17609/8		04/26/2022 17:39	1		IonPac AS-19
ZZZZZ		04/26/2022 18:10	1		IonPac AS-19
CCV 810-17609/10		04/26/2022 18:40	1		IonPac AS-19
CCB 810-17609/11		04/26/2022 19:11	1		IonPac AS-19
ZZZZZ		04/26/2022 19:42	1		IonPac AS-19
ZZZZZ		04/26/2022 20:12	1		IonPac AS-19
ZZZZZ		04/26/2022 20:43	10000		IonPac AS-19
ZZZZZ		04/26/2022 21:13	1		IonPac AS-19
ZZZZZ		04/26/2022 21:44	1		IonPac AS-19
ZZZZZ		04/26/2022 22:14	1		IonPac AS-19
ZZZZZ		04/26/2022 22:45	1		IonPac AS-19
ZZZZZ		04/26/2022 23:15	1		IonPac AS-19
ZZZZZ		04/26/2022 23:46	1		IonPac AS-19
ZZZZZ		04/27/2022 00:16	1		IonPac AS-19
ZZZZZ		04/27/2022 00:47	1		IonPac AS-19
ZZZZZ		04/27/2022 01:17	1		IonPac AS-19
ZZZZZ		04/27/2022 01:48	1		IonPac AS-19
ZZZZZ		04/27/2022 02:18	1		IonPac AS-19
CCV 810-17609/26		04/27/2022 02:49	1		IonPac AS-19
CCB 810-17609/27		04/27/2022 03:19	1		IonPac AS-19
ZZZZZ		04/27/2022 03:50	1		IonPac AS-19
ZZZZZ		04/27/2022 04:20	1		IonPac AS-19
ZZZZZ		04/27/2022 04:51	1		IonPac AS-19
ZZZZZ		04/27/2022 05:22	1		IonPac AS-19
ZZZZZ		04/27/2022 05:52	1		IonPac AS-19
ZZZZZ		04/27/2022 06:23	1		IonPac AS-19
ZZZZZ		04/27/2022 06:53	1		IonPac AS-19
ZZZZZ		04/27/2022 07:24	1		IonPac AS-19
ZZZZZ		04/27/2022 07:55	1		IonPac AS-19
ZZZZZ		04/27/2022 08:26	1		IonPac AS-19
ZZZZZ		04/27/2022 08:56	1		IonPac AS-19
ZZZZZ		04/27/2022 09:27	1		IonPac AS-19
CCV 810-17609/40		04/27/2022 09:58	1		IonPac AS-19
CCB 810-17609/41		04/27/2022 10:28	1		IonPac AS-19

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Instrument ID: IC-FT Start Date: 04/28/2022 12:16

Analysis Batch Number: 17793 End Date: 04/29/2022 02:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LLCS 810-17793/1		04/28/2022 12:16	1	042822a_8.d	IonPac AS-19
CCV 810-17793/2		04/28/2022 12:46	1	042822a_9.d	IonPac AS-19
CCB 810-17793/3		04/28/2022 13:17	1	042822a_10.d	IonPac AS-19
MB 810-17793/4		04/28/2022 13:47	1	042822a_11.d	IonPac AS-19
LCS 810-17793/5		04/28/2022 14:18	1	042822a.d	IonPac AS-19
ZZZZZ		04/28/2022 14:49	1		IonPac AS-19
ZZZZZ		04/28/2022 15:19	1		IonPac AS-19
ZZZZZ		04/28/2022 15:50	1		IonPac AS-19
ZZZZZ		04/28/2022 16:20	1		IonPac AS-19
ZZZZZ		04/28/2022 16:51	1		IonPac AS-19
ZZZZZ		04/28/2022 17:21	1		IonPac AS-19
ZZZZZ		04/28/2022 17:52	1		IonPac AS-19
ZZZZZ		04/28/2022 18:22	1		IonPac AS-19
ZZZZZ		04/28/2022 18:53	1		IonPac AS-19
ZZZZZ		04/28/2022 19:23	1		IonPac AS-19
ZZZZZ		04/28/2022 19:54	1		IonPac AS-19
ZZZZZ		04/28/2022 20:24	1		IonPac AS-19
CCV 810-17793/18		04/28/2022 20:55	1	042822a_25.d	IonPac AS-19
CCB 810-17793/19		04/28/2022 21:25	1	042822a_26.d	IonPac AS-19
810-22631-1	1134804/54MW13	04/28/2022 21:56	1	042822a_27.d	IonPac AS-19
810-22631-1 MS	1134804/54MW13 MS	04/28/2022 22:26	1	042822a_28.d	IonPac AS-19
810-22631-1 MSD	1134804/54MW13 MSD	04/28/2022 22:57	1	042822a_29.d	IonPac AS-19
810-22631-2	1134805/54MW10	04/28/2022 23:27	1	042822a_30.d	IonPac AS-19
ZZZZZ		04/28/2022 23:58	1		IonPac AS-19
ZZZZZ		04/29/2022 00:28	1		IonPac AS-19
ZZZZZ		04/29/2022 00:59	1		IonPac AS-19
ZZZZZ		04/29/2022 01:29	1		IonPac AS-19
CCV 810-17793/28		04/29/2022 02:00	1	042822a_35.d	IonPac AS-19
CCB 810-17793/29		04/29/2022 02:30	1	042822a_36.d	IonPac AS-19

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22631-1

SDG No.:

Batch Number: 17793 Batch Start Date: 04/28/22 12:16 Batch Analyst: Lovick, James

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC-300B CalSS 00004					
LLCS 810-17793/1		300.0		40 uL					
CCV 810-17793/2		300.0		1000 uL					
LCS 810-17793/5		300.0		100 uL					
CCV 810-17793/18		300.0		1000 uL					
810-22631-A-1 MS	1134804/54MW13	300.0	T	100 uL					
810-22631-A-1 MSD	1134804/54MW13	300.0	T	100 uL					
CCV 810-17793/28		300.0		1000 uL					

Batch Notes	
Filter ID	17046739
Eluent 1 ID	251424

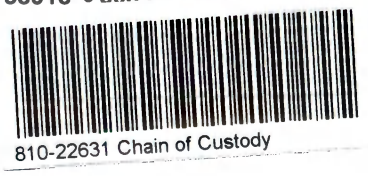
Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

CT LABORATORIES
delivering more than data from your environmental analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.c



Sub-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER #: 169098 EEA-IN

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Eurofins Eaton Analytical - IN**
110 South Hill Street
South Bend, IN 46617

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Government UPS Shipping Acct ? Y (N)

Ship by: Speedee ☐ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☒

Date Due: Standard TAT ***RUSH TURNAROUND NEEDED? Y or (N) (Circle One)***

Project Name: RADFORD AAP SWMU 54 **Project State:** VA

Analytical/QC Criteria: NONE INDICATED STATE (DOD QSM) NELAP (Circle one) OTHER_____

Report results as EDD? N (Y) (Circle one and indicate type: ERIS + Excel) Data Deliverable Package LEVEL: IV

CTLabs ID#	Sample Date/Time		Matrix	Sample Description	Analyses / Method		Cost
1134804	4/25/2022	12:10	GROUND WATER	54MW13 (Designated MS/MSD)	CHLORATE/CHLORITE	300.1	
1134805	4/25/2022	14:55	GROUND WATER	54MW10	CHLORATE/CHLORITE	300.1	

Relinquished by: Brett Szymanski Date/Time: 04/27/2022 13:00

Received by: [signature] Date/Time: 4-28-22 0800 Receipt Temperature (C) 3.0°C

COMMENTS: PLEASE LOG USING THE SAMPLE DESCRIPTIONS. 54MW13 IS A DESIGNATED MS/MSD SAMPLE.

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

Login Sample Receipt Checklist

Client: CT Laboratories

Job Number: 810-22631-1

Login Number: 22631
List Number: 1
Creator: Spurgeon, Sheri

List Source: Eurofins Eaton South Bend

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

eurofins | Environment Testing America

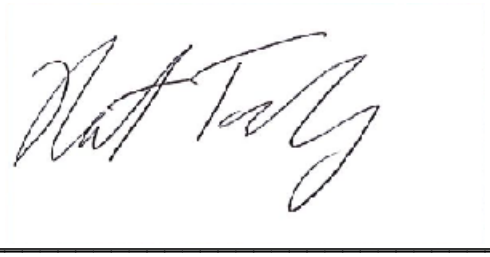
ANALYTICAL REPORT

Job Number: 810-22876-1

Job Description: 169156

For:
CT Laboratories
Environmental & Analytical Services
1230 Lange Court
Baraboo, WI 53913

Attention: Jodi Serstad



Approved for release.
Nathan Trowbridge
Manager of Project Management
5/11/2022 9:15 AM

Designee for
Traci Chlebowski, Project Manager
110 S Hill Street, South Bend, IN, 46617
(574)233-4777
Traci.Chlebowski@et.eurofinsus.com
05/11/2022

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Table of Contents

Cover Title Page 1

Data Summaries 4

Definitions 4

Case Narrative 5

Detection Summary 6

Client Sample Results 7

Action Limits 8

Default Detection Limits 9

QC Sample Results 10

QC Association 11

Chronicle 12

Certification Summary 13

Method Summary 14

Sample Summary 15

Manual Integration Summary 16

Reagent Traceability 17

Organic Sample Data 18

HPLC/IC 18

Method 300.0 18

Method 300.0 QC Summary 19

Method 300.0 Sample Data 24

Standards Data 27

Method 300.0 ICAL Data 27

Method 300.0 CCAL Data 34

Raw QC Data 42

Method 300.0 Blank Data 42

Table of Contents

Method 300.0 LCS/LCSD Data 46
Method 300.0 MS/MSD Data 48
Method 300.0 Run Logs 50
Method 300.0 Prep Data 51
Shipping and Receiving Documents 52
Client Chain of Custody 53
Sample Receipt Checklist 55

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
810-22876-1

Comments
No additional comments.

Receipt
The samples were received on 4/29/2022 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.0º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Client Sample ID: 1136209/54MW12 — Lab Sample ID: 810-22876-1

No Detections.

Client Sample ID: 1136210/54TW12 — Lab Sample ID: 810-22876-2

No Detections.

Client Sample ID: 1136211/54MW1 — Lab Sample ID: 810-22876-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: CT Laboratories
Job ID: 810-22876-1
Project/Site: 169156

Client Sample ID: 1136209/54MW12
Lab Sample ID: 810-22876-1
Date Collected: 04/26/22 14:59
Matrix: Water
Date Received: 04/29/22 08:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			05/03/22 09:19	1
Chlorite	<10		10		ug/L			05/03/22 09:19	1

Client Sample ID: 1136210/54TW12
Lab Sample ID: 810-22876-2
Date Collected: 04/26/22 14:59
Matrix: Water
Date Received: 04/29/22 08:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			05/03/22 04:20	1
Chlorite	<10		10		ug/L			05/03/22 04:20	1

Client Sample ID: 1136211/54MW1
Lab Sample ID: 810-22876-3
Date Collected: 04/26/22 16:44
Matrix: Water
Date Received: 04/29/22 08:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			05/03/22 05:40	1
Chlorite	<10		10		ug/L			05/03/22 05:40	1

Action Limit Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Client Sample ID: 1136209/54MW12 — Lab Sample ID: 810-22876-1

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPA MCL P Limit	RL	Method	Prep Type
Chlorite	<10		ug/L	1000	10	300.0	Total/NA

Client Sample ID: 1136210/54TW12 — Lab Sample ID: 810-22876-2

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPA MCL P Limit	RL	Method	Prep Type
Chlorite	<10		ug/L	1000	10	300.0	Total/NA

Client Sample ID: 1136211/54MW1 — Lab Sample ID: 810-22876-3

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPA MCL P Limit	RL	Method	Prep Type
Chlorite	<10		ug/L	1000	10	300.0	Total/NA

Default Detection Limits

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Method: 300.0 - Anions, Ion Chromatography

Analyte	RL		Units
Chlorate	10	7.9	ug/L
Chlorite	10	5.9	ug/L

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 810-18080/12
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			05/02/22 21:42	1
Chlorite	<10		10		ug/L			05/02/22 21:42	1

Lab Sample ID: LCS 810-18080/13
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			250	248		ug/L		99	90 - 110		
Chlorite			250	243		ug/L		97	90 - 110		

Lab Sample ID: LLCS 810-18080/9
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			10.0	10.7		ug/L		107			
Chlorite			10.0	13.3		ug/L		133			

Lab Sample ID: 810-22876-2 MS
Matrix: Water
Analysis Batch: 18080

Client Sample ID: 1136210/54TW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate	<10		250	230		ug/L		92	90 - 110		
Chlorate	<10		250	230		ug/L		92	90 - 110		
Chlorite	<10		250	271		ug/L		108	90 - 110		
Chlorite	<10		250	271		ug/L		108	90 - 110		

Lab Sample ID: 810-22876-2 MSD
Matrix: Water
Analysis Batch: 18080

Client Sample ID: 1136210/54TW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorate	<10		250	241		ug/L		97	90 - 110	5	20
Chlorate	<10		250	241		ug/L		97	90 - 110	5	20
Chlorite	<10		250	274		ug/L		110	90 - 110	1	20
Chlorite	<10		250	274		ug/L		110	90 - 110	1	20

QC Association Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

HPLC/IC

Analysis Batch: 18080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
810-22876-1	1136209/54MW12	Total/NA	Water	300.0	
810-22876-2	1136210/54TW12	Total/NA	Water	300.0	
810-22876-3	1136211/54MW1	Total/NA	Water	300.0	
MB 810-18080/12	Method Blank	Total/NA	Water	300.0	
LCS 810-18080/13	Lab Control Sample	Total/NA	Water	300.0	
LLCS 810-18080/9	Lab Control Sample	Total/NA	Water	300.0	
810-22876-2 MS	1136210/54TW12	Total/NA	Water	300.0	
810-22876-2 MSD	1136210/54TW12	Total/NA	Water	300.0	

Lab Chronicle

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Client Sample ID: 1136209/54MW12
Lab Sample ID: 810-22876-1
Date Collected: 04/26/22 14:59
Matrix: Water
Date Received: 04/29/22 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	18080	05/03/22 09:19	JL	EA SB

Client Sample ID: 1136210/54TW12
Lab Sample ID: 810-22876-2
Date Collected: 04/26/22 14:59
Matrix: Water
Date Received: 04/29/22 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	18080	05/03/22 04:20	JL	EA SB

Client Sample ID: 1136211/54MW1
Lab Sample ID: 810-22876-3
Date Collected: 04/26/22 16:44
Matrix: Water
Date Received: 04/29/22 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	18080	05/03/22 05:40	JL	EA SB

Laboratory References:

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Accreditation/Certification Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Laboratory: Eurofins Eaton South Bend

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999766900	08-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0		Water	Chlorate

Method Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EA SB

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

Sample Summary

Client: CT Laboratories
Project/Site: 169156

Job ID: 810-22876-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
810-22876-1	1136209/54MW12	Water	04/26/22 14:59	04/29/22 08:15
810-22876-2	1136210/54TW12	Water	04/26/22 14:59	04/29/22 08:15
810-22876-3	1136211/54MW1	Water	04/26/22 16:44	04/29/22 08:15

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Instrument ID: IC-GP Analysis Batch Number: 18080

Lab Sample ID: IC 810-18080/2 Client Sample ID:

Date Analyzed: 05/02/22 17:18 Lab File ID: 050222a_2.d GC Column: IonPac AS-19 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	10.54	Incomplete Integration	lovickj	05/05/22 10:06
Chlorate	11.42	Incomplete Integration	lovickj	05/05/22 10:06

Lab Sample ID: 810-22876-3 Client Sample ID: 1136211/54MW1

Date Analyzed: 05/03/22 05:40 Lab File ID: 050222a_30.d GC Column: IonPac AS-19 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chlorite		Invalid Compound ID	lovickj	05/03/22 11:46

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
IC-300B CalSS_00004	07/21/22	03/03/22	MilliQ Water, Lot 111021	100 mL	IC-BR-CalSt_00002	2500 uL	Bromide	25 mg/L
					IC-CLO2-CalSt_00002	2500 uL	Chlorite	25 mg/L
					IC-CLO3-CalSt_00002	2500 uL	Chlorate	25 mg/L
.IC-BR-CalSt_00002	07/30/22	Inorganic Venture, Lot S2-BR704965			(Purchased Reagent)		Bromide	1000 ug/mL
.IC-CLO2-CalSt_00002	07/30/22	Inorganic Venture, Lot P2-CLOX687554			(Purchased Reagent)		Chlorite	1000 ug/mL
.IC-CLO3-CalSt_00002	07/30/22	Inorganic Venture, Lot R2-CLOX689874			(Purchased Reagent)		Chlorate	1000 ug/mL
IC-300B QCSS_00006	07/21/22	03/03/22	MilliQ Water, Lot 111021	100 mL	IC-CL03-QCST_00001	2.5 mL	Chlorate	25 mg/L
					IC-CLO2-QCST_00001	2.5 mL	Chlorite	25 mg/L
.IC-CL03-QCST_00001	05/31/23	Agilent, Lot 0006459654			(Purchased Reagent)		Chlorate	1000 ug/mL
.IC-CLO2-QCST_00001	05/31/23	Sigma Aldrich, Lot LRAC6304			(Purchased Reagent)		Chlorite	1000 ug/mL

Method 300.0

Anions (IC) by Method 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 050222a_13.d

Lab ID: LCS 810-18080/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chlorate	250	248	99	90-110	
Chlorite	250	243	97	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LOW LEVEL CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 050222a_9.d

Lab ID: LLCS 810-18080/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LLCS CONCENTRATION (ug/L)	LLCS % REC	QC LIMITS REC	#
Chlorate	10.0	10.7	107		
Chlorite	10.0	13.3	133		

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 050222a_28.d

Lab ID: 810-22876-2 MS Client ID: 1136210/54TW12 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chlorate	250	<10	230	92	90-110	
Chlorate	250	<10	230	92	90-110	
Chlorite	250	<10	271	108	90-110	
Chlorite	250	<10	271	108	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 050222a_29.d

Lab ID: 810-22876-2 MSD Client ID: 1136210/54TW12 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chlorate	250	241	97	5	20	90-110	
Chlorate	250	241	97	5	20	90-110	
Chlorite	250	274	110	1	20	90-110	
Chlorite	250	274	110	1	20	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab File ID: 050222a_12.d Lab Sample ID: MB 810-18080/12

Matrix: Water Date Extracted:

Instrument ID: IC-GP Date Analyzed: 05/02/2022 21:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LLCS 810-18080/9	050222a_9.d	05/02/2022 20:22
	LCS 810-18080/13	050222a_13.d	05/02/2022 22:09
1136210/54TW12	810-22876-2	050222a_27.d	05/03/2022 04:20
1136210/54TW12 MS	810-22876-2 MS	050222a_28.d	05/03/2022 04:46
1136210/54TW12 MSD	810-22876-2 MSD	050222a_29.d	05/03/2022 05:13
1136211/54MW1	810-22876-3	050222a_30.d	05/03/2022 05:40
1136209/54MW12	810-22876-1	050222a_38.d	05/03/2022 09:19

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: 1136209/54MW12 Lab Sample ID: 810-22876-1

Matrix: Water Lab File ID: 050222a_38.d

Analysis Method: 300.0 Date Collected: 04/26/2022 14:59

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 09:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: 1136210/54TW12 Lab Sample ID: 810-22876-2

Matrix: Water Lab File ID: 050222a_27.d

Analysis Method: 300.0 Date Collected: 04/26/2022 14:59

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 04:20

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: 1136211/54MW1 Lab Sample ID: 810-22876-3

Matrix: Water Lab File ID: 050222a_30.d

Analysis Method: 300.0 Date Collected: 04/26/2022 16:44

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 05:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1 Analy Batch No.: 18080

SDG No.:

Instrument ID: IC-GP GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2022 16:49 Calibration End Date: 05/02/2022 19:29 Calibration ID: 3487

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-18080/1	050222a_1.d
Level 2	IC 810-18080/2	050222a_2.d
Level 3	IC 810-18080/3	050222a_3.d
Level 4	IC 810-18080/4	050222a_4.d
Level 5	IC 810-18080/5	050222a_5.d
Level 6	ICRT 810-18080/6	050222a_6.d
Level 7	IC 810-18080/7	050222a_7.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Chlorite		5.333	5.343	5.333	5.360	5.367	5.367				0.000 - 0.000	5.351
Bromide		10.537	10.533	10.537	10.557	10.560	10.567				0.000 - 0.000	10.549
Chlorate		11.420	11.393	11.393	11.423	11.423	11.433				0.000 - 0.000	11.414

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1 Analy Batch No.: 18080

SDG No.:

Instrument ID: IC-GP GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2022 16:49 Calibration End Date: 05/02/2022 19:29 Calibration ID: 3487

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-18080/1	050222a_1.d
Level 2	IC 810-18080/2	050222a_2.d
Level 3	IC 810-18080/3	050222a_3.d
Level 4	IC 810-18080/4	050222a_4.d
Level 5	IC 810-18080/5	050222a_5.d
Level 6	ICRT 810-18080/6	050222a_6.d
Level 7	IC 810-18080/7	050222a_7.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
Chlorite	31822852	26083500 33121036	26648250 33773617	31777610	Lin	-183527.77	33801118.8							1.0000		0.9950
Bromide	32253560	32095600 32970146	41125950 33553865	33412930	Lin	-40062.844	33440178.7							1.0000		0.9950
Chlorate	30434224	46214100 29987412	38608000 30914448	30602700	Lin	14320.0741	30697362.0							1.0000		0.9950

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1 Analy Batch No.: 18080

SDG No.:

Instrument ID: IC-GP GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2022 16:49 Calibration End Date: 05/02/2022 19:29 Calibration ID: 3487

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-18080/1	050222a_1.d
Level 2	IC 810-18080/2	050222a_2.d
Level 3	IC 810-18080/3	050222a_3.d
Level 4	IC 810-18080/4	050222a_4.d
Level 5	IC 810-18080/5	050222a_5.d
Level 6	ICRT 810-18080/6	050222a_6.d
Level 7	IC 810-18080/7	050222a_7.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Chlorite	Lin	16560518	260835 33773617	532965	3177761	7955713	0.000000 0.500	0.0100 1.00	0.0200	0.100	0.250
Bromide	Lin	16485073	320956 33553865	822519	3341293	8063390	0.000000 0.500	0.0100 1.00	0.0200	0.100	0.250
Chlorate	Lin	14993706	462141 30914448	772160	3060270	7608556	0.000000 0.500	0.0100 1.00	0.0200	0.100	0.250

Curve Type Legend
Lin = Linear

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1 Analy Batch No.: 18080

SDG No.:

Instrument ID: IC-GP GC Column: IonPac AS-1 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/02/2022 16:49 Calibration End Date: 05/02/2022 19:29 Calibration ID: 3487

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 810-18080/1	050222a_1.d
Level 2	IC 810-18080/2	050222a_2.d
Level 3	IC 810-18080/3	050222a_3.d
Level 4	IC 810-18080/4	050222a_4.d
Level 5	IC 810-18080/5	050222a_5.d
Level 6	ICRT 810-18080/6	050222a_6.d
Level 7	IC 810-18080/7	050222a_7.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Chlorite	0.5	31.5 *	6.0	-0.6	-3.7	-0.9	50 10	10	10	10	10	10
Bromide	0.5	8.0	29.0 *	1.1	-3.1	-1.2	50 10	10	10	10	10	10
Chlorate	0.7	45.9 *	23.4 *	-0.8	-1.0	-2.4	50 10	10	10	10	10	10

Calibration / Chlorite

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

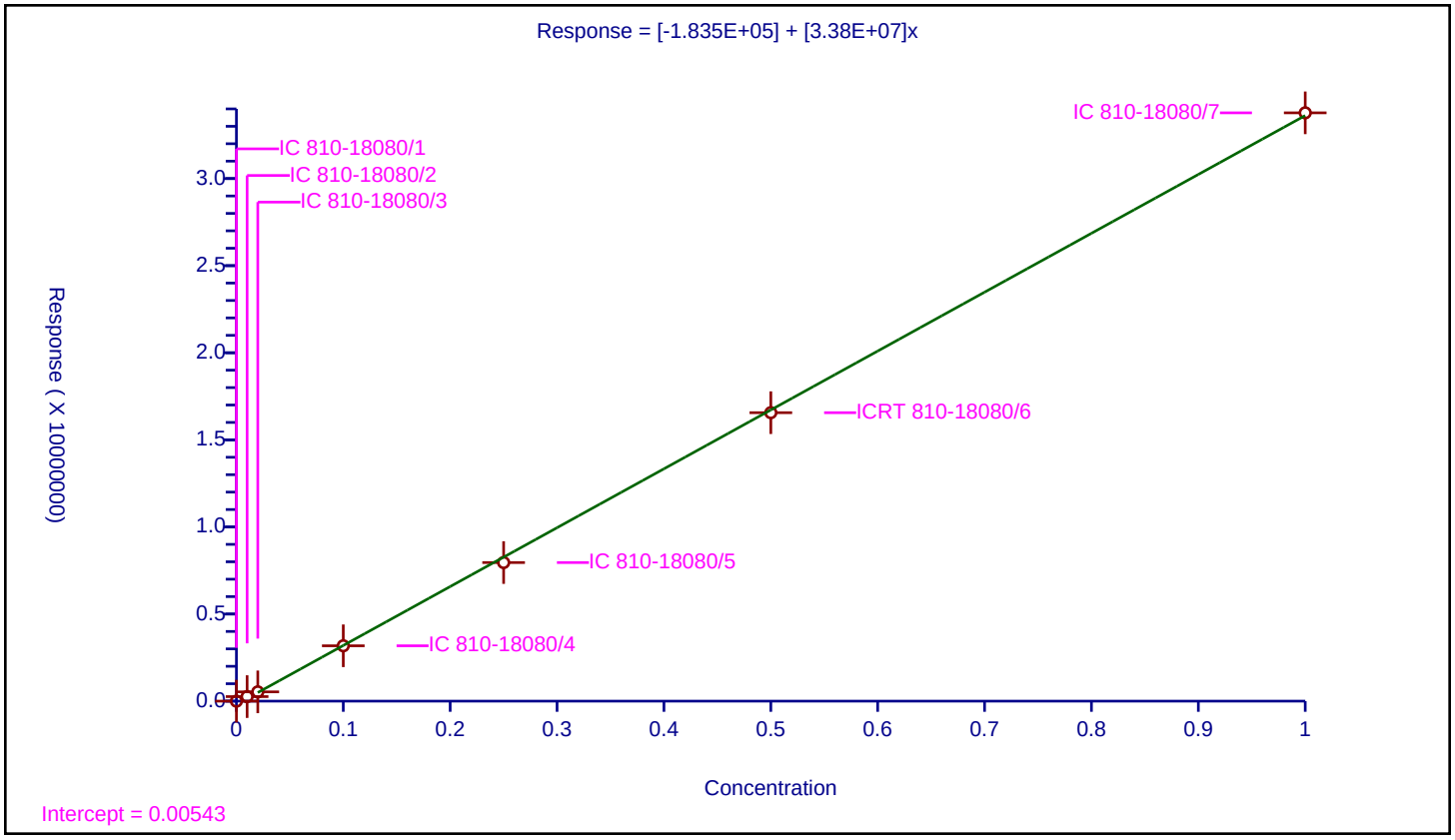
Curve Coefficients

Intercept:	-1.835E+05
Slope:	3.38E+07

Error Coefficients

Standard Error:	196000
Relative Standard Error:	16.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-18080/1	0.0	0.0			NaN	Y
2	IC 810-18080/2	0.01	260835.0			26083500.0	Y
3	IC 810-18080/3	0.02	532965.0			26648250.0	Y
4	IC 810-18080/4	0.1	3177761.0			31777610.0	Y
5	IC 810-18080/5	0.25	7955713.0			31822852.0	Y
6	ICRT 810-18080/6	0.5	16560518.0			33121036.0	Y
7	IC 810-18080/7	1.0	33773617.0			33773617.0	Y



Calibration / Bromide

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

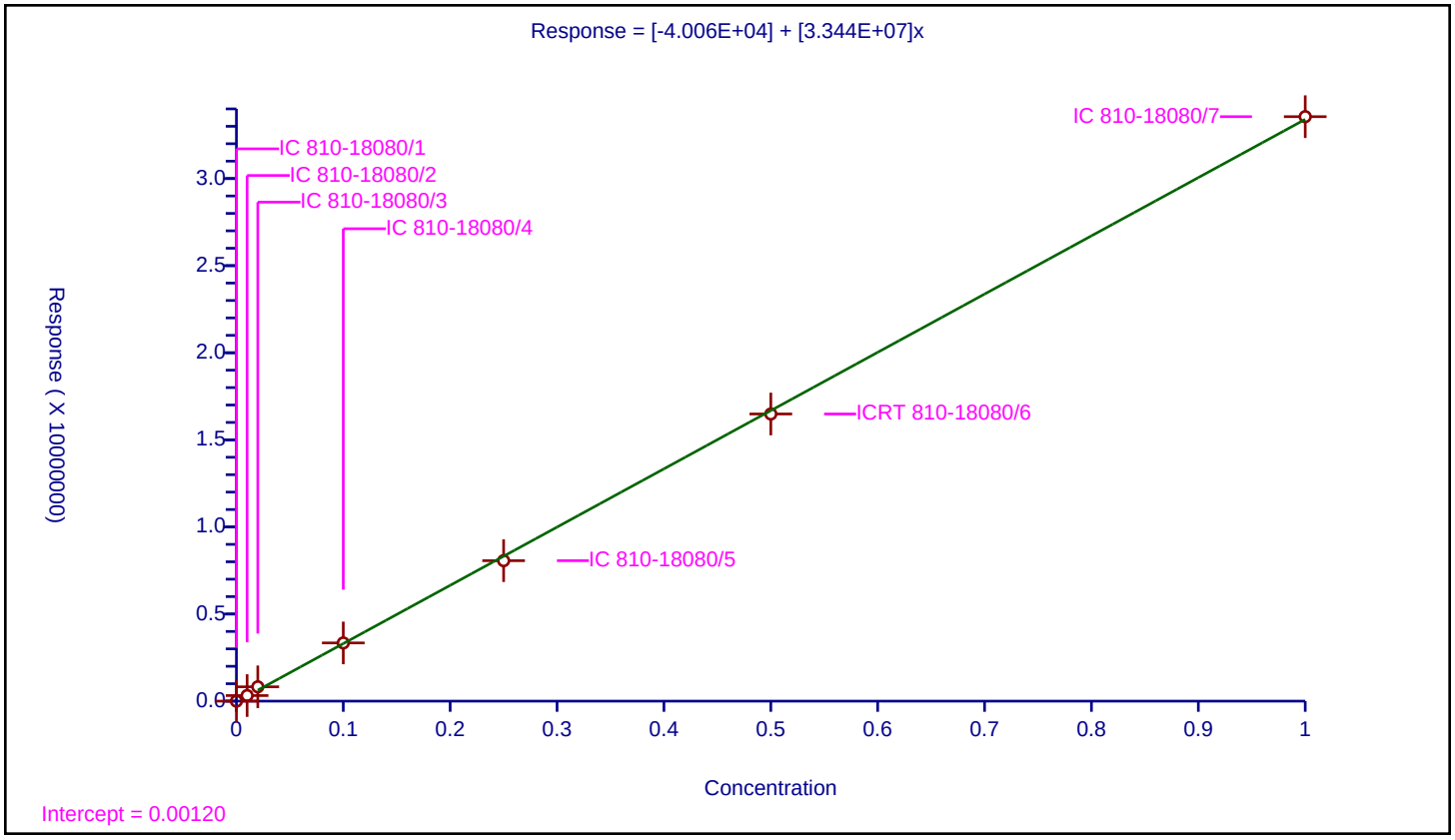
Curve Coefficients

Intercept:	-4.006E+04
Slope:	3.344E+07

Error Coefficients

Standard Error:	184000
Relative Standard Error:	15.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-18080/1	0.0	0.0			NaN	Y
2	IC 810-18080/2	0.01	320956.0			32095600.0	Y
3	IC 810-18080/3	0.02	822519.0			41125950.0	Y
4	IC 810-18080/4	0.1	3341293.0			33412930.0	Y
5	IC 810-18080/5	0.25	8063390.0			32253560.0	Y
6	ICRT 810-18080/6	0.5	16485073.0			32970146.0	Y
7	IC 810-18080/7	1.0	33553865.0			33553865.0	Y



Calibration / Chlorate

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

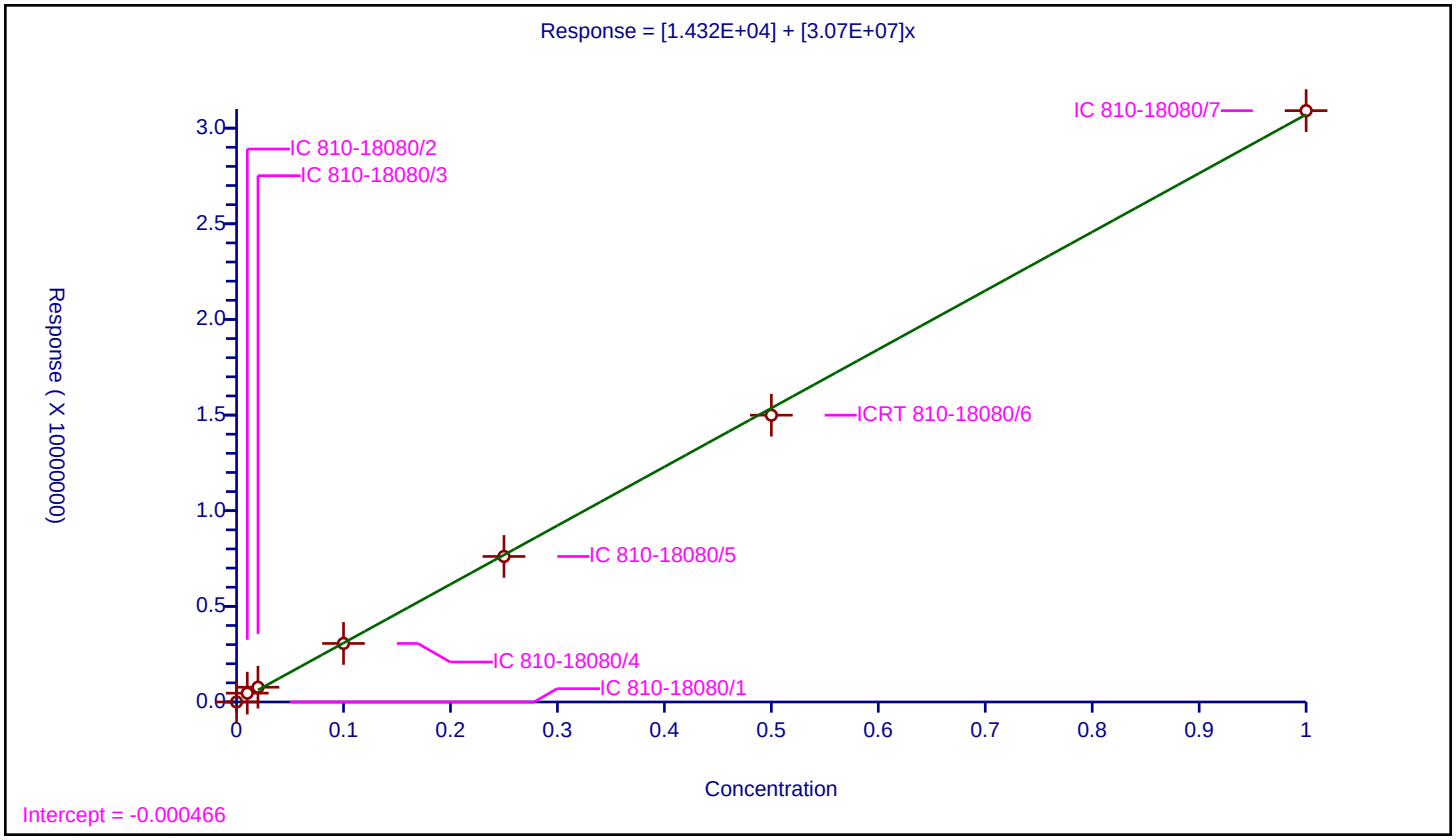
Curve Coefficients

Intercept:	1.432E+04
Slope:	3.07E+07

Error Coefficients

Standard Error:	212000
Relative Standard Error:	25.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 810-18080/1	0.0	0.0			NaN	Y
2	IC 810-18080/2	0.01	462141.0			46214100.0	Y
3	IC 810-18080/3	0.02	772160.0			38608000.0	Y
4	IC 810-18080/4	0.1	3060270.0			30602700.0	Y
5	IC 810-18080/5	0.25	7608556.0			30434224.0	Y
6	ICRT 810-18080/6	0.5	14993706.0			29987412.0	Y
7	IC 810-18080/7	1.0	30914448.0			30914448.0	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: ICV 810-18080/8 Calibration Date: 05/02/2022 19:56

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_8.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		33513440		253	250	101	90-110
Bromide	Lin		32444148		244	250	98	90-110
Chlorate	Lin		29459476		239	250	96	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: ICV 810-18080/8 Calibration Date: 05/02/2022 19:56

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_8.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.36	5.10	5.64
Bromide	10.56	10.03	11.09
Chlorate	11.43	10.85	12.00

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/10 Calibration Date: 05/02/2022 20:49

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_10.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		32402356		245	250	98	90-110
Bromide	Lin		32616712		245	250	98	90-110
Chlorate	Lin		30037892		244	250	98	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/10 Calibration Date: 05/02/2022 20:49

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_10.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.34	5.10	5.64
Bromide	10.53	10.03	11.09
Chlorate	11.40	10.85	12.00

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/25 Calibration Date: 05/03/2022 03:27

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_25.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		32448568		245	250	98	90-110
Bromide	Lin		32726964		246	250	98	90-110
Chlorate	Lin		30462816		248	250	99	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/25 Calibration Date: 05/03/2022 03:27

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_25.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.33	5.10	5.64
Bromide	10.52	10.03	11.09
Chlorate	11.38	10.85	12.00

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/40 Calibration Date: 05/03/2022 10:11

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_40.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Chlorite	Lin		32473040		246	250	98	90-110
Bromide	Lin		32857676		247	250	99	90-110
Chlorate	Lin		30124364		245	250	98	90-110

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Lab Sample ID: CCV 810-18080/40 Calibration Date: 05/03/2022 10:11

Instrument ID: IC-GP Calib Start Date: 05/02/2022 16:49

GC Column: IonPac AS-19 ID: Calib End Date: 05/02/2022 19:29

Lab File ID: 050222a_40.d

Analyte	RT	RT WINDOW	
		FROM	TO
Chlorite	5.36	5.10	5.64
Bromide	10.55	10.03	11.09
Chlorate	11.41	10.85	12.00

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 810-18080/12

Matrix: Water Lab File ID: 050222a_12.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/02/2022 21:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<10		10
14998-27-7	Chlorite	<10		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-18080/11

Matrix: Water Lab File ID: 050222a_11.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/02/2022 21:15

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-18080/26

Matrix: Water Lab File ID: 050222a_26.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 03:53

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 810-18080/41

Matrix: Water Lab File ID: 050222a_41.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 10:38

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	<7.9		10
14998-27-7	Chlorite	<5.9		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 810-18080/13

Matrix: Water Lab File ID: 050222a_13.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/02/2022 22:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	248		10
14998-27-7	Chlorite	243		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: Lab Sample ID: LLCS 810-18080/9

Matrix: Water Lab File ID: 050222a_9.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/02/2022 20:22

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	10.7		10
14998-27-7	Chlorite	13.3		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: 1136210/54TW12 MS Lab Sample ID: 810-22876-2 MS

Matrix: Water Lab File ID: 050222a_28.d

Analysis Method: 300.0 Date Collected: 04/26/2022 14:59

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 04:46

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	230		10
14866-68-3	Chlorate	230		10
14998-27-7	Chlorite	271		10
14998-27-7	Chlorite	271		10

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Client Sample ID: 1136210/54TW12 MSD Lab Sample ID: 810-22876-2 MSD

Matrix: Water Lab File ID: 050222a_29.d

Analysis Method: 300.0 Date Collected: 04/26/2022 14:59

Extraction Method: Date Extracted:

Sample wt/vol: 0(mL) Date Analyzed: 05/03/2022 05:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 1(uL) GC Column: IonPac AS-19 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 18080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL
14866-68-3	Chlorate	241		10
14866-68-3	Chlorate	241		10
14998-27-7	Chlorite	274		10
14998-27-7	Chlorite	274		10

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Instrument ID: IC-GP Start Date: 05/02/2022 16:49

Analysis Batch Number: 18080 End Date: 05/03/2022 10:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 810-18080/1		05/02/2022 16:49	1	050222a_1.d	IonPac AS-19
IC 810-18080/2		05/02/2022 17:18	1	050222a_2.d	IonPac AS-19
IC 810-18080/3		05/02/2022 17:44	1	050222a_3.d	IonPac AS-19
IC 810-18080/4		05/02/2022 18:10	1	050222a_4.d	IonPac AS-19
IC 810-18080/5		05/02/2022 18:36	1	050222a_5.d	IonPac AS-19
ICRT 810-18080/6		05/02/2022 19:03	1	050222a_6.d	IonPac AS-19
IC 810-18080/7		05/02/2022 19:29	1	050222a_7.d	IonPac AS-19
ICV 810-18080/8		05/02/2022 19:56	1	050222a_8.d	IonPac AS-19
LLCS 810-18080/9		05/02/2022 20:22	1	050222a_9.d	IonPac AS-19
CCV 810-18080/10		05/02/2022 20:49	1	050222a_10.d	IonPac AS-19
CCB 810-18080/11		05/02/2022 21:15	1	050222a_11.d	IonPac AS-19
MB 810-18080/12		05/02/2022 21:42	1	050222a_12.d	IonPac AS-19
LCS 810-18080/13		05/02/2022 22:09	1	050222a_13.d	IonPac AS-19
ZZZZZ		05/02/2022 22:35	1		IonPac AS-19
ZZZZZ		05/02/2022 23:02	1		IonPac AS-19
ZZZZZ		05/02/2022 23:28	1		IonPac AS-19
ZZZZZ		05/02/2022 23:55	1		IonPac AS-19
ZZZZZ		05/03/2022 00:21	1		IonPac AS-19
ZZZZZ		05/03/2022 00:48	1		IonPac AS-19
ZZZZZ		05/03/2022 01:14	1		IonPac AS-19
ZZZZZ		05/03/2022 01:41	1		IonPac AS-19
ZZZZZ		05/03/2022 02:07	1		IonPac AS-19
ZZZZZ		05/03/2022 02:34	1		IonPac AS-19
ZZZZZ		05/03/2022 03:00	1		IonPac AS-19
CCV 810-18080/25		05/03/2022 03:27	1	050222a_25.d	IonPac AS-19
CCB 810-18080/26		05/03/2022 03:53	1	050222a_26.d	IonPac AS-19
810-22876-2	1136210/54TW12	05/03/2022 04:20	1	050222a_27.d	IonPac AS-19
810-22876-2 MS	1136210/54TW12 MS	05/03/2022 04:46	1	050222a_28.d	IonPac AS-19
810-22876-2 MSD	1136210/54TW12 MSD	05/03/2022 05:13	1	050222a_29.d	IonPac AS-19
810-22876-3	1136211/54MW1	05/03/2022 05:40	1	050222a_30.d	IonPac AS-19
ZZZZZ		05/03/2022 06:06	5		IonPac AS-19
ZZZZZ		05/03/2022 06:33	1		IonPac AS-19
ZZZZZ		05/03/2022 06:59	1		IonPac AS-19
ZZZZZ		05/03/2022 07:26	1		IonPac AS-19
ZZZZZ		05/03/2022 07:52	1		IonPac AS-19
ZZZZZ		05/03/2022 08:19	1		IonPac AS-19
ZZZZZ		05/03/2022 08:45	1		IonPac AS-19
810-22876-1	1136209/54MW12	05/03/2022 09:19	1	050222a_38.d	IonPac AS-19
ZZZZZ		05/03/2022 09:45	1		IonPac AS-19
CCV 810-18080/40		05/03/2022 10:11	1	050222a_40.d	IonPac AS-19
CCB 810-18080/41		05/03/2022 10:38	1	050222a_41.d	IonPac AS-19

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Eaton South Bend Job No.: 810-22876-1

SDG No.:

Batch Number: 18080 Batch Start Date: 05/02/22 16:49 Batch Analyst: Lovick, James

Batch Method: 300.0 Batch End Date:

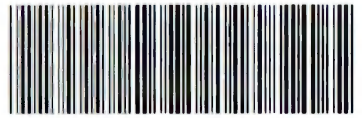
Lab Sample ID	Client Sample ID	Method Chain	Basis	IC-300B CalSS 00004	IC-300B QCSS 00006				
IC 810-18080/2		300.0		40 uL					
IC 810-18080/3		300.0		80 uL					
IC 810-18080/4		300.0		400 uL					
IC 810-18080/5		300.0		1000 uL					
ICRT 810-18080/6		300.0		1000 uL					
IC 810-18080/7		300.0		1000 uL					
ICV 810-18080/8		300.0			1000 uL				
LLCS 810-18080/9		300.0		40 uL					
CCV 810-18080/10		300.0		1000 uL					
LCS 810-18080/13		300.0		100 uL					
CCV 810-18080/25		300.0		1000 uL					
810-22876-A-2 MS	1136210/54TW12	300.0	T	100 uL					
810-22876-A-2 MSD	1136210/54TW12	300.0	T	100 uL					
CCV 810-18080/40		300.0		1000 uL					

Batch Notes	
Filter ID	17046739
Eluent 1 ID	251424

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



810-22876 Chain of Custody

RIES
ntal analyses

1230 Lange Court • Baraboo, WI 53913 • 608-356-2760
www.ctlaboratories.com

-Contract Laboratory Chain-of-Custody and Purchase Order

PURCHASE ORDER #: 169156 EEA-IN

The PO# must appear on all invoice and reports!

Upon Receipt of Samples, please verify that samples were received in acceptable condition then sign this form and fax to (608)356-2766 or email to the project manager. Sample temperature, upon receipt, must be recorded on this document unless thermal preservation is not a method requirement.

Ship to: **Eurofins Eaton Analytical - IN**
110 South Hill Street
South Bend, IN 46617

Return Invoice and Results to: **bszymanski@ctlaboratories.com**

CTLaboratories
Brett M Szymanski
1230 Lange Court
Baraboo WI 53913

Government UPS Shipping Acct ? Y (N)

Ship by: Speedee ☐ UPS Grnd ☐ UPS 2nd ☐ UPS NDA ☒

Date Due: Standard TAT ***RUSH TURNAROUND NEEDED?*** Y or (N) ***(Circle One)***

Project Name: RADFORD AAP SWMU 54 **Project State:** VA

Analytical/QC Criteria: NONE INDICATED STATE (DOD QSM) NELAP (Circle one) OTHER_____

Report results as EDD? N (Y) (Circle one and indicate type: ERIS + Excel) Data Deliverable Package LEVEL: IV

CTLabs ID#	Sample Date/Time	Matrix	Sample Description	Analyses / Method		Cost
1136209	4/26/2022 14:59	GROUND WATER	54MW12	CHLORATE/CHLORITE	300.1	
1136210	4/26/2022 14:59	GROUND WATER	54TW12	CHLORATE/CHLORITE	300.1	
1136211	4/26/2022 16:44	GROUND WATER	54MW1	CHLORATE/CHLORITE	300.1	

Relinquished by: Brett Szymanski Date/ Time: 04/28/2022 10:40

Received by: Penny Pehling Wright Date/ Time: 04/29/22 0815 Receipt Temperature (C) 0.0 Wet

COMMENTS: **PLEASE LOG USING THE SAMPLE DESCRIPTIONS**

REPORT ALL SOLIDS ON A DRY WEIGHT BASIS UNLESS OTHERWISE INDICATED

Form #: FPM1-01
Effective Date: 02/15/14

CT Laboratories Terms and Conditions

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy) - not applicable

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule . Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one -half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices . Client shall be responsible for all costs and expenses of collection including reasonable attorneyâ€™s fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery date may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical , QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work , and such agreement is documented in writing.

3.2 Changes to the Scope of Work , including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods . CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate , based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect , and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP .

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resolution of inconsistencies leading to Sample Acceptance does not occur within this period , CTL will use its best efforts to meet holding times and will proceed with the work provided that , in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance . Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance . CTL will notify the Client in writing of any decertification or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services , and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way .

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed by CTL, will be limited to repeating any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating Results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost or one hundred or one hundred fifty dollars ($150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or $100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results , directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT - not applicable

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions , Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of $2,000,000 per occurrence/ aggregate), Comprehensive Automobile Liability, owned and hired, ($1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of $5,000,000 per occurrence/aggregate).Â Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices

Login Sample Receipt Checklist

Client: CT Laboratories

Job Number: 810-22876-1

Login Number: 22876
List Number: 1
Creator: Pehling-Wright, Penny

List Source: Eurofins Eaton South Bend

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP
Project #: SWMU 54
Location: Radford, VA
Sampled By: T. Vas, P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 169098
Company: WESTON SOLUTIONS, INC
Project: RADFORD AAP SWMU 54
Logged By: erc PM: BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: Pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2022 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	ANALYSES REQUESTED: TOC 9060A	Anions 9056A	TIC 9060A	Chlorate/Chlorite (300.1)											Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																
4/25	1210	GW	G		54MW13	N	3	3	9	3			MS/MSD										1134804
4/25	1955	GW	G		54MW10	N	1	1	3	1													05

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	4/25/2022 1730	Fedex	4/25/2022 1730
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			1000

Lab Use Only
Ice Present (Yes) No
Temp 1.5 IR Gun 27
Cooler # C585

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 1-5

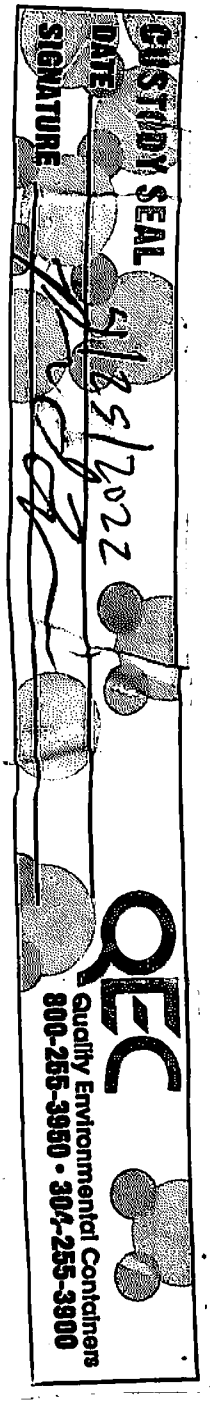
Actual Temperature

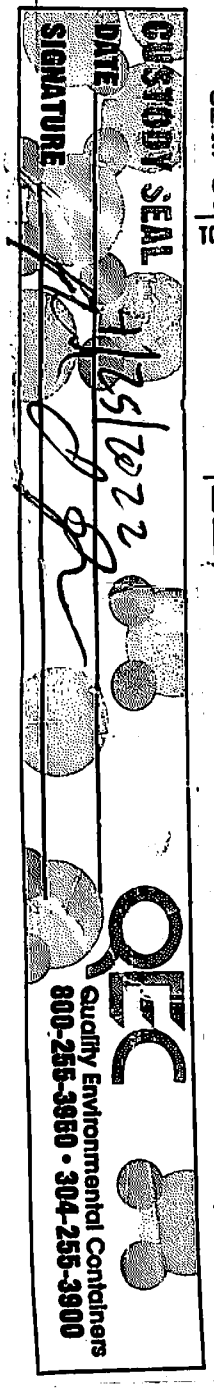
IR Gun # 27

Initials Ehe

Date 4/26/22 Time 1000

Cooler #: 6585





PM Login Confirmation

Folder #: 169098

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMU 54 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 169768

Project Manager: *BMS* **Date Received:** 04/26/22 **Log Date:** 04/26/2022

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 1.5 oC

SAMPLE #: 1134804 **DESCR:** 54MW13 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/25/2022 **Time:** 12:10

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
759	CARBON, INORG & ORG	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	5/9/2022	5/8/2022		Logged
1227	ANIONS IC QSM 5.0	(EPA 9056A)			***DESIGNATED MATRIX SPIKE***	4/27/2022	5/8/2022		Entered
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	5/23/2022	5/8/2022		Logged
1279	SUB CHLORATE/CHLORITE	(300.1)			***DESIGNATED MATRIX SPIKE***		5/8/2022		Logged

SAMPLE #: 1134805 **DESCR:** 54MW10 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/25/2022 **Time:** 14:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
759	CARBON, INORG & ORG	(EPA 9060A)				5/9/2022	5/8/2022		Logged
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/27/2022	5/8/2022		Entered

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpC481.tmp

Folder #: 169098 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMU 54

SAMPLE #: 1134805 **DESCR:** 54MW10 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/25/2022 **Time:** 14:55

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/23/2022	5/8/2022		Logged
1279	SUB CHLORATE/CHLORITE	(300.1)					5/8/2022		Logged

Invoice Number: 169768 **Preliminary Invoice Estimate:** $364.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	4	$12.00	0.00	$48.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	4	$12.00	0.00	$48.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	4	$12.00	0.00	$48.00
CARBON, INORG & ORG	GROUND WATER	4	$28.00	0.00	$112.00
ORGAN CARBON T QSM 5.0	GROUND WATER	4	$28.00	0.00	$112.00
SUB CHLORATE/CHLORITE	GROUND WATER	4	$90.00	0.00	$360.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**4**	TOC
MISC	**4**	CHLORATE/CHLORITE
UNPRES PL	**4**	ANIONS
VOA	**12**	

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpC481.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	169098	Print Date / Time:	04/26/2022	10:43	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	04/26/2022	10:00	erc
Project Name:	RADFORD AAP SWMU 54	Log-In Date / Time / By:	04/26/2022	10:43	erc
Project Phase:	RADFORD, VA	Project #:		PM:	BMS
Coolers:	6585	Temperature:	1.5 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	2724 0964 8910		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 4/25/2022 AND SIGNED.

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?		Tests
1134804	54MW13					
		VOA	1	/		
		VOA	1	/		
		VOA	1	/		
		VOA	1	N /	N	
		VOA	1	N /	N	
		VOA	1	N /	N	
		VOA	1	N /	N	
		VOA	1	N /	N	
		VOA	1	N /	N	
		Total # of Containers of Type (*VOA*) = 9				
1134804	54MW13					
		UNPRES PL	1	N /	N	ANIONS
		UNPRES PL	1	N /	N	ANIONS
		UNPRES PL	1	/		Anions
		Total # of Containers of Type (*UNPRES PL*) = 3				
1134804	54MW13					
		MISC	1	N /	N	CHLORATE/CHLORITE
		MISC	1	N /	N	CHLORATE/CHLORITE
		MISC	1	N /	N	CHLORATE/CHLORITE
		Total # of Containers of Type (*MISC*) = 3				
1134804	54MW13					
		H2SO4 PL	1	N /	N	TOC
		H2SO4 PL	1	N /	N	TOC

		H2SO4 PL	1	/	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 3**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1134805	54MW10				
		VOA	1	/	
		VOA	1	/	
		VOA	1	/	
		Total # of Containers of Type	**(*VOA*) = 3**		
1134805	54MW10				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1134805	54MW10				
		MISC	1	/	CHLORATE/CHLORITE
		Total # of Containers of Type	**(*MISC*) = 1**		
1134805	54MW10				
		H2SO4 PL	1	/	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 2

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757)819-5310
Project Name: Radford AAP
Project #: SWMUs 49+54
Location: Radford, VA
Sampled By: T. Vas & P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 169156
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMUS 49+54
Logged By: erc PM: BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: PaceA@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056	VOC 8260C	MEE RSK-175	TIC 9060A	Chlorate/Chlorite	COD 410.4	pH 9040C	TAL Metals 6010C 7470A							Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																		
4/26	00:00	GW	G		TB1	N			2						Trip Blank									1136202
4/26	08:21	GW	G		13MW5	N	3	3	9	6					MS/MSD									03
4/26	09:25	GW	G		13MW4	N	1	1	3	2														04
4/26	10:26	GW	G		13MW3	N	1	1	3	2														05
4/26	11:46	GW	G		49MW04	N	1	1	3	2														06
4/26	11:46	GW	G		49TW04	N	1	1	3	2														07
4/26	12:47	GW	G		13MW2	N	1	1	3	2														08
4/26	14:59	GW	G		54MW12	N	1	1			3	1												09
4/26	14:59	GW	G		54TW12	N	1	1			3	1												10
4/26	16:44	GW	G		54MW1	N	1	1			3	1												11
4/26	17:44	GW	G		54IDW	N							1	1	1									12
4/27	08:32	GW	G		49MW05	N	1	1	3	2														13

Relinquished By:	Date/Time	Received By:	Date/Time
	4/27/2022 1800	Fedex	4/27/2022 1806
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			4/28/22 930

Lab Use Only
Ice Present Yes No
Temp 2.4 IR Gun 27
Cooler # 6116, 6680

4/29/22 1010

Rev. 02/2017

CHAIN OF CUSTODY

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5316
Project Name: Radford AAP SWMUs 49+54
Project #:
Location: Radford, VA
Sampled By: T. Vas + P. Taylor

CT LABORATORIES

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Lab Use Only
Place Header Sticker Here:

169186

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: PaceA@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

2022 Collection Date	Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056	VOC 8260C	MEE RSK-175	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
4/27	1132	GW	G		49MW02	N	1	1	3	2			169174
4/27	1252	GW	G		48MW3	N	1	1	3	2			15
4/27	1404	GW	G		48MW2	N	1	1	3	2			16
4/27	1537	GW	G		48MW6	N	1	1	3	2			17

ANALYSES REQUESTED — Fill in Spaces with Bottles per Test

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Relinquished By:	Date/Time	Received By:	Date/Time
	4/27/2022 1800	Fedex	4/27/2022 1800
Received by:	Date/Time	Received for Laboratory by:	Date/Time
			930
			1010

Lab Use Only
Ice Present Yes No
Temp 0.4 IR Gun 77
Cooler # 6116, 6660

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 3.3

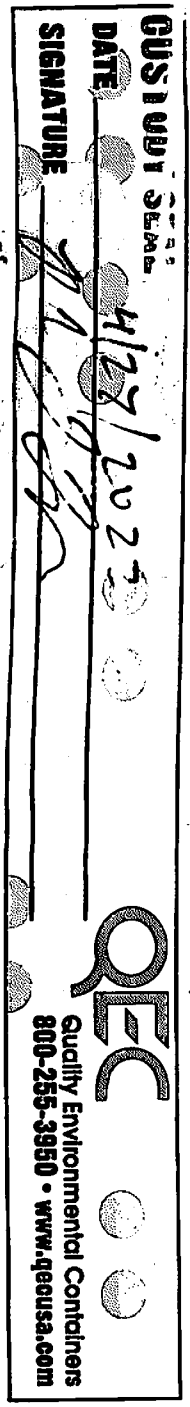
Actual Temperature _____

IR Gun # 27

Initials EC

Date 4/28/22 Time 930

Cooler #: 6116



ORIGIN ID:WALA (770) 855-6275
PAUL I TAYLO
WESTON SOLUTIONS INC/OU 1203
380 ARBOR DRIVE

PEACHTREE CORNERS, GA 30092
UNITED STATES US

SHIP DATE: 27APR22
ACTWGT: 52.00 LB
CAD: 8885155/SSFE2300
DIMS: 22x14x18 IN

BILL THIRD PARTY

TO CT LAB
CT LAB
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760 REF: 03826.552.500.2320
INV:
PO: DEPT:

FedEx Express

2 of 2
MPS# 0263 2725 0659 3096
Mstr# 2725 0659 3065

0201

XN LNRA

THU - 28 APR 10:30A
PRIORITY OVERNIGHT
AHS
53913
WI-US MSN

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 28

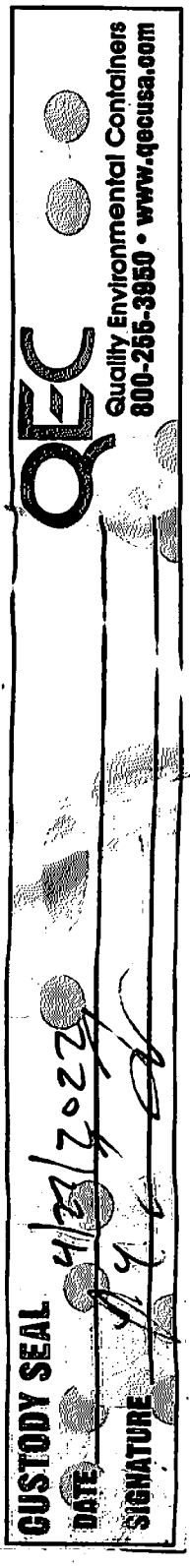
Actual Temperature _____

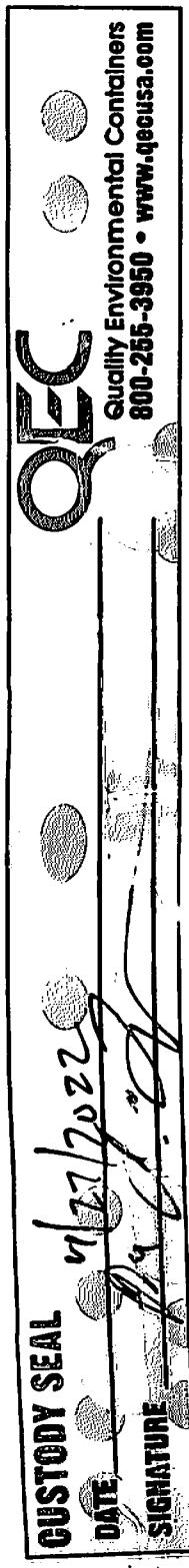
IR Gun # 27

Initials KAE

Date 4/28/22 Time 930

Cooler #: 680





PM Login Confirmation

Folder #: 169156

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMUs 49&54 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 169826

Project Manager: *BMS* **Date Received:** 04/28/22 **Log Date:** 04/28/2022

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 3.3 oC

SAMPLE #: 1136202 DESCR: TB1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED: 4/26/2022 Time: 00:00**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*		5/10/2022	5/10/2022		Logged

SAMPLE #: 1136203 DESCR: 13MW5 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED: 4/26/2022 Time: 08:21**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	***DESIGNATED MATRIX SPIKE***	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				***DESIGNATED MATRIX SPIKE***	5/10/2022	5/10/2022		NeedPrep
			Ethane							
			Ethene							
			Methane							
1227	ANIONS IC QSM 5.0	(EPA 9056A)				***DESIGNATED MATRIX SPIKE***	4/28/2022	5/10/2022		Logged
			Chloride							
			Nitrate Nitrogen							

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136203 **DESCR:** 13MW5 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 08:21

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)			***DESIGNATED MATRIX SPIKE***	5/24/2022	5/10/2022		Logged

SAMPLE #: 1136204 **DESCR:** 13MW4 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 09:25

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/10/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged

SAMPLE #: 1136205 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 10:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			***Y***	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/10/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136205 **DESCR:** 13MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 10:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged

SAMPLE #: 1136206 **DESCR:** 49MW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 11:46

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/10/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged

SAMPLE #: 1136207 **DESCR:** 49TW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 11:46

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/10/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136207 **DESCR:** 49TW04 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 11:46

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged

SAMPLE #: 1136208 **DESCR:** 13MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 12:47

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/10/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/10/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged

SAMPLE #: 1136209 **DESCR:** 54MW12 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 14:59

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
759	CARBON, INORG & ORG	(EPA 9060A)				5/10/2022	5/10/2022		Logged
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136209 **DESCR:** 54MW12 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 14:59

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged
1279	SUB CHLORATE/CHLORITE	(300.1)					5/10/2022		Logged

SAMPLE #: 1136210 **DESCR:** 54TW12 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 14:59

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
759	CARBON, INORG & ORG	(EPA 9060A)				5/10/2022	5/10/2022		Logged
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged
1279	SUB CHLORATE/CHLORITE	(300.1)					5/10/2022		Logged

SAMPLE #: 1136211 **DESCR:** 54MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 16:44

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
759	CARBON, INORG & ORG	(EPA 9060A)				5/10/2022	5/10/2022		Logged
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/28/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/24/2022	5/10/2022		Logged
1279	SUB CHLORATE/CHLORITE	(300.1)					5/10/2022		Logged

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136212 **DESCR:** 54IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/26/2022 **Time:** 17:44

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					5/10/2022		Logged
989	COD QSM	(EPA 410.4)				5/24/2022	5/10/2022		NeedPrep
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)				10/23/2022	5/10/2022		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)				10/23/2022	5/10/2022		NeedPrep
1200	ICP TOTAL QSM 5.0	(EPA 6010C)				10/23/2022	5/10/2022		NeedPrep
			Total Aluminum						
			Total Antimony						
			Total Arsenic						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						
			Total Copper						
			Total Iron						
			Total Lead						
			Total Magnesium						
			Total Manganese						
			Total Nickel						
			Total Selenium						
			Total Silver						
			Total Thallium						
			Total Vanadium						
			Total Zinc						
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)				5/24/2022	5/10/2022		NeedPrep

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136213 **DESCR:** 49MW05 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/27/2022 **Time:** 08:32

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/11/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/11/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/29/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/25/2022	5/10/2022		Logged

SAMPLE #: 1136214 **DESCR:** 49MW02 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/27/2022 **Time:** 11:32

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/11/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/11/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/29/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/25/2022	5/10/2022		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136215 **DESCR:** 48MW3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/27/2022 **Time:** 12:52

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/11/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/11/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/29/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/25/2022	5/10/2022		Logged

SAMPLE #: 1136216 **DESCR:** 48MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/27/2022 **Time:** 14:04

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/11/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/11/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/29/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/25/2022	5/10/2022		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136217 **DESCR:** 48MW6 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/27/2022 **Time:** 15:37

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/11/2022	5/10/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/11/2022	5/10/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/29/2022	5/10/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/25/2022	5/10/2022		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp580E.tmp

Folder #: 169156 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

Invoice Number: 169826 **Preliminary Invoice Estimate:** $3,002.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	16	$12.00	0.00	$192.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	14	$16.00	0.00	$224.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	16	$12.00	0.00	$192.00
CARBON, INORG & ORG	GROUND WATER	3	$28.00	0.00	$84.00
COD QSM	GROUND WATER	1	$18.00	0.00	$18.00
ICP K TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Aluminum	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Antimony	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Arsenic	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Barium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Beryllium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cadmium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Calcium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Chromium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cobalt	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Copper	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Iron	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Lead	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Magnesium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Manganese	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Nickel	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Selenium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Silver	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Thallium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Vanadium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Zinc	GROUND WATER	1	$3.50	0.00	$3.50
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$23.00	0.00	$23.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	13	$16.00	0.00	$208.00

METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	13	$16.00	0.00	$208.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	13	$16.00	0.00	$208.00
ORGAN CARBON T QSM 5.0	GROUND WATER	16	$28.00	0.00	$448.00
PH	GROUND WATER	1	$10.00	0.00	$10.00
SUB CHLORATE/CHLORITE	GROUND WATER	3	$90.00	0.00	$270.00
VOC 8260 QSM 5.0	GROUND WATER	13	$60.00	0.00	$780.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**17**	TOC
HNO3	**1**	HG,ICP,K,NA
MISC	**3**	CHLORATE/CHLORITE
UNPRES PL	**17**	ANIONS
VOA	**9**	
VOA HCL	**67**	GAS,VOC

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	169156	Print Date / Time:	04/28/2022	09:55	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	04/28/2022	09:30	erc
Project Name:	RADFORD AAP SWMUs 49&54	Log-In Date / Time / By:	04/28/2022	09:55	ETK
Project Phase:	RADFORD, VA	Project #:		PM:	BMS
Coolers:	6116, 6680	Temperature:	<3.4 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	2725 0659 3085,"3096		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

SEVERAL SAMPLES WERE RECEIVED PAST THE 48-HOUR HOLD TIME FOR NITRATE. THE CLIENT INSTRUCTED THE LAB TO PROCEED WITH THE ANALYSIS.

TWO CUSTODY SEALS WERE PRESENT AND INTACT ON EACH COOLER UPON RECEIPT - ALL WERE DATED 4/27/2022 AND SIGNED.

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136202	TB1				
		VOA HCL	1	/	VOC
		VOA HCL	1	/	VOC
		Total # of Containers of Type	(***VOA HCL***) = **2**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136203	13MW5				
		UNPRES PL	1	/	Anions
		UNPRES PL	1 N	/ N	ANIONS
		UNPRES PL	1 N	/ N	ANIONS
		Total # of Containers of Type	(***UNPRES PL***) = **3**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136203	13MW5				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC
		VOA HCL	1 N	/ N	GAS,VOC

		VOA HCL	1	N	/ N	GAS,VOC
		VOA HCL	1	N	/ N	GAS,VOC
		VOA HCL	1	N	/ N	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 15**			
1136203	13MW5					
		H2SO4 PL	1	Y	/ N	TOC
		H2SO4 PL	1	Y	/ N	TOC
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 3**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136204	13MW4				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136204	13MW4				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136204	13MW4				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136205	13MW3				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136205	13MW3				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136205	13MW3				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136206	49MW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136206	49MW04				

		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136206	49MW04				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136207	49TW04				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136207	49TW04				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136207	49TW04				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136208	13MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136208	13MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136208	13MW2				
		H2SO4 PL	1 Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136209	54MW12				
		VOA	1	/	
		VOA	1	/	
		VOA	1	/	
		Total # of Containers of Type	**(*VOA*) = 3**		

1136209	54MW12						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				
1136209	54MW12						
		MISC	1		/		CHLORATE/CHLORITE
		Total # of Containers of Type	(***MISC***) = **1**				
1136209	54MW12						
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				

Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**			**Tests**
1136210	54TW12						
		VOA	1		/		
		VOA	1		/		
		VOA	1		/		
		Total # of Containers of Type	(***VOA***) = **3**				
1136210	54TW12						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				
1136210	54TW12						
		MISC	1		/		CHLORATE/CHLORITE
		Total # of Containers of Type	(***MISC***) = **1**				
1136210	54TW12						
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				

Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**			**Tests**
1136211	54MW1						
		VOA	1		/		
		VOA	1		/		
		VOA	1		/		
		Total # of Containers of Type	(***VOA***) = **3**				
1136211	54MW1						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				
1136211	54MW1						
		MISC	1		/		CHLORATE/CHLORITE
		Total # of Containers of Type	(***MISC***) = **1**				
1136211	54MW1						
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				

Sample ID /	**Description**	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**

1136212	54IDW						
		H2SO4 PL	1	Y	/	N	COD
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				
1136212	54IDW						
		HNO3	1	Y	/	N	HG,ICP,K,NA
		Total # of Containers of Type	(***HNO3***) = **1**				
1136212	54IDW						
		UNPRES PL	1		/		pH
		Total # of Containers of Type	(***UNPRES PL***) = **1**				

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?			Tests
1136213	49MW05						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				
1136213	49MW05						
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**				
1136213	49MW05						
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?			Tests
1136214	49MW02						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				
1136214	49MW02						
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		VOA HCL	1		/		GAS,VOC
		Total # of Containers of Type	(***VOA HCL***) = **5**				
1136214	49MW02						
		H2SO4 PL	1	Y	/	N	TOC
		Total # of Containers of Type	(***H2SO4 PL***) = **1**				

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?			Tests
1136215	48MW3						
		UNPRES PL	1		/		Anions
		Total # of Containers of Type	(***UNPRES PL***) = **1**				

1136215	48MW3					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**		
1136215	48MW3					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136216	48MW2				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1136216	48MW2				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1136216	48MW2				
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136217	48MW6				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) =**	**1**	
1136217	48MW6				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) =**	**5**	
1136217	48MW6				
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) =**	**1**	

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Page 1 of 1

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP
Project #: SWMUs 49 & 54
Location: Radford, VA
Sampled By: T. Vas & P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 169199
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMUS 49+54
Logged By: erc PM: BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:*
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

2022 Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056	VOC 8260C	MEE RSK-175	COD 410.4	pH 9040C	TAL Metals 6010C 7470A	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test									
4/28	00:00	GW	G		TB2	N			2				Trip Blank			136587
4/28	0948	GW	G		50MW2	N	1	1	3	2						588
4/28	0948	GW	G		50TW2	N	1	1	3	2						671
4/28	1226	GW	G		49MW01	N	1	1	3	2						672
4/28	1356	GW	G		49MW03	N	1	1	3	2						673
4/28	1520	GW	G		48MW7	N	1	1	3	2						674

Relinquished By: [signature]
Date/Time 4/28/2022 1730
Received by: [signature]
Date/Time

Received By: Fedex
Date/Time 4/28/2022 1730
Received for Laboratory by: [signature] 927
Date/Time [signature] 1011

Lab Use Only
Ice Present Yes No
Temp 1.8 IR Gun 27
Cooler # 6454

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 6.8

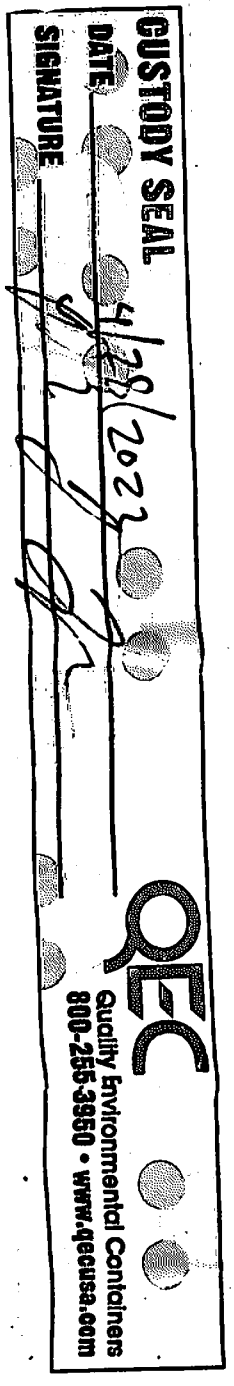
Actual Temperature _____

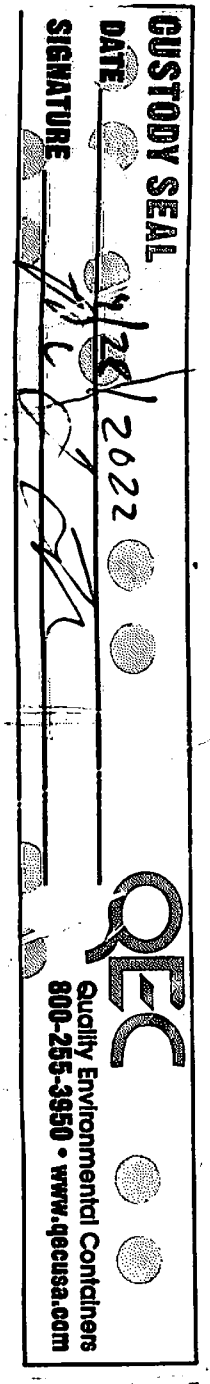
IR Gun # 27

Initials Ew

Date 4/29/22 Time 927

Cooler #: 6454





ORIGIN ID:WALA (770) 855-6275
WESTON SOLUTIONS INC/OU 1203
380 ARBOR DRIVE
CHRISTIANSBURG, VA 24073
UNITED STATES US

SHIP DATE: 28APR22
ACTWGT: 40.35 LB
CAD: 6995155/66FE2300
DIMS: 24x13x14 IN
BILL THIRD PARTY

TO CT LAB
CT LAB
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760 REF: 03886.552.500.2320
INV:
PO: DEPT:

FedEx Express

TRK# 0201 2725 5198 8734

FRI - 29 APR 10:30A
PRIORITY OVERNIGHT
AHS
53913
WI-US MSN

XN LNRA

Part # 156297-845-DEDB EXP 06/22

PM Login Confirmation

Folder #: 169199

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMUs 49&54 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 169869

Project Manager: *BMS* **Date Received:** 04/29/22 **Log Date:** 04/29/2022

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 1.8 oC

SAMPLE #: 1136587 DESCR: TB2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED: 4/28/2022 Time: 00:00**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged

SAMPLE #: 1136588 DESCR: 50MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED: 4/28/2022 Time: 09:48**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/12/2022	5/11/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/30/2022	5/11/2022		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp57BC.tmp

Folder #: 169199 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136588 **DESCR:** 50MW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 09:48

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/26/2022	5/11/2022		Logged

SAMPLE #: 1136671 **DESCR:** 50TW2 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 09:48

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/12/2022	5/11/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/30/2022	5/11/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/26/2022	5/11/2022		Logged

SAMPLE #: 1136672 **DESCR:** 49MW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 12:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/12/2022	5/11/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/30/2022	5/11/2022		Logged
			Chloride						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp57BC.tmp

Folder #: 169199 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136672 **DESCR:** 49MW01 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 12:26

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/26/2022	5/11/2022		Logged

SAMPLE #: 1136673 **DESCR:** 49MW03 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 13:56

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/12/2022	5/11/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/30/2022	5/11/2022		Logged
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/26/2022	5/11/2022		Logged

SAMPLE #: 1136674 **DESCR:** 48MW7 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 15:20

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/12/2022	5/11/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/12/2022	5/11/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				4/30/2022	5/11/2022		Logged

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp57BC.tmp

Folder #: 169199 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1136674 **DESCR:** 48MW7 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/28/2022 **Time:** 15:20

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Chloride						
			Nitrate Nitrogen						
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/26/2022	5/11/2022		Logged

Invoice Number: 169869 **Preliminary Invoice Estimate:** $920.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	5	$12.00	0.00	$60.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	5	$12.00	0.00	$60.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	5	$12.00	0.00	$60.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	5	$16.00	0.00	$80.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	5	$16.00	0.00	$80.00
METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	5	$16.00	0.00	$80.00
ORGAN CARBON T QSM 5.0	GROUND WATER	5	$28.00	0.00	$140.00
VOC 8260 QSM 5.0	GROUND WATER	5	$60.00	0.00	$300.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**5**	TOC
UNPRES PL	**5**	Anions
VOA HCL	**27**	VOC

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmp57BC.tmp

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	169199	Print Date / Time:	04/29/2022 10:08
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	04/29/2022 09:27 erc
Project Name:	RADFORD AAP SWMUs 49&54	Log-In Date / Time / By:	04/29/2022 10:08 erc
Project Phase:	RADFORD, VA	Project #:	PM: BMS
Coolers:	6454	Temperature:	1.8 C On Ice: **Y**
Custody Seals Present :	**Y**	COC Present:? **Y**	Complete? **Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED
Ship Method:	FEDEX EXPRESS	Tracking Number:	2725 5198 8734
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 4/28/2022 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136587 TB2				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1136588 50MW2				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
1136588 50MW2				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**		
1136588 50MW2				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1136671 50TW2				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		

1136671	50TW2					
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		VOA HCL	1		/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**			
1136671	50TW2					
		H2SO4 PL	1	Y	/ N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**			

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136672	49MW01				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136672	49MW01				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136672	49MW01				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136673	49MW03				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		
1136673	49MW03				
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		VOA HCL	1	/	GAS,VOC
		Total # of Containers of Type	**(*VOA HCL*) = 5**		
1136673	49MW03				
		H2SO4 PL	1	Y / N	TOC
		Total # of Containers of Type	**(*H2SO4 PL*) = 1**		

Sample ID /	Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1136674	48MW7				
		UNPRES PL	1	/	Anions
		Total # of Containers of Type	**(*UNPRES PL*) = 1**		

1136674 48MW7

VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC
VOA HCL	1		/		GAS,VOC

Total # of Containers of Type (*VOA HCL*) = 5

1136674 48MW7

H2SO4 PL	1	Y	/	N	TOC

Total # of Containers of Type (*H2SO4 PL*) = 1

Condition Code *Condition Description*

1 Sample Received OK

Rev. 02/2017

CHAIN OF CUSTODY

Company: Weston Solutions
Project Contact: Tony Pace
Telephone: (757) 819-5310
Project Name: Radford AAP
Project #: SWMU 48/49
Location: Radford, VA
Sampled By: T. Vas & P. Taylor

CT LABORATORIES
1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Folder #: 169227
Company: WESTON SOLUTIONS, INC.
Project: RADFORD AAP SWMU 48/49
Logged By: erc FM BMS

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO #

Report To: Tony Pace
EMAIL: pacea@WestonSolutions.com
Company: Weston Solutions
Address: 2 Eaton St. Ste. 603 Hampton, VA 23669

Invoice To:* Same
EMAIL:
Company:
Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

Turnaround Time
Normal RUSH*
Date Needed: _____
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TOC 9060A	Anions 9056	VOC 8260C	MEE RSK-175	COD 410.4	pH 9040C	TAL Metals 6010C 7470A								Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test																	
4/29	0800	GW	G		TB3	N			2							Trip Blank							137137
4/29	0850	GW	G		48MW1	N	1	1	3	2													138
4/29	0945	GW	G		49IDW						1	1	1										139

Relinquished By: [signature]
Received by: [signature]
Date/Time: 4/29/2022 1400
Date/Time

Received By: Fedex
Received for Laboratory by: Eric
Date/Time: 4/29/2022 1400
Date/Time: 4/30/22 1040
Eric 4/30/22 1057

Lab Use Only
Ice Present (Yes) No
Temp 1.4 IR Gun 27
Cooler # XXX

Cooler Receipt Form

Ice Present YES NO

Observed Temperature 1.4

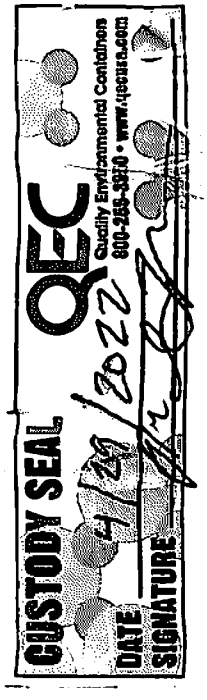
Actual Temperature _____

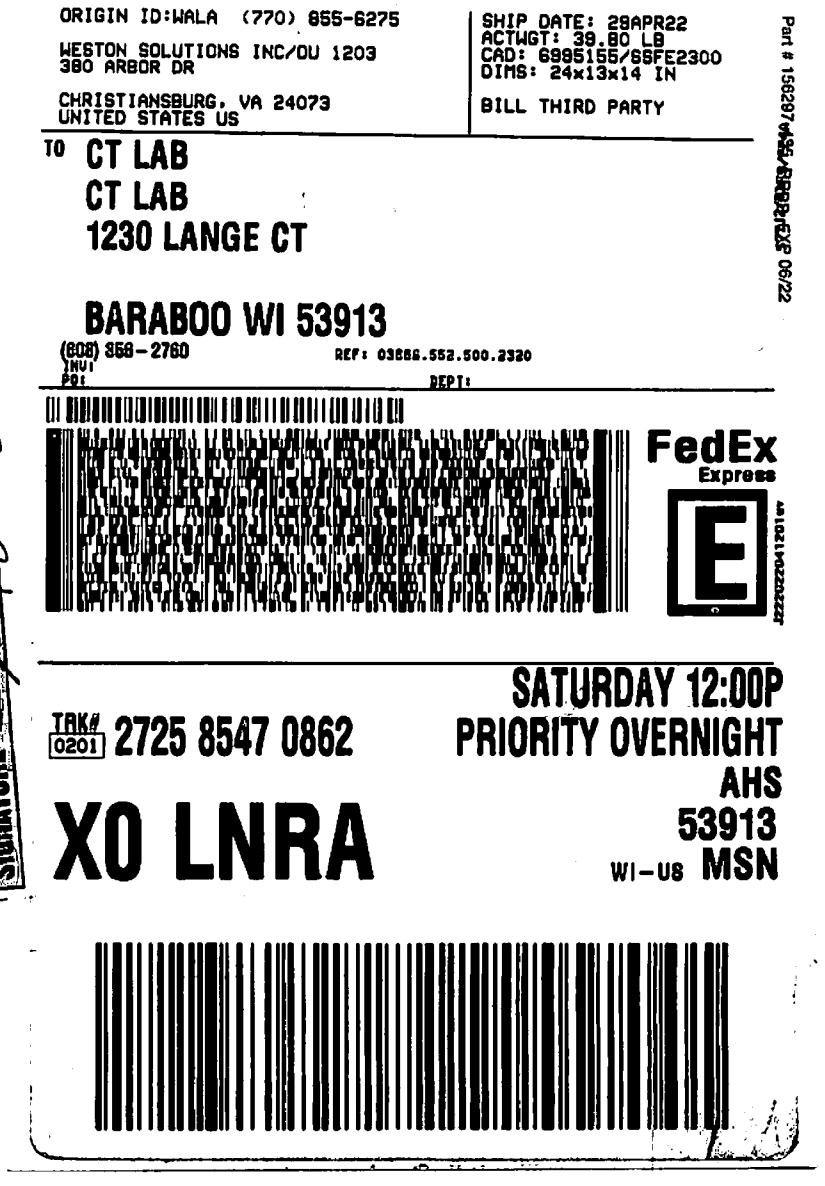
IR Gun # 27

Initials EMC

Date 4/30/22 Time 1040

Cooler #: XXX





PM Login Confirmation

Folder #: 169227

Contract #: 3313

Company: WESTON SOLUTIONS, INC. **Project:** RADFORD AAP SWMUs 49&54 **Proj #:**

Project Phase: RADFORD, VA **PO Number:** **Invoice #:** 169897

Project Manager: *BMS* **Date Received:** 04/30/22 **Log Date:** 04/30/2022

Report To: ANTHONY PACE CC:
2 EATON STREET
HAMPTON, VA 23669
Phone: 757-819-5310: Fax:
Rep. E-Mail anthony.pace@westonsolutions.com

Invoice To :ACCOUNTS PAYABLE CC:
1400 WESTON WAY, BLDG 5-1
WEST CHESTER, PA 19380
Phone: Fax:
EMail:

Collected By:
Collector's Phone: 757-819-5310

Arrival Temperature: 1.4 oC

SAMPLE #: 1137437 DESCR: TB3 **PRIMARY / DETAILED MATRIX:** AQUEOUS / TRIP BLANK **SAMPLED: 4/29/2022 Time: 08:00**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/13/2022	5/12/2022		Logged

SAMPLE #: 1137438 DESCR: 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED: 4/29/2022 Time: 08:50**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
1221	VOC 8260 QSM 5.0	(EPA 8260C)			*Y*	5/13/2022	5/12/2022		Logged
1224	METH,ETH,ETHE QSM 5.0	(RSK 175)				5/13/2022	5/12/2022		NeedPrep
			Ethane						
			Ethene						
			Methane						
1227	ANIONS IC QSM 5.0	(EPA 9056A)				5/1/2022	5/12/2022		Logged
			Chloride						
			Nitrate Nitrogen						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD960.tmp

Folder #: 169227 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1137438 **DESCR:** 48MW1 **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/29/2022 **Time:** 08:50

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Sulfate						
1230	ORGAN CARBON T QSM 5.0	(EPA 9060A)				5/27/2022	5/12/2022		Logged

SAMPLE #: 1137439 **DESCR:** 49IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/29/2022 **Time:** 09:45

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9040C)					5/12/2022		Logged
989	COD QSM	(EPA 410.4)				5/27/2022	5/12/2022		NeedPrep
1183	ICP K TOTAL QSM 5.0	(EPA 6010C)				10/26/2022	5/12/2022		NeedPrep
1190	ICP NA TOTAL QSM 5.0	(EPA 6010C)				10/26/2022	5/12/2022		NeedPrep
1200	ICP TOTAL QSM 5.0	(EPA 6010C)				10/26/2022	5/12/2022		NeedPrep
			Total Aluminum						
			Total Antimony						
			Total Arsenic						
			Total Barium						
			Total Beryllium						
			Total Cadmium						
			Total Calcium						
			Total Chromium						
			Total Cobalt						
			Total Copper						
			Total Iron						
			Total Lead						
			Total Magnesium						
			Total Manganese						
			Total Nickel						
			Total Selenium						

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD960.tmp

Folder #: 169227 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

SAMPLE #: 1137439 **DESCR:** 49IDW **PRIMARY / DETAILED MATRIX:** AQUEOUS / GROUND WATER **SAMPLED:** 4/29/2022 **Time:** 09:45

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
			Total Silver						
			Total Thallium						
			Total Vanadium						
			Total Zinc						
1208	MERCURY TOTAL QSM 5.0	(EPA 7470A)				5/27/2022	5/12/2022		NeedPrep

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD960.tmp

Folder #: 169227 **Company:** *WESTON SOLUTIONS, INC.* **Project:** RADFORD AAP SWMUs 49&54

Invoice Number: 169897 **Preliminary Invoice Estimate:** $360.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
ANIONS IC QSM 5.0 Chloride	GROUND WATER	1	$12.00	0.00	$12.00
ANIONS IC QSM 5.0 Nitrate Nitrogen	GROUND WATER	1	$12.00	0.00	$12.00
ANIONS IC QSM 5.0 Sulfate	GROUND WATER	1	$12.00	0.00	$12.00
COD QSM	GROUND WATER	1	$18.00	0.00	$18.00
ICP K TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP NA TOTAL QSM 5.0	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Aluminum	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Antimony	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Arsenic	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Barium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Beryllium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cadmium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Calcium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Chromium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Cobalt	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Copper	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Iron	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Lead	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Magnesium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Manganese	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Nickel	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Selenium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Silver	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Thallium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Vanadium	GROUND WATER	1	$3.50	0.00	$3.50
ICP TOTAL QSM 5.0 Total Zinc	GROUND WATER	1	$3.50	0.00	$3.50
MERCURY TOTAL QSM 5.0	GROUND WATER	1	$23.00	0.00	$23.00
METH,ETH,ETHE QSM 5.0 Ethane	GROUND WATER	1	$16.00	0.00	$16.00
METH,ETH,ETHE QSM 5.0 Ethene	GROUND WATER	1	$16.00	0.00	$16.00

C:\Windows\ServiceProfiles\LocalService\AppData\Local\Temp\tmpD960.tmp

METH,ETH,ETHE QSM 5.0 Methane	GROUND WATER	1	$16.00	0.00	$16.00
ORGAN CARBON T QSM 5.0	GROUND WATER	1	$28.00	0.00	$28.00
PH	GROUND WATER	1	$10.00	0.00	$10.00
VOC 8260 QSM 5.0	GROUND WATER	1	$60.00	0.00	$60.00
VOC 8260 QSM 5.0	TRIP BLANK	1	$60.00	0.00	$60.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$0.00

Bottle Information

Container	# Containers	Tests
H2SO4 PL	**2**	COD
HNO3	**1**	HG,ICP,K,NA
UNPRES PL	**2**	Anions
VOA HCL	**7**	VOC

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #:	169227	Print Date / Time:	04/30/2022	10:54	
Client:	WESTON SOLUTIONS, INC.	Received Date / Time / By:	04/30/2022	10:40	erc
Project Name:	RADFORD AAP SWMUs 49&54	Log-In Date / Time / By:	04/30/2022	10:54	erc
Project Phase:	RADFORD, VA	Project #:		PM:	BMS
Coolers:	UNMARKED	Temperature:	1.4 C	On Ice:	**Y**
Custody Seals Present :	**Y**	COC Present:?	**Y**	Complete?	**Y**
Seal Intact?	**Y**	Numbers:	DATED AND SIGNED		
Ship Method:	FEDEX EXPRESS	Tracking Number:	2725 8547 0862		
Adequate Packaging:	**Y**	Temp Blank Enclosed?	**Y**		

Notes: THE SAMPLES WERE RECEIVED IN GOOD CONDITION ON ICE.

TWO CUSTODY SEALS WERE PRESENT AND INTACT UPON RECEIPT - BOTH WERE DATED 4/29/2022 AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
1137437 TB3				
	VOA HCL	1	/	VOC
	VOA HCL	1	/	VOC
	Total # of Containers of Type	(***VOA HCL***) = **2**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1137438 48MW1				
	UNPRES PL	1	/	Anions
	Total # of Containers of Type	(***UNPRES PL***) = **1**		
1137438 48MW1				
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	VOA HCL	1	/	GAS,VOC
	Total # of Containers of Type	(***VOA HCL***) = **5**		
1137438 48MW1				
	H2SO4 PL	1	Y / N	TOC
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		
Sample ID / Description	**Container Type**	**Cond. Code**	**pH OK?/Filtered?**	**Tests**
1137439 49IDW				
	H2SO4 PL	1	Y / N	COD
	Total # of Containers of Type	(***H2SO4 PL***) = **1**		

1137439 49IDW

HNO3	1	Y	/	N	HG,ICP,K,NA

Total # of Containers of Type (*HNO3*) = 1

1137439 49IDW

UNPRES PL	1	/	pH

Total # of Containers of Type (*UNPRES PL*) = 1

Condition Code	*Condition Description*
1	Sample Received OK

APPENDIX B-2
DATA VALIDATION REPORTS

VALIDATA
Chemical Services, Inc.
(770) 232-0130
(770) 232-5082 (Fax)
2159 Wynnton Pointe, Duluth, GA 30097
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Weston Solutions, Inc.
SITE NAME:	Radford Army Ammunitions Plant – October 2021 Sampling
CONTRACTED LAB:	CT Laboratories LLC, Eurofins South Bend, SGS Orlando
QA/QC LEVEL:	EPA Stage 2B and 4
EPA SOW/METHODS:	EPA and SW-846 Methods
VALIDATION GUIDELINES:	*Radford Army Ammunitions Plant, Radford Virginia, SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, SWMU 54 Interim Measures Work Plan, QSM 5.1, SW 846 Methods*, *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 2017; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2017
SAMPLE MATRIX:	Water
TYPE OF ANALYSIS:	Volatile Organics (VOA), Dissolved Gases, Perchlorate, Explosives, Total Metals, Total Mercury, Anions, Total Organic Carbon (TOC), Total Inorganic Carbon (TIC), Chlorate*, Chemical Oxygen Demand (COD), pH
SDG NUMBER:	165461
SAMPLING DATES:	October 26-28, 2021

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
TB-1	1066466	Water	X	
13MW4	1066467	Water	X	X
13TW4	1066468	Water	X	X
13MW3	1066469	Water	X	X
49MW04	1066470	Water	X	X
13MW2	1066471	Water	X	X
TB-2	1067785	Water	X	

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
48MW1	1067786	Water	X	X
49MW01	1067787	Water	X	X
50MW02	1067788	Water	X	X
48MW2	1067789	Water	X	X
48MW3	1067790	Water	X	X
48MW3DL	1067790DL	Water	X	
49MW02	1067791	Water	X	X
48MW6	1067792	Water	X	X
13MW3MS	1066469MS	Water	X	X
13MW3MSD	1066469MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
49-IDW	1067793	Water	X	X
49-IDWMD	1067793MD	Water	X	
49-IDWMS	1067793MS	Water	X	
49-IDWMSD	1067793MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Anions	TOC
13MW4	1066467	Water	X	X
13TW4	1066468	Water	X	X
13MW3	1066469	Water	X	X
13MW3DL	1066469DL	Water	X	
49MW04	1066470	Water	X	X
13MW2	1066471	Water	X	X
48MW1	1066854	Water	X	X
49MW01	1067787	Water	X	X
50MW02	1067788	Water	X	X
48MW2	1067789	Water	X	X
48MW3	1067790	Water	X	X
49MW02	1067791	Water	X	X
48MW6	1067792	Water	X	X
48MW6DL	1067792DL	Water	X	
13MW3MS	1066469MS	Water	X	X
13MW3MSD	1066469MSD	Water	X	X
49MW01MS	10667787MS	Water	X	
49MW01MSD	10667787MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	COD	pH
49-IDW	1067793	Water	X	X
49-IDWMD	1067793MD	Water		X
49-IDWMS	1067793MS	Water	X	
49-IDWMSD	1067793MSD	Water	X	

SDG NUMBER: 165486
SAMPLING DATES: October 27, 2021

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
54-IDW	1066849	Water	X	X
54-IDWMD	1066849MD	Water	X	X
54-IDWMS	1066849MS	Water	X	X
54-IDWMSD	1066849MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	Anions	Chlorate*
54MW13	1066840	Water	X	X
54MW10	1066845	Water	X	X
54MW10DL	1066845DL	Water	X	
54TW10	1066846	Water	X	X
54TW10DL	1066846DL	Water	X	
54MW12	1066847	Water	X	X
54MW1	1066848	Water	X	X
54MW13MS	1066840MS	Water	X	X
54MW13MSD	1066840MSD	Water	X	X

Client Sample #	Lab Sample #	Matrix	TOC	TIC
54MW13	1066840	Water	X	X
54MW10	1066845	Water	X	X
54TW10	1066846	Water	X	X
54MW12	1066847	Water	X	X
54MW1	1066848	Water	X	X
54MW13MS	1066840MS	Water	X	

Client Sample #	Lab Sample #	Matrix	TOC	TIC
54MW13MSD	1066840MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	COD	pH
54-IDW	1066849	Water	X	X
54-IDWMD	1066849MD	Water		X
54-IDWMS	1066849MS	Water	X	X
54-IDWMSD	1066849MSD	Water	X	

SDG NUMBER: FA90260
SAMPLING DATES: October 27, 2021

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW13	FA90260-1	Water	X	X
54MW13MS	FA90260-1MS	Water	X	X
54MW13MSD	FA90260-1MSD	Water	X	X
54MW10	FA90260-2	Water	X	X
54TW10	FA90260-3	Water	X	X
54MW12	FA90260-4	Water	X	X
54MW1	FA90260-5	Water	X	X

* -Analysis reported chlorate and chlorite
**- analysis was for 22 analytes by Method 6010C.

All fractions were validated at Stage 4, except Metals and Mercury, which were validated at Stage 2B.

Suffix Codes: DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RA = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Sandra Nacquin

DATA VALIDATION SUMMARY

CT Laboratories LLC – 159400 - Organics & Inorganics

VOLATILE ORGANICS (VOA)

SUMMARY

I.) General:

The analyses for Volatile Organics (VOA) were performed according to SW 846 Method 8260B.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

The average RRF for 1,4-dioxane (0.006) for the standards analyzed on 10/29/21 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

All other Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

The RRF for 1,4-dioxane (0.0033) for the standards run on 10/29/21 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

Continuing Calibration:

The RRF for 1,4-dioxane (0.0024) for the standards run on 11/01/21 at 09:08 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary. The Percent Difference (%D) for 1,4-dioxane at 33.3% for this standard exceeded the 20% QC limit for opening CCVs. The 1,4-dioxane results for all SDG samples, which consisted entirely of non-detects, were qualified as estimated (UJ).

The RRF for 1,4-dioxane (0.0034) for the standards run on 11/01/21 at 20:07 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0031) for the standards run on 11/02/21 at 08:04 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0036) for the standards run on 11/02/21 at 11:52 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

Trip Blanks:

There were no detections in the associated trip blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW3. All criteria were met. No data qualification was necessary

VIII.) Field Duplicates:

One set of field duplicate samples (13MW4 / 13TW4) was identified for this SDG. The only calculable Relative Percent Difference (RPD) was 35% for trichloroethene, which was within the QC limit. No data qualification was necessary.

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The carbon tetrachloride result for sample 48MW3 was reported from a dilution analysis. Since all criteria were met and the compound was only reported once, no data qualification was necessary.

DISSOLVED GASSES

SUMMARY

I.) General:

The analyses for Dissolved Gases were performed according to Method RSK-175.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW3. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

One set of field duplicate samples (13MW4 / 13TW4) was identified for this SDG. There were no calculable Relative Percent Differences. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary

IV.) Blanks:

Method Blanks:

Magnesium (17.3 ug/L) was reported in the associated method blank. Since the magnesium result for the sample was greater than the LOQ and the blank concentration, no data qualification was necessary.

Calibration Blanks:

Antimony (4.69 ug/L), lead (2.4 ug/L) and zinc (8.33 ug/L) were detected in the associated ICB or CCB for this SDG. Since the associated positive sample results were greater than the LOQ and the blank concentrations, no data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 49-IDW. The Percent Difference (%D) for calcium (26%) exceeded the 10% QC limit. The positive calcium result in the sample was qualified as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 49-IDW. The parent sample result for aluminum and iron were greater than 4X the spike concentrations, so the results for these analytes were not considered meaningful. The Percent Recoveries (%Rs) were below the QC limits for the following analytes: calcium (83%, 81%), manganese (77%, 77%), silver (70%, 70%) and thallium (80%, 81%). Additionally, the post spike %R for silver (71%) was below the QC limits. The positive and non-detect results for these analytes for sample 49-IDW were qualified as estimated (J) and (UJ).

The Relative Percent Differences (RPDs) for aluminum (21%), calcium (200%), iron (21%) and nickel (23%) exceeded the 20% QC limit. The positive and non-detect results for these analytes for the sample were qualified as estimated (J) and (UJ).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Rinsate Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW3 and 49MW01. The Percent Recovery (%R) for sulfate (85%) for 13MWMS was below the QC limits. The sulfate result for the parent sample was qualified as estimated (J).

VI.) Field Duplicates:

One set of field duplicate samples (13MW4 / 13TW4) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were chloride (2.7%), nitrate (1.6%) and sulfate (2.7%), which were all within the QC limit. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate results for samples 13MW3 and 48MW6 were reported from dilution analyses. Since only one sulfate result was reported for each sample, no data qualification was necessary.

TOTAL ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 13MW3. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (13MW4 / 13TW4) was identified for this SDG. The absolute difference for the two results was less than the LOQ, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data was not submitted for this fraction of the SDG. Data qualification based on the absence of MS / MSD data was not required. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 49-IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

CT Laboratories LLC – 165486 - Inorganics

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

All LLCCV and CRDL criteria were met. No data qualification was necessary

IV.) Blanks:

Method Blanks:

Iron (18.90 ug/L) was reported in the associated method blank. Since the associated sample result was greater than the LOQ and the blank concentration, no data qualification was necessary.

Calibration Blanks:

Potassium (311 ug/L, 194 ug/L) was reported in the associated calibration blanks. Since the associated sample result was greater than the LOQ and the blank concentration, no data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 54-IDW. The Percent Differences (%Ds) for barium (33%), calcium (156%) and magnesium (154%) exceeded the 10% QC limit. The positive results for these analytes in the sample were qualified as estimated (J).

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54-IDW. The Percent Recoveries (%Rs) for the following analytes were outside the QC limits: aluminum (116%, 125%), calcium (85%), copper (119%, 124%), iron (77%), mercury (30%, 27%) silver (74%, 71%). The post spike %R for silver (64%) was below the QC limits. The positive aluminum, calcium, copper and iron results for the sample were qualified as estimated (J) and the non-detect mercury and silver results for the sample was qualified as estimated (UJ).

The Relative Percent Differences (RPDs) for lead (22%) and manganese (22%) exceeded the 20% QC limit. The positive lead and manganese results for the sample were qualified as estimated (J).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data

qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Rinsate Blank:

There was no associated equipment rinsate blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW13. The parent sample result for sulfate was greater than 4X the spike concentration, so the results for this analyte were not considered meaningful. All other criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One sets of field duplicate samples (54MW10 / 54TW10) was identified for this SDG. The calculable Relative Percent Differences (RPDs) for chloride (0%) and sulfate (0%) were within the QC limit. The calculable difference for nitrate was less than the RL, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

TOTAL INORGANIC AND ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54MW13. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW10 / 54TW10) was identified for this SDG. The calculable Relative Percent Difference (RPD) for TIC at 1.3% was within the QC limit and the calculable difference for TOC was less than the LOQ, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample 54- IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 54-IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHLORATE / CHLORITE

SUMMARY

I.) General:

The analyses for Chlorate / Chlorite were performed according to EPA Method 300.0.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Rinsate Blank:

There was no associated equipment rinsate blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 54MW12 and 54MW13. The Percent Recoveries (%Rs) of chlorate for 54MW12MS/MSD (83%, 83%) and 54MW13MS/MSD (84%, 83%) were below the QC limits. The non-detect chlorate results for both samples were qualified as estimated (UJ).

VI.) Field Duplicates:

One sets of field duplicate samples (54MW10 / 54TW10) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

SGS Orlando, FL – FA90260 - Organics

EXPLOSIVES

SUMMARY

I.) General:

The analyses for Explosives were performed according to SW 846 Method 8330.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for 3,4-dinitrotoluene exceeded the QC limits for the following samples:

54MW13(conf)	141%
54TW10	143%
54TW10 (conf)	151%
54MW12 (conf)	144%

The positive results for sample 54TW10 were qualified as estimated (J). Since the other listed results are from the confirmation analysis and results were not reported from these analyses, no further data qualification was necessary.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW13. The Percent Recoveries (%Rs) for 1,3,5-trinitrotoluene (131%, 169%) exceeded the QC limits. Data qualification based on MS / MSD data alone was not required. No data qualification was necessary.

VII.) Field Duplicates:

One set of field duplicate samples (54MW10 / 54TW10) was identified for this SDG. The calculable Relative Percent Differences (RPDs) were:

HMX	3.9%
RDX	33%
3,5-dinitroaniline	16%
2-amino-4,6-dinitrotoluene	0%
4-amino-2,6-dinitrotoluene	13%
1,3,5-trinitrobenzene	77%
2,4,6-trinitrobenzene	30%

The RPD for 1,3,5-trinitrotoluene exceeded the 50% QC limit, so the positive results for this compound for the two samples were qualified as estimated (J).

VIII.) TCL Compound Identification:

The Column Relative Percent Difference (RPD) exceeded the 40% QC limit for the following compounds:

Sample	Compound	RPD
54MW13	RDX	53.2%
	3,5-dinitroaniline	132%
54MW10	3,5-dinitroaniline	65.5%
54MW12	3,5-dinitroaniline	41.5%

The positive compound results for the listed samples above were qualified as estimated (J).

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

PERCHLORATE

SUMMARY

I.) General:

The analyses for Perchlorate were performed according to SW-846 Method 6350.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW13. The Percent Recoveries (%Rs) at 50% and 55% were below the QC limits. Data qualification based on MS / MSD criteria alone was not required. No data qualification was necessary.

VI.) Field Duplicates:

One set of field duplicate samples (54MW10 / 54TW10) was identified for this SDG. The calculable difference was less than the RL, so no data qualification was necessary.

VII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

Appendix A
Qualified Form Is

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066471
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:24	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	5.3		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.70	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	0.89	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066469
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:03	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

CT LABORATORIES
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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.2		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066467
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 12:29	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066468
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:59	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.65	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.71	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:23	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.9		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067786
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:30	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:42	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.46	J	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	24		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.1		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067789
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:47	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.1		0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	22		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	0.35	J	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	18		0.39	1.0	1.2	1.2

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/02/2021 / 10:55	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:46	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

CT LABORATORIES
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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067790
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	5
Date & Time Analyzed:	11/01/2021 / 16:17	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	74		1.9	5.0	6.0	6.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:00	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.1		0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	2.2		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067792
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 17:14	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.5		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	2.1		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 14:51	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067787
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:35	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:57	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.91	J	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067791
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 16:45	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	0.50	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 13:25	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1066470
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:16	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.2		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:20	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.1	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	GROUND WATER	SDG No.:	165461
Sample wt/vol:	25.3 (g/mL)	CTL Sample ID:	1067788
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	25.3 (mL)	Date/Time Prepared:	11/01/2021 / 13:05
Analytical Method:	RSK 175	Analytical Prep Batch #	83207
Analytical Run #:	196980	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 15:38	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.78	J	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

ALH 8/10/22

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB-1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1066466
% Solids:		Date Received:	10/27/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 10:34	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U Z UJ	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB-2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix:	TRIP BLANK	SDG No.:	165461
Sample wt/vol:	(g/mL)	CTL Sample ID:	1067785
% Solids:		Date Received:	10/29/2021
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	196904	Dilution Factor:	1
Date & Time Analyzed:	11/01/2021 / 11:02	GPC Cleanup Date/Time:	/
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W102921.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 6010C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196999	Analysis Date/Time	11/03/2021 02:51
Analytical Prep Batch #:	83194	Prep. Date/Time:	11/01/2021 10:11
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	3660	~~Y~~ J	29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	124		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-47-3	Total Chromium	10.3		1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.4	J	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	12.8	J	5.2	20	40	40
7439-89-6	Total Iron	4990	~~Y~~ J	11	40	80	80
7439-95-4	Total Magnesium	36700		10	25	40	40
7439-96-5	Total Manganese	234	J	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	7.9	J	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	3300		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-23-5	Total Sodium	35500		200	500	700	700
7440-28-0	Total Thallium	20	U UJ	6.8	20	40	40
7440-62-2	Total Vanadium	5.7		1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	60.3		4.5	10	20	20

ALH 8/10/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 7470A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197150	Analysis Date/Time	11/05/2021 11:14
Analytical Prep Batch #:	83168	Prep. Date/Time:	11/03/2021 14:45
ICAL Calibration #:	11052021	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 6010C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196999	Analysis Date/Time	11/18/2021 14:20
Analytical Prep Batch #:	83194	Prep. Date/Time:	11/01/2021 10:11
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-70-2	Total Calcium	59400	J	17	50	100	100
7439-92-1	Total Lead	9.0		1.4	2.0	4.0	4.0
7440-22-4	Total Silver	2.5	U M-UJ	1.1	2.5	5.0	5.0

ALH 8/10/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066471
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 17:51
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066471
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 23:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.22	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	36		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/28/2021 08:04
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.5		0.12	0.20	0.40	0.40

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INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:29
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066469
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 21:09
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	97	~~M~~ J	4.0	7.5	15	15

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066467
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:04
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.64	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066467
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 19:03
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.65		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	37		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066468
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 16:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.63	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13TW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066468
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 19:21
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.64		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	38		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066854
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 18:09
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066854
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 20:43
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067789
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:18
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.9	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.85		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.7		0.80	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067789
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:33
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.56	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067790
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:36
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	4.0		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	19		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067790
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.53	J	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 14:12
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	9.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.95		0.12	0.20	0.40	0.40

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INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 14:30
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	68		4.0	7.5	15	15

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INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067792
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 20:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.77	J	0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 410.4	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197021	Analysis Date/Time	11/03/2021 13:03
Analytical Prep Batch #:	83211	Prep. Date/Time:	11/02/2021 10:30
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	120		18	50	75	75

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067793
Analytical Method:	EPA 9040C	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196942	Analysis Date/Time	10/29/2021 15:15
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.58		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067787
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 12:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.37	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	0.88	J	0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067787
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 18:30
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067791
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:54
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.36	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	12		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067791
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 19:56
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066470
Analytical Method:	EPA 9060A	Date Received:	10/27/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/04/2021 17:32
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1066470
Analytical Method:	EPA 9056A	Date Received:	10/27/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196851	Analysis Date/Time	10/27/2021 22:57
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.27	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067788
Analytical Method:	EPA 9060A	Date Received:	10/29/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197155	Analysis Date/Time	11/05/2021 09:27
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	6.1		0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 49
Matrix (soil/water):	GROUND WATER	SDG No.:	165461
% Solids:		Lab Sample ID:	1067788
Analytical Method:	EPA 9056A	Date Received:	10/29/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196929	Analysis Date/Time	10/29/2021 13:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	62		0.80	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066849
Analytical Method:	EPA 7470A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197150	Analysis Date/Time	11/05/2021 11:08
Analytical Prep Batch #:	83168	Prep. Date/Time:	11/03/2021 14:45
ICAL Calibration #:	11052021	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U ~~M~~ UJ	0.020	0.080	0.12	0.12

ALH 8/10/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066849
Analytical Method:	EPA 6010C	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196907	Analysis Date/Time	10/29/2021 15:08
Analytical Prep Batch #:	83162	Prep. Date/Time:	10/28/2021 16:20
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	312	J	29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	99.9	J	0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	76600	J	17	50	100	100
7440-47-3	Total Chromium	2.7	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.5	U	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	23.8	~~J~~ J	5.2	20	40	40
7439-89-6	Total Iron	742	J	11	40	80	80
7439-92-1	Total Lead	8.4	J	1.4	2.0	4.0	4.0
7439-95-4	Total Magnesium	30100	J	10	25	40	40
7439-96-5	Total Manganese	18.7	J	1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	1600		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U ~~M~~ UJ	1.1	2.5	5.0	5.0
7440-23-5	Total Sodium	27800		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	11.3	J	4.5	10	20	20

ALH 8/10/22

CT LABORATORIES
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INORGANIC ANALYSIS DATA SHEET

Sample Description

54-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066849
Analytical Method:	EPA 410.4	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197021	Analysis Date/Time	11/03/2021 13:03
Analytical Prep Batch #:	83211	Prep. Date/Time:	11/02/2021 10:30
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	50	U	18	50	75	75

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54-IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066849
Analytical Method:	EPA 9040C	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196890	Analysis Date/Time	10/28/2021 14:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.29		0.1	0.1	0.1	0.1

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066848
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197009	Analysis Date/Time	11/03/2021 00:47
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	60		0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066848
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 20:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.3	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	28		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066848
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197156	Analysis Date/Time	11/04/2021 22:53
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066845
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197009	Analysis Date/Time	11/03/2021 00:05
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	77		0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066845
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 19:13
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.25	J	0.12	0.20	0.40	0.40

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066845
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 19:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066845
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197156	Analysis Date/Time	11/04/2021 21:32
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066847
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197009	Analysis Date/Time	11/03/2021 00:33
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	76		0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066847
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 20:07
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.66		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	28		0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066847
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197156	Analysis Date/Time	11/04/2021 22:36
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066840
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 17:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.6		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.49		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	37	M	0.80	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066840
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197156	Analysis Date/Time	11/04/2021 20:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066840
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197009	Analysis Date/Time	11/02/2021 23:51
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	91		0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066846
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197009	Analysis Date/Time	11/03/2021 00:19
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	76		0.5	1.5	3.0	3.0

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066846
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	5	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/29/2021 08:55
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066846
Analytical Method:	EPA 9056A	Date Received:	10/28/2021
Dilution Factor:	1.0000	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	196892	Analysis Date/Time	10/28/2021 19:49
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.26	J	0.12	0.20	0.40	0.40

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INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMU 54
Matrix (soil/water):	GROUND WATER	SDG No.:	165486
% Solids:		Lab Sample ID:	1066846
Analytical Method:	EPA 9060A	Date Received:	10/28/2021
Dilution Factor:	1	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	197156	Analysis Date/Time	11/04/2021 22:24
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL 0550	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.50	J	0.5	1.5	3.0	3.0

Client Sample Results

Client: CT Laboratories
Project/Site: Chlorite, Chlorate

Job ID: 810-6301-1

Client Sample ID: 1066840 54MW13
Lab Sample ID: 810-6301-1
Date Collected: 10/27/21 09:00
Matrix: Water
Date Received: 10/29/21 09:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			11/05/21 23:03	1
Chlorate	<10	~~F1~~ UJ	10		ug/L			11/05/21 23:03	1

Client Sample ID: 1066845 54MW10
Lab Sample ID: 810-6301-2
Date Collected: 10/27/21 10:40
Matrix: Water
Date Received: 10/29/21 09:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			11/06/21 00:24	1
Chlorate	<10		10		ug/L			11/06/21 00:24	1

Client Sample ID: 106846 54TW10
Lab Sample ID: 810-6301-3
Date Collected: 10/27/21 10:40
Matrix: Water
Date Received: 10/29/21 09:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			11/06/21 00:51	1
Chlorate	<10		10		ug/L			11/06/21 00:51	1

Client Sample ID: 1066847 54MW12
Lab Sample ID: 810-6301-4
Date Collected: 10/27/21 12:10
Matrix: Water
Date Received: 10/29/21 09:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			11/06/21 02:13	1
Chlorate	<10	~~F1~~ UJ	10		ug/L			11/06/21 02:13	1

Client Sample ID: 1066848 54MW1
Lab Sample ID: 810-6301-5
Date Collected: 10/27/21 13:07
Matrix: Water
Date Received: 10/29/21 09:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorite	<10		10		ug/L			11/06/21 03:34	1
Chlorate	<10		10		ug/L			11/06/21 03:34	1

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW13		
Lab Sample ID:	FA90260-1	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q86199.D	1	11/15/21 14:41	NG	11/11/21 13:00	OP88299	SQ1871
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.14	0.20	0.10	0.050	ug/l	J

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW13		
Lab Sample ID:	FA90260-1	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB070813.D	1	11/04/21 14:18	JB	11/02/21 08:00	OP88132	GBB2121
Run #2 [b]	GG622725.D	1	11/05/21 15:58	JB	11/02/21 08:00	OP88132	GGG3063

	Initial Volume	Final Volume
Run #1	1020 ml	10.0 ml
Run #2	1020 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	3.9	0.20	0.098	0.078	ug/l	
121-82-4	RDX [c]	0.58 J	0.20	0.098	0.078	ug/l	
	DNX	0.098 U	0.20	0.098	0.078	ug/l	
	MNX	0.098 U	0.20	0.098	0.078	ug/l	
	TNX	0.098 U	0.20	0.098	0.078	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.53 J	0.20	0.098	0.078	ug/l	
99-65-0	1,3-Dinitrobenzene	0.098 U	0.20	0.098	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	2.3	0.20	0.098	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.3	0.20	0.098	0.078	ug/l	
98-95-3	Nitrobenzene	0.098 U	0.20	0.098	0.095	ug/l	
88-72-2	o-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
479-45-8	Tetryl	0.098 U	0.20	0.098	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	22.3	0.20	0.098	0.097	ug/l	
118-96-7	2,4,6-Trinitrotoluene	11.8	0.20	0.098	0.078	ug/l	
55-63-0	Nitroglycerine	0.98 U	2.0	0.98	0.49	ug/l	
78-11-5	PETN	0.98 U	2.0	0.98	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	125%	141% [d]	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.
(d) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/10/22

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FA90260-2	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q86174.D	1	11/12/21 18:08	NG	11/11/21 13:00	OP88299	SQ1870
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.072	0.20	0.10	0.050	ug/l	J

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FA90260-2	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB070814.D	1	11/04/21 14:49	JB	11/02/21 08:00	OP88132	GBB2121
Run #2 [b]	GG622726.D	1	11/05/21 16:30	JB	11/02/21 08:00	OP88132	GGG3063

	Initial Volume	Final Volume
Run #1	1020 ml	10.0 ml
Run #2	1020 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	2.6	0.20	0.098	0.078	ug/l	
121-82-4	RDX	1.4	0.20	0.098	0.078	ug/l	
	DNX	0.098 U	0.20	0.098	0.078	ug/l	
	MNX	0.098 U	0.20	0.098	0.078	ug/l	
	TNX	0.098 U	0.20	0.098	0.078	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.40	0.20	0.098	0.078	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.098 U	0.20	0.098	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.5	0.20	0.098	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.6	0.20	0.098	0.078	ug/l	
98-95-3	Nitrobenzene	0.098 U	0.20	0.098	0.095	ug/l	
88-72-2	o-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
479-45-8	Tetryl	0.098 U	0.20	0.098	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	2.2	0.20	0.098	0.097	ug/l	J
118-96-7	2,4,6-Trinitrotoluene	5.4	0.20	0.098	0.078	ug/l	
55-63-0	Nitroglycerine	0.98 U	2.0	0.98	0.49	ug/l	
78-11-5	PETN	0.98 U	2.0	0.98	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	123%	132%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/10/22

SGS North America Inc.

Report of Analysis

Client Sample ID:	54TW10		
Lab Sample ID:	FA90260-3	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q86175.D	1	11/12/21 18:17	NG	11/11/21 13:00	OP88299	SQ1870
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.076	0.20	0.10	0.050	ug/l	J

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54TW10		
Lab Sample ID:	FA90260-3	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB070815.D	1	11/04/21 15:20	JB	11/02/21 08:00	OP88132	GBB2121
Run #2 [b]	GG622727.D	1	11/05/21 17:01	JB	11/02/21 08:00	OP88132	GGG3063
Run #3 [b]	PP391676.D	1	11/11/21 12:55	JB	11/08/21 06:00	OP88250	GPP2493

	Initial Volume	Final Volume
Run #1	1020 ml	10.0 ml
Run #2	1020 ml	10.0 ml
Run #3	1040 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	2.5 J	0.20	0.098	0.078	ug/l	
121-82-4	RDX	1.0 J	0.20	0.098	0.078	ug/l	
	DNX	0.098 U	0.20	0.098	0.078	ug/l	
	MNX	0.098 U	0.20	0.098	0.078	ug/l	
	TNX	0.098 U	0.20	0.098	0.078	ug/l	
618-87-1	3,5-Dinitroaniline	0.47 J	0.20	0.098	0.078	ug/l	
99-65-0	1,3-Dinitrobenzene	0.098 U	0.20	0.098	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.5 J	0.20	0.098	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.4 J	0.20	0.098	0.078	ug/l	
98-95-3	Nitrobenzene	0.098 U	0.20	0.098	0.095	ug/l	
88-72-2	o-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
479-45-8	Tetryl	0.098 U	0.20	0.098	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.98 J	0.20	0.098	0.097	ug/l	
118-96-7	2,4,6-Trinitrotoluene	4.0 J	0.20	0.098	0.078	ug/l	
55-63-0	Nitroglycerine	0.98 U	2.0	0.98	0.49	ug/l	
78-11-5	PETN	0.98 U	2.0	0.98	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
610-39-9	3,4-Dinitrotoluene	143% [c]	151% [c]	111%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/10/22

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW12		
Lab Sample ID:	FA90260-4	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q86176.D	1	11/12/21 18:25	NG	11/11/21 13:00	OP88299	SQ1870
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.44	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW12
Lab Sample ID: FA90260-4
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 10/27/21
Date Received: 10/28/21
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB070816.D	1	11/04/21 15:51	JB	11/02/21 08:00	OP88132	GBB2121
Run #2 [b]	GG622728.D	1	11/05/21 17:33	JB	11/02/21 08:00	OP88132	GGG3063

	Initial Volume	Final Volume
Run #1	1040 ml	10.0 ml
Run #2	1040 ml	10.0 ml

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	10.1	0.19	0.096	0.077	ug/l	
121-82-4	RDX	0.096 U	0.19	0.096	0.077	ug/l	
	DNX	0.096 U	0.19	0.096	0.077	ug/l	
	MNX	0.096 U	0.19	0.096	0.077	ug/l	
	TNX	0.096 U	0.19	0.096	0.077	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.63	0.19	0.096	0.077	ug/l	J
99-65-0	1,3-Dinitrobenzene	0.096 U	0.19	0.096	0.077	ug/l	
606-20-2	2,6-Dinitrotoluene	0.096 U	0.19	0.096	0.077	ug/l	
121-14-2	2,4-Dinitrotoluene	0.096 U	0.19	0.096	0.077	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	3.3	0.19	0.096	0.077	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	1.9	0.19	0.096	0.077	ug/l	
98-95-3	Nitrobenzene	0.096 U	0.19	0.096	0.093	ug/l	
88-72-2	o-Nitrotoluene	0.096 U	0.19	0.096	0.077	ug/l	
99-08-1	m-Nitrotoluene	0.096 U	0.19	0.096	0.077	ug/l	
99-99-0	p-Nitrotoluene	0.096 U	0.19	0.096	0.077	ug/l	
479-45-8	Tetryl	0.096 U	0.19	0.096	0.077	ug/l	
99-35-4	1,3,5-Trinitrobenzene	12.8	0.19	0.096	0.095	ug/l	
118-96-7	2,4,6-Trinitrotoluene	9.3	0.19	0.096	0.077	ug/l	
55-63-0	Nitroglycerine	0.96 U	1.9	0.96	0.48	ug/l	
78-11-5	PETN	0.96 U	1.9	0.96	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	135%	144% [d]	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.
(d) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/10/22

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW1		
Lab Sample ID:	FA90260-5	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q86177.D	1	11/12/21 18:33	NG	11/11/21 13:00	OP88299	SQ1870
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.10 U	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW1		
Lab Sample ID:	FA90260-5	**Date Sampled:**	10/27/21
Matrix:	AQ - Ground Water	**Date Received:**	10/28/21
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB070817.D	1	11/04/21 16:22	JB	11/02/21 08:00	OP88132	GBB2121
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
2691-41-0	HMX	0.098 U	0.20	0.098	0.078	ug/l	
121-82-4	RDX	0.098 U	0.20	0.098	0.078	ug/l	
	DNX	0.098 U	0.20	0.098	0.078	ug/l	
	MNX	0.098 U	0.20	0.098	0.078	ug/l	
	TNX	0.098 U	0.20	0.098	0.078	ug/l	
618-87-1	3,5-Dinitroaniline	0.098 U	0.20	0.098	0.078	ug/l	
99-65-0	1,3-Dinitrobenzene	0.098 U	0.20	0.098	0.078	ug/l	
606-20-2	2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
121-14-2	2,4-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
98-95-3	Nitrobenzene	0.098 U	0.20	0.098	0.095	ug/l	
88-72-2	o-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-08-1	m-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
99-99-0	p-Nitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
479-45-8	Tetryl	0.098 U	0.20	0.098	0.078	ug/l	
99-35-4	1,3,5-Trinitrobenzene	0.098 U	0.20	0.098	0.097	ug/l	
118-96-7	2,4,6-Trinitrotoluene	0.098 U	0.20	0.098	0.078	ug/l	
55-63-0	Nitroglycerine	0.98 U	2.0	0.98	0.49	ug/l	
78-11-5	PETN	0.98 U	2.0	0.98	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	129%		70-136%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

VALIDATA
Chemical Services, Inc.
(770) 232-0130
(770) 232-5082 (Fax)
2159 Wynnton Pointe, Duluth, GA 30097
www.datavalidator.com

DATA VALIDATION SUMMARY REPORT

COMPANY:	Weston Solutions, Inc.
SITE NAME:	Radford Army Ammunitions Plant – April 2022 Sampling
CONTRACTED LAB:	CT Laboratories LLC, Eurofins South Bend, SGS Orlando
QA/QC LEVEL:	EPA Stage 2B and 4
EPA SOW/METHODS:	EPA and SW-846 Methods
VALIDATION GUIDELINES:	*Radford Army Ammunitions Plant, Radford Virginia, SWMU 49 Monitored Natural Attenuation Groundwater Monitoring Work Plan, SWMU 54 Interim Measures Work Plan, QSM 5.1, SW 846 Methods*, *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* 2017; *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* 2017
SAMPLE MATRIX:	Water
TYPE OF ANALYSIS:	Volatile Organics (VOA), Dissolved Gases, Perchlorate, Explosives, Total Metals, Total Mercury, Anions, Total Organic Carbon (TOC), Total Inorganic Carbon (TIC), Chlorate*, Chemical Oxygen Demand (COD), pH
SDG NUMBER:	169098
SAMPLING DATES:	April 25-29, 2022

SAMPLES:

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
TB1	1136202	Water	X	
13MW5	1136203	Water	X	X
13MW4	1136204	Water	X	X
13MW3	1136205	Water	X	X
49MW04	1136206	Water	X	X
49TW04	1136207	Water	X	X
13MW2	1136208	Water	X	X

Client Sample #	Lab Sample #	Matrix	VOA	Dis. Gases
49MW05	1136213	Water	X	X
49MW02	1136214	Water	X	X
48MW3	1136215	Water	X	X
48MW2	1136216	Water	X	X
48MW6	1136217	Water	X	X
TB2	1136587	Water	X	
50MW2	1136588	Water	X	X
50TW2	1136671	Water	X	X
49MW01	1136672	Water	X	X
49MW03	1136673	Water	X	X
48MW7	1136674	Water	X	X
TB3	1137437	Water	X	
48MW1	1137438	Water	X	X
13MW5MS	1136203MS	Water	X	X
13MW5MSD	1136203MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Total Metals**	Total Mercury
54IDW	1136212	Water	X	X
49IDW	1137439	Water	X	X
54IDWMS	1136212MS	Water	X	X
54IDWMSD	1136212MSD	Water	X	X
49IDWMS	1137439MS	Water	X	
49IDWMSD	1137439MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	Anions	TOC
54MW13	1134804	Water	X	X
54MW10	1134805	Water	X	X
13MW5	1136203	Water	X	X
13MW5DL	1136203DL	Water	X	
13MW4	1136204	Water	X	X
13MW3	1136205	Water	X	X
13MW3DL	1136205DL	Water	X	
49MW04	1136206	Water	X	X
49TW04	1136207	Water	X	X
49TW04DL	1136207DL	Water	X	
13MW2	1136208	Water	X	X
54MW12	1136209	Water	X	X

Client Sample #	Lab Sample #	Matrix	Anions	TOC
54TW12	1136210	Water	X	X
54MW1	1136211	Water	X	X
49MW05	1136213	Water	X	X
49MW02	1136214	Water	X	X
48MW3	1136215	Water	X	X
48MW3DL	1136215DL	Water	X	
48MW2	1136216	Water	X	X
48MW6	1136217	Water	X	X
48MW6DL	1136217DL	Water	X	
50MW2	1136588	Water	X	X
50MW2DL	1136588DL	Water	X	
50TW2	1136671	Water	X	X
50TW2DL	1136671DL	Water	X	
49MW01	1136672	Water	X	X
49MW03	1136673	Water	X	X
48MW7	1136674	Water	X	X
48MW1	1137438	Water	X	X
48MW1DL	1137438DL	Water	X	
13MW5MS	1136203MS	Water	X	X
13MW5MSD	1136203MSD	Water	X	X
54MW13MS	1134804MS	Water	X	X
54MW13MSD	1134804MSD	Water	X	X
48MW7MS	1136674MS	Water	X	
48MW7MSD	1136774MSD	Water	X	
48MW1MS	1137438MS	Water	X	
48MW1MSD	1137438MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	COD	pH
54IDW	1136212	Water	X	X
49IDW	1137439	Water	X	X
54IDWMS	1136212MS	Water	X	
54IDWMSD	1136212MSD	Water	X	
49IDWMD	1137439MD	Water		X
49IDWMS	1137439MS	Water	X	
49IDWMSD	1137439MSD	Water	X	

Client Sample #	Lab Sample #	Matrix	TIC	Chlorate*
54MW13	1134804	Water	X	X
54MW10	1134805	Water	X	X
54MW12	1136209	Water	X	X
54TW12	1136210	Water	X	X
54MW1	1136211	Water	X	X
54MW13MS	1134804MS	Water		X
54MW13MSD	1134804MSD	Water		X
54TW12MS	1136210MS	Water		X
54TW12MSD	1136210MSD	Water		X

SDG NUMBER: FA95241
SAMPLING DATES: April 25, 2022

SAMPLES:

Client Sample #	Lab Sample #	Matrix	Explosives	Perchlorate
54MW13	FA95241-1	Water	X	X
54MW13MS	FA95241-1MS	Water	X	X
54MW13MSD	FA95241-1MSD	Water	X	X
54MW10	FA95241-2	Water	X	X

* -Analysis reported chlorate and chlorite
**- analysis was for 22 analytes by Method 6010C.

All fractions were validated at Stage 4, except Metals and Mercury, which were validated at Stage 2B.

Suffix Codes: DL = DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RA = REANALYSIS

DATA REVIEWERS: Amy L. Hogan, Kevin C. Harmon, Sandra Nacquin

DATA VALIDATION SUMMARY

CT Laboratories LLC – 169098 - Organics & Inorganics

VOLATILE ORGANICS (VOA)

SUMMARY

I.) General:

The analyses for Volatile Organics (VOA) were performed according to SW 846 Method 8260B.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC / MS Tuning:

All GC / MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

The average RRF for 1,4-dioxane (0.004) for the standards analyzed on 4/28/22 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

All other Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

The RRF for 1,4-dioxane (0.0043) for the standards run on 4/28/22 at 19:37 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

Continuing Calibration:

The RRF for 1,4-dioxane (0.0041) for the standards run on 5/5/22 at 07:54 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0044) for the standards run on 5/5/22 at 11:21 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0039) for the standards run on 5/5/22 at 12:28 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0043) for the standards run on 5/5/22 at 22:39 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0039) for the standards run on 5/6/22 at 07:54 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

The RRF for 1,4-dioxane (0.0042) for the standards run on 5/6/22 at 09:53 on instrument VMS3 was below 0.010. Since the limit for this compound is advisory and 1,4-dioxane is a known poor performed, citing professional judgment, the validator determined that no data qualification based on the RRF was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

Trip Blanks:

There were no detections in the associated trip blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW5. All criteria were met. No data qualification was necessary

VIII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 50MW02 / 50TW02) were identified for this SDG. The differences for carbon tetrachloride for the first set and carbon tetrachloride and trichloroethene for the second set were less than 3X the LOQ, so no data qualification was necessary

IX.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

X.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

DISSOLVED GASSES

SUMMARY

I.) General:

The analyses for Dissolved Gases were performed according to Method RSK-175.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Equipment Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 13MW5. All criteria were met. No data qualification was necessary.

VII.) Field Duplicates:

Two sets of field duplicate samples (49MW04 / 49TW04 and 50MW02 / 50TW02) were identified for this SDG. There were no calculable Relative Percent Differences. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

TOTAL METALS and MERCURY

SUMMARY

I.) General:

The analyses for Total Metals were performed according to SW-846 Method 6010C and the analyses for Total Mercury were performed according to SW-846 Method 7470A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) LLCCV and CRDL:

The Percent Recovery (%R) for the LLCCV standard analyzed on 5/9/22 was 125% for selenium, which exceeded the QC limits. Since the selenium result for the associated sample was non-detect, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the associated method blanks. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

V.) ICP Interference Check Sample Results:

All Interference Check Sample criteria were met. No data qualification was necessary.

VI.) ICP Serial Dilution Analysis:

Serial dilution analysis was performed using sample 49IDW. All criteria were met. No data qualification was necessary.

VII.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

VIII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 49IDW and 54IDW. The Percent Recoveries (%Rs) for aluminum (223%, 350%) and iron (200%, 363%) for 49IDW exceeded the QC limits. All post spike criteria were met. The positive aluminum and iron results for the parent sample were qualified as estimated (J). The Percent Recoveries (%RSs) for mercury (5%, 26%) and the Relative Percent Difference (RPD) at 137% for 54IDW were outside the QC limits. The non-detect mercury result for the parent sample was qualified as estimated (UJ).

IX.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

X.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

ANIONS

SUMMARY

I.) General:

The analyses for Anions were performed according to SW-846 Method 9056A.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

The 49 to 50 hours for samples 13MW4 and 13MW5 exceeded the 48-hour QC limit for nitrate. The positive nitrate results for these 2 samples were qualified as estimated (J).

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

Sulfate (0.8302 mg/L, 0.8811 mg/L, 0.8190 mg/L and 0.8078 mg/L) was detected in several of the associated CCB for this SDG. Since the blank concentrations were less than half the LOQ, no

data qualification was necessary.

Equipment Rinsate Blank:

There was no equipment blank submitted in association with this data set. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 13MW5, 54MW13, 48MW7 and 48MW1. The sulfate result for parent sample 54MW13 was greater than 4X the spike concentration, so the results for this analyte in the sample were not considered meaningful. The Percent Recoveries (%Rs) for sulfate were below the QC limits for the following samples: 48MW1 (80%, 78%), 48MW7 (81%, 79%) and 13MW5 (82%). The positive sulfate results for the parent samples were qualified as estimated (J).

VI.) Field Duplicates:

Three sets of field duplicate samples (54MW12 / 54TW12, 49MW04 / 49TW04 and 50MW2 / 50TW2) were identified for this SDG. The calculable Relative Percent Differences (RPDs) for the first stet were chloride (2.7%), nitrate (2.7%) and sulfate (0%). The RPDs for the second set were chloride (8.4%) nitrate (2.5%) and sulfate (2.9%). The RPDs for the third set were chloride (0%), nitrate (0%) and sulfate (2.4%). All RPD were within the QC limit, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

The sulfate and or chloride results for samples 13MW3, 13W5, 48MW3, 48MW6, 49TW04, 50MW2, 50TW2 and 48MW1 were reported from dilution analyses. Since only one sulfate result was reported for each sample, no data qualification was necessary.

TOTAL INORGANIC AND ORGANIC CARBON

SUMMARY

I.) General:

The analyses for Total Inorganic Carbon (TIC) and Total Organic Carbon (TOC) were performed according to SW-846 Method 9060A.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 54MW13 and 13MW5. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

Three sets of field duplicate samples (54MW12 / 54TW12, 49MW04 / 49TW04 and 50MW2 / 50TW2) were identified for this SDG. There were no calculable RPD or differences, so no data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHEMICAL OXYGEN DEMAND (COD)

SUMMARY

I.) General:

The analyses for Chemical Oxygen Demand (COD) were performed according to EPA Method 410.4.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 49IDW and 54IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this fraction of the SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

pH

SUMMARY

I.) General:

The analyses for pH were performed according to SW-846 Method 9040C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

All Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Blanks data were not required for this fraction of the SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

LCS data was not required for this fraction of the SDG. No data qualification was necessary.

V.) Matrix Duplicate (MD):

MD analysis was performed using sample 49IDW. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

CHLORATE / CHLORITE

SUMMARY

I.) General:

The analyses for Chlorate / Chlorite were performed according to EPA Method 300.0.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this fraction.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

Calibration Blanks:

There were no detections in the associated calibration blanks. No data qualification was necessary.

Equipment Rinsate Blank:

There was no associated equipment rinsate blank for this SDG. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

All LCS Recovery criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples 54MW13 and 54TW12. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

One sets of field duplicate samples (54MW12 / 54TW12) was identified for this SDG. There were no calculable Relative Percent Differences (RPDs). No data qualification was necessary.

VII.) Sample Result, Calculation/Transcription Verification:

All criteria were met. No data qualification was necessary.

DATA VALIDATION SUMMARY

SGS Orlando, FL – FA95241 - Organics

EXPLOSIVES

SUMMARY

I.) General:

The analyses for Explosives were performed according to SW 846 Method 8330.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

It was noted in the sample receipt section of the lab report that samples 54MW12, 54TW12 and 54MW1 were listed on the COC but were not received by the laboratory for analysis.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

Method Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

V.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VI.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW13. The Percent Recoveries (%Rs) for tetryl (59%) and 2,4,6-trinitrotoluene (60%) were below the QC limits. Data qualification based on MS / MSD data alone was not required. No data qualification was necessary.

VII.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VIII.) TCL Compound Identification:

The Column Relative Percent Difference (RPD) exceeded the 40% QC limit for the following compounds:

Sample	Compound	RPD
54MW13	3,5-dinitroaniline	118.4%
	4-amino-2,6-dinitrotoluene	44.1%
54MW10	3,5-dinitroaniline	59.5%
	4-amino-2,6-dinitrotoluene	42.4%

The positive compound results for the listed samples above were qualified as estimated (J).

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

PERCHLORATE

SUMMARY

I.) General:

The analyses for Perchlorate were performed according to SW-846 Method 6350.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

It was noted in the sample receipt section of the lab report that samples 54MW12, 54TW12 and 54MW1 were listed on the COC but were not received by the laboratory for analysis.

MAJOR ISSUES

There were no Major Issues for this fraction of the SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification (ICV):

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

III.) Blanks:

There were no detections in the associated method blank. No data qualification was necessary.

IV.) Laboratory Control Samples (LCS):

One LCS was analyzed for this fraction of the SDG. All criteria were met. No data qualification was necessary.

V.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS/ MSD analyses were performed using sample 54MW13. All criteria were met. No data qualification was necessary.

VI.) Field Duplicates:

There were no field duplicate samples identified for this SDG. No data qualification was necessary.

VII.) Internal Standards Performance (ISTD):

All ISTD criteria were met. No data qualification was necessary.

VIII.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

IX.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL) criteria were met. No data qualification was necessary.

Appendix A
Qualified Form Is

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:50	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136208
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:51	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:30	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	6.0		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	0.61	J	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136205
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.95	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:26	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136204
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 13:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.68	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:05	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136203
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:52	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 11:02	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	0.61	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	0.73	J	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137438
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 21:11	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	2.4		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:07	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.58	J	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	29		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	3.4		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136216
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 17:47	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.7		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	75		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	10		0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/06/2022 / 09:24	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	13		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136215
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:03	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:38	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:		Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	J	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	2.0		0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136217
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:15	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.4		0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:59	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136674
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:42	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:50	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	3.0		0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136672
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:43	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:58	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	2.7		0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136214
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:49	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:55	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136673
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 20:13	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:42	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.74	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136206
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 14:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:55	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136213
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 16:20	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 09:46	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

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1A

VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.70	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136207
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 15:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:42	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	P4DG070121	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.71	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136588
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 18:45	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.72	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	22.5 (g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	22.5 (mL)	Date/Time Prepared:	05/04/2022 / 08:50
Analytical Method:	RSK 175	Analytical Prep Batch #	95280
Analytical Run #:	211667	Dilution Factor:	1
Date & Time Analyzed:	05/04/2022 / 10:46	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: P4DG070121 Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-84-0	Ethane	0.80	U	0.38	0.80	1.0	1.0
74-85-1	Ethene	1.2	U	0.59	1.2	1.4	1.4
74-82-8	Methane	0.90	U	0.45	0.90	1.0	1.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	0.78	J	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	GROUND WATER	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136671
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 19:14	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	0.70	J	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

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VOLATILE ORGANICS ANALYSIS

Sample Description: **TB1**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136202
% Solids:		Date Received:	04/28/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:23	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/

TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*): /

ICAL Calibration #: W042822. Concentration Units: ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1136587
% Solids:		Date Received:	04/29/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 09:53	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.2	1.2
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.1	1.1
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.1	1.1
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.1	1.1
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.35	1.0	2.0	2.0
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.1	1.1
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.1	1.1
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.1	2.1
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.2	1.2
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.1	1.1
123-91-1	1,4-Dioxane	50	U	34	50	100	100
78-93-3	2-Butanone	10	U	2.9	10	11	11
591-78-6	2-Hexanone	10	U	3.3	10	11	11
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	12	12
67-64-1	Acetone	10	U	4.1	10	20	20
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.1	1.1
75-27-4	Bromodichloromethane	0.25	U	0.080	0.25	0.50	0.50
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0
75-15-0	Carbon disulfide	2.0	U	0.83	2.0	4.0	4.0
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.2	1.2
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.2	1.2
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.0	U	0.46	1.0	1.4	1.4
74-87-3	Chloromethane	1.0	U	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.3	1.3
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.1	1.1
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.2	2.2
124-48-1	Dibromochloromethane	1.0	U	0.35	1.0	1.1	1.1
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.1	2.1
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.3	1.3
76-13-1	Freon 113	4.0	U	1.5	4.0	4.5	4.5
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.2	1.2
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.3	2.3
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.1	1.1
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.4	2.4
75-09-2	Methylene chloride	4.0	U	1.2	4.0	4.1	4.1
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.2	2.2
100-42-5	Styrene	1.0	U	0.33	1.0	1.1	1.1
127-18-4	Tetrachloroethene	1.0	U	0.54	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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VOLATILE ORGANICS ANALYSIS

Sample Description

TB3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix:	TRIP BLANK	SDG No.:	169098
Sample wt/vol:	(g/mL)	CTL Sample ID:	1137437
% Solids:		Date Received:	04/30/2022
Soil Extract Vol:	(mL)	Date/Time Prepared:	/
Analytical Method:	EPA 8260C	Analytical Prep Batch #	
Analytical Run #:	211603	Dilution Factor:	1
Date & Time Analyzed:	05/05/2022 / 10:22	GPC (3640A) Cleanup Date/Time:	/
TCLP (1311)/ SPLP (1312)/ MLP (1320) or ASTM (D3987-85) Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	W042822.	Concentration Units:	ug/L

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
108-88-3	Toluene	1.0	U	0.27	1.0	1.1	1.1
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.1	1.1
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.1	2.1
79-01-6	Trichloroethene	1.0	U	0.39	1.0	1.2	1.2
75-69-4	Trichlorofluoromethane	1.0	U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.25	U	0.12	0.25	0.50	0.50

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 7470A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211699	Analysis Date/Time	05/04/2022 10:41
Analytical Prep Batch #:	95243	Prep. Date/Time:	05/03/2022 14:15
ICAL Calibration #:	05042022	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 6010C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211628	Analysis Date/Time	05/09/2022 12:34
Analytical Prep Batch #:	95267	Prep. Date/Time:	05/02/2022 09:24
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 6010C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211628	Analysis Date/Time	05/03/2022 22:11
Analytical Prep Batch #:	95267	Prep. Date/Time:	05/02/2022 09:24
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	329	~~Y~~ J	29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	34.9		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	67800		17	50	100	100
7440-47-3	Total Chromium	3.4	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	0.67	J	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	5.3	J	5.2	20	40	40
7439-89-6	Total Iron	678	J	11	40	80	80
7439-92-1	Total Lead	3.1	J	1.4	2.0	4.0	4.0
7439-95-4	Total Magnesium	32800		10	25	40	40
7439-96-5	Total Manganese	81.2		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	1810		120	250	500	500
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-23-5	Total Sodium	27100		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	51.2		4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 7470A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211699	Analysis Date/Time	05/04/2022 10:38
Analytical Prep Batch #:	95243	Prep. Date/Time:	05/03/2022 14:15
ICAL Calibration #:	05042022	Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Total Mercury	0.080	U M,Y--UJ	0.020	0.080	0.12	0.12

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 6010C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211581	Analysis Date/Time	05/09/2022 13:18
Analytical Prep Batch #:	95236	Prep. Date/Time:	04/29/2022 10:19
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7782-49-2	Total Selenium	20	U	10	20	40	40
7440-22-4	Total Silver	2.5	U	1.1	2.5	5.0	5.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 6010C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211581	Analysis Date/Time	05/03/2022 15:57
Analytical Prep Batch #:	95236	Prep. Date/Time:	04/29/2022 10:19
ICAL Calibration #:		Concentration Units:	ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7429-90-5	Total Aluminum	171		29	60	120	120
7440-36-0	Total Antimony	10	U	4.4	10	20	20
7440-38-2	Total Arsenic	20	U	7.7	20	40	40
7440-39-3	Total Barium	78.5		0.71	2.0	4.0	4.0
7440-41-7	Total Beryllium	3.0	U	0.95	3.0	8.0	8.0
7440-43-9	Total Cadmium	1.0	U	0.41	1.0	2.0	2.0
7440-70-2	Total Calcium	58700		17	50	100	100
7440-47-3	Total Chromium	3.1	J	1.1	2.5	5.0	5.0
7440-48-4	Total Cobalt	2.5	U	0.55	2.5	5.0	5.0
7440-50-8	Total Copper	8.7	J	5.2	20	40	40
7439-89-6	Total Iron	209		11	40	80	80
7439-92-1	Total Lead	2.0	U	1.4	2.0	4.0	4.0
7439-95-4	Total Magnesium	24500		10	25	40	40
7439-96-5	Total Manganese	8.6		1.4	3.0	5.0	5.0
7440-02-0	Total Nickel	3.0	U	1.5	3.0	5.0	5.0
7440-09-7	Total Potassium	828		120	250	500	500
7440-23-5	Total Sodium	25800		200	500	700	700
7440-28-0	Total Thallium	20	U	6.8	20	40	40
7440-62-2	Total Vanadium	3.0	U	1.3	3.0	5.0	5.0
7440-66-6	Total Zinc	51.6		4.5	10	20	20

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136208
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:35
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	4.9		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.30	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	45		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136208
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:17
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 10:52
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.9		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 15:34
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136205
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 15:36
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW4

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136204
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 14:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW4**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136204
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.57	~~H~~ J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	51		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **13MW5**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 08:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	120	--~~M~~-- J	4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 13:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

13MW5

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136203
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.82	~~H~~ J	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9056A	Date Received:	04/30/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211602	Analysis Date/Time	05/02/2022 10:55
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	63	J	4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9060A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/05/2022 11:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137438
Analytical Method:	EPA 9056A	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211602	Analysis Date/Time	04/30/2022 12:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	9.9		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.5		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136216
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 13:57
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.3	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.78		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.4		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136216
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 18:49
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 01:48
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14797-55-8	Nitrate Nitrogen	6.5		0.60	1.0	2.0	2.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 13:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.3		1.0	1.5	3.0	3.0
14808-79-8	Sulfate	35		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW3

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136215
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 18:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 14:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	12		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.0		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 15:51
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	74		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW6

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136217
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 19:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	0.50	J	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description: **48MW7**

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136674
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 16:39
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	1.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.1		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	4.1	~~M~~ J	0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

ALH 8/11/22

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

48MW7

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136674
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 21:02
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 410.4	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211650	Analysis Date/Time	05/03/2022 13:32
Analytical Prep Batch #:	95270	Prep. Date/Time:	05/03/2022 08:31
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	85		18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1137439
Analytical Method:	EPA 9040C	Date Received:	04/30/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211639	Analysis Date/Time	05/02/2022 15:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.61		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136672
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:43
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.3		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.41		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	3.0		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW01

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136672
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:27
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136214
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:46
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	2.6	J	1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.35	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	13		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW02

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136214
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:42
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136673
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 16:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.2		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	1.2		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	4.6		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW03

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136673
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:45
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136206
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:06
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	8.7		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.40		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	69		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136206
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 15:48
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136213
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:31
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.4		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.20	U	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	53		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49MW05

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136213
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:25
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/29/2022 01:34
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	67		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	8.0		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.39	J	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

49TW04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136207
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:02
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 14:46
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.8		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.2		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	80		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50MW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136588
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 19:11
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:14
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.8		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	2.2		0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9056A	Date Received:	04/29/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211592	Analysis Date/Time	04/29/2022 15:28
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	82		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

50TW2

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136671
Analytical Method:	EPA 9060A	Date Received:	04/29/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211697	Analysis Date/Time	05/04/2022 20:16
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 9040C	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211555	Analysis Date/Time	04/28/2022 15:00
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	S.U.

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.37		0.1	0.1	0.1	0.1

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54IDW

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136212
Analytical Method:	EPA 410.4	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211565	Analysis Date/Time	04/29/2022 16:52
Analytical Prep Batch #:	95239	Prep. Date/Time:	04/29/2022 09:05
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
COD	COD	160		18	50	75	75

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:53
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	60		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:17
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	3.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.13	J	0.12	0.20	0.40	0.40
14808-79-8	Sulfate	31		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW1

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136211
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 17:07
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211530	Analysis Date/Time	04/28/2022 10:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	78		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 13:20
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	1.0000	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 19:08
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	5.1		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.30	J	0.12	0.20	0.40	0.40

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW10

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134805
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	5	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 19:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
14808-79-8	Sulfate	72		4.0	7.5	15	15

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:26
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	82		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 11:49
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.5		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.73		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136209
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:37
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211530	Analysis Date/Time	04/28/2022 10:12
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	83		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9060A	Date Received:	04/26/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 12:22
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54MW13

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1134804
Analytical Method:	EPA 9056A	Date Received:	04/26/2022
Dilution Factor:	1.0000	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211440	Analysis Date/Time	04/26/2022 17:55
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	6.5		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.64		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33	M	0.80	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211613	Analysis Date/Time	05/02/2022 10:40
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TIC	Total Inorganic Carbon	83		0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9056A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211534	Analysis Date/Time	04/28/2022 12:03
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
16887-00-6	Chloride	7.3		1.0	1.5	3.0	3.0
14797-55-8	Nitrate Nitrogen	0.75		0.12	0.20	0.40	0.40
14808-79-8	Sulfate	33		0.8	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

54TW12

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-RADFORD AAP SWMUs 49&54
Matrix (soil/water):	GROUND WATER	SDG No.:	169098
% Solids:		Lab Sample ID:	1136210
Analytical Method:	EPA 9060A	Date Received:	04/28/2022
Dilution Factor:	1	TCLP (1311) / SPLP (1312) Extraction Date/time:	
Analytical Run #:	211696	Analysis Date/Time	05/04/2022 16:52
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:	ICAL0590	Concentration Units:	mg/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
TOC	Total Organic Carbon	1.5	U	0.5	1.5	3.0	3.0

Unless noted to the contrary, i.e., no % solids reported, then results for solid matrices are reported on a dry weight basis

Client Sample Results

Client: CT Laboratories
Project/Site: 169098

Job ID: 810-22631-1

Client Sample ID: 1134804/54MW13

Lab Sample ID: 810-22631-1

Date Collected: 04/25/22 12:10

Matrix: Water

Date Received: 04/28/22 08:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			04/28/22 21:56	1
Chlorite	<10		10		ug/L			04/28/22 21:56	1

Client Sample ID: 1134805/54MW10

Lab Sample ID: 810-22631-2

Date Collected: 04/25/22 14:55

Matrix: Water

Date Received: 04/28/22 08:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			04/28/22 23:27	1
Chlorite	<10		10		ug/L			04/28/22 23:27	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 810-18080/12
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chlorate	<10		10		ug/L			05/02/22 21:42	1
Chlorite	<10		10		ug/L			05/02/22 21:42	1

Lab Sample ID: LCS 810-18080/13
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			250	248		ug/L		99	90 - 110		
Chlorite			250	243		ug/L		97	90 - 110		

Lab Sample ID: LLCS 810-18080/9
Matrix: Water
Analysis Batch: 18080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate			10.0	10.7		ug/L		107			
Chlorite			10.0	13.3		ug/L		133			

Lab Sample ID: 810-22876-2 MS
Matrix: Water
Analysis Batch: 18080

Client Sample ID: 1136210/54TW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chlorate	<10		250	230		ug/L		92	90 - 110		
Chlorate	<10		250	230		ug/L		92	90 - 110		
Chlorite	<10		250	271		ug/L		108	90 - 110		
Chlorite	<10		250	271		ug/L		108	90 - 110		

Lab Sample ID: 810-22876-2 MSD
Matrix: Water
Analysis Batch: 18080

Client Sample ID: 1136210/54TW12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chlorate	<10		250	241		ug/L		97	90 - 110	5	20
Chlorate	<10		250	241		ug/L		97	90 - 110	5	20
Chlorite	<10		250	274		ug/L		110	90 - 110	1	20
Chlorite	<10		250	274		ug/L		110	90 - 110	1	20

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW13		
Lab Sample ID:	FA95241-1	**Date Sampled:**	04/25/22
Matrix:	AQ - Ground Water	**Date Received:**	04/28/22
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q90935.D	1	05/19/22 15:22	NG	05/19/22 10:30	OP91294	SQ1967
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.26	0.20	0.10	0.050	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: 54MW13
Lab Sample ID: FA95241-1
Matrix: AQ - Ground Water
Method: SW846 8330B SW846 3535A
Project: Radford AAP; VA

Date Sampled: 04/25/22
Date Received: 04/28/22
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB072812.D	1	05/03/22 23:17	FS	05/02/22 08:30	OP91013	GBB2196
Run #2 [b]	GG624055.D	1	05/04/22 18:03	FS	05/02/22 08:30	OP91013	GGG3135

	Initial Volume	Final Volume
Run #1	980 ml	10.0 ml
Run #2	980 ml	10.0 ml

CAS No.	Compound	Result		LOQ	LOD	DL	Units	Q
2691-41-0	HMX	2.5		0.20	0.10	0.082	ug/l	
121-82-4	RDX	2.0		0.20	0.10	0.082	ug/l	
	DNX	0.10 U		0.20	0.10	0.082	ug/l	
	MNX	0.10 U		0.20	0.10	0.082	ug/l	
	TNX	0.10 U		0.20	0.10	0.082	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.41	J	0.20	0.10	0.082	ug/l	
99-65-0	1,3-Dinitrobenzene	0.10 U		0.20	0.10	0.082	ug/l	
606-20-2	2,6-Dinitrotoluene	0.10 U		0.20	0.10	0.082	ug/l	
121-14-2	2,4-Dinitrotoluene	0.10 U		0.20	0.10	0.082	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.2		0.20	0.10	0.082	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	0.83	J	0.20	0.10	0.082	ug/l	
98-95-3	Nitrobenzene	0.10 U		0.20	0.10	0.099	ug/l	
88-72-2	o-Nitrotoluene	0.10 U		0.20	0.10	0.082	ug/l	
99-08-1	m-Nitrotoluene	0.10 U		0.20	0.10	0.082	ug/l	
99-99-0	p-Nitrotoluene	0.10 U		0.20	0.10	0.082	ug/l	
479-45-8	Tetryl	0.10 U		0.20	0.10	0.082	ug/l	
99-35-4	1,3,5-Trinitrobenzene	10.6		0.20	0.10	0.10	ug/l	
118-96-7	2,4,6-Trinitrotoluene	5.8		0.20	0.10	0.082	ug/l	
55-63-0	Nitroglycerine	1.0 U		2.0	1.0	0.51	ug/l	
78-11-5	PETN	1.0 U		2.0	1.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	101%	112%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/11/22

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FA95241-2	**Date Sampled:**	04/25/22
Matrix:	AQ - Ground Water	**Date Received:**	04/28/22
Method:	SW846 6850 IN HOUSE	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q90938.D	1	05/19/22 15:48	NG	05/19/22 10:30	OP91294	SQ1967
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
14797-73-0	Perchlorate	0.12	0.20	0.10	0.050	ug/l	J

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	54MW10		
Lab Sample ID:	FA95241-2	**Date Sampled:**	04/25/22
Matrix:	AQ - Ground Water	**Date Received:**	04/28/22
Method:	SW846 8330B SW846 3535A	**Percent Solids:**	n/a
Project:	Radford AAP; VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BB072815.D	1	05/04/22 00:52	FS	05/02/22 08:30	OP91013	GBB2196
Run #2 [b]	GG624056.D	1	05/04/22 18:34	FS	05/02/22 08:30	OP91013	GGG3135

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2	990 ml	10.0 ml

CAS No.	Compound	Result		LOQ	LOD	DL	Units	Q
2691-41-0	HMX	1.5		0.20	0.10	0.081	ug/l	
121-82-4	RDX	1.8		0.20	0.10	0.081	ug/l	
	DNX	0.10 U		0.20	0.10	0.081	ug/l	
	MNX	0.10 U		0.20	0.10	0.081	ug/l	
	TNX	0.10 U		0.20	0.10	0.081	ug/l	
618-87-1	3,5-Dinitroaniline [c]	0.26	J	0.20	0.10	0.081	ug/l	
99-65-0	1,3-Dinitrobenzene	0.10 U		0.20	0.10	0.081	ug/l	
606-20-2	2,6-Dinitrotoluene	0.10 U		0.20	0.10	0.081	ug/l	
121-14-2	2,4-Dinitrotoluene	0.10 U		0.20	0.10	0.081	ug/l	
35572-78-2	2-amino-4,6-Dinitrotoluene	1.1		0.20	0.10	0.081	ug/l	
19406-51-0	4-amino-2,6-Dinitrotoluene [c]	0.78	J	0.20	0.10	0.081	ug/l	
98-95-3	Nitrobenzene	0.10 U		0.20	0.10	0.098	ug/l	
88-72-2	o-Nitrotoluene	0.10 U		0.20	0.10	0.081	ug/l	
99-08-1	m-Nitrotoluene	0.10 U		0.20	0.10	0.081	ug/l	
99-99-0	p-Nitrotoluene	0.10 U		0.20	0.10	0.081	ug/l	
479-45-8	Tetryl	0.10 U		0.20	0.10	0.081	ug/l	
99-35-4	1,3,5-Trinitrobenzene	1.9		0.20	0.10	0.10	ug/l	
118-96-7	2,4,6-Trinitrotoluene	3.0		0.20	0.10	0.081	ug/l	
55-63-0	Nitroglycerine	1.0 U		2.0	1.0	0.51	ug/l	
78-11-5	PETN	1.0 U		2.0	1.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
610-39-9	3,4-Dinitrotoluene	93%	99%	70-136%

(a) All hits confirmed by reanalysis on a dissimilar column.
(b) Confirmation run.
(c) Primary and confirmation results differ by more than 40%.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

ALH 8/11/22

APPENDIX C
MANN-KENDALL ANALYSIS

Month Year	Units	Event	Event Past	13MW3 CT	13MW3 TCE	13MW4 TCE	48MW1 TCE	48MW2 CT	48MW2 TCE	48MW3 CT	48MW3 TCE	49MW01 CT	49MW04 CT	50MW02 CT
07/1995	ug/L	1	31	na	na	na	17.00	92	11.00	100	37.00	na	na	na
04/1998	ug/L	2	30	na	na	na	8.00	140	18.00	180	33.00	na	na	na
04/2006	ug/L	3	29	na	na	na	5.50	29.2	3.00	51.2	7.40	na	na	na
08/2007	ug/L	4	28	na	na	na	1.60	94.6	11.20	60.3	10.10	3.8	na	2.7
05/2013	ug/L	5	27	5.63	1.08	1.08	1.90	82.7	9.75	73.1	10.70	4.61	0.664	0.919
09/2015	ug/L	6	26	0.29	ND	0.65	1.80	48	3.80	71	10.00	3.3	0.99	1.2
01/2016	ug/L	7	25	3.8	0.82	1.10	2.30	66	7.90	62	9.70	3.1	0.94	0.56
04/2016	ug/L	8	24	5.5	1.00	0.80	2.20	32	2.30	73	10.00	3	0.73	1.1
07/2016	ug/L	9	23	3.6	0.94	2.10	3.30	38	3.90	64	10.00	1.8	0.71	0.61
10/2016	ug/L	10	22	2.3	0.58	2.10	0.97	42	2.80	63	9.20	2.7	0.86	1.8
01/2017	ug/L	11	21	2.5	0.36	2.20	1.70	49	3.90	68	9.80	2.6	0.66	0.58
04/2017	ug/L	12	20	3.5	0.58	0.90	1.70	41	2.30	67	9.80	3	0.78	1
07/2017	ug/L	13	19	4.3	1.00	2.30	1.70	47	5.20	69	11.00	3.5	0.55	0.95
10/2017	ug/L	14	18	2.8	0.56	0.99	1.60	47	3.80	63	10.00	2.8	0.61	1.6
01/2018	ug/L	15	17	3.3	0.55	1.40	1.20	33	2.60	74	11.00	1.8	0.77	0.73
04/2018	ug/L	16	16	3.7	0.46	0.46	1.50	55	4.60	73	12.00	3.8	0.92	0.82
07/2018	ug/L	17	15	3.4	0.55	0.93	1.30	39	2.20	78	11.00	3.2	0.76	1.7
10/2018	ug/L	18	14	3.3	0.55	1.10	1.60	32	1.80	67	11.00	3.6	0.78	1
02/2019	ug/L	19	13	4.6	0.75	0.69	1.40	28	1.50	34	7.10	3	0.6	0.84
05/2019	ug/L	20	12	3.6	0.75	0.51	1.90	36	2.80	80	13.00	2.2	0.26	1.2
07/2019	ug/L	21	11	5.7	1.00	0.72	1.40	30	1.80	77	13.00	3	0.46	0.98
10/2019	ug/L	22	10	4.2	0.63	0.72	1.70	63	6.50	88	15.00	3.5	0.6	2
01/2020	ug/L	23	9	4.6	0.79	0.83	2.70	21	2.50	78	15.00	2.5	0.6	0
04/2020	ug/L	24	8	**3.5**	0.66	0.72	1.50	33	2.90	64	12.00	3.1	0.6	0.68
07/2020	ug/L	25	7	**5.4**	**1.20**	**0.98**	**1.60**	**24**	**2.80**	**65**	**15.00**	**2.8**	0.6	**1.8**
10/2020	ug/L	26	6	**7.5**	**1.40**	**1.00**	**2.20**	**35**	**3.20**	**79**	**16.00**	**2.8**	**0.56**	**1.2**
01/2021	ug/L	27	5	**6.8**	**1.10**	**0.80**	**2.20**	**14**	**2.10**	**94**	**21.00**	**1.4**	**0.61**	**0.89**
04/2021	ug/L	28	4	**5.3**	**0.97**	**0.45**	**1.20**	**22**	**1.00**	**84**	**16.00**	**2.8**	**0.56**	**0.83**
07/2021	ug/L	29	3	**7.0**	**1.10**	**1.70**	**0.96**	**25**	**1.40**	**100**	**20.00**	**2.9**	0.3	**1.1**
10/1/2021	ug/L	30	2	5.3	0.89	1.2	1.9	24	1.7	74	18	2.1	0.5	1.2
4/1/2022	ug/L	31	1	6	0.95	0.68	2.4	29	1.7	75	13	3	0.74	0.71

Month Year	Units	Event	Event Past	50MW02 TCE	RG	Notes
07/1995	ug/L	1	31	na	5	
04/1998	ug/L	2	30	na	5	
04/2006	ug/L	3	29	na	5	
08/2007	ug/L	4	28	3.40	5	
05/2013	ug/L	5	27	2.31	5	
09/2015	ug/L	6	26	1.30	5	
01/2016	ug/L	7	25	1.10	5	
04/2016	ug/L	8	24	1.90	5	
07/2016	ug/L	9	23	1.70	5	
10/2016	ug/L	10	22	1.70	5	
01/2017	ug/L	11	21	0.87	5	
04/2017	ug/L	12	20	1.30	5	
07/2017	ug/L	13	19	2.20	5	
10/2017	ug/L	14	18	1.50	5	
01/2018	ug/L	15	17	1.20	5	
04/2018	ug/L	16	16	1.20	5	
07/2018	ug/L	17	15	1.40	5	
10/2018	ug/L	18	14	1.00	5	
02/2019	ug/L	19	13	1.50	5	
05/2019	ug/L	20	12	1.80	5	
07/2019	ug/L	21	11	1.50	5	
10/2019	ug/L	22	10	1.10	5	
01/2020	ug/L	23	9	1.30	5	
04/2020	ug/L	24	8	1.40	5	
07/2020	ug/L	25	7	**1.80**	5	48MW2 (chloroform used 3.3) 48MW3 (chloroform used 15) 49MW01 (chloroform 0.42 used)
10/2020	ug/L	26	6	**1.50**	5	
01/2021	ug/L	27	5	**1.40**	5	
04/2021	ug/L	28	4	**1.30**	5	
07/2021	ug/L	29	3	**1.40**	5	
10/1/2021	ug/L	30	2	1.1	5	
4/1/2022	ug/L	31	1	0.72	5	

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:25:51
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

13MW3 CT

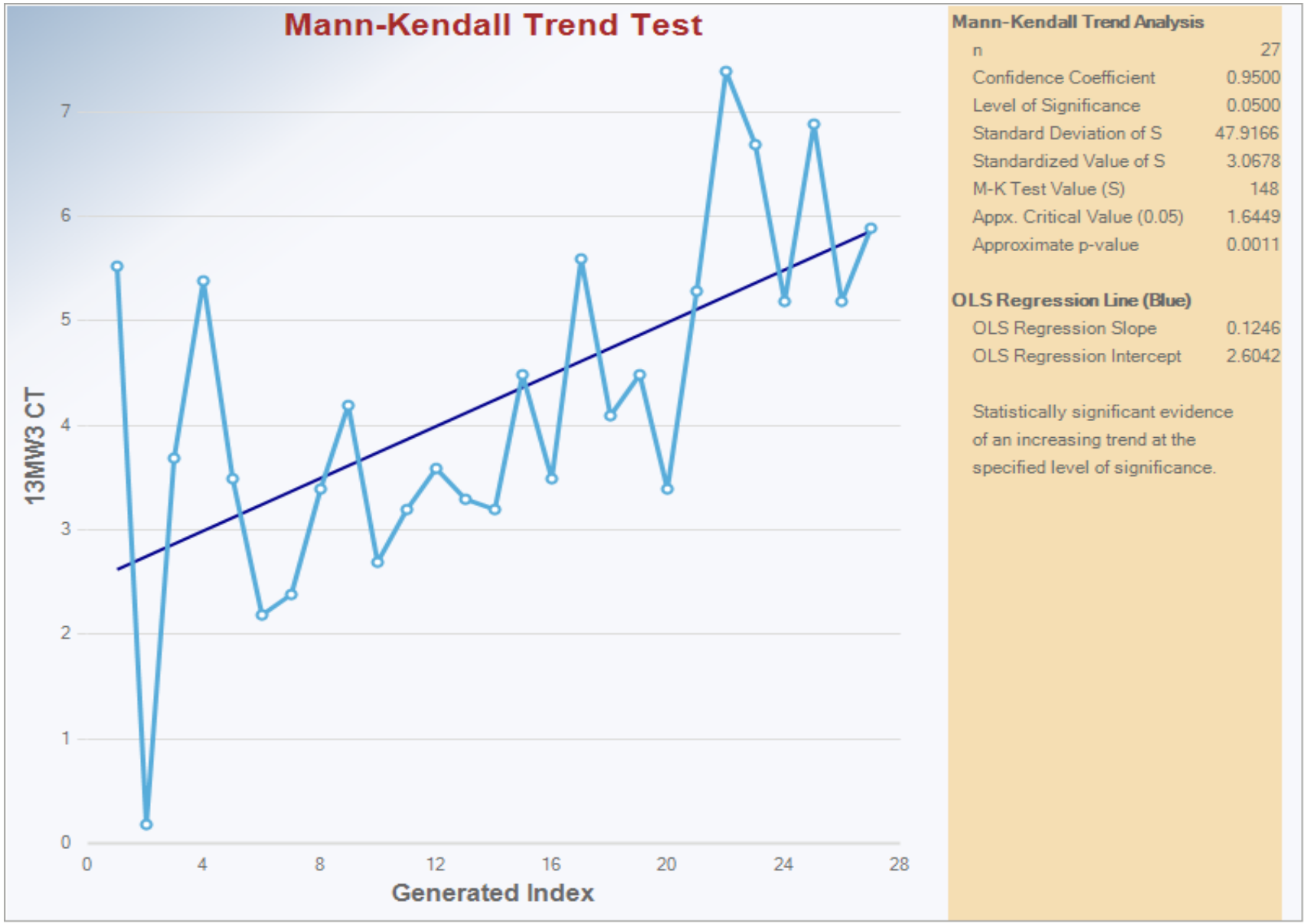
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	0.29
Maximum	7.5
Mean	4.349
Geometric Mean	3.89
Median	4.2
Standard Deviation	1.598
Coefficient of Variation	0.368

Mann-Kendall Test

M-K Test Value (S)	148
Critical Value (0.05)	1.645
Standard Deviation of S	47.92
Standardized Value of S	3.068
Approximate p-value	0.00108

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	27
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	47.9166
Standardized Value of S	3.0678
M-K Test Value (S)	148
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0011

OLS Regression Line (Blue)

OLS Regression Slope	0.1246
OLS Regression Intercept	2.6042

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 09:07:27
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

13MW3 TCE

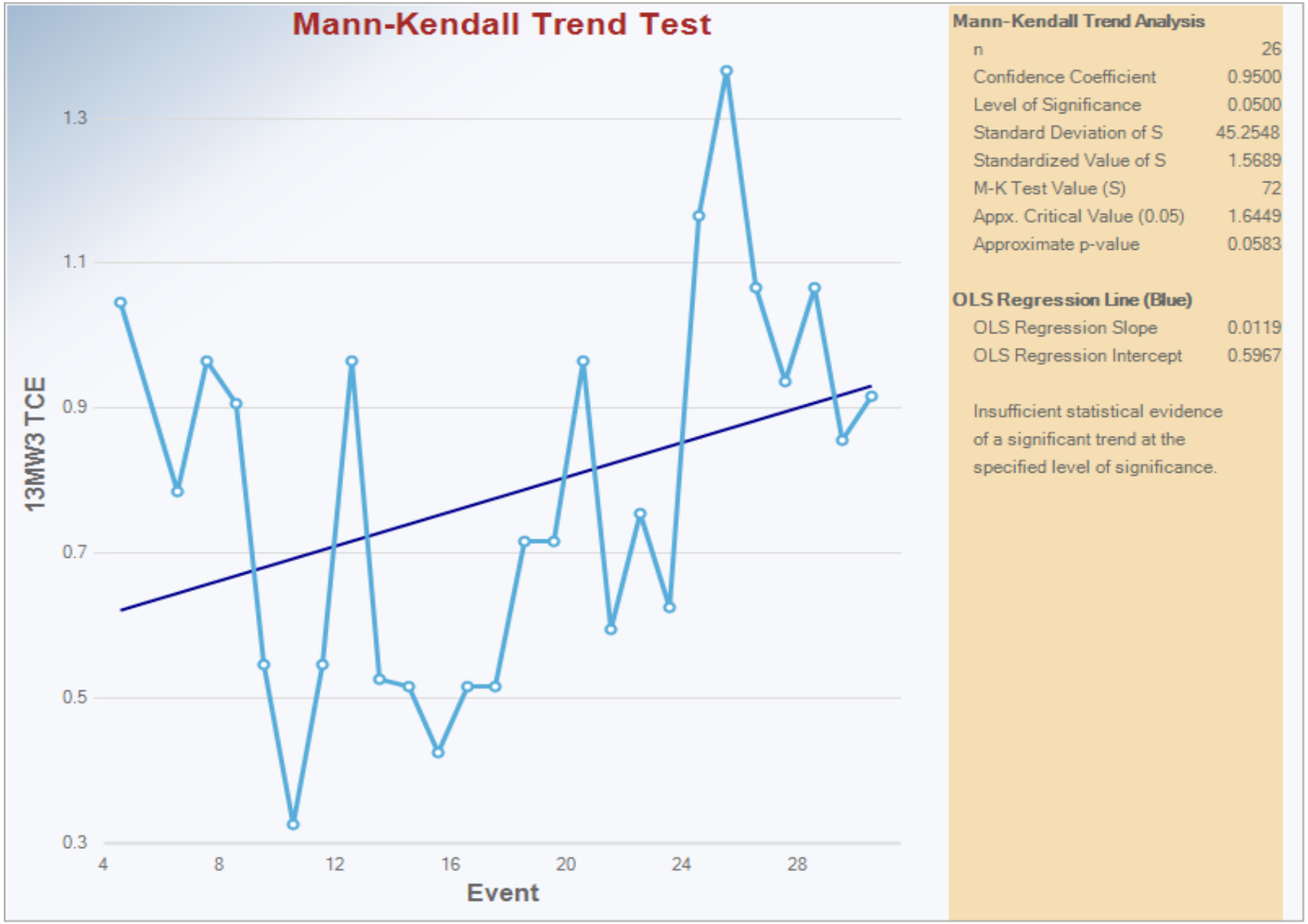
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	5
Number or Reported Events Used	26
Number Values Reported (n)	31
Number Values Missing	5
Number Values Used	26
Minimum	0.36
Maximum	1.4
Mean	0.816
Geometric Mean	0.775
Median	0.805
Standard Deviation	0.259
Coefficient of Variation	0.317

Mann-Kendall Test

M-K Test Value (S)	72
Critical Value (0.05)	1.645
Standard Deviation of S	45.25
Standardized Value of S	1.569
Approximate p-value	0.0583

Insufficient evidence to identify a significant trend at the specified level of significance.


Mann-Kendall Trend Test
13MW3 TCE
1.3
1.1
0.9
0.7
0.5
0.3
4
8
12
16
20
24
28
Event
Mann-Kendall Trend Analysis
n 26
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 45.2548
Standardized Value of S 1.5689
M-K Test Value (S) 72
Appx. Critical Value (0.05) 1.6449
Approximate p-value 0.0583
OLS Regression Line (Blue)
OLS Regression Slope 0.0119
OLS Regression Intercept 0.5967
Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:34:55
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

13MW4 TCE

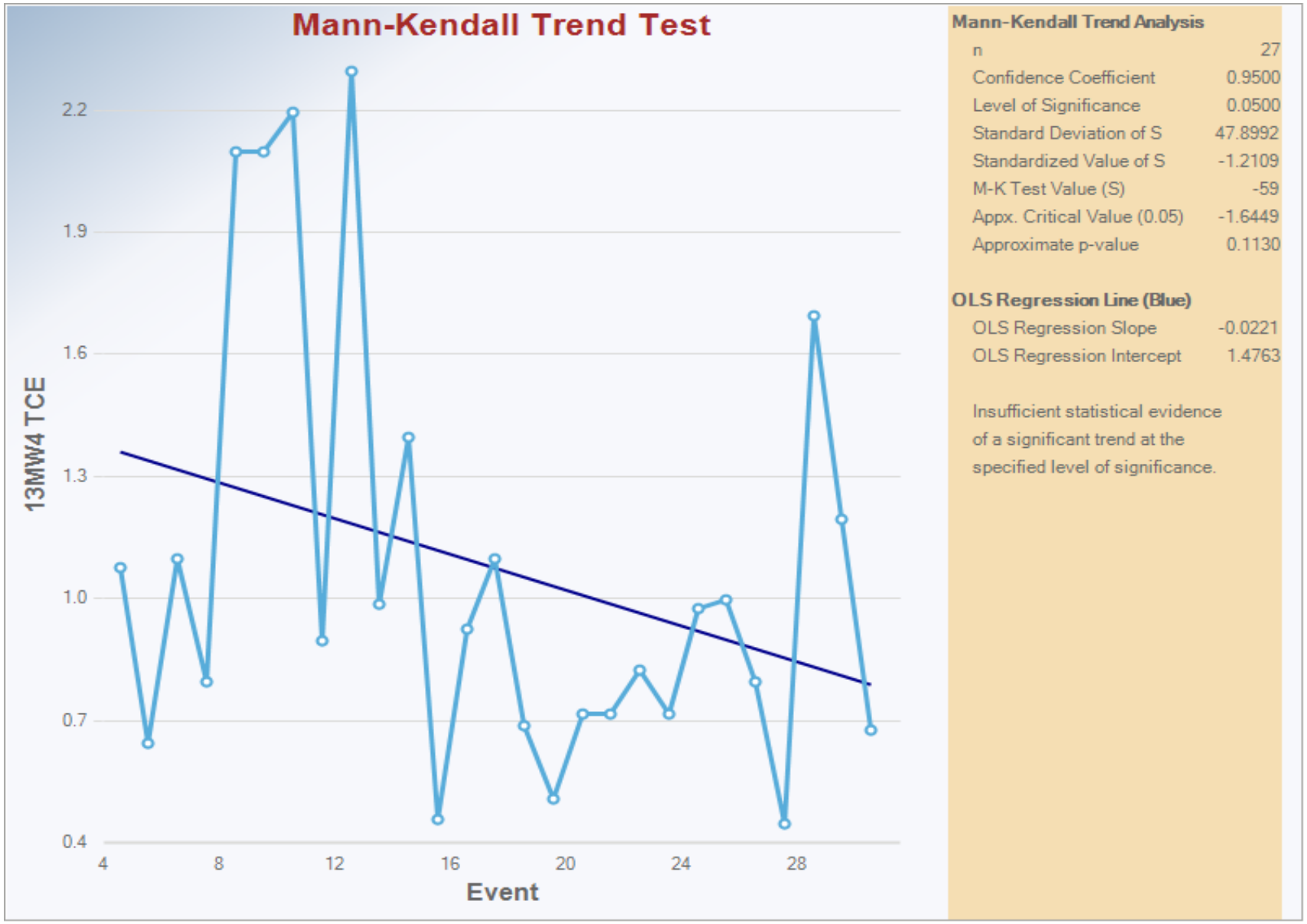
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	0.45
Maximum	2.3
Mean	1.078
Geometric Mean	0.969
Median	0.93
Standard Deviation	0.541
Coefficient of Variation	0.502

Mann-Kendall Test

M-K Test Value (S)	-59
Critical Value (0.05)	-1.645
Standard Deviation of S	47.9
Standardized Value of S	-1.211
Approximate p-value	0.113

Insufficient evidence to identify a significant trend at the specified level of significance.


Mann-Kendall Trend Test
13MW4 TCE
2.2
1.9
1.6
1.3
1.0
0.7
0.4
4
8
12
16
20
24
28
Event
Mann-Kendall Trend Analysis
n 27
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 47.8992
Standardized Value of S -1.2109
M-K Test Value (S) -59
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.1130
OLS Regression Line (Blue)
OLS Regression Slope -0.0221
OLS Regression Intercept 1.4763
Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 09:04:56
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

48MW1 TCE

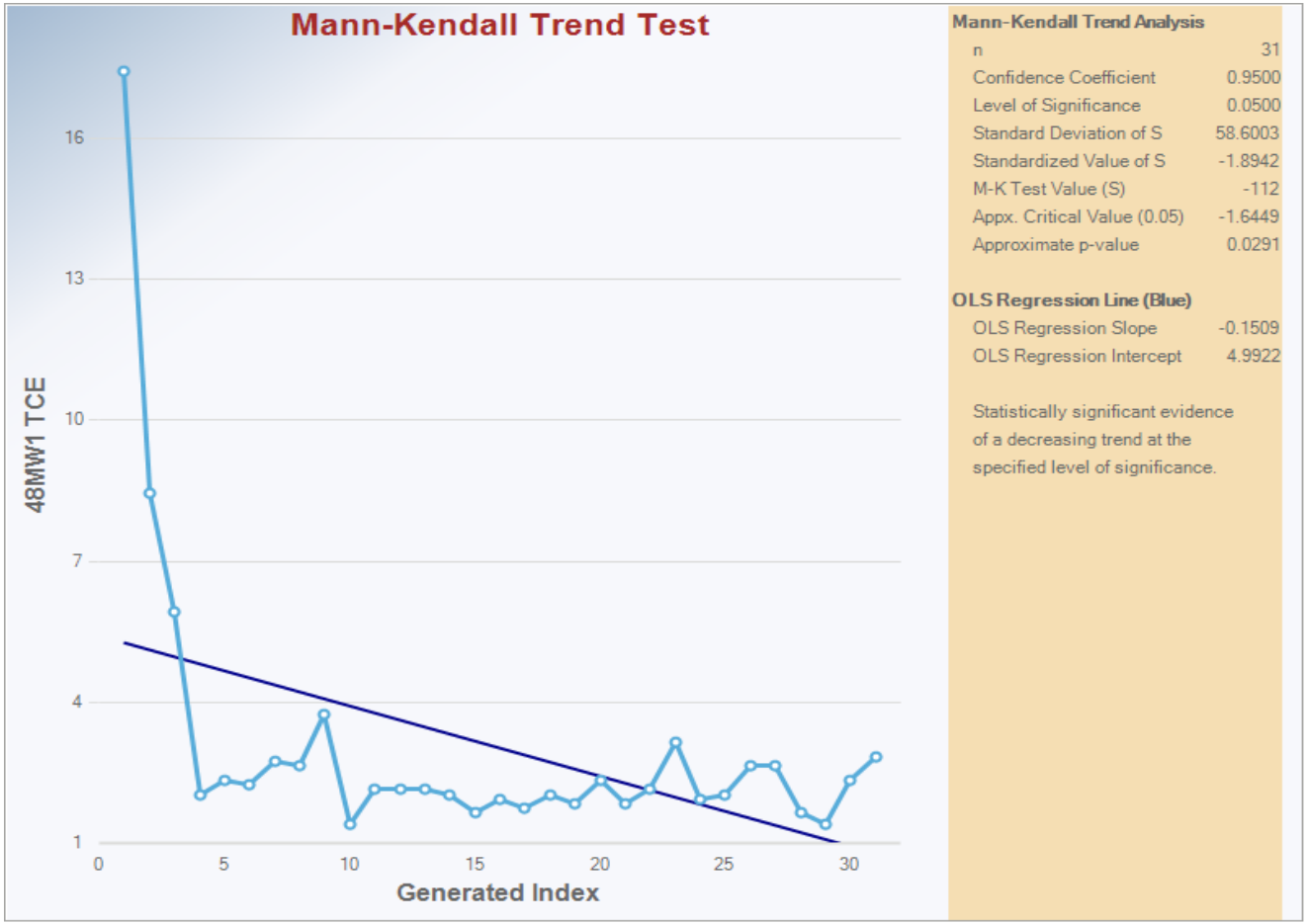
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	0
Number or Reported Events Used	31
Number Values Reported (n)	31
Minimum	0.96
Maximum	17
Mean	2.578
Geometric Mean	1.997
Median	1.7
Standard Deviation	3.009
Coefficient of Variation	1.167

Mann-Kendall Test

M-K Test Value (S)	-112
Critical Value (0.05)	-1.645
Standard Deviation of S	58.6
Standardized Value of S	-1.894
Approximate p-value	0.0291

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
48MW1 TCE
16
13
10
7
4
1
0
5
10
15
20
25
30
Generated Index
Mann-Kendall Trend Analysis
n 31
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 58.6003
Standardized Value of S -1.8942
M-K Test Value (S) -112
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.0291
OLS Regression Line (Blue)
OLS Regression Slope -0.1509
OLS Regression Intercept 4.9922
Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:44:24
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

48MW2 CT

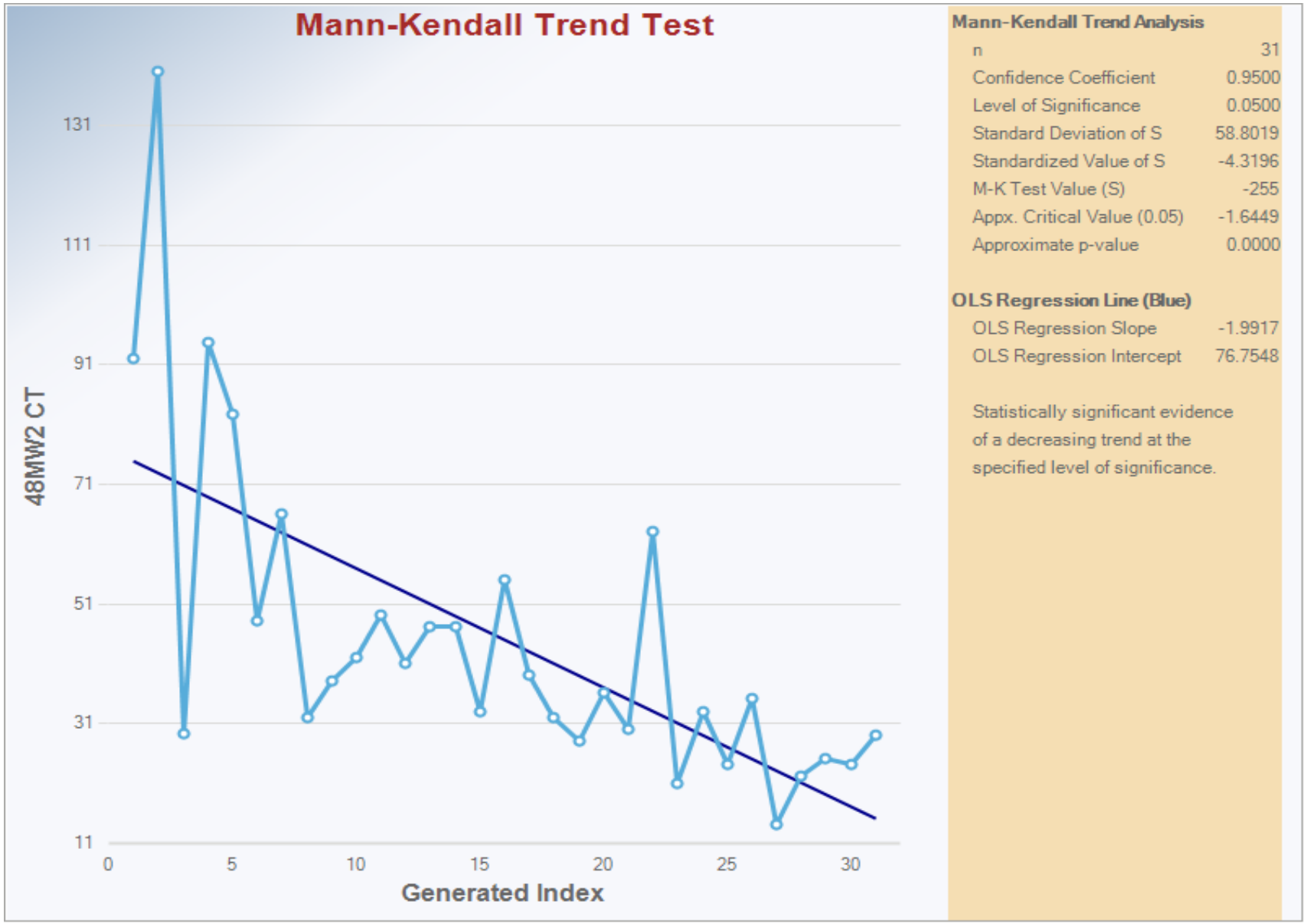
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	31
Number Values Reported (n)	31
Minimum	14
Maximum	140
Mean	44.89
Geometric Mean	39.38
Median	36
Standard Deviation	26.64
Coefficient of Variation	0.594

Mann-Kendall Test

M-K Test Value (S)	-255
Critical Value (0.05)	-1.645
Standard Deviation of S	58.8
Standardized Value of S	-4.32
Approximate p-value	7.8161E-6

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
48MW2 CT
131
111
91
71
51
31
11
0
5
10
15
20
25
30
Generated Index
Mann-Kendall Trend Analysis
n 31
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 58.8019
Standardized Value of S -4.3196
M-K Test Value (S) -255
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.0000
OLS Regression Line (Blue)
OLS Regression Slope -1.9917
OLS Regression Intercept 76.7548
Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:47:16
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

48MW2 TCE

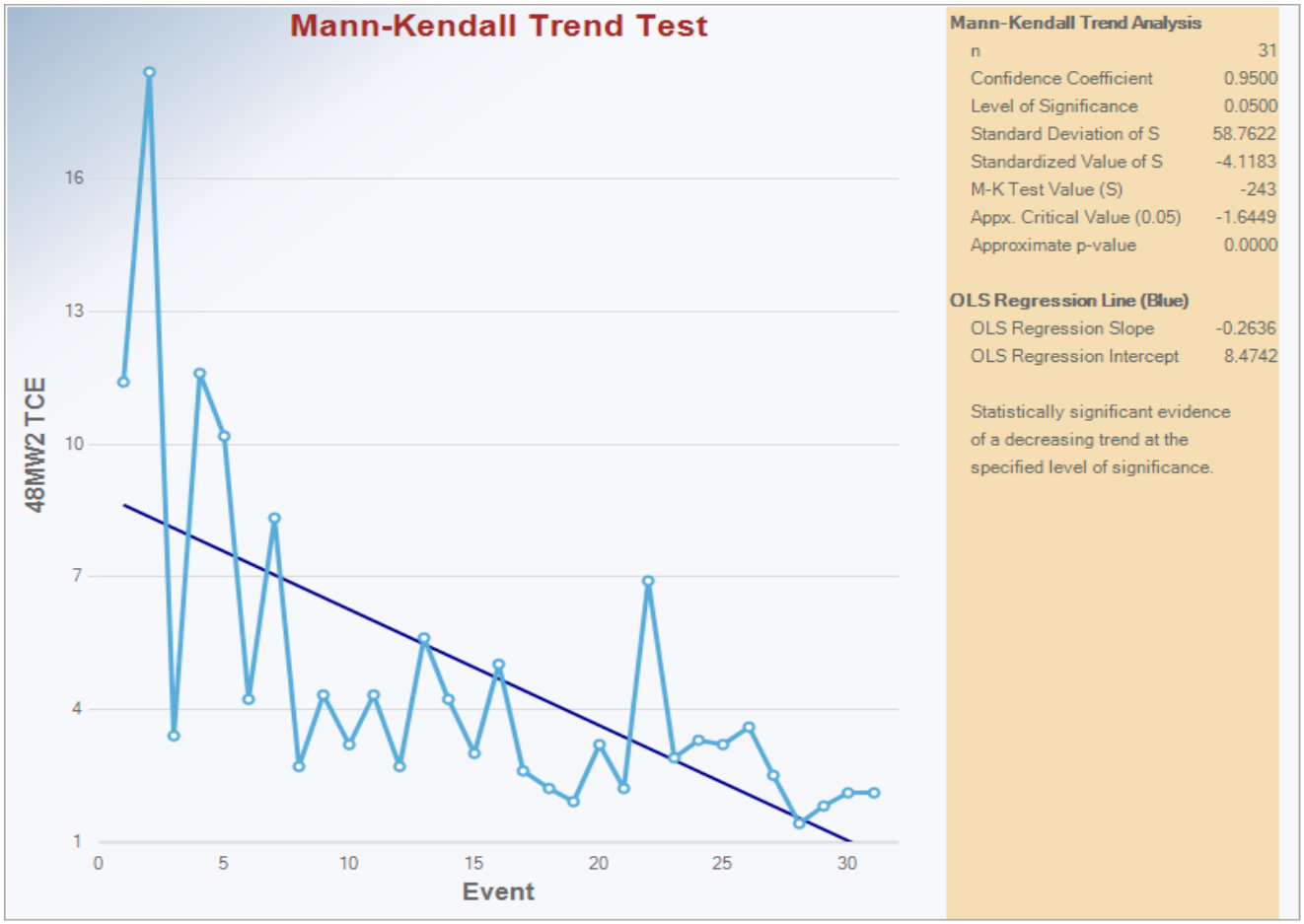
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	0
Number or Reported Events Used	31
Number Values Reported (n)	31
Minimum	1
Maximum	18
Mean	4.256
Geometric Mean	3.293
Median	2.8
Standard Deviation	3.731
Coefficient of Variation	0.876

Mann-Kendall Test

M-K Test Value (S)	-243
Critical Value (0.05)	-1.645
Standard Deviation of S	58.76
Standardized Value of S	-4.118
Approximate p-value	1.9085E-5

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
48MW2 TCE
16
13
10
7
4
1
0
5
10
15
20
25
30
Event
Mann-Kendall Trend Analysis
n 31
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 58.7622
Standardized Value of S -4.1183
M-K Test Value (S) -243
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.0000
OLS Regression Line (Blue)
OLS Regression Slope -0.2636
OLS Regression Intercept 8.4742
Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:50:17
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

48MW3 CT

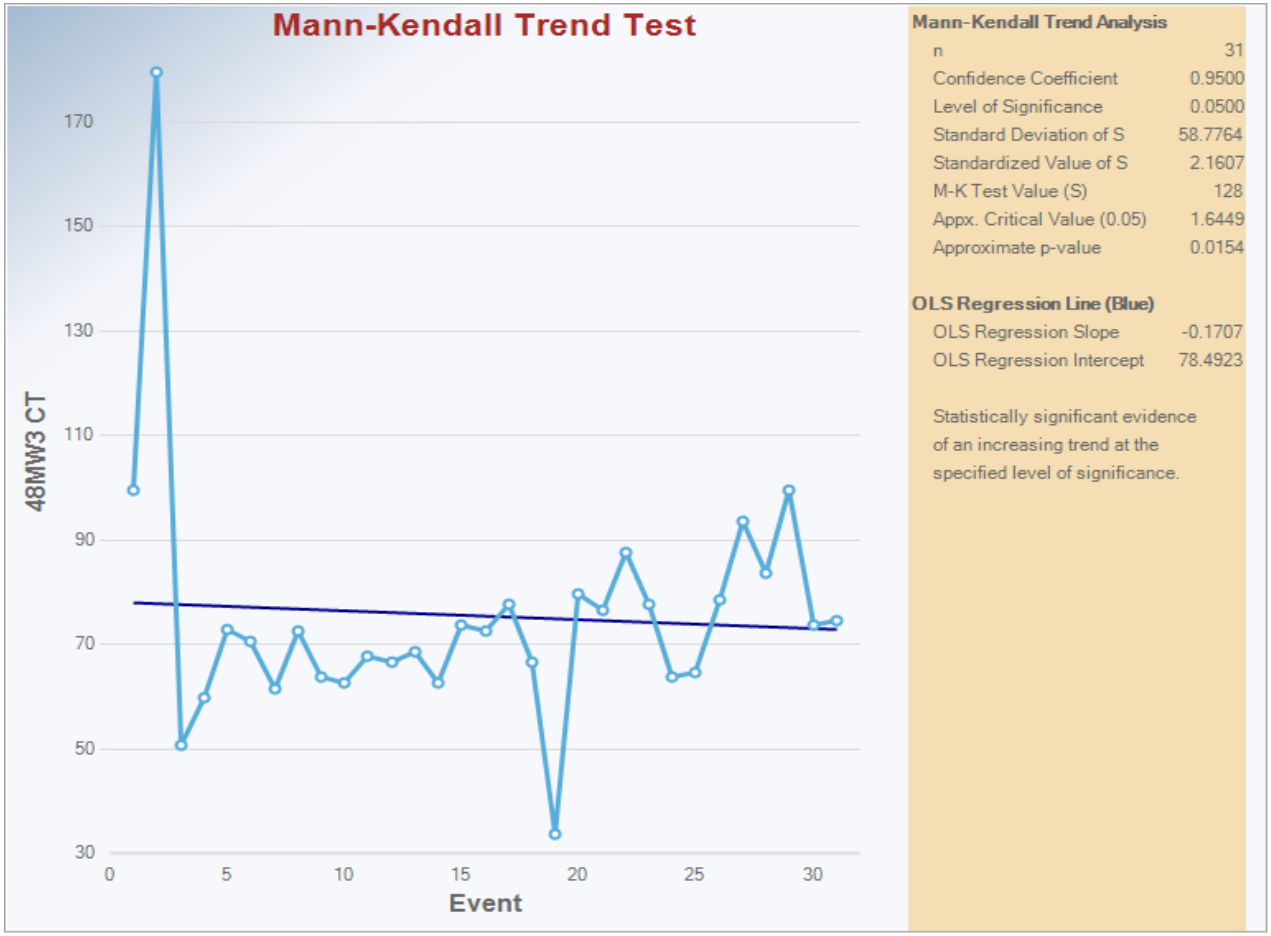
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	0
Number or Reported Events Used	31
Number Values Reported (n)	31
Minimum	34
Maximum	180
Mean	75.76
Geometric Mean	73.12
Median	73
Standard Deviation	23.41
Coefficient of Variation	0.309

Mann-Kendall Test

M-K Test Value (S)	128
Critical Value (0.05)	1.645
Standard Deviation of S	58.78
Standardized Value of S	2.161
Approximate p-value	0.0154

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	31
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	58.7764
Standardized Value of S	2.1607
M-K Test Value (S)	128
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0154

OLS Regression Line (Blue)

OLS Regression Slope	-0.1707
OLS Regression Intercept	78.4923

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 09:02:00
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

48MW3 TCE

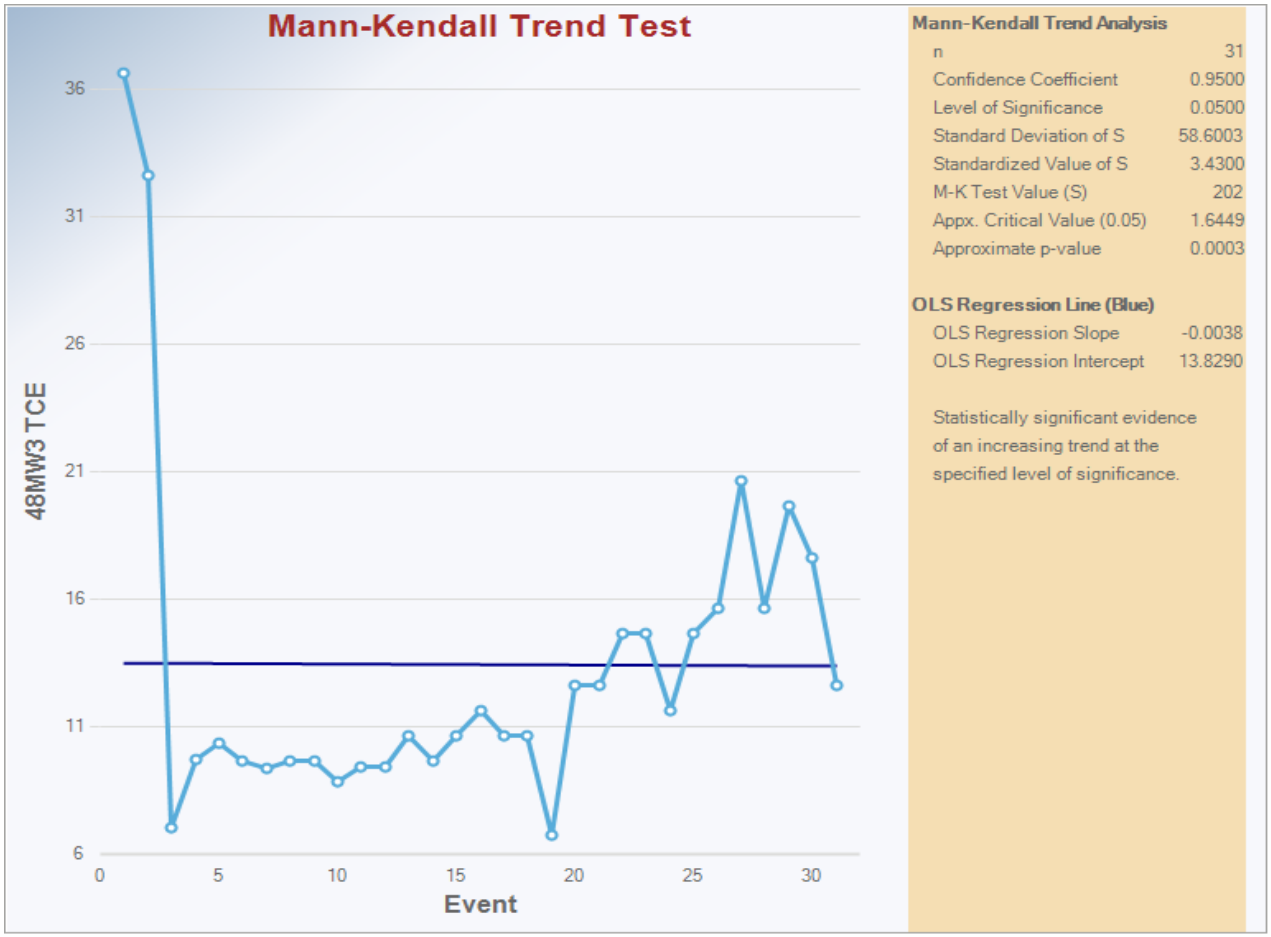
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	0
Number or Reported Events Used	31
Number Values Reported (n)	31
Minimum	7.1
Maximum	37
Mean	13.77
Geometric Mean	12.73
Median	11
Standard Deviation	6.596
Coefficient of Variation	0.479

Mann-Kendall Test

M-K Test Value (S)	202
Critical Value (0.05)	1.645
Standard Deviation of S	58.6
Standardized Value of S	3.43
Approximate p-value	3.0177E-4

Statistically significant evidence of an increasing trend at the specified level of significance.


Mann-Kendall Trend Test
48MW3 TCE
36
31
26
21
16
11
6
0
5
10
15
20
25
30
Event
Mann-Kendall Trend Analysis
n 31
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 58.6003
Standardized Value of S 3.4300
M-K Test Value (S) 202
Appx. Critical Value (0.05) 1.6449
Approximate p-value 0.0003
OLS Regression Line (Blue)
OLS Regression Slope -0.0038
OLS Regression Intercept 13.8290
Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 07:55:55
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

49MW01 CT

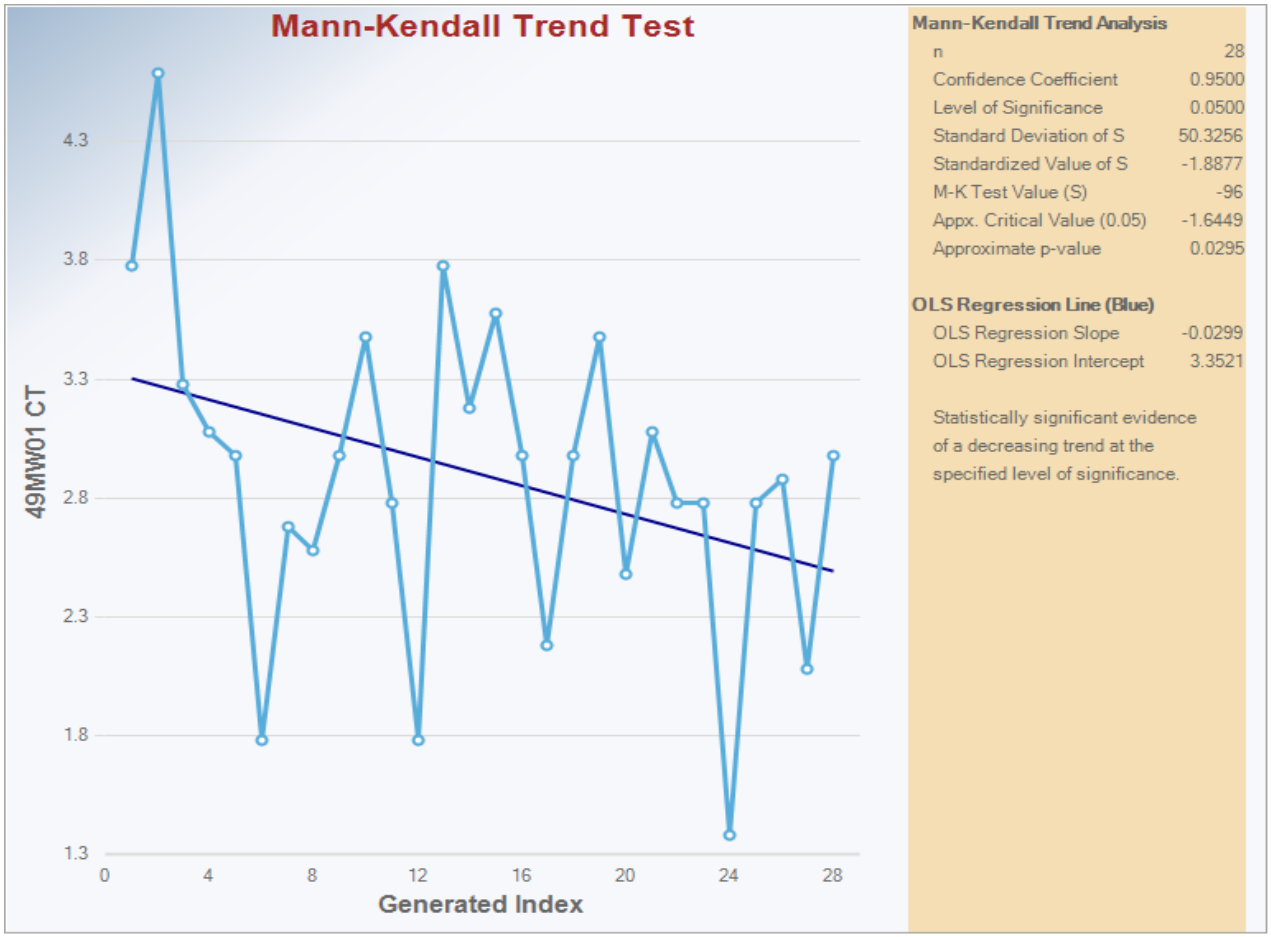
General Statistics

Number or Reported Events Not Used	0
Number of Generated Events	28
Number Values Reported (n)	31
Number Values Missing	3
Number Values Used	28
Minimum	1.4
Maximum	4.61
Mean	2.918
Geometric Mean	2.836
Median	3
Standard Deviation	0.674
Coefficient of Variation	0.231

Mann-Kendall Test

M-K Test Value (S)	-96
Critical Value (0.05)	-1.645
Standard Deviation of S	50.33
Standardized Value of S	-1.888
Approximate p-value	0.0295

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	28
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	50.3256
Standardized Value of S	-1.8877
M-K Test Value (S)	-96
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0295

OLS Regression Line (Blue)

OLS Regression Slope	-0.0299
OLS Regression Intercept	3.3521

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 08:10:42
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

49MW04 CT

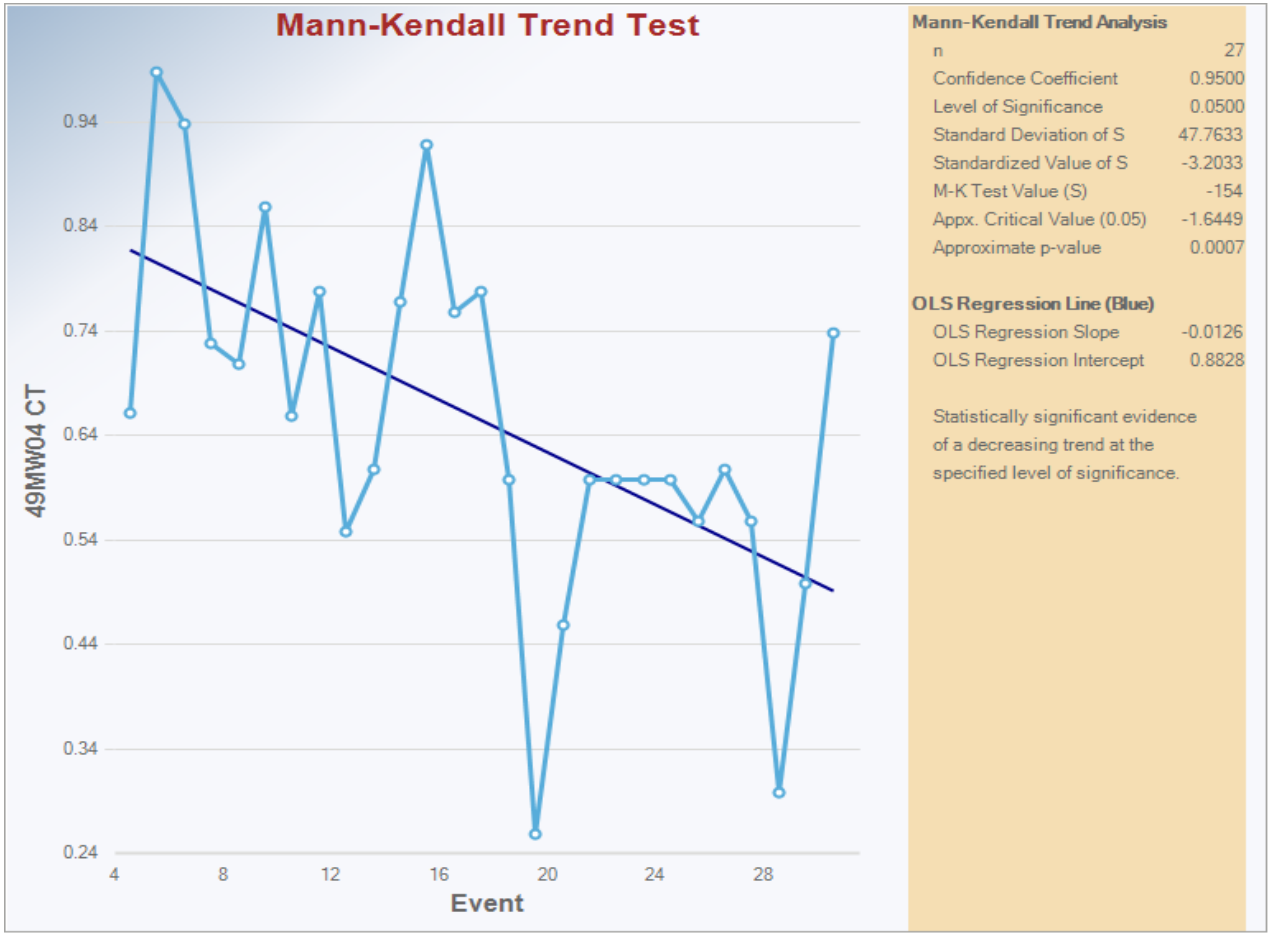
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	4
Number or Reported Events Used	27
Number Values Reported (n)	31
Number Values Missing	4
Number Values Used	27
Minimum	0.26
Maximum	0.99
Mean	0.656
Geometric Mean	0.631
Median	0.61
Standard Deviation	0.172
Coefficient of Variation	0.262

Mann-Kendall Test

M-K Test Value (S)	-154
Critical Value (0.05)	-1.645
Standard Deviation of S	47.76
Standardized Value of S	-3.203
Approximate p-value	6.7932E-4

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
49MW04 CT
0.94
0.84
0.74
0.64
0.54
0.44
0.34
0.24
4
8
12
16
20
24
28
Event
Mann-Kendall Trend Analysis
n 27
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 47.7633
Standardized Value of S -3.2033
M-K Test Value (S) -154
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.0007
OLS Regression Line (Blue)
OLS Regression Slope -0.0126
OLS Regression Intercept 0.8828
Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 08:12:21
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

50MW02 CT

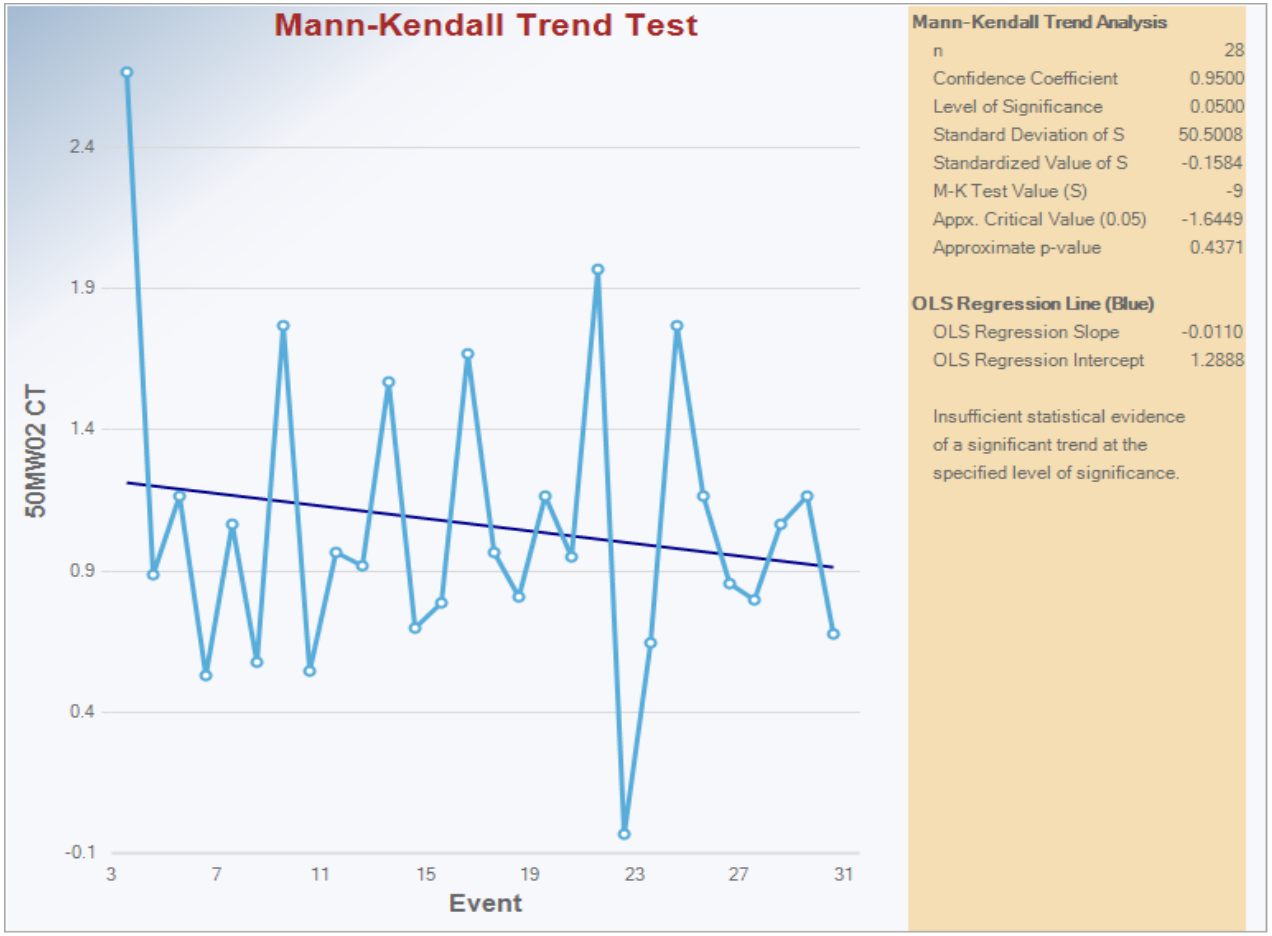
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	3
Number or Reported Events Used	28
Number Values Reported (n)	31
Number Values Missing	3
Number Values Used	28
Minimum	0
Maximum	2.7
Mean	1.096
Geometric Mean	0
Median	0.99
Standard Deviation	0.539
Coefficient of Variation	0.491

Mann-Kendall Test

M-K Test Value (S)	-9
Critical Value (0.05)	-1.645
Standard Deviation of S	50.5
Standardized Value of S	-0.158
Approximate p-value	0.437

Insufficient evidence to identify a significant trend at the specified level of significance.


Mann-Kendall Trend Test
50MW02 CT
2.4
1.9
1.4
0.9
0.4
-0.1
3
7
11
15
19
23
27
31
Event
Mann-Kendall Trend Analysis
n 28
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 50.5008
Standardized Value of S -0.1584
M-K Test Value (S) -9
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.4371
OLS Regression Line (Blue)
OLS Regression Slope -0.0110
OLS Regression Intercept 1.2888
Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test Analysis

User Selected Options	
Date/Time of Computation	ProUCL 5.2 2/21/2023 08:15:37
From File	SWMU49_CT_TCE Data 2022.xls
Full Precision	OFF
Confidence Coefficient	0.95
Level of Significance	0.05

50MW02 TCE

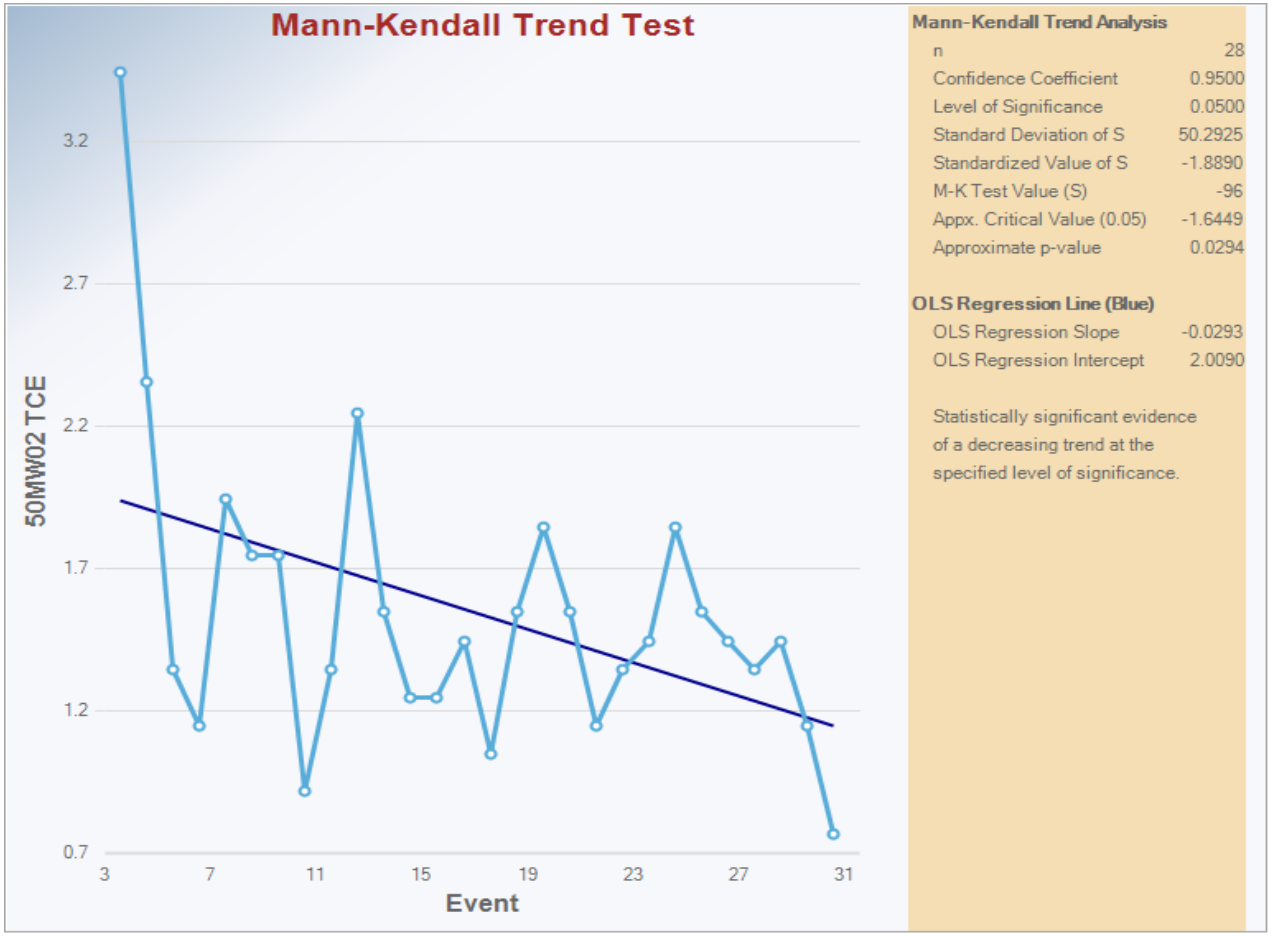
General Statistics

Number of Events Reported (m)	31
Number of Missing Events	3
Number or Reported Events Used	28
Number Values Reported (n)	31
Number Values Missing	3
Number Values Used	28
Minimum	0.72
Maximum	3.4
Mean	1.496
Geometric Mean	1.426
Median	1.4
Standard Deviation	0.52
Coefficient of Variation	0.347

Mann-Kendall Test

M-K Test Value (S)	-96
Critical Value (0.05)	-1.645
Standard Deviation of S	50.29
Standardized Value of S	-1.889
Approximate p-value	0.0294

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
50MW02 TCE
3.2
2.7
2.2
1.7
1.2
0.7
3
7
11
15
19
23
27
31
Event
Mann-Kendall Trend Analysis
n 28
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 50.2925
Standardized Value of S -1.8890
M-K Test Value (S) -96
Appx. Critical Value (0.05) -1.6449
Approximate p-value 0.0294
OLS Regression Line (Blue)
OLS Regression Slope -0.0293
OLS Regression Intercept 2.0090
Statistically significant evidence of a decreasing trend at the specified level of significance.