Mr. Glenn May
New York State Department of Environmental Conservation
Region 9
700 Delaware Avenue
Buffalo, NY 14209

Well Development and Groundwater Sampling Summary Report

NYSDEC Site #C915293A
Highland Plaza – Off-Site
215 Highland Parkway
Tonawanda, NY

February 28, 2025



Well Development and Groundwater Sampling Summary Report

NYSDEC Site C915293A
Highland Plaza – Off-site
215 Highland Parkway
Tonawanda, NY

Prepared for:
Mr. Glenn May
New York State Department of Environmental Conservation
Region 9
700 Delaware Avenue
Buffalo, NY 14209

Prepared by:
Groundwater & Environmental Services, Inc.
6010 N Bailey Avenue, Suite 1
Amherst, New York 14226
Tel: 800-287-7857
www.gesonline.com

GES Project:
0924016

Date:
February 28, 2025

Jessica Paterson
Staff Environmental Scientist

Thomas Palmer
Project Manager

Table of Contents

1 Introduction 1
2 Site Background 1
3 Well Development and Recharge 1
3.1 1-Inch Well Development 2
3.2 2-Inch Well Development 2
4 Sampling 3
4.1 Low Flow Groundwater Sampling 3
4.2 Drum Sampling 3
4.3 Post-Sampling Groundwater Recharge 3
4.4 Sample Analysis 3
4.5 Quality Assurance/Quality Control 4

Figures

Figure 1 – Site Map
Figure 2 – Hydrograph of Groundwater Recharge (Post-Development)
Figure 3 – Hydrograph of Groundwater Recharge (Post-Sampling)

Tables

Table 1 – Water Level Elevation Summary (Post-Development)
Table 2 – Water Level Elevation Summary (Post-Sampling)
Table 3 – Groundwater Data Summary (VOC's)
Table 4 – Groundwater Data Summary (Metals)

Appendices

Appendix A – Well Development Logs (March 2024)
Appendix B – Low Flow Sampling Logs (August 2024)
Appendix C – Laboratory Analytical Report
Appendix D – DUSR
Appendix E – Field Notes and Photos

Acronyms

AMSL	Above Mean Sea Level
BGS	Below Ground Surface
DTW	Depth-to-water
DUSR	Data Usability Summary Report
EIMS	Environmental Information Management System
GES	Groundwater & Environmental Services, Inc.
IP	Interface Probe
mg/L	Milligrams per Liter
MS	Matrix spike
MSD	Matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
PCE	Tetrachloroethene
PPE	Personal protective equipment
TCE	Trichloroethylene
TOGS 1.1.1	Technical and Operational Guidance Series 1.1.1
VOC	Volatile Organic Compound
µg/L	Micrograms per Liter

1 Introduction

Groundwater & Environmental Services, Inc. (GES) has prepared this report to summarize the well development and groundwater sampling activities conducted at New York State Department of Environmental Conservation (NYSDEC) Site C915293A, Highland Plaza Off-site, located on Highland Parkway in the municipality of Tonawanda in Buffalo, New York. The work reported herein was performed by GES on the behalf of NYSDEC. The seven monitoring wells that were developed and sampled are located in the parking lot of the plaza and in the service alleyway behind, or south of, the plaza.

The well development was conducted on May 21-22, 2024 and recharge was monitored for six weeks following. Groundwater sampling was conducted on August 6-7, 2024 and samples were analyzed for the presence of volatile organic compounds (VOCs) and metals.

2 Site Background

Site C915293A, Highland Plaza Off-Site, has been designated part of the off-site investigation area for site C915293, Highland Plaza, both addressed at 215 Highland Parkway in the Town of Tonawanda according to NYSDEC Site Database Records. The Erie County Real Property Tax Maps show the plaza sits on less than an acre between Colvin Boulevard and Englewood Avenue and is zoned in a mixed residential and commercial area located in the municipality of Tonawanda within the city of Buffalo. The area has been developed with a single-story strip plaza building and an asphalt parking lot. A service road is located in the alleyway south of the plaza. A Site Map is included herein (**Figure 1**).

Historically, one of the former tenants of the plaza was High Park Dry Cleaners, which was in operation until March 2010. In 2014, a Phase II Environmental Site Investigation (ESI) was completed to evaluate the plaza property and soil samples collected from C915293A contained elevated levels of chlorinated solvents. Highland Plaza was admitted to the Brownfield Cleanup Program (BCP) in April 2015 to address the contamination which included investigation of off-site impacts. In 2016, due to the extensive concentrations of chlorinated solvents in the service alleyway, GES on behalf of the NYSDEC completed soil vapor intrusion investigations at a number of nearby businesses and residences. The Soil Vapor Intrusion Summary Report and additional findings are detailed in the revised Remedial Investigation (RI) Report currently under NYSDEC review.

3 Well Development and Recharge

Two of the seven wells, MW-05R and MW-07, were constructed with a 2-inch diameter casing and the remaining five wells (MW-01, MW-02, MW-03, MW-04, and MW-06) were constructed with a 1-inch diameter casing. The well development process was completed at MW-05R, MW-06, and MW-07 on May 21, 2024 and field staff returned May 22, 2024 to develop MW-01, MW-02, MW-03, MW-04. Well development logs are presented in **Appendix A** and field logs and photographs are included in **Appendix E**.

3.1 1-Inch Well Development

The development process for the smaller diameter wells utilized a peristaltic pump with ½-inch tubing fit onto a 1-inch surge block. The block was used to surge the well screen and agitate the bottom of the well. The peristaltic pump was then used to moderately purge as the surge block reciprocated along the length of the well screen for 30-45 minutes until the wells ran dry.

This process was consistent for all but one well, MW-06. Initially field staff performed development without the use of a peristaltic pump, relying on the mechanical pumping action during surging to also purge the well. The level of effort required to maintain vacuum in the tubing, however, proved to be unsustainable and the GES project manager approved adapting methods to leverage a mechanical pump.

The construction logs for MW-01, MW-02, MW-03, MW-04, and MW-06 denote a 10-foot screen length and total depth to bottom of 24-feet below ground surface (bgs). Based on field measurements with an interface probe, there was between 0.23 and 3.4-feet of build-up on the bottom of the 1-inch wells and therefore well volumes were under one gallon. Between 1.25 and 2.1-gallons were purged from the smaller diameter wells during the development process and between 0 and 0.23-feet of depth were gained. The wells were gauged once per week for 6-weeks following well development activities. All five of the smaller diameter wells had stable water levels by the second gauging event. A hydrograph of well recharge is included herein (**Figure 2**).

3.2 2-Inch Well Development

The development process for the larger diameter wells consisted of lowering a metal rod attached to a 2-inch surge block down the well casing. The block was used to surge the well screen and agitate the bottom of the well for 10-15 repetitions and then a bailer was used 2-3 times to purge water from the well column. This process was repeated until the well ran dry, which took approximately one hour.

The construction logs for MW-05R and MW-07 describe a 10-foot screen length and total depth to bottom of 24-feet below ground surface (bgs). Based on the field measurements with an interface probe, there was approximately 0.25-feet of build-up on the bottom of both 2-inch wells and therefore each had an approximate well volume of less than 3.3 gallons. Approximately 10 gallons were purged from both wells and between 0 and 0.05-feet of depth were gained.

Water level measurements were taken at the larger diameter wells with an interface probe on May 22, 2024 to gauge overnight recharge, MW-05R showed 1.64-feet of recharge and MW-07 showed 2.08-feet of recharge. The wells were then gauged once per week for 6-weeks following well development activities. It took 3-5 weeks for the water levels in MW-05R and MW-07 to stabilize. A hydrograph of well recharge is included herein (**Figure 2**).

4 Sampling

4.1 Low Flow Groundwater Sampling

On August 6-7, 2024 GES personnel conducted low-flow groundwater sampling at seven monitoring wells (MW-01, MW-02, MW-03, MW-04, MW-05R, MW-06, and MW-07) using a peristaltic pump, dedicated high density polyethylene (HDPE) tubing, and a water quality meter. Prior to sampling, the depth to water was gauged using an interface probe (IP). Gauging data and purge volumes are included in the Sampling Logs presented in **Appendix B**.

Typically, water quality parameters including turbidity are monitored for stabilization throughout purging to determine when sample collection can begin. However, the charted groundwater recharge following the May 2024 well development (**Figure 2**) identified the limited permeability of the surrounding formation, which prompted the DEC to instruct GES to ensure samples were collected before the well ran dry, even if stabilization of water quality parameters could not be achieved. Most notably, turbidity did not stabilize below 5 NTU prior to sampling for any of the wells.

The sampling personnel wore personal protective equipment (PPE) and field clothing, including nitrile gloves worn at all times during the sampling event and changed as needed, noting that nitrile gloves were always changed out prior to sample collection into laboratory supplied containers. Any equipment that was not dedicated to the well during the sampling event was decontaminated using Alconox and clean water after sampling at each monitoring well.

4.2 Drum Sampling

A 55-gallon, steel, open-top drum containing soil cuttings and purge water from previous subsurface investigative activities was also sampled on August 7, 2024. The sample was collected with a two-inch bailer and no water quality parameters were measured. The sampling protocols outlined above applied to this sampling event with the addition of Kevlar cut-resistant gloves that were worn while opening and closing the steel drum. The water in the drum was sampled for waste characterization to facilitate transportation and disposal.

4.3 Post-Sampling Groundwater Recharge

Initial water level measurements were taken with an interface probe prior to sampling and the final water levels measurements were noted. The wells were then gauged once per week for 6-weeks following sampling. A hydrograph of well recharge is included herein (**Figure 3**).

4.4 Sample Analysis

The requested laboratory analysis consisted of Target Compound List (TCL) volatile organic compounds (VOC's) via EPA method 8260C, Target Analyte List (TAL) metals via EPA method 200.7 and Mercury via EPA method 245.1. Groundwater sampled from the seven wells, including

the duplicate and MS/MSD samples, were subject to each of the above analytical methods, however the water sampled from the drum was only analyzed for VOC's.

Groundwater was sampled using laboratory supplied bottleware. Samples were preserved on ice in a cooler on-site throughout the day. Those that were collected on August 6, 2024 were stored overnight in a GES fridge designated for field samples only. All samples were preserved in a cooler on ice during delivery on August 7, 2024 via GES truck to the Eurofins Analytical Laboratory – Buffalo located in Amherst, New York.

Eurofins analyzed the drum and groundwater samples collected at the Site and provided a Category B deliverable which is included as **Appendix C**. The analytical data included in the Category B deliverable is summarized in **Table 3 and Table 4**, for VOC's and Metals respectively**.** Additionally, a Quality Assessment Data Usability Summary Report (DUSR) was prepared by Vali-Data of Western New York and is included as **Appendix D**. Vali-Data found all results for VOCs and Metals included in the laboratory reports to be acceptable for use. Lastly, field logs and photographs from the sampling event are included in **Appendix E**.

Results for VOC's and Metals were compared to Codes, Rules, and Regulations of the State of New York Part 703.5 Water Quality Standards for Surface Waters and Groundwater. If no standard was applicable according to Part 703.5, the results were compared to the NYSDEC Technical and Operational Guidance Series 1.1.1 June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater (TOGS 1.1.1).

The compound cis-1,2-Dichloroethene was detected above standard at MW-03 and MW-04; the compound Tetrachloroethene (PCE) was detected above standard at MW-04; the compound trichloroethene (TCE) was detected above standard at MW-04. Total VOCs equaled 77,200 µg/L at MW-04; 94.5 µg/L in the Drum; 8.36 µg/L at MW-03; 4.0 µg/L at MW-06 (DUP); 0.66 µg/L at MW-05R; and 0 µg/L at MW-01, 02, 06, and 07.

Barium, Cadmium, and Zinc were detected above standard in MW-06 (DUP). Arsenic, Beryllium, Copper, and Nickel were detected above standard in MW-06 and MW-06 (DUP). Chromium and Lead were detected above standard in MW-02, MW-06 and MW-06 (DUP). Manganese was detected above standard in MW-01, 02, 03, 06, and 06 (DUP). Iron was detected above standard in MW-01, 02, 03, 04, 06, 06 (DUP), and 07. Magnesium and Sodium were detected above standard in all monitoring wells sampled.

4.5 Quality Assurance/Quality Control

Care was taken during all aspects of the sample collection to ensure that high quality data was obtained. Duplicate samples, matrix spike and matrix spike duplicate (MS/MSD) samples were submitted for analysis for quality assurance of both the sample collection procedure and the laboratory method. All samples were submitted to Eurofins Analytical Laboratory for analysis under proper chain of custody. Samples were received by the laboratory on August 7, 2024 preserved on ice and in good condition.

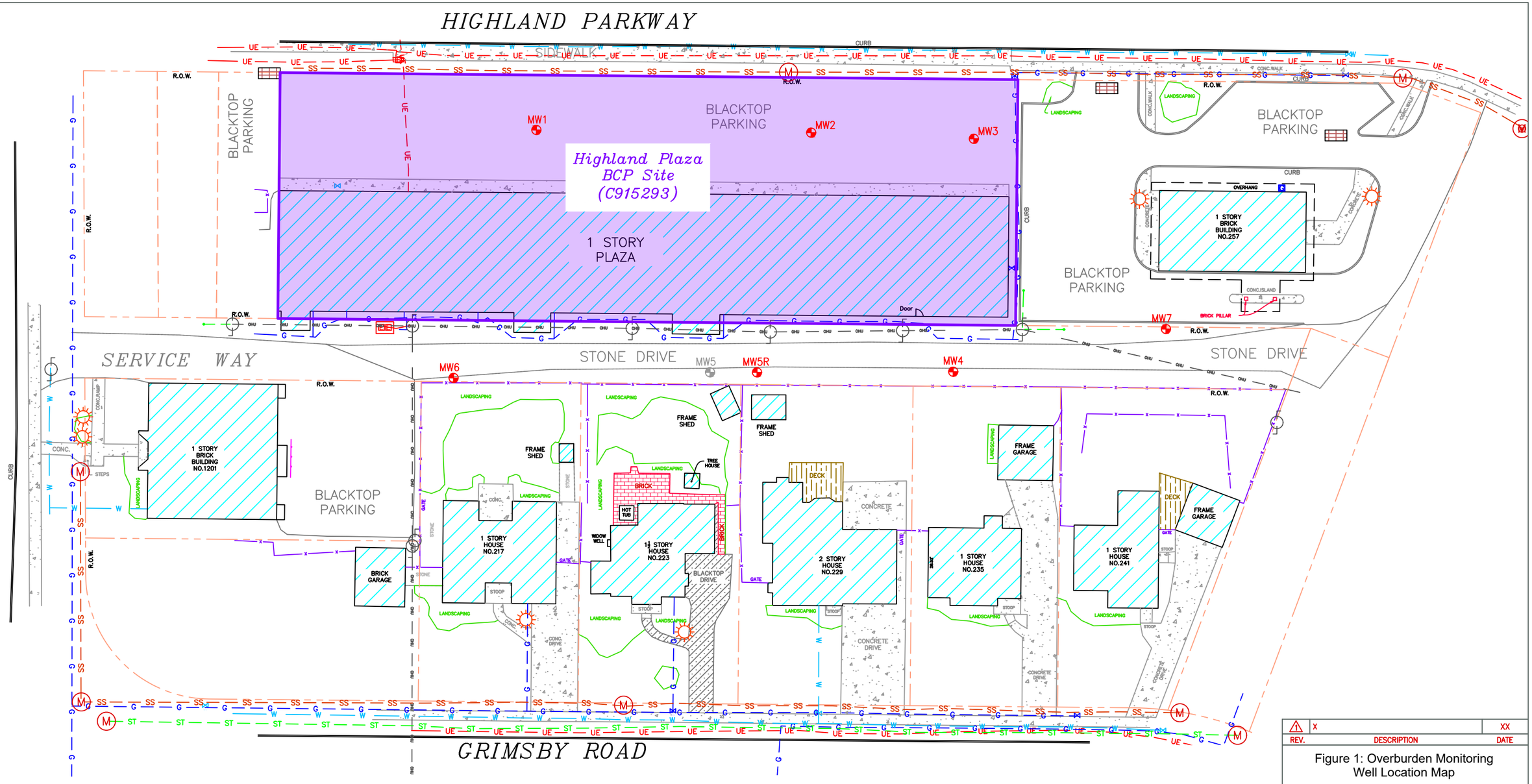
A duplicate sample was collected at monitoring well MW-06. Comparing analytical results from monitoring well MW-06 and the MW-06 Duplicate sample indicate the following:

- There was one detected volatile organic compound (VOC), acetone, in the MW-06 (DUP) sample group that was not identified in the MW-06 sample group.
- The MW-06 (DUP) sample group included a detection for antimony (0.010 mg/L) in addition to the other 20 metals detected in both sample groups.
- The MW-06 (DUP) sample group results ranged from 0.19 – 0.67 orders of magnitude higher for each metal detected, with the exception of sodium which was detected at a lower concentration in the MW-06 (DUP) sample group.

The MS/MSD run for the MW-05R sample group met all quality criteria. All calibration criteria were met except one target analyte was outside QC limits in an interference check standard and the sample group result is qualified as estimated (UJ/J).

Overall, the DUSR concluded that the data, when used with the qualifiers as presented in the DUSR, is usable and valid. Validated and qualified data as reported herein was successfully uploaded to the NYSDEC EQuIS Data Processer (EDP) on February 24, 2025.

Figures



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- EXISTING MONITORING WELL
- DESTROYED MONITORING WELL

REV.	DESCRIPTION	DATE
1	X	XX

Figure 1: Overburden Monitoring Well Location Map

NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn
W.G.S.
Designed

Date
9/30/23

Approved

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

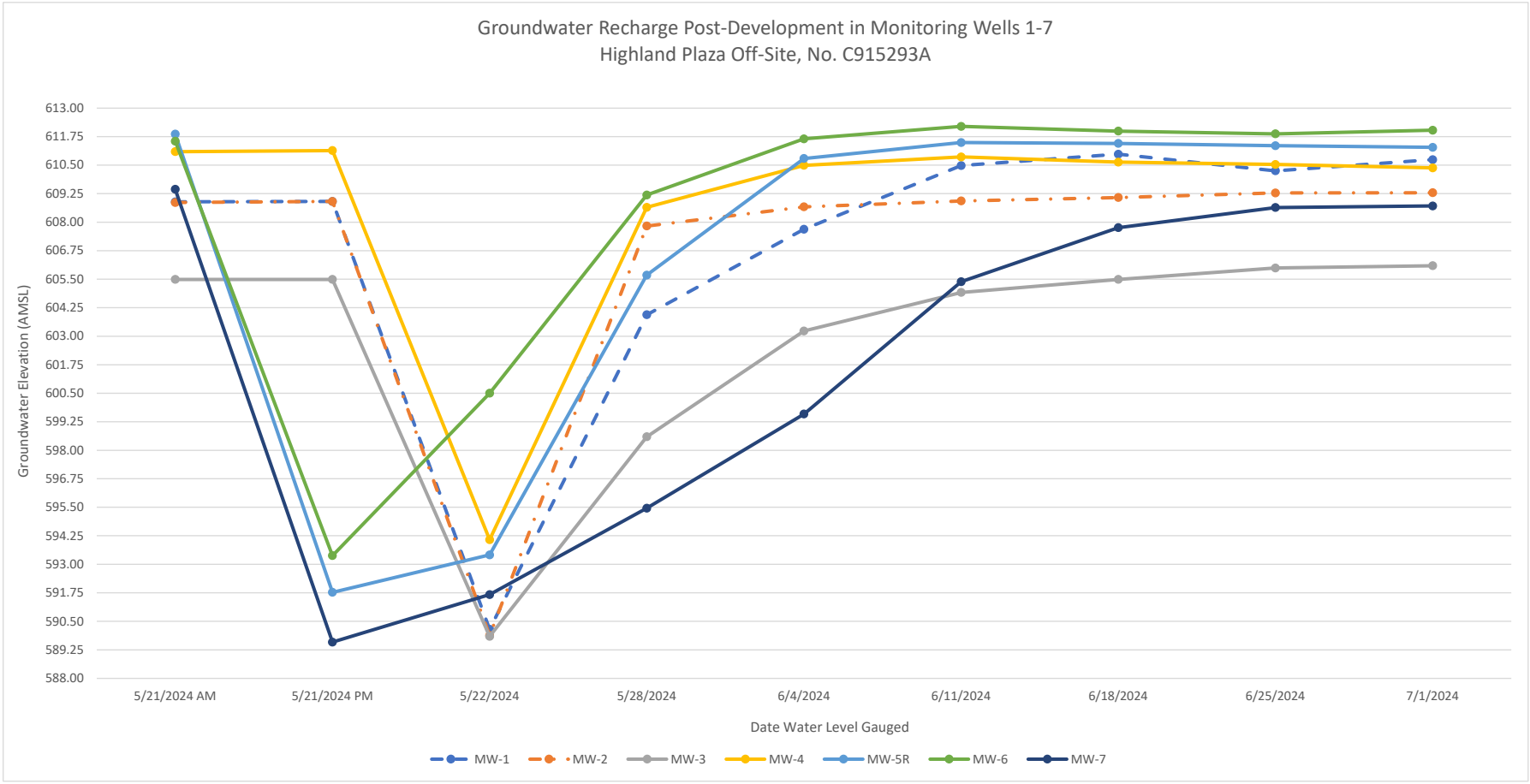


Figure 2: Hydrograph of Groundwater Recharge Post-Development

NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

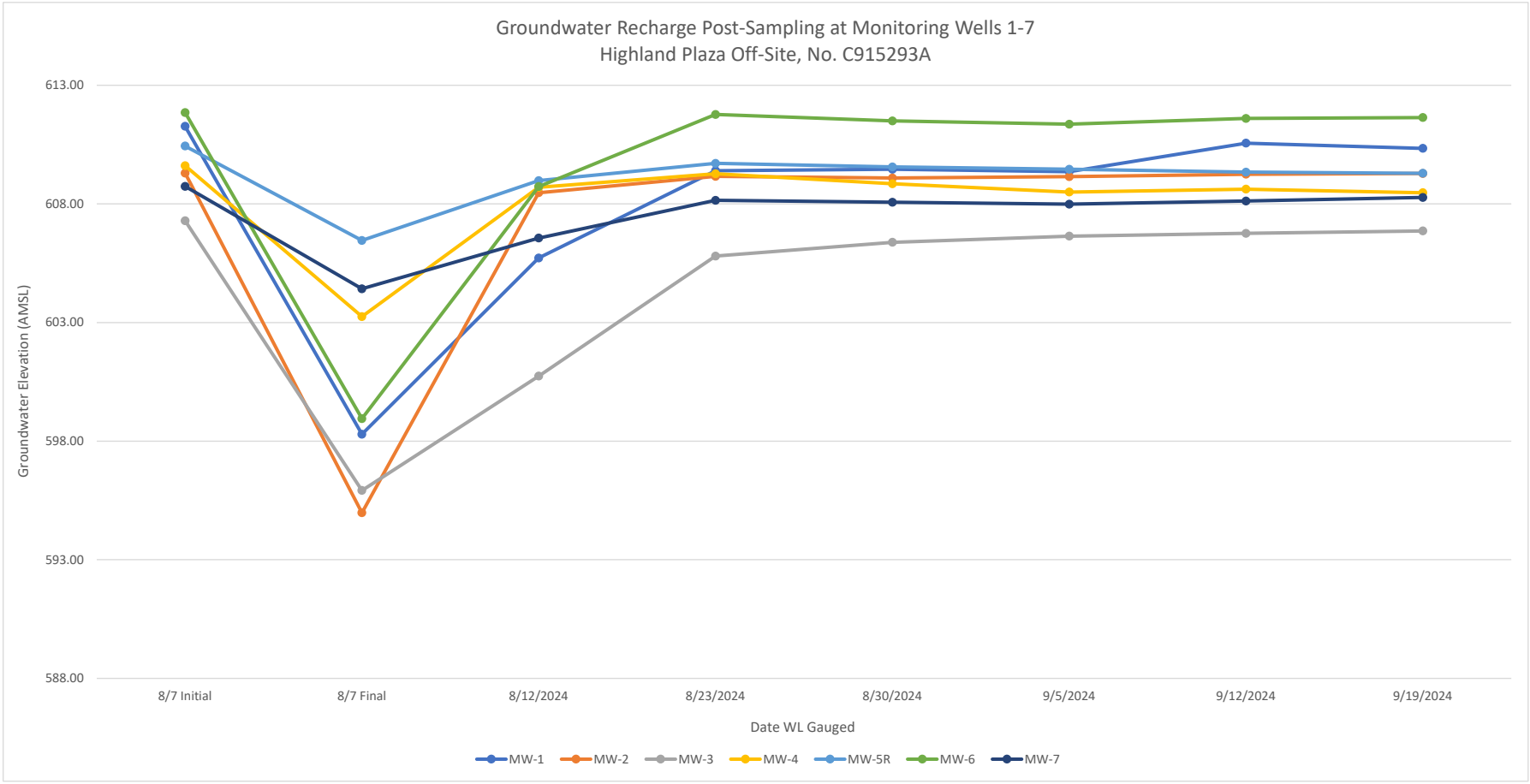


Figure 3: Hydrograph of Groundwater Recharge Post-Sampling

NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Tables

TABLE 1

WATER LEVEL ELEVATION SUMMARY (Post- Well Development)

HIGHLAND PLAZA OFF-SITE
215 HIGHLAND PARKWAY
TONAWANDA, NEW YORK
NYSDEC SITE NO. C915293A

Well Designation	Date Measured	MPE (AMSL)*	Depth to Water (ft)	Groundwater Elevation (AMSL)
MW-01	7/1/2024	613.56	2.82	610.74
MW-02	7/1/2024	613.23	3.94	609.29
MW-03	7/1/2024	613.11	7.02	606.09
MW-04	7/1/2024	614.52	4.14	610.38
MW-05R	7/1/2024	615.09	3.81	611.28
MW-06	7/1/2024	615.34	3.31	612.03
MW-07	7/1/2024	612.92	4.21	608.71
MW-01	6/25/2024	613.56	3.31	610.25
MW-02	6/25/2024	613.23	3.95	609.28
MW-03	6/25/2024	613.11	7.12	605.99
MW-04	6/25/2024	614.52	3.99	610.53
MW-05R	6/25/2024	615.09	3.74	611.35
MW-06	6/25/2024	615.34	3.47	611.87
MW-07	6/25/2024	612.92	4.28	608.64
MW-01	6/18/2024	613.56	2.58	610.98
MW-02	6/18/2024	613.23	4.15	609.08
MW-03	6/18/2024	613.11	7.62	605.49
MW-04	6/18/2024	614.52	3.89	610.63
MW-05R	6/18/2024	615.09	3.64	611.45
MW-06	6/18/2024	615.34	3.35	611.99
MW-07	6/18/2024	612.92	5.16	607.76
MW-01	6/11/2024	613.56	3.08	610.48
MW-02	6/11/2024	613.23	4.30	608.93
MW-03	6/11/2024	613.11	8.19	604.92
MW-04	6/11/2024	614.52	3.66	610.86
MW-05R	6/11/2024	615.09	3.60	611.49
MW-06	6/11/2024	615.34	3.14	612.20
MW-07	6/11/2024	612.92	7.53	605.39
MW-01	6/4/2024	613.56	5.87	607.69
MW-02	6/4/2024	613.23	4.56	608.67
MW-03	6/4/2024	613.11	9.88	603.23
MW-04	6/4/2024	614.52	4.03	610.49
MW-05R	6/4/2024	615.09	4.30	610.79
MW-06	6/4/2024	615.34	3.69	611.65
MW-07	6/4/2024	612.92	13.33	599.59
MW-01	5/28/2024	613.56	9.62	603.94
MW-02	5/28/2024	613.23	5.40	607.83
MW-03	5/28/2024	613.11	14.52	598.59
MW-04	5/28/2024	614.52	5.87	608.65
MW-05R	5/28/2024	615.09	9.41	605.68
MW-06	5/28/2024	615.34	6.15	609.19
MW-07	5/28/2024	612.92	17.46	595.46
MW-01	5/22/2024	613.56	23.41	590.15
MW-02	5/22/2024	613.23	23.35	589.88
MW-03	5/22/2024	613.11	23.27	589.84
MW-04	5/22/2024	614.52	20.44	594.08
MW-05R	5/22/2024	615.09	21.68	593.41
MW-06	5/22/2024	615.34	14.84	600.50
MW-07	5/22/2024	612.92	21.25	591.67
MW-05R	5/21/2024	615.09	23.32	591.77
MW-06	5/21/2024	615.34	21.96	593.38
MW-07	5/21/2024	612.92	23.33	589.59
MW-01	5/21/2024	613.56	4.67	608.89
MW-02	5/21/2024	613.23	4.37	608.86
MW-03	5/21/2024	613.11	7.62	605.49
MW-04	5/21/2024	614.52	3.43	611.09
MW-05R	5/21/2024	615.09	3.23	611.86
MW-06	5/21/2024	615.34	3.79	611.55
MW-07	5/21/2024	612.92	3.48	609.44

AMSL* = feet above mean sea level (AMSL) as surveyed by Kheops on 10/26/2023.
MPE = Measuring Point Elevation

TABLE 2

WATER LEVEL ELEVATION SUMMARY (Post-Groundwater Sampling)

HIGHLAND PLAZA OFF-SITE

215 HIGHLAND PARKWAY
TONAWANDA, NEW YORK
NYSDEC SITE NO. C915293A

Well Designation	Date Measured	MPE (AMSL)*	Depth to Water (ft)	Groundwater Elevation (AMSL)
MW-01	9/12/2024	613.56	3.22	610.34
MW-02	9/12/2024	613.23	3.95	609.28
MW-03	9/12/2024	613.11	6.25	606.86
MW-04	9/12/2024	614.52	6.05	608.47
MW-05R	9/12/2024	615.09	5.80	609.29
MW-06	9/12/2024	615.34	3.70	611.64
MW-07	9/12/2024	612.92	4.65	608.27
MW-01	9/12/2024	613.56	3.00	610.56
MW-02	9/12/2024	613.23	3.98	609.25
MW-03	9/12/2024	613.11	6.35	606.76
MW-04	9/12/2024	614.52	5.90	608.62
MW-05R	9/12/2024	615.09	5.75	609.34
MW-06	9/12/2024	615.34	3.74	611.60
MW-07	9/12/2024	612.92	4.80	608.12
MW-01	9/5/2024	613.56	4.20	609.36
MW-02	9/5/2024	613.23	4.08	609.15
MW-03	9/5/2024	613.11	6.47	606.64
MW-04	9/5/2024	614.52	6.02	608.50
MW-05R	9/5/2024	615.09	5.63	609.46
MW-06	9/5/2024	615.34	3.98	611.36
MW-07	9/5/2024	612.92	4.93	607.99
MW-01	8/30/2024	613.56	4.10	609.46
MW-02	8/30/2024	613.23	4.14	609.09
MW-03	8/30/2024	613.11	6.73	606.38
MW-04	8/30/2024	614.52	5.67	608.85
MW-05R	8/30/2024	615.09	5.53	609.56
MW-06	8/30/2024	615.34	3.84	611.50
MW-07	8/30/2024	612.92	NM	NM
MW-01	8/23/2024	613.56	4.16	609.40
MW-02	8/23/2024	613.23	4.07	609.16
MW-03	8/23/2024	613.11	7.31	605.80
MW-04	8/23/2024	614.52	5.25	609.27
MW-05R	8/23/2024	615.09	5.38	609.71
MW-06	8/23/2024	615.34	3.57	611.77
MW-07	8/23/2024	612.92	4.77	608.15
MW-01	8/12/2024	613.56	7.84	605.72
MW-02	8/12/2024	613.23	4.76	608.47
MW-03	8/12/2024	613.11	12.37	600.74
MW-04	8/12/2024	614.52	5.82	608.70
MW-05R	8/12/2024	615.09	6.11	608.98
MW-06	8/12/2024	615.34	6.61	608.73
MW-07	8/12/2024	612.92	6.36	606.56
MW-01	8/6/2024	613.56	15.27	598.29
MW-02	8/7/2024	613.23	18.25	594.98
MW-03	8/7/2024	613.11	17.19	595.92
MW-04	8/7/2024	614.52	11.27	603.25
MW-05R	8/7/2024	615.09	8.63	606.46
MW-06	8/7/2024	615.34	16.39	598.95
MW-07	8/7/2024	612.92	8.50	604.42
MW-01	8/6/2024	613.56	2.29	611.27
MW-02	8/7/2024	613.23	3.93	609.30
MW-03	8/7/2024	613.11	5.82	607.29
MW-04	8/7/2024	614.52	4.91	609.61
MW-05R	8/7/2024	615.09	4.65	610.44
MW-06	8/7/2024	615.34	3.49	611.85
MW-07	8/7/2024	612.92	4.18	608.74

AMSL* = feet above mean sea level (AMSL) as surveyed by Kheops on 10/26/2023.
MPE = Measuring Point Elevation
NM = Not Measured

TABLE 3
Groundwater Data Summary - VOCs
HIGHLAND PLAZA OFF-SITE
215 HIGHLAND PARKWAY
TONAWANDA, NEW YORK
NYSDEC SITE NO. C915293A

CAS No.	EPA Method 8260C	NYSDEC Groundwater Standard	Sample ID:	MW-1		MW-2		MW-3		MW-4		MW-5R		MW-6		MW-6 (DUP)		MW-7		DRUM	
			Date Sampled:	8/6/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024	
	VOLATILE ORGANIC COMPOUNDS		UNITS	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
71-55-6	1,1,1-Trichloroethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
79-00-5	1,1,2-Trichloroethane	1	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-34-3	1,1-Dichloroethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-35-4	1,1-Dichloroethene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
120-82-1	1,2,4-Trichlorobenzene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	0.04	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
106-93-4	1,2-Dibromoethane	0.0006	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
95-50-1	1,2-Dichlorobenzene	3	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
107-06-2	1,2-Dichloroethane	0.6	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
78-87-5	1,2-Dichloropropane	1	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
541-73-1	1,3-Dichlorobenzene	3	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
106-46-7	1,4-Dichlorobenzene	3	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
591-78-6	2-Hexanone	50	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
67-64-1	Acetone	50	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	4.0	J	ND	U	ND	U
71-43-2	Benzene	1	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-27-4	Bromodichloromethane	50	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-25-2	Bromoform	50	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
74-83-9	Bromomethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-15-0	Carbon Disulfide	60	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
56-23-5	Carbon tetrachloride	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
108-90-7	Chlorobenzene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-00-3	Chloroethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
67-66-3	Chloroform	7	(µg/l)	ND	U	ND	U	ND	U	ND	U	0.66	J	ND	U	ND	U	ND	U	ND	U
74-87-3	Chloromethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
156-59-2	cis-1,2-Dichloroethene	5	(µg/l)	ND	U	ND	U	**7.9**		**5000**		ND	U	ND	U	ND	U	ND	U	89	
10061-01-5	cis-1,3-Dichloropropene	0.4	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
110-82-7	Cyclohexane	NR	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
124-48-1	Dibromochloromethane	50	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-71-8	Dichlorodifluoromethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
100-41-4	Ethylbenzene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
98-82-8	Isopropylbenzene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
79-20-9	Methyl acetate	NR	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
78-93-3	Methyl Ethyl Ketone (2-Butanone)	50 G	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NR	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
108-87-2	Methylcyclohexane	NS	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-09-2	Methylene chloride	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
100-42-5	Styrene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1634-04-4	Tert-butyl methyl ether	NR	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
127-18-4	Tetrachloroethene	5	(µg/l)	ND	U	ND	U	ND	U	**67,000**		ND	U	ND	U	ND	U	ND	U	3.4	
108-88-3	Toluene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
156-60-5	trans-1,2-Dichloroethene	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
10061-02-6	trans-1,3-Dichloropropene	0.4	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
79-01-6	Trichloroethene	5	(µg/l)	ND	U	ND	U	0.46	J	**5,200**		ND	U	ND	U	ND	U	ND	U	2.1	
75-69-4	Trichlorofluoromethane	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
75-01-4	Vinyl Chloride	2	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
1330-20-7	Xylenes	5	(µg/l)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
	Total VOCs	NS	(µg/l)	0		0		8.36		77200		0.66		0		4.0		0		94.5	

NYSDEC Groundwater Standard = NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2021
G = Guidance Value
µg/L = Micrograms/Liter
ND = Non-detect
NR = Not regulated by the Principal Organic Contaminant (POC) Groundwater Standard (Table 3 of TOGS 1.1.1)
NS = No Standard
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
U = Analyte was not detected at the method detection limit, indicating the concentration is below the level that can be
Bold = Result exceeds NYSDEC groundwater standards or guidance values
VOCs = Volatile Organic Compounds

TABLE 4
Groundwater Data Summary - Metals
HIGHLAND PLAZA OFF-SITE
215 HIGHLAND PARKWAY
TONAWANDA, NEW YORK
NYSDEC SITE NO. C915293A

CAS No.	EPA Method 200.7 - TAL Metals ICP EPA Method 245.1 - Mercury	NYSDEC Groundwater Standard	Sample ID:	MW-1		MW-2		MW-3		MW-4		MW-5R		MW-6		MW-6 (DUP)		MW-7	
			Date Sampled:	8/6/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024		8/7/2024	
	Metals		UNITS	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
7429-90-5	ALUMINUM	NS	(µg/L)	21,600		34,200		17,400		7,400		170	J	132,000		338,000		360	
7440-36-0	ANTIMONY	3	(µg/L)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	10	J	ND	U
7440-38-2	ARSENIC	25	(µg/L)	11	J	15		8.2	J	8.3	J	ND	U	**44**		**96**		ND	U
7440-39-3	BARIUM	1,000	(µg/L)	450		320		180		130		160		810		**2,200**		56	
7440-41-7	BERYLLIUM	3	(µg/L)	0.95	J	1.5	J	0.76	J	ND	U	ND	U	**6.3**		**15**		ND	U
7440-43-9	CADMIUM	5	(µg/L)	ND	U	0.68	J	ND	U	ND	U	ND	U	2.9		**6.4**		ND	U
7440-70-2	CALCIUM	NS	(µg/L)	254,000		152,000		108,000		72,900		75,100		498,000		2,320,000		63,500	
7440-47-3	CHROMIUM, TOTAL	50	(µg/L)	33		**63**		26		14		ND	U	**350**		**920**		ND	U
7440-48-4	COBALT	NS	(µg/L)	9.5		19		8.9		3.9	J	ND	U	110		420		ND	U
7440-50-8	COPPER	200	(µg/L)	41		32		17		9.5	J	ND	U	**240**		**660**		ND	U
7439-89-6	IRON	300	(µg/L)	**24,800**		**48,200**		**22,600**		**9,300**		210		**173,000**		**268,000**		**420**	
7439-92-1	LEAD	25	(µg/L)	23		**26**		8.8	J	8	J	ND	U	**140**		**540**		ND	U
7439-95-4	MAGNESIUM	35000 G	(µg/L)	**202,000**		**140,000**		**142,000**		**122,000**		**107,000**		**308,000**		**485,000**		**163,000**	
7439-96-5	MANGANESE	300	(µg/L)	**630**		**950**		**490**		200		17		**4200**		**11,000**		12	
7439-97-6	MERCURY	0.7	(µg/L)	ND	U	ND	U	ND	U	ND	U	ND	U	0.38	J	**1.4**		ND	U
7440-02-0	NICKEL	100	(µg/L)	24		48		24		10		ND	U	**220**		**540**		ND	U
7440-09-7	POTASSIUM	NS	(µg/L)	9,900		14,700		9,900		5,900		4,600		40,300		84,200		5,400	
7782-49-2	SELENIUM	10	(µg/L)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
7440-22-4	SILVER	50	(µg/L)	ND	U	ND	U	ND	U	ND	U	ND	U	3.5	J	7.4		ND	U
7440-23-5	SODIUM	20,000	(µg/L)	**418,000**		**41,200**		**60,500**		**33,900**		**34,700**		**76,200**		**44,000**		**65,600**	
7440-28-0	THALLIUM	0.5	(µg/L)	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U	ND	U
7440-62-2	VANADIUM	NS	(µg/L)	34		64		32		14		ND	U	250		640		1.9	J
7440-66-6	ZINC	2000 G	(µg/L)	130		150		69		41		23		860		**2100**		38	

NYSDEC Groundwater Standard = NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2021
G = Guidance Value
µg/L = Micrograms/Liter
ND = Non-detect
NS = No Standard or Guidance Value available
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
U = Analyte was not detected at the method detection limit, indicating the concentration is below the level that can be reliably measured
Bold = Result exceeds NYSDEC groundwater standards or guidance values
TAL = Target Analyte List

Appendix A – Well Development Logs

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24** and **5/22/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	1" surge block and peristaltic pump

Well ID: **MW-1**
Well Diameter: **1"**
Total Well Volume (gallons): **0.76**

Initial Depth to Water (ft): **4.67 / 4.69**
Depth to Bottom (ft): **23.41**
Texture of Bottom: **Firm**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
6:30	0.0	NA	NA	NA	Agitated and surged length of well screen
6:50	0.25	Brown	Turbid	No	Gently moved the surge block along sections of screen while purging, moving top down
7:10	0.75	Brown	Turbid	No	Surge block removed, purge continues
7:15	0.75	Brown	Turbid	No	Purge volume dropped off, had to lower height of peri pump to restore flow
7:25	1.25	Brown	Turbid	No	Constant flow
7:35	2.10	Brown	Turbid	No	Dry

Well Condition Notes: white cap (not j-plug)
0/2 bolts and 1/2 ears
TOC is at grade with soil

Additional Comments: **Reconfirmed depth to water from 5/21 before starting development on 5/22**
Well ran dry at 0735, almost 3 well volumes purged (3 well volumes = 2.28 gallons)
Construction log says DTB = 24'

WELL DEVELOPMENT LOG

TASK : **Well Development** | PSID | **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24** and **5/22/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	1" surge block and peristaltic pump

Well ID: **MW-2**
Well Diameter: **1"**
Total Well Volume (gallons): **0.78**

Initial Depth to Water (ft): **4.37 / 4.42**
Depth to Bottom (ft): **23.5**
Texture of Bottom: **Firm**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
8:00	0.0	NA	NA	NA	Agitated and surged length of well screen
8:15	0.0	NA	NA	No	Gently moved the surge block along sections of screen while purging, moving top down
8:25	0.75	Brown	Turbid	No	
8:30	1.0	Brown	Turbid	No	Surge block removed, purge continues
8:40	1.75	Brown	Turbid	No	Continued purging
8:45	2.0	Brown	Turbid	No	Dry

Well Condition Notes: white cap (no j-plug)
2/2 bolts
2/2 ears

Additional Comments:
Reconfirmed depth to water from 5/21 before starting development on 5/22
3 well volumes = 2.34 gallons
0830 - moved to series drive 2 on peristaltic pump
Well ran dry at 0845
Construction log says DTB = 24'

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24** and **5/22/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	1" surge block and peristaltic pump

Well ID: **MW-3**
Well Diameter: **1"**
Total Well Volume (gallons): **0.65**

Initial Depth to Water (ft): **7.62 / 7.62**
Depth to Bottom (ft): **23.5**
Texture of Bottom: **Hard**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
9:20	0.0	NA	NA	NA	Agitated and surged length of well screen
9:30	0.0	Brown	Turbid	No	Gently moved the surge block along sections of screen while purging, moving top down
9:45	1.0	Brown	Turbid	No	Surge block removed, purge continues
9:55	1.75	Brown	Turbid	No	Dry

Well Condition Notes: white cap (no j-plug)
0/2 bolts
0/2 ears

Additional Comments: **Reconfirmed depth to water from 5/21 before starting development on 5/22**
3 well volumes = 1.95 gallons
Well ran dry at 0955
Construction log says DTB = 24'

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24** and **5/22/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	1" surge block and peristaltic pump

Well ID: **MW-4**
Well Diameter: **1"**
Total Well Volume (gallons): **0.70**

Initial Depth to Water (ft): **3.43 / 3.48**
Depth to Bottom (ft): **20.60**
Texture of Bottom: **Hard**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
10:40	0.0	NA	NA		Agitated and surged length of well screen
10:55	0.0	NA	NA	No	Gently moved the surge block along sections of screen while purging, moving top down
11:05	1.25	Brown	Turbid	No	Surge block removed, purge continues
11:15	1.5	Brown	Turbid	No	Dry

Well Condition Notes: white cap (no j-plug)
0/2 bolts
ballard in good condition

Additional Comments: **Reconfirmed depth to water from 5/21 before starting development on 5/22**
3 well volumes = 2.1 gallons
Well ran dry at 1115
Construction log says DTB = 24'

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	2" surge block and 2" bailer

Well ID: **MW-5R**
Well Diameter: **2"**
Total Well Volume (gallons): **3.35**

Initial Depth to Water (ft): **3.23**
Depth to Bottom (ft): **23.77**
Texture of Bottom: **Hard**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
13:40	0.0	NA	NA	NA	Agitated and surged length of well screen, valve closed
13:50	0.0	NA	NA	NA	Started purging with bailer
14:20	7.0	Brown	Turbid	No	Consistent brown color
14:25	8.5	NA	NA	NA	Agitated and surged well screen, valve closed
14:50	10.5	Brown	Turbid	No	Bailed dry

Well Condition Notes: j-plug in good condition
2/2 bolts
ballard in good condition

Additional Comments: **3 well volumes purged (10.05 gallons)**
Well ran dry at 1450, purged to 23.32 ft, unable to capture more
Construction log says DTB = 24'
5/22/24 @1130: DTW = 21.68' (1.64 ft of overnight recharge)
DTB = 23.77' / no change

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	1" surge block and tubing (no pump)

Well ID: **MW-6**
Well Diameter: **1"**
Total Well Volume (gallons): **0.74**

Initial Depth to Water (ft): **3.79**
Depth to Bottom (ft): **21.96**
Texture of Bottom: **Hard**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
8:25	0.0	NA	NA	NA	Agitated and surged length of well screen w/ valve closed
8:35	0.0	NA	NA	NA	Opened valve and mechanically pumped/surged well screen, no water purged* see below
9:15	0.25	Brown	Turbid	No	Mechanically pumped to purge water
10:15	1.25	Brown	Turbid	No	Dry

Well Condition Notes: white cap (no j-plug)
2/2 bolts
ballard in good condition

Additional Comments: **0835 - unable to maintain suction, used tape to seal gap between surge block and tubing**
Well ran dry at 1015, 1.25 gallons purged
3 well volumes = 2.22 gallons
Construction log says DTB = 24'
5/22/24 @1130: DTW = 14.84' (7.12 ft of overnight recharge)

WELL DEVELOPMENT LOG

TASK : **Well Development** PSID **WD # 2845**

Project Name:	NYSDEC Highland Plaza - Off-Site	Date:	**5/21/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Developer(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016 / 06 / 206 // 1109	Method	2" surge block and 2" bailer

Well ID: **MW-7**
Well Diameter: **2"**
Total Well Volume (gallons): **3.31**

Initial Depth to Water (ft): **3.48**
Depth to Bottom (ft): **23.75**
Texture of Bottom: **Hard**

Clock Time (24 Hour)	Cumulative Volume Purged (Gallons)	Color	Turbidity	Odor	Comments (Sheen, Well Dry)
11:45	0.0	NA	NA	NA	Agitated and surged length of well screen, valve closed
11:55	0.0	NA	NA	NA	Started purging with bailer
12:00	0.25	Mostly clear, somewhat brown	Mildly Turbid	No	Color change from clear to brown, getting darker as water column drops
12:05	1.5	Murky brown	Turbid	No	
12:35	8.0	Murky brown	Turbid	No	Continued purging with bailer
12:40	8.0	NA	NA	No	Agitated and surged length of well screen, valve closed
13:00	10.0	Brown	Brown	No	Bailed dry

Well Condition Notes: j-plug in good condition
2/2 bolts
no ballard

Additional Comments: **3 well volumes purged (9.93 gallons)**
Well ran dry at 1300, purged to 23.33 ft, unable to capture more
Construction log says DTB = 24'
5/22/24 @1130: DTW = 21.25' (2.08 ft of overnight recharge)
DTB = 23.80'

Appendix B – Low Flow Sampling Logs

WELL SAMPLING SUMMARY

TASK : **Groundwater Monitoring & Sampling** PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	8/6/24 - 8/7/24
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	Jessica Paterson
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	Low Flow

Well ID *(sys_loc_code)*	**Well Diameter** (inches)	**Depth to LNAPL** (ft btoc)	**Depth to Water** (ft btoc)	**LNAPL Thickness** (ft)	**Depth to DNAPL** (ft btoc)	**Depth to Bottom** (ft btoc)	**Purge Volumes**			**Comments** (clear/turbid, sheen, color)	**Sample Time** (24 hr)
							Water Column Thickness (ft)	**Minimum Purge Vol.** (gallons)	**Actual Purge Vol.** (gallons)		
MW-1	1		2.29			23.42	21.13	2.58	1.50	8/6/2024	0903
MW-2	1		3.93			23.50	19.57	2.39	0.75	8/7/2024	0730
MW-3	1		5.82			23.50	17.68	2.16	0.75	8/7/2024	0840
MW-4	1		3.49			21.97	18.48	2.26	1.0	8/7/2024	1000
MW-5R	2		4.65			23.75	19.10	9.35	1.0	8/7/2024	1130
MW-6	1		4.91			20.55	15.64	1.91	0.50	8/7/2024	1235
MW-7	2		4.18			23.80	19.62	9.60	1.25	8/7/2024	1335
Drum	55-gallon, steel, open-top drum containing soil cuttings and purge water									8/7/2024	1400

Notes:

ft = feet;

DNAPL= Dense non-aqueous phase liquids

LNAPL= Light non-aqueous phase liquids

btoc = below top of casing

Sheen = Less than 0.01 ft of NAPL

Comments: Due to limited well volume, some samples were taken prior to stabilization

Purge Calculations:

Water Column Thickness (ft) = DTB - DTW

Purge Volume (gallons) = [Water Column Thickness (ft)] **x** [Well Volume Coefficient] **x** [3 Well Volumes]

Well Diameter	Well Volume Coefficients
1"	0.04
2"	0.16
4"	0.65
6"	1.65

Page ___1____ OF ____1_____

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/6/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID: **MW-1**

Well Diameter: **1"**

Initial Depth to Water (ft): **2.29**

Depth to Bottom (ft): **23.42**

Pump Type/Model: **Pine Peristaltic Pump (SN # 33386)**

Water Quality Meter Model/SN: **Pine Horiba (SN # 047387)**

Date Meter Calibrated: **8/1/2024**

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
8:32	8.90	125	0.25	22.98	3.70	7.66	74	0.87	926	Murky brown
8:35	11.06	125	0.50	22.85	3.50	7.61	83	0.82	749	Clearing up, slightly murky brown
8:38	12.55	125	<0.75	22.72	2.97	7.63	81	0.94	621	Somewhat brown
8:41	13.12	125	0.75	21.99	2.69	7.97	34	0.88	488	Somewhat brown
8:44	14.04	125	<1	22.06	2.42	7.84	73	1.00	651	Somewhat brown
8:52	14.23	75	1	21.97	1.78	7.76	83	1.36	268	Somewhat brown
8:55	14.27	75	<1.25	21.91	1.69	7.80	79	1.12	215	Somewhat brown
8:58	14.41	75	1.25	21.83	1.69	7.79	79	1.15	181	Somewhat brown
9:01	15.27	75	<1.5	21.77	1.69	7.80	77	1.21	162	Somewhat brown

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	**X No**

Comments: **Purge started at 0827, pump adjusted at 0845**

Sample taken at 0903 due to rapidly decreasing water column

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/6/24 / 8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID:	**MW-2**	Pump Type/Model:	**Pine Peristaltic Pump (SN # 33386 / 210302)**
Well Diameter:	**1"**	Water Quality Meter Model/SN:	**Pine Horiba (SN # 047387)**
Initial Depth to Water (ft):	**3.93 / 8.98**	Date Meter Calibrated:	**8/1/2024**
Depth to Bottom (ft):	**23.50**		

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
8/6/24 10:00	13.68	150	0.25	21.04	1.01	7.99	103	9.47	172	Mostly clear
Stopped										
8/7/24 7:10	14.60	100	<0.5	18.21	1.52	7.70	52	1.89	337	Somewhat cloudy brown
7:13	15.45	100	<0.5	18.15	1.53	7.71	63	1.51	303	Somewhat cloudy brown
7:16	16.32	100	0.50	18.10	1.54	7.71	71	1.46	278	Somewhat cloudy brown
7:19	17.38	100	<0.75	18.03	1.54	7.72	78	1.34	271	Somewhat cloudy brown
7:22	18.25	100	<0.75	17.97	1.54	7.72	82	1.38	268	Somewhat cloudy brown

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	Yes

Comments: **8/6/24 - purge started at 0948**

10:00 couldn't stabilize purge rate due to pump issues. Pump speed dial stopped working, notified Pine that a new one is needed. Purging will resume tomorrow.

8/7/24 - DTW confirmed and purge started at 0702

Samples collected at 0730

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID: **MW-3**

Well Diameter: **1"**

Initial Depth to Water (ft): **5.82**

Depth to Bottom (ft): **23.50**

Pump Type/Model: **Pine Peristaltic Pump (SN # 210302)**

Water Quality Meter Model/SN: **Pine Horiba (SN # 047387)**

Date Meter Calibrated: **8/1/2024**

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
8:18	11.10	100	0.25	17.93	1.57	7.88	63	1.76	962	Cloudy brown
8:21	12.60	100	<0.5	17.95	1.58	7.90	62	1.17	983	Cloudy brown
8:24	13.93	100	0.50	17.99	1.58	7.91	63	0.91	1000	Cloudy brown
8:27	14.84	100	<0.75	18.03	1.59	7.92	66	0.79	784	Cloudy brown
8:30	15.97	100	<0.75	18.06	1.59	7.93	70	0.74	603	Cloudy brown
8:33	17.19	100	0.75	18.08	1.59	7.94	73	0.73	560	Cloudy brown

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	No

Comments: **Purge started @ 0810**

Samples taken @ 0840

Page __1__ OF __1__

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID: **MW-4**

Well Diameter: **1"**

Initial Depth to Water (ft): **4.91**

Depth to Bottom (ft): **20.55**

Pump Type/Model: **Pine Peristaltic Pump (SN # 210302)**

Water Quality Meter Model/SN: **Pine Horiba (SN # 047387)**

Date Meter Calibrated: **8/1/2024**

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
12:24	9.95	100.00	0.25	23.38	0.747	8.14	-14.00	1.33	***	Murky brown, heavy sediment
12:27	11.27	100.00	<0.5	23.37	0.747	8.21	6.00	1.24	***	Cleared somewhat, still cloudy brown

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	**Too much sediment**

Comments: **Purge started @1215**

*****Too much sediment in water for turbidity probe to collect readings**

Purge stopped @1227 due to raplidly decreasing water column

Samples taken @1235

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID:	**MW-5R**	Pump Type/Model:	**Pine Peristaltic Pump (SN # 210302)**
Well Diameter:	**2"**	Water Quality Meter Model/SN:	**Pine Horiba (SN # 047387)**
Initial Depth to Water (ft):	**4.65**	Date Meter Calibrated:	**8/1/2024**
Depth to Bottom (ft):	**23.75**		

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
11:07	6.36	150	0.25	19.61	1.24	7.52	74	1.54	305	Somewhat cloudy
11:10	6.79	150	<0.50	19.57	1.24	7.51	78	1.31	282	Mostly clear
11:13	7.24	150	0.50	19.59	1.24	7.51	80	1.20	168	Mostly clear
11:16	7.71	150	<0.75	19.67	1.24	7.51	82	1.11	137	Mostly clear
11:19	8.14	150	0.75	19.72	1.24	7.51	83	1.08	127	Mostly clear
11:22	8.63	150	<1	19.78	1.24	7.51	84	1.04	114	Mostly clear

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	Yes

Comments: **Purge started @1058**

Samples taken @1130

Collected MS/MSD

Page __1__ OF __1__

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow and 2" Bailer**

Well ID:	**MW-6**	Pump Type/Model:	**Pine Peristaltic Pump (SN # 210302)**
Well Diameter:	**1"**	Water Quality Meter Model/SN:	**Pine Horiba (SN # 047387)**
Initial Depth to Water (ft):	**3.49**	Date Meter Calibrated:	**8/1/2024**
Depth to Bottom (ft):	**21.97**		

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
9:27	8.87	100	<0.25	19.10	2.21	8.33	-17	0.61	0*	Cloudy brown, heavy sediment
9:30	10.04	100	0.25	18.98	2.17	8.47	-41	0.64	0*	Mostly cloudy brown
9:33	11.48	100	<0.50	18.89	2.17	8.58	-20	0.85	0*	Mostly cloudy brown
9:36	12.68	100	0.50	18.83	2.17	8.63	10	0.95	0*	Slightly cloudy brown
9:39	13.20	100	<0.75	18.78	2.17	8.67	24	0.99	0*	Slightly cloudy brown
9:43	14.35	100	0.75	18.73	2.16	8.69	7	1.03	0*	Slightly cloudy brown
9:46	14.80	100	<1	18.69	2.17	8.69	-4	0.90	0*	Slightly cloudy brown
9:49	15.36	100	<1	18.66	2.17	8.70	-7	1.19	0*	Slightly cloudy brown
9:52	16.39	100	1.0	18.64	2.18	8.71	-13	0.83	0*	Slightly cloudy brown

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	**X No**
Turbidity: +/- 10% for >1 NTU	Not measured - sediment blocking turbidity sensor

Comments: **Purge started @0918**

***Turbidity - too much sediment blocking turbidity sensor. Rinsed thoroughly before next well to remove stuck sediment.**

Purge stopped @ 0953 due to rapidly decreasing water column, DO not stablized

Samples taken @ 1000

DUPLICATE sample collected -- well ran dry while collecting DUP, will return at EOD to finish sampling

At EOD, returned w/ bailer to complete sampling. When tubing was pulled it became apparent that the well was not dry but the tubing was clogged. Enough volume to finish collecting sample.

LOW FLOW SAMPLING LOG

TASK : **Groundwater Monitoring & Sampling**

PSID : **1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**Low Flow**

Well ID: **MW-7**

Well Diameter: **2"**

Initial Depth to Water (ft): **4.18**

Depth to Bottom (ft): **23.80**

Pump Type/Model: **Pine Peristaltic Pump (SN # 210302)**

Water Quality Meter Model/SN: **Pine Horiba (SN # 047387)**

Date Meter Calibrated: **8/1/2024**

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)
13:10	5.63	130	0.25	24.70	1.47	7.75	81	1.31	327	Slightly cloudy brown
13:13	6.12	130	<0.50	24.45	1.48	7.73	89	1.13	234	Mostly clear
13:16	6.60	130	0.50	24.35	1.47	7.63	86	1.05	193	Mostly clear
13:19	7.09	130	<0.75	24.33	1.47	7.71	83	1.01	174	Clear
13:22	7.58	130	0.75	24.36	1.47	7.72	80	0.98	153	Clear
13:25	8.02	130	1.0	24.42	1.46	7.68	84	0.97	119	Clear
13:28	8.50	130	1.25	24.50	1.46	7.71	83	0.97	132	Clear

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	Yes
Specific Conductivity: +/- 3%	Yes
pH: +/- 0.1 units	Yes
ORP/EH: +/- 10 mv	Yes
DO: +/- 10%	Yes
Turbidity: +/- 10% for >1 NTU	Yes

Comments: **Purge started @1301**

Samples taken @1335

SAMPLING LOG

TASK :	**Groundwater Monitoring & Sampling**	PSID :	**1038449**

Project Name:	NYSDEC Tonawanda Highland Pkwy215	Date:	**8/7/24**
Project Address:	215 Highland Parkway, Tonawanda, NY	Sampler(s):	**Jessica Paterson**
Project #/Phase/Task/Org:	0924016///1109	Sampling Method:	**2" Bailer**

Well ID:	**Drum**
Type:	**55-gallon, steel, open top**
Contents	**Soil cuttings and Purge Water**
Sampled	**Water**

Clock Time (24 Hour)	Depth to Water (ft)	Purge Rate (ml/min)	Cumulative Volume Purged (Gallons)	Temp. (°C)	Specific Conductivity (mS/cm)	pH	ORP/Eh (mV)	DO (mg/L)	Turbidity (NTU)	Comments (Clear/Turbid, Sheen, Color, Well Dry)

Stabilization Target Ranges:	**Target Range Achieved? (Y/N)**
Temp: +/- 3%	NA
Specific Conductivity: +/- 3%	NA
pH: +/- 0.1 units	NA
ORP/EH: +/- 10 mv	NA
DO: +/- 10%	NA
Turbidity: +/- 10% for >1 NTU	NA

Comments: **Sample taken @ 1400, only being analyzed for VOC's**

Sampled water in drum, not sediment

Appendix C – Laboratory Analytical Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Thomas Palmer
Groundwater & Environmental Services Inc
6010 North Bailey Avenue
Suite 1
Amherst NY 14226

Generated 11/15/2024 3:26 PM Revision 1

JOB DESCRIPTION

NYSDEC Highland Plaza; 0924016

JOB NUMBER

480-222377-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

my EOL

Eurofins Buffalo

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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 Environment Testing Northeast, LLC Project Manager.

Authorization



Generated
11/15/2024 3:26 PM
Revision 1

Authorized for release by
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
716 504-9874

Table of Contents

Cover Title Page 1

Data Summaries 5

- Report Narrative 5
- Sample Summary 6
- Detection Summary 7
- Method Summary 11
- Client Sample Results 12
- Surrogate Summary 29
- QC Sample Results 30
- Definitions 41
- QC Association 42
- Chronicle 44
- Certification Summary 47
- Reagent Traceability 48
  - COAs 60

Organic Sample Data 186

- GC/MS VOA 186
  - Method 8260C 186
    - Method 8260C QC Summary 187
    - Method 8260C Sample Data 204
    - Standards Data 294
      - Method 8260C ICAL Data 294
      - Method 8260C CCAL Data 474
    - Raw QC Data 496
      - Method 8260C Tune Data 496
      - Method 8260C Blank Data 508

Table of Contents

Method 8260C LCS/LCSD Data 524

Method 8260C MS/MSD Data 538

Method 8260C Run Logs 550

Method 8260C Prep Data 553

Inorganic Sample Data 558

Metals Data 558

Met Cover Page 559

Met Sample Data 560

Met QC Data 568

Met ICV/CCV 568

Met Blanks 576

Met ICSA/ICSAB 584

Met MS/MSD/PDS 588

Met LCS/LCSD 591

Met Serial Dilution 593

Met MDL 595

Met Linear Ranges 599

Met Preparation Log 601

Met Analysis Run Log 603

Met ICP/MS Int Stds 614

Met Raw Data 618

Met Prep Data 802

Shipping and Receiving Documents 808

Client Chain of Custody 809

Sample Receipt Checklist 810

Job Narrative
480-222377-1

Revision 1
The report being provided is a revision of the original report sent on 8/16/2024. The report (Revision 1) was revised to include missing QC data and to remove chain of custody from an unrelated project.

Receipt
The samples were received on 8/7/2024 4:13 PM. 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 3.2º C.

GC/MS VOA
Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: MW-06 (480-222377-6) and DUP (480-222377-9).

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-04 (480-222377-4). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-04 (480-222377-4) and DRUM (480-222377-8). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 200.7: The reference method requires samples to be preserved to a pH of <2. The following sample(s) was received with insufficient preservation at a pH of >2. The sample(s) was preserved to the appropriate pH in the laboratory on 08-08-2024 at 1459. Second check 08-09-2024 at 1500.

Method 245.1: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): 480-222377-1. This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 2x dilution, which maintained the purple color during digestion.

Method 245.1: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): 480-222377-2. This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 3x dilution, which maintained the purple color during digestion.

Method 245.1: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): 480-222377-3. This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 50x dilution, which maintained the purple color during digestion.

Method 245.1: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): 480-222377-6. This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 3x dilution, which maintained the purple color during digestion.

Method 245.1: Due to interference with the sample matrix, the standard mercury preparation procedure was inadequate for the following samples(s): 480-222377-9. This was demonstrated when the potassium permanganate reagent was added and the characteristic purple color faded rapidly. This loss of color indicates oxidizing conditions were not maintained. The sample(s) was prepared and analyzed at a 3x dilution, which maintained the purple color during digestion.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-222377-1	MW-01	Water	08/06/24 09:03	08/07/24 16:13
480-222377-2	MW-02	Water	08/07/24 07:30	08/07/24 16:13
480-222377-3	MW-03	Water	08/07/24 08:40	08/07/24 16:13
480-222377-4	MW-04	Water	08/07/24 12:35	08/07/24 16:13
480-222377-5	MW-05R	Water	08/07/24 11:30	08/07/24 16:13
480-222377-6	MW-06	Water	08/07/24 10:00	08/07/24 16:13
480-222377-7	MW-07	Water	08/07/24 13:35	08/07/24 16:13
480-222377-8	DRUM	Water	08/07/24 14:00	08/07/24 16:13
480-222377-9	DUP	Water	08/07/24 10:00	08/07/24 16:13

Detection Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Client Sample ID: MW-01
Lab Sample ID: 480-222377-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	21.6		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.011	J	0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.45		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.00095	J	0.0020	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	254		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.033		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0095		0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.041		0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	24.8		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.023		0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	202		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.63		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.024		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.9		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	418		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.034		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.13		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-02
Lab Sample ID: 480-222377-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	34.2		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.015		0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.32		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.0015	J	0.0020	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Cadmium	0.00068	J	0.0020	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	152		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.063		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.019		0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.032		0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	48.2		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.026		0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	140		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.95		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.048		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	14.7		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	41.2		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.064		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.15		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-03
Lab Sample ID: 480-222377-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.9		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.46	J	1.0	0.46	ug/L	1		8260C	Total/NA
Aluminum	17.4		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0082	J	0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.18		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.00076	J	0.0020	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	108		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.026		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0089		0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-03 (Continued)
Lab Sample ID: 480-222377-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.017		0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	22.6		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.0088	J	0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	142		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.49		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.024		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	9.9		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	60.5		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.032		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.069		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-04
Lab Sample ID: 480-222377-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5000		800	650	ug/L	800		8260C	Total/NA
Tetrachloroethene	81000	E	800	290	ug/L	800		8260C	Total/NA
Trichloroethene	5200		800	370	ug/L	800		8260C	Total/NA
cis-1,2-Dichloroethene - DL	4800		2000	1600	ug/L	2000		8260C	Total/NA
Tetrachloroethene - DL	67000		2000	720	ug/L	2000		8260C	Total/NA
Trichloroethene - DL	4600		2000	920	ug/L	2000		8260C	Total/NA
Aluminum	7.4		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.0083	J	0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.13		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	72.9		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.014		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.0039	J	0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.0095	J	0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	9.3		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.0080	J	0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	122		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.20		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.010		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.9		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	33.9		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.014		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.041		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-05R
Lab Sample ID: 480-222377-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.66	J	1.0	0.34	ug/L	1		8260C	Total/NA
Aluminum	0.17	J	0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.16		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	75.1		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.21		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	107		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.017		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	4.6		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	34.7		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.023		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Client Sample ID: MW-06
Lab Sample ID: 480-222377-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	132		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.044		0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.81		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.0063		0.0020	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Cadmium	0.0029		0.0020	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	498		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Chromium	0.35		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.11		0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.24		0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	173		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.14		0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	308		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	4.2		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.22		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	40.3		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Silver	0.0035	J	0.0060	0.0017	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	76.2		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.25		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.86		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA
Mercury	0.00038	J	0.00060	0.00013	mg/L	1		245.1	Total/NA

Client Sample ID: MW-07
Lab Sample ID: 480-222377-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.36		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	0.056		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Calcium	63.5		0.50	0.13	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	0.42		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	163		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.012		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	5.4		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	65.6		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.0019	J	0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.038		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: DRUM
Lab Sample ID: 480-222377-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	89		2.0	1.6	ug/L	2		8260C	Total/NA
Tetrachloroethene	3.4		2.0	0.72	ug/L	2		8260C	Total/NA
Trichloroethene	2.1		2.0	0.92	ug/L	2		8260C	Total/NA

Client Sample ID: DUP
Lab Sample ID: 480-222377-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.0	J	10	3.0	ug/L	1		8260C	Total/NA
Aluminum	338		0.20	0.088	mg/L	1		200.7 Rev 4.4	Total/NA
Antimony	0.010	J	0.020	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA
Arsenic	0.096		0.015	0.0056	mg/L	1		200.7 Rev 4.4	Total/NA
Barium	2.2		0.0020	0.00070	mg/L	1		200.7 Rev 4.4	Total/NA
Beryllium	0.015		0.0020	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Cadmium	0.0064		0.0020	0.00050	mg/L	1		200.7 Rev 4.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP (Continued)

Lab Sample ID: 480-222377-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2320		5.0	1.3	mg/L	10		200.7 Rev 4.4	Total/NA
Chromium	0.92		0.0040	0.0024	mg/L	1		200.7 Rev 4.4	Total/NA
Cobalt	0.42		0.0040	0.00060	mg/L	1		200.7 Rev 4.4	Total/NA
Copper	0.66		0.010	0.0045	mg/L	1		200.7 Rev 4.4	Total/NA
Iron	268		0.050	0.026	mg/L	1		200.7 Rev 4.4	Total/NA
Lead	0.54		0.010	0.0039	mg/L	1		200.7 Rev 4.4	Total/NA
Magnesium	485		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	11.0		0.0030	0.0010	mg/L	1		200.7 Rev 4.4	Total/NA
Nickel	0.54		0.010	0.0034	mg/L	1		200.7 Rev 4.4	Total/NA
Potassium	84.2		0.50	0.20	mg/L	1		200.7 Rev 4.4	Total/NA
Silver	0.0074		0.0060	0.0017	mg/L	1		200.7 Rev 4.4	Total/NA
Sodium	44.0		1.0	0.38	mg/L	1		200.7 Rev 4.4	Total/NA
Vanadium	0.64		0.0050	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	2.1		0.010	0.0068	mg/L	1		200.7 Rev 4.4	Total/NA
Mercury	0.0014		0.00060	0.00013	mg/L	1		245.1	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
200.7 Rev 4.4	Metals (ICP)	EPA	EET BUF
245.1	Mercury (CVAA)	EPA	EET BUF
200.7	Preparation, Total Metals	EPA	EET BUF
245.1	Preparation, Mercury	EPA	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Client Sample ID: MW-01
Date Collected: 08/06/24 09:03
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/12/24 22:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/12/24 22:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/12/24 22:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/12/24 22:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/12/24 22:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/12/24 22:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/12/24 22:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/12/24 22:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/12/24 22:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/12/24 22:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/12/24 22:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/12/24 22:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/12/24 22:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/12/24 22:40	1
2-Hexanone	ND		5.0	1.2	ug/L			08/12/24 22:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/12/24 22:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/12/24 22:40	1
Acetone	ND		10	3.0	ug/L			08/12/24 22:40	1
Benzene	ND		1.0	0.41	ug/L			08/12/24 22:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/12/24 22:40	1
Bromoform	ND		1.0	0.26	ug/L			08/12/24 22:40	1
Bromomethane	ND		1.0	0.69	ug/L			08/12/24 22:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/12/24 22:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/12/24 22:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/12/24 22:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/12/24 22:40	1
Chloroethane	ND		1.0	0.32	ug/L			08/12/24 22:40	1
Chloroform	ND		1.0	0.34	ug/L			08/12/24 22:40	1
Chloromethane	ND		1.0	0.35	ug/L			08/12/24 22:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/12/24 22:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/12/24 22:40	1
Cyclohexane	ND		1.0	0.18	ug/L			08/12/24 22:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/12/24 22:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/12/24 22:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/12/24 22:40	1
Methyl acetate	ND		2.5	1.3	ug/L			08/12/24 22:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/12/24 22:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/12/24 22:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/12/24 22:40	1
Styrene	ND		1.0	0.73	ug/L			08/12/24 22:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/12/24 22:40	1
Toluene	ND		1.0	0.51	ug/L			08/12/24 22:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/12/24 22:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/12/24 22:40	1
Trichloroethene	ND		1.0	0.46	ug/L			08/12/24 22:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/12/24 22:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/12/24 22:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/12/24 22:40	1

Client Sample ID: MW-01
Date Collected: 08/06/24 09:03
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-1
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*08/12/24 22:40*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/12/24 22:40*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*08/12/24 22:40*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*08/12/24 22:40*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**21.6**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:43	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:43	1
Arsenic	**0.011**	**J**	0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:43	1
Barium	**0.45**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:43	1
Beryllium	**0.00095**	**J**	0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:43	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:43	1
Calcium	**254**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:43	1
Chromium	**0.033**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:43	1
Cobalt	**0.0095**		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:43	1
Copper	**0.041**		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:43	1
Iron	**24.8**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:43	1
Lead	**0.023**		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:43	1
Magnesium	**202**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:43	1
Manganese	**0.63**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:43	1
Nickel	**0.024**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:43	1
Potassium	**9.9**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:43	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:43	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:43	1
Sodium	**418**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:43	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:43	1
Vanadium	**0.034**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:43	1
Zinc	**0.13**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:43	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		08/12/24 11:18	08/12/24 14:50	1

Client Sample ID: MW-02
Date Collected: 08/07/24 07:30
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/12/24 23:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/12/24 23:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/12/24 23:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/12/24 23:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/12/24 23:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/12/24 23:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/12/24 23:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/12/24 23:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/12/24 23:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/12/24 23:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/12/24 23:03	1

Client Sample ID: MW-02
Date Collected: 08/07/24 07:30
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/12/24 23:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/12/24 23:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/12/24 23:03	1
2-Hexanone	ND		5.0	1.2	ug/L			08/12/24 23:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/12/24 23:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/12/24 23:03	1
Acetone	ND		10	3.0	ug/L			08/12/24 23:03	1
Benzene	ND		1.0	0.41	ug/L			08/12/24 23:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/12/24 23:03	1
Bromoform	ND		1.0	0.26	ug/L			08/12/24 23:03	1
Bromomethane	ND		1.0	0.69	ug/L			08/12/24 23:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/12/24 23:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/12/24 23:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/12/24 23:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/12/24 23:03	1
Chloroethane	ND		1.0	0.32	ug/L			08/12/24 23:03	1
Chloroform	ND		1.0	0.34	ug/L			08/12/24 23:03	1
Chloromethane	ND		1.0	0.35	ug/L			08/12/24 23:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/12/24 23:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/12/24 23:03	1
Cyclohexane	ND		1.0	0.18	ug/L			08/12/24 23:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/12/24 23:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/12/24 23:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/12/24 23:03	1
Methyl acetate	ND		2.5	1.3	ug/L			08/12/24 23:03	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/12/24 23:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/12/24 23:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/12/24 23:03	1
Styrene	ND		1.0	0.73	ug/L			08/12/24 23:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/12/24 23:03	1
Toluene	ND		1.0	0.51	ug/L			08/12/24 23:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/12/24 23:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/12/24 23:03	1
Trichloroethene	ND		1.0	0.46	ug/L			08/12/24 23:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/12/24 23:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/12/24 23:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/12/24 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*		*08/12/24 23:03*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*08/12/24 23:03*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*08/12/24 23:03*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*08/12/24 23:03*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**34.2**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:45	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:45	1
Arsenic	**0.015**		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:45	1
Barium	**0.32**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:45	1

Client Sample ID: MW-02
Date Collected: 08/07/24 07:30
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-2
Matrix: Water

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	**0.0015**	**J**	0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:45	1
Cadmium	**0.00068**	**J**	0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:45	1
Calcium	**152**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:45	1
Chromium	**0.063**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:45	1
Cobalt	**0.019**		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:45	1
Copper	**0.032**		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:45	1
Iron	**48.2**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:45	1
Lead	**0.026**		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:45	1
Magnesium	**140**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:45	1
Manganese	**0.95**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:45	1
Nickel	**0.048**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:45	1
Potassium	**14.7**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:45	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:45	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:45	1
Sodium	**41.2**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:45	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:45	1
Vanadium	**0.064**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:45	1
Zinc	**0.15**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:45	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00060	0.00013	mg/L		08/12/24 11:18	08/12/24 14:51	1

Client Sample ID: MW-03
Date Collected: 08/07/24 08:40
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/12/24 23:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/12/24 23:27	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/12/24 23:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/12/24 23:27	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/12/24 23:27	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/12/24 23:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/12/24 23:27	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/12/24 23:27	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/12/24 23:27	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/12/24 23:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/12/24 23:27	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/12/24 23:27	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/12/24 23:27	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/12/24 23:27	1
2-Hexanone	ND		5.0	1.2	ug/L			08/12/24 23:27	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/12/24 23:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/12/24 23:27	1
Acetone	ND		10	3.0	ug/L			08/12/24 23:27	1
Benzene	ND		1.0	0.41	ug/L			08/12/24 23:27	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/12/24 23:27	1
Bromoform	ND		1.0	0.26	ug/L			08/12/24 23:27	1

Client Sample ID: MW-03
Date Collected: 08/07/24 08:40
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.69	ug/L			08/12/24 23:27	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/12/24 23:27	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/12/24 23:27	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/12/24 23:27	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/12/24 23:27	1
Chloroethane	ND		1.0	0.32	ug/L			08/12/24 23:27	1
Chloroform	ND		1.0	0.34	ug/L			08/12/24 23:27	1
Chloromethane	ND		1.0	0.35	ug/L			08/12/24 23:27	1
cis-1,2-Dichloroethene	**7.9**		1.0	0.81	ug/L			08/12/24 23:27	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/12/24 23:27	1
Cyclohexane	ND		1.0	0.18	ug/L			08/12/24 23:27	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/12/24 23:27	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/12/24 23:27	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/12/24 23:27	1
Methyl acetate	ND		2.5	1.3	ug/L			08/12/24 23:27	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/12/24 23:27	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/12/24 23:27	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/12/24 23:27	1
Styrene	ND		1.0	0.73	ug/L			08/12/24 23:27	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/12/24 23:27	1
Toluene	ND		1.0	0.51	ug/L			08/12/24 23:27	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/12/24 23:27	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/12/24 23:27	1
Trichloroethene	**0.46**	**J**	1.0	0.46	ug/L			08/12/24 23:27	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/12/24 23:27	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/12/24 23:27	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/12/24 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*08/12/24 23:27*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/12/24 23:27*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*08/12/24 23:27*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*08/12/24 23:27*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17.4**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:47	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:47	1
Arsenic	**0.0082**	**J**	0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:47	1
Barium	**0.18**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:47	1
Beryllium	**0.00076**	**J**	0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:47	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:47	1
Calcium	**108**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:47	1
Chromium	**0.026**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:47	1
Cobalt	**0.0089**		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:47	1
Copper	**0.017**		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:47	1
Iron	**22.6**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:47	1
Lead	**0.0088**	**J**	0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:47	1
Magnesium	**142**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:47	1
Manganese	**0.49**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:47	1

Client Sample ID: MW-03
Lab Sample ID: 480-222377-3

Date Collected: 08/07/24 08:40
Matrix: Water
Date Received: 08/07/24 16:13

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**0.024**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:47	1
Potassium	**9.9**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:47	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:47	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:47	1
Sodium	**60.5**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:47	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:47	1
Vanadium	**0.032**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:47	1
Zinc	**0.069**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:47	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00040	0.000084	mg/L		08/12/24 11:18	08/12/24 14:53	1

Client Sample ID: MW-04
Lab Sample ID: 480-222377-4

Date Collected: 08/07/24 12:35
Matrix: Water
Date Received: 08/07/24 16:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		800	660	ug/L			08/12/24 23:50	800
1,1,2,2-Tetrachloroethane	ND		800	170	ug/L			08/12/24 23:50	800
1,1,2-Trichloroethane	ND		800	180	ug/L			08/12/24 23:50	800
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		800	250	ug/L			08/12/24 23:50	800
1,1-Dichloroethane	ND		800	300	ug/L			08/12/24 23:50	800
1,1-Dichloroethene	ND		800	230	ug/L			08/12/24 23:50	800
1,2,4-Trichlorobenzene	ND		800	330	ug/L			08/12/24 23:50	800
1,2-Dibromo-3-Chloropropane	ND		800	310	ug/L			08/12/24 23:50	800
1,2-Dibromoethane	ND		800	580	ug/L			08/12/24 23:50	800
1,2-Dichlorobenzene	ND		800	630	ug/L			08/12/24 23:50	800
1,2-Dichloroethane	ND		800	170	ug/L			08/12/24 23:50	800
1,2-Dichloropropane	ND		800	580	ug/L			08/12/24 23:50	800
1,3-Dichlorobenzene	ND		800	620	ug/L			08/12/24 23:50	800
1,4-Dichlorobenzene	ND		800	670	ug/L			08/12/24 23:50	800
2-Hexanone	ND		4000	990	ug/L			08/12/24 23:50	800
2-Butanone (MEK)	ND		8000	1100	ug/L			08/12/24 23:50	800
4-Methyl-2-pentanone (MIBK)	ND		4000	1700	ug/L			08/12/24 23:50	800
Acetone	ND		8000	2400	ug/L			08/12/24 23:50	800
Benzene	ND		800	330	ug/L			08/12/24 23:50	800
Bromodichloromethane	ND		800	310	ug/L			08/12/24 23:50	800
Bromoform	ND		800	210	ug/L			08/12/24 23:50	800
Bromomethane	ND		800	550	ug/L			08/12/24 23:50	800
Carbon disulfide	ND		800	150	ug/L			08/12/24 23:50	800
Carbon tetrachloride	ND		800	220	ug/L			08/12/24 23:50	800
Chlorobenzene	ND		800	600	ug/L			08/12/24 23:50	800
Dibromochloromethane	ND		800	260	ug/L			08/12/24 23:50	800
Chloroethane	ND		800	260	ug/L			08/12/24 23:50	800
Chloroform	ND		800	270	ug/L			08/12/24 23:50	800
Chloromethane	ND		800	280	ug/L			08/12/24 23:50	800
cis-1,2-Dichloroethene	**5000**		800	650	ug/L			08/12/24 23:50	800
cis-1,3-Dichloropropene	ND		800	290	ug/L			08/12/24 23:50	800

Client Sample ID: MW-04
Date Collected: 08/07/24 12:35
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		800	140	ug/L			08/12/24 23:50	800
Dichlorodifluoromethane	ND		800	540	ug/L			08/12/24 23:50	800
Ethylbenzene	ND		800	590	ug/L			08/12/24 23:50	800
Isopropylbenzene	ND		800	630	ug/L			08/12/24 23:50	800
Methyl acetate	ND		2000	1000	ug/L			08/12/24 23:50	800
Methyl tert-butyl ether	ND		800	130	ug/L			08/12/24 23:50	800
Methylcyclohexane	ND		800	130	ug/L			08/12/24 23:50	800
Methylene Chloride	ND		800	350	ug/L			08/12/24 23:50	800
Styrene	ND		800	580	ug/L			08/12/24 23:50	800
Tetrachloroethene	**81000**	**E**	800	290	ug/L			08/12/24 23:50	800
Toluene	ND		800	410	ug/L			08/12/24 23:50	800
trans-1,2-Dichloroethene	ND		800	720	ug/L			08/12/24 23:50	800
trans-1,3-Dichloropropene	ND		800	300	ug/L			08/12/24 23:50	800
Trichloroethene	**5200**		800	370	ug/L			08/12/24 23:50	800
Trichlorofluoromethane	ND		800	700	ug/L			08/12/24 23:50	800
Vinyl chloride	ND		800	720	ug/L			08/12/24 23:50	800
Xylenes, Total	ND		1600	530	ug/L			08/12/24 23:50	800

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*08/12/24 23:50*	*800*
Toluene-d8 (Surr)	*107*		*80 - 120*		*08/12/24 23:50*	*800*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*08/12/24 23:50*	*800*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*08/12/24 23:50*	*800*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2000	1600	ug/L			08/13/24 15:18	2000
1,1,2,2-Tetrachloroethane	ND		2000	420	ug/L			08/13/24 15:18	2000
1,1,2-Trichloroethane	ND		2000	460	ug/L			08/13/24 15:18	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620	ug/L			08/13/24 15:18	2000
1,1-Dichloroethane	ND		2000	760	ug/L			08/13/24 15:18	2000
1,1-Dichloroethene	ND		2000	580	ug/L			08/13/24 15:18	2000
1,2,4-Trichlorobenzene	ND		2000	820	ug/L			08/13/24 15:18	2000
1,2-Dibromo-3-Chloropropane	ND		2000	780	ug/L			08/13/24 15:18	2000
1,2-Dibromoethane	ND		2000	1500	ug/L			08/13/24 15:18	2000
1,2-Dichlorobenzene	ND		2000	1600	ug/L			08/13/24 15:18	2000
1,2-Dichloroethane	ND		2000	420	ug/L			08/13/24 15:18	2000
1,2-Dichloropropane	ND		2000	1400	ug/L			08/13/24 15:18	2000
1,3-Dichlorobenzene	ND		2000	1600	ug/L			08/13/24 15:18	2000
1,4-Dichlorobenzene	ND		2000	1700	ug/L			08/13/24 15:18	2000
2-Hexanone	ND		10000	2500	ug/L			08/13/24 15:18	2000
2-Butanone (MEK)	ND		20000	2600	ug/L			08/13/24 15:18	2000
4-Methyl-2-pentanone (MIBK)	ND		10000	4200	ug/L			08/13/24 15:18	2000
Acetone	ND		20000	6000	ug/L			08/13/24 15:18	2000
Benzene	ND		2000	820	ug/L			08/13/24 15:18	2000
Bromodichloromethane	ND		2000	780	ug/L			08/13/24 15:18	2000
Bromoform	ND		2000	520	ug/L			08/13/24 15:18	2000
Bromomethane	ND		2000	1400	ug/L			08/13/24 15:18	2000
Carbon disulfide	ND		2000	380	ug/L			08/13/24 15:18	2000
Carbon tetrachloride	ND		2000	540	ug/L			08/13/24 15:18	2000

Client Sample ID: MW-04
Date Collected: 08/07/24 12:35
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		2000	1500	ug/L			08/13/24 15:18	2000
Dibromochloromethane	ND		2000	640	ug/L			08/13/24 15:18	2000
Chloroethane	ND		2000	640	ug/L			08/13/24 15:18	2000
Chloroform	ND		2000	680	ug/L			08/13/24 15:18	2000
Chloromethane	ND		2000	700	ug/L			08/13/24 15:18	2000
cis-1,2-Dichloroethene	**4800**		2000	1600	ug/L			08/13/24 15:18	2000
cis-1,3-Dichloropropene	ND		2000	720	ug/L			08/13/24 15:18	2000
Cyclohexane	ND		2000	360	ug/L			08/13/24 15:18	2000
Dichlorodifluoromethane	ND		2000	1400	ug/L			08/13/24 15:18	2000
Ethylbenzene	ND		2000	1500	ug/L			08/13/24 15:18	2000
Isopropylbenzene	ND		2000	1600	ug/L			08/13/24 15:18	2000
Methyl acetate	ND		5000	2600	ug/L			08/13/24 15:18	2000
Methyl tert-butyl ether	ND		2000	320	ug/L			08/13/24 15:18	2000
Methylcyclohexane	ND		2000	320	ug/L			08/13/24 15:18	2000
Methylene Chloride	ND		2000	880	ug/L			08/13/24 15:18	2000
Styrene	ND		2000	1500	ug/L			08/13/24 15:18	2000
Tetrachloroethene	**67000**		2000	720	ug/L			08/13/24 15:18	2000
Toluene	ND		2000	1000	ug/L			08/13/24 15:18	2000
trans-1,2-Dichloroethene	ND		2000	1800	ug/L			08/13/24 15:18	2000
trans-1,3-Dichloropropene	ND		2000	740	ug/L			08/13/24 15:18	2000
Trichloroethene	**4600**		2000	920	ug/L			08/13/24 15:18	2000
Trichlorofluoromethane	ND		2000	1800	ug/L			08/13/24 15:18	2000
Vinyl chloride	ND		2000	1800	ug/L			08/13/24 15:18	2000
Xylenes, Total	ND		4000	1300	ug/L			08/13/24 15:18	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*08/13/24 15:18*	*2000*
Toluene-d8 (Surr)	*109*		*80 - 120*		*08/13/24 15:18*	*2000*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*08/13/24 15:18*	*2000*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*08/13/24 15:18*	*2000*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7.4**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:54	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:54	1
Arsenic	**0.0083**	**J**	0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:54	1
Barium	**0.13**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:54	1
Beryllium	ND		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:54	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:54	1
Calcium	**72.9**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:54	1
Chromium	**0.014**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:54	1
Cobalt	**0.0039**	**J**	0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:54	1
Copper	**0.0095**	**J**	0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:54	1
Iron	**9.3**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:54	1
Lead	**0.0080**	**J**	0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:54	1
Magnesium	**122**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:54	1
Manganese	**0.20**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:54	1
Nickel	**0.010**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:54	1
Potassium	**5.9**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:54	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:54	1

Client Sample ID: MW-04
Lab Sample ID: 480-222377-4

Date Collected: 08/07/24 12:35
Matrix: Water
Date Received: 08/07/24 16:13

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:54	1
Sodium	**33.9**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:54	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:54	1
Vanadium	**0.014**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:54	1
Zinc	**0.041**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:54	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		08/12/24 11:18	08/12/24 14:54	1

Client Sample ID: MW-05R
Lab Sample ID: 480-222377-5

Date Collected: 08/07/24 11:30
Matrix: Water
Date Received: 08/07/24 16:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/13/24 00:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/13/24 00:14	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/13/24 00:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/13/24 00:14	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/13/24 00:14	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/13/24 00:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/13/24 00:14	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/13/24 00:14	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/13/24 00:14	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/13/24 00:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/13/24 00:14	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/13/24 00:14	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/13/24 00:14	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/13/24 00:14	1
2-Hexanone	ND		5.0	1.2	ug/L			08/13/24 00:14	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/13/24 00:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/13/24 00:14	1
Acetone	ND		10	3.0	ug/L			08/13/24 00:14	1
Benzene	ND		1.0	0.41	ug/L			08/13/24 00:14	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/13/24 00:14	1
Bromoform	ND		1.0	0.26	ug/L			08/13/24 00:14	1
Bromomethane	ND		1.0	0.69	ug/L			08/13/24 00:14	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/13/24 00:14	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/13/24 00:14	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/13/24 00:14	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/13/24 00:14	1
Chloroethane	ND		1.0	0.32	ug/L			08/13/24 00:14	1
Chloroform	**0.66**	**J**	1.0	0.34	ug/L			08/13/24 00:14	1
Chloromethane	ND		1.0	0.35	ug/L			08/13/24 00:14	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/13/24 00:14	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/13/24 00:14	1
Cyclohexane	ND		1.0	0.18	ug/L			08/13/24 00:14	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/13/24 00:14	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/13/24 00:14	1

Client Sample ID: MW-05R
Date Collected: 08/07/24 11:30
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.79	ug/L			08/13/24 00:14	1
Methyl acetate	ND		2.5	1.3	ug/L			08/13/24 00:14	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/13/24 00:14	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/13/24 00:14	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/13/24 00:14	1
Styrene	ND		1.0	0.73	ug/L			08/13/24 00:14	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/13/24 00:14	1
Toluene	ND		1.0	0.51	ug/L			08/13/24 00:14	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/13/24 00:14	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/13/24 00:14	1
Trichloroethene	ND		1.0	0.46	ug/L			08/13/24 00:14	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/13/24 00:14	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/13/24 00:14	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/13/24 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*		*08/13/24 00:14*	*1*
Toluene-d8 (Surr)	*107*		*80 - 120*		*08/13/24 00:14*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*08/13/24 00:14*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*08/13/24 00:14*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.17**	**J**	0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:56	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:56	1
Arsenic	ND		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:56	1
Barium	**0.16**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:56	1
Beryllium	ND		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:56	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:56	1
Calcium	**75.1**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:56	1
Chromium	ND		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:56	1
Cobalt	ND		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:56	1
Copper	ND		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:56	1
Iron	**0.21**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:56	1
Lead	ND		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:56	1
Magnesium	**107**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:56	1
Manganese	**0.017**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:56	1
Nickel	ND		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:56	1
Potassium	**4.6**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:56	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:56	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:56	1
Sodium	**34.7**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:56	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:56	1
Vanadium	ND		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:56	1
Zinc	**0.023**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:56	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		08/12/24 11:18	08/12/24 14:55	1

Client Sample ID: MW-06
Date Collected: 08/07/24 10:00
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-6
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/13/24 00:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/13/24 00:37	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/13/24 00:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/13/24 00:37	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/13/24 00:37	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/13/24 00:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/13/24 00:37	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/13/24 00:37	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/13/24 00:37	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/13/24 00:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/13/24 00:37	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/13/24 00:37	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/13/24 00:37	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/13/24 00:37	1
2-Hexanone	ND		5.0	1.2	ug/L			08/13/24 00:37	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/13/24 00:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/13/24 00:37	1
Acetone	ND		10	3.0	ug/L			08/13/24 00:37	1
Benzene	ND		1.0	0.41	ug/L			08/13/24 00:37	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/13/24 00:37	1
Bromoform	ND		1.0	0.26	ug/L			08/13/24 00:37	1
Bromomethane	ND		1.0	0.69	ug/L			08/13/24 00:37	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/13/24 00:37	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/13/24 00:37	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/13/24 00:37	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/13/24 00:37	1
Chloroethane	ND		1.0	0.32	ug/L			08/13/24 00:37	1
Chloroform	ND		1.0	0.34	ug/L			08/13/24 00:37	1
Chloromethane	ND		1.0	0.35	ug/L			08/13/24 00:37	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/13/24 00:37	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/13/24 00:37	1
Cyclohexane	ND		1.0	0.18	ug/L			08/13/24 00:37	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/13/24 00:37	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/13/24 00:37	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/13/24 00:37	1
Methyl acetate	ND		2.5	1.3	ug/L			08/13/24 00:37	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/13/24 00:37	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/13/24 00:37	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/13/24 00:37	1
Styrene	ND		1.0	0.73	ug/L			08/13/24 00:37	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/13/24 00:37	1
Toluene	ND		1.0	0.51	ug/L			08/13/24 00:37	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/13/24 00:37	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/13/24 00:37	1
Trichloroethene	ND		1.0	0.46	ug/L			08/13/24 00:37	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/13/24 00:37	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/13/24 00:37	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/13/24 00:37	1

Client Sample ID: MW-06
Date Collected: 08/07/24 10:00
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-6
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*08/13/24 00:37*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/13/24 00:37*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*08/13/24 00:37*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*08/13/24 00:37*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**132**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 16:06	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 16:06	1
Arsenic	**0.044**		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 16:06	1
Barium	**0.81**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 16:06	1
Beryllium	**0.0063**		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 16:06	1
Cadmium	**0.0029**		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 16:06	1
Calcium	**498**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 16:06	1
Chromium	**0.35**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 16:06	1
Cobalt	**0.11**		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 16:06	1
Copper	**0.24**		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 16:06	1
Iron	**173**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 16:06	1
Lead	**0.14**		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 16:06	1
Magnesium	**308**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 16:06	1
Manganese	**4.2**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 16:06	1
Nickel	**0.22**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 16:06	1
Potassium	**40.3**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 16:06	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 16:06	1
Silver	**0.0035**	**J**	0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 16:06	1
Sodium	**76.2**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 16:06	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 16:06	1
Vanadium	**0.25**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 16:06	1
Zinc	**0.86**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 16:06	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00038**	**J**	0.00060	0.00013	mg/L		08/12/24 11:18	08/12/24 15:00	1

Client Sample ID: MW-07
Date Collected: 08/07/24 13:35
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-7
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/13/24 01:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/13/24 01:01	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/13/24 01:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/13/24 01:01	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/13/24 01:01	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/13/24 01:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/13/24 01:01	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/13/24 01:01	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/13/24 01:01	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/13/24 01:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/13/24 01:01	1

Client Sample ID: MW-07
Date Collected: 08/07/24 13:35
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-7
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/13/24 01:01	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/13/24 01:01	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/13/24 01:01	1
2-Hexanone	ND		5.0	1.2	ug/L			08/13/24 01:01	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/13/24 01:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/13/24 01:01	1
Acetone	ND		10	3.0	ug/L			08/13/24 01:01	1
Benzene	ND		1.0	0.41	ug/L			08/13/24 01:01	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/13/24 01:01	1
Bromoform	ND		1.0	0.26	ug/L			08/13/24 01:01	1
Bromomethane	ND		1.0	0.69	ug/L			08/13/24 01:01	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/13/24 01:01	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/13/24 01:01	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/13/24 01:01	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/13/24 01:01	1
Chloroethane	ND		1.0	0.32	ug/L			08/13/24 01:01	1
Chloroform	ND		1.0	0.34	ug/L			08/13/24 01:01	1
Chloromethane	ND		1.0	0.35	ug/L			08/13/24 01:01	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/13/24 01:01	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/13/24 01:01	1
Cyclohexane	ND		1.0	0.18	ug/L			08/13/24 01:01	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/13/24 01:01	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/13/24 01:01	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/13/24 01:01	1
Methyl acetate	ND		2.5	1.3	ug/L			08/13/24 01:01	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/13/24 01:01	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/13/24 01:01	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/13/24 01:01	1
Styrene	ND		1.0	0.73	ug/L			08/13/24 01:01	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/13/24 01:01	1
Toluene	ND		1.0	0.51	ug/L			08/13/24 01:01	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/13/24 01:01	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/13/24 01:01	1
Trichloroethene	ND		1.0	0.46	ug/L			08/13/24 01:01	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/13/24 01:01	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/13/24 01:01	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/13/24 01:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*08/13/24 01:01*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/13/24 01:01*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*08/13/24 01:01*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*08/13/24 01:01*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.36**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 16:08	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 16:08	1
Arsenic	ND		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 16:08	1
Barium	**0.056**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 16:08	1

Client Sample ID: MW-07
Lab Sample ID: 480-222377-7

Date Collected: 08/07/24 13:35
Matrix: Water
Date Received: 08/07/24 16:13

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 16:08	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 16:08	1
Calcium	**63.5**		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 16:08	1
Chromium	ND		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 16:08	1
Cobalt	ND		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 16:08	1
Copper	ND		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 16:08	1
Iron	**0.42**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 16:08	1
Lead	ND		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 16:08	1
Magnesium	**163**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 16:08	1
Manganese	**0.012**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 16:08	1
Nickel	ND		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 16:08	1
Potassium	**5.4**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 16:08	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 16:08	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 16:08	1
Sodium	**65.6**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 16:08	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 16:08	1
Vanadium	**0.0019**	**J**	0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 16:08	1
Zinc	**0.038**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 16:08	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		08/12/24 11:18	08/12/24 15:04	1

Client Sample ID: DRUM
Lab Sample ID: 480-222377-8

Date Collected: 08/07/24 14:00
Matrix: Water
Date Received: 08/07/24 16:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			08/13/24 15:41	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			08/13/24 15:41	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			08/13/24 15:41	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			08/13/24 15:41	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			08/13/24 15:41	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			08/13/24 15:41	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			08/13/24 15:41	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			08/13/24 15:41	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			08/13/24 15:41	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			08/13/24 15:41	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			08/13/24 15:41	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			08/13/24 15:41	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			08/13/24 15:41	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			08/13/24 15:41	2
2-Hexanone	ND		10	2.5	ug/L			08/13/24 15:41	2
2-Butanone (MEK)	ND		20	2.6	ug/L			08/13/24 15:41	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			08/13/24 15:41	2
Acetone	ND		20	6.0	ug/L			08/13/24 15:41	2
Benzene	ND		2.0	0.82	ug/L			08/13/24 15:41	2
Bromodichloromethane	ND		2.0	0.78	ug/L			08/13/24 15:41	2
Bromoform	ND		2.0	0.52	ug/L			08/13/24 15:41	2

Client Sample ID: DRUM
Lab Sample ID: 480-222377-8

Date Collected: 08/07/24 14:00
Matrix: Water
Date Received: 08/07/24 16:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		2.0	1.4	ug/L			08/13/24 15:41	2
Carbon disulfide	ND		2.0	0.38	ug/L			08/13/24 15:41	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			08/13/24 15:41	2
Chlorobenzene	ND		2.0	1.5	ug/L			08/13/24 15:41	2
Dibromochloromethane	ND		2.0	0.64	ug/L			08/13/24 15:41	2
Chloroethane	ND		2.0	0.64	ug/L			08/13/24 15:41	2
Chloroform	ND		2.0	0.68	ug/L			08/13/24 15:41	2
Chloromethane	ND		2.0	0.70	ug/L			08/13/24 15:41	2
cis-1,2-Dichloroethene	**89**		2.0	1.6	ug/L			08/13/24 15:41	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			08/13/24 15:41	2
Cyclohexane	ND		2.0	0.36	ug/L			08/13/24 15:41	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			08/13/24 15:41	2
Ethylbenzene	ND		2.0	1.5	ug/L			08/13/24 15:41	2
Isopropylbenzene	ND		2.0	1.6	ug/L			08/13/24 15:41	2
Methyl acetate	ND		5.0	2.6	ug/L			08/13/24 15:41	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			08/13/24 15:41	2
Methylcyclohexane	ND		2.0	0.32	ug/L			08/13/24 15:41	2
Methylene Chloride	ND		2.0	0.88	ug/L			08/13/24 15:41	2
Styrene	ND		2.0	1.5	ug/L			08/13/24 15:41	2
Tetrachloroethene	**3.4**		2.0	0.72	ug/L			08/13/24 15:41	2
Toluene	ND		2.0	1.0	ug/L			08/13/24 15:41	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			08/13/24 15:41	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			08/13/24 15:41	2
Trichloroethene	**2.1**		2.0	0.92	ug/L			08/13/24 15:41	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			08/13/24 15:41	2
Vinyl chloride	ND		2.0	1.8	ug/L			08/13/24 15:41	2
Xylenes, Total	ND		4.0	1.3	ug/L			08/13/24 15:41	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*08/13/24 15:41*	*2*
Toluene-d8 (Surr)	*104*		*80 - 120*		*08/13/24 15:41*	*2*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*08/13/24 15:41*	*2*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*08/13/24 15:41*	*2*

Client Sample ID: DUP
Lab Sample ID: 480-222377-9

Date Collected: 08/07/24 10:00
Matrix: Water
Date Received: 08/07/24 16:13

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/13/24 01:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/13/24 01:47	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/13/24 01:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/13/24 01:47	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/13/24 01:47	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/13/24 01:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/13/24 01:47	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/13/24 01:47	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/13/24 01:47	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/13/24 01:47	1

Client Sample ID: DUP
Date Collected: 08/07/24 10:00
Date Received: 08/07/24 16:13

Lab Sample ID: 480-222377-9
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/13/24 01:47	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/13/24 01:47	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/13/24 01:47	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/13/24 01:47	1
2-Hexanone	ND		5.0	1.2	ug/L			08/13/24 01:47	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/13/24 01:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/13/24 01:47	1
Acetone	**4.0**	**J**	10	3.0	ug/L			08/13/24 01:47	1
Benzene	ND		1.0	0.41	ug/L			08/13/24 01:47	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/13/24 01:47	1
Bromoform	ND		1.0	0.26	ug/L			08/13/24 01:47	1
Bromomethane	ND		1.0	0.69	ug/L			08/13/24 01:47	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/13/24 01:47	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/13/24 01:47	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/13/24 01:47	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/13/24 01:47	1
Chloroethane	ND		1.0	0.32	ug/L			08/13/24 01:47	1
Chloroform	ND		1.0	0.34	ug/L			08/13/24 01:47	1
Chloromethane	ND		1.0	0.35	ug/L			08/13/24 01:47	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/13/24 01:47	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/13/24 01:47	1
Cyclohexane	ND		1.0	0.18	ug/L			08/13/24 01:47	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/13/24 01:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/13/24 01:47	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/13/24 01:47	1
Methyl acetate	ND		2.5	1.3	ug/L			08/13/24 01:47	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/13/24 01:47	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/13/24 01:47	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/13/24 01:47	1
Styrene	ND		1.0	0.73	ug/L			08/13/24 01:47	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/13/24 01:47	1
Toluene	ND		1.0	0.51	ug/L			08/13/24 01:47	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/13/24 01:47	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/13/24 01:47	1
Trichloroethene	ND		1.0	0.46	ug/L			08/13/24 01:47	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/13/24 01:47	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/13/24 01:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/13/24 01:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*08/13/24 01:47*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/13/24 01:47*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*08/13/24 01:47*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*08/13/24 01:47*	*1*

Method: EPA 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**338**		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 16:09	1
Antimony	**0.010**	**J**	0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 16:09	1
Arsenic	**0.096**		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 16:09	1

Client Sample ID: DUP
Lab Sample ID: 480-222377-9

Date Collected: 08/07/24 10:00
Matrix: Water
Date Received: 08/07/24 16:13

Method: EPA 200.7 Rev 4.4 - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**2.2**		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 16:09	1
Beryllium	**0.015**		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 16:09	1
Cadmium	**0.0064**		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 16:09	1
Calcium	**2320**		5.0	1.3	mg/L		08/12/24 09:09	08/13/24 12:34	10
Chromium	**0.92**		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 16:09	1
Cobalt	**0.42**		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 16:09	1
Copper	**0.66**		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 16:09	1
Iron	**268**		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 16:09	1
Lead	**0.54**		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 16:09	1
Magnesium	**485**		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 16:09	1
Manganese	**11.0**		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 16:09	1
Nickel	**0.54**		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 16:09	1
Potassium	**84.2**		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 16:09	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 16:09	1
Silver	**0.0074**		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 16:09	1
Sodium	**44.0**		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 16:09	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 16:09	1
Vanadium	**0.64**		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 16:09	1
Zinc	**2.1**		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 16:09	1

Method: EPA 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0014**		0.00060	0.00013	mg/L		08/12/24 11:18	08/12/24 15:06	1

Surrogate Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(80-120)	(73-120)	(75-123)
480-222377-1	MW-01	97	102	95	96
480-222377-2	MW-02	101	107	101	101
480-222377-3	MW-03	102	108	102	101
480-222377-4	MW-04	103	107	100	101
480-222377-4 - DL	MW-04	104	109	99	98
480-222377-5	MW-05R	105	107	100	100
480-222377-5 MS	MW-05R	101	101	98	98
480-222377-5 MSD	MW-05R	102	102	95	99
480-222377-6	MW-06	106	108	101	103
480-222377-7	MW-07	98	102	94	95
480-222377-8	DRUM	99	104	95	99
480-222377-9	DUP	100	103	94	97
LCS 480-721476/6	Lab Control Sample	105	110	104	104
LCS 480-721538/6	Lab Control Sample	98	102	98	97
MB 480-721476/8	Method Blank	98	108	102	99
MB 480-721538/8	Method Blank	104	106	104	104

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-721476/8
Matrix: Water
Analysis Batch: 721476

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/12/24 22:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/12/24 22:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/12/24 22:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/12/24 22:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/12/24 22:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/12/24 22:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/12/24 22:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/12/24 22:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/12/24 22:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/12/24 22:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/12/24 22:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/12/24 22:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/12/24 22:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/12/24 22:17	1
2-Hexanone	ND		5.0	1.2	ug/L			08/12/24 22:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/12/24 22:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/12/24 22:17	1
Acetone	ND		10	3.0	ug/L			08/12/24 22:17	1
Benzene	ND		1.0	0.41	ug/L			08/12/24 22:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/12/24 22:17	1
Bromoform	ND		1.0	0.26	ug/L			08/12/24 22:17	1
Bromomethane	ND		1.0	0.69	ug/L			08/12/24 22:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/12/24 22:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/12/24 22:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/12/24 22:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/12/24 22:17	1
Chloroethane	ND		1.0	0.32	ug/L			08/12/24 22:17	1
Chloroform	ND		1.0	0.34	ug/L			08/12/24 22:17	1
Chloromethane	ND		1.0	0.35	ug/L			08/12/24 22:17	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/12/24 22:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/12/24 22:17	1
Cyclohexane	ND		1.0	0.18	ug/L			08/12/24 22:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/12/24 22:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/12/24 22:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/12/24 22:17	1
Methyl acetate	ND		2.5	1.3	ug/L			08/12/24 22:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/12/24 22:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/12/24 22:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/12/24 22:17	1
Styrene	ND		1.0	0.73	ug/L			08/12/24 22:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/12/24 22:17	1
Toluene	ND		1.0	0.51	ug/L			08/12/24 22:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/12/24 22:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/12/24 22:17	1
Trichloroethene	ND		1.0	0.46	ug/L			08/12/24 22:17	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/12/24 22:17	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/12/24 22:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/12/24 22:17	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-721476/8
Matrix: Water
Analysis Batch: 721476

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*08/12/24 22:17*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/12/24 22:17*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*08/12/24 22:17*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*08/12/24 22:17*	*1*

Lab Sample ID: LCS 480-721476/6
Matrix: Water
Analysis Batch: 721476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	27.9		ug/L		112	73 - 126
1,1,2,2-Tetrachloroethane	25.0	27.0		ug/L		108	76 - 120
1,1,2-Trichloroethane	25.0	27.6		ug/L		110	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.8		ug/L		115	61 - 148
1,1-Dichloroethane	25.0	28.1		ug/L		112	77 - 120
1,1-Dichloroethene	25.0	27.8		ug/L		111	66 - 127
1,2,4-Trichlorobenzene	25.0	27.1		ug/L		108	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	27.1		ug/L		108	56 - 134
1,2-Dibromoethane	25.0	27.0		ug/L		108	77 - 120
1,2-Dichlorobenzene	25.0	27.1		ug/L		108	80 - 124
1,2-Dichloroethane	25.0	24.8		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	28.0		ug/L		112	76 - 120
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	77 - 120
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	80 - 120
2-Hexanone	125	129		ug/L		103	65 - 127
2-Butanone (MEK)	125	144		ug/L		115	57 - 140
4-Methyl-2-pentanone (MIBK)	125	136		ug/L		109	71 - 125
Acetone	125	143		ug/L		115	56 - 142
Benzene	25.0	27.6		ug/L		110	71 - 124
Bromodichloromethane	25.0	26.7		ug/L		107	80 - 122
Bromoform	25.0	25.2		ug/L		101	61 - 132
Bromomethane	25.0	25.5		ug/L		102	55 - 144
Carbon disulfide	25.0	28.4		ug/L		114	59 - 134
Carbon tetrachloride	25.0	28.2		ug/L		113	72 - 134
Chlorobenzene	25.0	27.2		ug/L		109	80 - 120
Dibromochloromethane	25.0	26.3		ug/L		105	75 - 125
Chloroethane	25.0	27.9		ug/L		112	69 - 136
Chloroform	25.0	25.3		ug/L		101	73 - 127
Chloromethane	25.0	27.6		ug/L		111	68 - 124
cis-1,2-Dichloroethene	25.0	26.7		ug/L		107	74 - 124
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	74 - 124
Cyclohexane	25.0	31.1		ug/L		124	59 - 135
Dichlorodifluoromethane	25.0	24.3		ug/L		97	59 - 135
Ethylbenzene	25.0	28.2		ug/L		113	77 - 123
Isopropylbenzene	25.0	29.3		ug/L		117	77 - 122
Methyl acetate	50.0	53.4		ug/L		107	74 - 133
Methyl tert-butyl ether	25.0	25.6		ug/L		102	77 - 120
Methylcyclohexane	25.0	30.7		ug/L		123	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-721476/6
Matrix: Water
Analysis Batch: 721476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Methylene Chloride			25.0	27.7		ug/L		111	75 - 124		
Styrene			25.0	27.6		ug/L		110	80 - 120		
Tetrachloroethene			25.0	28.4		ug/L		114	74 - 122		
Toluene			25.0	28.2		ug/L		113	80 - 122		
trans-1,2-Dichloroethene			25.0	27.7		ug/L		111	73 - 127		
Trichloroethene			25.0	27.0		ug/L		108	74 - 123		
Trichlorofluoromethane			25.0	26.5		ug/L		106	62 - 150		
Vinyl chloride			25.0	28.5		ug/L		114	65 - 133		
Xylenes, Total			50.0	55.4		ug/L		111	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*77 - 120*
Toluene-d8 (Surr)	*110*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*

Lab Sample ID: 480-222377-5 MS
Matrix: Water
Analysis Batch: 721476

Client Sample ID: MW-05R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane	ND		25.0	29.0		ug/L		116	73 - 126		
1,1,2,2-Tetrachloroethane	ND		25.0	26.5		ug/L		106	76 - 120		
1,1,2-Trichloroethane	ND		25.0	26.2		ug/L		105	76 - 122		
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	30.3		ug/L		121	61 - 148		
1,1-Dichloroethane	ND		25.0	29.0		ug/L		116	77 - 120		
1,1-Dichloroethene	ND		25.0	29.7		ug/L		119	66 - 127		
1,2,4-Trichlorobenzene	ND		25.0	28.7		ug/L		115	79 - 122		
1,2-Dibromo-3-Chloropropane	ND		25.0	26.0		ug/L		104	56 - 134		
1,2-Dibromoethane	ND		25.0	25.7		ug/L		103	77 - 120		
1,2-Dichlorobenzene	ND		25.0	26.8		ug/L		107	80 - 124		
1,2-Dichloroethane	ND		25.0	25.7		ug/L		103	75 - 120		
1,2-Dichloropropane	ND		25.0	28.2		ug/L		113	76 - 120		
1,3-Dichlorobenzene	ND		25.0	27.2		ug/L		109	77 - 120		
1,4-Dichlorobenzene	ND		25.0	26.5		ug/L		106	78 - 124		
2-Hexanone	ND		125	135		ug/L		108	65 - 127		
2-Butanone (MEK)	ND		125	160		ug/L		128	57 - 140		
4-Methyl-2-pentanone (MIBK)	ND		125	135		ug/L		108	71 - 125		
Acetone	ND		125	173		ug/L		138	56 - 142		
Benzene	ND		25.0	28.3		ug/L		113	71 - 124		
Bromodichloromethane	ND		25.0	26.3		ug/L		105	80 - 122		
Bromoform	ND		25.0	23.5		ug/L		94	61 - 132		
Bromomethane	ND		25.0	22.6		ug/L		90	55 - 144		
Carbon disulfide	ND		25.0	27.9		ug/L		112	59 - 134		
Carbon tetrachloride	ND		25.0	29.1		ug/L		116	72 - 134		
Chlorobenzene	ND		25.0	27.4		ug/L		110	80 - 120		
Dibromochloromethane	ND		25.0	24.2		ug/L		97	75 - 125		
Chloroethane	ND		25.0	28.4		ug/L		114	69 - 136		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-222377-5 MS
Matrix: Water
Analysis Batch: 721476

Client Sample ID: MW-05R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	0.66	J	25.0	26.6		ug/L		104	73 - 127
Chloromethane	ND		25.0	28.4		ug/L		114	68 - 124
cis-1,2-Dichloroethene	ND		25.0	28.2		ug/L		113	74 - 124
cis-1,3-Dichloropropene	ND		25.0	25.8		ug/L		103	74 - 124
Cyclohexane	ND		25.0	33.2		ug/L		133	59 - 135
Dichlorodifluoromethane	ND		25.0	22.8		ug/L		91	59 - 135
Ethylbenzene	ND		25.0	28.4		ug/L		114	77 - 123
Isopropylbenzene	ND		25.0	29.7		ug/L		119	77 - 122
Methyl acetate	ND		50.0	51.2		ug/L		102	74 - 133
Methyl tert-butyl ether	ND		25.0	25.9		ug/L		104	77 - 120
Methylcyclohexane	ND		25.0	32.1		ug/L		128	68 - 134
Methylene Chloride	ND		25.0	28.4		ug/L		114	75 - 124
Styrene	ND		25.0	28.6		ug/L		114	80 - 120
Tetrachloroethene	ND		25.0	28.7		ug/L		115	74 - 122
Toluene	ND		25.0	27.5		ug/L		110	80 - 122
trans-1,2-Dichloroethene	ND		25.0	29.3		ug/L		117	73 - 127
Trichloroethene	ND		25.0	27.8		ug/L		111	74 - 123
Trichlorofluoromethane	ND		25.0	27.0		ug/L		108	62 - 150
Vinyl chloride	ND		25.0	29.3		ug/L		117	65 - 133
Xylenes, Total	ND		50.0	57.1		ug/L		114	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*98*		*75 - 123*

Lab Sample ID: 480-222377-5 MSD
Matrix: Water
Analysis Batch: 721476

Client Sample ID: MW-05R
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.1		ug/L		112	73 - 126	3	15
1,1,2,2-Tetrachloroethane	ND		25.0	26.0		ug/L		104	76 - 120	2	15
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	76 - 122	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	30.3		ug/L		121	61 - 148	0	20
1,1-Dichloroethane	ND		25.0	28.0		ug/L		112	77 - 120	4	20
1,1-Dichloroethene	ND		25.0	29.2		ug/L		117	66 - 127	2	16
1,2,4-Trichlorobenzene	ND		25.0	27.2		ug/L		109	79 - 122	5	20
1,2-Dibromo-3-Chloropropane	ND		25.0	25.0		ug/L		100	56 - 134	4	15
1,2-Dibromoethane	ND		25.0	25.7		ug/L		103	77 - 120	0	15
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	80 - 124	2	20
1,2-Dichloroethane	ND		25.0	24.9		ug/L		100	75 - 120	3	20
1,2-Dichloropropane	ND		25.0	27.6		ug/L		110	76 - 120	2	20
1,3-Dichlorobenzene	ND		25.0	26.5		ug/L		106	77 - 120	3	20
1,4-Dichlorobenzene	ND		25.0	25.9		ug/L		104	78 - 124	2	20
2-Hexanone	ND		125	134		ug/L		107	65 - 127	1	15
2-Butanone (MEK)	ND		125	152		ug/L		122	57 - 140	5	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-222377-5 MSD
Client Sample ID: MW-05R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721476

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	ND		125	134		ug/L		108	71 - 125	1	35
Acetone	ND		125	153		ug/L		123	56 - 142	12	15
Benzene	ND		25.0	28.0		ug/L		112	71 - 124	1	13
Bromodichloromethane	ND		25.0	26.0		ug/L		104	80 - 122	1	15
Bromoform	ND		25.0	22.3		ug/L		89	61 - 132	5	15
Bromomethane	ND		25.0	23.5		ug/L		94	55 - 144	4	15
Carbon disulfide	ND		25.0	26.8		ug/L		107	59 - 134	4	15
Carbon tetrachloride	ND		25.0	28.4		ug/L		114	72 - 134	2	15
Chlorobenzene	ND		25.0	26.8		ug/L		107	80 - 120	2	25
Dibromochloromethane	ND		25.0	24.1		ug/L		96	75 - 125	0	15
Chloroethane	ND		25.0	27.9		ug/L		112	69 - 136	2	15
Chloroform	0.66	J	25.0	26.3		ug/L		102	73 - 127	1	20
Chloromethane	ND		25.0	27.8		ug/L		111	68 - 124	2	15
cis-1,2-Dichloroethene	ND		25.0	26.9		ug/L		107	74 - 124	5	15
cis-1,3-Dichloropropene	ND		25.0	25.8		ug/L		103	74 - 124	0	15
Cyclohexane	ND		25.0	32.5		ug/L		130	59 - 135	2	20
Dichlorodifluoromethane	ND		25.0	23.4		ug/L		94	59 - 135	2	20
Ethylbenzene	ND		25.0	28.0		ug/L		112	77 - 123	1	15
Isopropylbenzene	ND		25.0	29.4		ug/L		118	77 - 122	1	20
Methyl acetate	ND		50.0	48.4		ug/L		97	74 - 133	6	20
Methyl tert-butyl ether	ND		25.0	25.3		ug/L		101	77 - 120	2	37
Methylcyclohexane	ND		25.0	32.8		ug/L		131	68 - 134	2	20
Methylene Chloride	ND		25.0	28.0		ug/L		112	75 - 124	1	15
Styrene	ND		25.0	27.4		ug/L		110	80 - 120	4	20
Tetrachloroethene	ND		25.0	28.0		ug/L		112	74 - 122	2	20
Toluene	ND		25.0	27.4		ug/L		110	80 - 122	0	15
trans-1,2-Dichloroethene	ND		25.0	28.6		ug/L		114	73 - 127	2	20
Trichloroethene	ND		25.0	27.8		ug/L		111	74 - 123	0	16
Trichlorofluoromethane	ND		25.0	26.9		ug/L		108	62 - 150	0	20
Vinyl chloride	ND		25.0	27.9		ug/L		112	65 - 133	5	15
Xylenes, Total	ND		50.0	55.3		ug/L		111	76 - 122	3	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*

Lab Sample ID: MB 480-721538/8
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721538

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/13/24 11:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/13/24 11:55	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/13/24 11:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/13/24 11:55	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/13/24 11:55	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-721538/8
Matrix: Water
Analysis Batch: 721538

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/13/24 11:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/13/24 11:55	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/13/24 11:55	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/13/24 11:55	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/13/24 11:55	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/13/24 11:55	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/13/24 11:55	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/13/24 11:55	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/13/24 11:55	1
2-Hexanone	ND		5.0	1.2	ug/L			08/13/24 11:55	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/13/24 11:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/13/24 11:55	1
Acetone	ND		10	3.0	ug/L			08/13/24 11:55	1
Benzene	ND		1.0	0.41	ug/L			08/13/24 11:55	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/13/24 11:55	1
Bromoform	ND		1.0	0.26	ug/L			08/13/24 11:55	1
Bromomethane	ND		1.0	0.69	ug/L			08/13/24 11:55	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/13/24 11:55	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/13/24 11:55	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/13/24 11:55	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/13/24 11:55	1
Chloroethane	ND		1.0	0.32	ug/L			08/13/24 11:55	1
Chloroform	ND		1.0	0.34	ug/L			08/13/24 11:55	1
Chloromethane	ND		1.0	0.35	ug/L			08/13/24 11:55	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/13/24 11:55	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/13/24 11:55	1
Cyclohexane	ND		1.0	0.18	ug/L			08/13/24 11:55	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/13/24 11:55	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/13/24 11:55	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/13/24 11:55	1
Methyl acetate	ND		2.5	1.3	ug/L			08/13/24 11:55	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/13/24 11:55	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/13/24 11:55	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/13/24 11:55	1
Styrene	ND		1.0	0.73	ug/L			08/13/24 11:55	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/13/24 11:55	1
Toluene	ND		1.0	0.51	ug/L			08/13/24 11:55	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/13/24 11:55	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/13/24 11:55	1
Trichloroethene	ND		1.0	0.46	ug/L			08/13/24 11:55	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/13/24 11:55	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/13/24 11:55	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/13/24 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*08/13/24 11:55*	*1*
Toluene-d8 (Surr)	*106*		*80 - 120*		*08/13/24 11:55*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*08/13/24 11:55*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-721538/8
Matrix: Water
Analysis Batch: 721538

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*08/13/24 11:55*	*1*

Lab Sample ID: LCS 480-721538/6
Matrix: Water
Analysis Batch: 721538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	23.4		ug/L		94	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.5		ug/L		90	76 - 120
1,1,2-Trichloroethane	25.0	23.7		ug/L		95	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.6		ug/L		86	61 - 148
1,1-Dichloroethane	25.0	24.1		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	23.1		ug/L		92	66 - 127
1,2,4-Trichlorobenzene	25.0	24.7		ug/L		99	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	23.3		ug/L		93	56 - 134
1,2-Dibromoethane	25.0	23.7		ug/L		95	77 - 120
1,2-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 124
1,2-Dichloroethane	25.0	22.2		ug/L		89	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	77 - 120
1,4-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 120
2-Hexanone	125	119		ug/L		96	65 - 127
2-Butanone (MEK)	125	138		ug/L		110	57 - 140
4-Methyl-2-pentanone (MIBK)	125	119		ug/L		95	71 - 125
Acetone	125	149		ug/L		119	56 - 142
Benzene	25.0	24.1		ug/L		96	71 - 124
Bromodichloromethane	25.0	23.6		ug/L		94	80 - 122
Bromoform	25.0	21.9		ug/L		88	61 - 132
Bromomethane	25.0	21.3		ug/L		85	55 - 144
Carbon disulfide	25.0	24.0		ug/L		96	59 - 134
Carbon tetrachloride	25.0	23.7		ug/L		95	72 - 134
Chlorobenzene	25.0	23.6		ug/L		94	80 - 120
Dibromochloromethane	25.0	23.1		ug/L		92	75 - 125
Chloroethane	25.0	23.0		ug/L		92	69 - 136
Chloroform	25.0	22.0		ug/L		88	73 - 127
Chloromethane	25.0	22.5		ug/L		90	68 - 124
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	24.9		ug/L		100	74 - 124
Cyclohexane	25.0	23.8		ug/L		95	59 - 135
Dichlorodifluoromethane	25.0	16.2		ug/L		65	59 - 135
Ethylbenzene	25.0	24.3		ug/L		97	77 - 123
Isopropylbenzene	25.0	25.1		ug/L		100	77 - 122
Methyl acetate	50.0	46.0		ug/L		92	74 - 133
Methyl tert-butyl ether	25.0	22.8		ug/L		91	77 - 120
Methylcyclohexane	25.0	23.8		ug/L		95	68 - 134
Methylene Chloride	25.0	24.1		ug/L		97	75 - 124
Styrene	25.0	24.7		ug/L		99	80 - 120
Tetrachloroethene	25.0	24.4		ug/L		97	74 - 122

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-721538/6
Matrix: Water
Analysis Batch: 721538

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	25.0	24.5		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	24.2		ug/L		97	73 - 127
Trichloroethene	25.0	23.7		ug/L		95	74 - 123
Trichlorofluoromethane	25.0	20.8		ug/L		83	62 - 150
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133
Xylenes, Total	50.0	48.8		ug/L		98	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-721282/1-A
Matrix: Water
Analysis Batch: 721539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 721282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.088	mg/L		08/12/24 09:09	08/12/24 15:39	1
Antimony	ND		0.020	0.0068	mg/L		08/12/24 09:09	08/12/24 15:39	1
Arsenic	ND		0.015	0.0056	mg/L		08/12/24 09:09	08/12/24 15:39	1
Barium	ND		0.0020	0.00070	mg/L		08/12/24 09:09	08/12/24 15:39	1
Beryllium	ND		0.0020	0.00040	mg/L		08/12/24 09:09	08/12/24 15:39	1
Cadmium	ND		0.0020	0.00050	mg/L		08/12/24 09:09	08/12/24 15:39	1
Calcium	ND		0.50	0.13	mg/L		08/12/24 09:09	08/12/24 15:39	1
Chromium	ND		0.0040	0.0024	mg/L		08/12/24 09:09	08/12/24 15:39	1
Cobalt	ND		0.0040	0.00060	mg/L		08/12/24 09:09	08/12/24 15:39	1
Copper	ND		0.010	0.0045	mg/L		08/12/24 09:09	08/12/24 15:39	1
Iron	ND		0.050	0.026	mg/L		08/12/24 09:09	08/12/24 15:39	1
Lead	ND		0.010	0.0039	mg/L		08/12/24 09:09	08/12/24 15:39	1
Magnesium	ND		0.20	0.043	mg/L		08/12/24 09:09	08/12/24 15:39	1
Manganese	ND		0.0030	0.0010	mg/L		08/12/24 09:09	08/12/24 15:39	1
Nickel	ND		0.010	0.0034	mg/L		08/12/24 09:09	08/12/24 15:39	1
Potassium	ND		0.50	0.20	mg/L		08/12/24 09:09	08/12/24 15:39	1
Selenium	ND		0.025	0.0087	mg/L		08/12/24 09:09	08/12/24 15:39	1
Silver	ND		0.0060	0.0017	mg/L		08/12/24 09:09	08/12/24 15:39	1
Sodium	ND		1.0	0.38	mg/L		08/12/24 09:09	08/12/24 15:39	1
Thallium	ND		0.020	0.010	mg/L		08/12/24 09:09	08/12/24 15:39	1
Vanadium	ND		0.0050	0.0015	mg/L		08/12/24 09:09	08/12/24 15:39	1
Zinc	ND		0.010	0.0068	mg/L		08/12/24 09:09	08/12/24 15:39	1

Lab Sample ID: LCS 480-721282/2-A
Matrix: Water
Analysis Batch: 721539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 721282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5.10	4.79		mg/L		94	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-721282/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721539
Prep Batch: 721282

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.475		mg/L		95	85 - 115
Arsenic	1.00	0.938		mg/L		94	85 - 115
Barium	1.00	0.984		mg/L		98	85 - 115
Beryllium	0.500	0.504		mg/L		101	85 - 115
Cadmium	0.500	0.491		mg/L		98	85 - 115
Calcium	25.0	24.59		mg/L		98	85 - 115
Chromium	0.500	0.505		mg/L		101	85 - 115
Cobalt	0.500	0.482		mg/L		96	85 - 115
Copper	0.500	0.484		mg/L		97	85 - 115
Iron	5.10	5.31		mg/L		104	85 - 115
Lead	0.500	0.471		mg/L		94	85 - 115
Magnesium	25.0	23.69		mg/L		95	85 - 115
Manganese	0.500	0.484		mg/L		97	85 - 115
Nickel	0.500	0.509		mg/L		102	85 - 115
Potassium	25.0	24.36		mg/L		97	85 - 115
Selenium	1.00	0.938		mg/L		94	85 - 115
Silver	0.0500	0.0494		mg/L		99	85 - 115
Sodium	25.0	24.45		mg/L		98	85 - 115
Thallium	1.00	0.923		mg/L		92	85 - 115
Vanadium	0.500	0.495		mg/L		99	85 - 115
Zinc	0.500	0.551		mg/L		110	85 - 115

Lab Sample ID: 480-222377-5 MS
Client Sample ID: MW-05R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721539
Prep Batch: 721282

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.17	J	5.10	5.38		mg/L		102	70 - 130
Antimony	ND		0.500	0.504		mg/L		101	70 - 130
Arsenic	ND		1.00	0.986		mg/L		99	70 - 130
Barium	0.16		1.00	1.20		mg/L		103	70 - 130
Beryllium	ND		0.500	0.520		mg/L		104	70 - 130
Cadmium	ND		0.500	0.516		mg/L		103	70 - 130
Calcium	75.1		25.0	101.2		mg/L		104	70 - 130
Chromium	ND		0.500	0.511		mg/L		102	70 - 130
Cobalt	ND		0.500	0.494		mg/L		99	70 - 130
Copper	ND		0.500	0.519		mg/L		104	70 - 130
Iron	0.21		5.10	5.76		mg/L		109	70 - 130
Lead	ND		0.500	0.490		mg/L		98	70 - 130
Magnesium	107		25.0	135.2	4	mg/L		115	70 - 130
Manganese	0.017		0.500	0.512		mg/L		99	70 - 130
Nickel	ND		0.500	0.509		mg/L		102	70 - 130
Potassium	4.6		25.0	30.78		mg/L		105	70 - 130
Selenium	ND		1.00	0.987		mg/L		99	70 - 130
Silver	ND		0.0500	0.0522		mg/L		104	70 - 130
Sodium	34.7		25.0	61.57		mg/L		108	70 - 130
Thallium	ND		1.00	0.972		mg/L		97	70 - 130
Vanadium	ND		0.500	0.511		mg/L		102	70 - 130
Zinc	0.023		0.500	0.572		mg/L		110	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: 480-222377-5 MSD
Client Sample ID: MW-05R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721539
Prep Batch: 721282

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.17	J	5.10	5.33		mg/L		101	70 - 130	1	20
Antimony	ND		0.500	0.494		mg/L		99	70 - 130	2	20
Arsenic	ND		1.00	0.970		mg/L		97	70 - 130	2	20
Barium	0.16		1.00	1.18		mg/L		101	70 - 130	2	20
Beryllium	ND		0.500	0.512		mg/L		102	70 - 130	1	20
Cadmium	ND		0.500	0.509		mg/L		102	70 - 130	1	20
Calcium	75.1		25.0	101.3		mg/L		105	70 - 130	0	20
Chromium	ND		0.500	0.504		mg/L		101	70 - 130	1	20
Cobalt	ND		0.500	0.489		mg/L		98	70 - 130	1	20
Copper	ND		0.500	0.512		mg/L		102	70 - 130	1	20
Iron	0.21		5.10	5.68		mg/L		107	70 - 130	1	20
Lead	ND		0.500	0.484		mg/L		97	70 - 130	1	20
Magnesium	107		25.0	135.2	4	mg/L		115	70 - 130	0	20
Manganese	0.017		0.500	0.505		mg/L		98	70 - 130	1	20
Nickel	ND		0.500	0.503		mg/L		101	70 - 130	1	20
Potassium	4.6		25.0	30.39		mg/L		103	70 - 130	1	20
Selenium	ND		1.00	0.972		mg/L		97	70 - 130	2	20
Silver	ND		0.0500	0.0518		mg/L		104	70 - 130	1	20
Sodium	34.7		25.0	61.11		mg/L		106	70 - 130	1	20
Thallium	ND		1.00	0.955		mg/L		95	70 - 130	2	20
Vanadium	ND		0.500	0.504		mg/L		101	70 - 130	1	20
Zinc	0.023		0.500	0.569		mg/L		109	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-721391/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721512
Prep Batch: 721391

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000042	mg/L		08/12/24 11:18	08/12/24 14:33	1

Lab Sample ID: LCS 480-721391/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721512
Prep Batch: 721391

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00669	0.00711		mg/L		106	85 - 115		

Lab Sample ID: 480-222377-5 MS
Client Sample ID: MW-05R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721512
Prep Batch: 721391

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00669	0.00709		mg/L		106	70 - 130		

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 480-222377-5 MSD
Client Sample ID: MW-05R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 721512
Prep Batch: 721391

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00709		mg/L		106	70 - 130	0	20

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

GC/MS VOA

Analysis Batch: 721476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-1	MW-01	Total/NA	Water	8260C	
480-222377-2	MW-02	Total/NA	Water	8260C	
480-222377-3	MW-03	Total/NA	Water	8260C	
480-222377-4	MW-04	Total/NA	Water	8260C	
480-222377-5	MW-05R	Total/NA	Water	8260C	
480-222377-6	MW-06	Total/NA	Water	8260C	
480-222377-7	MW-07	Total/NA	Water	8260C	
480-222377-9	DUP	Total/NA	Water	8260C	
MB 480-721476/8	Method Blank	Total/NA	Water	8260C	
LCS 480-721476/6	Lab Control Sample	Total/NA	Water	8260C	
480-222377-5 MS	MW-05R	Total/NA	Water	8260C	
480-222377-5 MSD	MW-05R	Total/NA	Water	8260C	

Analysis Batch: 721538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-4 - DL	MW-04	Total/NA	Water	8260C	
480-222377-8	DRUM	Total/NA	Water	8260C	
MB 480-721538/8	Method Blank	Total/NA	Water	8260C	
LCS 480-721538/6	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 721282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-1	MW-01	Total/NA	Water	200.7	
480-222377-2	MW-02	Total/NA	Water	200.7	
480-222377-3	MW-03	Total/NA	Water	200.7	
480-222377-4	MW-04	Total/NA	Water	200.7	
480-222377-5	MW-05R	Total/NA	Water	200.7	
480-222377-6	MW-06	Total/NA	Water	200.7	
480-222377-7	MW-07	Total/NA	Water	200.7	
480-222377-9	DUP	Total/NA	Water	200.7	
MB 480-721282/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-721282/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-222377-5 MS	MW-05R	Total/NA	Water	200.7	
480-222377-5 MSD	MW-05R	Total/NA	Water	200.7	

Prep Batch: 721391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-1	MW-01	Total/NA	Water	245.1	
480-222377-2	MW-02	Total/NA	Water	245.1	
480-222377-3	MW-03	Total/NA	Water	245.1	
480-222377-4	MW-04	Total/NA	Water	245.1	
480-222377-5	MW-05R	Total/NA	Water	245.1	
480-222377-6	MW-06	Total/NA	Water	245.1	
480-222377-7	MW-07	Total/NA	Water	245.1	
480-222377-9	DUP	Total/NA	Water	245.1	
MB 480-721391/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-721391/2-A	Lab Control Sample	Total/NA	Water	245.1	
480-222377-5 MS	MW-05R	Total/NA	Water	245.1	
480-222377-5 MSD	MW-05R	Total/NA	Water	245.1	

Metals

Analysis Batch: 721512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-1	MW-01	Total/NA	Water	245.1	721391
480-222377-2	MW-02	Total/NA	Water	245.1	721391
480-222377-3	MW-03	Total/NA	Water	245.1	721391
480-222377-4	MW-04	Total/NA	Water	245.1	721391
480-222377-5	MW-05R	Total/NA	Water	245.1	721391
480-222377-6	MW-06	Total/NA	Water	245.1	721391
480-222377-7	MW-07	Total/NA	Water	245.1	721391
480-222377-9	DUP	Total/NA	Water	245.1	721391
MB 480-721391/1-A	Method Blank	Total/NA	Water	245.1	721391
LCS 480-721391/2-A	Lab Control Sample	Total/NA	Water	245.1	721391
480-222377-5 MS	MW-05R	Total/NA	Water	245.1	721391
480-222377-5 MSD	MW-05R	Total/NA	Water	245.1	721391

Analysis Batch: 721539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-1	MW-01	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-2	MW-02	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-3	MW-03	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-4	MW-04	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-5	MW-05R	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-6	MW-06	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-7	MW-07	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-9	DUP	Total/NA	Water	200.7 Rev 4.4	721282
MB 480-721282/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	721282
LCS 480-721282/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-5 MS	MW-05R	Total/NA	Water	200.7 Rev 4.4	721282
480-222377-5 MSD	MW-05R	Total/NA	Water	200.7 Rev 4.4	721282

Analysis Batch: 721614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-222377-9	DUP	Total/NA	Water	200.7 Rev 4.4	721282

Lab Chronicle

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Client Sample ID: MW-01
Lab Sample ID: 480-222377-1
Date Collected: 08/06/24 09:03
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/12/24 22:40
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 15:43
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 14:50

Client Sample ID: MW-02
Lab Sample ID: 480-222377-2
Date Collected: 08/07/24 07:30
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/12/24 23:03
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 15:45
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 14:51

Client Sample ID: MW-03
Lab Sample ID: 480-222377-3
Date Collected: 08/07/24 08:40
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/12/24 23:27
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 15:47
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 14:53

Client Sample ID: MW-04
Lab Sample ID: 480-222377-4
Date Collected: 08/07/24 12:35
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		800	721476	ZN	EET BUF	08/12/24 23:50
Total/NA	Analysis	8260C	DL	2000	721538	ZN	EET BUF	08/13/24 15:18
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 15:54
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 14:54

Client Sample ID: MW-05R
Lab Sample ID: 480-222377-5
Date Collected: 08/07/24 11:30
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/13/24 00:14
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 15:56
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 14:55

Client Sample ID: MW-06
Lab Sample ID: 480-222377-6
Date Collected: 08/07/24 10:00
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/13/24 00:37
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 16:06
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 15:00

Client Sample ID: MW-07
Lab Sample ID: 480-222377-7
Date Collected: 08/07/24 13:35
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/13/24 01:01
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 16:08
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 15:04

Client Sample ID: DRUM
Lab Sample ID: 480-222377-8
Date Collected: 08/07/24 14:00
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		2	721538	ZN	EET BUF	08/13/24 15:41

Client Sample ID: DUP
Lab Sample ID: 480-222377-9
Date Collected: 08/07/24 10:00
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	721476	ZN	EET BUF	08/13/24 01:47
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		1	721539	NZG	EET BUF	08/12/24 16:09
Total/NA	Prep	200.7			721282	EMO	EET BUF	08/12/24 09:09
Total/NA	Analysis	200.7 Rev 4.4		10	721614	NZG	EET BUF	08/13/24 12:34

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Client Sample ID: DUP
Lab Sample ID: 480-222377-9

Date Collected: 08/07/24 10:00
Matrix: Water
Date Received: 08/07/24 16:13

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	245.1			721391	ESB	EET BUF	08/12/24 11:18
Total/NA	Analysis	245.1		1	721512	ESB	EET BUF	08/12/24 15:06

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: Groundwater & Environmental Services Inc
Job ID: 480-222377-1
Project/Site: NYSDEC Highland Plaza; 0924016

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-25

The following analytes are included in this report, but the laboratory is not certified by New York NELAP 10026. This list may include analytes for which the agency does not offer certification:

Analysis Method	Prep Method	Matrix	Analyte
245.1	245.1	Water	Mercury

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8260 CORP mix_00257	09/30/24	07/11/24	Methanol, Lot 22C2362001	20 mL	2-CEVE_00229	800 uL	2-Chloroethyl vinyl ether	100 ug/mL
					Acrolein Mix_00502	500 uL	Acrolein	500 ug/mL
					Ketones_00223	800 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
					MegaMix_00225	800 uL	1,1,1,2-Tetrachloroethane	100 ug/mL
							1,1,1-Trichloroethane	100 ug/mL
							1,1,2,2-Tetrachloroethane	100 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	100 ug/mL
							1,1,2-Trichloroethane	100 ug/mL
							1,1-Dichloroethane	100 ug/mL
							1,1-Dichloroethene	100 ug/mL
							1,1-Dichloropropene	100 ug/mL
							1,2,3-Trichlorobenzene	100 ug/mL
							1,2,3-Trichloropropane	100 ug/mL
							1,2,4-Trichlorobenzene	100 ug/mL
							1,2,4-Trimethylbenzene	100 ug/mL
							1,2-Dibromo-3-Chloropropane	100 ug/mL
							1,2-Dibromoethane	100 ug/mL
							1,2-Dichlorobenzene	100 ug/mL
							1,2-Dichloroethane	100 ug/mL
							1,2-Dichloropropane	100 ug/mL
							1,3,5-Trimethylbenzene	100 ug/mL
							1,3-Dichlorobenzene	100 ug/mL
							1,3-Dichloropropane	100 ug/mL
							1,4-Dichlorobenzene	100 ug/mL
							1,4-Dioxane	2000 ug/mL
							2,2-Dichloropropane	100 ug/mL
							2-Chlorotoluene	100 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							3-Chloro-1-propene	100 ug/mL
							4-Chlorotoluene	100 ug/mL
							4-Isopropyltoluene	100 ug/mL
							Acrylonitrile	1000 ug/mL
							Benzene	100 ug/mL
							Bromobenzene	100 ug/mL
							Bromodichloromethane	100 ug/mL
							Bromoform	100 ug/mL
							Carbon disulfide	100 ug/mL
							Carbon tetrachloride	100 ug/mL
							Chlorobenzene	100 ug/mL
							Chlorobromomethane	100 ug/mL
							Chloroform	100 ug/mL
							cis-1,2-Dichloroethene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	100 ug/mL
							Cyclohexane	100 ug/mL
							Dibromochloromethane	100 ug/mL
							Dibromomethane	100 ug/mL
							Ethyl ether	100 ug/mL
							Ethyl methacrylate	100 ug/mL
							Ethylbenzene	100 ug/mL
							Hexachlorobutadiene	100 ug/mL
							Hexane	100 ug/mL
							Iodomethane	100 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Isopropylbenzene	100 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methyl acetate	200 ug/mL
							Methyl tert-butyl ether	100 ug/mL
							Methylcyclohexane	100 ug/mL
							Methylene Chloride	100 ug/mL
							n-Butylbenzene	100 ug/mL
							n-Heptane	100 ug/mL
							N-Propylbenzene	100 ug/mL
							Naphthalene	100 ug/mL
							o-Xylene	100 ug/mL
							sec-Butylbenzene	100 ug/mL
							Styrene	100 ug/mL
							tert-Butylbenzene	100 ug/mL
							Tetrachloroethene	100 ug/mL
							Tetrahydrofuran	200 ug/mL
							Toluene	100 ug/mL
							trans-1,2-Dichloroethene	100 ug/mL
							trans-1,3-Dichloropropene	100 ug/mL
							trans-1,4-Dichloro-2-butene	100 ug/mL
							Trichloroethene	100 ug/mL
					Vinyl Acetate_00357	800 uL	Vinyl acetate	200 ug/mL
.2-CEVE_00229	02/28/27		Restek, Lot A0208368		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
.Acrolein Mix_00502	09/30/25		Restek, Lot A0209476		(Purchased Reagent)		Acrolein	20000 ug/mL
.Ketones_00223	04/30/27		Restek, Lot A02010935		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.MegaMix_00225	09/30/24		Restek, Lot A0183568		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chlorobromomethane	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.Vinyl Acetate_00357	09/30/25	Restek, Lot A0209567			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
BFB_WRK_00164							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Trihalomethanes, Total	
							Xylenes, Total	
					MV_BFB_STK_00092	20 uL	BFB	50 ug/mL
.MV_BFB_STK_00092	09/30/24	Supelco, Lot LRAD0322			(Purchased Reagent)		BFB	25000 ug/mL
GAS CORP mix_00631	08/13/24	08/06/24	Methanol, Lot EA832US	10 mL	8260/624-Gas_00554	400 uL	Bromomethane	100 ug/mL
							Butadiene	100 ug/mL
							Chloroethane	100 ug/mL
							Chloromethane	100 ug/mL
							Dichlorodifluoromethane	100 ug/mL
							Dichlorofluoromethane	100 ug/mL
							Trichlorofluoromethane	100 ug/mL
							Vinyl chloride	100 ug/mL
.8260/624-Gas_00554	05/31/27	Restek, Lot A0211969			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
MED_03_Ag_00210	03/08/26	08/02/24	1% HNO3, Lot 1026960-69	200 mL	MEI_Ag_1,000_00015	2 mL	Silver	10 ug/mL
.MEI_Ag_1,000_00015	03/08/26	Agilent Technologies, Lot 1436096			(Purchased Reagent)		Silver	1000 ug/mL
MEH_HG1_WKG_03422	08/13/24	08/12/24	1% HNO3, Lot Di H2O	50 mL	MEH_1_INT_00025	0.5 mL	Mercury	100.4 ng/mL
.MEH_1_INT_00025	06/30/25	05/16/24	1% HNO3, Lot DI	50 mL	MEH_1_STOCK_00005	5 mL	Mercury	10040 ppb

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MEH_1_STOCK_00005	06/30/25		Agilent, Lot 0006684748		(Purchased Reagent)		Mercury	100.4 ug/mL
MEI_10_CCVL_00524	11/01/24	06/28/24	1% HNO3, Lot 7933423	2000 mL	MEI_CRI STOCK_00075	20 mL	Antimony	0.02 mg/L
							Thallium	0.02 mg/L
							Aluminum	0.2 mg/L
							Arsenic	0.015 mg/L
							Barium	0.002 mg/L
							Beryllium	0.002 mg/L
							Calcium	0.5 mg/L
							Cadmium	0.002 mg/L
							Cobalt	0.004 mg/L
							Chromium	0.004 mg/L
							Copper	0.01 mg/L
							Iron	0.05 mg/L
							Potassium	0.5 mg/L
							Magnesium	0.2 mg/L
							Manganese	0.003 mg/L
							Nickel	0.01 mg/L
							Lead	0.01 mg/L
							Selenium	0.025 mg/L
							Vanadium	0.005 mg/L
							Silver	0.006 mg/L
							Sodium	1.007 mg/L
							Zinc	0.01 mg/L
.MEI_CRI STOCK_00075	11/01/24	06/28/24	6%HNO3 5%HCL, Lot 7313437	1000 mL	me-sb-stk1000_00007	2 mL	Antimony	2 ug/mL
					ME-TL-stk1000_00008	2 mL	Thallium	2 ug/mL
					MEA_Al_STK_00016	2 mL	Aluminum	20 ug/mL
					MEA_As_STK_00009	1.5 mL	Arsenic	1.5 ug/mL
					MEA_Ba_STK_00009	0.2 mL	Barium	0.2 ug/mL
					MEA_Be_STK_00010	0.2 mL	Beryllium	0.2 ug/mL
					MEA_Ca_STK_00018	5 mL	Calcium	50 ug/mL
					MEA_Cd_STK_00010	0.2 mL	Cadmium	0.2 ug/mL
					MEA_Co_STK_00014	0.4 mL	Cobalt	0.4 ug/mL
					MEA_Cr_STK_00011	0.4 mL	Chromium	0.4 ug/mL
					MEA_Cu_STK_00010	1 mL	Copper	1 ug/mL
					MEA_Fe_STK_00017	0.5 mL	Iron	5 ug/mL
					MEA_K_STK_00012	5 mL	Potassium	50 ug/mL
					MEA_MG_STK_00011	2 mL	Magnesium	20 ug/mL
					MEA_Mn_STK_00013	0.3 mL	Manganese	0.3 ug/mL
					MEA_Ni_STK_00008	1 mL	Nickel	1 ug/mL
					MEA_PB_STK_00012	1 mL	Lead	1 ug/mL
					MEA_Se_STK_00010	2.5 mL	Selenium	2.5 ug/mL
					MEA_V_STK_00015	0.5 mL	Vanadium	0.5 ug/mL
					MEI_Ag_1,000_00015	0.6 mL	Silver	0.6 ug/mL
					MEI_Na_10,000_00008	10 mL	Sodium	100.7 ug/mL
					MEI_Zn_1,000_00012	1 mL	Zinc	1 ug/mL
..me-sb-stk1000_00007	12/26/26		cpi international, Lot 1435489		(Purchased Reagent)		Antimony	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..ME-TL-stk1000_00008	04/11/25	CPI international, Lot 1239312-2			(Purchased Reagent)		Thallium	1000 ug/mL
..MEA_Al_STK_00016	07/09/26	CPI, Lot 1427322			(Purchased Reagent)		Aluminum	10000 ug/mL
..MEA_As_STK_00009	06/12/26	CPI International, Lot 1432180			(Purchased Reagent)		Arsenic	1000 ug/mL
..MEA_Ba_STK_00009	04/22/26	CPI International, Lot 1407217			(Purchased Reagent)		Barium	1000 ug/mL
..MEA_Be_STK_00010	12/20/26	CPI International, Lot 1436160			(Purchased Reagent)		Beryllium	1000 ug/mL
..MEA_Ca_STK_00018	02/25/26	CPI, Lot 1427319			(Purchased Reagent)		Calcium	10000 ug/mL
..MEA_Cd_STK_00010	04/22/26	CPI International, Lot 1390098			(Purchased Reagent)		Cadmium	1000 ug/mL
..MEA_Co_STK_00014	06/10/26	CPI International, Lot 1397158			(Purchased Reagent)		Cobalt	1000 ug/mL
..MEA_Cr_STK_00011	11/12/26	CPI International, Lot 1430567			(Purchased Reagent)		Chromium	1000 ug/mL
..MEA_Cu_STK_00010	11/14/26	CPI International, Lot 1427285			(Purchased Reagent)		Copper	1000 ug/mL
..MEA_Fe_STK_00017	03/29/26	CPI International, Lot 1421665			(Purchased Reagent)		Iron	10000 ug/mL
..MEA_K_STK_00012	01/02/26	CPI, Lot 1434171			(Purchased Reagent)		Potassium	10000 ug/mL
..MEA_MG_STK_00011	03/31/25	Ultra Scientific, Lot cs-0929			(Purchased Reagent)		Magnesium	10000 ug/mL
..MEA_Mn_STK_00013	09/04/26	CPI, Lot 1421674			(Purchased Reagent)		Manganese	1000 ug/mL
..MEA_Ni_STK_00008	01/31/26	CPI International, Lot 1399080			(Purchased Reagent)		Nickel	1000 ug/mL
..MEA_PB_STK_00012	12/18/26	CPI International, Lot 1429023			(Purchased Reagent)		Lead	1000 ug/mL
..MEA_Se_STK_00010	10/16/26	CPI International, Lot 1428537			(Purchased Reagent)		Selenium	1000 ug/mL
..MEA_V_STK_00015	11/01/24	CPI International, Lot 1220562-56			(Purchased Reagent)		Vanadium	1000 ug/mL
..MEI_Ag_1,000_00015	03/08/26	Agilent Technologies, Lot 1436096			(Purchased Reagent)		Silver	1000 ug/mL
..MEI_Na_10,000_00008	08/06/26	CPI international, Lot 1433742			(Purchased Reagent)		Sodium	10070 ug/mL
..MEI_Zn_1,000_00012	01/01/25	CPI International, Lot 1216101-73			(Purchased Reagent)		Zinc	1000 ug/mL
MEI_MSS_ICSA_00066	11/01/24	08/08/24	1% HNO3, Lot 7982661	500 mL	MEI_Adj_A_STK_00012	50 mL	Aluminum	500 ug/mL
							Barium	0.012 ug/mL
							Calcium	500 ug/mL
							Iron	200 ug/mL
							Magnesium	500 ug/mL
.MEI_Adj_A_STK_00012	11/01/24	CPI International, Lot 1437074			(Purchased Reagent)		Aluminum	5000 ug/mL
							Barium	0.12 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
MEI_MSS_ICSAB_00066	11/01/24	07/11/24	1% HNO3, Lot 7982661	500 mL	MEI_ABpt1_STK_00006	2.5 mL	Antimony	0.5 ug/mL
							Mo	0.5 ug/mL
							Sn	0.5 ug/mL
							Ti	0.5 ug/mL
					MEI_ABpt2_STK_00005	2.5 mL	Arsenic	0.5 ug/mL
							B	5 ug/mL
							Barium	0.5125 ug/mL
							Beryllium	0.2501 ug/mL
							Cadmium	0.5 ug/mL
							Chromium	0.4999 ug/mL
							Cobalt	0.5 ug/mL
							Copper	0.5 ug/mL
							Lead	0.5 ug/mL
							Manganese	0.5005 ug/mL
							Nickel	0.5005 ug/mL
							Potassium	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	0.5 ug/mL
							Silver	0.5 ug/mL
							Sodium	5 ug/mL
							Sr	0.5 ug/mL
							Thallium	0.5 ug/mL
							Vanadium	0.5 ug/mL
							Zinc	0.5005 ug/mL
					MEI_Adj_A_STK_00012	50 mL	Aluminum	500 ug/mL
							Barium	0.5125 ug/mL
							Calcium	500 ug/mL
							Iron	200 ug/mL
							Magnesium	500 ug/mL
.MEI_ABpt1_STK_00006	09/30/25	CPI International, Lot 1399525			(Purchased Reagent)		Antimony	100 ug/mL
							Mo	100 ug/mL
							Sn	100 ug/mL
							Ti	100 ug/mL
.MEI_ABpt2_STK_00005	10/21/25	CPI International, Lot 1333445-1			(Purchased Reagent)		Arsenic	100 ug/mL
							B	1000 ug/mL
							Barium	100.1 ug/mL
							Beryllium	50.02 ug/mL
							Cadmium	100 ug/mL
							Chromium	99.98 ug/mL
							Cobalt	100 ug/mL
							Copper	100 ug/mL
							Lead	100 ug/mL
							Manganese	100.1 ug/mL
							Nickel	100.1 ug/mL
							Potassium	1000 ug/mL
							Selenium	100 ug/mL
							Silver	100 ug/mL
							Sodium	1000 ug/mL
							Sr	100 ug/mL
							Thallium	100 ug/mL
							Vanadium	100 ug/mL
							Zinc	100.1 ug/mL
.MEI_Adj_A_STK_00012	11/01/24	CPI International, Lot 1437074			(Purchased Reagent)		Aluminum	5000 ug/mL
							Barium	0.12 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
MEI_MSS_ICV_00166	11/01/24	08/08/24	1% HNO3, Lot 7982661	200 mL	ME_TA_CAL1_00027	1.5 mL	Antimony	0.75 mg/L
							Arsenic	0.7515 mg/L
							Barium	0.75075 mg/L
							Beryllium	0.75075 mg/L
							Cadmium	0.75 mg/L
							Chromium	0.75075 mg/L
							Cobalt	0.749925 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Copper	0.75075 mg/L
							Lead	0.75 mg/L
							Manganese	0.75075 mg/L
							Nickel	0.75 mg/L
							Selenium	0.749775 mg/L
							Thallium	0.74985 mg/L
							Vanadium	0.75 mg/L
					ME_TA_ICVss2_00015	3.75 mL	Aluminum	37.5 mg/L
							Calcium	37.5 mg/L
							Iron	37.5 mg/L
							Magnesium	37.5 mg/L
							Potassium	37.5 mg/L
							Sodium	37.5 mg/L
					MEI_Ag_1,000S_00004	0.15 mL	Silver	0.75 mg/L
					MEI_Zn_1,000S_00003	0.15 mL	Zinc	0.75 mg/L
.ME_TA_CAL1_00027	05/27/25	CPI International, Lot 1364863			(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100.2 mg/L
							Barium	100.1 mg/L
							Beryllium	100.1 mg/L
							Cadmium	100 mg/L
							Chromium	100.1 mg/L
							Cobalt	99.99 mg/L
							Copper	100.1 mg/L
							Lead	100 mg/L
							Manganese	100.1 mg/L
							Nickel	100 mg/L
							Selenium	99.97 mg/L
							Thallium	99.98 mg/L
							Vanadium	100 mg/L
.ME_TA_ICVss2_00015	05/31/25	CPI, Lot 1374183			(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
.MEI_Ag_1,000S_00004	03/31/25	Agilent, Lot 0133918917			(Purchased Reagent)		Silver	1000 ug/mL
.MEI_Zn_1,000S_00003	03/05/26	CPI International, Lot 1459124			(Purchased Reagent)		Zinc	1000 ug/mL
MEI_MSS_STD2_00343	04/11/25	08/08/24	1% HNO3, Lot 7982661	1000 mL	ME_TA_CAL1_00024	10 mL	Antimony	1 ug/mL
							Arsenic	1.002 ug/mL
							Barium	1.001 ug/mL
							Beryllium	1.001 ug/mL
							Cadmium	1 ug/mL
							Chromium	1.001 ug/mL
							Cobalt	0.9999 ug/mL
							Copper	1.001 ug/mL
							Lead	1 ug/mL
							Manganese	1.001 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nickel	1 ug/mL
							Selenium	0.9997 ug/mL
							Thallium	0.9998 ug/mL
							Vanadium	1 ug/mL
					ME_TA_CAL2_00006	25 mL	Aluminum	50 ug/mL
							Calcium	50 ug/mL
							Iron	50 ug/mL
							Magnesium	50 ug/mL
							Potassium	50 ug/mL
							Sodium	50 ug/mL
					MEI_Ag_1,000_00015	1 mL	Silver	1 ug/mL
					MEI_Zn_1,000_00013	1 mL	Zinc	1 ug/mL
.ME_TA_CAL1_00024	02/11/26	CPI International, Lot 1437070			(Purchased Reagent)		Antimony	100 mg/L
							Arsenic	100.2 mg/L
							Barium	100.1 mg/L
							Beryllium	100.1 mg/L
							Cadmium	100 mg/L
							Chromium	100.1 mg/L
							Cobalt	99.99 mg/L
							Copper	100.1 mg/L
							Lead	100 mg/L
							Manganese	100.1 mg/L
							Nickel	100 mg/L
							Selenium	99.97 mg/L
							Thallium	99.98 mg/L
							Vanadium	100 mg/L
.ME_TA_CAL2_00006	12/10/25	CPI, Lot 1416581			(Purchased Reagent)		Aluminum	2000 mg/L
							Calcium	2000 mg/L
							Iron	2000 mg/L
							Magnesium	2000 mg/L
							Potassium	2000 mg/L
							Sodium	2000 mg/L
.MEI_Ag_1,000_00015	03/08/26	Agilent Technologies, Lot 1436096			(Purchased Reagent)		Silver	1000 ug/mL
.MEI_Zn_1,000_00013	03/05/26	CPI International, Lot 1398666			(Purchased Reagent)		Zinc	1000 ug/mL
MEP_Mix4_00009	01/01/25	07/15/24	ELGA Water, Lot none	200 mL	me-sb-stk1000_00007	20 mL	Antimony	100 mg/L
					MEA_Al_STK_00015	0.4 mL	Aluminum	20 mg/L
					MEA_Fe_STK_00016	0.4 mL	Iron	20 mg/L
					MEI_B_1,000SS_00003	20 mL	B	100 mg/L
					MEI_Zn_1,000_00012	20 mL	Zinc	100 mg/L
.me-sb-stk1000_00007	12/26/26	cpi international, Lot 1435489			(Purchased Reagent)		Antimony	1000 ug/mL
.MEA_Al_STK_00015	07/09/26	CPI, Lot ALM112021A1			(Purchased Reagent)		Aluminum	10000 ug/mL
.MEA_Fe_STK_00016	03/29/26	CPI International, Lot 1421665			(Purchased Reagent)		Iron	10000 ug/mL
.MEI_B_1,000SS_00003	12/21/25	CPI International, Lot 1407219			(Purchased Reagent)		B	1000 ug/mL
.MEI_Zn_1,000_00012	01/01/25	CPI International, Lot 1216101-73			(Purchased Reagent)		Zinc	1000 ug/mL
S_8260_IS_00394	09/25/24	07/25/24	P&T Methanol, Lot 230446	20 mL	IS_STK_01776	1 mL	1,4-Dichlorobenzene-d4	125 ug/mL
							Chlorobenzene-d5	125 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fluorobenzene (IS)	125 ug/mL
.IS_STK_01776	02/28/29		Restek, Lot A0207291		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
S_8260_Surr_00485	09/25/24	07/25/24	P&T Methanol, Lot 288059	20 mL	SURR_STK_00552	1 mL	1,2-Dichloroethane-d4 (Surr)	125 ug/mL
							4-Bromofluorobenzene (Surr)	125 ug/mL
							Dibromofluoromethane (Surr)	125 ug/mL
							Toluene-d8 (Surr)	125 ug/mL
.SURR_STK_00552	01/11/25		Restek, Lot A0201943		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
Spike Mx 1_00005	07/01/25		CPI International, Lot 1421974		(Purchased Reagent)		Arsenic	200 ug/mL
							Barium	200 ug/mL
							Beryllium	100 ug/mL
							Cadmium	100 ug/mL
							Chromium	100 ug/mL
							Cobalt	100 ug/mL
							Copper	100 ug/mL
							Lead	100 ug/mL
							Li	100 ug/mL
							Manganese	100 ug/mL
							Mo	100 ug/mL
							Nickel	100 ug/mL
							Selenium	200 ug/mL
							Si	200 ug/mL
							SiO2	427.8 ug/mL
							Sn	200 ug/mL
							Sr	100 ug/mL
							Thallium	200 ug/mL
							Ti	100 ug/mL
							Vanadium	100 ug/mL
Spike Mx 2_00003	06/28/25		CPI International, Lot 1421976		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	5000 ug/mL
							Iron	1000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
Spike Mx 3_00003	10/25/25		CPI International, Lot 1269542-1		(Purchased Reagent)		P	2000 ug/mL
							Sulfur	1000 ug/mL
							U	200 ug/mL
							W	100 ug/mL
SS 8260 CORP_00115	08/10/24	06/10/24	Methanol, Lot EH471US	20 mL	SS_Ketones_00098	800 uL	2-Butanone (MEK)	500 mg/L
							2-Hexanone	500 mg/L
							4-Methyl-2-pentanone (MIBK)	500 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	500 mg/L
					SS_MegaMix_00131	800 uL	1,1,1-Trichloroethane	100 mg/L
							1,1,2,2-Tetrachloroethane	100 mg/L
							1,1,2-Trichloro-1,2,2-trifluoroethane	100 mg/L
							1,1,2-Trichloroethane	100 mg/L
							1,1-Dichloroethane	100 mg/L
							1,1-Dichloroethene	100 mg/L
							1,2,4-Trichlorobenzene	100 mg/L
							1,2-Dibromo-3-Chloropropane	100 mg/L
							1,2-Dibromoethane	100 mg/L
							1,2-Dichlorobenzene	100 mg/L
							1,2-Dichloroethane	100 mg/L
							1,2-Dichloropropane	100 mg/L
							1,3-Dichlorobenzene	100 mg/L
							1,4-Dichlorobenzene	100 mg/L
							Benzene	100 mg/L
							Bromodichloromethane	100 mg/L
							Bromoform	100 mg/L
							Carbon disulfide	100 mg/L
							Carbon tetrachloride	100 mg/L
							Chlorobenzene	100 mg/L
							Chloroform	100 mg/L
							cis-1,2-Dichloroethene	100 mg/L
							cis-1,3-Dichloropropene	100 mg/L
							Cyclohexane	100 mg/L
							Dibromochloromethane	100 mg/L
							Ethylbenzene	100 mg/L
							Isopropylbenzene	100 mg/L
							Methyl acetate	200 mg/L
							Methyl tert-butyl ether	100 mg/L
							Methylcyclohexane	100 mg/L
							Methylene Chloride	100 mg/L
							Styrene	100 mg/L
							Tetrachloroethene	100 mg/L
							Toluene	100 mg/L
							trans-1,2-Dichloroethene	100 mg/L
							trans-1,3-Dichloropropene	100 mg/L
							Trichloroethene	100 mg/L
.SS_Ketones_00098	04/30/25		Restek, Lot A0184721		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
.SS_MegaMix_00131	08/31/25		Restek, Lot A0195252		(Purchased Reagent)		1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							Benzene	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Isopropylbenzene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
SS GAS CORP_00588	08/13/24	08/06/24	Methanol, Lot EA832US	10 mL	SS8260-624gas_00549	400 uL	Bromomethane	100 ug/mL
							Chloroethane	100 ug/mL
							Chloromethane	100 ug/mL
							Dichlorodifluoromethane	100 ug/mL
							Trichlorofluoromethane	100 ug/mL
							Vinyl chloride	100 ug/mL
.SS8260-624gas_00549	04/30/27	Restek, Lot A0210106			(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL

Reagent

me-sb-stk1000_00007



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Antimony (Sb) – 1000 µg/mL

Matrix: 5% HNO_3/tr. HF

Product #: TA-100023

Product Lot #: 1435489

Source Material Lot #: N18I027

*Expiration Date: 24 December 2026

Element	Certified Concentration & Uncertainty
Sb	994.0 ± 6.0 µg/mL (w/v)
	974.0 ± 6.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure antimony (Sb) dissolved in high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3102a, lot #140911**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	MAJOR	Te	2
Al	216	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	1	Hg	<0.5	Mn	<1	Pd	2	Se	4	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	5	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	7	Ni	<2	Rh	<0.5	Ta	1	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	10
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

3 January 2024
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements
  (Registrar: TUV NORD)

Reagent

ME-TL-stk1000_00008

1/3/24

7758494
ID: ME-TL-stk1000_00008
Exp: 04/11/25 Prpd:
Thalium Stock 1000 ug/mL

~~T3044734~~

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Thallium (Tl) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000581

Product Lot #: 1409345

Source Material Lot #: X15E011

*Expiration Date: 11 April 2025

Element	Certified Concentration & Uncertainty
Tl	994.0 ± 6.0 µg/mL (w/v)
	935.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.99% pure thallium (Tl) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3158, lot #151215**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	2	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	24
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	9	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	51	Mn	<1	Pd	19	Se	5	Tl	MAJOR
Au	<0.5	Cu	8	Ho	<0.2	Mo	15	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	1	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	0.6
Bi	0.4	Eu	<0.2	K	<25	Nd	<0.2	Re	0.4	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	4	Ni	<2	Rh	5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	3	Ru	9	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

26 April 2022
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Reagent

ME_TA_CAL1_00024

CPI INTERNATIONAL

7778782

ID: ME_TA_CAL1_00024

Exp: 10/22/25 Prpd:

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1415174

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 22 October 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	100.0 ± 0.5 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	100.0 ± 0.5 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Si	1276425
Ba	1353868	Mn	1294994	Sn	1116280
Be	1165784	Mo	1240650	Sr	1123421
Cd	1378234	Ni	1084161	Ti	1237770
Co	1375613	Pb	1382458	Tl	1222802
Cr	1361547	Sb	1162568	V	1294996
Cu	1353861	Se	1285040		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

2 November 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

7918260
ID: ME_TA_CAL1_00024
Exp: 02/11/26 Prpd: BMB
ICP, ICPMS Cal mix 1

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1437070

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 11 February 2026

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	99.99 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Si	1271053
Ba	1353868	Mn	1294994	Sn	1116280
Be	1396842	Mo	1240650	Sr	1387735
Cd	1378234	Ni	1348734	Ti	1318831
Co	1375613	Pb	1382458	Tl	1222802
Cr	1361547	Sb	1395096	V	1294996
Cu	1353861	Se	1396823		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

7778781
ID: ME_TA_CAL1_00024
Exp: 02/11/26 Prpd: BMB
ICP, ICPMS Cal mix 1

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1437070

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 11 February 2026

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	99.99 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Si	1271053
Ba	1353868	Mn	1294994	Sn	1116280
Be	1396842	Mo	1240650	Sr	1387735
Cd	1378234	Ni	1348734	Ti	1318831
Co	1375613	Pb	1382458	Tl	1222802
Cr	1361547	Sb	1395096	V	1294996
Cu	1353861	Se	1396823		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

7778781
ID: ME_TA_CAL1_00024
Exp: 02/11/26 Prpd: BMB
ICP, ICPMS Cal mix 1

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1

ICP ICPMS CAL Mix # 1

Lot #: 1437070

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 11 February 2026

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	100.0 ± 0.5 mg/L	Li	99.99 ± 0.50 mg/L	Si	1000 ± 5 mg/L
Ba	100.0 ± 0.5 mg/L	Mn	99.99 ± 0.50 mg/L	Sn	99.99 ± 0.50 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Si	1271053
Ba	1353868	Mn	1294994	Sn	1116280
Be	1396842	Mo	1240650	Sr	1387735
Cd	1378234	Ni	1348734	Ti	1318831
Co	1375613	Pb	1382458	Tl	1222802
Cr	1361547	Sb	1395096	V	1294996
Cu	1353861	Se	1396823		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

ME_TA_CAL1_00027

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL1-SS

ICP ICPMS CAL Mix # 1

Lot #: 1364863

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 27 May 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	99.98 ± 0.50 mg/L	Li	100.1 ± 0.5 mg/L	Si	1000 ± 5 mg/L
Ba	99.99 ± 0.50 mg/L	Mn	100.0 ± 0.5 mg/L	Sn	100.1 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	99.99 ± 0.50 mg/L	Sr	100.0 ± 0.5 mg/L
Cd	100.2 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	Tl	100.1 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Sb	99.99 ± 0.50 mg/L	V	99.96 ± 0.50 mg/L
Cu	100.1 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	AO19-71ASX	Li	BB19-51LIX	Si	AV19-68SIX
Ba	AR19-106BAX	Mn	AR19-79MNX	Sn	AL19-75SNX
Be	AV19-119BEX	Mo	2227205	Sr	AS19-46SRX
Cd	AT19-137CDX	Ni	AV19-58NIX	Ti	2215434-500
Co	AT19-67COX	Pb	AW19-60PBX	Tl	2203113
Cr	AO19-61CRX	Sb	2301027	V	AP19-50VX
Cu	AZ19-94CUX	Se	AQ19-41SEX		

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer	7 June 2023 **Certification Date**	**Date Opened**

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM		Analyte	Aq. SRM	MO SRM
Ag	3151	-		Hf	3122	-		S	3154	2770
Al	3101a	-		Hg	3133	3133		Sb	3102a	3102a
As	3103a	3103a		Ho	3123a	-		Sc	3148a	3148a
Au	3121	-		In	3124a	3124a		Se	3149	3149
B	3107	3107		K	3141a	3141a		Si	3150	-
Ba	3104a	-		La	3127a	3127a		Sm	3147a	-
Be	3105a	3105a		Li	3129a	3129a		Sn	3161a	-
Bi	3106	3106		Lu	3130a	-		SO_4^{-2}	3181	-
Br^-	3184	-		Mg	3131a	3131a		Sr	3153a	3153a
Ca	3109a	3109a		Mn	3132	3132		Ta	3155	-
Cd	3108	-		Mo	3134	3134		Tb	3157a	-
Ce	3110	3110		Na	3152a	-		Te	3156	-
Cl^-	3182	1818a		Nb	3137	-		Th	-	-
Co	3113	3113		Nd	3135a	-		Ti	3162a	3162a
Cr	3112a	-		Ni	3136	-		Tl	3158	3158
Cs	3111a	-		NO_3^-	3185	-		Tm	3160a	-
Cu	3114	-		P	3139a	3139a		U	3164	-
Dy	3115a	-		Pb	3128	-		V	3165	-
Er	3116a	-		Pd	3138	-		W	3163	3163
Eu	3117a	-		PO_4^{-3}	3186	-		Y	3167a	3167a
F-	3183	-		Pr	3142a	-		Yb	3166a	-
Fe	3126a	-		Pt	3140	3140		Zn	3168a	3168a
Ga	3119a	-		Rb	3145a	-		Zr	3169	3169
Gd	3118a	-		Re	3143	-				
Ge	3120a	-		Rh	3144	3144				

Reagent

ME_TA_CAL2_00006

ICP, ICPMS Cal mix 2

7778776

ID: ME_TA_CAL2_00006

Exp: 12/10/25 Prpd:

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2

ICP ICPMS CAL Mix # 2

Lot #: 1416581

Matrix: 5% HNO_3

*Expiration Date: 10 December 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	1369281	Fe	1249266	Mg	1222806
Ca	1344004	K	1367374	Na	1369048

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 December 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

ME_TA_ICVss2_00015

1778744

CPI INTERNATIONAL

7919626
ID: ME_TA_ICVss2_00015
Exp: 05/31/25 Prpd:
ICP, ICPMS cal 2 second s

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-CAL2-SS

ICP ICPMS CAL Mix # 2

Lot #: 1374183

Matrix: 5% HNO_3

*Expiration Date: 31 May 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	2000 ± 10 mg/L	Fe	2000 ± 10 mg/L	Mg	2000 ± 10 mg/L
Ca	2000 ± 10 mg/L	K	2000 ± 10 mg/L	Na	2000 ± 10 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	AS19-103ALX	Fe	AS18-178FEX	Mg	AS19-87MGX
Ca	BC19-64CAX	K	BA19-56KX	Na	AV19-43NAX

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

31 May 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MEA_Al_STK_00015

7802881
ID: MEA_Al_STK_00015
Exp: 07/09/25 Prpd:
Aluminum stock, 10,000 µg

Rec. 2/7/24

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Aluminum (Al) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M11

Product Lot #: 1427322

Source Material Lot #: ALM112021A1

*Expiration Date: 9 July 2026

Element	Certified Concentration & Uncertainty
Al	10,025 ± 37 µg/mL (w/v)
	9400 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure aluminum nitrate [$Al(NO_3)_3$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3101a, lot #140903**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	15	Te	<10
Al	MAJOR	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	28	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	12
Ba	11	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<5	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	361	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	296	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

25 July 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Al_STK_00016



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-10M11

SE Std Aluminum (Al) – 10,000 µg/mL

Product Lot #: 1427322

Matrix: 5% HNO_3

Source Material Lot #: ALM112021A1

*Expiration Date: 9 July 2026

Element	Certified Concentration & Uncertainty
Al	10,025 ± 37 µg/mL (w/v)
	9400 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure aluminum nitrate [$Al(NO_3)_3$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3101a, lot #140903**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	15	Te	<10
Al	MAJOR	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	28	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	12
Ba	11	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<5	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	361	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	296	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

25 July 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

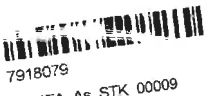
Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_As_STK_00009



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Arsenic (As) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-100031

Product Lot #: 1432180

Source Material Lot #: ASE022023A1

*Expiration Date: 12 June 2026

Element	Certified Concentration & Uncertainty
As	993.0 ± 2.0 µg/mL (w/v)
	976.0 ± 2.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure arsenic (As) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3103a, lot #100818**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	MAJOR	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	1	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	0.6	Ru	1	Tb	<0.5	Zn	29.04
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

28 June 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Reagent

MEA_Ba_STK_00009

CPI INTERNATIONAL

7918065
ID: MEA_Ba_STK_00009
Exp: 04/22/26 Prpd:
Barium stock, 1,000 ug/mL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Barium (Ba) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-100041

Product Lot #: 1407217

Source Material Lot #: W21E066

*Expiration Date: 22 April 2026

Element	Certified Concentration & Uncertainty
Ba	998.0 ± 4.0 µg/mL (w/v)
	988.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure barium nitrate [$Ba(NO_3)_2$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3104a, lot #140909**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	0.92	V	<1
Ba	MAJOR	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	10.89	K	<25	Nd	<0.2	Re	<0.2	Sr	8.892	Y	0.83
Ca	<25	Fe	<10	La	2.118	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

8 May 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

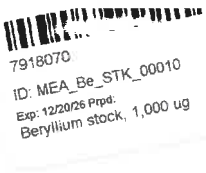
USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEA_Be_STK_00010



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-100051

SE Std Beryllium (Be) – 1000 µg/mL

Product Lot #: 1436160

Matrix: 5% HNO_3

Source Material Lot #: 22-01-19

*Expiration Date: 20 December 2026

Element	Certified Concentration & Uncertainty
Be	1002 ± 4 µg/mL (w/v)
	991.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.995% pure beryllium acetate [$Be_4O(C_2H_3O_2)_6$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3105a, lot #090514**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	1	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	5	Tl	<0.5
Au	0.8	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	6	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

5 January 2024
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Ca_STK_00018

7918077
ID: MEA_Ca_STK_00018
Exp: 02/25/26 Prpd:
Calcium stock, 10,000 ug/

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Calcium (Ca) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M91

Product Lot #: 1427319

Source Material Lot #: CAZ052019A1

*Expiration Date: 25 February 2026

Element	Certified Concentration & Uncertainty
Ca	10,050 ± 35 µg/mL (w/v)
	9696 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure calcium carbonate ($CaCO_3$) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3109a, lot #130213**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	51	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	2.01	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	76	Y	<5
Ca	MAJOR	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

13 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

7918077
ID: MEA_Ca_STK_00018
Exp: 02/25/26 Prpd: BMB
Calcium stock, 10,000 ug/

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Calcium (Ca) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M91

Product Lot #: 1427319

Source Material Lot #: CAZ052019A1

*Expiration Date: 25 February 2026

Element	Certified Concentration & Uncertainty
Ca	10,050 ± 35 µg/mL (w/v)
	9696 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure calcium carbonate ($CaCO_3$) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3109a, lot #130213**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	51	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	2.01	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	76	Y	<5
Ca	MAJOR	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

13 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

8033124

ID: MEA_Ca_STK_00018
Exp: 02/25/26 Prpd: BMB
Calcium stock, 10,000 ug/

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Calcium (Ca) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M91

Product Lot #: 1427319

Source Material Lot #: CAZ052019A1

*Expiration Date: 25 February 2026

Element	Certified Concentration & Uncertainty
Ca	10,050 ± 35 µg/mL (w/v)
	9696 ± 34 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure calcium carbonate ($CaCO_3$) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3109a, lot #130213**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	51	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	2.01	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	76	Y	<5
Ca	MAJOR	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

13 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Reagent

MEA_Cd_STK_00010

CPI INTERNATIONAL

7918097
ID: MEA_Cd_STK_00010
Exp: 04/22/26 Prpd:
Cadmium stock, 1,000 ug/m

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Cadmium (Cd) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-100081

Product Lot #: 1390098

Source Material Lot #: N15E17

*Expiration Date: 22 April 2026

Element	Certified Concentration & Uncertainty
Cd	999.0 ± 4.0 µg/mL (w/v)
	994.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure cadmium (Cd) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3108, lot #130116**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	1.053	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	MAJOR	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	4
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

8 May 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Co_STK_00014

CPI INTERNATIONAL

7778743
ID: MEA_Co_STK_00014
Exp: 06/10/26 Prpd:
Cobalt stock, 1.000 ug/mL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Cobalt (Co) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000131

Product Lot #: 1397158

Source Material Lot #: COD062020A1

*Expiration Date: 10 June 2026

Element	Certified Concentration & Uncertainty
Co	1001 ± 6 µg/mL (w/v)
	996.0 ± 6.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.998% pure cobalt (Co) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3113, lot #190630**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	MAJOR	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	62	Cr	<0.5	Hg	<0.5	Mn	2	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	5	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	5	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

26 June 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Cr_STK_00011



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Chromium (Cr) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000121

Product Lot #: 1430567

Source Material Lot #: M07F002/Z29H032

*Expiration Date: 12 November 2026

Element	Certified Concentration & Uncertainty
Cr	1003 ± 3 µg/mL (w/v)
	994.0 ± 3.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.996% pure chromium (Cr) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3112a, lot #170630**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	50	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	26	Cs	0.7	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	MAJOR	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	7	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	18	Er	<0.2	Ir	<0.2	Nb	3	Rb	2	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	101	La	<0.5	Ni	30	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	23
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

28 November 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEA_Cu_STK_00010

1/3/24

7759532
ID: MEA_Cu_STK_00010
Exp: 11/14/26 Prpd:
Copper stock, 1,000 ug/mL

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Copper (Cu) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000141

Product Lot #: 1427285

Source Material Lot #: CUD042023A1

*Expiration Date: 14 November 2026

Element	Certified Concentration & Uncertainty
Cu	1001 ± 4 µg/mL (w/v)
	997.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure copper (Cu) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3114, lot #120618**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	MAJO	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	0.4	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	4	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

30 November 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEA_Fe_STK_00016

Rec: 2/7/24

7802882
ID: MEA_Fe_STK_00016
Exp: 03/29/26 Prpd:
Iron stock, 10,000 ug/mL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Iron (Fe) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M261

Product Lot #: 1421665

Source Material Lot #: FED052022A1

*Expiration Date: 29 March 2026

Element	Certified Concentration & Uncertainty
Fe	10,030 ± 39 µg/mL (w/v)
	9631 ± 37 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure iron nitrate nonahydrate [$Fe(NO_3)_3$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3126a, lot #140812**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	18	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	9	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	MAJOR	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	11	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

12 April 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Fe_STK_00017



CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: TA-10M261

SE Std Iron (Fe) – 10,000 µg/mL

Product Lot #: 1421665

Matrix: 5% HNO_3

Source Material Lot #: FED052022A1

*Expiration Date: 29 March 2026

Element	Certified Concentration & Uncertainty
Fe	10,030 ± 39 µg/mL (w/v)
	9631 ± 37 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.999% pure iron nitrate nonahydrate [$Fe(NO_3)_3$] dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3126a, lot #140812**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	18	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	9	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	<5	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	MAJOR	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	11	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

12 April 2023

Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEA_K_STK_00012

7918100
ID: MEA_K_STK_00012
Exp: 01/02/26 Prpd:
Potassium stock, 10,000 u

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Potassium (K) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M411

Product Lot #: 1434171

Source Material Lot #: KD022021A1

*Expiration Date: 2 January 2026

Element	Certified Concentration & Uncertainty
K	9974 ± 48 µg/mL (w/v)
	9747 ± 47 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure potassium nitrate (KNO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3141a, lot #140813** The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	<5	Te	<10		
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20		
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5		
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2		
B	<50	Dy	<2	In	nd	Na	<250	Pt	<5	Sm	<2	V	<10		
Ba	16	Er	<2	Ir	<2	Nb	<5	Rb	53	Sn	<5	W	<5		
Bi	<2	Eu	<2	K	MAJOR	Nd	<2	Re	<2	Sr	<10	Y	<5		
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2		
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20		
Ce	<2	Gd	<2												

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

9 January 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard
Santa Rosa, CA 95403
P: 707.525.5788
P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P
1013BG Amsterdam
The Netherlands
P: +31 20 638 05 97
F: +31 20 420 28 36

Reagent

MEA_MG_STK_00011

ULTRA SCIENTIFIC
Analytical Solutions

Certificate of Analysis

4646900
ID: MEA_MG_STK_00011
Exp: 03/31/25 Prpd: KMP
Magnesium stock, 10,000 u

TRIPLE ISO CERTIFICATION ISO 17025 • ISO GUIDE 34 • ISO 9001 ULTRA

ISO Guide 34 Reference Material

Product Number: ICP-112
Lot Number: CS-0929

Lot Issue Date: 05 Mar 2018
Expiration Date: 31-Mar 2025

Product Name: Magnesium ICP Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under ULTRA Scientific's ISO 9001 registered quality system. The neat materials used for this product have been verified by ULTRA's ISO 17025 laboratory and under ULTRA's ISO Guide 34 accreditation. The analyte concentrations were verified by ULTRA's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
magnesium	magnesium nitrate hexahydrate	RM10800	99.999%	10000 ± 20 µg/mL	NIST SRM 3131; ICP-MS

Solvent: 2% nitric acid in low TOC water (< 50 ppb)

Non-Certified Values:

Density: 1.0541 g/mL @ 20.00 ± 0.05°C

Trace Metallic Impurities in Solution Standard in µg/mL

*	Al	<0.005 ND	*	Ga	<0.005 ND	n	Nb		n	S				
*	Sb	<0.005 ND	n	Ge		n	Os		n	Ta				
*	As	<0.005 ND	n	Au		*	Pd	<0.005 ND	n	Te				
*	Ba	<0.005 ND	n	Hf		*	P	<0.005 ND	n	Tb				
*	Be	<0.005 ND	n	Ho		*	Pt	<0.005 ND	*	Tl	<0.005 ND			
*	Bi	<0.005 ND	*	In	<0.005 ND	*	K	<0.005 ND	n	Th				
*	B	<0.005 ND	n	Ir		n	Pr		n	Tm				
*	Cd	<0.005 ND	*	Fe	<0.110 D	n	Re		*	Sn	<0.005 ND			
n	Cs		*	La	<0.005 ND	n	Rh		*	Ti	<0.005 ND			
*	Ca	<0.220 D	*	Pb	<0.005 ND	n	Rb		n	W				
n	Ce		*	Li	<0.005 ND	n	Ru		n	U				
*	Cr	<0.005 ND	n	Lu		n	Sm		*	V	<0.005 ND			
*	Co	<0.005 ND	s	Mg		n	Sc		n	Yb				
*	Cu	<0.005 ND	*	Mn	<0.005 ND	*	Se	<0.005 ND	n	Y				
n	Dy		*	Hg	<0.005 ND	*	Si	<0.005 ND	*	Zn	<0.005 ND			
*	Er	<0.005 ND	*	Mo	<0.005 ND	*	Ag	<0.005 ND	n	Zr				
*	Eu	<0.005 ND	n	Nd		*	Na	<0.005 ND						
*	Gd	<0.005 ND	*	Ni	<0.005 ND	*	Sr	<0.005 ND						

* - element checked; i - spectral interference; n – element not checked; D – element detected; ND – element not detected; s - standard element

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ANAB ACCREDITED TESTING LABORATORY

ISO 9001 Registered Quality System – TUV USA

250 SMITH STREET • NORTH KINGSTOWN, RHODE ISLAND 02852 • WWW.ULTRASCI.COM

Certificate of Analysis

ISO Guide 34 Reference Material

Product Number: ICP-112
Lot Number: CS-0929

Lot Issue Date: 05 Mar 2018
Expiration Date: 31-Mar 2025

Storage: Store at Room Temperature (15° to 30°C).

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, ULTRA Scientific will notify the purchaser.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED TESTING LABORATORY

Reagent

MEA_Mn_STK_00013

7918234
ID: MEA_Mn_STK_00013
Exp: 09/04/26 Prpd:
Manganese stock, 1,000 ug

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Manganese (Mn) – 1000 µg/mL

Matrix: 2% HNO_3

Product #: S4400-1000321

Lot #: 1421674

*Expiration Date: 4 September 2026

Element	Certified Concentration & Uncertainty
Mn	1002 ± 4 µg/mL (w/v)
	993.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.98% pure manganese (Mn). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3132, lot #210714**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	2	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1		
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2		
As	<2	Cr	11	Hg	<0.5	Mn	MAJOR	Pd	<0.5	Se	<2	Tl	<0.5		
Au	<0.5	Cu	<1	Ho	<0.2	Mo	0.6	Pr	<0.2	Si	<100	Tm	<0.2		
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1		
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5		
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2		
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	5		
Ce	<0.2	Gd	<0.2												

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

19 September 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Ni_STK_00008

7918068

ID: MEA_Ni_STK_00008
Exp: 01/31/26 Prpd:
Nickel stock, 1,000 ug/mL

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Nickel (Ni) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000361

Product Lot #: 1399080

Source Material Lot #: 61200762

*Expiration Date: 31 January 2026

Element	Certified Concentration & Uncertainty
Ni	998.0 ± 4.0 µg/mL (w/v)
	989.0 ± 4.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.996% pure nickel (Ni) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3136, lot #120619**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	45	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	MAJOR	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

14 February 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_PB_STK_00012

7918074
ID: MEA_PB_STK_00012
Exp: 12/18/26 Prpd:
Lead stock, 1,000 ug/mL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Lead (Pb) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000281

Product Lot #: 1429023

Source Material Lot #: M23J055

*Expiration Date: 18 September 2026

Element	Certified Concentration & Uncertainty
Pb	1006 ± 2 µg/mL (w/v)
	1003 ± 2 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure lead (Pb) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3128, lot #101026**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	52	Te	<1
Al	<2	Cs	<0.5	Hf	0.4	Mg	<5	Pb	MAJOR	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	2
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	1	W	<0.5
Bi	4	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	44	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

4 October 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

Reagent

MEA_Se_STK_00010



CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Selenium (Se) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000491

Product Lot #: 1428537

Source Material Lot #: SEV022020A1/SEV042018A1

*Expiration Date: 16 October 2026

Element	Certified Concentration & Uncertainty
Se	995.0 ± 6.0 µg/mL (w/v)
	983.0 ± 6.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure selenium (Se) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3149, lot #100901**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	1	Se	MAJOR	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	0.5	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

1 November 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements
  (Registrar: TUV NORD)

Reagent

MEH_1_STOCK_00005

7241262
ID: NEH_1_STOCK_00005
Exp: 05/30/25 Prpd: VAK
100 ppm Hg standard

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name:	Primary Safe Drinking Water Act no. 3, Mercury Standard	**Lot Number:**	0006684748
Product Number:	ICM-303	**Lot Issue Date:**	31-May-2022
Storage Conditions:	Store at Room Temperature (15° to 30°C). Light Sensitive.	**Expiration Date:**	30-Jun-2025

	CERTIFIED VALUES				
Component Name	Concentration		Expanded Uncertainty	CAS#	Analyte Lot
mercuric nitrate (ICP grade) (as mercury)	100.4	±	0.5 µg/mL	007783-34-8	RM11214

Matrix: water with dilute nitric acid

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / ISO 17025 accredited laboratory and compared to calibration standards independently prepared using NIST SRM(s) when available. The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Reagent

MEI_ABpt1_STK_00006

7791229
ID: MEI_ABpt1_STK_00006
Exp: 09/30/25 Prpd: NZG
CPI ICP ICSAB MIX sol 1 S

8

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-1

ICP ICSAB Mix Solution 1

Lot #: 1399525

Matrix: 5% HNO_3/0.5% HF

*Expiration Date: 30 June 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Mo	100.1 ± 0.5 mg/L	Si	1000 ± 5 mg/L	Ti	100.1 ± 0.5 mg/L
Sb	100.2 ± 0.5 mg/L	Sn	100.3 ± 0.5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Mo	1240650	Si	1289108	Ti	1091371
Sb	1162568	Sn	1116280		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see final page)**. The solution was diluted with filtered (0.22 µm), 18 M-ohm deionized water and stabilized the appropriate high-purity acid(s) as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see final page)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***18 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

11 September 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

CERTIFICATE OF ANALYSIS

Single-Element Aqueous RM

Thorium (Th) – 1000 µg/mL

Matrix: 2% HNO_3

Product #: S4400-1000591

Lot #: 1446012

*Expiration Date: 23 October 2025

Element	Certified Concentration & Uncertainty
Th	1001 ± 5 µg/mL (w/v)
	982.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a reference material (RM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This RM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This RM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using pure thorium nitrate [$Th(NO_3)_4$]. The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this RM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable method against an alternate lot as NIST SRM is not available. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	2	Te	<1		
Al	6	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2		
As	<2	Cr	2	Hg	<0.5	Mn	39	Pd	1	Se	<2	Tl	<0.5		
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	0.6	Si	<100	Tm	<0.2		
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1		
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	0.9	Sn	<0.5	W	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Nd	2	Re	2	Sr	<1	Y	<0.5		
Ca	<25	Fe	<10	La	2	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2		
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2		
Ce	5	Gd	<0.2												

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the RM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original RM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

5 May 2022

Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEI_ABpt2_STK_00005

7791230
ID: MEI_ABpt2_STK_00005
Exp: 10/21/25 Prpd: NZG
CPI ICP ICSAB MIX sol 2 S

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

Lot #: 1333445-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L
As	99.94 ± 0.50 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	99.99 ± 0.50 mg/L	Mn	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.1 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	100.0 ± 0.5 mg/L	Zn	99.98 ± 0.50 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Ag	1198373	Cr	1242583	Pb	992969
As	AN18-150ASX	Cu	1207839	Se	1285040
B	1237794	K	1287603	Sr	1244946
Ba	1216157	Mn	1136846	Tl	1059794
Be	1270256	Na	1245609	V	1139942
Cd	1240656	Ni	1084161	Zn	1149838
Co	1237802	P	1035677		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

CPI INTERNATIONAL

7791231
ID: MEI_ABpt2_STK_00005
Exp: 10/21/25 Prpd: NZG
CPI ICP ICSAB MIX sol 2 S

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSAB-2

ICP ICSAB Mix Solution 2

Lot #: 1333445-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Ag	100.0 ± 0.5 mg/L	Cr	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L
As	99.94 ± 0.50 mg/L	Cu	100.0 ± 0.5 mg/L	Se	100.0 ± 0.5 mg/L
B	1000 ± 5 mg/L	K	1000 ± 5 mg/L	Sr	100.0 ± 0.5 mg/L
Ba	99.99 ± 0.50 mg/L	Mn	100.0 ± 0.5 mg/L	Tl	100.0 ± 0.5 mg/L
Be	50.02 ± 0.25 mg/L	Na	1000 ± 5 mg/L	V	100.1 ± 0.5 mg/L
Cd	99.99 ± 0.50 mg/L	Ni	100.0 ± 0.5 mg/L	Zn	99.98 ± 0.50 mg/L
Co	100.0 ± 0.5 mg/L	P	1000 ± 5 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Ag	1198373	Cr	1242583	Pb	992969
As	AN18-150ASX	Cu	1207839	Se	1285040
B	1237794	K	1287603	Sr	1244946
Ba	1216157	Mn	1136846	Tl	1059794
Be	1270256	Na	1245609	V	1139942
Cd	1240656	Ni	1084161	Zn	1149838
Co	1237802	P	1035677		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MEI_Adj_A_STK_00012

7534547
ID: MEI_Adj_A_STK_00012
Exp: 11/01/24 Prpd:
CPI ICP ICSA MIX _

7534546
ID: MEI_Adj_A_STK_00012
Exp: 11/01/24 Prpd:
CPI ICP ICSA MIX _

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 1336399-1

Matrix: 5% HNO_3

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #
Al	1249289	Fe	1249266
Ca	1232112	Mg	1222806

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	1	Fe	MAJOR	Sb	10
Al	MAJOR	Hg	<0.5	Se	<2
As	<0.5	K	56	Sn	2
Ba	14	Li	<2	Sr	22
Be	<0.5	Mg	MAJOR	Th	<0.5
Ca	MAJOR	Mn	13	Ti	7
Cd	<0.5	Mo	2	Tl	<0.5
Co	7	Na	786	U	0.8
Cr	21	Ni	4	V	<2
Cu	4	Pb	3	Zn	20

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

7534547
ID: MEI_Adj_A_STK_00012
Exp: 11/01/24 Prod: vAK
CPI ICP ICSA MIX

TA-ICP-ICSA

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-ICP-ICSA

ICP ICSA Mix

Lot #: 1437074

Matrix: 5% HNO_3

*Expiration Date: 12 January 2026

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	5000 ± 25 mg/L	Fe	2000 ± 10 mg/L
Ca	5000 ± 25 mg/L	Mg	5000 ± 25 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #
Al	1369281	Fe	1249266
Ca	1344004	Mg	1222806

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side).** The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side).** The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Fe	MAJOR	Sb	<0.5
Al	MAJOR	Hg	<0.5	Se	<2
As	<0.5	K	<50	Sn	<0.5
Ba	23	Li	<2	Sr	34
Be	<0.5	Mg	MAJOR	Th	<0.5
Ca	MAJOR	Mn	11	Ti	<2
Cd	<0.5	Mo	<0.5	Tl	<0.5
Co	<0.5	Na	<50	U	<0.5
Cr	<1	Ni	<1	V	<2
Cu	<1	Pb	<0.5	Zn	<2

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MEI_Ag_1,000_00015

Agilent

7918069
ID: MEI_Ag_1,000_00015
Exp: 03/08/2[illegible] Prpd:
CPI Ag 1,000 Std

CERTIFICATE OF ANALYSIS

Agilent Product Name: Silver AA Standard: 1000 µg/mL Ag in 5% HNO_3
Agilent Part No: 5190-8309
Lot No: 1436096

Product Specifications

Analyte	Matrix	Certified Concentration
Ag	5% HNO_3	994.0 ± 3.0 µg/mL (w/v)
		988.0 ± 3.0 µg/g (w/w)

Storage Conditions: Store at Room Temperature (15°C to 30°C)

Intended Use: This solution is intended for use as a certified reference material or calibration standard for atomic absorption spectroscopy (flame AAS or graphite furnace AAS), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured under a quality management system that is accredited to **ISO 17034**, **ISO/IEC 17025**, and registered to **ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using an appropriate concentrate dissolved in high purity nitric acid (HNO_3) and diluted with ASTM Type I Water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST and both the certified concentration and uncertainty values are traceable to NIST SRM 3151, lot #160729. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: Agilent recommends that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy the analyst should: (1) use only pre-cleaned containers and transferware, (2) avoid pipetting directly from the CRM's original container, (3) use a minimum sub-sample size of 500 µL, (4) make dilutions using calibrated balances or certified volumetric class A flasks and pipettes, (5) dilute to volume using the same matrix as the original CRM, and (6) never pour used product back into the original container. The solution should be kept tightly capped. Store at controlled room temperature per USP 35 (10.30.60). Do not freeze, heat, or expose to direct sunlight. Minimize exposure to moisture or high humidity.

Period of Validity: Agilent ensures the accuracy of this solution until the expiration date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Date of Release:
24 March 2023

Date of Expiration:
Earlier of 8 March 2026 or 12 Months from Date opened.

Date Opened: _____

Sample lot approver:
Chuck Goudreau

Chuck Goudreau, Certifying Officer

Hazard Information: Refer to the Safety Data Sheet (SDS), which can be obtained at www.agilent.com/chem/sds.

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact Agilent for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is:

- Registered to ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. Reg. No. 44 100 16560231)
- Accredited to ISO 17034– General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35.
- Accredited to ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- LGC Standards, 276 Abby Road, Manchester, NH 03103

Reagent

MEI_Ag_1,000S_00004

Agilent

7918253
ID: MEI_Ag_1,000S_00004
Exp: 03/31/25 Prpd:
Agilent Ag 1,000 Std SS

CERTIFICATE OF ANALYSIS

Agilent Product Name: Silver AA Standard: 1000 µg/mL Ag in 5% HNO_3
Agilent Part No: 5190-8309
Lot No: 0133918917

Product Specifications

Analyte	Starting Material	CAS #	Matrix	Certified Concentration
Ag	Ag	7440-22-4	5% HNO_3	994.0 ± 3.0 µg/mL (w/v)
				988.0 ± 3.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material or calibration standard for atomic absorption spectroscopy (flame AAS or graphite furnace AAS), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured under a quality management system that is accredited to **ISO 17034**, **ISO/IEC 17025**, and registered to **ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.999% pure silver (Ag) dissolved in high purity nitric acid (HNO_3) and diluted with ASTM Type I Water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST and both the certified concentration and uncertainty values are traceable to NIST SRM 3151, lot #160729. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: Agilent recommends that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy the analyst should: (1) use only pre-cleaned containers and transferware, (2) avoid pipetting directly from the CRM's original container, (3) use a minimum sub-sample size of 500 µL, (4) make dilutions using calibrated balances or certified volumetric class A flasks and pipettes, (5) dilute to volume using the same matrix as the original CRM, and (6) never pour used product back into the original container. The solution should be kept tightly capped. Store at controlled room temperature per USP 35 (10.30.60). Do not freeze, heat, or expose to direct sunlight. Minimize exposure to moisture or high humidity.

Period of Validity: Agilent ensures the accuracy of this solution until the expiration date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Sample lot approver:

Chuck Goudreau

Chuck Goudreau, Certifying Officer

Date of release: 22 September 2023
Date of expiration: 31 March 2025

Hazard Information: Refer to the Safety Data Sheet (SDS), which can be obtained at www.agilent.com/chem/sds.

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with QSP 6-13 Assessment of Homogeneity and Stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact Agilent for further information about this CRM.

Quality Certifications: This CRM was prepared under a quality management system that is:

- Registered to ISO 9001 – Quality Management Systems – Requirements (TUV NORD Cert. Reg. No. 44 100 16560231)
- Accredited to ISO 17034– General Requirements for the Competence of Reference Material Producers (A2LA Cert. No. 2848.02)
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35.
- Accredited to ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories (A2LA Cert. No. 2848.01)
- LGC Standards, 276 Abby Road, Manchester, NH 03103

Reagent

MEI_B_1,000SS_00003

MEL
2/7/24

7918251
ID: MEI_B_1,000SS_00003
Exp: 12/21/25 Prpd:
CPI B 1,000 Std

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Boron (B) – 1000 µg/mL

Matrix: H_2O

Product #: TA-100074

Product Lot #: 1407219

Source Material Lot #: R20F050

*Expiration Date: 21 December 2025

Element	Certified Concentration & Uncertainty
B	995.0 ± 3.0 µg/mL (w/v)
	997.0 ± 3.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9995% pure boric acid (H_3BO_3) dissolved and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3107, lot #190605**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	2	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	MAJOR	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	0.7	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	18
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	16	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	8
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

9 January 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM
Ag	3151	-
Al	3101a	-
As	3103a	3103a
Au	3121	-
B	3107	3107
Ba	3104a	-
Be	3105a	3105a
Bi	3106	3106
Br^-	3184	-
Ca	3109a	3109a
Cd	3108	-
Ce	3110	3110
Cl^-	3182	1818a
Co	3113	3113
Cr	3112a	-
Cs	3111a	-
Cu	3114	-
Dy	3115a	-
Er	3116a	-
Eu	3117a	-
F^-	3183	-
Fe	3126a	-
Ga	3119a	-
Gd	3118a	-
Ge	3120a	-

Analyte	Aq. SRM	MO SRM
Hf	3122	-
Hg	3133	3133
Ho	3123a	-
In	3124a	3124a
K	3141a	3141a
La	3127a	3127a
Li	3129a	3129a
Lu	3130a	-
Mg	3131a	3131a
Mn	3132	3132
Mo	3134	3134
Na	3152a	-
Nb	3137	-
Nd	3135a	-
Ni	3136	-
NO_3^-	3185	-
P	3139a	3139a
Pb	3128	-
Pd	3138	-
PO_4^{-3}	3186	-
Pr	3142a	-
Pt	3140	3140
Rb	3145a	-
Re	3143	-
Rh	3144	3144

Analyte	Aq. SRM	MO SRM
S	3154	2770
Sb	3102a	3102a
Sc	3148a	3148a
Se	3149	3149
Si	3150	-
Sm	3147a	-
Sn	3161a	-
SO_4^{-2}	3181	-
Sr	3153a	3153a
Ta	3155	-
Tb	3157a	-
Te	3156	-
Th	-	-
Ti	3162a	3162a
Tl	3158	3158
Tm	3160a	-
U	3164	-
V	3165	-
W	3163	3163
Y	3167a	3167a
Yb	3166a	-
Zn	3168a	3168a
Zr	3169	3169

Reagent

MEI_Na_10,000_00008

CPI INTERNATIONAL

7918232
ID: MEI_Na_10,000_00008
Exp: 08/06/26 Prpd:
CPI Na 10,000 Std

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Sodium (Na) – 10,000 µg/mL

Matrix: 5% HNO_3

Product #: TA-10M521

Product Lot #: 1436521

Source Material Lot #: R04G043

*Expiration Date: 6 August 2026

Element	Certified Concentration & Uncertainty
Na	9958 ± 51 µg/mL (w/v)
	9679 ± 50 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	9	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	52	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	19	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 August 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements
  (Registrar: TUV NORD)

8005424
ID: MEi_Na_10,000_00008
Exp: 08/06/26 Prpd: BMB
CPI Na 10,000 Std

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: S4400-10M521

Sodium (Na) – 10,000 µg/mL

Lot #: 1433742

Matrix: 3% HNO_3

*Expiration Date: 6 August 2026

Element	Certified Concentration & Uncertainty
Na	9958 ± 51 µg/mL (w/v)
	9679 ± 50 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	9	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	52	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	19	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 August 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

8005423
ID: ME!_Na_10,000_00008
Exp: 08/06/26 Prpd: BMB
CPI Na 10,000 Std

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: S4400-10M521

Sodium (Na) – 10,000 µg/mL

Lot #: 1433742

Matrix: 3% HNO_3

*Expiration Date: 6 August 2026

Element	Certified Concentration & Uncertainty
Na	9958 ± 51 µg/mL (w/v)
	9679 ± 50 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	9	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	52	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	19	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 August 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

7918232
ID: MEI_Na_10,000_00008
Exp: 08/06/26 Prpd: BMB
CPI Na 10,000 Std

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

Product #: S4400-10M521

Sodium (Na) – 10,000 µg/mL

Lot #: 1433742

Matrix: 3% HNO_3

*Expiration Date: 6 August 2026

Element	Certified Concentration & Uncertainty
Na	9958 ± 51 µg/mL (w/v)
	9679 ± 50 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034**, **ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 10,000 µg/mL by gravimetric methods using 99.997% pure sodium carbonate (Na_2CO_3). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3152a, lot #200413**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<5	Co	<10	Ge	<5	Lu	<2	P	<1000	Sb	9	Te	<10
Al	<20	Cs	<5	Hf	<2	Mg	<50	Pb	<10	Sc	<50	Ti	<20
As	<20	Cr	<5	Hg	<5	Mn	<10	Pd	<5	Se	<20	Tl	<5
Au	<5	Cu	<10	Ho	<2	Mo	<5	Pr	<2	Si	<1000	Tm	<2
B	52	Dy	<2	In	nd	Na	MAJOR	Pt	<5	Sm	<2	V	<10
Ba	<10	Er	<2	Ir	<2	Nb	<5	Rb	<5	Sn	19	W	<5
Bi	<2	Eu	<2	K	<250	Nd	<2	Re	<2	Sr	<10	Y	<5
Ca	<250	Fe	<100	La	<5	Ni	<20	Rh	<5	Ta	<5	Yb	<2
Cd	<5	Ga	<5	Li	<20	Os	<5	Ru	<5	Tb	<5	Zn	<20
Ce	<2	Gd	<2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 August 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

MEI_Zn_1,000_00012

1/3/24

7758420

ID: MEI_Zn_1,000_00012

Exp: 01/01/25 Prpd:

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 2% HNO_3

Product #: TA-1000681-SS

Product Lot #: 711727255-1

Source Material Lot #: 2136117-500

Element	Certified Concentration & Uncertainty
Zn	1000 ± 3 µg/mL (w/v)
	988.1 ± 3.0 µg/g (w/w)

Intended Use: This solution is intended for use as a second source certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.02	Co	<0.05	Ge	<0.02	Mg	<0.1	Pd	<0.02	Si	<5	V	<0.05
Al	<0.05	Cr	<0.05	Hf	<0.02	Mn	<0.05	Pr	<0.02	Sm	<0.02	W	<0.02
As	<0.05	Cs	<0.02	Hg	Nd	Mo	<0.02	Pt	<0.02	Sn	<0.5	Y	<0.02
Au	<0.02	Cu	<0.02	Ho	<0.02	Na	<3	Rb	<0.02	Sr	<0.02	Yb	<0.02
B	<1	Dy	<0.02	In	<0.02	Nb	<0.02	Re	<0.02	Ta	<0.02	Zn	Major
Ba	<0.02	Er	<0.02	Ir	<0.02	Nd	<0.02	Rh	<0.02	Tb	<0.02		
Bi	<0.02	Eu	<0.02	K	<1	Ni	<0.2	Ru	<0.3	Te	<0.4		
Ca	<1	Fe	<1	La	<0.02	Os	<0.02	Sb	<0.02	Ti	<0.02		
Cd	<0.4	Ga	<0.02	Li	<0.02	P	Nd	Sc	<0.02	Tl	<0.02		
Ce	<0.02	Gd	<0.02	Lu	<0.02	Pb	3	Se	<0.1	Tm	<0.02		

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

July 20, 2023

Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

9/13/24

7758420

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000681

Lot #: 1390097

Source Material Lot #: Y28D045

*Expiration Date: 5 March 2026

Element	Certified Concentration & Uncertainty
Zn	998.0 ± 5.0 µg/mL (w/v)
	986.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	MAJOR
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI international ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023

Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000681

Lot #: 1216101-73

Source Material Lot #: X17E073/M15F020/Y28D045

Element	Certified Concentration & Uncertainty
Zn	1010 ± 6 µg/mL (w/v)
	1002 ± 6 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1		
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2		
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5		
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2		
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1		
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5		
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5		
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2		
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	MAJOR		
Ce	<0.2	Gd	<0.2												

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau, Certifying Officer

June 26, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Reagent

MEI_Zn_1,000_00013

2/7/24

7802884
ID: MEI_Zn_1,000_00013
Exp: 03/05/26 Prpd:
CPI Zn 1,000 Std

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000681

Lot #: 1398666

Source Material Lot #: Y28D045

*Expiration Date: 5 March 2026

Element	Certified Concentration & Uncertainty
Zn	998.0 ± 5.0 µg/mL (w/v)
	986.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629.** The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	MAJOR
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

MEI_Zn_1,000S_00003

7918252

ID: MEI_Zn_1,000S_00003
Exp: 03/05/26 Prpd:
CPI Zn 1,000 Std SS

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM

SE Std Zinc (Zn) – 1000 µg/mL

Matrix: 5% HNO_3

Product #: TA-1000681

Lot #: 1459124

Source Material Lot #: Y28D045

*Expiration Date: 5 March 2026

Element	Certified Concentration & Uncertainty
Zn	998.0 ± 5.0 µg/mL (w/v)
	986.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.9999% pure zinc (Zn) dissolved in high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3168a, lot #120629**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	<0.5	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	<0.5	Te	<1
Al	<2	Cs	<0.5	Hf	<0.2	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	<0.5	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	<0.5	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	<0.5	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	MAJOR
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

21 March 2023
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br^-	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

Spike Mx 1_00005

rec 7/1/24

7983826
ID: Spike Mix 1_00005
Exp: 07/01/25 Prpd:
Metals spike mix #1

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 1421974

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 10 December 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Sn	1116280
Ba	1353868	Mn	1294994	Sr	1244946
Be	1165784	Mo	1120495	Ti	1279907
Cd	1378234	Ni	1084161	Tl	1222802
Co	1375613	Pb	1382458	V	1294996
Cr	1361547	Se	1396823		
Cu	1353861	Si	1386111		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see last page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

rec 7/11/24

7983826
ID: Spike Mx 1_00005
Exp: 07/01/25 Prpd:
Metals spike mix #1

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE1+

Spike Mix # 1

Lot #: 1421974

Matrix: 5% HNO_3/tr. HF

*Expiration Date: 10 December 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
As	200.0 ± 1.0 mg/L	Li	100.0 ± 0.5 mg/L	Sn	200.0 ± 1.0 mg/L
Ba	200.0 ± 1.0 mg/L	Mn	100.0 ± 0.5 mg/L	Sr	100.0 ± 0.5 mg/L
Be	100.0 ± 0.5 mg/L	Mo	100.0 ± 0.5 mg/L	Ti	100.0 ± 0.5 mg/L
Cd	100.0 ± 0.5 mg/L	Ni	100.0 ± 0.5 mg/L	Tl	200.0 ± 1.0 mg/L
Co	100.0 ± 0.5 mg/L	Pb	100.0 ± 0.5 mg/L	V	100.0 ± 0.5 mg/L
Cr	100.0 ± 0.5 mg/L	Se	200.0 ± 1.0 mg/L		
Cu	100.0 ± 0.5 mg/L	Si	200.0 ± 1.0 mg/L		

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
As	1338706	Li	1316990	Sn	1116280
Ba	1353868	Mn	1294994	Sr	1244946
Be	1165784	Mo	1120495	Ti	1279907
Cd	1378234	Ni	1084161	Tl	1222802
Co	1375613	Pb	1382458	V	1294996
Cr	1361547	Se	1396823		
Cu	1353861	Si	1386111		

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see last page)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for the assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
  - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

This CRM is traceable to the following NIST SRMs:

Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM	Analyte	Aq. SRM	MO SRM
Ag	3151	-	Hf	3122	-	S	3154	2770
Al	3101a	-	Hg	3133	3133	Sb	3102a	3102a
As	3103a	3103a	Ho	3123a	-	Sc	3148a	3148a
Au	3121	-	In	3124a	3124a	Se	3149	3149
B	3107	3107	K	3141a	3141a	Si	3150	-
Ba	3104a	-	La	3127a	3127a	Sm	3147a	-
Be	3105a	3105a	Li	3129a	3129a	Sn	3161a	-
Bi	3106	3106	Lu	3130a	-	SO_4^{-2}	3181	-
Br	3184	-	Mg	3131a	3131a	Sr	3153a	3153a
Ca	3109a	3109a	Mn	3132	3132	Ta	3155	-
Cd	3108	-	Mo	3134	3134	Tb	3157a	-
Ce	3110	3110	Na	3152a	-	Te	3156	-
Cl^-	3182	1818a	Nb	3137	-	Th	-	-
Co	3113	3113	Nd	3135a	-	Ti	3162a	3162a
Cr	3112a	-	Ni	3136	-	Tl	3158	3158
Cs	3111a	-	NO_3^-	3185	-	Tm	3160a	-
Cu	3114	-	P	3139a	3139a	U	3164	-
Dy	3115a	-	Pb	3128	-	V	3165	-
Er	3116a	-	Pd	3138	-	W	3163	3163
Eu	3117a	-	PO_4^{-3}	3186	-	Y	3167a	3167a
F^-	3183	-	Pr	3142a	-	Yb	3166a	-
Fe	3126a	-	Pt	3140	3140	Zn	3168a	3168a
Ga	3119a	-	Rb	3145a	-	Zr	3169	3169
Gd	3118a	-	Re	3143	-			
Ge	3120a	-	Rh	3144	3144			

Reagent

Spike Mx 2_00003

7909: 78
ID: Spike Mx 2_00003
Exp: 06/28/. 5 Prpd:
Metals spike mix #2

rec 5/2/24

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

Multi-Element Aqueous CRM

Product #: TA-SPIKE2

Spike Mix # 2

Lot #: 1421976

Matrix: 5% HNO_3

*Expiration Date: 28 June 2025

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
Al	1000 ± 5 mg/L	Fe	1000 ± 5 mg/L	Mg	5000 ± 25 mg/L
Ca	5000 ± 25 mg/L	K	5000 ± 25 mg/L	Na	5000 ± 25 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #	Element	Source Material Lot #
Al	1369281	Fe	1249266	Mg	1222806
Ca	1344004	K	1367374	Na	1369048

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to, **ISO 17034**, **ISO/IEC 17025** and **ISO 9001**.This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution until the date shown above or ***12 Months** from the date opened, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

5 January 2024
Certification Date

Date Opened

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Reagent

Spike Mx 3_00003

7909279
ID: Spike Mx 3_00003
Exp: 10/25/25 Prpd:
Metals spike mix #3

CPI INTERNATIONAL

CERTIFICATE OF ANALYSIS

rec 4/29/24

Multi-Element Aqueous CRM

Product #: TA-SPIKE3

Spike Mix # 3

Lot #: 1269542-1

Matrix: 5% HNO_3/tr. HF

Element	Certified Concentration & Uncertainty	Element	Certified Concentration & Uncertainty
P	2000 ± 10 mg/L	U	200.0 ± 1.0 mg/L
S	1000 ± 5 mg/L	W	100.0 ± 0.5 mg/L

Source Material Lot # Chart

Element	Source Material Lot #	Element	Source Material Lot #
P	1225600	U	1176531
S	1207779	W	1130700

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 9001**, **ISO 17034**, and **ISO/IEC 17025**. This CRM was prepared to the certified concentrations shown above by gravimetric methods, using single-element concentrates that were certified using the "High Performance ICP-OES" protocol developed by NIST and are directly traceable to **NIST SRMs (see reverse side)**. The solution was stabilized using high purity nitric acid (HNO_3), trace hydrofluoric acid (HF) and diluted with filtered (0.22 µm), 18 M-ohm deionized water. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentrations were determined based upon gravimetric procedures. Secondary verification of the certified concentrations was performed using ICP-OES that was calibrated and/or referenced against **NIST SRMs (see reverse side)**. The uncertainty associated with each certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

April 25, 2024
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

www.cpiinternational.com

Reagent

Vinyl Acetate_00357

List 1 /std#6 357-366

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No.: 569724 **Lot No.:** A0209567

Description: 8260 List 1 / Std #6 Vinyl Acetate (2015)

3260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size: 2 mL **Pkg Amt:** > 1 mL

Expiration Date: September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RP231030CTH	98%	5,034.8 µg/mL	+/- 173.9777

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tip

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters can react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Carrier Gas:
hydrogen-carrier, constant pressure, 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 320°C
@ 8°C/min. (hold 10 min.)

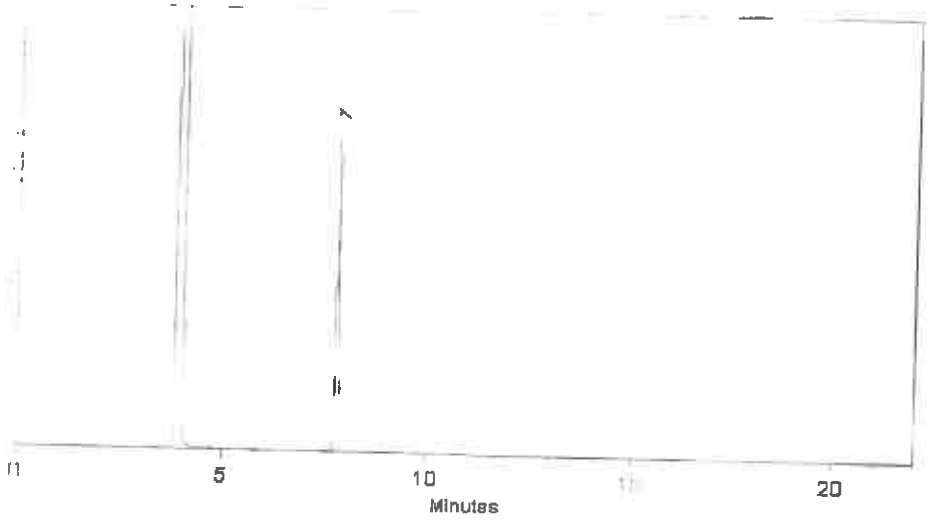
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Sensitivity:

Inj. Vol:
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your system, instrument, method, and application.

Mixed:

Chemist: Chemist Tech III - ARM QC

Date Passed:

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, IR, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the compound in solution.
- Purity is the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

is a coverage factor of 2, which gives a level of confidence of approximately 95%.

The minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the labeled amount can be sufficiently transferred.

Manufacturing Notes:

Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily with NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration date listed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with standards packaged in 2mL amounts. Larger volume deactivated vials are available through Restek as a custom order item. Additionally, Restek supplies DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- Warm the unopened ampul, sonicate the unopened ampul until the material is completely

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): ZB-624 (20) ID: 0.18(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
MW-01	480-222377-1	96	97	102	95
MW-02	480-222377-2	101	101	107	101
MW-03	480-222377-3	101	102	108	102
MW-04	480-222377-4	101	103	107	100
MW-04 DL	480-222377-4 DL	98	104	109	99
MW-05R	480-222377-5	100	105	107	100
MW-06	480-222377-6	103	106	108	101
MW-07	480-222377-7	95	98	102	94
DRUM	480-222377-8	99	99	104	95
DUP	480-222377-9	97	100	103	94
	MB 480-721476/8	99	98	108	102
	MB 480-721538/8	104	104	106	104
	LCS 480-721476/6	104	105	110	104
	LCS 480-721538/6	97	98	102	98
MW-05R MS	480-222377-5 MS	98	101	101	98
MW-05R MSD	480-222377-5 MSD	99	102	102	95

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	75-123
DCA = 1,2-Dichloroethane-d4 (Surr)	77-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	73-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1153.d

Lab ID: LCS 480-721476/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	27.9	112	73-126	
1,1,2,2-Tetrachloroethane	25.0	27.0	108	76-120	
1,1,2-Trichloroethane	25.0	27.6	110	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.8	115	61-148	
1,1-Dichloroethane	25.0	28.1	112	77-120	
1,1-Dichloroethene	25.0	27.8	111	66-127	
1,2,4-Trichlorobenzene	25.0	27.1	108	79-122	
1,2-Dibromo-3-Chloropropane	25.0	27.1	108	56-134	
1,2-Dibromoethane	25.0	27.0	108	77-120	
1,2-Dichlorobenzene	25.0	27.1	108	80-124	
1,2-Dichloroethane	25.0	24.8	99	75-120	
1,2-Dichloropropane	25.0	28.0	112	76-120	
1,3-Dichlorobenzene	25.0	26.7	107	77-120	
1,4-Dichlorobenzene	25.0	26.2	105	80-120	
2-Hexanone	125	129	103	65-127	
2-Butanone (MEK)	125	144	115	57-140	
4-Methyl-2-pentanone (MIBK)	125	136	109	71-125	
Acetone	125	143	115	56-142	
Benzene	25.0	27.6	110	71-124	
Bromodichloromethane	25.0	26.7	107	80-122	
Bromoform	25.0	25.2	101	61-132	
Bromomethane	25.0	25.5	102	55-144	
Carbon disulfide	25.0	28.4	114	59-134	
Carbon tetrachloride	25.0	28.2	113	72-134	
Chlorobenzene	25.0	27.2	109	80-120	
Dibromochloromethane	25.0	26.3	105	75-125	
Chloroethane	25.0	27.9	112	69-136	
Chloroform	25.0	25.3	101	73-127	
Chloromethane	25.0	27.6	111	68-124	
cis-1,2-Dichloroethene	25.0	26.7	107	74-124	
cis-1,3-Dichloropropene	25.0	27.7	111	74-124	
Cyclohexane	25.0	31.1	124	59-135	
Dichlorodifluoromethane	25.0	24.3	97	59-135	
Ethylbenzene	25.0	28.2	113	77-123	
Isopropylbenzene	25.0	29.3	117	77-122	
Methyl acetate	50.0	53.4	107	74-133	
Methyl tert-butyl ether	25.0	25.6	102	77-120	
Methylcyclohexane	25.0	30.7	123	68-134	
Methylene Chloride	25.0	27.7	111	75-124	
Styrene	25.0	27.6	110	80-120	
Tetrachloroethene	25.0	28.4	114	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1153.d

Lab ID: LCS 480-721476/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	25.0	28.2	113	80-122	
trans-1,2-Dichloroethene	25.0	27.7	111	73-127	
Trichloroethene	25.0	27.0	108	74-123	
Trichlorofluoromethane	25.0	26.5	106	62-150	
Vinyl chloride	25.0	28.5	114	65-133	
Xylenes, Total	50.0	55.4	111	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1184.d

Lab ID: LCS 480-721538/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	23.4	94	73-126	
1,1,2,2-Tetrachloroethane	25.0	22.5	90	76-120	
1,1,2-Trichloroethane	25.0	23.7	95	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.6	86	61-148	
1,1-Dichloroethane	25.0	24.1	96	77-120	
1,1-Dichloroethene	25.0	23.1	92	66-127	
1,2,4-Trichlorobenzene	25.0	24.7	99	79-122	
1,2-Dibromo-3-Chloropropane	25.0	23.3	93	56-134	
1,2-Dibromoethane	25.0	23.7	95	77-120	
1,2-Dichlorobenzene	25.0	23.5	94	80-124	
1,2-Dichloroethane	25.0	22.2	89	75-120	
1,2-Dichloropropane	25.0	24.5	98	76-120	
1,3-Dichlorobenzene	25.0	23.2	93	77-120	
1,4-Dichlorobenzene	25.0	22.7	91	80-120	
2-Hexanone	125	119	96	65-127	
2-Butanone (MEK)	125	138	110	57-140	
4-Methyl-2-pentanone (MIBK)	125	119	95	71-125	
Acetone	125	149	119	56-142	
Benzene	25.0	24.1	96	71-124	
Bromodichloromethane	25.0	23.6	94	80-122	
Bromoform	25.0	21.9	88	61-132	
Bromomethane	25.0	21.3	85	55-144	
Carbon disulfide	25.0	24.0	96	59-134	
Carbon tetrachloride	25.0	23.7	95	72-134	
Chlorobenzene	25.0	23.6	94	80-120	
Dibromochloromethane	25.0	23.1	92	75-125	
Chloroethane	25.0	23.0	92	69-136	
Chloroform	25.0	22.0	88	73-127	
Chloromethane	25.0	22.5	90	68-124	
cis-1,2-Dichloroethene	25.0	23.7	95	74-124	
cis-1,3-Dichloropropene	25.0	24.9	100	74-124	
Cyclohexane	25.0	23.8	95	59-135	
Dichlorodifluoromethane	25.0	16.2	65	59-135	
Ethylbenzene	25.0	24.3	97	77-123	
Isopropylbenzene	25.0	25.1	100	77-122	
Methyl acetate	50.0	46.0	92	74-133	
Methyl tert-butyl ether	25.0	22.8	91	77-120	
Methylcyclohexane	25.0	23.8	95	68-134	
Methylene Chloride	25.0	24.1	97	75-124	
Styrene	25.0	24.7	99	80-120	
Tetrachloroethene	25.0	24.4	97	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1184.d

Lab ID: LCS 480-721538/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Toluene	25.0	24.5	98	80-122	
trans-1,2-Dichloroethene	25.0	24.2	97	73-127	
Trichloroethene	25.0	23.7	95	74-123	
Trichlorofluoromethane	25.0	20.8	83	62-150	
Vinyl chloride	25.0	22.8	91	65-133	
Xylenes, Total	50.0	48.8	98	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1174.d

Lab ID: 480-222377-5 MS Client ID: MW-05R MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	ND	29.0	116	73-126	
1,1,2,2-Tetrachloroethane	25.0	ND	26.5	106	76-120	
1,1,2-Trichloroethane	25.0	ND	26.2	105	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	ND	30.3	121	61-148	
1,1-Dichloroethane	25.0	ND	29.0	116	77-120	
1,1-Dichloroethene	25.0	ND	29.7	119	66-127	
1,2,4-Trichlorobenzene	25.0	ND	28.7	115	79-122	
1,2-Dibromo-3-Chloropropane	25.0	ND	26.0	104	56-134	
1,2-Dibromoethane	25.0	ND	25.7	103	77-120	
1,2-Dichlorobenzene	25.0	ND	26.8	107	80-124	
1,2-Dichloroethane	25.0	ND	25.7	103	75-120	
1,2-Dichloropropane	25.0	ND	28.2	113	76-120	
1,3-Dichlorobenzene	25.0	ND	27.2	109	77-120	
1,4-Dichlorobenzene	25.0	ND	26.5	106	78-124	
2-Hexanone	125	ND	135	108	65-127	
2-Butanone (MEK)	125	ND	160	128	57-140	
4-Methyl-2-pentanone (MIBK)	125	ND	135	108	71-125	
Acetone	125	ND	173	138	56-142	
Benzene	25.0	ND	28.3	113	71-124	
Bromodichloromethane	25.0	ND	26.3	105	80-122	
Bromoform	25.0	ND	23.5	94	61-132	
Bromomethane	25.0	ND	22.6	90	55-144	
Carbon disulfide	25.0	ND	27.9	112	59-134	
Carbon tetrachloride	25.0	ND	29.1	116	72-134	
Chlorobenzene	25.0	ND	27.4	110	80-120	
Dibromochloromethane	25.0	ND	24.2	97	75-125	
Chloroethane	25.0	ND	28.4	114	69-136	
Chloroform	25.0	0.66 J	26.6	104	73-127	
Chloromethane	25.0	ND	28.4	114	68-124	
cis-1,2-Dichloroethene	25.0	ND	28.2	113	74-124	
cis-1,3-Dichloropropene	25.0	ND	25.8	103	74-124	
Cyclohexane	25.0	ND	33.2	133	59-135	
Dichlorodifluoromethane	25.0	ND	22.8	91	59-135	
Ethylbenzene	25.0	ND	28.4	114	77-123	
Isopropylbenzene	25.0	ND	29.7	119	77-122	
Methyl acetate	50.0	ND	51.2	102	74-133	
Methyl tert-butyl ether	25.0	ND	25.9	104	77-120	
Methylcyclohexane	25.0	ND	32.1	128	68-134	
Methylene Chloride	25.0	ND	28.4	114	75-124	
Styrene	25.0	ND	28.6	114	80-120	
Tetrachloroethene	25.0	ND	28.7	115	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1174.d

Lab ID: 480-222377-5 MS Client ID: MW-05R MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	25.0	ND	27.5	110	80-122	
trans-1,2-Dichloroethene	25.0	ND	29.3	117	73-127	
Trichloroethene	25.0	ND	27.8	111	74-123	
Trichlorofluoromethane	25.0	ND	27.0	108	62-150	
Vinyl chloride	25.0	ND	29.3	117	65-133	
Xylenes, Total	50.0	ND	57.1	114	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1175.d

Lab ID: 480-222377-5 MSD Client ID: MW-05R MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	25.0	28.1	112	3	15	73-126	
1,1,2,2-Tetrachloroethane	25.0	26.0	104	2	15	76-120	
1,1,2-Trichloroethane	25.0	26.3	105	0	15	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	30.3	121	0	20	61-148	
1,1-Dichloroethane	25.0	28.0	112	4	20	77-120	
1,1-Dichloroethene	25.0	29.2	117	2	16	66-127	
1,2,4-Trichlorobenzene	25.0	27.2	109	5	20	79-122	
1,2-Dibromo-3-Chloropropane	25.0	25.0	100	4	15	56-134	
1,2-Dibromoethane	25.0	25.7	103	0	15	77-120	
1,2-Dichlorobenzene	25.0	26.3	105	2	20	80-124	
1,2-Dichloroethane	25.0	24.9	100	3	20	75-120	
1,2-Dichloropropane	25.0	27.6	110	2	20	76-120	
1,3-Dichlorobenzene	25.0	26.5	106	3	20	77-120	
1,4-Dichlorobenzene	25.0	25.9	104	2	20	78-124	
2-Hexanone	125	134	107	1	15	65-127	
2-Butanone (MEK)	125	152	122	5	20	57-140	
4-Methyl-2-pentanone (MIBK)	125	134	108	1	35	71-125	
Acetone	125	153	123	12	15	56-142	
Benzene	25.0	28.0	112	1	13	71-124	
Bromodichloromethane	25.0	26.0	104	1	15	80-122	
Bromoform	25.0	22.3	89	5	15	61-132	
Bromomethane	25.0	23.5	94	4	15	55-144	
Carbon disulfide	25.0	26.8	107	4	15	59-134	
Carbon tetrachloride	25.0	28.4	114	2	15	72-134	
Chlorobenzene	25.0	26.8	107	2	25	80-120	
Dibromochloromethane	25.0	24.1	96	0	15	75-125	
Chloroethane	25.0	27.9	112	2	15	69-136	
Chloroform	25.0	26.3	102	1	20	73-127	
Chloromethane	25.0	27.8	111	2	15	68-124	
cis-1,2-Dichloroethene	25.0	26.9	107	5	15	74-124	
cis-1,3-Dichloropropene	25.0	25.8	103	0	15	74-124	
Cyclohexane	25.0	32.5	130	2	20	59-135	
Dichlorodifluoromethane	25.0	23.4	94	2	20	59-135	
Ethylbenzene	25.0	28.0	112	1	15	77-123	
Isopropylbenzene	25.0	29.4	118	1	20	77-122	
Methyl acetate	50.0	48.4	97	6	20	74-133	
Methyl tert-butyl ether	25.0	25.3	101	2	37	77-120	
Methylcyclohexane	25.0	32.8	131	2	20	68-134	
Methylene Chloride	25.0	28.0	112	1	15	75-124	
Styrene	25.0	27.4	110	4	20	80-120	
Tetrachloroethene	25.0	28.0	112	2	20	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Level: Low Lab File ID: S1175.d

Lab ID: 480-222377-5 MSD Client ID: MW-05R MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	25.0	27.4	110	0	15	80-122	
trans-1,2-Dichloroethene	25.0	28.6	114	2	20	73-127	
Trichloroethene	25.0	27.8	111	0	16	74-123	
Trichlorofluoromethane	25.0	26.9	108	0	20	62-150	
Vinyl chloride	25.0	27.9	112	5	15	65-133	
Xylenes, Total	50.0	55.3	111	3	16	76-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab File ID: S1155.d Lab Sample ID: MB 480-721476/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: HP5973S Date Analyzed: 08/12/2024 22:17

GC Column: ZB-624 (20) ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-721476/6	S1153.d	08/12/2024 21:31
MW-01	480-222377-1	S1156.d	08/12/2024 22:40
MW-02	480-222377-2	S1157.d	08/12/2024 23:03
MW-03	480-222377-3	S1158.d	08/12/2024 23:27
MW-04	480-222377-4	S1159.d	08/12/2024 23:50
MW-05R	480-222377-5	S1160.d	08/13/2024 00:14
MW-06	480-222377-6	S1161.d	08/13/2024 00:37
MW-07	480-222377-7	S1162.d	08/13/2024 01:01
DUP	480-222377-9	S1164.d	08/13/2024 01:47
MW-05R MS	480-222377-5 MS	S1174.d	08/13/2024 05:41
MW-05R MSD	480-222377-5 MSD	S1175.d	08/13/2024 06:05

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab File ID: S1187.d Lab Sample ID: MB 480-721538/8

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: HP5973S Date Analyzed: 08/13/2024 11:55

GC Column: ZB-624 (20) ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-721538/6	S1184.d	08/13/2024 10:45
MW-04 DL	480-222377-4 DL	S1195.d	08/13/2024 15:18
DRUM	480-222377-8	S1196.d	08/13/2024 15:41

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab File ID: S0979.d BFB Injection Date: 08/07/2024

Instrument ID: HP5973S BFB Injection Time: 14:57

Analysis Batch No.: 720900

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.1	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	Greater than 50% of mass 95	84.8	
175	5.0 - 9.0 % of mass 174	6.5	(7.6) 1
176	95.0 - 101.0 % of mass 174	83.6	(98.6) 1
177	5.0 - 9.0 % of mass 176	4.8	(5.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 480-720900/13	S0981.d	08/07/2024	15:47
	IC 480-720900/14	S0982.d	08/07/2024	16:11
	IC 480-720900/15	S0983.d	08/07/2024	16:34
	IC 480-720900/16	S0984.d	08/07/2024	16:58
	IC 480-720900/17	S0985.d	08/07/2024	17:21
	ICIS 480-720900/18	S0986.d	08/07/2024	17:45
	IC 480-720900/19	S0987.d	08/07/2024	18:08
	IC 480-720900/20	S0988.d	08/07/2024	18:31
	ICV 480-720900/34	S1002.d	08/07/2024	23:58

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab File ID: S1149.d BFB Injection Date: 08/12/2024

Instrument ID: HP5973S BFB Injection Time: 19:58

Analysis Batch No.: 721476

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.6	
75	30.0 - 60.0 % of mass 95	47.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	84.8	
175	5.0 - 9.0 % of mass 174	6.6	(7.8) 1
176	95.0 - 101.0 % of mass 174	82.5	(97.3) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-721476/4	S1151.d	08/12/2024	20:44
	LCS 480-721476/6	S1153.d	08/12/2024	21:31
	MB 480-721476/8	S1155.d	08/12/2024	22:17
MW-01	480-222377-1	S1156.d	08/12/2024	22:40
MW-02	480-222377-2	S1157.d	08/12/2024	23:03
MW-03	480-222377-3	S1158.d	08/12/2024	23:27
MW-04	480-222377-4	S1159.d	08/12/2024	23:50
MW-05R	480-222377-5	S1160.d	08/13/2024	0:14
MW-06	480-222377-6	S1161.d	08/13/2024	0:37
MW-07	480-222377-7	S1162.d	08/13/2024	1:01
DUP	480-222377-9	S1164.d	08/13/2024	1:47
MW-05R MS	480-222377-5 MS	S1174.d	08/13/2024	5:41
MW-05R MSD	480-222377-5 MSD	S1175.d	08/13/2024	6:05

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab File ID: S1181.d BFB Injection Date: 08/13/2024

Instrument ID: HP5973S BFB Injection Time: 09:18

Analysis Batch No.: 721538

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	22.2	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.1	(0.2) 1
174	Greater than 50% of mass 95	82.8	
175	5.0 - 9.0 % of mass 174	6.2	(7.4) 1
176	95.0 - 101.0 % of mass 174	79.3	(95.8) 1
177	5.0 - 9.0 % of mass 176	5.6	(7.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-721538/4	S1182.d	08/13/2024	9:44
	LCS 480-721538/6	S1184.d	08/13/2024	10:45
	MB 480-721538/8	S1187.d	08/13/2024	11:55
MW-04 DL	480-222377-4 DL	S1195.d	08/13/2024	15:18
DRUM	480-222377-8	S1196.d	08/13/2024	15:41

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Sample No.: ICIS 480-720900/18 Date Analyzed: 08/07/2024 17:45

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm)

Lab File ID (Standard): S0986.d Heated Purge: (Y/N) N

Calibration ID: 46994

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		164820	4.76	396865	7.71	434691	10.15
UPPER LIMIT		329640	4.93	793730	7.88	869382	10.32
LOWER LIMIT		82410	4.59	198433	7.54	217346	9.99
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 480-721476/4		164890	4.76	380111	7.71	422725	10.15
CCVIS 480-721538/4		169686	4.76	389313	7.71	421814	10.15

FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.167 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Sample No.: CCVIS 480-721476/4 Date Analyzed: 08/12/2024 20:44

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm)

Lab File ID (Standard): S1151.d Heated Purge: (Y/N) N

Calibration ID: 46997

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		164890	4.76	380111	7.71	422725	10.15
UPPER LIMIT		329780	4.93	760222	7.88	845450	10.32
LOWER LIMIT		82445	4.59	190056	7.54	211363	9.99
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 480-721476/6		158286	4.76	357329	7.71	395471	10.15
MB 480-721476/8		159227	4.76	347209	7.71	390856	10.15
480-222377-1	MW-01	160964	4.76	365912	7.71	405024	10.15
480-222377-2	MW-02	151790	4.76	346111	7.71	375151	10.15
480-222377-3	MW-03	154898	4.76	345646	7.71	376974	10.15
480-222377-4	MW-04	152109	4.76	347249	7.71	380968	10.15
480-222377-5	MW-05R	155502	4.76	352809	7.71	379854	10.15
480-222377-6	MW-06	160001	4.76	366523	7.71	396351	10.15
480-222377-7	MW-07	161614	4.76	361283	7.71	399892	10.15
480-222377-9	DUP	160883	4.76	369164	7.71	400062	10.15
480-222377-5 MS	MW-05R MS	159914	4.76	376633	7.71	428306	10.15
480-222377-5 MSD	MW-05R MSD	166664	4.76	386738	7.71	429177	10.15

FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.167 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Sample No.: CCVIS 480-721538/4 Date Analyzed: 08/13/2024 09:44

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm)

Lab File ID (Standard): S1182.d Heated Purge: (Y/N) N

Calibration ID: 46997

		FB		CBNZd5		DCBd4	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		169686	4.76	389313	7.71	421814	10.15
UPPER LIMIT		339372	4.93	778626	7.88	843628	10.32
LOWER LIMIT		84843	4.59	194657	7.54	210907	9.99
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 480-721538/6		171630	4.76	389410	7.71	439296	10.15
MB 480-721538/8		146396	4.76	330428	7.71	374694	10.15
480-222377-4 DL	MW-04 DL	156062	4.76	359506	7.71	383632	10.15
480-222377-8	DRUM	159828	4.76	364855	7.71	396866	10.15

FB = Fluorobenzene (IS)
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.167 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-01 | Lab Sample ID: 480-222377-1

Matrix: Water | Lab File ID: S1156.d

Analysis Method: 8260C | Date Collected: 08/06/2024 09:03

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 22:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-01 | Lab Sample ID: 480-222377-1

Matrix: Water | Lab File ID: S1156.d

Analysis Method: 8260C | Date Collected: 08/06/2024 09:03

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 22:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		77-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	96		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1156.d
Lims ID: 480-222377-C-1
Client ID: MW-01
Sample Type: Client
Inject. Date: 12-Aug-2024 22:40:30 ALS Bottle#: 37 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-1
Misc. Info.: 480-0119480-009
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:22:41 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:22:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	160964	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	87	365912	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	405024	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	56	208616	24.1	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	92	133250	24.1	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	836621	25.4	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	91	278247	23.7	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43	2.227	2.227	0.000	66	3094	0.8276	a
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84		2.586				ND	7
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

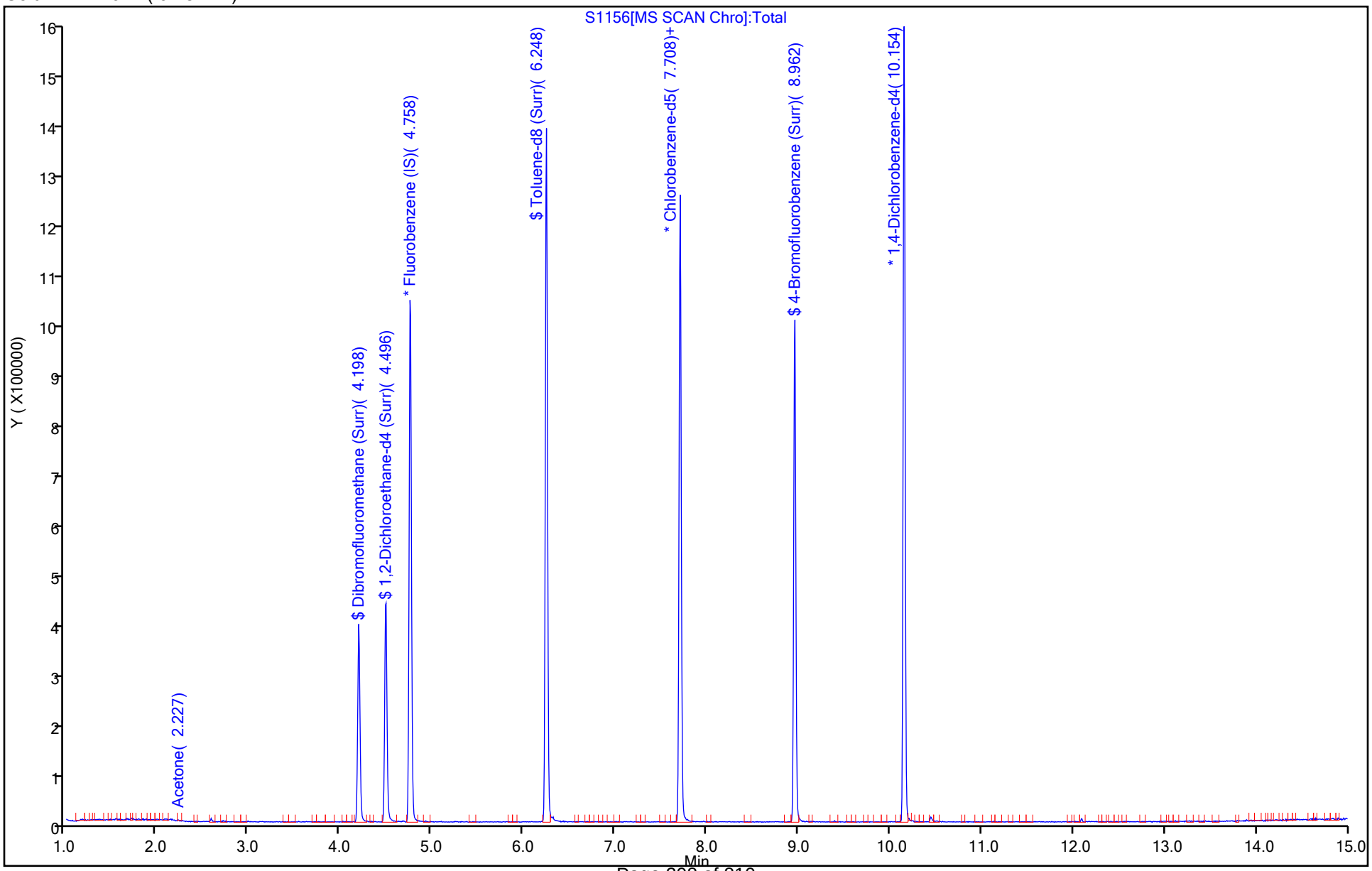
Report Date: 13-Aug-2024 13:22:42 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1156.d

Injection Date:	12-Aug-2024 22:40:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-1	Lab Sample ID:	480-222377-1	Worklist Smp#:	9
Client ID:	MW-01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1156.d
Lims ID: 480-222377-C-1
Client ID: MW-01
Sample Type: Client
Inject. Date: 12-Aug-2024 22:40:30 ALS Bottle#: 37 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-1
Misc. Info.: 480-0119480-009
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:22:41 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:22:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.1	96.31
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	24.1	96.58
$ 5 Toluene-d8 (Surr)	25.0	25.4	101.57
$ 6 4-Bromofluorobenzene (Surr)	25.0	23.7	94.97

Eurofins Buffalo

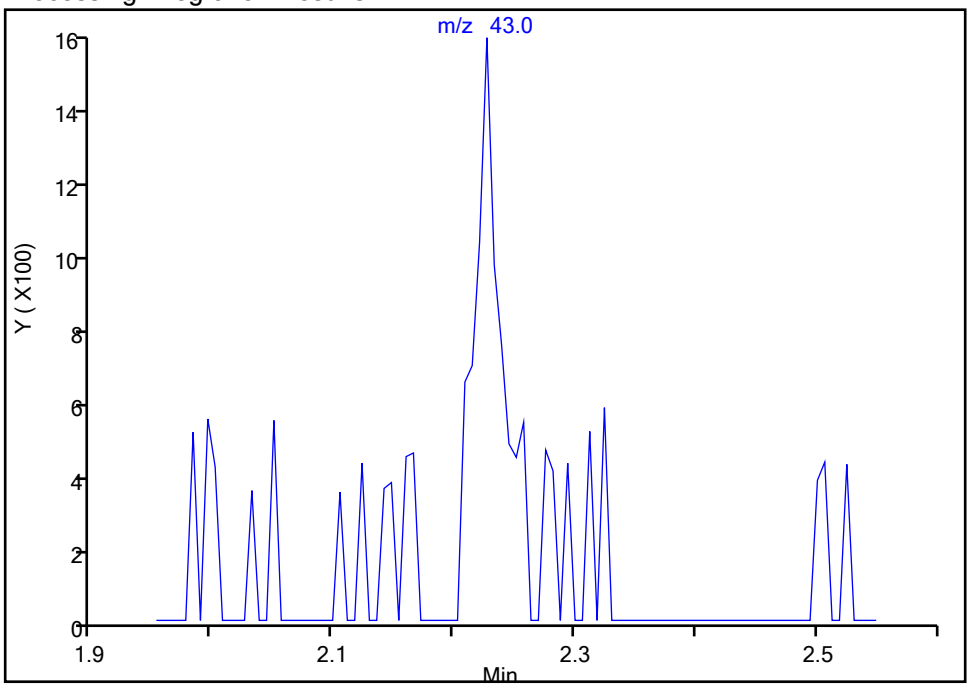
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1156.d				
Injection Date:	12-Aug-2024 22:40:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-1	Lab Sample ID:	480-222377-1		
Client ID:	MW-01				
Operator ID:	ZN	ALS Bottle#:	37	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

23 Acetone, CAS: 67-64-1

Signal: 1

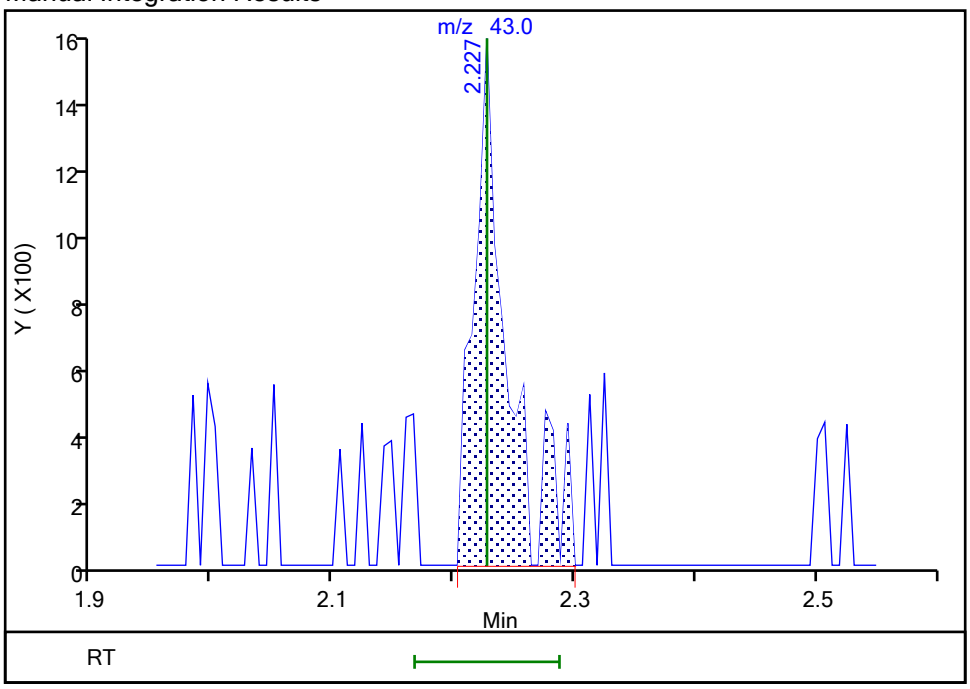
Not Detected
Expected RT: 2.23

Processing Integration Results



Manual Integration Results

RT: 2.23
Area: 3094
Amount: 0.827574
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:22:23 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-02 | Lab Sample ID: 480-222377-2

Matrix: Water | Lab File ID: S1157.d

Analysis Method: 8260C | Date Collected: 08/07/2024 07:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-02 | Lab Sample ID: 480-222377-2

Matrix: Water | Lab File ID: S1157.d

Analysis Method: 8260C | Date Collected: 08/07/2024 07:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		77-120
2037-26-5	Toluene-d8 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d
Lims ID: 480-222377-C-2
Client ID: MW-02
Sample Type: Client
Inject. Date: 12-Aug-2024 23:03:30 ALS Bottle#: 38 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-2
Misc. Info.: 480-0119480-010
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:23:39 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:23:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	151790	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	346111	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	375151	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	205794	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	93	131685	25.3	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	833272	26.7	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	91	279040	25.2	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	7
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43	2.221	2.221	-0.006	65	2084	0.5911	a
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84	2.586	2.586	0.000	54	1633	-0.2018	a
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83	5.196	5.196	0.000	1	1161	0.0952	a
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106	7.970	7.970	0.012	1	1091	0.0742	7a
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

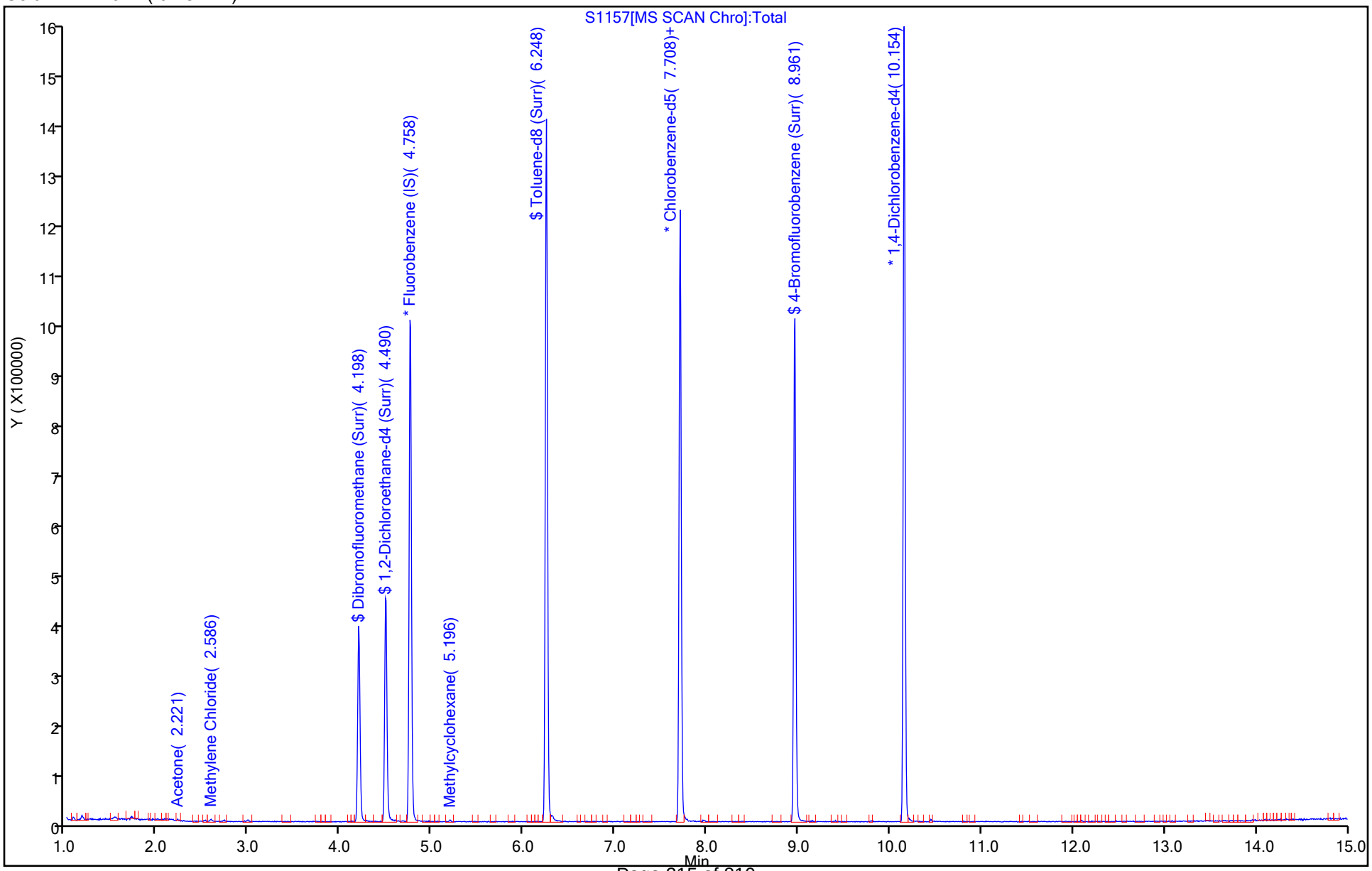
Report Date: 13-Aug-2024 13:23:40 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d

Injection Date:	12-Aug-2024 23:03:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-2	Lab Sample ID:	480-222377-2	Worklist Smp#:	10
Client ID:	MW-02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d
Lims ID: 480-222377-C-2
Client ID: MW-02
Sample Type: Client
Inject. Date: 12-Aug-2024 23:03:30 ALS Bottle#: 38 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-2
Misc. Info.: 480-0119480-010
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:23:39 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:23:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	25.2	100.74
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.3	101.21
$ 5 Toluene-d8 (Surr)	25.0	26.7	106.95
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.2	100.69

Manual Integration/User Assign Peak Report

Eurofins Buffalo

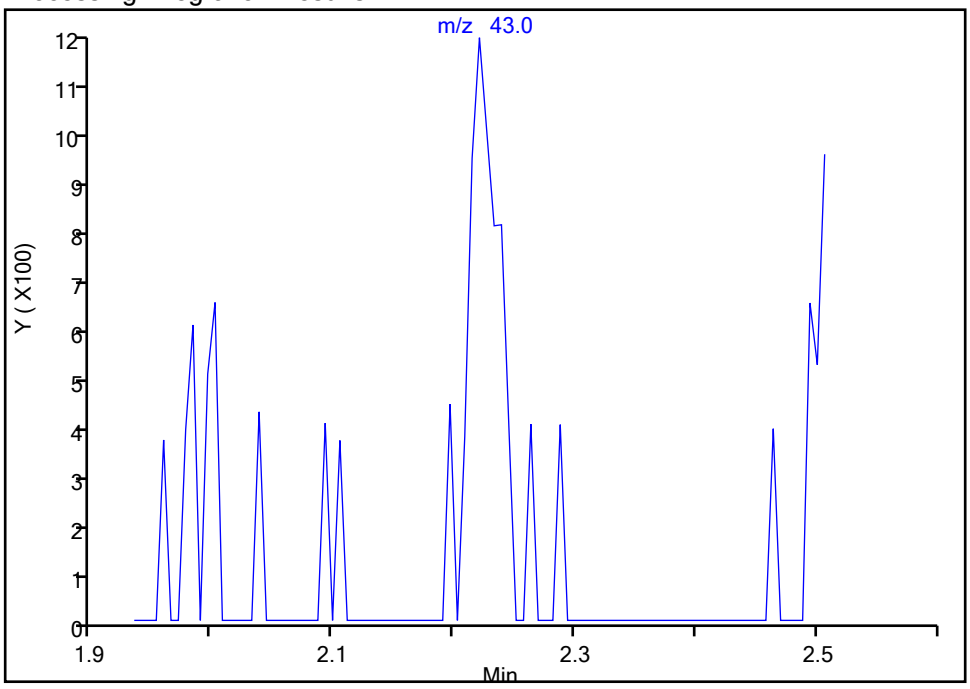
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d				
Injection Date:	12-Aug-2024 23:03:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-2	Lab Sample ID:	480-222377-2		
Client ID:	MW-02				
Operator ID:	ZN	ALS Bottle#:	38	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

23 Acetone, CAS: 67-64-1

Signal: 1

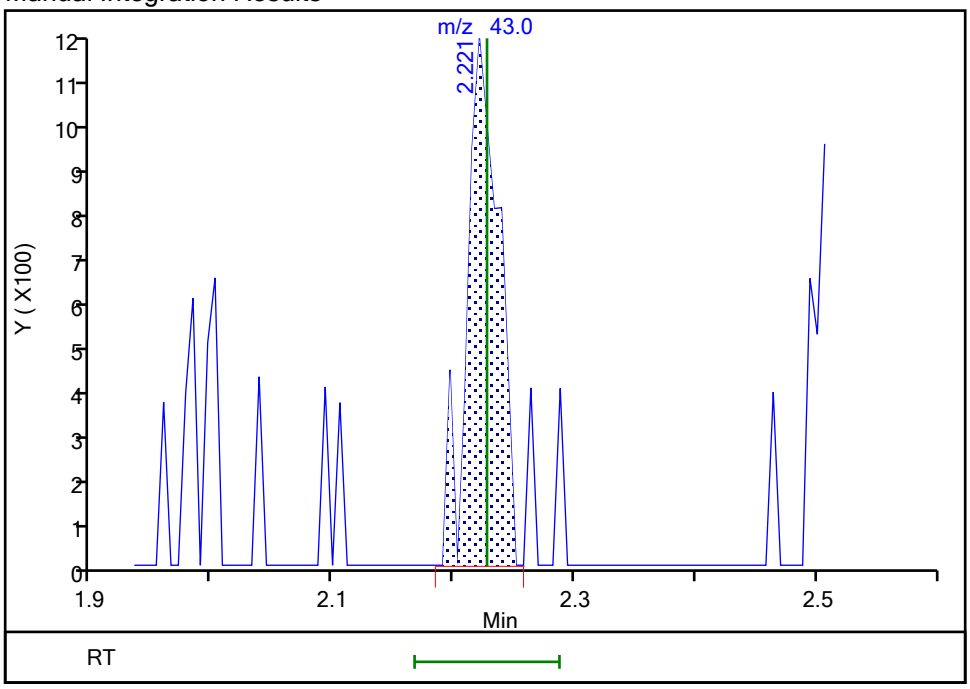
Not Detected
Expected RT: 2.23

Processing Integration Results



RT: 2.22
Area: 2084
Amount: 0.591112
Amount Units: ug/L

Manual Integration Results



Reviewer: QR3Z, 13-Aug-2024 13:22:56 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

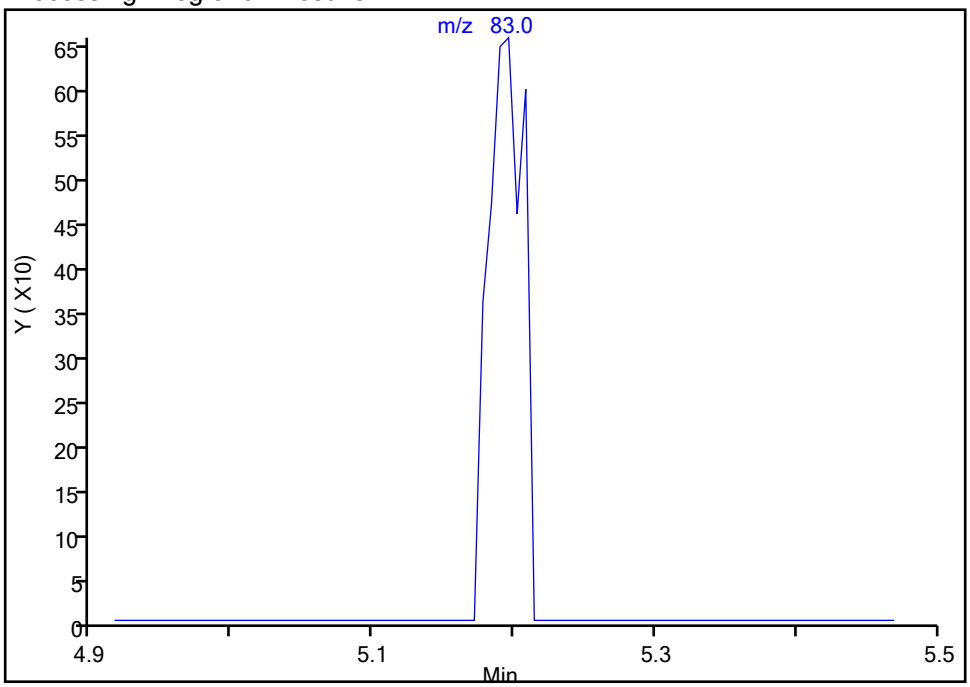
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d				
Injection Date:	12-Aug-2024 23:03:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-2	Lab Sample ID:	480-222377-2		
Client ID:	MW-02				
Operator ID:	ZN	ALS Bottle#:	38	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

64 Methylcyclohexane, CAS: 108-87-2

Signal: 1

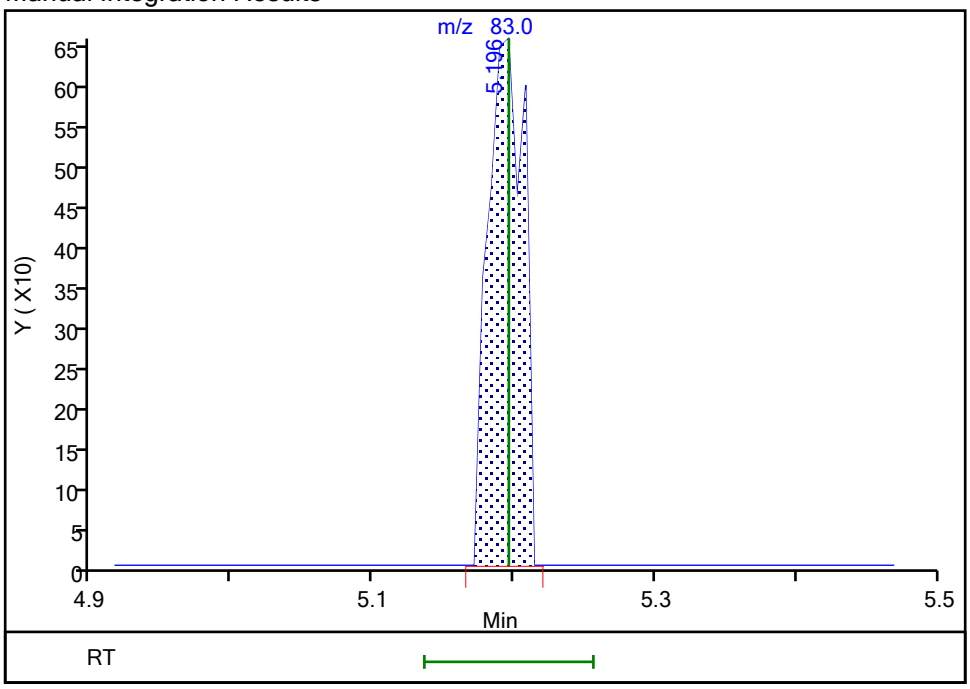
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.20
Area: 1161
Amount: 0.095220
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:23:15 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Buffalo

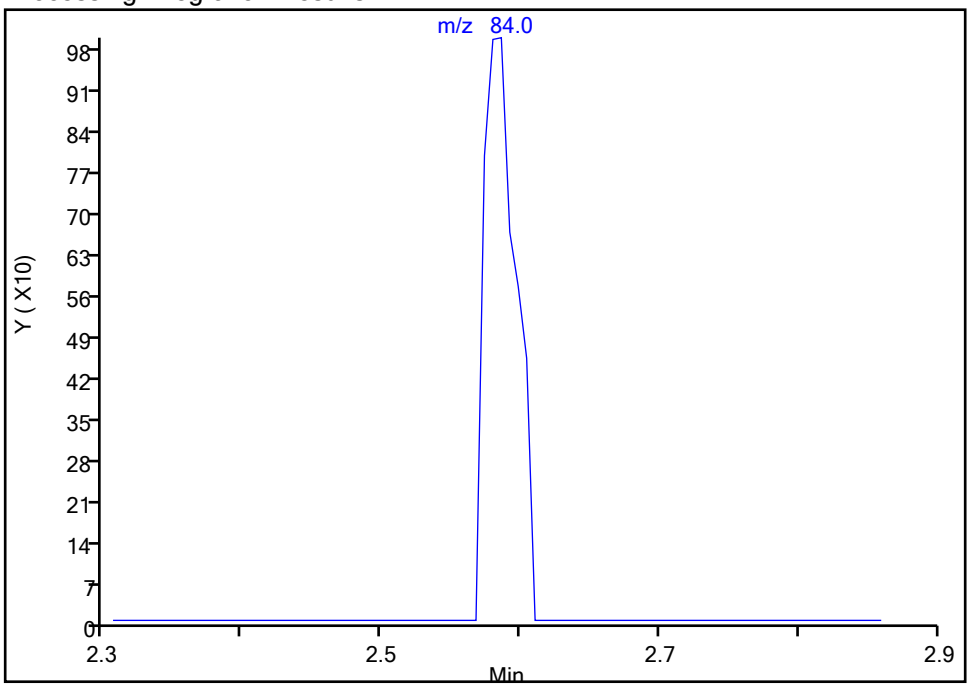
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d				
Injection Date:	12-Aug-2024 23:03:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-2	Lab Sample ID:	480-222377-2		
Client ID:	MW-02				
Operator ID:	ZN	ALS Bottle#:	38	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

30 Methylene Chloride, CAS: 75-09-2

Signal: 1

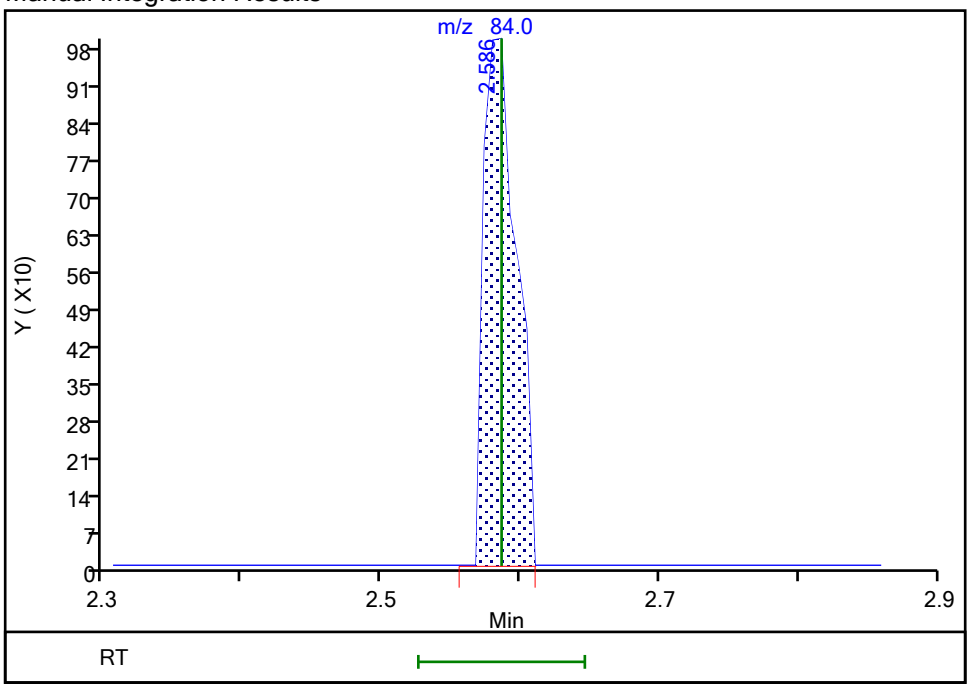
Not Detected
Expected RT: 2.59

Processing Integration Results



Manual Integration Results

RT: 2.59
Area: 1633
Amount: -0.201783
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:23:04 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

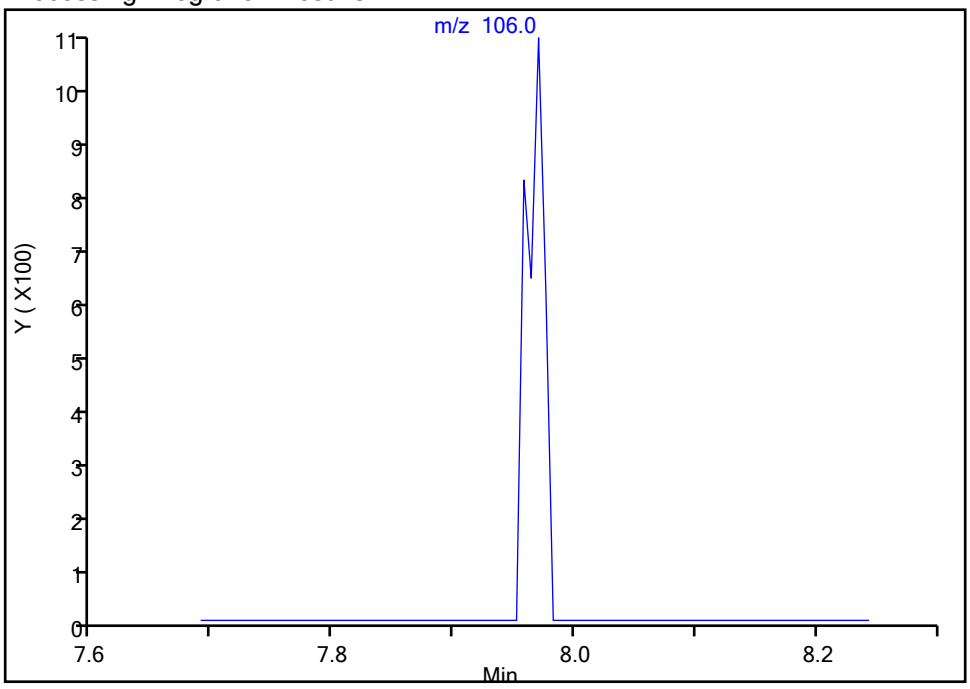
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1157.d				
Injection Date:	12-Aug-2024 23:03:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-2	Lab Sample ID:	480-222377-2		
Client ID:	MW-02				
Operator ID:	ZN	ALS Bottle#:	38	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

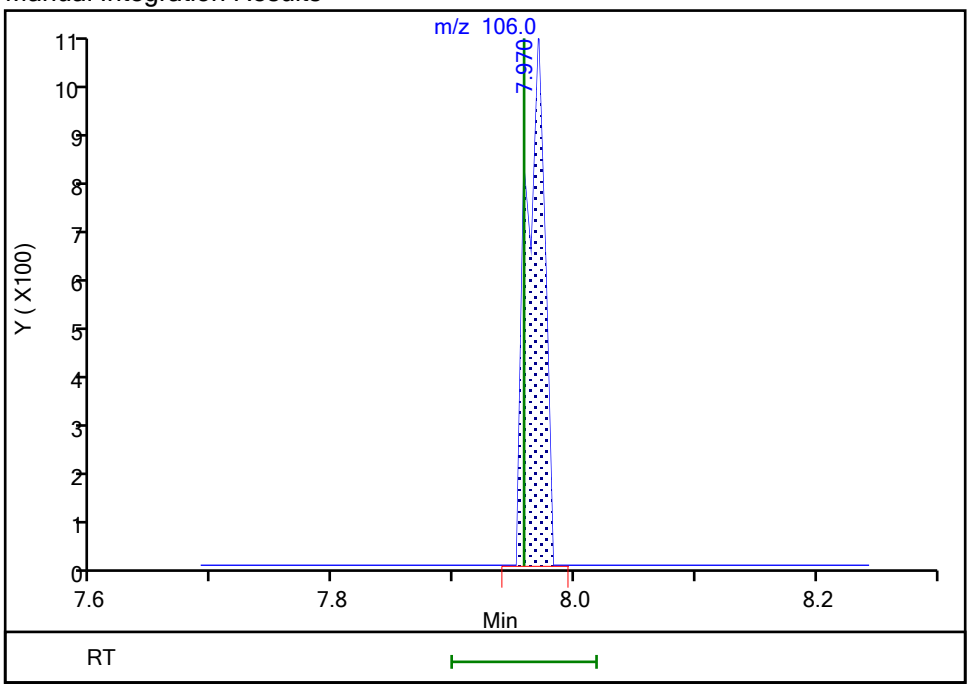
Not Detected
Expected RT: 7.96

Processing Integration Results



Manual Integration Results

RT: 7.97
Area: 1091
Amount: 0.074169
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:23:34 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-03 | Lab Sample ID: 480-222377-3

Matrix: Water | Lab File ID: S1158.d

Analysis Method: 8260C | Date Collected: 08/07/2024 08:40

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	7.9		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-03 | Lab Sample ID: 480-222377-3

Matrix: Water | Lab File ID: S1158.d

Analysis Method: 8260C | Date Collected: 08/07/2024 08:40

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	0.46	J	1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		77-120
2037-26-5	Toluene-d8 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1158.d
Lims ID: 480-222377-C-3
Client ID: MW-03
Sample Type: Client
Inject. Date: 12-Aug-2024 23:27:30 ALS Bottle#: 39 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-3
Misc. Info.: 480-0119480-011
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:23:39 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:24:15

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.764	4.758	0.006	98	154898	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	345646	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	376974	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	210010	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	92	135172	25.5	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	94	842060	27.1	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	91	283565	25.6	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43		2.227				ND	
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84		2.586				ND	7
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	68959	7.90	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95	5.092	5.093	0.000	42	3756	0.4606	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166	6.832	6.832	0.000	49	2622	0.3097	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

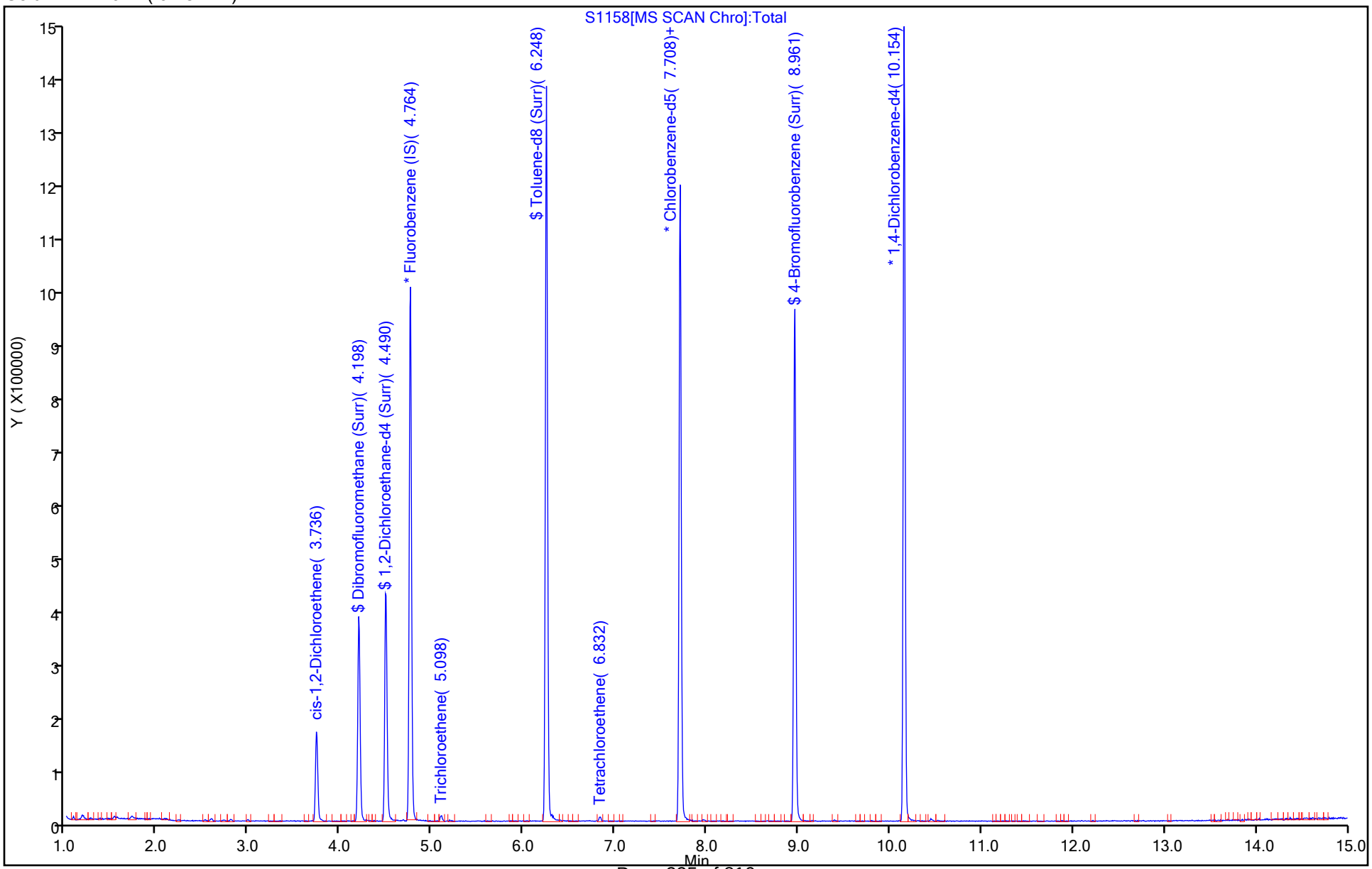
Report Date: 13-Aug-2024 13:24:15 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1158.d

Injection Date:	12-Aug-2024 23:27:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-3	Lab Sample ID:	480-222377-3	Worklist Smp#:	11
Client ID:	MW-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	39
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1158.d
Lims ID: 480-222377-C-3
Client ID: MW-03
Sample Type: Client
Inject. Date: 12-Aug-2024 23:27:30 ALS Bottle#: 39 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-3
Misc. Info.: 480-0119480-011
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:23:39 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:24:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	25.2	100.75
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.5	101.81
$ 5 Toluene-d8 (Surr)	25.0	27.1	108.22
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.6	102.46

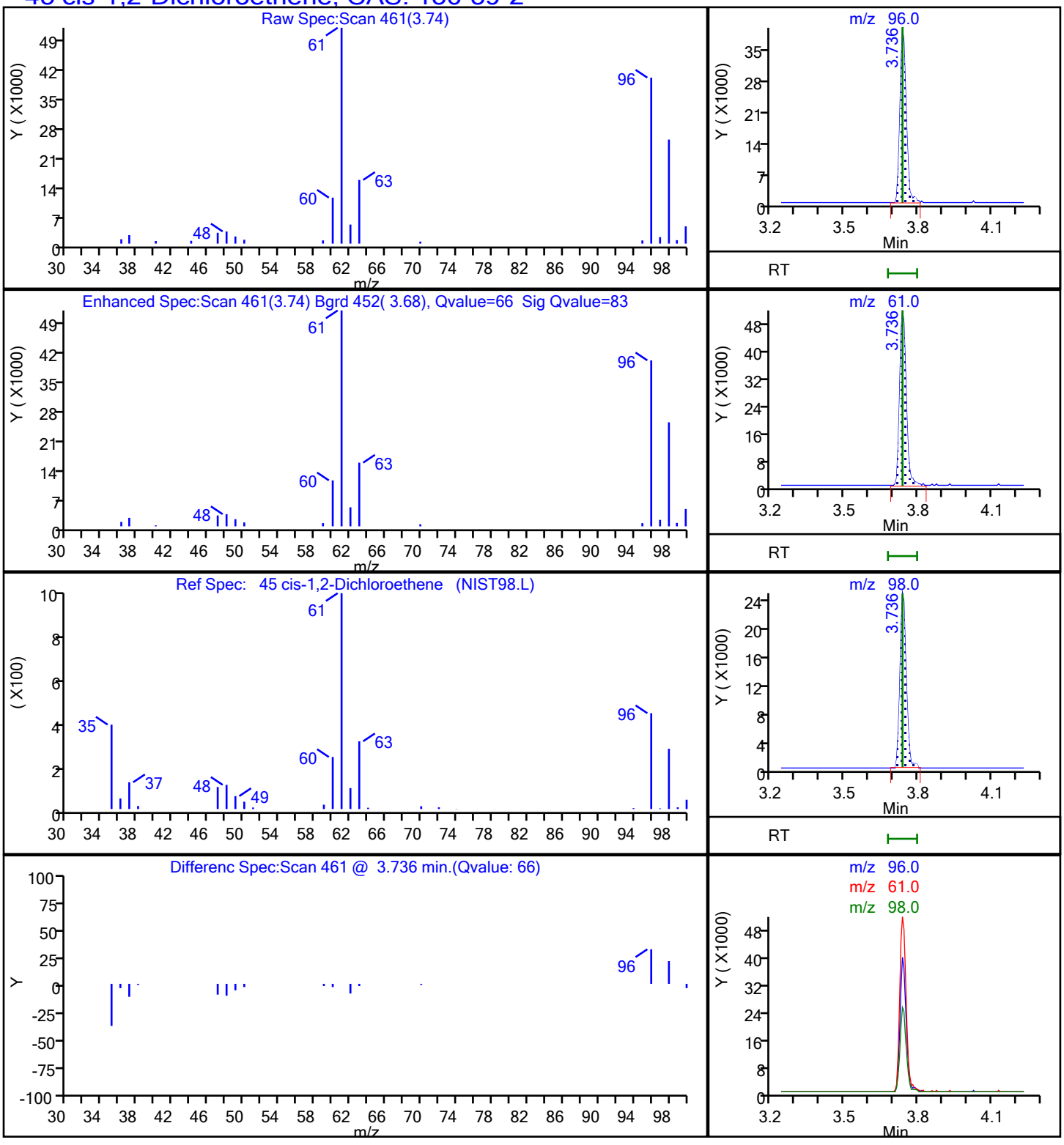
Report Date: 13-Aug-2024 13:24:15 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1158.d

Injection Date:	12-Aug-2024 23:27:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-3	Lab Sample ID:	480-222377-3		
Client ID:	MW-03				
Operator ID:	ZN	ALS Bottle#:	39	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2



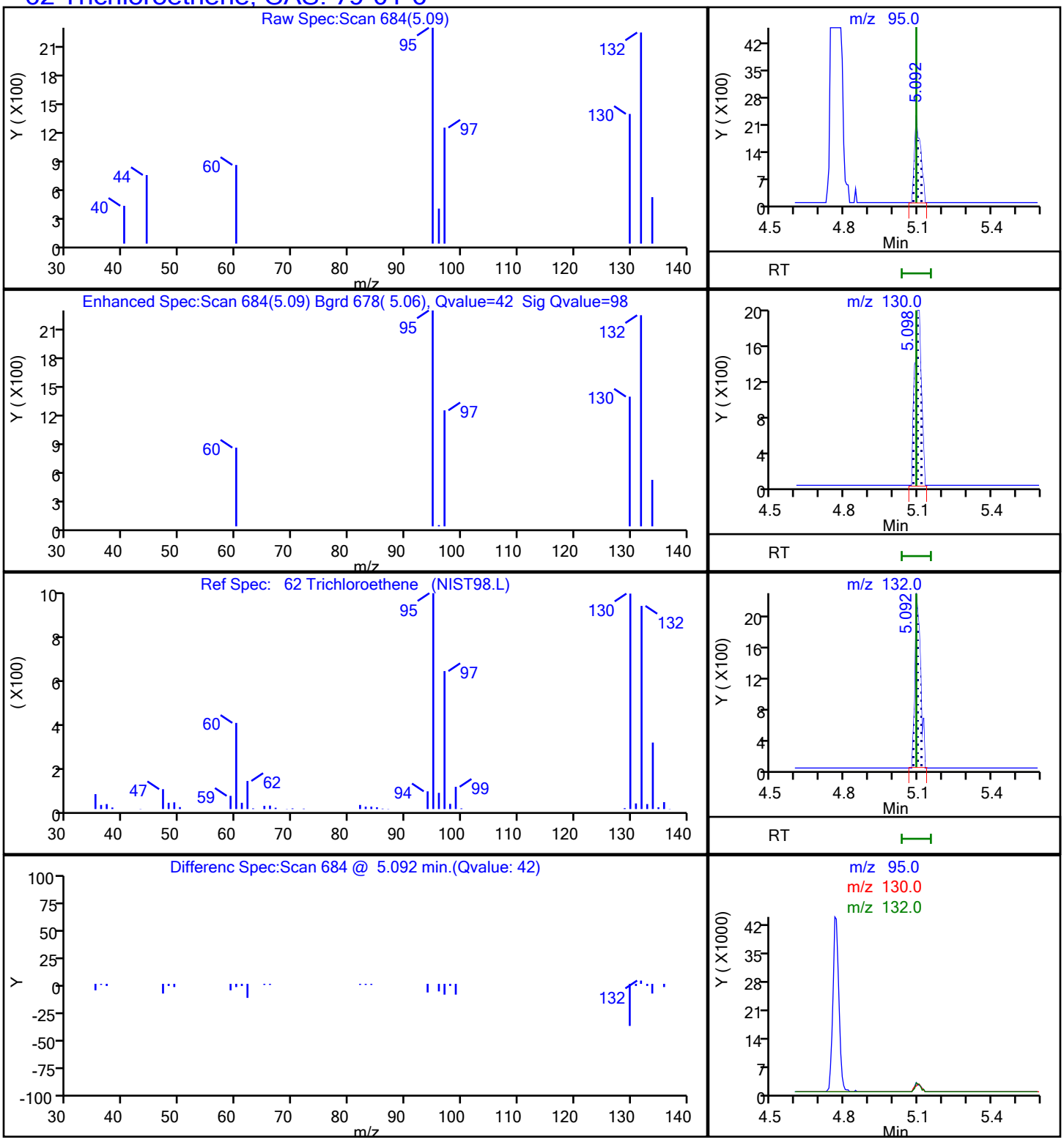
Report Date: 13-Aug-2024 13:24:15 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1158.d

Injection Date:	12-Aug-2024 23:27:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-3	Lab Sample ID:	480-222377-3		
Client ID:	MW-03				
Operator ID:	ZN	ALS Bottle#:	39	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-04 | Lab Sample ID: 480-222377-4

Matrix: Water | Lab File ID: S1159.d

Analysis Method: 8260C | Date Collected: 08/07/2024 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:50

Soil Aliquot Vol: | Dilution Factor: 800

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		800	660
79-34-5	1,1,2,2-Tetrachloroethane	ND		800	170
79-00-5	1,1,2-Trichloroethane	ND		800	180
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		800	250
75-34-3	1,1-Dichloroethane	ND		800	300
75-35-4	1,1-Dichloroethene	ND		800	230
120-82-1	1,2,4-Trichlorobenzene	ND		800	330
96-12-8	1,2-Dibromo-3-Chloropropane	ND		800	310
106-93-4	1,2-Dibromoethane	ND		800	580
95-50-1	1,2-Dichlorobenzene	ND		800	630
107-06-2	1,2-Dichloroethane	ND		800	170
78-87-5	1,2-Dichloropropane	ND		800	580
541-73-1	1,3-Dichlorobenzene	ND		800	620
106-46-7	1,4-Dichlorobenzene	ND		800	670
591-78-6	2-Hexanone	ND		4000	990
78-93-3	2-Butanone (MEK)	ND		8000	1100
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		4000	1700
67-64-1	Acetone	ND		8000	2400
71-43-2	Benzene	ND		800	330
75-27-4	Bromodichloromethane	ND		800	310
75-25-2	Bromoform	ND		800	210
74-83-9	Bromomethane	ND		800	550
75-15-0	Carbon disulfide	ND		800	150
56-23-5	Carbon tetrachloride	ND		800	220
108-90-7	Chlorobenzene	ND		800	600
124-48-1	Dibromochloromethane	ND		800	260
75-00-3	Chloroethane	ND		800	260
67-66-3	Chloroform	ND		800	270
74-87-3	Chloromethane	ND		800	280
156-59-2	cis-1,2-Dichloroethene	5000		800	650
10061-01-5	cis-1,3-Dichloropropene	ND		800	290
110-82-7	Cyclohexane	ND		800	140

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-04 | Lab Sample ID: 480-222377-4

Matrix: Water | Lab File ID: S1159.d

Analysis Method: 8260C | Date Collected: 08/07/2024 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 23:50

Soil Aliquot Vol: | Dilution Factor: 800

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		800	540
100-41-4	Ethylbenzene	ND		800	590
98-82-8	Isopropylbenzene	ND		800	630
79-20-9	Methyl acetate	ND		2000	1000
1634-04-4	Methyl tert-butyl ether	ND		800	130
108-87-2	Methylcyclohexane	ND		800	130
75-09-2	Methylene Chloride	ND		800	350
100-42-5	Styrene	ND		800	580
127-18-4	*Tetrachloroethene*	*81000*	*E*	*800*	*290*
108-88-3	Toluene	ND		800	410
156-60-5	trans-1,2-Dichloroethene	ND		800	720
10061-02-6	trans-1,3-Dichloropropene	ND		800	300
79-01-6	Trichloroethene	5200		800	370
75-69-4	Trichlorofluoromethane	ND		800	700
75-01-4	Vinyl chloride	ND		800	720
1330-20-7	Xylenes, Total	ND		1600	530

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		77-120
2037-26-5	Toluene-d8 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	101		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d
Lims ID: 480-222377-C-4
Client ID: MW-04
Sample Type: Client
Inject. Date: 12-Aug-2024 23:50:30 ALS Bottle#: 40 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 800.0000
Sample Info: 480-222377-C-4
Misc. Info.: 480-0119480-012
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:24:50 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:24:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	152109	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	347249	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	380968	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	62	206063	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	92	133689	25.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	94	837904	26.8	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	90	277075	24.9	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43		2.227				ND	
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84		2.586				ND	7
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	69	53885	6.29	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83	4.052	4.046	0.006	19	3011	0.2128	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95	5.092	5.093	0.000	91	52234	6.52	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	U
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	U
81 Tetrachloroethene	166	6.832	6.832	0.000	93	856714	100.7	E
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

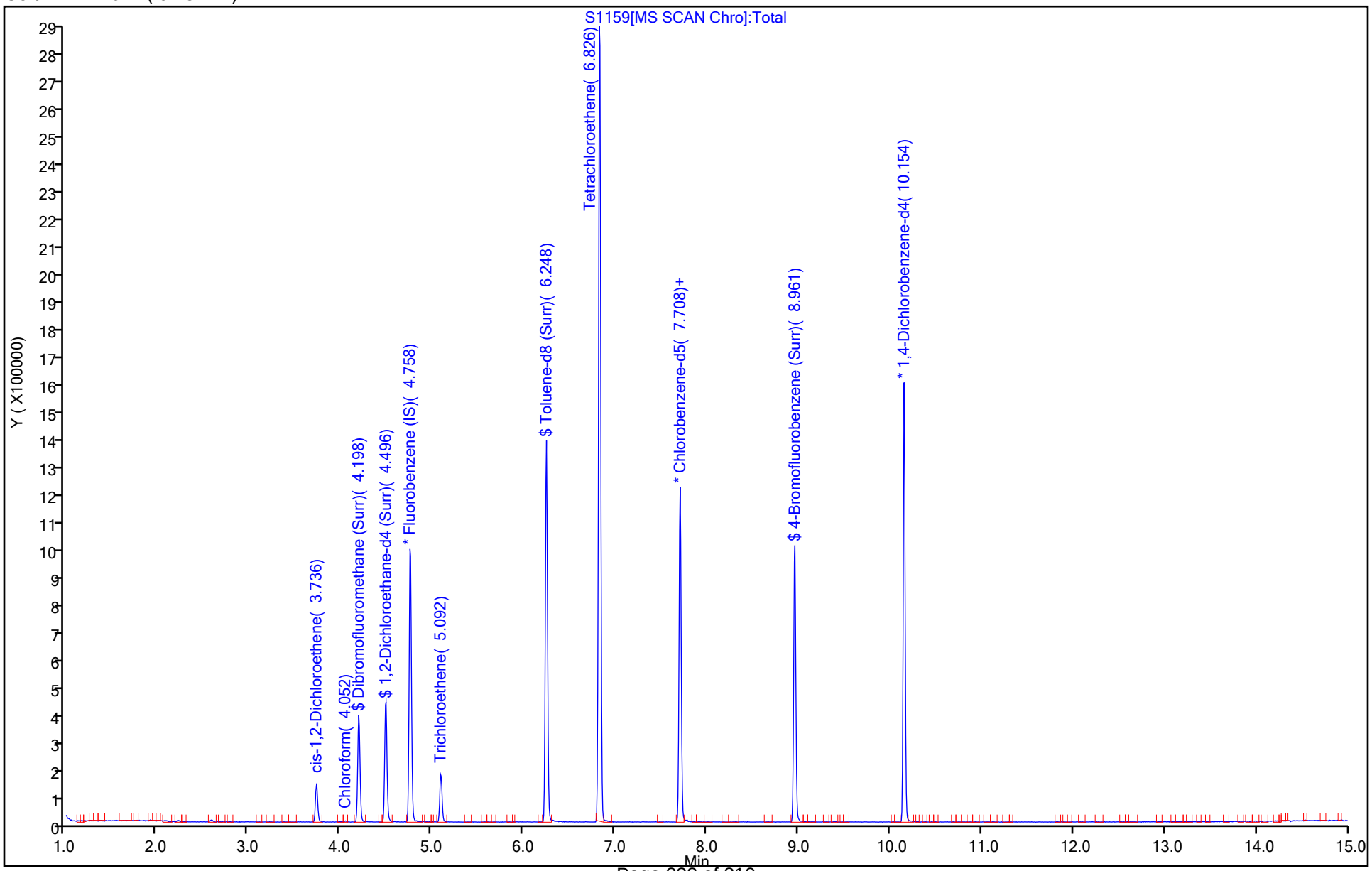
Report Date: 13-Aug-2024 13:24:51 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d

Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4	Worklist Smp#:	12
Client ID:	MW-04				
Purge Vol:	5.000 mL	Dil. Factor:	800.0000	ALS Bottle#:	40
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 13:24:51 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d
Lims ID: 480-222377-C-4
Client ID: MW-04
Sample Type: Client
Inject. Date: 12-Aug-2024 23:50:30 ALS Bottle#: 40 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 800.0000
Sample Info: 480-222377-C-4
Misc. Info.: 480-0119480-012
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:24:50 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:24:50

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	25.2	100.66
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.6	102.54
$ 5 Toluene-d8 (Surr)	25.0	26.8	107.19
$ 6 4-Bromofluorobenzene (Surr)	25.0	24.9	99.66

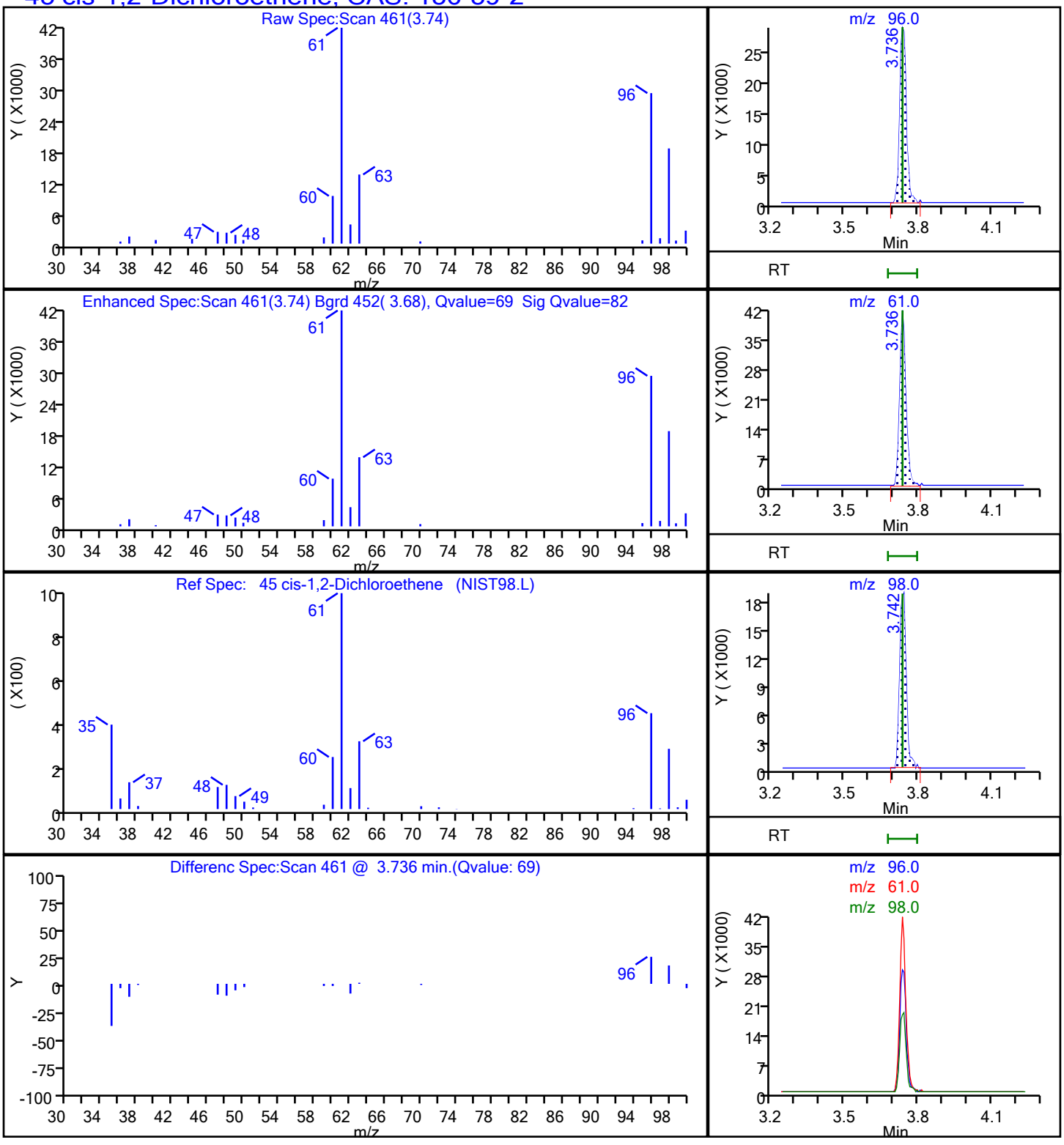
Report Date: 13-Aug-2024 13:24:51 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d

Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	40	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	800.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2



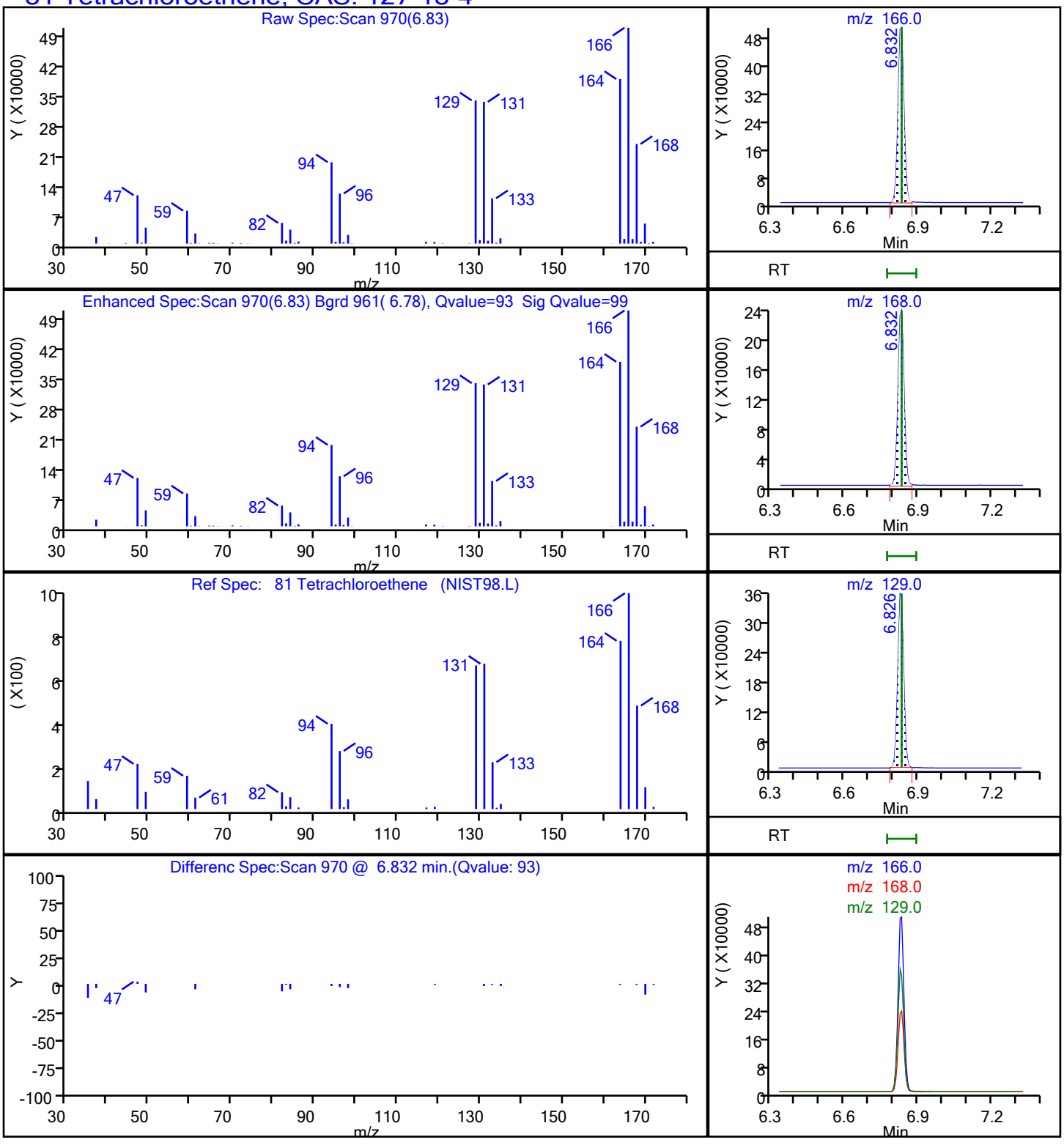
Report Date: 13-Aug-2024 13:24:51 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d

Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	40	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	800.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

81 Tetrachloroethene, CAS: 127-18-4



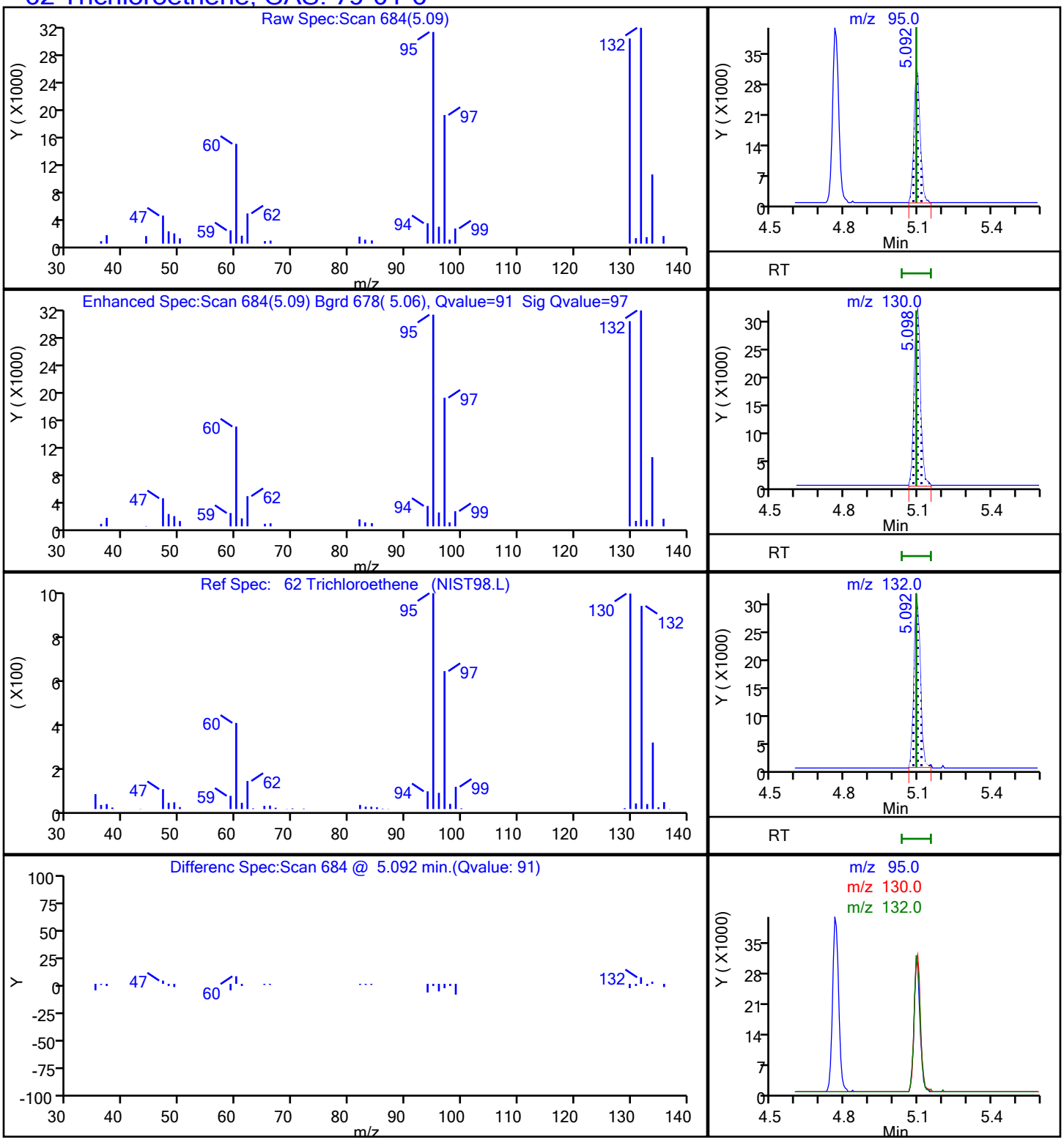
Report Date: 13-Aug-2024 13:24:51 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d

Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	40	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	800.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



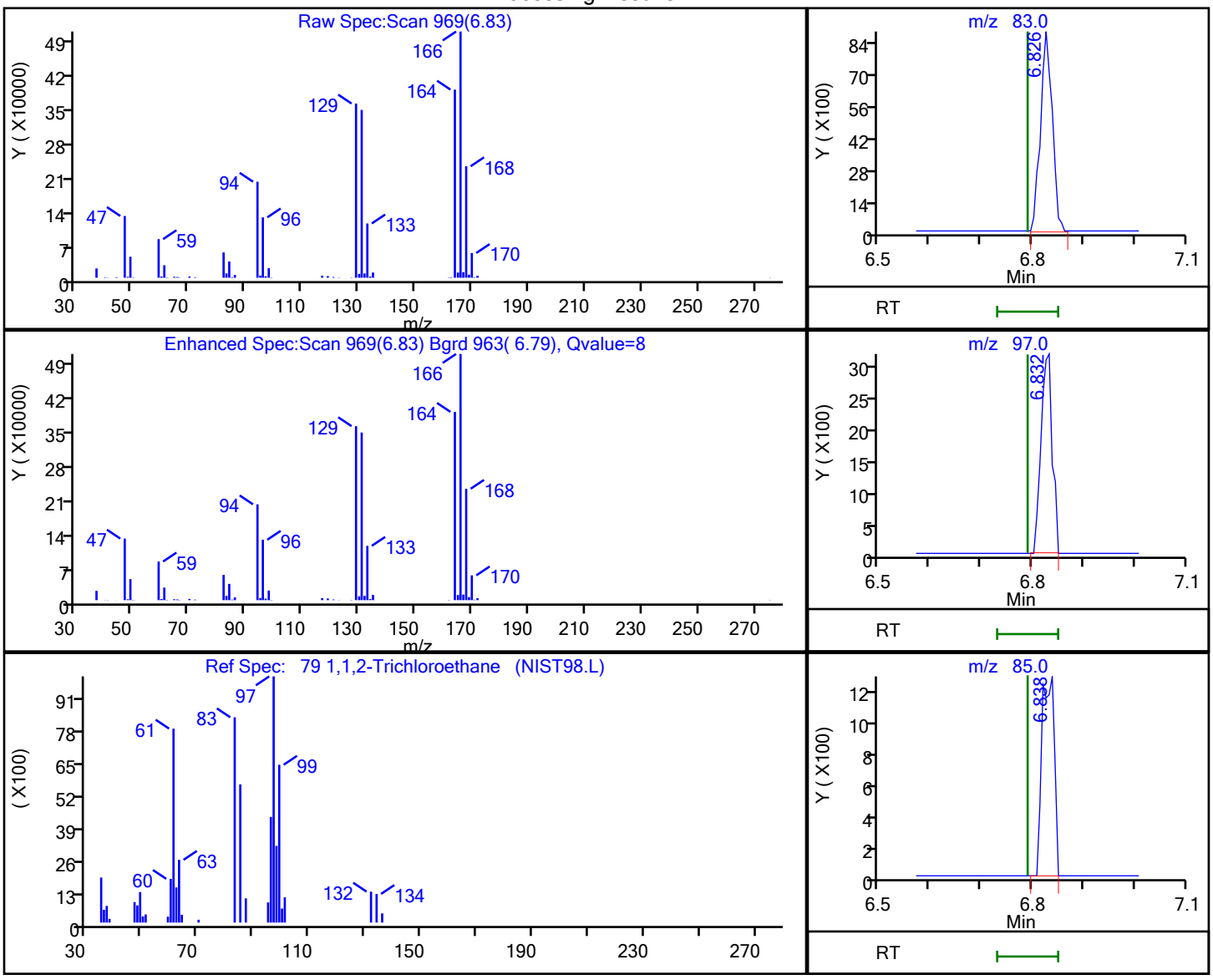
User Disabled Compound Report

Eurofins Buffalo

Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d				
Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	40	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	800.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

79 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
6.83	83.00	14108	2.300951
6.83	97.00	4835	
6.84	85.00	2037	

Reviewer: QR3Z, 13-Aug-2024 13:24:40 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

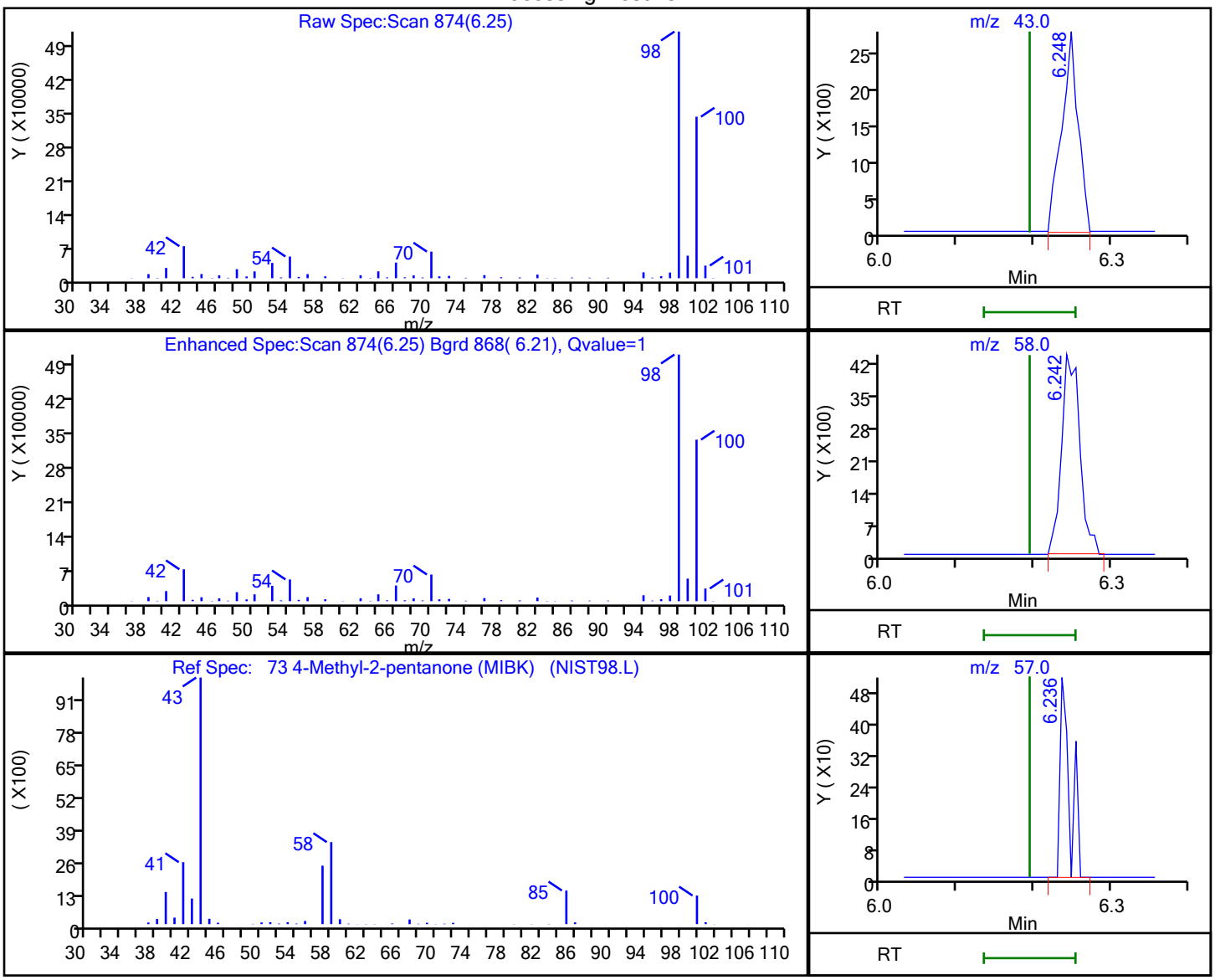
User Disabled Compound Report

Eurofins Buffalo

Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1159.d				
Injection Date:	12-Aug-2024 23:50:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	40	Worklist Smp#:	12
Purge Vol:	5.000 mL	Dil. Factor:	800.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

73 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Processing Results



RT	Mass	Response	Amount
6.25	43.00	4092	0.318324
6.24	58.00	7180	
6.24	57.00	456	

Reviewer: QR3Z, 13-Aug-2024 13:24:33 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-04 DL | Lab Sample ID: 480-222377-4 DL

Matrix: Water | Lab File ID: S1195.d

Analysis Method: 8260C | Date Collected: 08/07/2024 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 15:18

Soil Aliquot Vol: | Dilution Factor: 2000

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		2000	1600
79-34-5	1,1,2,2-Tetrachloroethane	ND		2000	420
79-00-5	1,1,2-Trichloroethane	ND		2000	460
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2000	620
75-34-3	1,1-Dichloroethane	ND		2000	760
75-35-4	1,1-Dichloroethene	ND		2000	580
120-82-1	1,2,4-Trichlorobenzene	ND		2000	820
96-12-8	1,2-Dibromo-3-Chloropropane	ND		2000	780
106-93-4	1,2-Dibromoethane	ND		2000	1500
95-50-1	1,2-Dichlorobenzene	ND		2000	1600
107-06-2	1,2-Dichloroethane	ND		2000	420
78-87-5	1,2-Dichloropropane	ND		2000	1400
541-73-1	1,3-Dichlorobenzene	ND		2000	1600
106-46-7	1,4-Dichlorobenzene	ND		2000	1700
591-78-6	2-Hexanone	ND		10000	2500
78-93-3	2-Butanone (MEK)	ND		20000	2600
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10000	4200
67-64-1	Acetone	ND		20000	6000
71-43-2	Benzene	ND		2000	820
75-27-4	Bromodichloromethane	ND		2000	780
75-25-2	Bromoform	ND		2000	520
74-83-9	Bromomethane	ND		2000	1400
75-15-0	Carbon disulfide	ND		2000	380
56-23-5	Carbon tetrachloride	ND		2000	540
108-90-7	Chlorobenzene	ND		2000	1500
124-48-1	Dibromochloromethane	ND		2000	640
75-00-3	Chloroethane	ND		2000	640
67-66-3	Chloroform	ND		2000	680
74-87-3	Chloromethane	ND		2000	700
156-59-2	cis-1,2-Dichloroethene	4800		2000	1600
10061-01-5	cis-1,3-Dichloropropene	ND		2000	720
110-82-7	Cyclohexane	ND		2000	360

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-04 DL | Lab Sample ID: 480-222377-4 DL

Matrix: Water | Lab File ID: S1195.d

Analysis Method: 8260C | Date Collected: 08/07/2024 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 15:18

Soil Aliquot Vol: | Dilution Factor: 2000

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	*Dichlorodifluoromethane*	*ND*		*2000*	*1400*
100-41-4	*Ethylbenzene*	*ND*		*2000*	*1500*
98-82-8	*Isopropylbenzene*	*ND*		*2000*	*1600*
79-20-9	*Methyl acetate*	*ND*		*5000*	*2600*
1634-04-4	*Methyl tert-butyl ether*	*ND*		*2000*	*320*
108-87-2	*Methylcyclohexane*	*ND*		*2000*	*320*
75-09-2	*Methylene Chloride*	*ND*		*2000*	*880*
100-42-5	*Styrene*	*ND*		*2000*	*1500*
127-18-4	Tetrachloroethene	67000		2000	720
108-88-3	*Toluene*	*ND*		*2000*	*1000*
156-60-5	*trans-1,2-Dichloroethene*	*ND*		*2000*	*1800*
10061-02-6	*trans-1,3-Dichloropropene*	*ND*		*2000*	*740*
79-01-6	*Trichloroethene*	*4600*		*2000*	*920*
75-69-4	*Trichlorofluoromethane*	*ND*		*2000*	*1800*
75-01-4	*Vinyl chloride*	*ND*		*2000*	*1800*
1330-20-7	*Xylenes, Total*	*ND*		*4000*	*1300*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		77-120
2037-26-5	Toluene-d8 (Surr)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d
Lims ID: 480-222377-D-4
Client ID: MW-04
Sample Type: Client
Inject. Date: 13-Aug-2024 15:18:30 ALS Bottle#: 17 Worklist Smp#: 37
Purge Vol: 5.000 mL Dil. Factor: 2000.0000
Sample Info: 480-222377-D-4
Misc. Info.: 480-0119487-037
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 17:26:16 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1691

First Level Reviewer: MHM2 Date: 13-Aug-2024 17:26:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	156062	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	359506	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	383632	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	204911	24.4	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	92	138485	25.9	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	880291	27.2	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.961	0.000	89	283864	24.7	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.120				ND	
13 Vinyl chloride	62		1.193				ND	
14 Bromomethane	94		1.436				ND	
15 Chloroethane	64		1.509				ND	
17 Trichlorofluoromethane	101		1.685				ND	
22 1,1-Dichloroethene	96		2.105				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.111				ND	
23 Acetone	43		2.221				ND	
26 Carbon disulfide	76		2.282				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84	2.598	2.586	0.012	41	4737	0.1795	
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.200				ND	
45 cis-1,2-Dichloroethene	96	3.742	3.736	0.006	55	21197	2.41	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83	4.046	4.046	0.000	26	2391	0.1647	
52 Cyclohexane	56		4.137				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95	5.092	5.092	0.000	82	18926	2.30	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.202				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.035				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.193				ND	
74 Toluene	92	6.315	6.315	0.006	26	954	0.0476	a
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166	6.832	6.832	0.000	93	294165	33.4	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.377				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.298				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

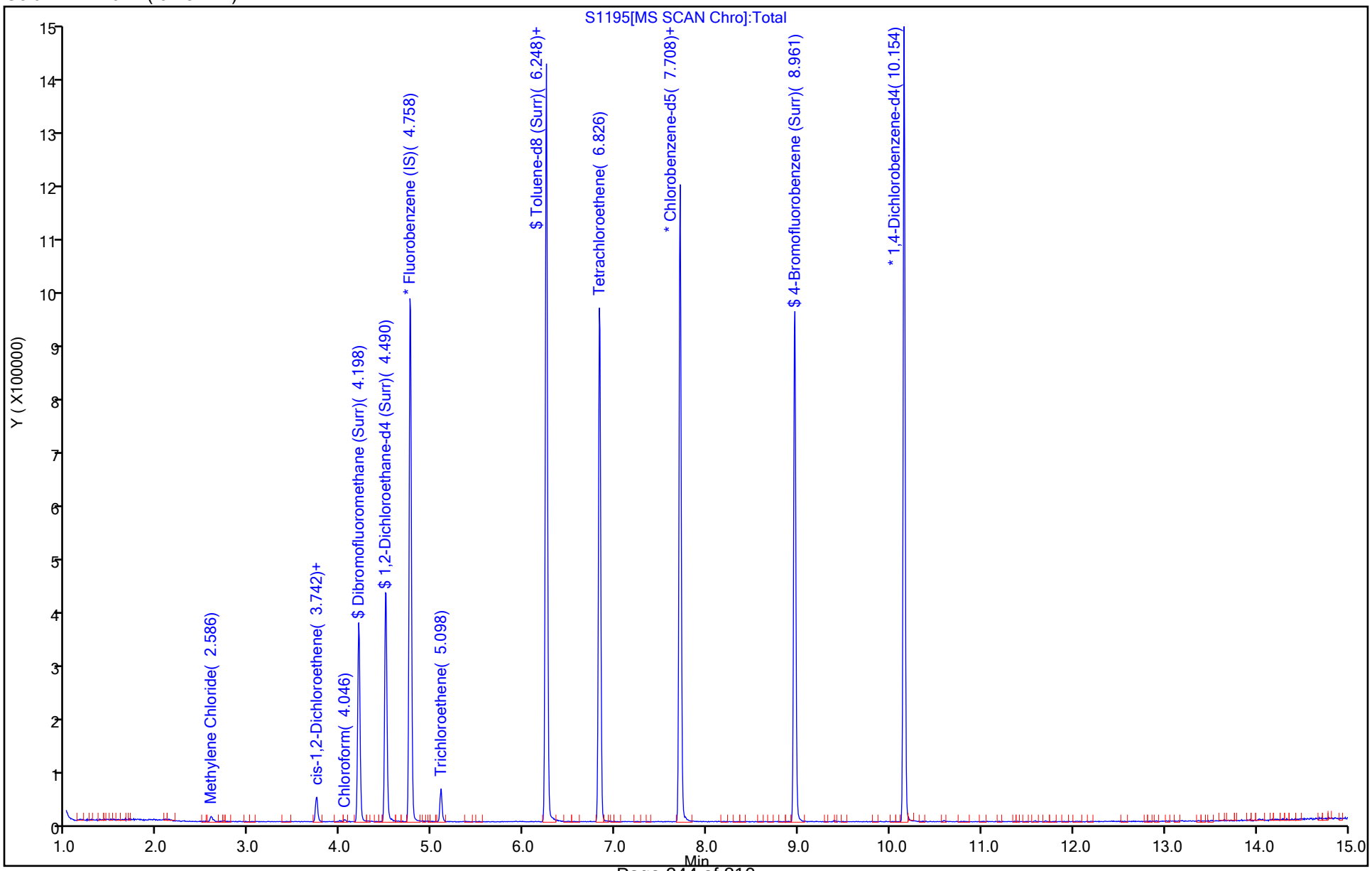
Report Date: 13-Aug-2024 17:26:17 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d

Injection Date:	13-Aug-2024 15:18:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-D-4	Lab Sample ID:	480-222377-4	Worklist Smp#:	37
Client ID:	MW-04				
Purge Vol:	5.000 mL	Dil. Factor:	2000.0000	ALS Bottle#:	17
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 17:26:17 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d
Lims ID: 480-222377-D-4
Client ID: MW-04
Sample Type: Client
Inject. Date: 13-Aug-2024 15:18:30 ALS Bottle#: 17 Worklist Smp#: 37
Purge Vol: 5.000 mL Dil. Factor: 2000.0000
Sample Info: 480-222377-D-4
Misc. Info.: 480-0119487-037
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 17:26:16 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1691

First Level Reviewer: MHM2 Date: 13-Aug-2024 17:26:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.4	97.57
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.9	103.53
$ 5 Toluene-d8 (Surr)	25.0	27.2	108.77
$ 6 4-Bromofluorobenzene (Surr)	25.0	24.7	98.62

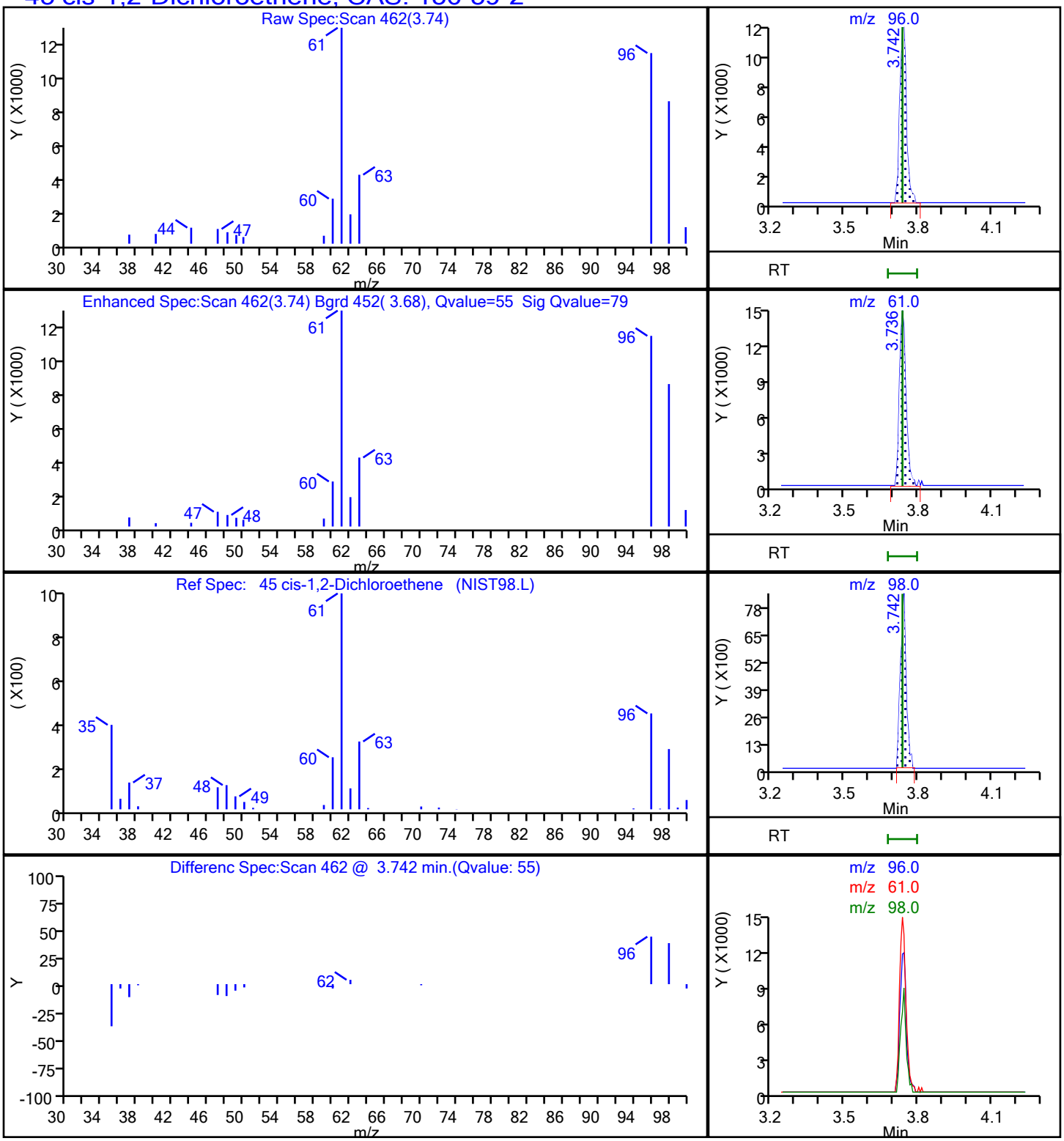
Report Date: 13-Aug-2024 17:26:17 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d

Injection Date:	13-Aug-2024 15:18:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	17	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	2000.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2



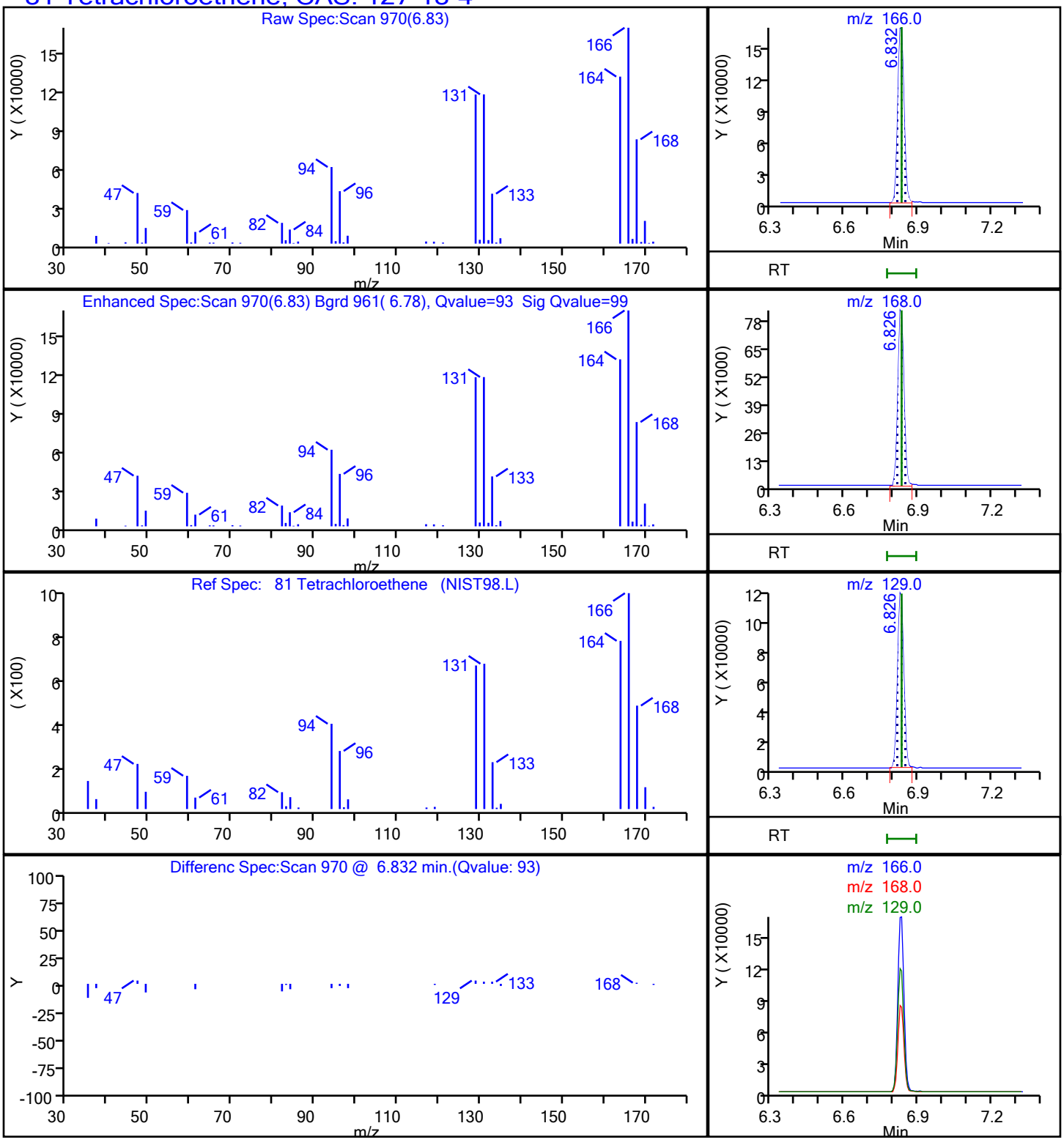
Report Date: 13-Aug-2024 17:26:17 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d

Injection Date:	13-Aug-2024 15:18:30	Instrument ID:	HP5973S
Lims ID:	480-222377-D-4	Lab Sample ID:	480-222377-4
Client ID:	MW-04		
Operator ID:	ZN	ALS Bottle#:	17 Worklist Smp#: 37
Purge Vol:	5.000 mL	Dil. Factor:	2000.0000
Method:	S-8260	Limit Group:	MV - 8260C ICAL
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN

81 Tetrachloroethene, CAS: 127-18-4



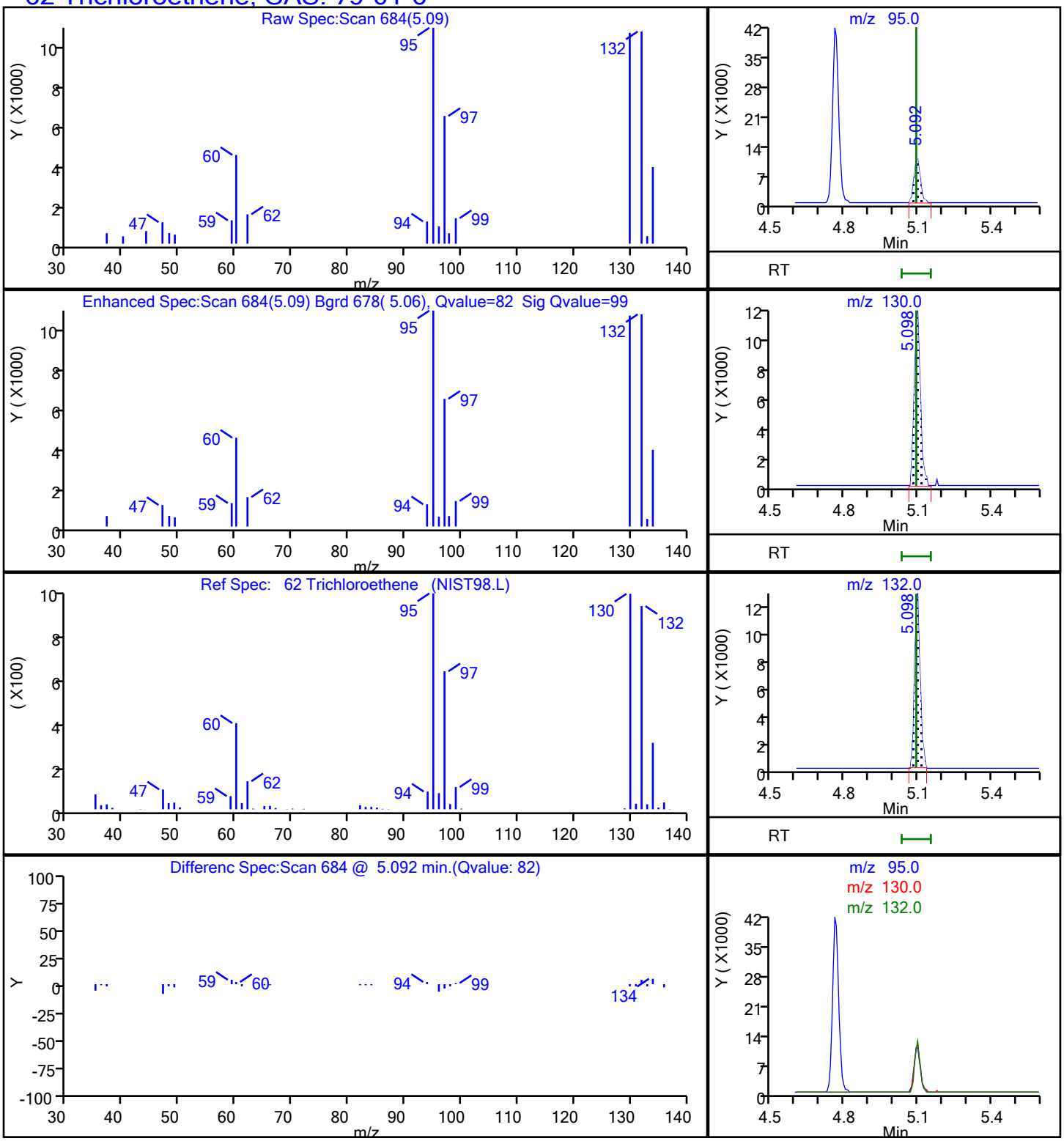
Report Date: 13-Aug-2024 17:26:17 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d

Injection Date:	13-Aug-2024 15:18:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-4	Lab Sample ID:	480-222377-4		
Client ID:	MW-04				
Operator ID:	ZN	ALS Bottle#:	17	Worklist Smp#:	37
Purge Vol:	5.000 mL	Dil. Factor:	2000.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Buffalo

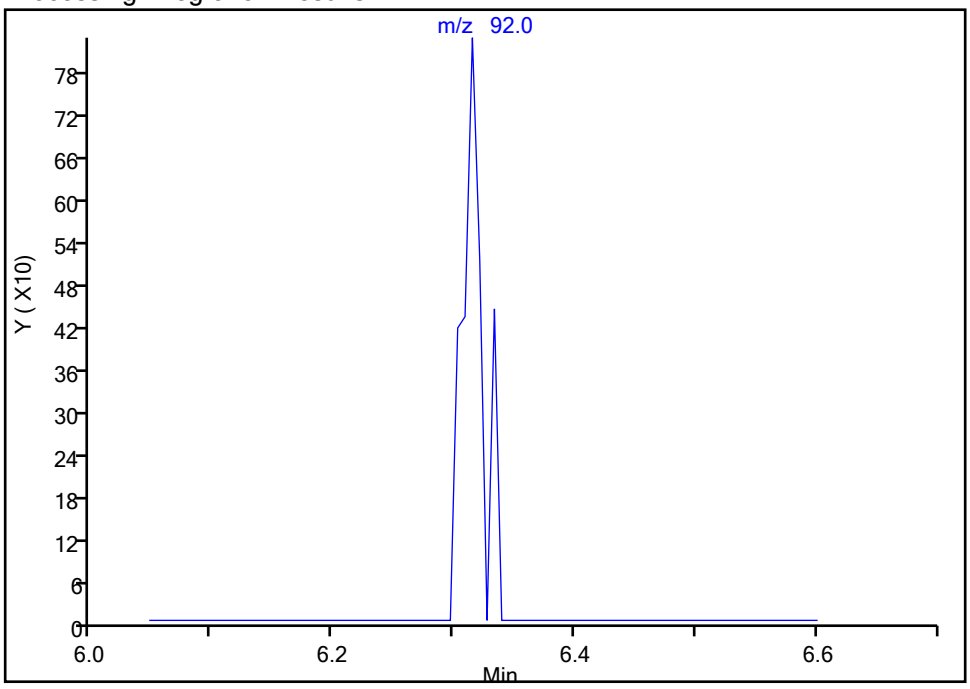
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1195.d
Injection Date: 13-Aug-2024 15:18:30 Instrument ID: HP5973S
Lims ID: 480-222377-D-4 Lab Sample ID: 480-222377-4
Client ID: MW-04
Operator ID: ZN ALS Bottle#: 17 Worklist Smp#: 37
Purge Vol: 5.000 mL Dil. Factor: 2000.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

74 Toluene, CAS: 108-88-3

Signal: 1

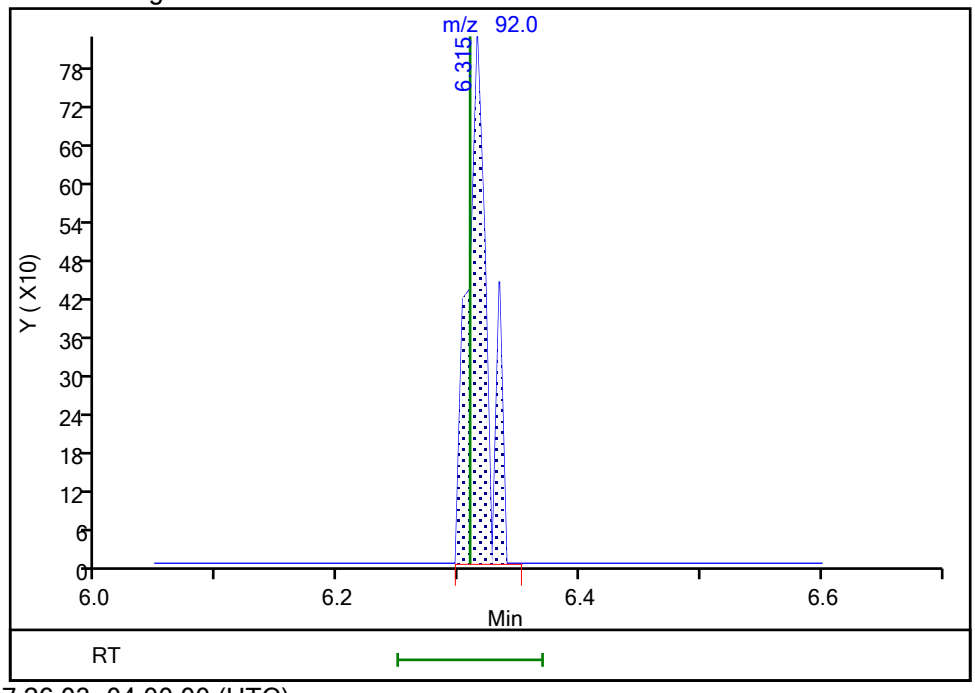
Not Detected
Expected RT: 6.31

Processing Integration Results



Manual Integration Results

RT: 6.32
Area: 954
Amount: 0.047555
Amount Units: ug/L



Reviewer: MHM2, 13-Aug-2024 17:26:03 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R | Lab Sample ID: 480-222377-5

Matrix: Water | Lab File ID: S1160.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 00:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	0.66	J	1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R | Lab Sample ID: 480-222377-5

Matrix: Water | Lab File ID: S1160.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 00:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		77-120
2037-26-5	Toluene-d8 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		73-120
1868-53-7	Dibromofluoromethane (Surr)	100		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d
Lims ID: 480-222377-C-5
Client ID: MW-05R
Sample Type: Client
Inject. Date: 13-Aug-2024 00:14:30 ALS Bottle#: 41 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-5
Misc. Info.: 480-0119480-013
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:25:23 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:25:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.764	4.758	0.006	99	155502	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	84	352809	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	96	379854	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	208897	25.0	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	93	140493	26.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	849560	26.7	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	90	282876	25.0	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	U
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43		2.227				ND	
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84	2.586	2.586	0.000	42	2214	-0.1341	a
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83	4.052	4.046	0.006	55	9548	0.6600	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- U - Marked Undetected
- a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

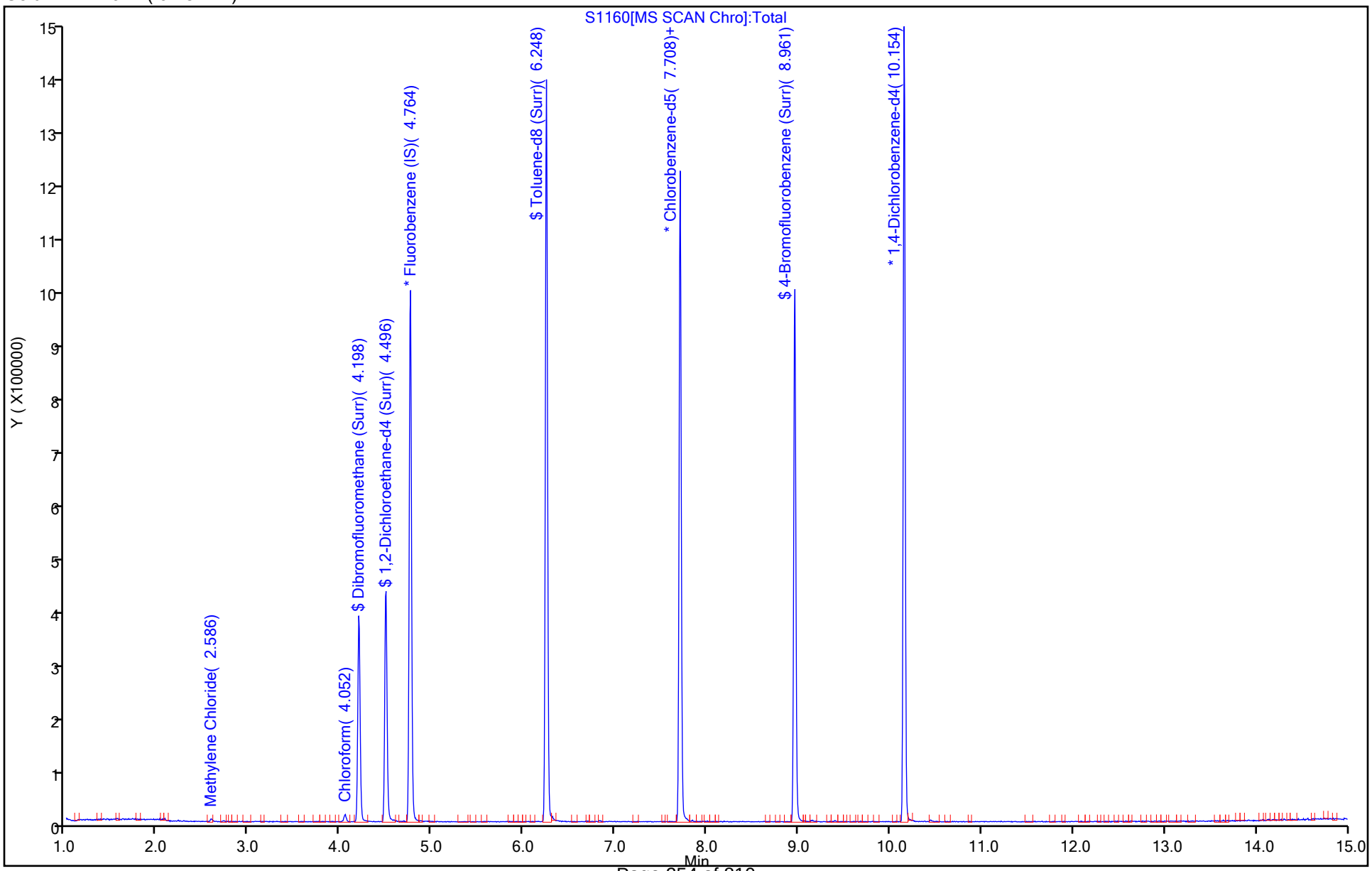
Report Date: 13-Aug-2024 13:25:24 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d

Injection Date:	13-Aug-2024 00:14:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-5	Lab Sample ID:	480-222377-5	Worklist Smp#:	13
Client ID:	MW-05R				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 13:25:24 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d
Lims ID: 480-222377-C-5
Client ID: MW-05R
Sample Type: Client
Inject. Date: 13-Aug-2024 00:14:30 ALS Bottle#: 41 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-5
Misc. Info.: 480-0119480-013
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:25:23 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:25:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	25.0	99.82
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	26.4	105.41
$ 5 Toluene-d8 (Surr)	25.0	26.7	106.97
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.0	100.14

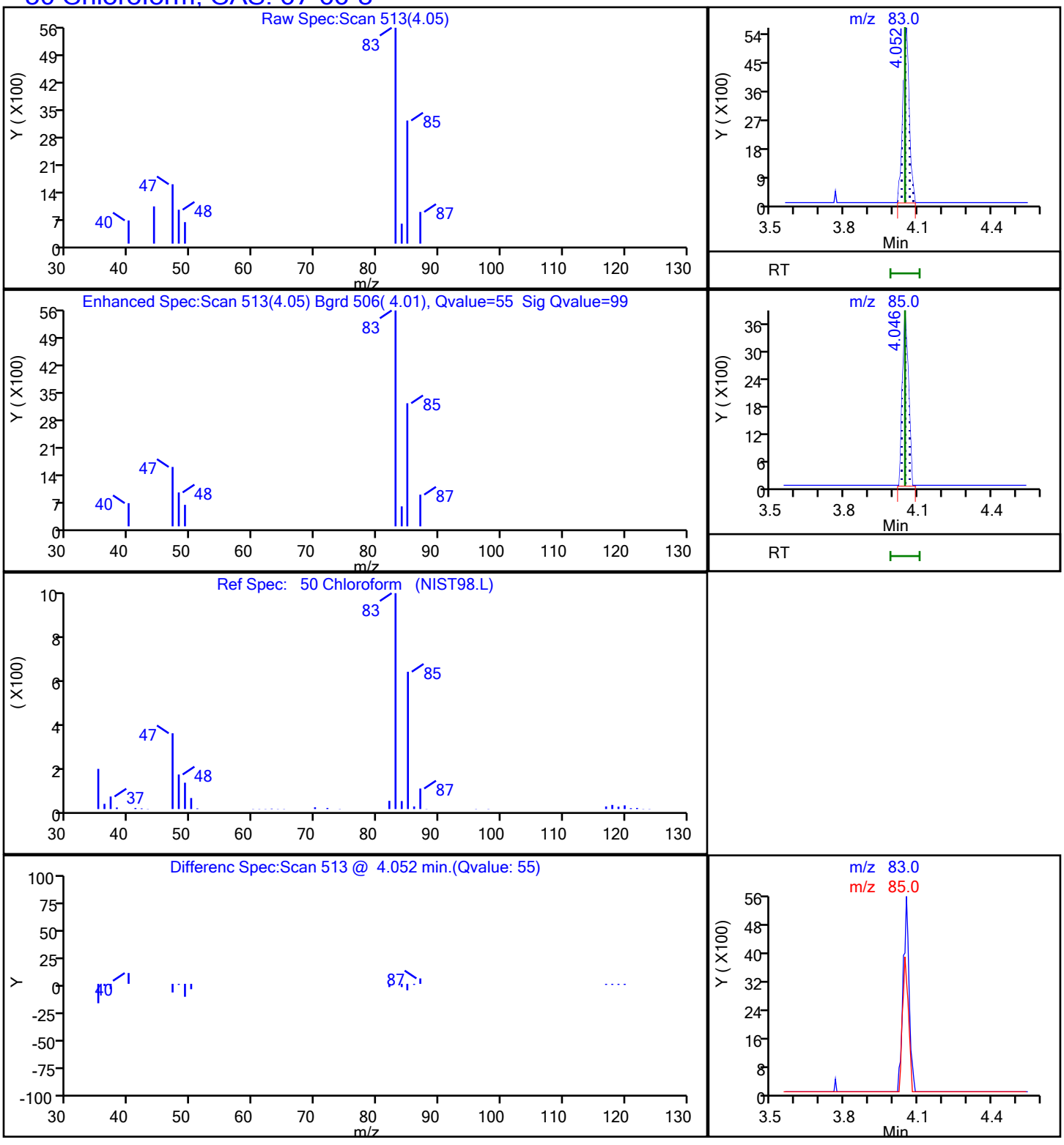
Report Date: 13-Aug-2024 13:25:24 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d

Injection Date:	13-Aug-2024 00:14:30	Instrument ID:	HP5973S
Lims ID:	480-222377-C-5	Lab Sample ID:	480-222377-5
Client ID:	MW-05R		
Operator ID:	ZN	ALS Bottle#:	41 Worklist Smp#: 13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	S-8260	Limit Group:	MV - 8260C ICAL
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN

50 Chloroform, CAS: 67-66-3



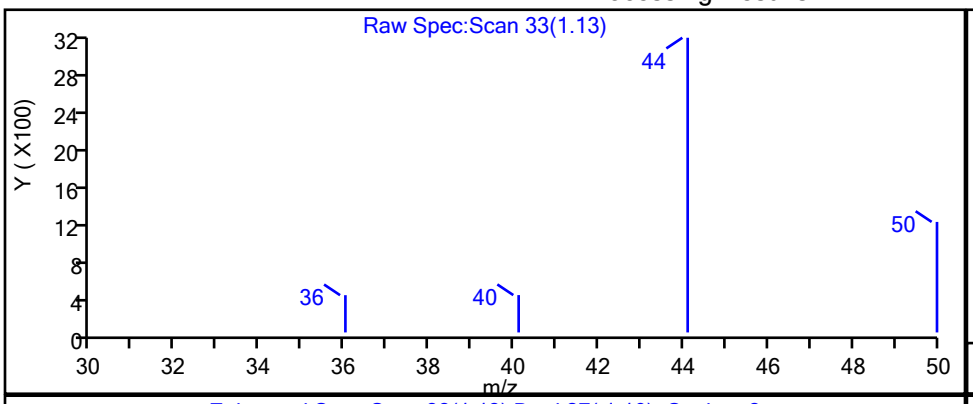
User Disabled Compound Report

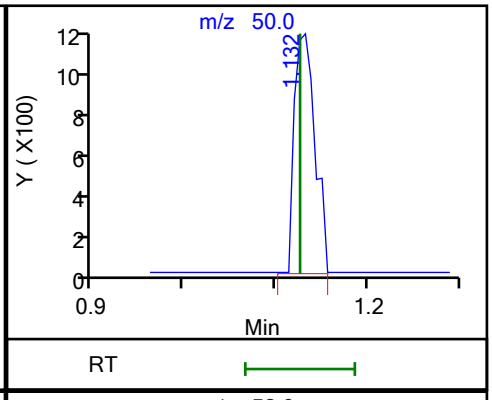
Eurofins Buffalo

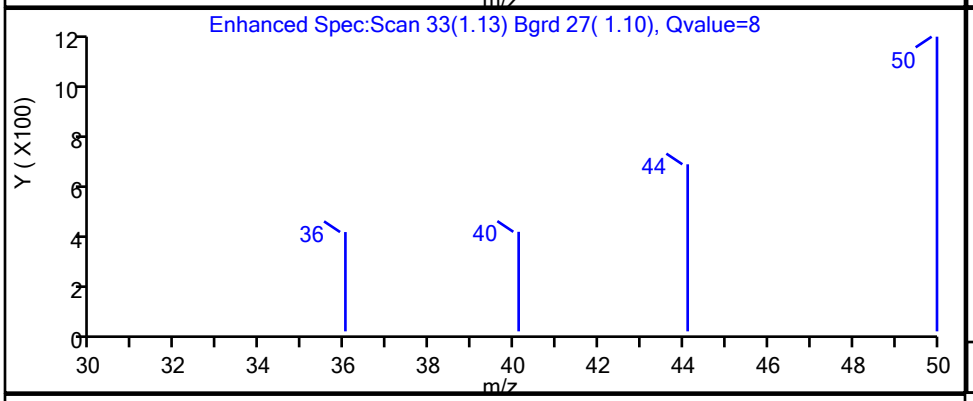
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d
Injection Date: 13-Aug-2024 00:14:30 Instrument ID: HP5973S
Lims ID: 480-222377-C-5 Lab Sample ID: 480-222377-5
Client ID: MW-05R
Operator ID: ZN ALS Bottle#: 41 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

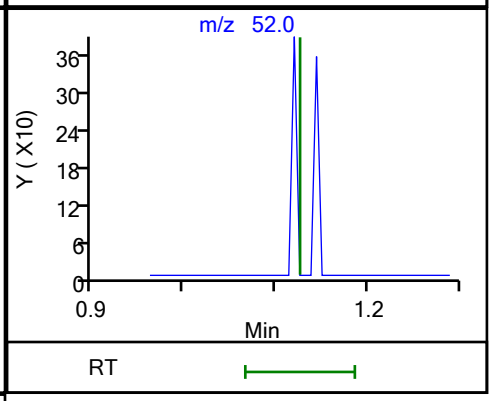
12 Chloromethane, CAS: 74-87-3

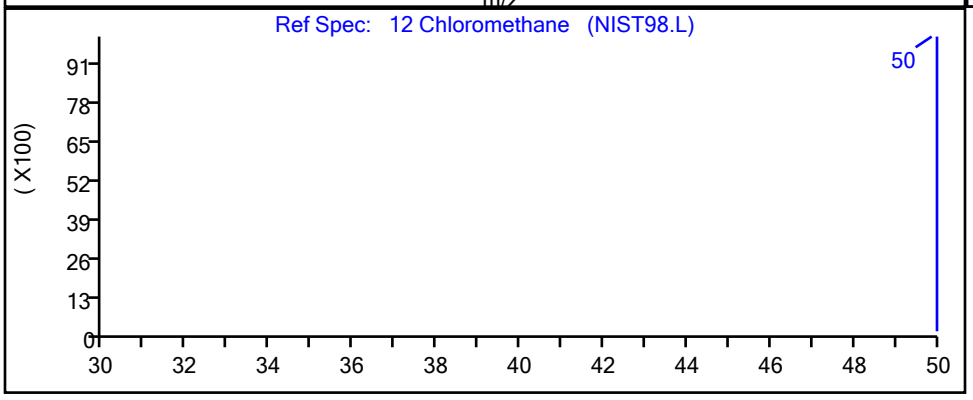
Processing Results











RT	Mass	Response	Amount
1.13	50.00	1873	0.150959
1.13	52.00	0	

Reviewer: QR3Z, 13-Aug-2024 13:25:01 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Buffalo

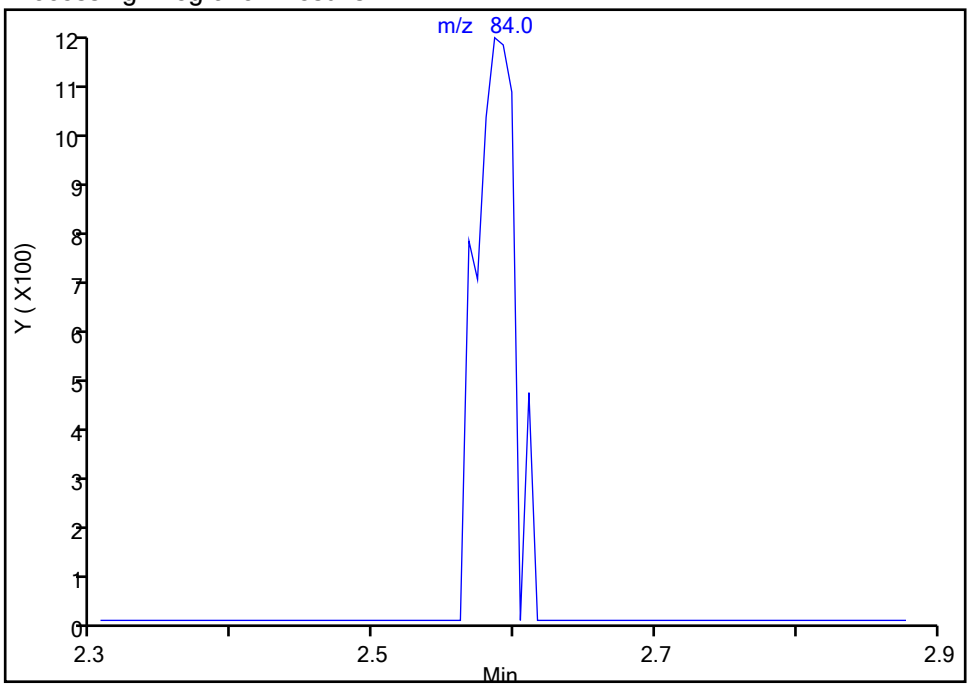
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1160.d				
Injection Date:	13-Aug-2024 00:14:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-5	Lab Sample ID:	480-222377-5		
Client ID:	MW-05R				
Operator ID:	ZN	ALS Bottle#:	41	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

30 Methylene Chloride, CAS: 75-09-2

Signal: 1

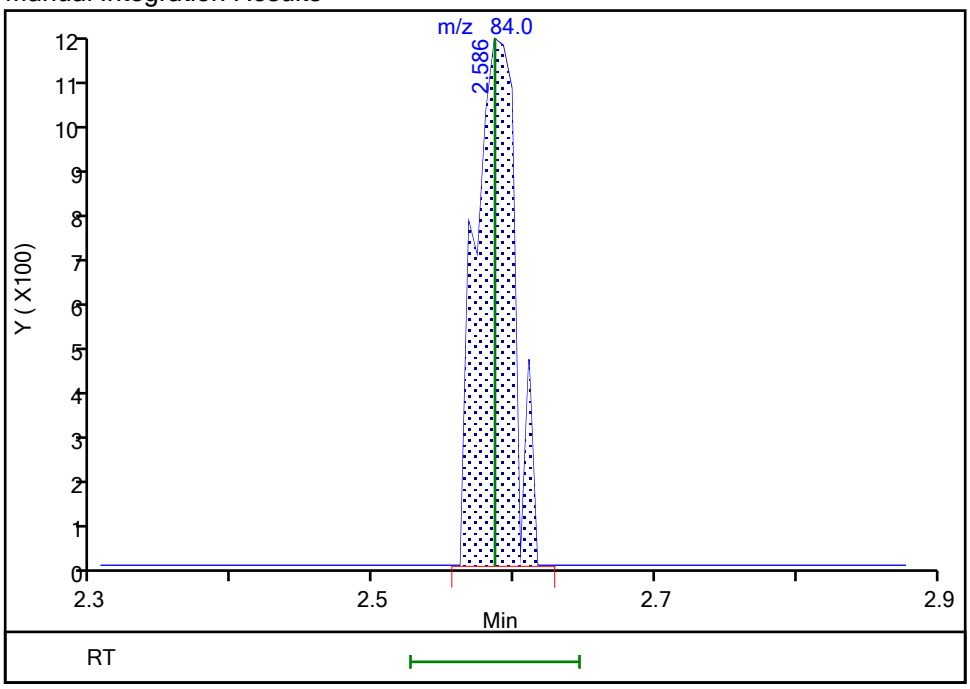
Not Detected
Expected RT: 2.59

Processing Integration Results



Manual Integration Results

RT: 2.59
Area: 2214
Amount: -0.134076
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:25:09 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-06 | Lab Sample ID: 480-222377-6

Matrix: Water | Lab File ID: S1161.d

Analysis Method: 8260C | Date Collected: 08/07/2024 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 00:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-06 | Lab Sample ID: 480-222377-6

Matrix: Water | Lab File ID: S1161.d

Analysis Method: 8260C | Date Collected: 08/07/2024 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 00:37

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		77-120
2037-26-5	Toluene-d8 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		73-120
1868-53-7	Dibromofluoromethane (Surr)	103		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1161.d
Lims ID: 480-222377-C-6
Client ID: MW-06
Sample Type: Client
Inject. Date: 13-Aug-2024 00:37:30 ALS Bottle#: 42 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-6
Misc. Info.: 480-0119480-014
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:26:31 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:26:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	160001	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	366523	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	396351	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	220979	25.7	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	93	144989	26.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	893170	27.1	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	92	294961	25.1	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43	2.221	2.221	-0.006	80	8690	2.34	
26 Carbon disulfide	76		2.288				ND	7
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84		2.586				ND	7
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	U
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92	6.315	6.315	0.006	40	3655	0.1787	a
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106	7.970	7.970	0.012	1	1245	0.0799	a
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- U - Marked Undetected
- a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

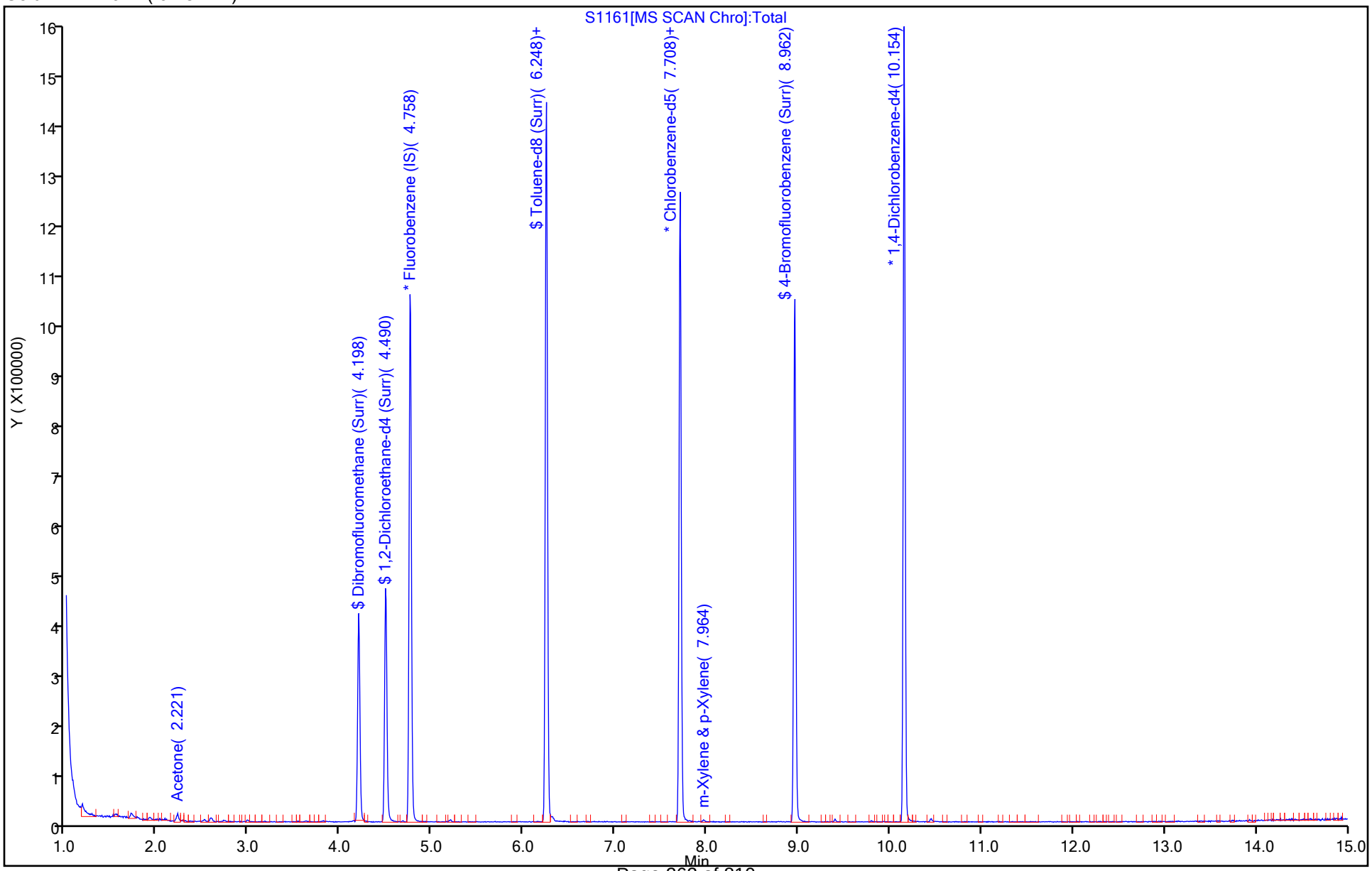
Report Date: 13-Aug-2024 13:26:32 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1161.d

Injection Date:	13-Aug-2024 00:37:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-6	Lab Sample ID:	480-222377-6	Worklist Smp#:	14
Client ID:	MW-06				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	42
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1161.d
Lims ID: 480-222377-C-6
Client ID: MW-06
Sample Type: Client
Inject. Date: 13-Aug-2024 00:37:30 ALS Bottle#: 42 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-6
Misc. Info.: 480-0119480-014
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:26:31 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:26:31

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	25.7	102.63
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	26.4	105.72
$ 5 Toluene-d8 (Surr)	25.0	27.1	108.25
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.1	100.51

Manual Integration/User Assign Peak Report

Eurofins Buffalo

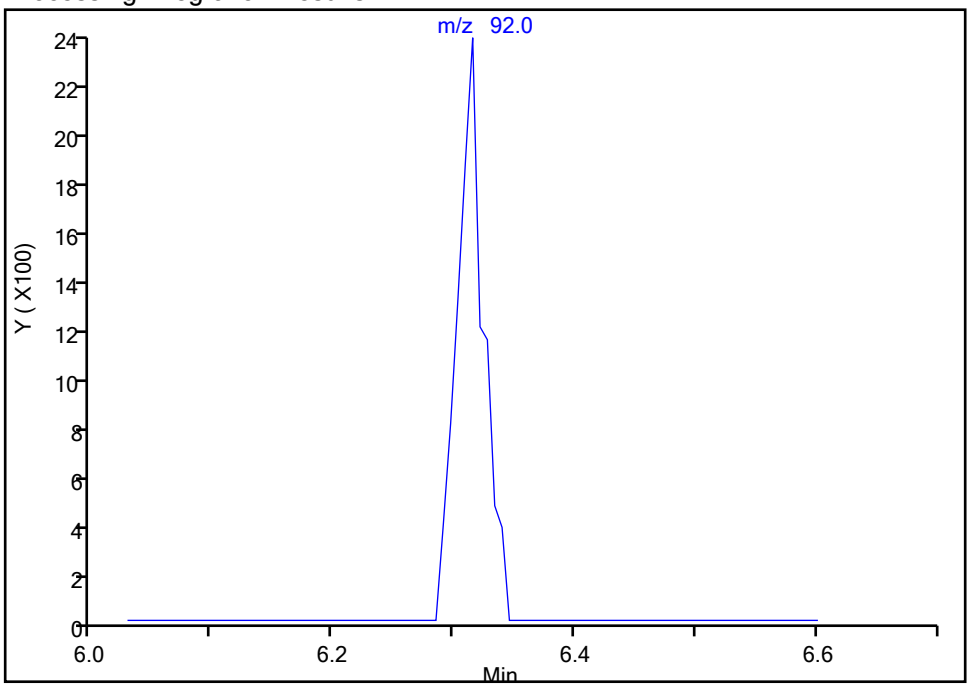
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1161.d				
Injection Date:	13-Aug-2024 00:37:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-6	Lab Sample ID:	480-222377-6		
Client ID:	MW-06				
Operator ID:	ZN	ALS Bottle#:	42	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

74 Toluene, CAS: 108-88-3

Signal: 1

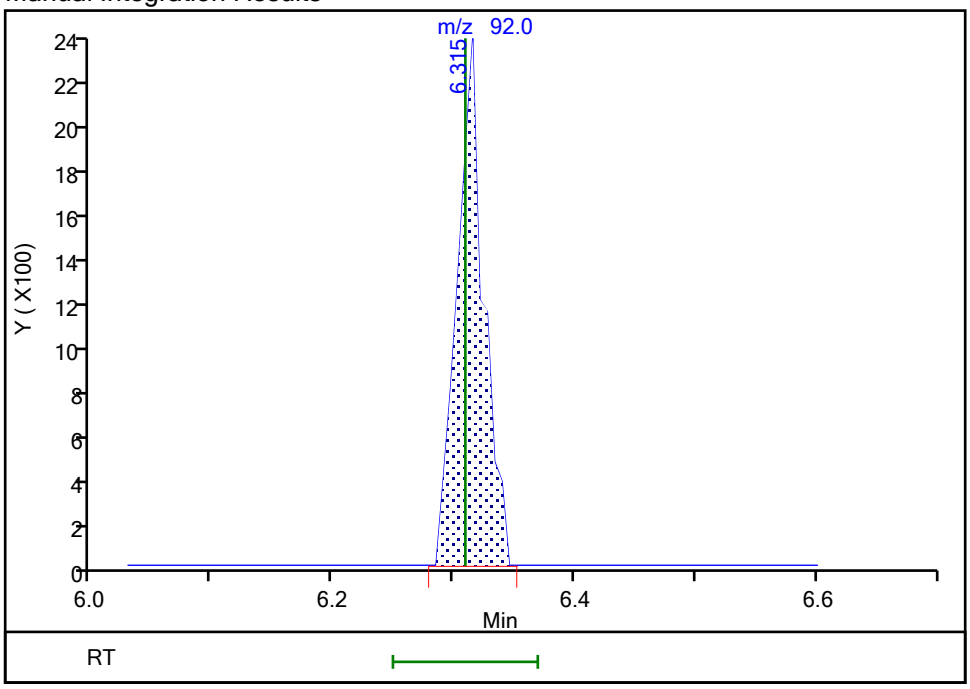
Not Detected
Expected RT: 6.31

Processing Integration Results



Manual Integration Results

RT: 6.32
Area: 3655
Amount: 0.178708
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:26:16 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Buffalo

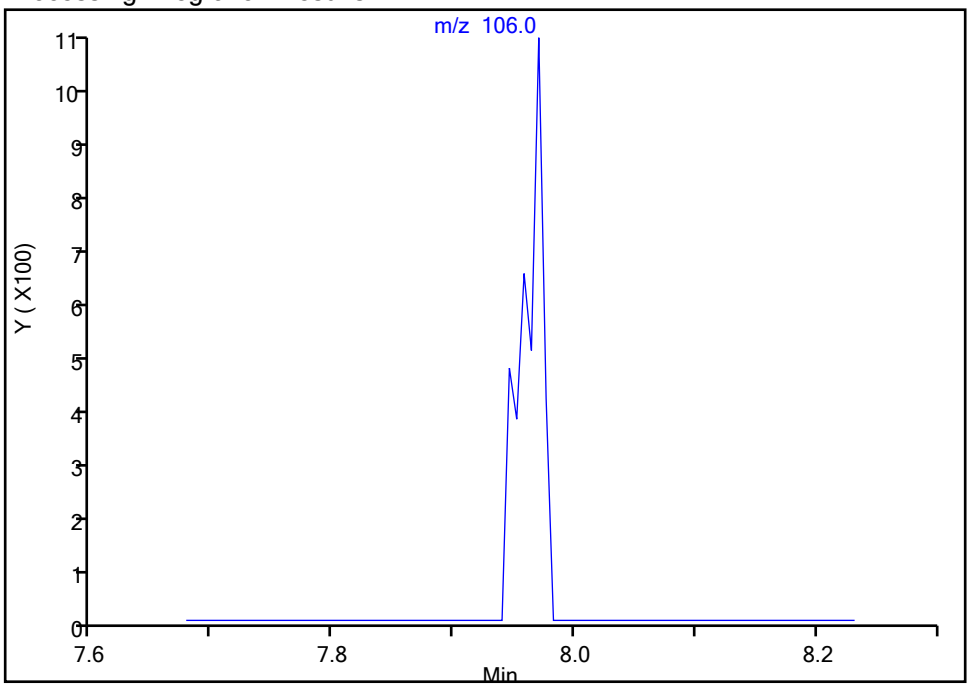
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1161.d				
Injection Date:	13-Aug-2024 00:37:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-6	Lab Sample ID:	480-222377-6		
Client ID:	MW-06				
Operator ID:	ZN	ALS Bottle#:	42	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

90 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

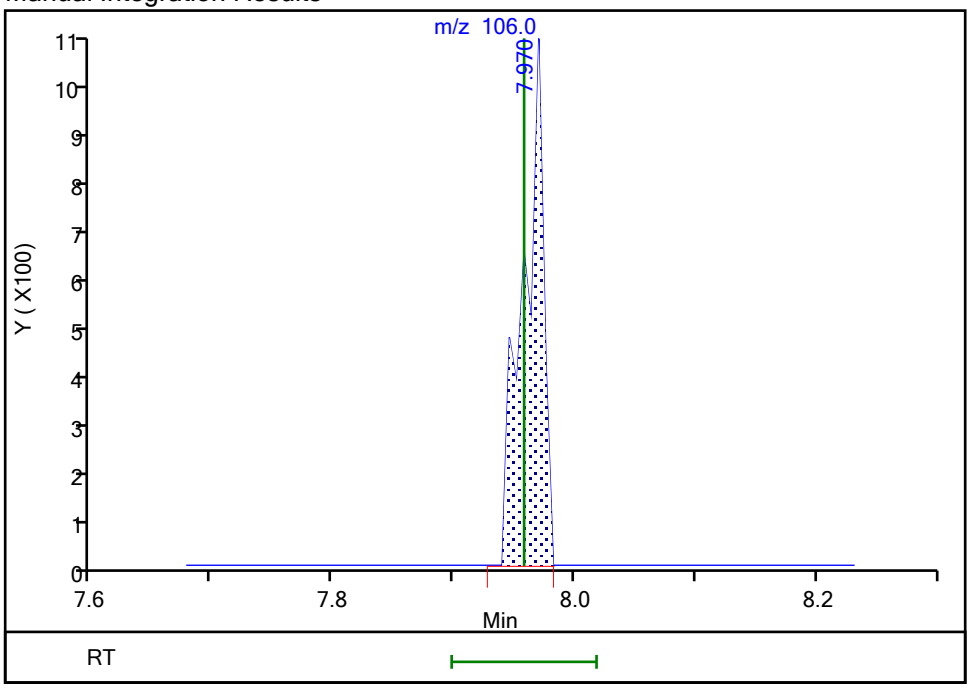
Not Detected
Expected RT: 7.96

Processing Integration Results



Manual Integration Results

RT: 7.97
Area: 1245
Amount: 0.079924
Amount Units: ug/L



Reviewer: QR3Z, 13-Aug-2024 13:26:26 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-07 | Lab Sample ID: 480-222377-7

Matrix: Water | Lab File ID: S1162.d

Analysis Method: 8260C | Date Collected: 08/07/2024 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 01:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-07 | Lab Sample ID: 480-222377-7

Matrix: Water | Lab File ID: S1162.d

Analysis Method: 8260C | Date Collected: 08/07/2024 13:35

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 01:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		77-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	95		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1162.d
Lims ID: 480-222377-C-7
Client ID: MW-07
Sample Type: Client
Inject. Date: 13-Aug-2024 01:01:30 ALS Bottle#: 43 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-7
Misc. Info.: 480-0119480-015
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:27:03 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:27:03

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	161614	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	361283	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	399892	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	205599	23.6	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	92	136178	24.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	831593	25.6	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	90	272874	23.6	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	U
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43		2.227				ND	
26 Carbon disulfide	76		2.288				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84		2.586				ND	7
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	U
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

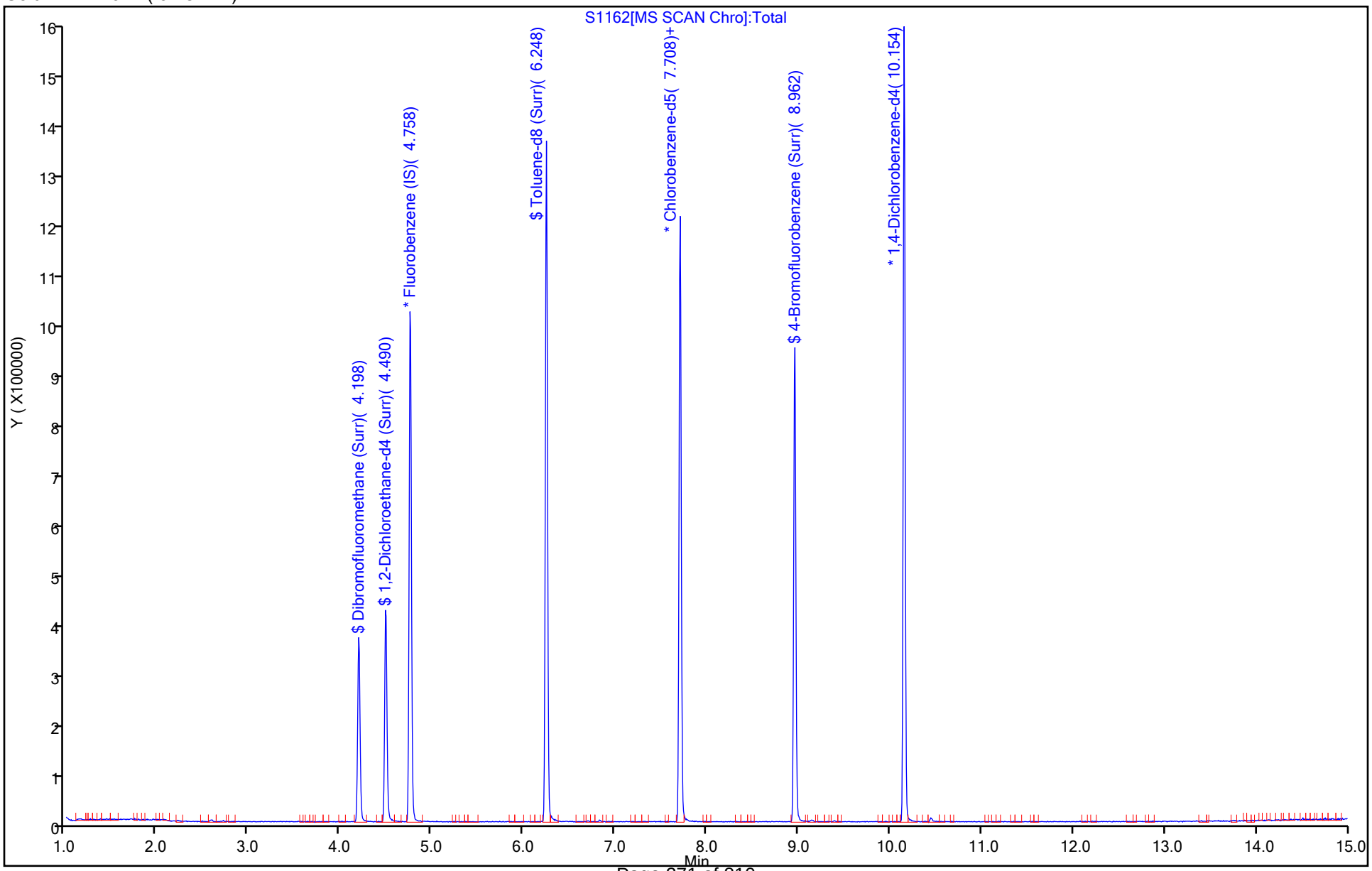
Report Date: 13-Aug-2024 13:27:04 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1162.d

Injection Date:	13-Aug-2024 01:01:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-7	Lab Sample ID:	480-222377-7	Worklist Smp#:	15
Client ID:	MW-07				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	43
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1162.d
Lims ID: 480-222377-C-7
Client ID: MW-07
Sample Type: Client
Inject. Date: 13-Aug-2024 01:01:30 ALS Bottle#: 43 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-7
Misc. Info.: 480-0119480-015
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:27:03 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:27:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	23.6	94.53
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	24.6	98.30
$ 5 Toluene-d8 (Surr)	25.0	25.6	102.25
$ 6 4-Bromofluorobenzene (Surr)	25.0	23.6	94.33

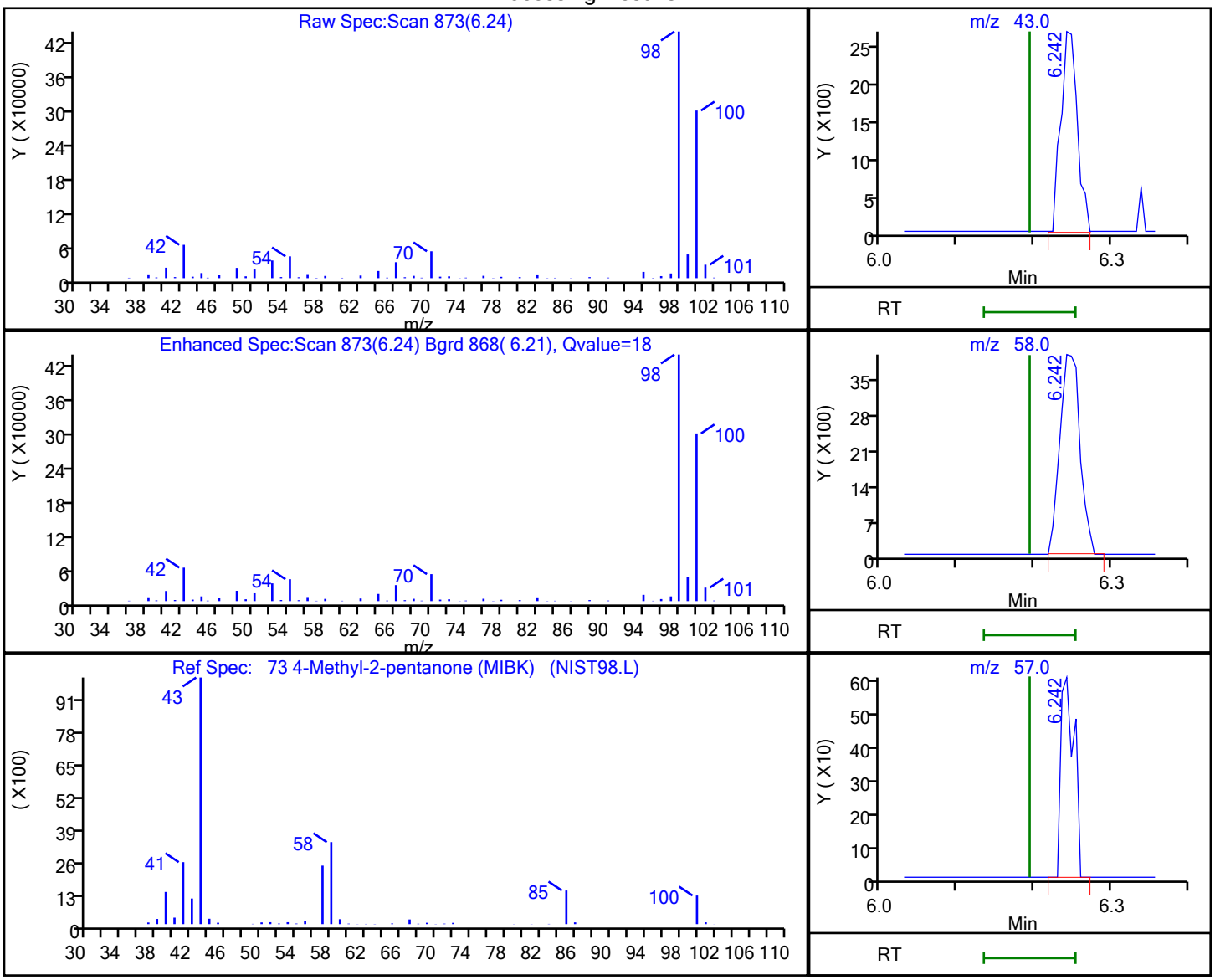
User Disabled Compound Report

Eurofins Buffalo

Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1162.d				
Injection Date:	13-Aug-2024 01:01:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-7	Lab Sample ID:	480-222377-7		
Client ID:	MW-07				
Operator ID:	ZN	ALS Bottle#:	43	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

73 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Processing Results



RT	Mass	Response	Amount
6.24	43.00	4030	0.301323
6.24	58.00	7340	
6.24	57.00	739	

Reviewer: QR3Z, 13-Aug-2024 13:26:51 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

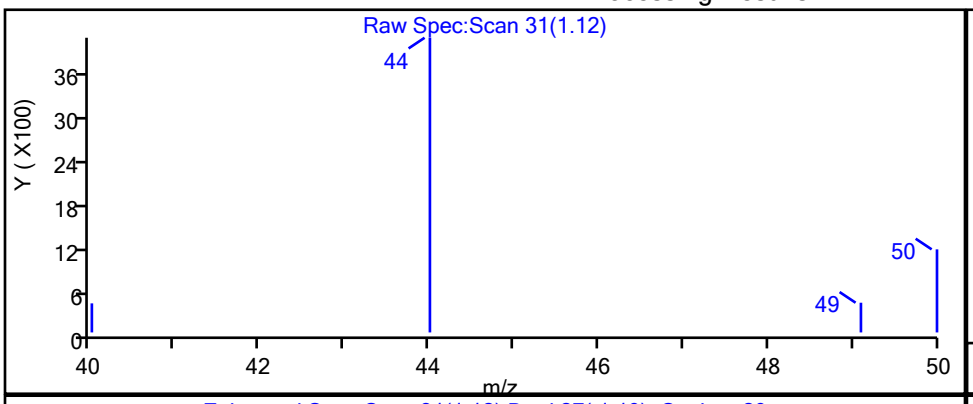
User Disabled Compound Report

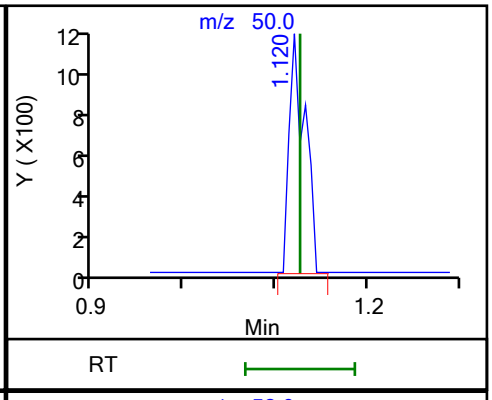
Eurofins Buffalo

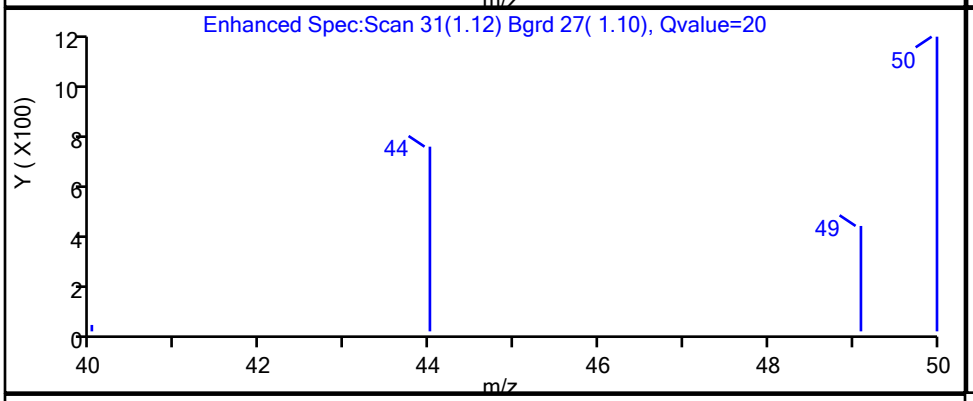
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1162.d				
Injection Date:	13-Aug-2024 01:01:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-7	Lab Sample ID:	480-222377-7		
Client ID:	MW-07				
Operator ID:	ZN	ALS Bottle#:	43	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

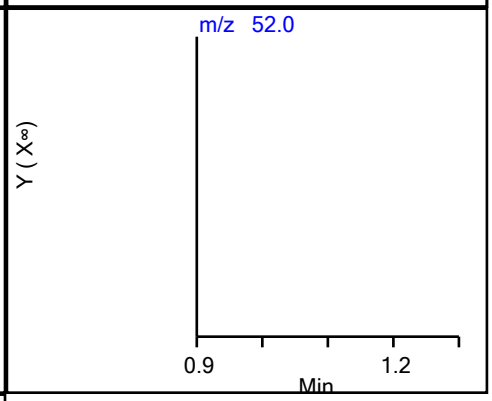
12 Chloromethane, CAS: 74-87-3

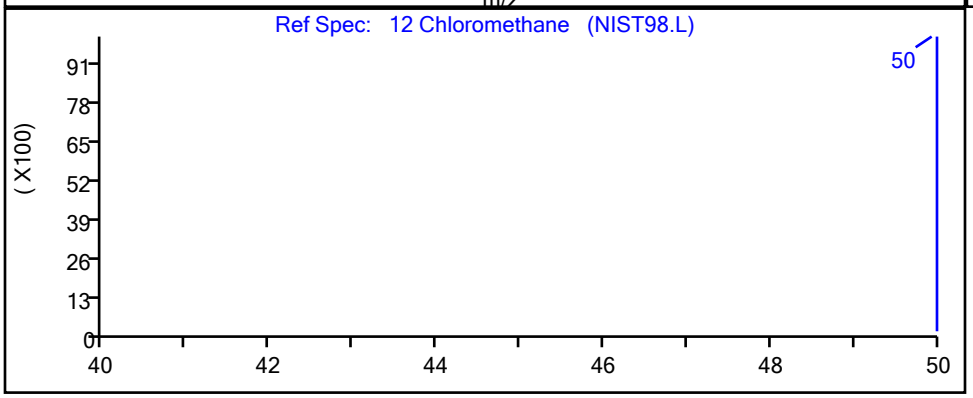
Processing Results











RT	Mass	Response	Amount
1.12	50.00	1375	0.106630
1.13	52.00	0	

Reviewer: QR3Z, 13-Aug-2024 13:26:41 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: DRUM | Lab Sample ID: 480-222377-8

Matrix: Water | Lab File ID: S1196.d

Analysis Method: 8260C | Date Collected: 08/07/2024 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 15:41

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		2.0	1.6
79-34-5	1,1,2,2-Tetrachloroethane	ND		2.0	0.42
79-00-5	1,1,2-Trichloroethane	ND		2.0	0.46
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62
75-34-3	1,1-Dichloroethane	ND		2.0	0.76
75-35-4	1,1-Dichloroethene	ND		2.0	0.58
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.82
96-12-8	1,2-Dibromo-3-Chloropropane	ND		2.0	0.78
106-93-4	1,2-Dibromoethane	ND		2.0	1.5
95-50-1	1,2-Dichlorobenzene	ND		2.0	1.6
107-06-2	1,2-Dichloroethane	ND		2.0	0.42
78-87-5	1,2-Dichloropropane	ND		2.0	1.4
541-73-1	1,3-Dichlorobenzene	ND		2.0	1.6
106-46-7	1,4-Dichlorobenzene	ND		2.0	1.7
591-78-6	2-Hexanone	ND		10	2.5
78-93-3	2-Butanone (MEK)	ND		20	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		10	4.2
67-64-1	Acetone	ND		20	6.0
71-43-2	Benzene	ND		2.0	0.82
75-27-4	Bromodichloromethane	ND		2.0	0.78
75-25-2	Bromoform	ND		2.0	0.52
74-83-9	Bromomethane	ND		2.0	1.4
75-15-0	Carbon disulfide	ND		2.0	0.38
56-23-5	Carbon tetrachloride	ND		2.0	0.54
108-90-7	Chlorobenzene	ND		2.0	1.5
124-48-1	Dibromochloromethane	ND		2.0	0.64
75-00-3	Chloroethane	ND		2.0	0.64
67-66-3	Chloroform	ND		2.0	0.68
74-87-3	Chloromethane	ND		2.0	0.70
156-59-2	cis-1,2-Dichloroethene	89		2.0	1.6
10061-01-5	cis-1,3-Dichloropropene	ND		2.0	0.72
110-82-7	Cyclohexane	ND		2.0	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: DRUM | Lab Sample ID: 480-222377-8

Matrix: Water | Lab File ID: S1196.d

Analysis Method: 8260C | Date Collected: 08/07/2024 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 15:41

Soil Aliquot Vol: | Dilution Factor: 2

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		2.0	1.4
100-41-4	Ethylbenzene	ND		2.0	1.5
98-82-8	Isopropylbenzene	ND		2.0	1.6
79-20-9	Methyl acetate	ND		5.0	2.6
1634-04-4	Methyl tert-butyl ether	ND		2.0	0.32
108-87-2	Methylcyclohexane	ND		2.0	0.32
75-09-2	Methylene Chloride	ND		2.0	0.88
100-42-5	Styrene	ND		2.0	1.5
127-18-4	Tetrachloroethene	3.4		2.0	0.72
108-88-3	Toluene	ND		2.0	1.0
156-60-5	trans-1,2-Dichloroethene	ND		2.0	1.8
10061-02-6	trans-1,3-Dichloropropene	ND		2.0	0.74
79-01-6	Trichloroethene	2.1		2.0	0.92
75-69-4	Trichlorofluoromethane	ND		2.0	1.8
75-01-4	Vinyl chloride	ND		2.0	1.8
1330-20-7	Xylenes, Total	ND		4.0	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		77-120
2037-26-5	Toluene-d8 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d
Lims ID: 480-222377-D-8
Client ID: DRUM
Sample Type: Client
Inject. Date: 13-Aug-2024 15:41:30 ALS Bottle#: 18 Worklist Smp#: 38
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 480-222377-D-8
Misc. Info.: 480-0119487-038
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 17:27:20 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1691

First Level Reviewer: MHM2 Date: 13-Aug-2024 17:27:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.764	4.758	0.006	99	159828	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	364855	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	396866	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	212532	24.7	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	92	135927	24.8	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	852379	25.9	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.961	0.001	91	278379	23.8	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.120				ND	
13 Vinyl chloride	62		1.193				ND	
14 Bromomethane	94		1.436				ND	
15 Chloroethane	64		1.509				ND	
17 Trichlorofluoromethane	101		1.685				ND	
22 1,1-Dichloroethene	96		2.105				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.111				ND	
23 Acetone	43		2.221				ND	
26 Carbon disulfide	76		2.282				ND	
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84	2.586	2.586	0.000	70	6470	0.3766	
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.200				ND	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	70	401055	44.5	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83	4.058	4.058	0.012	6	1243	0.0836	a
52 Cyclohexane	56		4.137				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95	5.098	5.092	0.006	67	8635	1.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.202				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.035				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.193				ND	
74 Toluene	92	6.309	6.309	0.000	28	982	0.0482	7Ma
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166	6.826	6.832	-0.006	79	15401	1.72	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.377				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.298				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

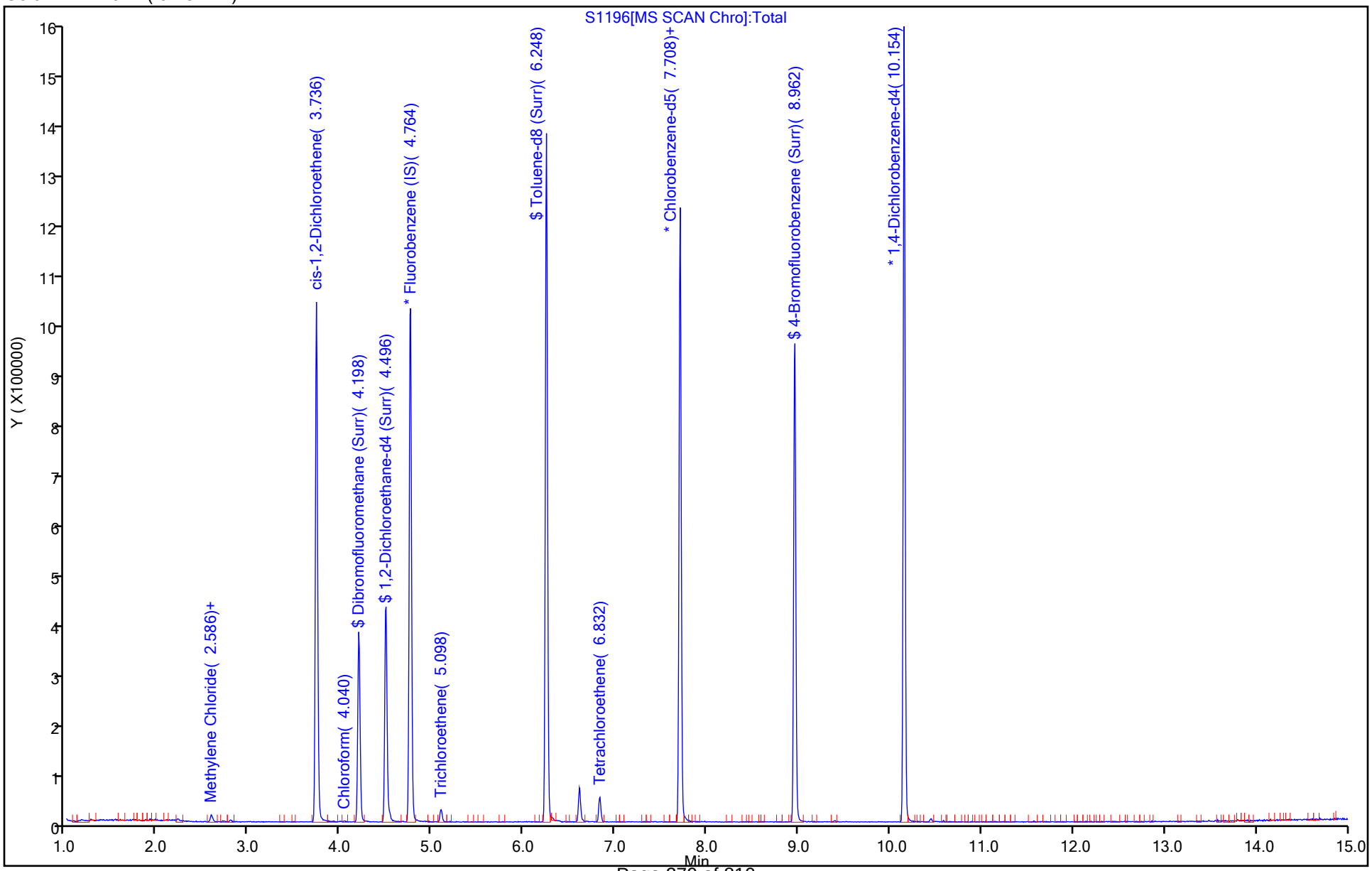
Report Date: 13-Aug-2024 17:27:21 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d

Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8	Worklist Smp#:	38
Client ID:	DRUM				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	18
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 17:27:21 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d
Lims ID: 480-222377-D-8
Client ID: DRUM
Sample Type: Client
Inject. Date: 13-Aug-2024 15:41:30 ALS Bottle#: 18 Worklist Smp#: 38
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 480-222377-D-8
Misc. Info.: 480-0119487-038
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 17:27:20 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1691

First Level Reviewer: MHM2 Date: 13-Aug-2024 17:27:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.7	98.81
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	24.8	99.22
$ 5 Toluene-d8 (Surr)	25.0	25.9	103.78
$ 6 4-Bromofluorobenzene (Surr)	25.0	23.8	95.29

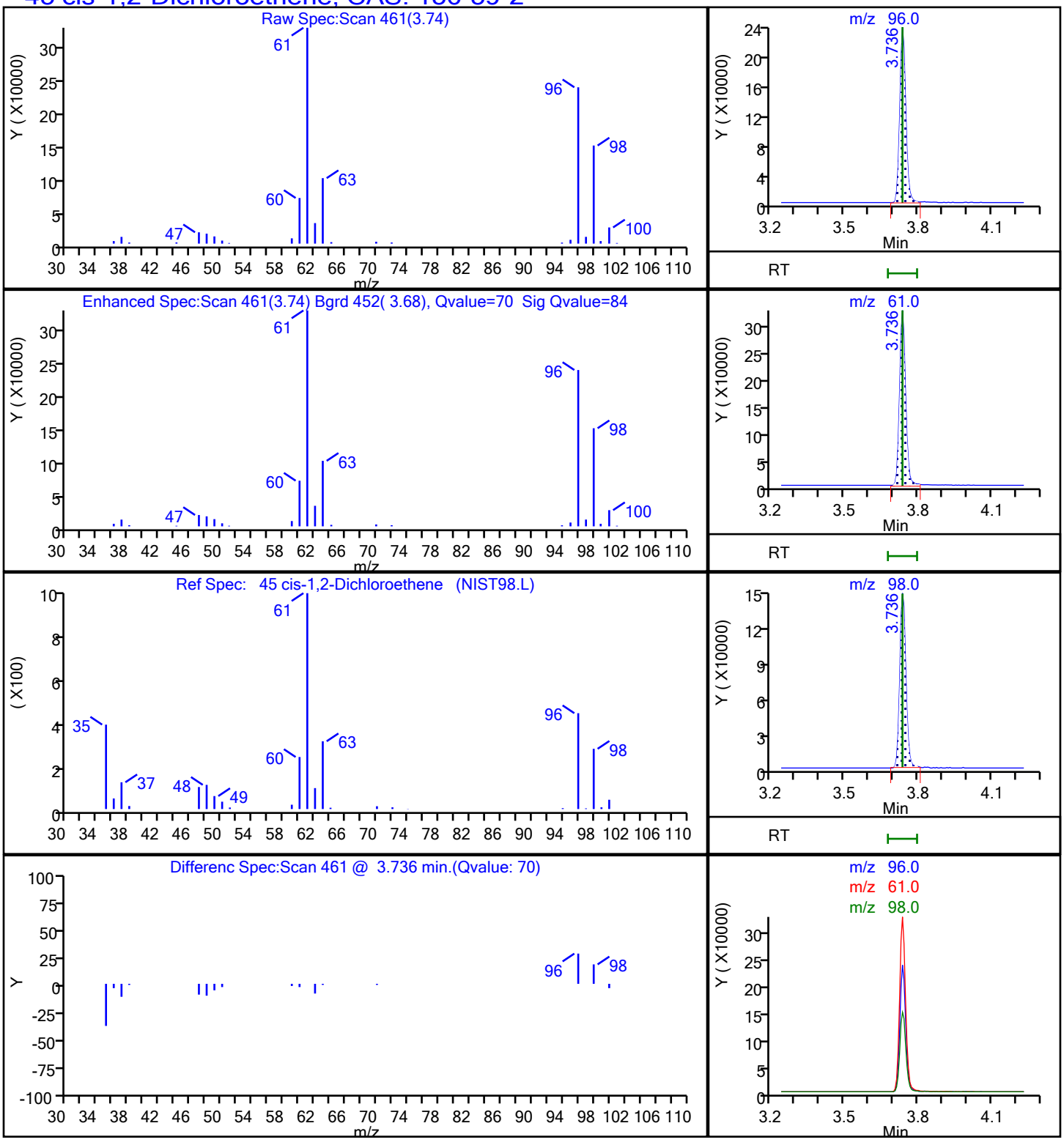
Report Date: 13-Aug-2024 17:27:21 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d

Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8		
Client ID:	DRUM				
Operator ID:	ZN	ALS Bottle#:	18	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

45 cis-1,2-Dichloroethene, CAS: 156-59-2



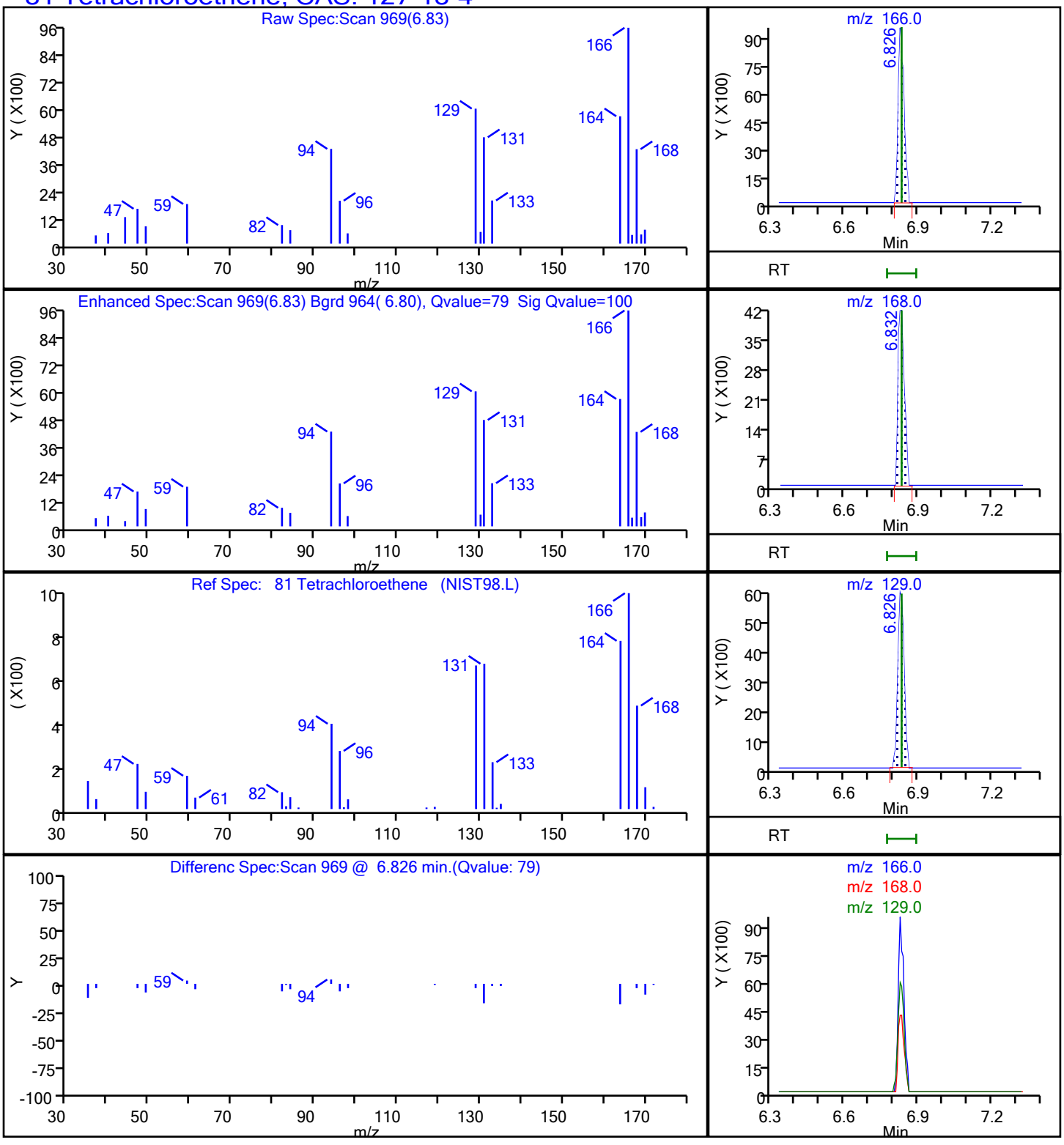
Report Date: 13-Aug-2024 17:27:21 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d

Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8		
Client ID:	DRUM				
Operator ID:	ZN	ALS Bottle#:	18	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

81 Tetrachloroethene, CAS: 127-18-4



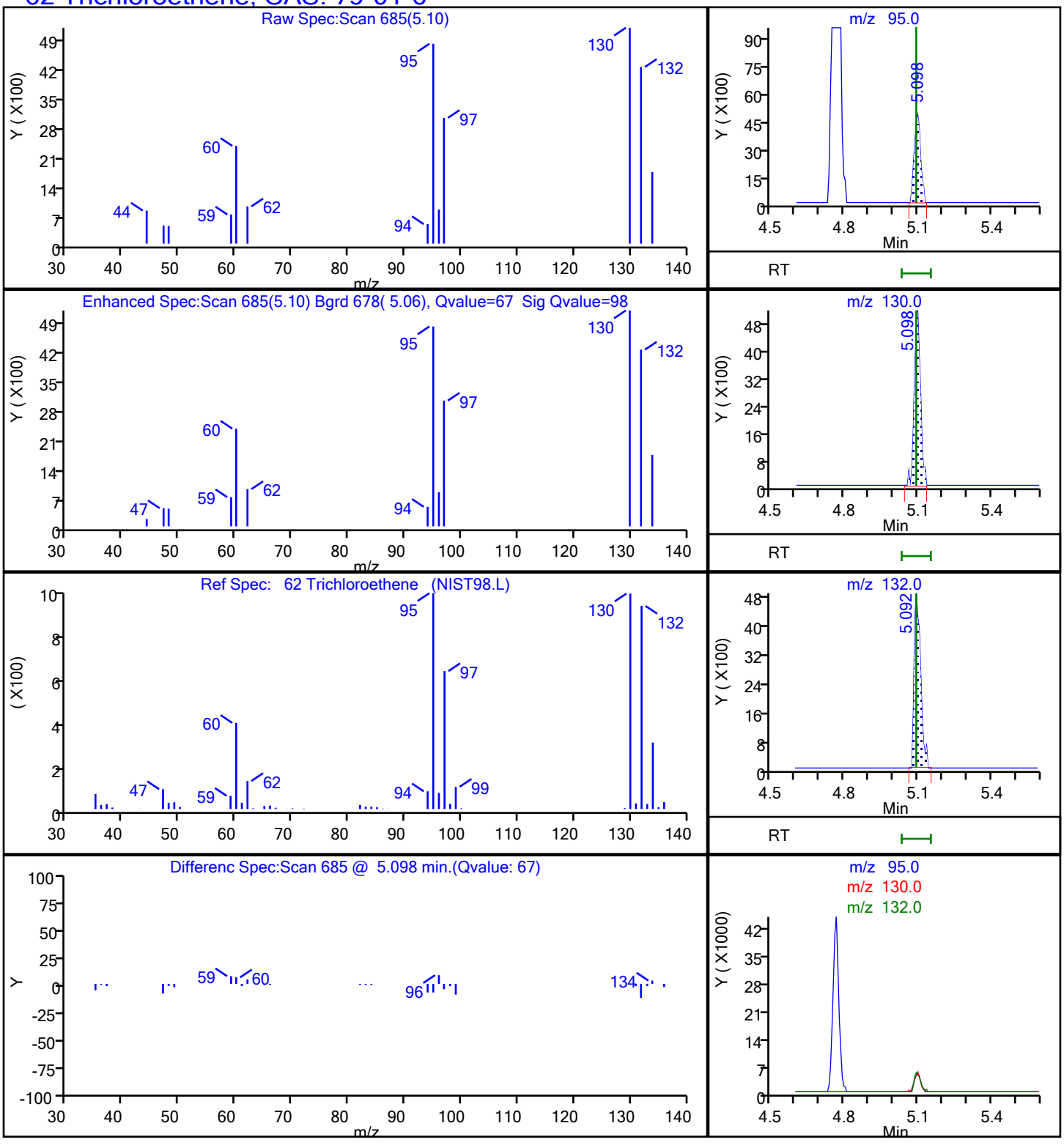
Report Date: 13-Aug-2024 17:27:21 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d

Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8		
Client ID:	DRUM				
Operator ID:	ZN	ALS Bottle#:	18	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

62 Trichloroethene, CAS: 79-01-6



Eurofins Buffalo

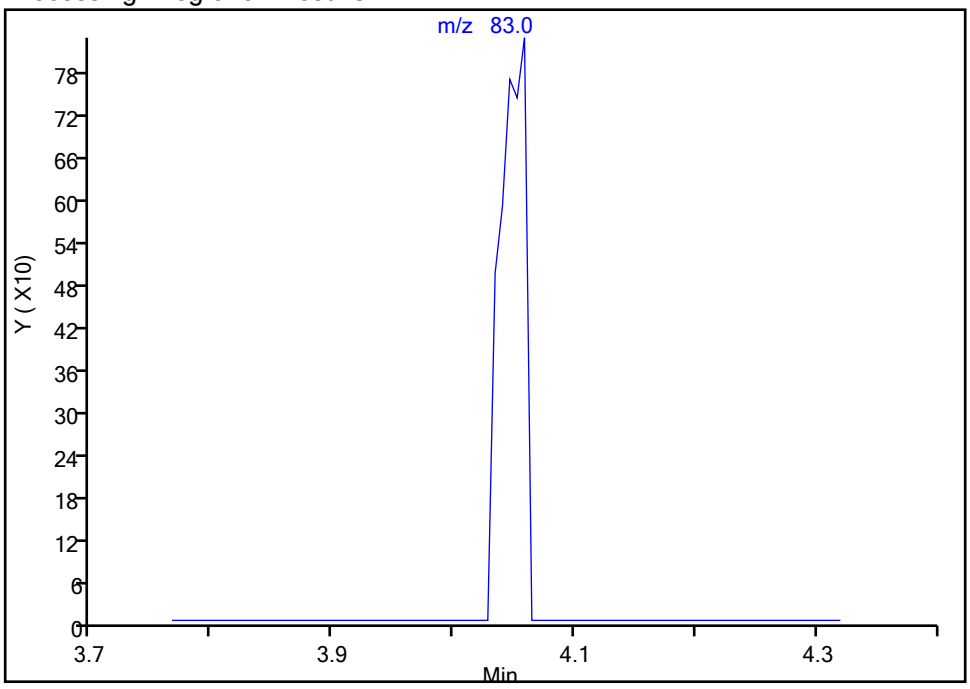
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d				
Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8		
Client ID:	DRUM				
Operator ID:	ZN	ALS Bottle#:	18	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

50 Chloroform, CAS: 67-66-3

Signal: 1

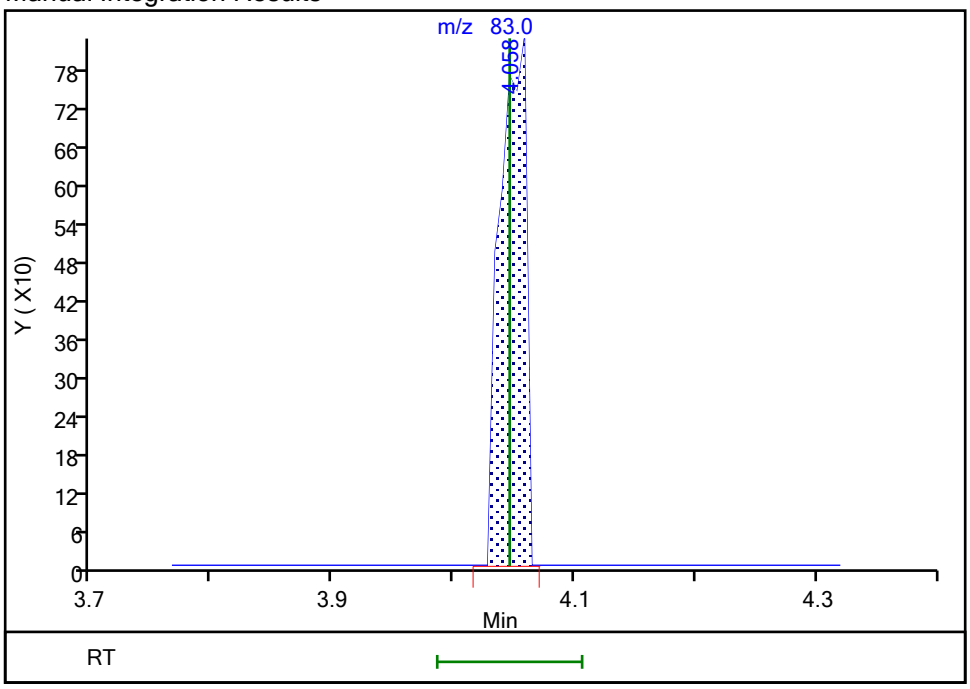
Not Detected
Expected RT: 4.05

Processing Integration Results



Manual Integration Results

RT: 4.06
Area: 1243
Amount: 0.083595
Amount Units: ug/L



Reviewer: MHM2, 13-Aug-2024 17:26:53 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

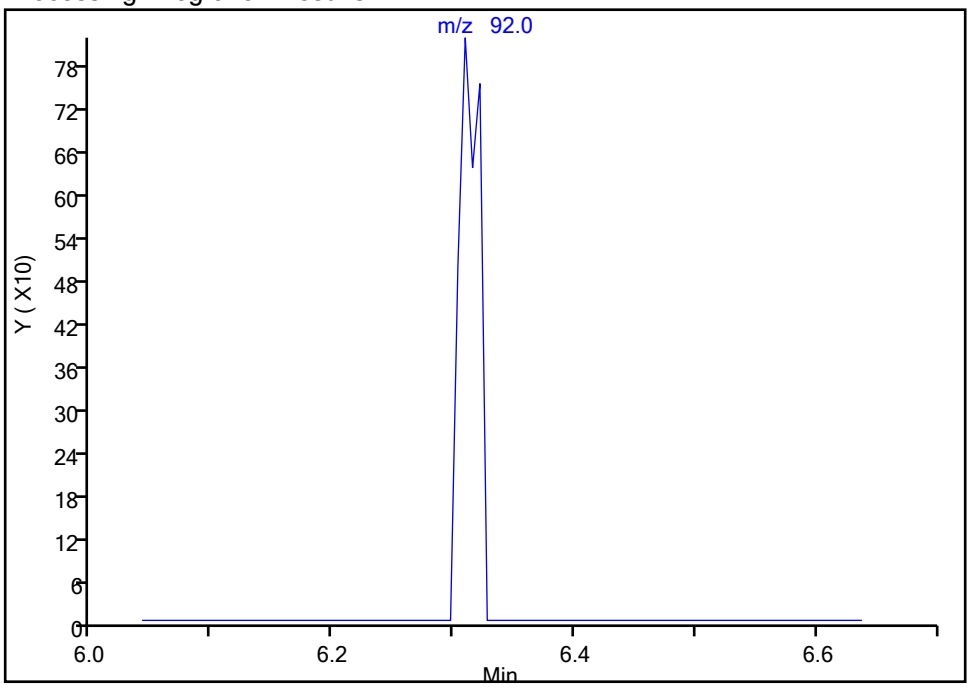
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1196.d				
Injection Date:	13-Aug-2024 15:41:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-D-8	Lab Sample ID:	480-222377-8		
Client ID:	DRUM				
Operator ID:	ZN	ALS Bottle#:	18	Worklist Smp#:	38
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

74 Toluene, CAS: 108-88-3

Signal: 1

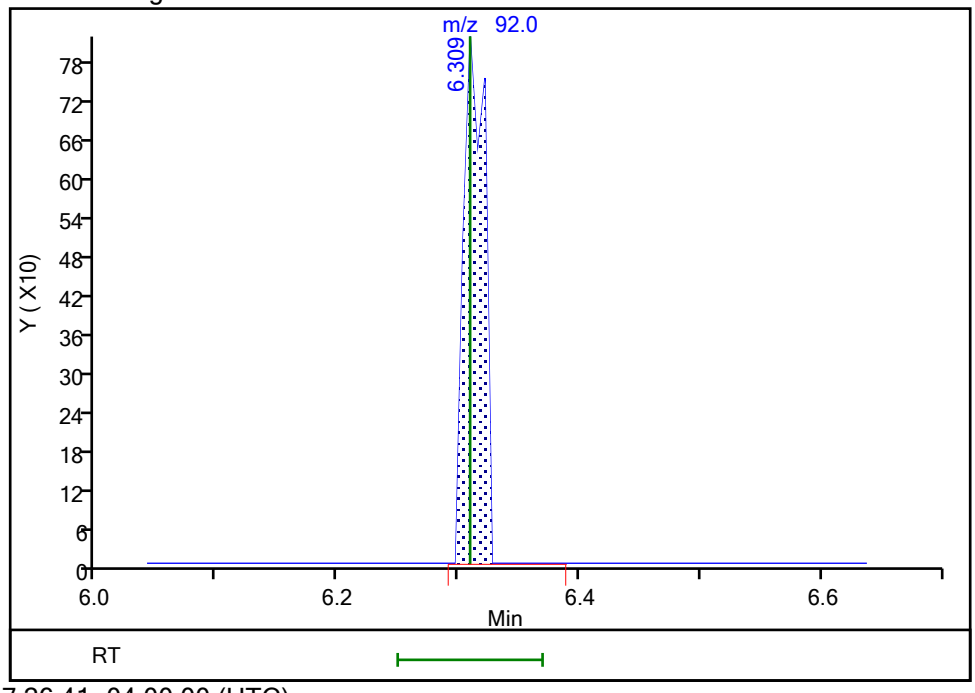
Not Detected
Expected RT: 6.31

Processing Integration Results



Manual Integration Results

RT: 6.31
Area: 982
Amount: 0.048233
Amount Units: ug/L



Reviewer: MHM2, 13-Aug-2024 17:26:41 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: DUP | Lab Sample ID: 480-222377-9

Matrix: Water | Lab File ID: S1164.d

Analysis Method: 8260C | Date Collected: 08/07/2024 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 01:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	4.0	J	10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: DUP | Lab Sample ID: 480-222377-9

Matrix: Water | Lab File ID: S1164.d

Analysis Method: 8260C | Date Collected: 08/07/2024 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 01:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH: 7.0

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		77-120
2037-26-5	Toluene-d8 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1164.d
Lims ID: 480-222377-C-9
Client ID: DUP
Sample Type: Client
Inject. Date: 13-Aug-2024 01:47:30 ALS Bottle#: 45 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-9
Misc. Info.: 480-0119480-017
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:28:08 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:28:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	160883	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	369164	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	400062	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	211041	24.4	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	93	138148	25.0	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	852302	25.6	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	90	276887	23.4	
10 Dichlorodifluoromethane	85		0.992				ND	
12 Chloromethane	50		1.126				ND	
13 Vinyl chloride	62		1.199				ND	
14 Bromomethane	94		1.442				ND	
15 Chloroethane	64		1.515				ND	
17 Trichlorofluoromethane	101		1.692				ND	
22 1,1-Dichloroethene	96		2.112				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112				ND	
23 Acetone	43	2.227	2.221	0.000	91	15126	4.05	
26 Carbon disulfide	76		2.288				ND	U
27 Methyl acetate	43		2.501				ND	
30 Methylene Chloride	84	2.586	2.586	0.000	66	4625	0.1483	
32 Methyl tert-butyl ether	73		2.787				ND	
34 trans-1,2-Dichloroethene	96		2.799				ND	
39 1,1-Dichloroethane	63		3.201				ND	
45 cis-1,2-Dichloroethene	96		3.736				ND	
43 2-Butanone (MEK)	43		3.778				ND	
50 Chloroform	83		4.046				ND	
51 1,1,1-Trichloroethane	97		4.143				ND	
52 Cyclohexane	56		4.143				ND	
55 Carbon tetrachloride	117		4.271				ND	
57 Benzene	78		4.490				ND	
58 1,2-Dichloroethane	62		4.563				ND	
62 Trichloroethene	95		5.093				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83		5.196				ND	
65 1,2-Dichloropropane	63		5.330				ND	
68 Dichlorobromomethane	83		5.628				ND	
72 cis-1,3-Dichloropropene	75		6.042				ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194				ND	
74 Toluene	92		6.309				ND	
77 trans-1,3-Dichloropropene	75		6.607				ND	
79 1,1,2-Trichloroethane	83		6.790				ND	
81 Tetrachloroethene	166		6.832				ND	
80 2-Hexanone	43		7.027				ND	
83 Chlorodibromomethane	129		7.173				ND	
84 Ethylene Dibromide	107		7.264				ND	
87 Chlorobenzene	112		7.739				ND	
88 Ethylbenzene	91		7.836				ND	
90 m-Xylene & p-Xylene	106		7.958				ND	
91 o-Xylene	106		8.378				ND	
92 Styrene	104		8.408				ND	
95 Bromoform	173		8.645				ND	
94 Isopropylbenzene	105		8.761				ND	
97 1,1,2,2-Tetrachloroethane	83		9.199				ND	
111 1,3-Dichlorobenzene	146		10.087				ND	
113 1,4-Dichlorobenzene	146		10.178				ND	
116 1,2-Dichlorobenzene	146		10.537				ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292				ND	
119 1,2,4-Trichlorobenzene	180		11.973				ND	
S 124 Xylenes, Total	1		30.000				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

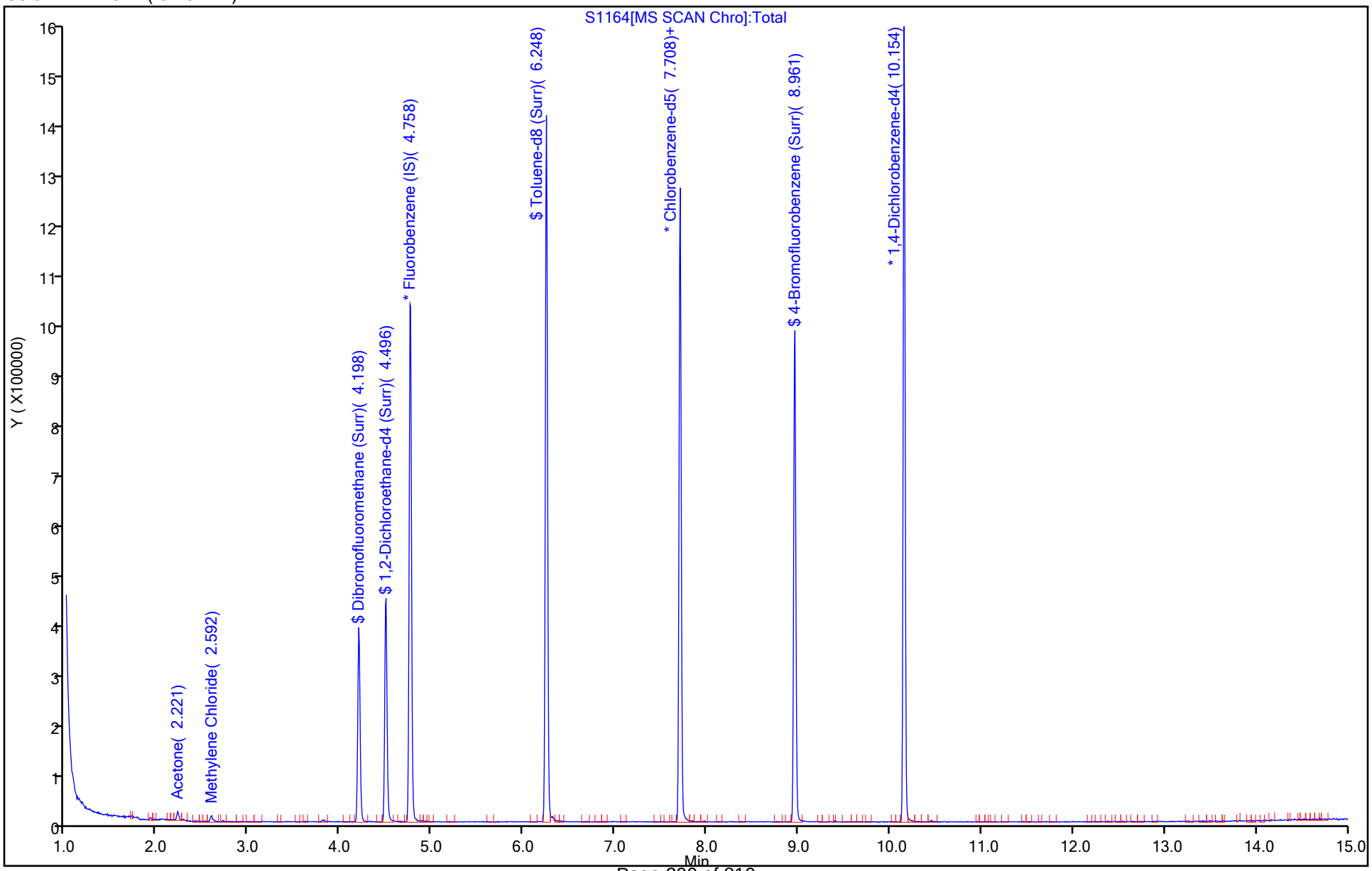
Report Date: 13-Aug-2024 13:28:09 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1164.d

Injection Date:	13-Aug-2024 01:47:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-C-9	Lab Sample ID:	480-222377-9	Worklist Smp#:	17
Client ID:	DUP				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1164.d
Lims ID: 480-222377-C-9
Client ID: DUP
Sample Type: Client
Inject. Date: 13-Aug-2024 01:47:30 ALS Bottle#: 45 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-C-9
Misc. Info.: 480-0119480-017
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:28:08 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:28:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.4	97.47
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.0	100.18
$ 5 Toluene-d8 (Surr)	25.0	25.6	102.56
$ 6 4-Bromofluorobenzene (Surr)	25.0	23.4	93.68

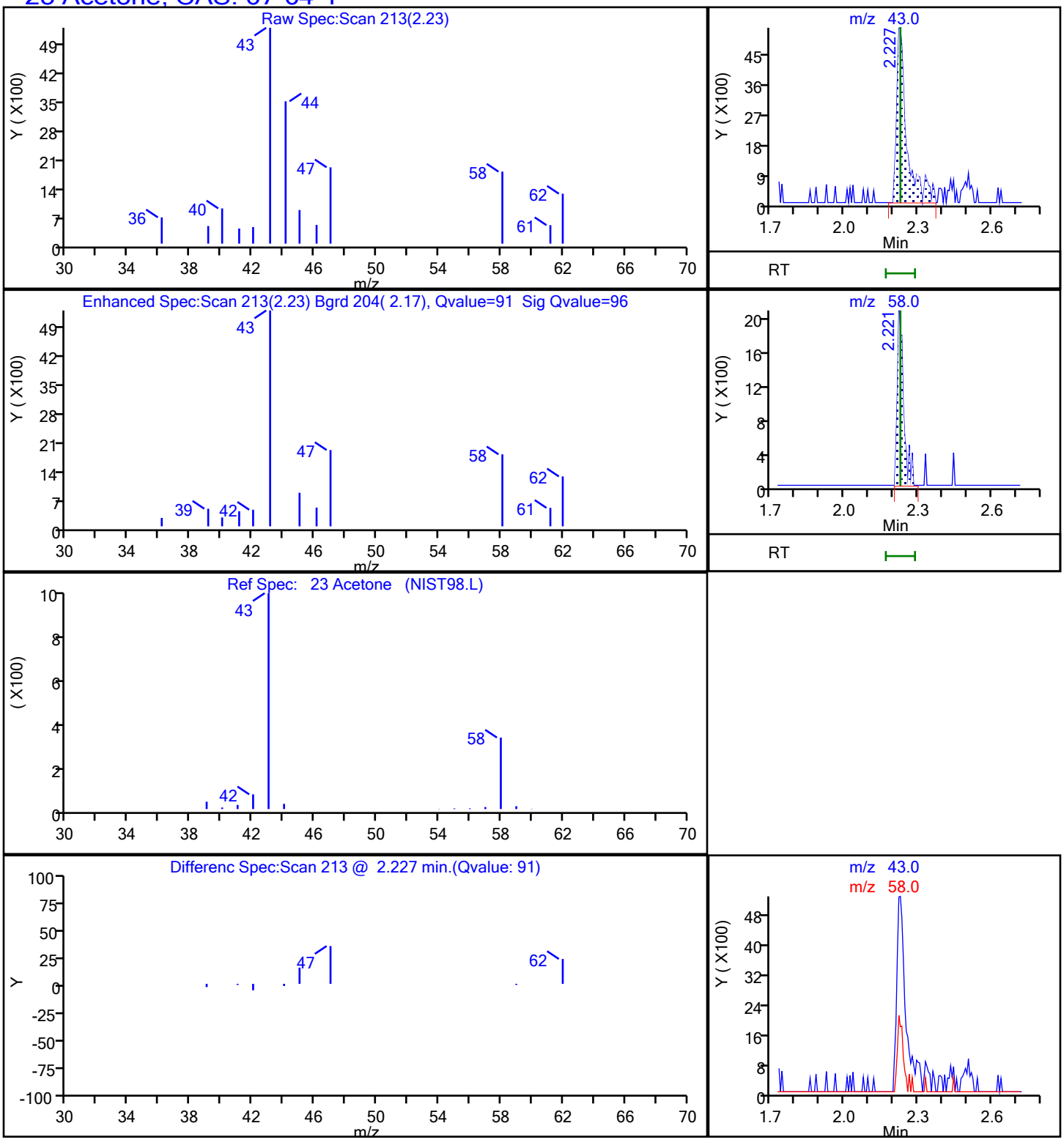
Report Date: 13-Aug-2024 13:28:09 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1164.d

Injection Date:	13-Aug-2024 01:47:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-9	Lab Sample ID:	480-222377-9		
Client ID:	DUP				
Operator ID:	ZN	ALS Bottle#:	45	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

23 Acetone, CAS: 67-64-1



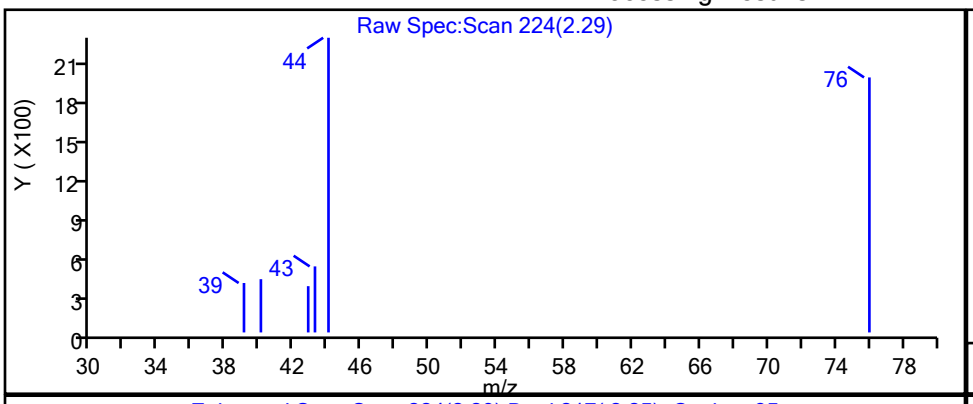
User Disabled Compound Report

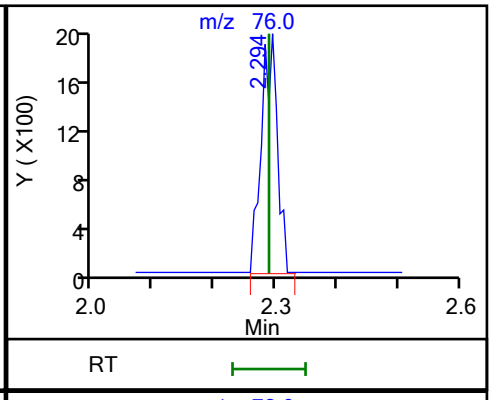
Eurofins Buffalo

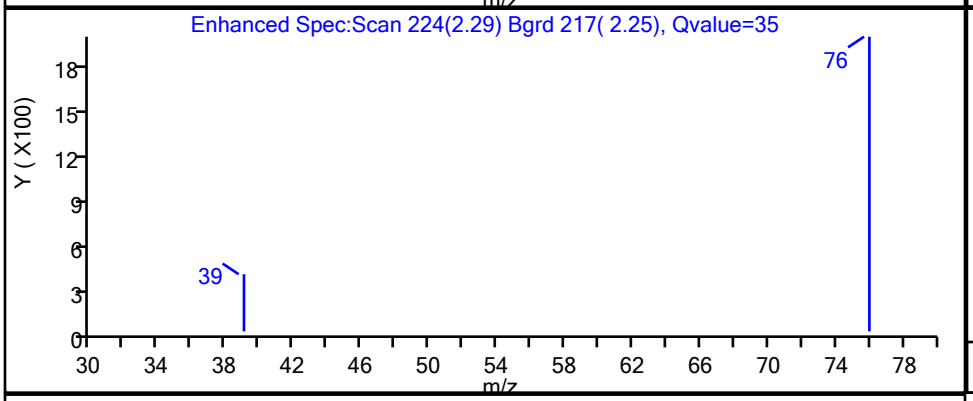
Data File:	\\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1164.d				
Injection Date:	13-Aug-2024 01:47:30	Instrument ID:	HP5973S		
Lims ID:	480-222377-C-9	Lab Sample ID:	480-222377-9		
Client ID:	DUP				
Operator ID:	ZN	ALS Bottle#:	45	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	S-8260	Limit Group:	MV - 8260C ICAL		
Column:	ZB-624 (0.18 mm)	Detector	MS SCAN		

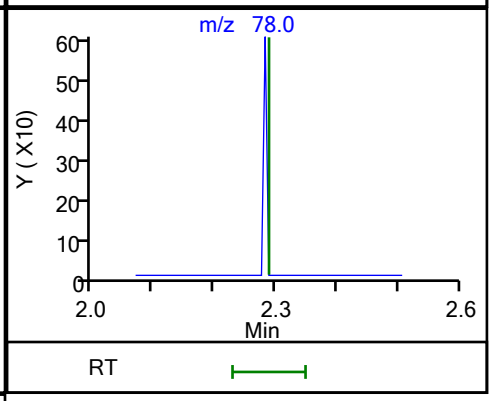
26 Carbon disulfide, CAS: 75-15-0

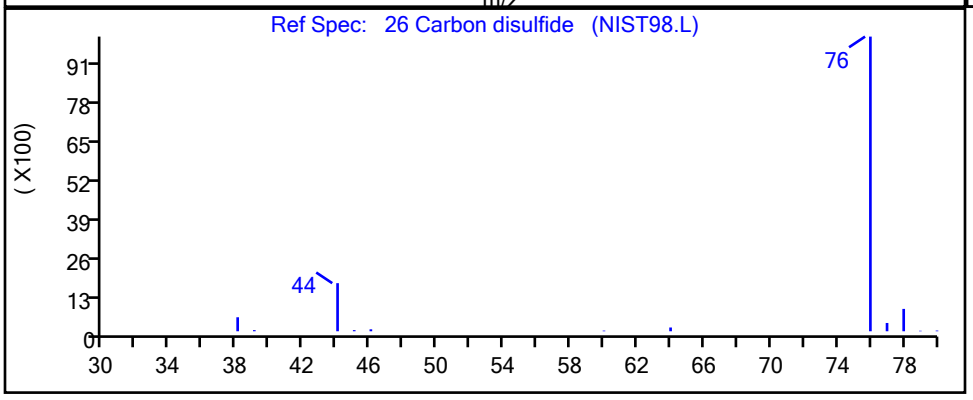
Processing Results











RT	Mass	Response	Amount
2.29	76.00	3493	0.163243
2.29	78.00	0	

Reviewer: QR3Z, 13-Aug-2024 13:27:50 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-720900/13	S0981.d
Level 2	IC 480-720900/14	S0982.d
Level 3	IC 480-720900/15	S0983.d
Level 4	IC 480-720900/16	S0984.d
Level 5	IC 480-720900/17	S0985.d
Level 6	ICIS 480-720900/18	S0986.d
Level 7	IC 480-720900/19	S0987.d
Level 8	IC 480-720900/20	S0988.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 1.8115	1.4406 1.7624	1.5334 1.7271	1.7735	1.7692	Ave		1.6882			0.1000	8.4		20.0			
Chloromethane	1.7312 2.1723	1.6900 2.0914	1.8727 2.0146	2.1451	2.2407	Ave		1.9947			0.1000	10.4		20.0			
Vinyl chloride	1.2301 1.5713	1.4006 1.5789	1.3554 1.5482	1.6049	1.5799	Ave		1.4837			0.1000	9.3		20.0			
Butadiene	1.4119 1.6101	1.2902 1.6253	1.4501 1.6565	1.6028	1.6241	Ave		1.5339				8.7		20.0			
Bromomethane	+++++ 0.8636	0.9723 0.9072	0.9126 0.9102	0.9163	0.9202	Ave		0.9146			0.1000	3.5		20.0			
Chloroethane	0.9982 0.9520	0.9090 0.9484	0.9079 0.9778	0.9215	0.9229	Ave		0.9422			0.1000	3.5		20.0			
Trichlorofluoromethane	+++++ 1.9879	1.5973 1.9694	1.7164 1.9549	1.9631	1.9811	Ave		1.8814			0.1000	8.4		20.0			
Dichlorofluoromethane	1.8583 2.4374	1.9271 2.3678	2.0487 2.3357	2.3658	2.4149	Ave		2.2195				10.6		20.0			
Ethyl ether	1.4424 1.4059	1.5296 1.3593	1.4513 1.3354	1.4577	1.4547	Ave		1.4295				4.3		20.0			
Acrolein	+++++ 0.2960	0.2806 0.2684	0.2923 0.2674	0.3008	0.2895	Ave		0.2850				4.6		20.0			
1,1-Dichloroethene	1.2388 1.0607	0.9454 1.0947	1.0294 1.0362	0.9949	1.1147	Ave		1.0644			0.1000	8.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.9988 1.0781	1.0688 1.1121	1.0182 1.0709	0.8814	1.1046	Ave		1.0416			0.1000	7.2		20.0			
Acetone	+++++ 0.6488	0.5750 0.5602	0.5401 0.4829	0.6524	0.6053	Ave		0.5807			0.1000	10.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Iodomethane	2.1471 1.9938	1.9552 1.9732	1.9269 1.9650	1.9081	2.0511	Ave		1.9901				3.9		20.0			
Carbon disulfide	3.0647 3.4201	3.1339 3.5690	3.3065 3.5960	3.0275	3.4824	Ave		3.3250			0.1000	6.8		20.0			
Allyl chloride	2.1937 2.3330	2.1692 2.3047	2.3721 2.3384	2.1908	2.3755	Ave		2.2847				3.8		20.0			
Methyl acetate	2.0684 1.7044	1.7796 1.5690	1.7696 1.6474	1.6942	1.8072	Ave		1.7549			0.1000	8.5		20.0			
Methylene Chloride	2.3868 1.3268	1.7585 1.3010	1.5361 1.2807	1.3627	1.3697	Lin1	0.5282	1.2848			0.1000	2.8			1.0000		0.9900
2-Methyl-2-propanol	+++++ 0.1729	0.1354 0.1414	0.1640 0.1447	0.1495	0.1555	Ave		0.1519				8.7		20.0			
Methyl tert-butyl ether	4.4754 4.3340	4.2747 4.2184	4.5122 4.3046	4.2755	4.3913	Ave		4.3483			0.1000	2.4		20.0			
trans-1,2-Dichloroethene	1.2310 1.2944	1.2258 1.2951	1.3452 1.3164	1.2587	1.3090	Ave		1.2845			0.1000	3.3		20.0			
Acrylonitrile	0.8728 0.8419	0.7592 0.7668	0.8149 0.7329	0.8723	0.8306	Ave		0.8114				6.5		20.0			
Hexane	+++++ 1.9458	1.4861 2.0388	1.8235 2.0174	1.7315	2.0572	Ave		1.8715				11.1		20.0			
1,1-Dichloroethane	2.2170 2.3771	2.3140 2.3613	2.3900 2.3774	2.2402	2.4050	Ave		2.3353			0.2000	3.1		20.0			
Vinyl acetate	2.6915 3.3003	2.5751 3.4450	2.6931 3.7504	2.8250	2.9957	Ave		3.0345				13.9		20.0			
2,2-Dichloropropane	1.1405 1.1907	1.1647 1.1864	1.1496 1.1551	1.1437	1.2340	Ave		1.1706				2.7		20.0			
cis-1,2-Dichloroethene	1.3261 1.4434	1.3907 1.4229	1.4857 1.3971	1.3366	1.4628	Ave		1.4082			0.1000	4.0		20.0			
2-Butanone (MEK)	0.9206 1.0001	0.8309 0.9102	0.9564 0.9411	1.0177	0.9532	Ave		0.9413			0.1000	6.1		20.0			
Chlorobromomethane	0.6805 0.7544	0.7178 0.7364	0.7447 0.7335	0.7275	0.7631	Ave		0.7322				3.5		20.0			
Tetrahydrofuran	+++++ 0.7208	0.6878 0.6571	0.7855 0.7048	0.7649	0.7141	Ave		0.7193				6.1		20.0			
Chloroform	+++++ 2.2515	2.4862 2.2349	2.4390 2.2525	2.2371	2.3796	Ave		2.3258			0.2000	4.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1,1-Trichloroethane	1.7719 1.8240	1.5699 1.8827	1.7630 1.9172	1.6299	1.8635	Ave		1.7778			0.1000	6.9		20.0			
Cyclohexane	2.1807 2.4989	1.9826 2.6496	2.3270 2.5487	2.1512	2.6283	Ave		2.3709			0.1000	10.4		20.0			
Carbon tetrachloride	1.4013 1.6310	1.2273 1.7304	1.4069 1.7376	1.4296	1.6397	Ave		1.5255			0.1000	12.1		20.0			
1,1-Dichloropropene	1.5568 1.7342	1.6450 1.8011	1.6674 1.7736	1.5845	1.7759	Ave		1.6923				5.5		20.0			
Benzene	5.4223 5.0209	4.6418 5.0886	5.1242 5.1614	4.8367	5.2161	Ave		5.0640			0.5000	4.7		20.0			
Isobutyl alcohol	0.0748 0.0772	0.0556 0.0639	0.0611 0.0740	0.0621	0.0601	Ave		0.0661				12.2		20.0			
1,2-Dichloroethane	2.1925 2.0328	1.9018 1.9193	1.9868 1.9684	2.0142	2.0791	Ave		2.0119			0.1000	4.6		20.0			
n-Heptane	+++++ 2.0021	1.5148 2.0047	2.0127 2.0377	1.8244	1.9522	Ave		1.9069				9.8		20.0			
Trichloroethene	1.4340 1.3024	1.1011 1.3351	1.3312 1.3499	1.2770	1.3989	Ave		1.3162			0.2000	7.6		20.0			
Methylcyclohexane	1.8679 2.1656	1.6612 2.2620	1.8933 2.1872	1.8531	2.1750	Ave		2.0082			0.1000	10.8		20.0			
1,2-Dichloropropane	1.3072 1.2987	1.2149 1.3114	1.2086 1.3209	1.2462	1.3147	Ave		1.2778			0.1000	3.7		20.0			
Dibromomethane	0.8586 0.8228	0.8290 0.7993	0.8026 0.8228	0.8075	0.8532	Ave		0.8245			0.1000	2.7		20.0			
1,4-Dioxane	+++++ 0.0080	0.0023 0.0063	0.0041 0.0067	0.0073	0.0063	Lin1	-0.073	0.0069				14.6			0.9920		0.9900
Bromodichloromethane	1.3112 1.5900	1.4548 1.6035	1.4782 1.6850	1.4823	1.6076	Ave		1.5266			0.2000	7.7		20.0			
2-Chloroethyl vinyl ether	0.8999 1.0233	0.8593 1.0417	0.8344 1.0792	0.9491	1.0328	Ave		0.9650				9.6		20.0			
cis-1,3-Dichloropropene	1.7936 2.0023	1.5911 2.0572	1.7581 2.1558	1.7609	1.9745	Ave		1.8867			0.2000	10.0		20.0			
4-Methyl-2-pentanone (MIBK)	0.9823 0.9265	0.8699 0.8951	0.8680 0.9549	0.9561	0.9509	Ave		0.9255			0.1000	4.7		20.0			
Toluene	1.5493 1.3427	1.2698 1.4313	1.3426 1.4333	1.3373	1.4539	Ave		1.3950			0.4000	6.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
trans-1,3-Dichloropropene	0.6954 0.7920	0.6889 0.8565	0.7122 0.8903	0.7455	0.7914	Ave		0.7715			0.1000	9.7		20.0			
Ethyl methacrylate	0.5820 0.7557	0.5576 0.8083	0.6630 0.8549	0.6758	0.7174	Ave		0.7018				14.8		20.0			
1,1,2-Trichloroethane	0.4839 0.4410	0.3977 0.4456	0.4072 0.4480	0.4581	0.4499	Ave		0.4414			0.1000	6.2		20.0			
Tetrachloroethene	0.5773 0.6127	0.5436 0.6530	0.5928 0.6502	0.6264	0.6422	Ave		0.6123			0.2000	6.3		20.0			
1,3-Dichloropropane	0.9482 0.8905	0.8545 0.9316	0.8682 0.9273	0.9032	0.9196	Ave		0.9054				3.6		20.0			
2-Hexanone	0.6195 0.6635	0.6318 0.6663	0.5986 0.6817	0.6706	0.6744	Ave		0.6508			0.1000	4.6		20.0			
Dibromochloromethane	0.5113 0.5480	0.4846 0.5856	0.4507 0.6071	0.4980	0.5396	Ave		0.5281			0.1000	9.9		20.0			
1,2-Dibromoethane	0.5747 0.5854	0.5169 0.6046	0.5317 0.6029	0.5703	0.5927	Ave		0.5724				5.6		20.0			
Chlorobenzene	1.5946 1.6240	1.5004 1.6790	1.5975 1.6781	1.6640	1.6886	Ave		1.6283			0.5000	3.9		20.0			
Ethylbenzene	2.4753 2.6503	2.3877 2.8028	2.4956 2.7803	2.6421	2.7099	Ave		2.6180			0.1000	5.8		20.0			
1,1,1,2-Tetrachloroethane	0.4490 0.5546	0.4910 0.5853	0.4998 0.5865	0.5448	0.5662	Ave		0.5347				9.3		20.0			
m,p-Xylene	0.8680 1.0819	1.0321 1.1290	1.0539 1.1232	1.0674	1.1447	Ave		1.0625			0.1000	8.3		20.0			
o-Xylene	1.0345 1.0795	0.9792 1.1300	1.0392 1.1043	1.0565	1.1208	Ave		1.0680			0.3000	4.8		20.0			
Styrene	1.4329 1.7764	1.4954 1.8416	1.6402 1.7963	1.7245	1.8030	Ave		1.6888			0.3000	9.0		20.0			
Bromoform	0.3627 0.4033	0.3426 0.4500	0.3127 0.4672	0.3780	0.3813	Ave		0.3872			0.1000	13.4		20.0			
Isopropylbenzene	1.9711 2.4347	1.9250 2.4933	2.1961 2.4788	2.2913	2.4387	Ave		2.2786			0.1000	10.0		20.0			
Bromobenzene	0.7016 0.6842	0.5867 0.6905	0.6447 0.6689	0.6761	0.6867	Ave		0.6674				5.5		20.0			
1,1,2,2-Tetrachloroethane	0.7529 0.7796	0.7805 0.8074	0.7565 0.7952	0.8173	0.8010	Ave		0.7863			0.3000	3.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
N-Propylbenzene	2.4194 2.8856	2.5189 2.9937	2.7461 2.9682	2.7232	2.9199	Ave		2.7719				7.6		20.0			
1,2,3-Trichloropropane	0.2512 0.2699	0.2967 0.2823	0.2729 0.2754	0.3003	0.2905	Ave		0.2799				5.7		20.0			
trans-1,4-Dichloro-2-butene	+++++ 0.2968	0.2721 0.3140	0.2543 0.3169	0.2850	0.2826	Ave		0.2888				7.8		20.0			
2-Chlorotoluene	0.6153 0.6230	0.5709 0.6223	0.6258 0.6188	0.6220	0.6428	Ave		0.6176				3.3		20.0			
1,3,5-Trimethylbenzene	1.7725 2.0716	1.7415 2.1322	1.8387 2.1106	2.0012	2.0791	Ave		1.9684				8.1		20.0			
4-Chlorotoluene	0.5587 0.6652	0.5350 0.6651	0.6112 0.6587	0.6592	0.6551	Ave		0.6260				8.3		20.0			
tert-Butylbenzene	0.4539 0.4732	0.3736 0.4929	0.4437 0.4786	0.4428	0.4764	Ave		0.4544				8.2		20.0			
1,2,4-Trimethylbenzene	1.9985 2.1555	1.8182 2.1956	1.8887 2.2161	2.0364	2.2030	Ave		2.0640				7.4		20.0			
sec-Butylbenzene	2.1029 2.5096	2.1011 2.5827	2.2161 2.5239	2.2982	2.5072	Ave		2.3552				8.5		20.0			
1,3-Dichlorobenzene	1.3394 1.3014	1.2511 1.3197	1.2421 1.3115	1.3072	1.3106	Ave		1.2979			0.6000	2.6		20.0			
4-Isopropyltoluene	1.9835 2.3366	1.8275 2.4219	2.0656 2.3871	2.1692	2.3305	Ave		2.1902				9.8		20.0			
1,4-Dichlorobenzene	1.4574 1.3419	1.3353 1.3823	1.3921 1.3585	1.3104	1.3992	Ave		1.3721			0.5000	3.3		20.0			
n-Butylbenzene	+++++ 1.8853	1.5005 1.9636	1.6396 1.9351	1.7044	1.8788	Ave		1.7868				9.7		20.0			
1,2-Dichlorobenzene	1.2208 1.2594	1.2660 1.2807	1.1591 1.2805	1.2893	1.2913	Ave		1.2559			0.4000	3.6		20.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1601	0.1139 0.1631	0.1399 0.1757	0.1342	0.1441	Ave		0.1473			0.0500	14.1		20.0			
1,2,4-Trichlorobenzene	0.7477 0.7936	0.7242 0.8428	0.7134 0.8484	0.7230	0.7944	Ave		0.7734			0.2000	7.0		20.0			
Hexachlorobutadiene	0.3013 0.3375	0.3149 0.3392	0.2873 0.3026	0.3232	0.3402	Ave		0.3183				6.3		20.0			
Naphthalene	2.5302 2.7823	2.2381 2.9262	2.3212 2.9980	2.5399	2.6629	Ave		2.6248				10.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trichlorobenzene	0.6887 0.7509	0.6872 0.8067	0.6319 0.8047	0.7165	0.7386	Ave		0.7281				8.3		20.0			
Dibromofluoromethane (Surr)	1.3503 1.3565	1.3568 1.3271	1.3469 1.3495	1.3249	1.3541	Ave		1.3458				0.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.8716 0.8790	0.8449 0.8242	0.8703 0.8397	0.8470	0.8804	Ave		0.8571				2.4		20.0			
Toluene-d8 (Surr)	2.2583 2.2436	2.1917 2.2696	2.2090 2.2959	2.2540	2.2867	Ave		2.2511				1.6		20.0			
4-Bromofluorobenzene (Surr)	0.7853 0.7981	0.8129 0.8042	0.7987 0.7857	0.8154	0.8050	Ave		0.8007				1.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-720900/13	S0981.d
Level 2	IC 480-720900/14	S0982.d
Level 3	IC 480-720900/15	S0983.d
Level 4	IC 480-720900/16	S0984.d
Level 5	IC 480-720900/17	S0985.d
Level 6	ICIS 480-720900/18	S0986.d
Level 7	IC 480-720900/19	S0987.d
Level 8	IC 480-720900/20	S0988.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 298579	8835 587929	19346 1183044	59424	112918	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Chloromethane	FB	Ave	5569 358035	10365 697665	23626 1379974	71875	143011	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Vinyl chloride	FB	Ave	3957 258981	8590 526710	17100 1060520	53775	100838	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Butadiene	FB	Ave	4542 265384	7913 542177	18295 1134696	53704	103656	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromomethane	FB	Ave	+++++ 142333	5963 302630	11513 623463	30702	58734	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Chloroethane	FB	Ave	3211 156906	5575 316371	11454 669766	30876	58907	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 327644	9796 656986	21654 1339108	65776	126446	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Dichlorofluoromethane	FB	Ave	5978 401731	11819 789900	25847 1599978	79270	154130	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethyl ether	FB	Ave	4640 231721	9381 453441	18310 914766	48842	92849	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Acrolein	FB	Ave	+++++ 243938	8606 447602	18438 915832	50396	92401	+++++ 125	5.00 250	10.0 500	25.0	50.0
1,1-Dichloroethene	FB	Ave	3985 174832	5798 365191	12987 709806	33337	71147	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3213 177694	6555 370997	12846 733559	29533	70500	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Acetone	FB	Ave	+++++ 534647	17633 934343	34069 1654012	109303	193155	+++++ 125	5.00 250	10.0 500	25.0	50.0
Iodomethane	FB	Ave	6907 328624	11991 658259	24310 1346020	63935	130912	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Carbon disulfide	FB	Ave	9859	19220	41715	101444	222266	0.500	1.00	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20 ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			563696	1190613	2463228			25.0	50.0	100		
Allyl chloride	FB	Ave	7057 384528	13304 768845	29927 1601770	73406	151617	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Methyl acetate	FB	Ave	13308 561829	21828 1046799	44650 2256862	113532	230686	1.00 50.0	2.00 100	4.00 200	10.0	20.0
Methylene Chloride	FB	Lin1	7678 218680	10785 434014	19379 877284	45659	87420	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Methyl-2-propanol	FB	Ave	+++++ 284988	8307 471692	20696 991244	50087	99228	+++++ 250	10.0 500	20.0 1000	50.0	100
Methyl tert-butyl ether	FB	Ave	14397 714336	26217 1407225	56926 2948600	143258	280278	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	3960 213345	7518 432044	16971 901710	42176	83546	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Acrylonitrile	FB	Ave	28077 1387589	46564 2558003	102807 5020576	292284	530164	5.00 250	10.0 500	20.0 1000	50.0	100
Hexane	FB	Ave	+++++ 320712	9114 680125	23006 1381941	58018	131303	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1-Dichloroethane	FB	Ave	7132 391801	14192 787710	30152 1628515	75062	153500	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Vinyl acetate	FB	Ave	17317 1087898	31586 2298475	67952 5138040	189316	382407	1.00 50.0	2.00 100	4.00 200	10.0	20.0
2,2-Dichloropropane	FB	Ave	3669 196252	7143 395789	14504 791265	38321	78762	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
cis-1,2-Dichloroethene	FB	Ave	4266 237894	8529 474659	18744 957016	44787	93364	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Butanone (MEK)	FB	Ave	14807 824152	25480 1518192	60328 3223330	170505	304190	2.50 125	5.00 250	10.0 500	25.0	50.0
Chlorobromomethane	FB	Ave	2189 124337	4402 245668	9395 502445	24377	48705	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Tetrahydrofuran	FB	Ave	+++++ 237597	8437 438393	19819 965572	51261	91160	+++++ 50.0	2.00 100	4.00 200	10.0	20.0
Chloroform	FB	Ave	+++++ 371096	15248 745564	30771 1542923	74958	151876	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	5700 300635	9628 628066	22242 1313284	54614	118940	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Cyclohexane	FB	Ave	7015 411870	12159 883906	29357 1745820	72080	167750	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Carbon tetrachloride	FB	Ave	4508 268816	7527 577266	17749 1190271	47903	104656	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1-Dichloropropene	FB	Ave	5008 285825	10089 600845	21036 1214888	53091	113344	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20 ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	17443 827550	28468 1697522	64647 3535552	162062	332917	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Isobutyl alcohol	FB	Ave	6012 318308	8518 533307	19285 1267450	51991	95887	12.5 625	25.0 1250	50.0 2500	125	250
1,2-Dichloroethane	FB	Ave	7053 335052	11664 640254	25065 1348315	67490	132700	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
n-Heptane	FB	Ave	+++++ 329982	9290 668749	25393 1395801	61129	124602	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
Trichloroethene	FB	Ave	4613 214664	6753 445382	16795 924670	42789	89285	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Methylcyclohexane	FB	Ave	6009 356939	10188 754594	23886 1498222	62092	138819	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dichloropropane	FB	Ave	4205 214044	7451 437465	15248 904841	41756	83912	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Dibromomethane	FB	Ave	2762 135622	5084 266655	10126 563642	27056	54455	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,4-Dioxane	CBNZd5	Lin1	+++++ 63709	694 97682	2494 214749	11148	19245	+++++ 500	20.0 1000	40.0 2000	100	200
Bromodichloromethane	FB	Ave	4218 262062	8922 534912	18649 1154246	49669	102606	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Chloroethyl vinyl ether	FB	Ave	2895 168657	5270 347514	10527 739276	31801	65920	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
cis-1,3-Dichloropropene	FB	Ave	5770 330018	9758 686266	22180 1476690	59003	126020	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Methyl-2-pentanone (MIBK)	CBNZd5	Ave	37638 1838531	64461 3445346	130783 7644682	362629	720584	2.50 125	5.00 250	10.0 500	25.0	50.0
Toluene	CBNZd5	Ave	11872 532859	18819 1101887	40459 2294942	101443	220341	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
trans-1,3-Dichloropropene	CBNZd5	Ave	5329 314307	10209 659371	21461 1425594	56547	119935	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethyl methacrylate	CBNZd5	Ave	4460 299922	8264 622257	19978 1368838	51265	108723	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2-Trichloroethane	CBNZd5	Ave	3708 175001	5894 343043	12271 717361	34751	68182	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Tetrachloroethene	CBNZd5	Ave	4424	8056	17864	47512	97321	0.500	1.00	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20 ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			243170	502696	1041160			25.0	50.0	100		
1,3-Dichloropropane	CBNZd5	Ave	7266 353392	12663 717199	26163 1484771	68513	139361	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Hexanone	CBNZd5	Ave	23735 1316624	46816 2564873	90191 5458080	254336	511037	2.50 125	5.00 250	10.0 500	25.0	50.0
Dibromochloromethane	CBNZd5	Ave	3918 217483	7182 450847	13583 972037	37773	81774	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dibromoethane	CBNZd5	Ave	4404 232308	7661 465463	16024 965384	43258	89832	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Chlorobenzene	CBNZd5	Ave	12219 644496	22236 1292533	48141 2686998	126225	255915	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Ethylbenzene	CBNZd5	Ave	18968 1051823	35386 2157669	75205 4451886	200413	410690	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,1,2-Tetrachloroethane	CBNZd5	Ave	3441 220116	7276 450569	15062 939079	41325	85810	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
m,p-Xylene	CBNZd5	Ave	6651 429356	15295 869108	31758 1798447	80971	173475	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
o-Xylene	CBNZd5	Ave	7927 428424	14512 869884	31316 1768201	80137	169863	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Styrene	CBNZd5	Ave	10980 705004	22162 1417740	49428 2876258	130808	273251	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromoform	CBNZd5	Ave	2779 160054	5077 346399	9422 748100	28675	57784	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Isopropylbenzene	DCBd4	Ave	16664 1058325	31996 2120600	74528 4374412	193954	415407	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Bromobenzene	DCBd4	Ave	5931 297421	9752 587267	21880 1180464	57231	116977	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,1,2,2-Tetrachloroethane	DCBd4	Ave	6365 338884	12972 686733	25672 1403313	69184	136440	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
N-Propylbenzene	DCBd4	Ave	20454 1254345	41866 2546209	93193 5237993	230516	497376	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,3-Trichloropropane	DCBd4	Ave	2124	4931	9261	25422	49482	0.500	1.00	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			117320	240110	485979			25.0	50.0	100		
trans-1,4-Dichloro-2-butene	DCBd4	Ave	+++++ 129017	4523 267051	8630 559298	24128	48140	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
2-Chlorotoluene	DCBd4	Ave	5202 270822	9489 529315	21238 1092005	52655	109500	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,3,5-Trimethylbenzene	DCBd4	Ave	14985 900500	28946 1813486	62397 3724537	169393	354149	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Chlorotoluene	DCBd4	Ave	4723 289153	8892 565711	20742 1162456	55801	111587	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
tert-Butylbenzene	DCBd4	Ave	3837 205706	6209 419182	15059 844519	37485	81153	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,4-Trimethylbenzene	DCBd4	Ave	16895 936980	30221 1867442	64097 3910826	172379	375255	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
sec-Butylbenzene	DCBd4	Ave	17778 1090903	34922 2196642	75206 4453932	194534	427068	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,3-Dichlorobenzene	DCBd4	Ave	11323 565708	20794 1122462	42152 2314472	110649	223247	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
4-Isopropyltoluene	DCBd4	Ave	16769 1015700	30375 2059898	70098 4212592	183615	396969	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,4-Dichlorobenzene	DCBd4	Ave	12321 583316	22194 1175673	47243 2397333	110924	238333	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
n-Butylbenzene	DCBd4	Ave	+++++ 819519	24940 1670080	55641 3414950	144275	320027	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dichlorobenzene	DCBd4	Ave	10321 547442	21043 1089224	39334 2259722	109134	219951	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	+++++ 69609	1893 138747	4746 310096	11357	24553	+++++ 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,4-Trichlorobenzene	DCBd4	Ave	6321 344952	12037 716852	24210 1497222	61204	135314	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Hexachlorobutadiene	DCBd4	Ave	2547 146729	5234 288501	9751 533983	27360	57948	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Naphthalene	DCBd4	Ave	21390 1209451	37199 2488836	78772 5290629	214995	453588	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
1,2,3-Trichlorobenzene	DCBd4	Ave	5822 326404	11422 686088	21443 1420094	60654	125809	0.500 25.0	1.00 50.0	2.00 100	5.00	10.0
Dibromofluoromethane (Surr)	FB	Ave	217198 223577	208031 221351	212415 231105	221959	216062	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	140187 144881	129547 137481	137246 143796	141901	140482	25.0 25.0	25.0 25.0	25.0 25.0	25.0	25.0
Toluene-d8 (Surr)	CBNZd5	Ave	865239	812031	832089	854874	866392	25.0	25.0	25.0	25.0	25.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
			890409	873599	919042			25.0	25.0	25.0		
4-Bromofluorobenzene (Surr)	CBNZd 5	Ave	300864	301176	300848	309277	304999	25.0	25.0	25.0	25.0	25.0
			316729	309566	314513			25.0	25.0	25.0		

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20) ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-720900/13	S0981.d
Level 2	IC 480-720900/14	S0982.d
Level 3	IC 480-720900/15	S0983.d
Level 4	IC 480-720900/16	S0984.d
Level 5	IC 480-720900/17	S0985.d
Level 6	ICIS 480-720900/18	S0986.d
Level 7	IC 480-720900/19	S0987.d
Level 8	IC 480-720900/20	S0988.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	+++++	-14.7						30				
Chloromethane	-13.2						30					
Vinyl chloride	-17.1						30					
Butadiene	-8.0						30					
Bromomethane	+++++	6.3						30				
Chloroethane	5.9						30					
Trichlorofluoromethane	+++++	-15.1						30				
Dichlorofluoromethane	-16.3						30					
Ethyl ether	0.9						30					
Acrolein	+++++	-1.5						30				
1,1-Dichloroethene	16.4						30					
1,1,2-Trichloro-1,2,2-trifluoroethane	-4.1						30					
Acetone	+++++	-1.0						30				
Iodomethane	7.9						30					
Carbon disulfide	-7.8						30					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20) ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Allyl chloride	-4.0						30					
Methyl acetate	17.9						30					
Methylene Chloride	3.5						30					
2-Methyl-2-propanol	+++++	-10.8						30				
Methyl tert-butyl ether	2.9						30					
trans-1,2-Dichloroethene	-4.2						30					
Acrylonitrile	7.6						30					
Hexane	+++++	-20.6						30				
1,1-Dichloroethane	-5.1						30					
Vinyl acetate	-11.3						30					
2,2-Dichloropropane	-2.6						30					
cis-1,2-Dichloroethene	-5.8						30					
2-Butanone (MEK)	-2.2						30					
Chlorobromomethane	-7.1						30					
Tetrahydrofuran	+++++	-4.4						30				
Chloroform	+++++	6.9						30				
1,1,1-Trichloroethane	-0.3						30					
Cyclohexane	-8.0						30					
Carbon tetrachloride	-8.1						30					
1,1-Dichloropropene	-8.0						30					
Benzene	7.1						30					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20) ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Isobutyl alcohol	13.1						30					
1,2-Dichloroethane	9.0						30					
n-Heptane	+++++	-20.6						30				
Trichloroethene	8.9						30					
Methylcyclohexane	-7.0						30					
1,2-Dichloropropane	2.3						30					
Dibromomethane	4.1						30					
1,4-Dioxane	+++++	-13.0						30				
Bromodichloromethane	-14.1						30					
2-Chloroethyl vinyl ether	-6.7						30					
cis-1,3-Dichloropropene	-4.9						30					
4-Methyl-2-pentanone (MIBK)	6.1						30					
Toluene	11.1						30					
trans-1,3-Dichloropropene	-9.9						30					
Ethyl methacrylate	-17.1						30					
1,1,2-Trichloroethane	9.6						30					
Tetrachloroethene	-5.7						30					
1,3-Dichloropropane	4.7						30					
2-Hexanone	-4.8						30					
Dibromochloromethane	-3.2						30					
1,2-Dibromoethane	0.4						30					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1 | Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S | GC Column: ZB-624 (20) ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 | Calibration End Date: 08/07/2024 18:31 | Calibration ID: 46994

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Chlorobenzene	-2.1						30					
Ethylbenzene	-5.5						30					
1,1,1,2-Tetrachloroethane	-16.0						30					
m,p-Xylene	-18.3						30					
o-Xylene	-3.1						30					
Styrene	-15.2						30					
Bromoform	-6.3						30					
Isopropylbenzene	-13.5						30					
Bromobenzene	5.1						30					
1,1,2,2-Tetrachloroethane	-4.2						30					
N-Propylbenzene	-12.7						30					
1,2,3-Trichloropropane	-10.2						30					
trans-1,4-Dichloro-2-butene	+++++	-5.8						30				
2-Chlorotoluene	-0.4						30					
1,3,5-Trimethylbenzene	-10.0						30					
4-Chlorotoluene	-10.8						30					
tert-Butylbenzene	-0.1						30					
1,2,4-Trimethylbenzene	-3.2						30					
sec-Butylbenzene	-10.7						30					
1,3-Dichlorobenzene	3.2						30					
4-Isopropyltoluene	-9.4						30					

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Buffalo Job No.: 480-222377-1 Analy Batch No.: 720900

SDG No.:

Instrument ID: HP5973S GC Column: ZB-624 (20) ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/07/2024 15:47 Calibration End Date: 08/07/2024 18:31 Calibration ID: 46994

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
1,4-Dichlorobenzene	6.2						30					
n-Butylbenzene	+++++	-16.0						30				
1,2-Dichlorobenzene	-2.8						30					
1,2-Dibromo-3-Chloropropane	+++++	-22.7						30				
1,2,4-Trichlorobenzene	-3.3						30					
Hexachlorobutadiene	-5.3						30					
Naphthalene	-3.6						30					
1,2,3-Trichlorobenzene	-5.4						30					
Dibromofluoromethane (Surr)	0.3						30					
1,2-Dichloroethane-d4 (Surr)	1.7						30					
Toluene-d8 (Surr)	0.3						30					
4-Bromofluorobenzene (Surr)	-1.9						30					

Report Date: 08-Aug-2024 13:17:42 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Lims ID: IC 0.5
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 07-Aug-2024 15:47:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 0.5
Misc. Info.: 480-0119391-013
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:17:41 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:49:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	160846	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	383144	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	95	422702	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	67	217198	25.0	25.1	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	93	140187	25.0	25.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	92	865239	25.0	25.1	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	92	300864	25.0	24.5	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	51	4077	0.5000	0.3753	
12 Chloromethane	50	1.132	1.126	0.006	36	5569	0.5000	0.4339	
13 Vinyl chloride	62	1.193	1.193	0.000	37	3957	0.5000	0.4145	
151 Butadiene	54	1.217	1.217	0.000	87	4542	0.5000	0.4602	
14 Bromomethane	94	1.448	1.442	0.006	3	3766	0.5000	0.6400	
15 Chloroethane	64	1.503	1.509	-0.006	6	3211	0.5000	0.5297	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	52	5978	0.5000	0.4186	
17 Trichlorofluoromethane	101	1.679	1.686	-0.007	35	4278	0.5000	0.3534	
18 Ethyl ether	59	1.917	1.917	0.000	78	4640	0.5000	0.5045	Ma
20 Acrolein	56	2.081	2.081	0.000	28	5822	2.50	3.18	
22 1,1-Dichloroethene	96	2.099	2.105	-0.006	39	3985	0.5000	0.5819	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.105	2.112	-0.007	1	3213	0.5000	0.4794	
23 Acetone	43	2.227	2.227	0.000	83	12817	2.50	3.43	a
25 Iodomethane	142	2.251	2.251	0.000	49	6907	0.5000	0.5395	
26 Carbon disulfide	76	2.282	2.282	0.000	91	9859	0.5000	0.4609	
28 3-Chloro-1-propene	41	2.446	2.446	0.000	46	7057	0.5000	0.4801	
27 Methyl acetate	43	2.507	2.501	0.006	88	13308	1.00	1.18	a
30 Methylene Chloride	84	2.586	2.586	0.000	80	7678	0.5000	0.5177	
31 2-Methyl-2-propanol	59	2.768	2.769	-0.001	57	6291	5.00	6.44	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	64	14397	0.5000	0.5146	
34 trans-1,2-Dichloroethene	96	2.793	2.799	-0.006	55	3960	0.5000	0.4792	
33 Acrylonitrile	53	2.866	2.860	0.006	94	28077	5.00	5.38	
35 Hexane	57	2.981	2.981	0.000	59	5226	0.5000	0.4340	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	18	7132	0.5000	0.4747	
37 Vinyl acetate	43	3.267	3.261	0.006	87	17317	1.00	0.8870	
44 2,2-Dichloropropane	77	3.699	3.693	0.006	1	3669	0.5000	0.4872	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	34	4266	0.5000	0.4709	a
43 2-Butanone (MEK)	43	3.790	3.778	0.012	90	14807	2.50	2.45	
48 Chlorobromomethane	128	3.955	3.961	-0.006	52	2189	0.5000	0.4647	
49 Tetrahydrofuran	42	3.985	3.979	0.006	52	6883	1.00	1.49	
50 Chloroform	83	4.046	4.046	0.000	63	10873	0.5000	0.7266	
52 Cyclohexane	56	4.131	4.137	-0.006	38	7015	0.5000	0.4599	
51 1,1,1-Trichloroethane	97	4.137	4.137	0.000	26	5700	0.5000	0.4983	
55 Carbon tetrachloride	117	4.265	4.271	-0.006	54	4508	0.5000	0.4593	
54 1,1-Dichloropropene	75	4.295	4.289	0.006	22	5008	0.5000	0.4600	
57 Benzene	78	4.490	4.490	0.000	39	17443	0.5000	0.5354	
53 Isobutyl alcohol	43	4.563	4.551	0.012	17	6012	12.5	14.1	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	43	7053	0.5000	0.5449	
59 n-Heptane	43	4.685	4.679	0.006	81	8152	0.5000	0.6644	
62 Trichloroethene	95	5.098	5.092	0.006	54	4613	0.5000	0.5447	
64 Methylcyclohexane	83	5.202	5.196	0.006	39	6009	0.5000	0.4651	
65 1,2-Dichloropropane	63	5.336	5.330	0.006	23	4205	0.5000	0.5115	
67 Dibromomethane	93	5.470	5.464	0.006	62	2762	0.5000	0.5207	a
66 1,4-Dioxane	88	5.494	5.482	0.012	0	551	10.0	15.8	M
68 Dichlorobromomethane	83	5.634	5.628	0.006	17	4218	0.5000	0.4295	
69 2-Chloroethyl vinyl ether	63	5.914	5.914	0.000	1	2895	0.5000	0.4663	a
72 cis-1,3-Dichloropropene	75	6.041	6.035	0.006	43	5770	0.5000	0.4753	a
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	83	37638	2.50	2.65	
74 Toluene	92	6.315	6.309	0.006	66	11872	0.5000	0.5553	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	47	5329	0.5000	0.4507	a
75 Ethyl methacrylate	69	6.674	6.668	0.006	22	4460	0.5000	0.4146	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	35	3708	0.5000	0.5481	
81 Tetrachloroethene	166	6.826	6.826	0.000	44	4424	0.5000	0.4715	
82 1,3-Dichloropropane	76	6.948	6.942	0.006	48	7266	0.5000	0.5237	
80 2-Hexanone	43	7.033	7.027	0.006	82	23735	2.50	2.38	
83 Chlorodibromomethane	129	7.179	7.173	0.006	14	3918	0.5000	0.4841	
84 Ethylene Dibromide	107	7.264	7.264	0.000	39	4404	0.5000	0.5020	
87 Chlorobenzene	112	7.739	7.739	0.000	23	12219	0.5000	0.4896	
88 Ethylbenzene	91	7.842	7.836	0.006	66	18968	0.5000	0.4727	
89 1,1,1,2-Tetrachloroethane	131	7.836	7.842	-0.006	7	3441	0.5000	0.4199	
90 m-Xylene & p-Xylene	106	7.964	7.958	0.006	66	6651	0.5000	0.4084	
91 o-Xylene	106	8.377	8.378	-0.001	62	7927	0.5000	0.4843	
92 Styrene	104	8.420	8.408	0.012	42	10980	0.5000	0.4242	
95 Bromoform	173	8.657	8.645	0.012	24	2779	0.5000	0.4683	
94 Isopropylbenzene	105	8.767	8.761	0.006	49	16664	0.5000	0.4325	
101 Bromobenzene	156	9.107	9.102	0.005	43	5931	0.5000	0.5256	
97 1,1,2,2-Tetrachloroethane	83	9.193	9.193	0.000	41	6365	0.5000	0.4788	
99 N-Propylbenzene	91	9.211	9.205	0.006	69	20454	0.5000	0.4364	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	47	2124	0.5000	0.4488	a
98 trans-1,4-Dichloro-2-butene	53	9.247	9.248	-0.001	1	1904	0.5000	0.3899	a
103 2-Chlorotoluene	126	9.308	9.302	0.006	57	5202	0.5000	0.4981	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	64	14985	0.5000	0.4502	
105 4-Chlorotoluene	126	9.436	9.430	0.006	52	4723	0.5000	0.4462	
106 tert-Butylbenzene	134	9.734	9.734	0.000	53	3837	0.5000	0.4994	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	47	16895	0.5000	0.4841	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	42	17778	0.5000	0.4464	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	63	11323	0.5000	0.5160	
110 4-Isopropyltoluene	119	10.105	10.105	0.000	48	16769	0.5000	0.4528	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	8	12321	0.5000	0.5311	
115 n-Butylbenzene	91	10.513	10.507	0.006	56	12699	0.5000	0.4203	
116 1,2-Dichlorobenzene	146	10.543	10.537	0.006	65	10321	0.5000	0.4860	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	1	956	0.5000	0.3839	
119 1,2,4-Trichlorobenzene	180	11.979	11.973	0.006	29	6321	0.5000	0.4834	
120 Hexachlorobutadiene	225	12.088	12.089	-0.001	19	2547	0.5000	0.4733	
121 Naphthalene	128	12.192	12.186	0.006	54	21390	0.5000	0.4820	
122 1,2,3-Trichlorobenzene	180	12.393	12.387	0.006	37	5822	0.5000	0.4729	
S 125 1,2-Dichloroethene, Total	1				0			0.9501	
S 123 Total BTEX	1				0			2.46	
S 126 1,3-Dichloropropene, Total	1				0			0.9260	
S 124 Xylenes, Total	1				0			0.8928	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8260 CORP mix_00257	Amount Added:	0.50	Units: uL	
GAS CORP mix_00631	Amount Added:	0.50	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

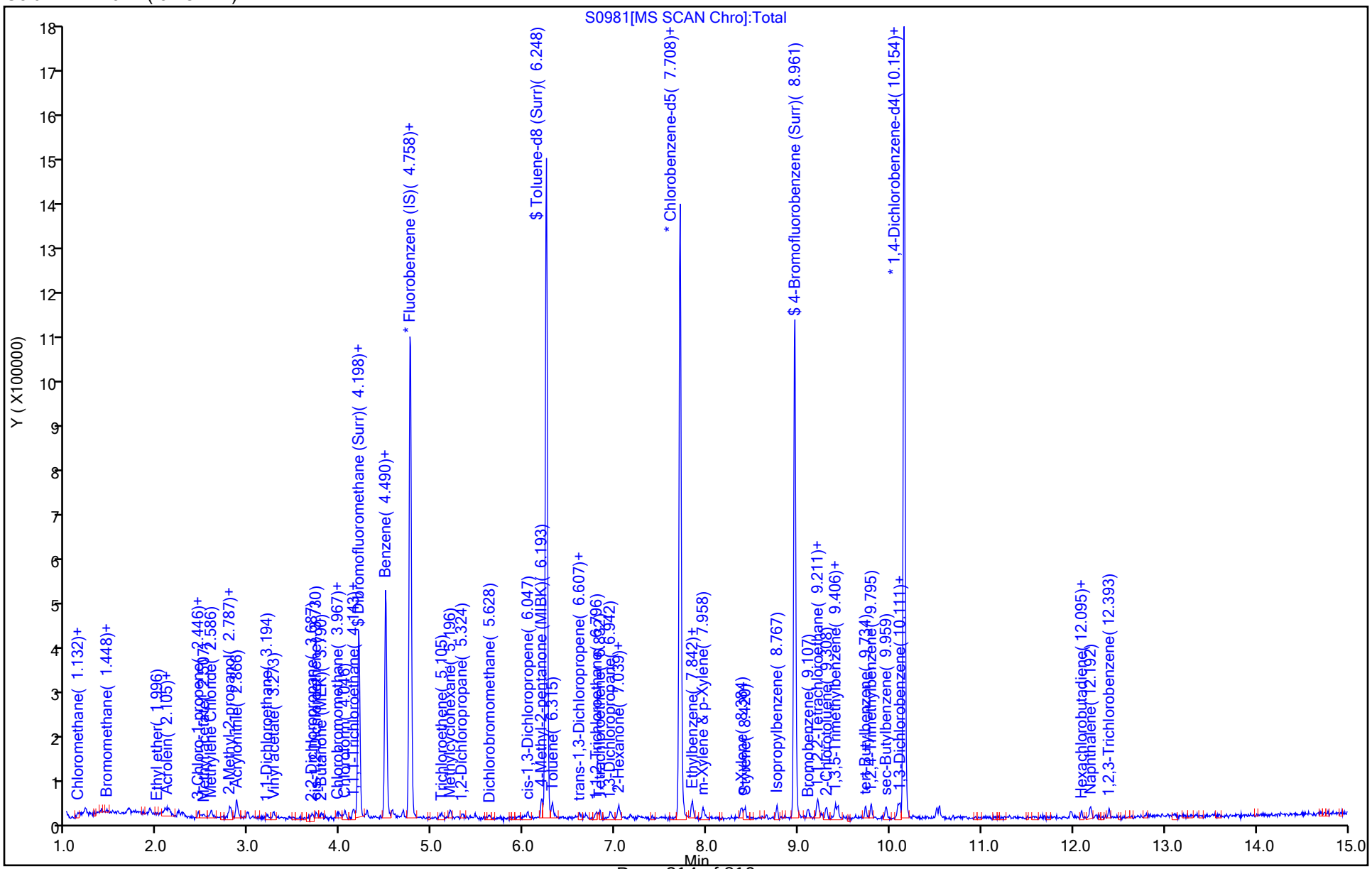
Report Date: 08-Aug-2024 13:17:42 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d

Injection Date:	07-Aug-2024 15:47:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 0.5			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

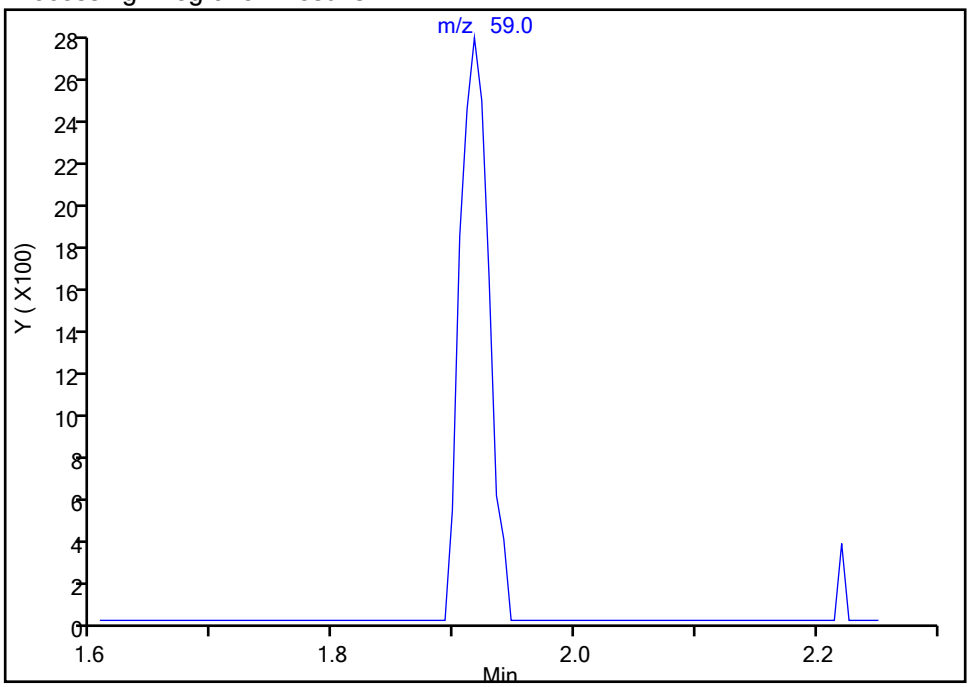
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

18 Ethyl ether, CAS: 60-29-7

Signal: 1

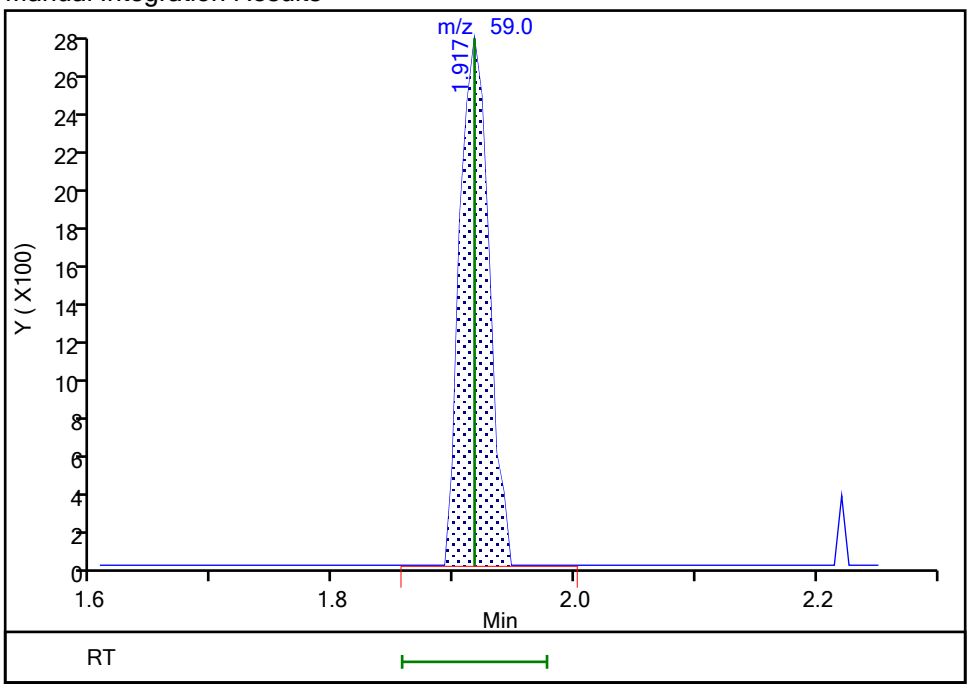
Not Detected
Expected RT: 1.92

Processing Integration Results



Manual Integration Results

RT: 1.92
Area: 4640
Amount: 0.504490
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:10 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

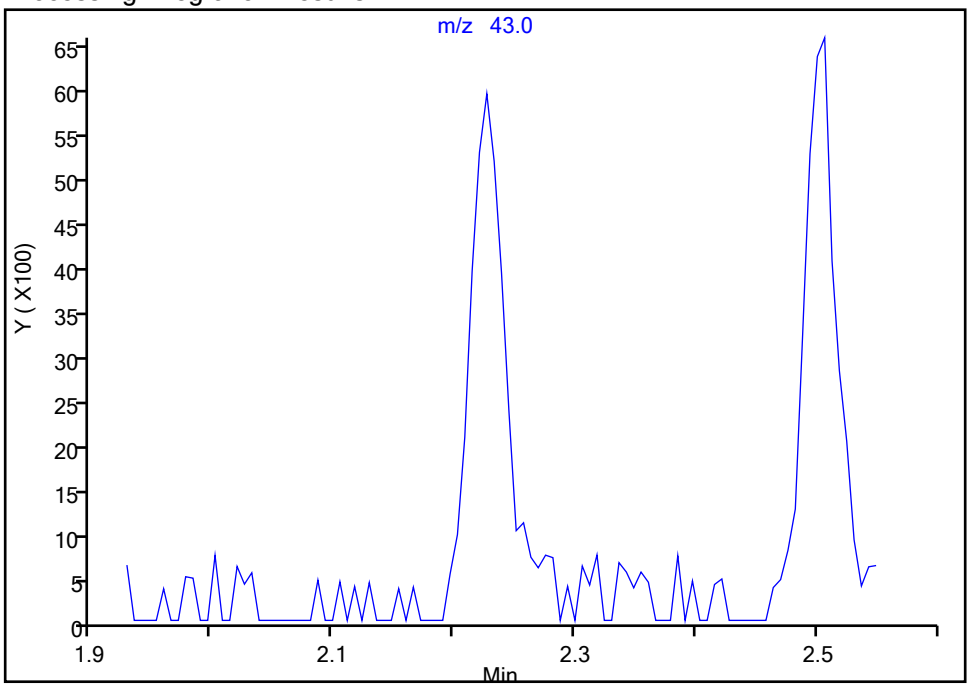
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

23 Acetone, CAS: 67-64-1

Signal: 1

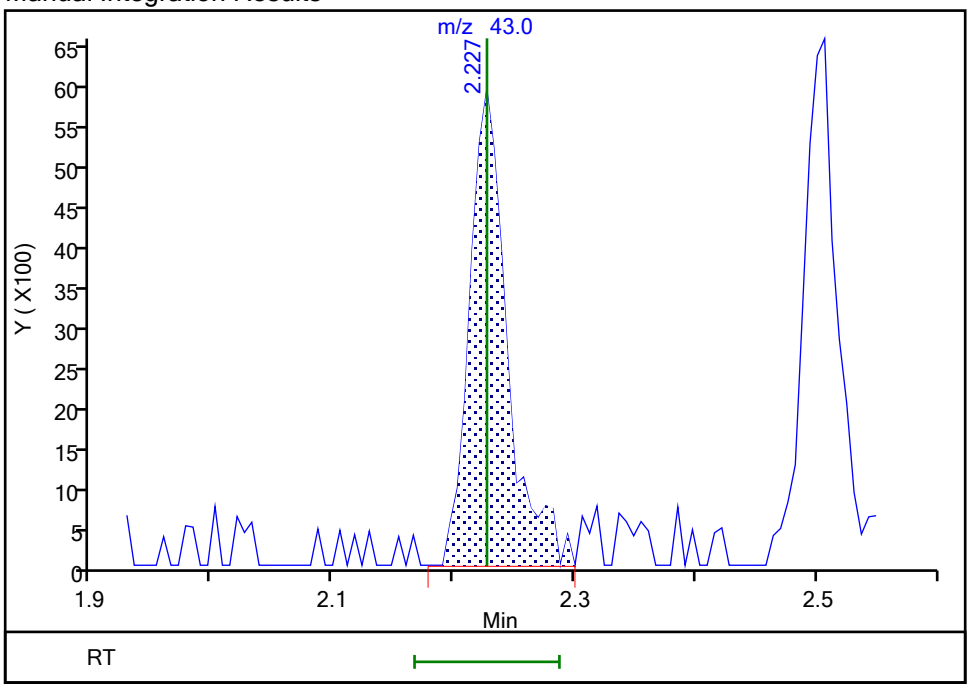
Not Detected
Expected RT: 2.23

Processing Integration Results



Manual Integration Results

RT: 2.23
Area: 12817
Amount: 3.430766
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:15 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

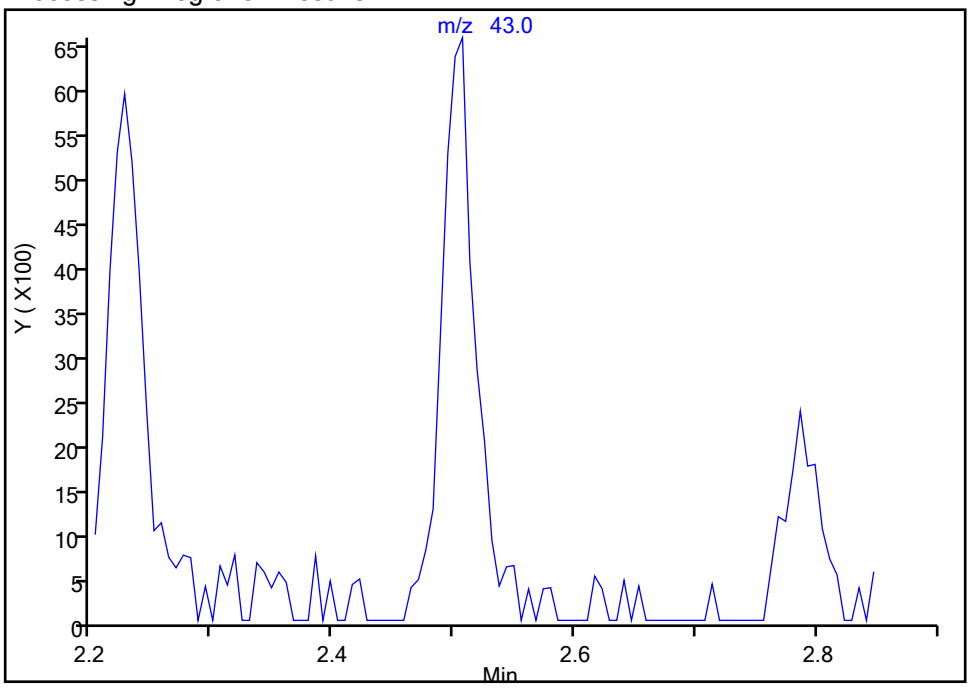
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

27 Methyl acetate, CAS: 79-20-9

Signal: 1

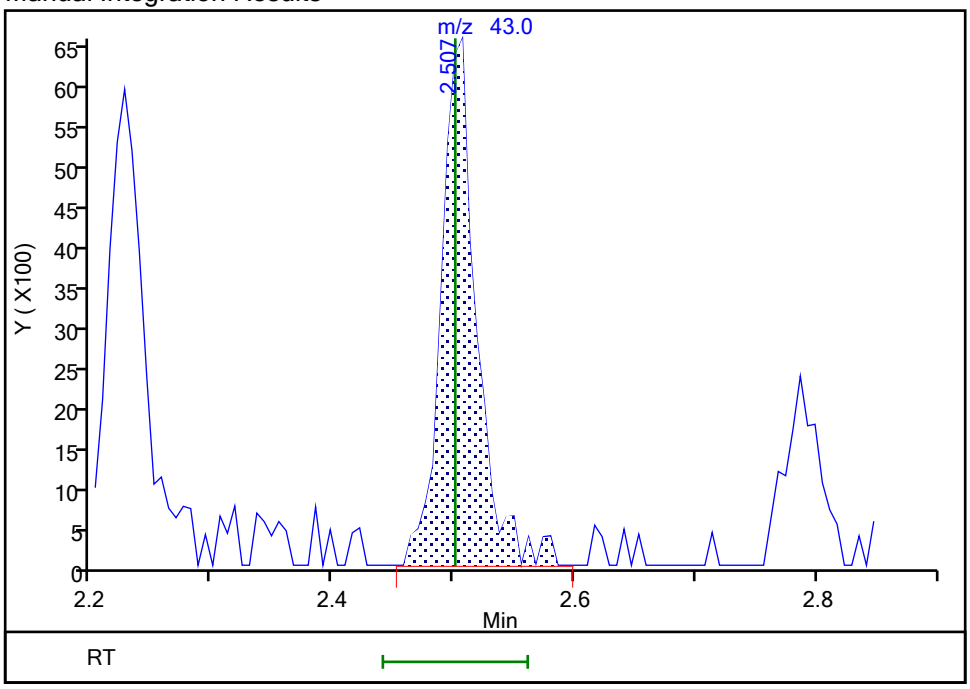
Not Detected
Expected RT: 2.50

Processing Integration Results



Manual Integration Results

RT: 2.51
Area: 13308
Amount: 1.178633
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:23 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

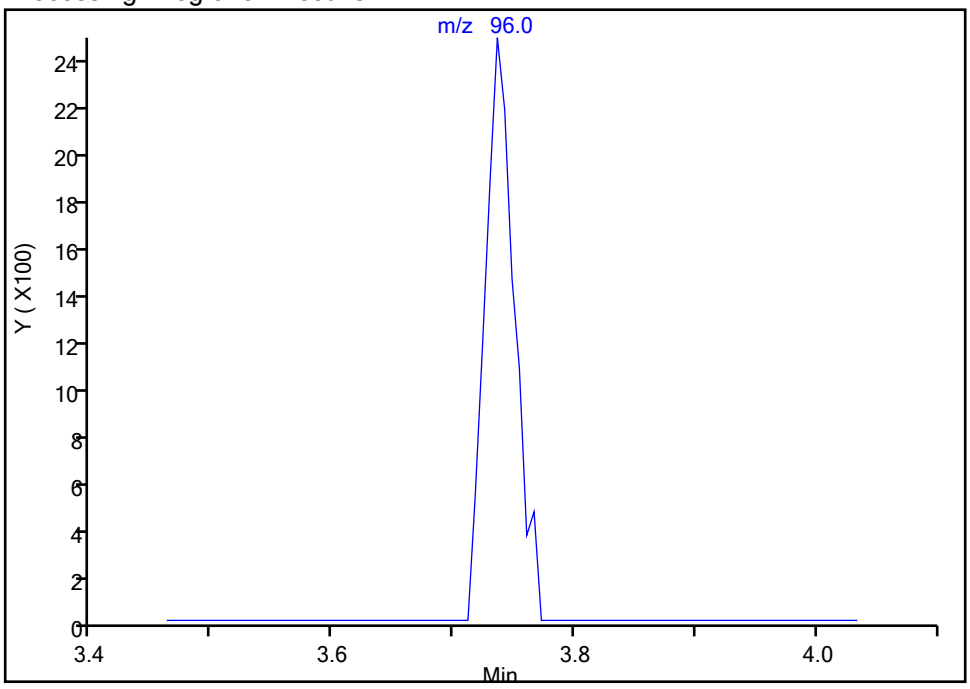
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

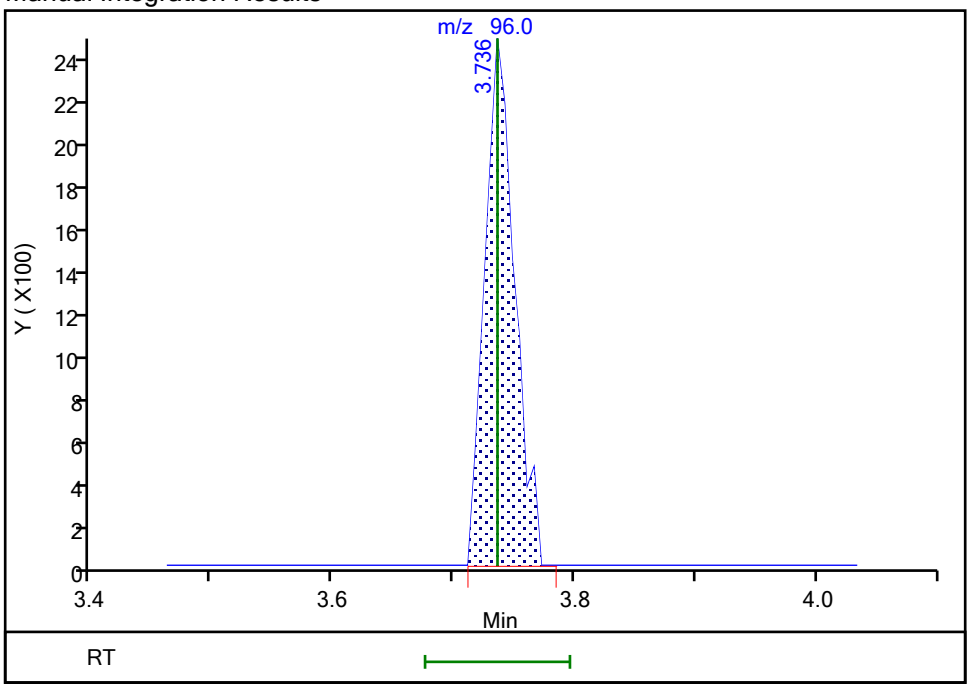
Not Detected
Expected RT: 3.74

Processing Integration Results



Manual Integration Results

RT: 3.74
Area: 4266
Amount: 0.470867
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:32 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

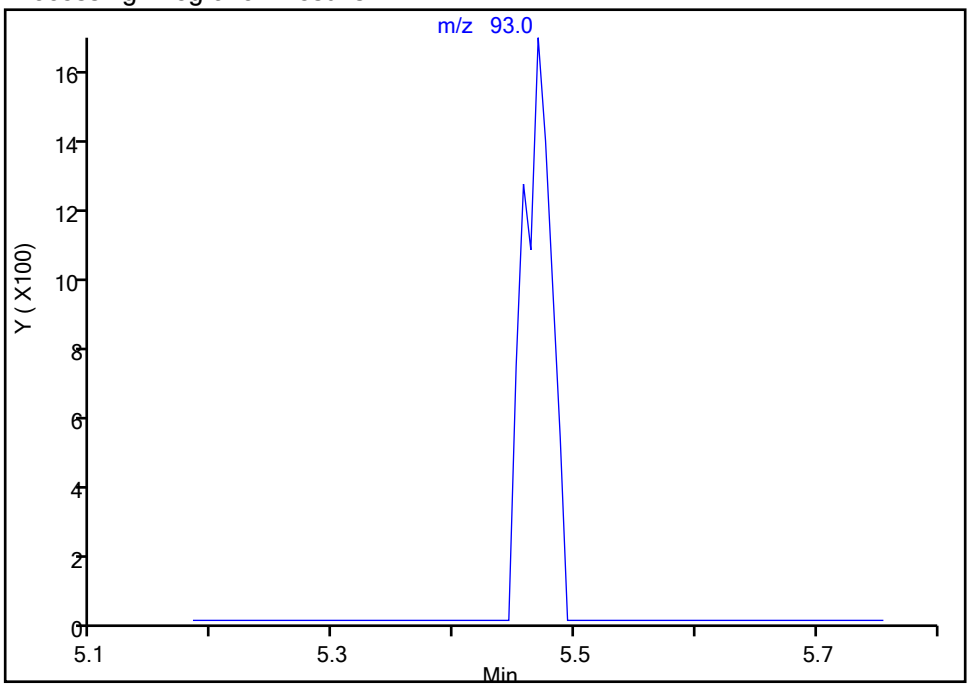
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

67 Dibromomethane, CAS: 74-95-3

Signal: 1

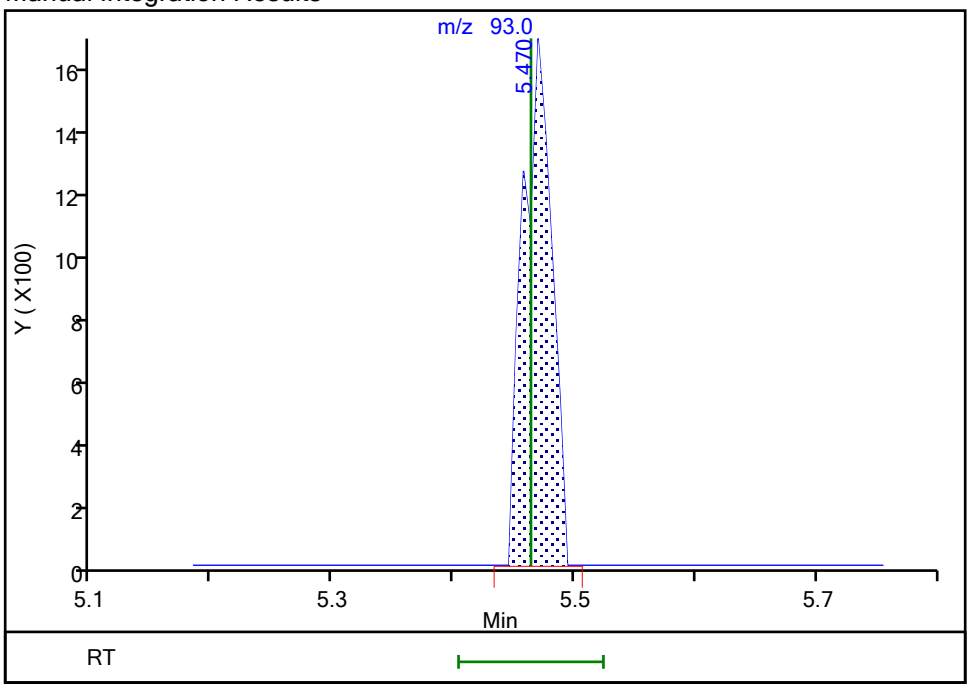
Not Detected
Expected RT: 5.46

Processing Integration Results



Manual Integration Results

RT: 5.47
Area: 2762
Amount: 0.520681
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:44 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Buffalo

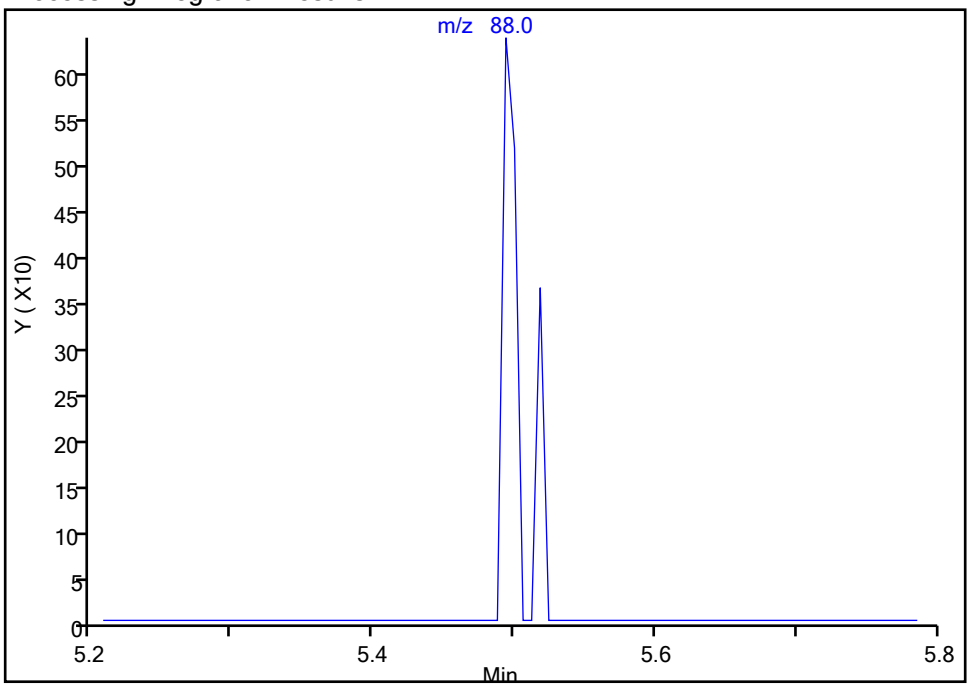
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

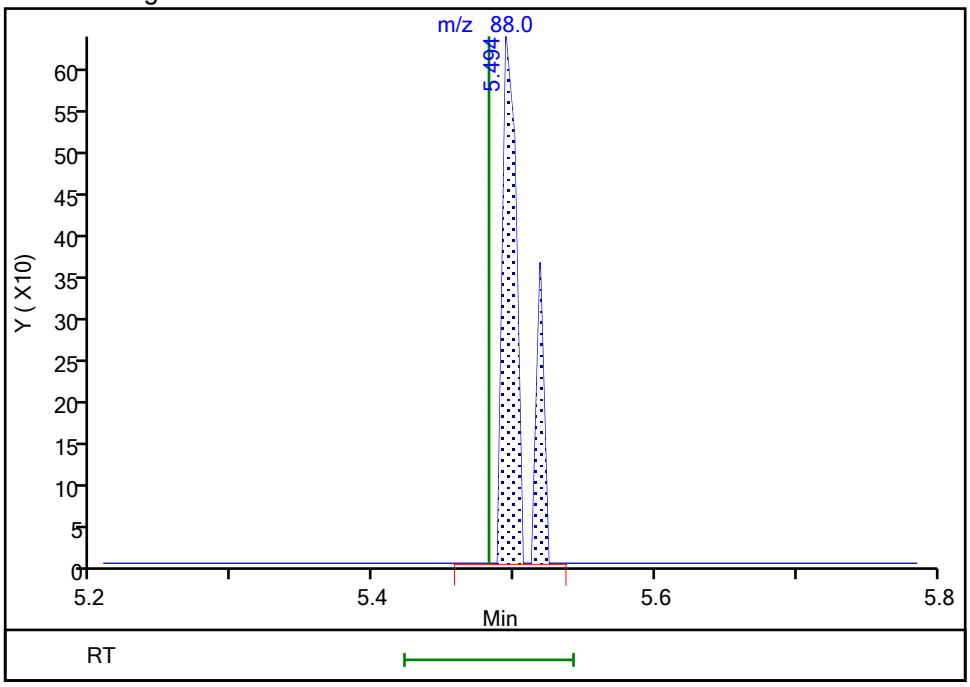
Not Detected
Expected RT: 5.48

Processing Integration Results



Manual Integration Results

RT: 5.49
Area: 551
Amount: 15.824251
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:45:32 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo

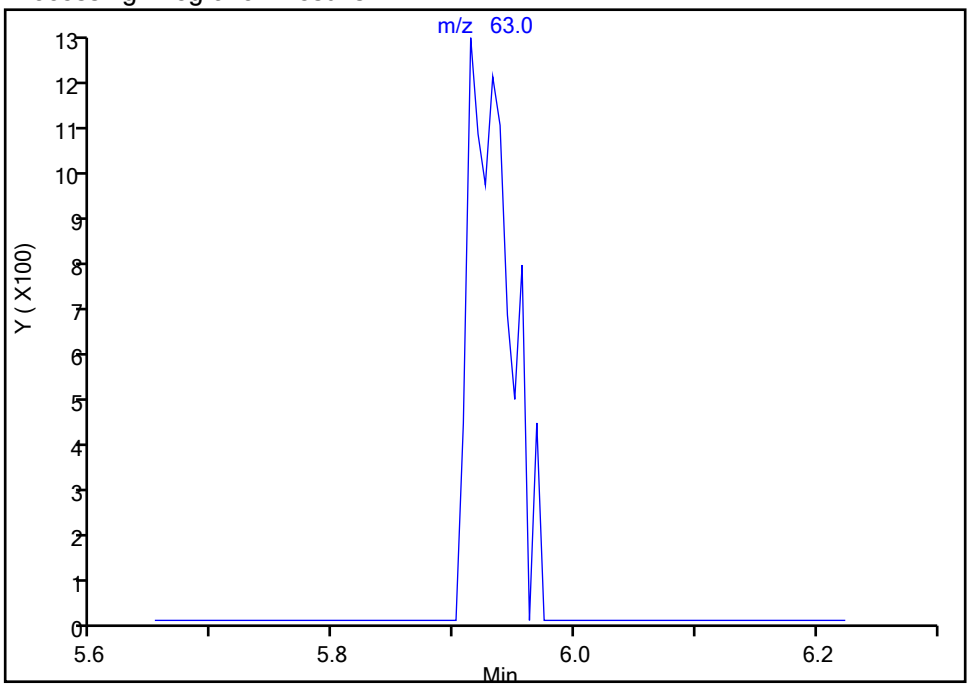
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

69 2-Chloroethyl vinyl ether, CAS: 110-75-8

Signal: 1

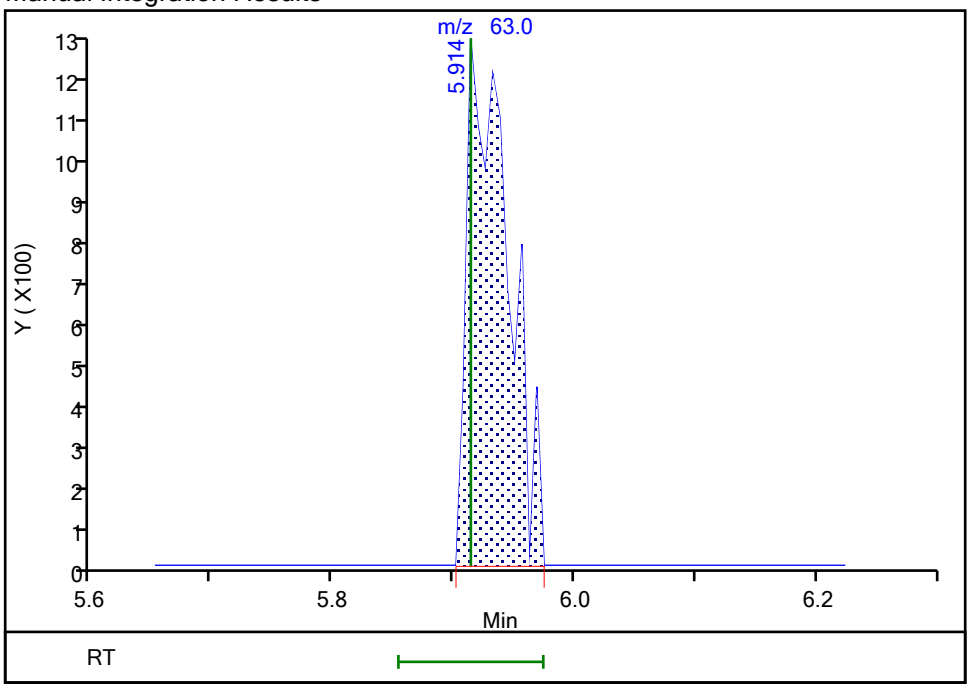
Not Detected
Expected RT: 5.91

Processing Integration Results



Manual Integration Results

RT: 5.91
Area: 2895
Amount: 0.466298
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:51 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

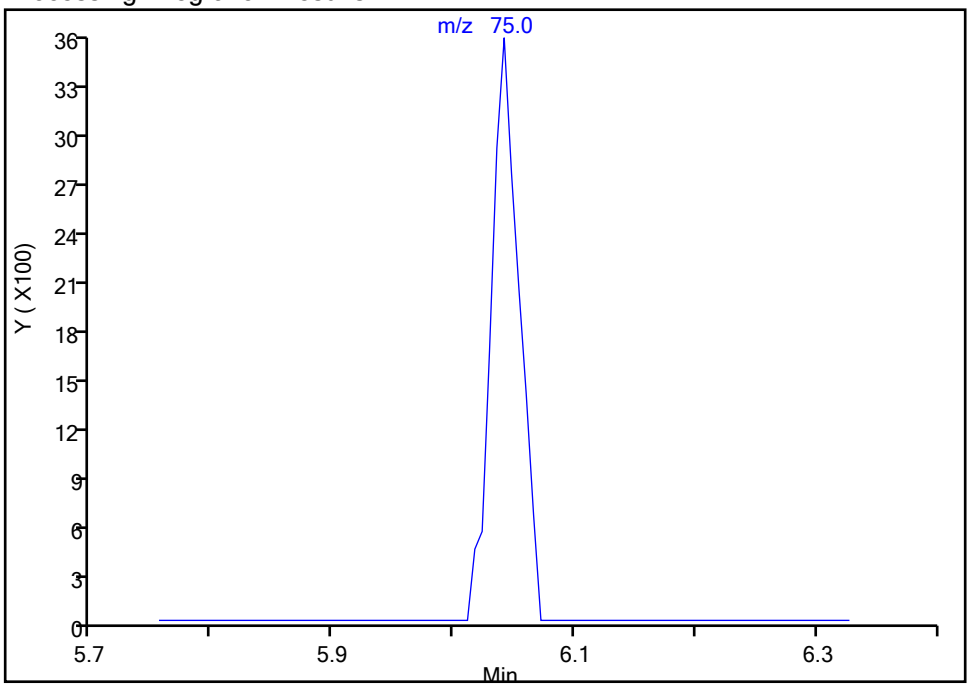
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

72 cis-1,3-Dichloropropene, CAS: 10061-01-5

Signal: 1

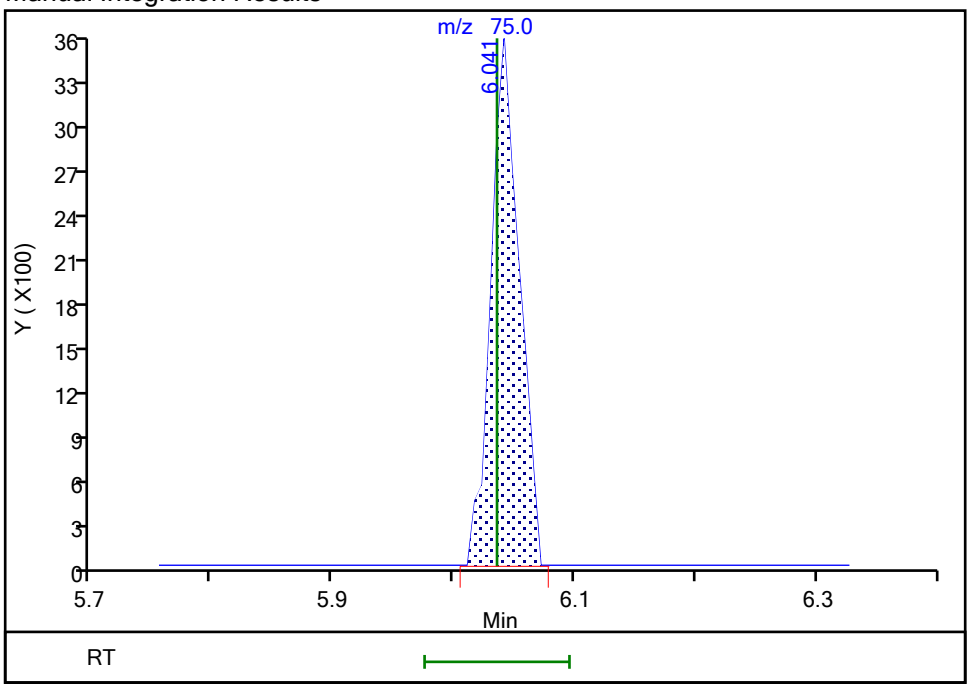
Not Detected
Expected RT: 6.04

Processing Integration Results



Manual Integration Results

RT: 6.04
Area: 5770
Amount: 0.475345
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:48:55 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

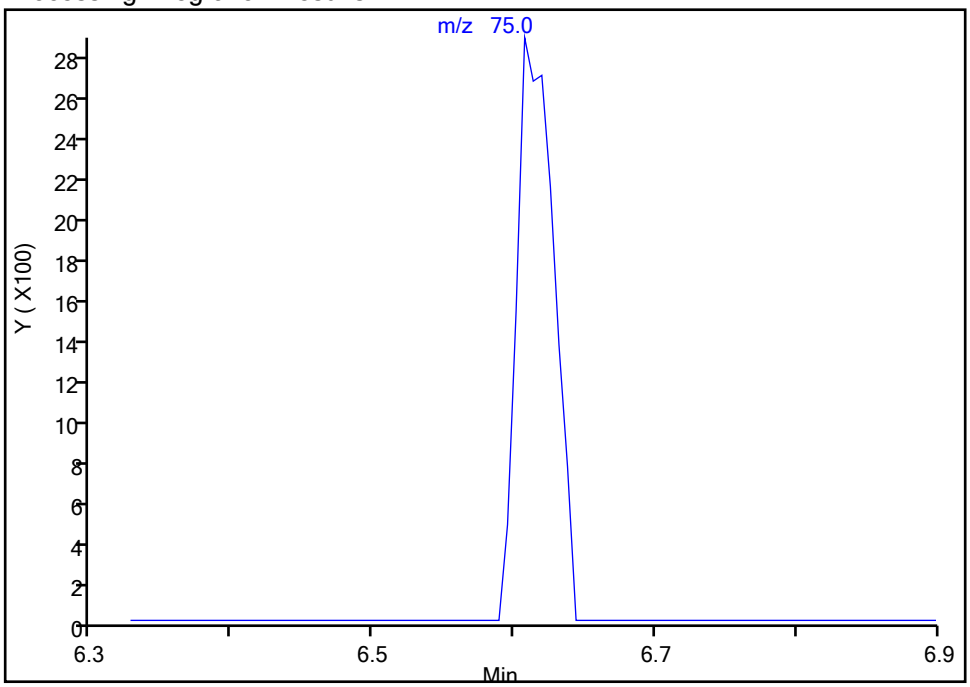
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

77 trans-1,3-Dichloropropene, CAS: 10061-02-6

Signal: 1

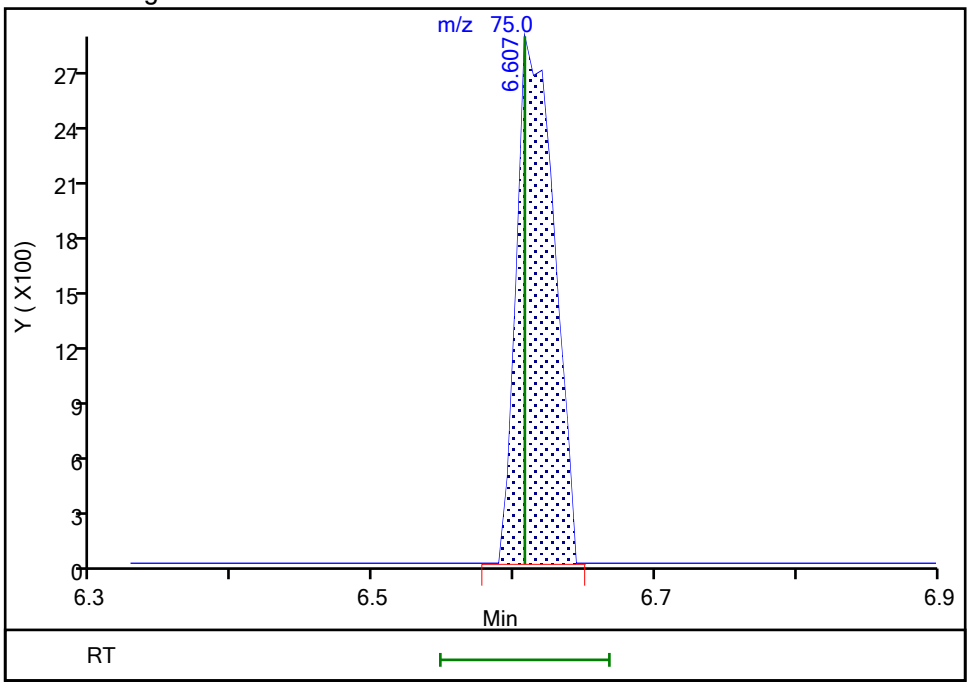
Not Detected
Expected RT: 6.61

Processing Integration Results



Manual Integration Results

RT: 6.61
Area: 5329
Amount: 0.450691
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:49:02 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

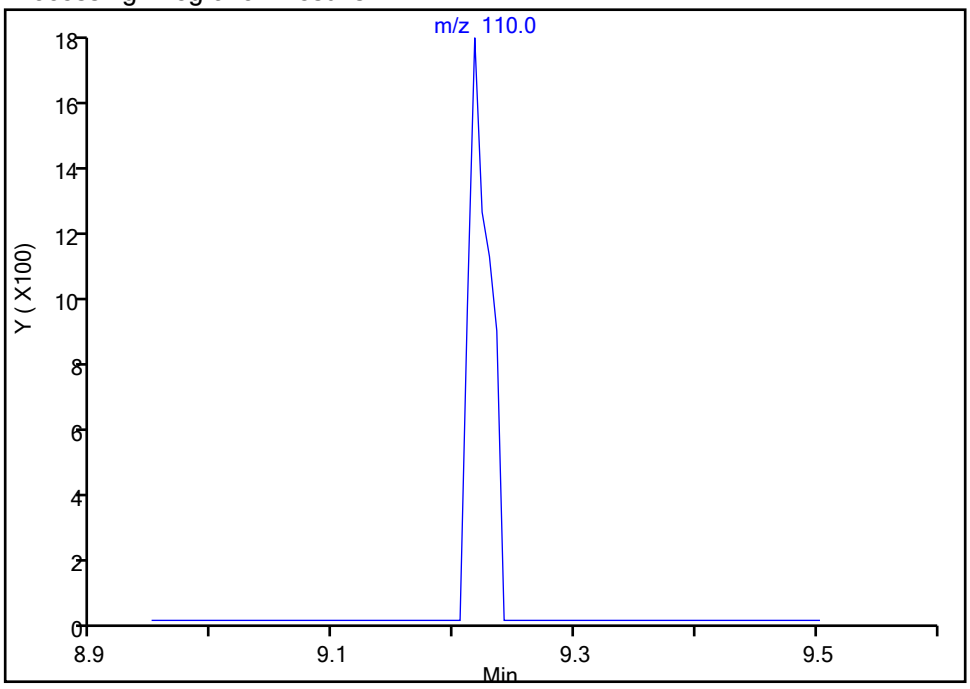
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

100 1,2,3-Trichloropropane, CAS: 96-18-4

Signal: 1

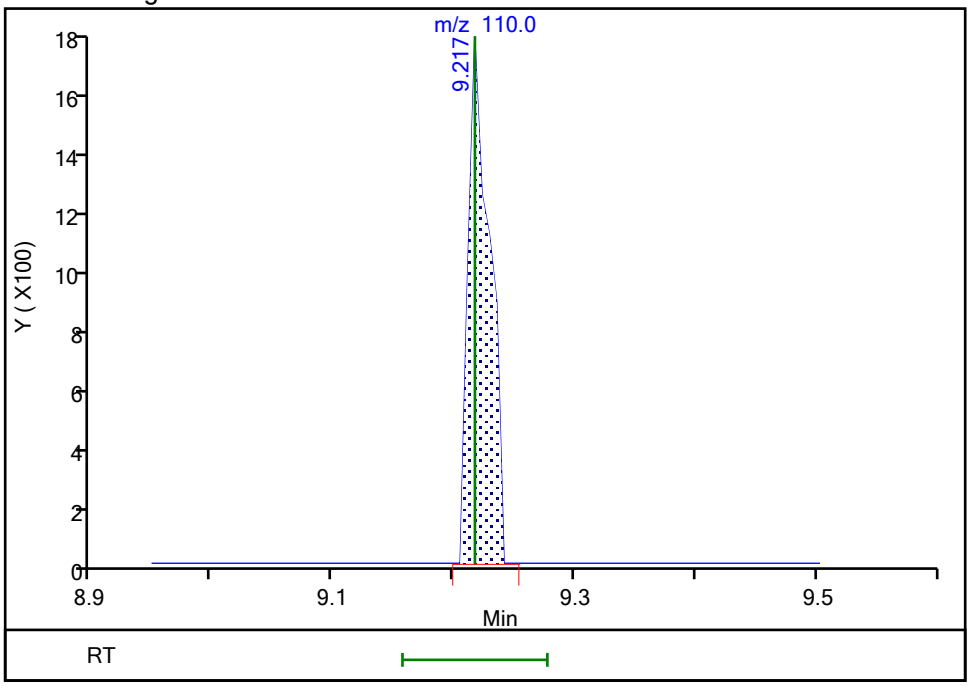
Not Detected
Expected RT: 9.22

Processing Integration Results



Manual Integration Results

RT: 9.22
Area: 2124
Amount: 0.448802
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:49:20 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

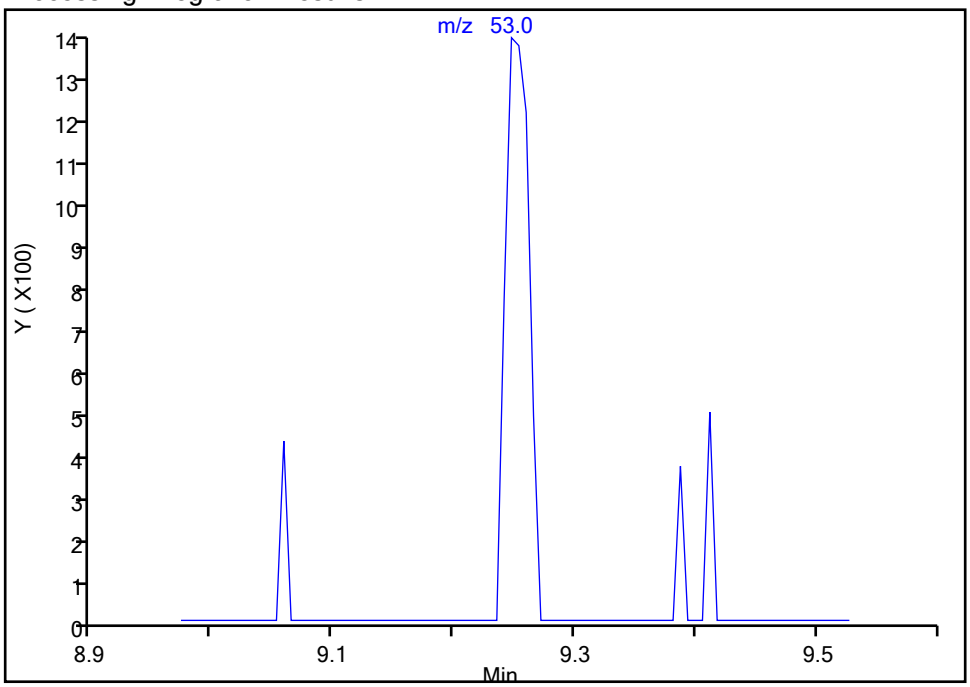
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0981.d
Injection Date: 07-Aug-2024 15:47:30 Instrument ID: HP5973S
Lims ID: IC 0.5
Client ID:
Operator ID: LH ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

98 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

Signal: 1

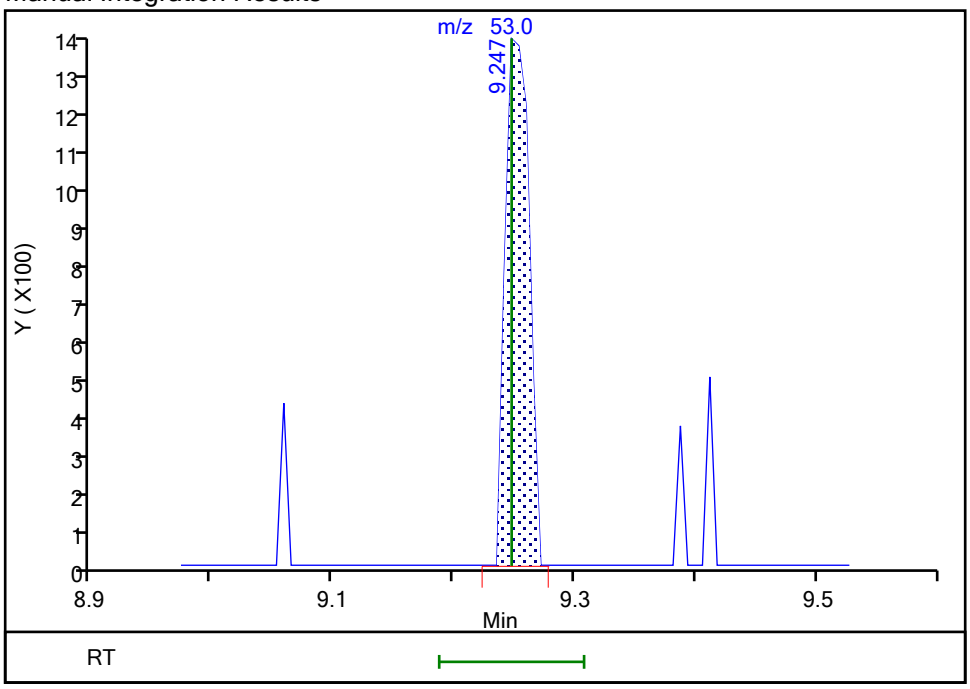
Not Detected
Expected RT: 9.25

Processing Integration Results



Manual Integration Results

RT: 9.25
Area: 1904
Amount: 0.389882
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:49:26 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 07-Aug-2024 16:11:30 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 480-0119391-014
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:17:53 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:51:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	153325	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	84	370498	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	415525	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	208031	25.0	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	98	129547	25.0	24.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	92	812031	25.0	24.3	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	92	301176	25.0	25.4	
10 Dichlorodifluoromethane	85	0.986	0.992	-0.006	78	8835	1.00	0.8533	
12 Chloromethane	50	1.126	1.126	0.000	83	10365	1.00	0.8473	
13 Vinyl chloride	62	1.193	1.193	0.000	41	8590	1.00	0.9440	
151 Butadiene	54	1.217	1.217	0.000	83	7913	1.00	0.8412	
14 Bromomethane	94	1.442	1.442	0.000	56	5963	1.00	1.06	
15 Chloroethane	64	1.509	1.509	0.000	53	5575	1.00	0.9648	Ma
16 Dichlorofluoromethane	67	1.692	1.686	0.006	59	11819	1.00	0.8683	
17 Trichlorofluoromethane	101	1.685	1.686	-0.001	45	9796	1.00	0.8490	
18 Ethyl ether	59	1.917	1.917	0.000	92	9381	1.00	1.07	Ma
20 Acrolein	56	2.081	2.081	0.000	70	8606	5.00	4.92	
22 1,1-Dichloroethene	96	2.111	2.105	0.006	70	5798	1.00	0.8882	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.105	2.112	-0.007	8	6555	1.00	1.03	
23 Acetone	43	2.221	2.227	-0.006	76	17633	5.00	4.95	
25 Iodomethane	142	2.251	2.251	0.000	84	11991	1.00	0.9825	
26 Carbon disulfide	76	2.282	2.282	0.000	84	19220	1.00	0.9425	
28 3-Chloro-1-propene	41	2.446	2.446	0.000	56	13304	1.00	0.9495	
27 Methyl acetate	43	2.501	2.501	0.000	95	21828	2.00	2.03	
30 Methylene Chloride	84	2.580	2.586	-0.006	84	10785	1.00	0.9576	
31 2-Methyl-2-propanol	59	2.774	2.769	0.005	32	8307	10.0	8.92	M
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	86	26217	1.00	0.9831	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	72	7518	1.00	0.9544	
33 Acrylonitrile	53	2.866	2.860	0.006	97	46564	10.0	9.36	M
35 Hexane	57	2.981	2.981	0.000	68	9114	1.00	0.7941	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	47	14192	1.00	0.99	
37 Vinyl acetate	43	3.267	3.261	0.006	94	31586	2.00	1.70	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	45	7143	1.00	0.99	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	41	8529	1.00	0.9876	
43 2-Butanone (MEK)	43	3.790	3.778	0.012	89	25480	5.00	4.41	
48 Chlorobromomethane	128	3.961	3.961	0.000	78	4402	1.00	0.9802	
49 Tetrahydrofuran	42	3.991	3.979	0.012	66	8437	2.00	1.91	
50 Chloroform	83	4.046	4.046	0.000	71	15248	1.00	1.07	
52 Cyclohexane	56	4.137	4.137	0.000	73	12159	1.00	0.8362	
51 1,1,1-Trichloroethane	97	4.143	4.137	0.006	66	9628	1.00	0.8831	
55 Carbon tetrachloride	117	4.271	4.271	0.000	55	7527	1.00	0.8045	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	52	10089	1.00	0.9721	
57 Benzene	78	4.490	4.490	0.000	45	28468	1.00	0.9166	
53 Isobutyl alcohol	43	4.563	4.551	0.012	10	8518	25.0	21.0	
58 1,2-Dichloroethane	62	4.569	4.563	0.006	52	11664	1.00	0.9453	
59 n-Heptane	43	4.679	4.679	0.000	71	9290	1.00	0.7943	
62 Trichloroethene	95	5.092	5.092	0.000	71	6753	1.00	0.8366	
64 Methylcyclohexane	83	5.196	5.196	0.000	55	10188	1.00	0.8272	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	53	7451	1.00	0.9508	
67 Dibromomethane	93	5.469	5.464	0.005	72	5084	1.00	1.01	
66 1,4-Dioxane	88	5.494	5.482	0.012	22	694	20.0	17.4	Ma
68 Dichlorobromomethane	83	5.622	5.628	-0.006	65	8922	1.00	0.9530	
69 2-Chloroethyl vinyl ether	63	5.920	5.914	0.006	58	5270	1.00	0.8905	
72 cis-1,3-Dichloropropene	75	6.041	6.035	0.006	52	9758	1.00	0.8433	a
73 4-Methyl-2-pentanone (MIBK)	43	6.199	6.194	0.005	88	64461	5.00	4.70	
74 Toluene	92	6.315	6.309	0.006	81	18819	1.00	0.9103	
77 trans-1,3-Dichloropropene	75	6.613	6.607	0.006	68	10209	1.00	0.8929	
75 Ethyl methacrylate	69	6.674	6.668	0.006	53	8264	1.00	0.7945	
79 1,1,2-Trichloroethane	83	6.796	6.790	0.006	64	5894	1.00	0.9010	
81 Tetrachloroethene	166	6.826	6.826	0.000	68	8056	1.00	0.8878	
82 1,3-Dichloropropane	76	6.948	6.942	0.006	63	12663	1.00	0.9438	
80 2-Hexanone	43	7.033	7.027	0.006	89	46816	5.00	4.85	
83 Chlorodibromomethane	129	7.173	7.173	0.000	40	7182	1.00	0.9176	
84 Ethylene Dibromide	107	7.264	7.264	0.000	35	7661	1.00	0.9031	
87 Chlorobenzene	112	7.733	7.739	-0.006	78	22236	1.00	0.9215	
88 Ethylbenzene	91	7.836	7.836	0.000	73	35386	1.00	0.9120	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	24	7276	1.00	0.9183	
90 m-Xylene & p-Xylene	106	7.964	7.958	0.006	86	15295	1.00	0.9713	
91 o-Xylene	106	8.377	8.378	-0.001	69	14512	1.00	0.9169	
92 Styrene	104	8.414	8.408	0.006	46	22162	1.00	0.8855	
95 Bromoform	173	8.645	8.645	0.000	58	5077	1.00	0.8847	
94 Isopropylbenzene	105	8.767	8.761	0.006	76	31996	1.00	0.8448	
101 Bromobenzene	156	9.107	9.102	0.005	79	9752	1.00	0.8791	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	46	12972	1.00	0.99	
99 N-Propylbenzene	91	9.211	9.205	0.006	88	41866	1.00	0.9087	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	47	4931	1.00	1.06	
98 trans-1,4-Dichloro-2-butene	53	9.253	9.248	0.005	1	4523	1.00	0.9422	
103 2-Chlorotoluene	126	9.308	9.302	0.006	80	9489	1.00	0.9243	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	83	28946	1.00	0.8847	
105 4-Chlorotoluene	126	9.430	9.430	0.000	71	8892	1.00	0.8546	
106 tert-Butylbenzene	134	9.728	9.734	-0.006	65	6209	1.00	0.8221	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	77	30221	1.00	0.8809	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	63	34922	1.00	0.8921	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	77	20794	1.00	0.9639	
110 4-Isopropyltoluene	119	10.111	10.105	0.006	80	30375	1.00	0.8344	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	56	22194	1.00	0.9732	
115 n-Butylbenzene	91	10.513	10.507	0.006	73	24940	1.00	0.8398	
116 1,2-Dichlorobenzene	146	10.543	10.537	0.006	79	21043	1.00	1.01	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	11	1893	1.00	0.7732	a
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	53	12037	1.00	0.9363	
120 Hexachlorobutadiene	225	12.094	12.089	0.005	39	5234	1.00	0.9894	
121 Naphthalene	128	12.186	12.186	0.000	78	37199	1.00	0.8527	
122 1,2,3-Trichlorobenzene	180	12.393	12.387	0.006	66	11422	1.00	0.9438	
S 125 1,2-Dichloroethene, Total	1				0			1.94	
S 123 Total BTEX	1				0			4.63	
S 126 1,3-Dichloropropene, Total	1				0			1.74	
S 124 Xylenes, Total	1				0			1.89	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8260 CORP mix_00257	Amount Added:	1.00	Units: uL	
GAS CORP mix_00631	Amount Added:	1.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

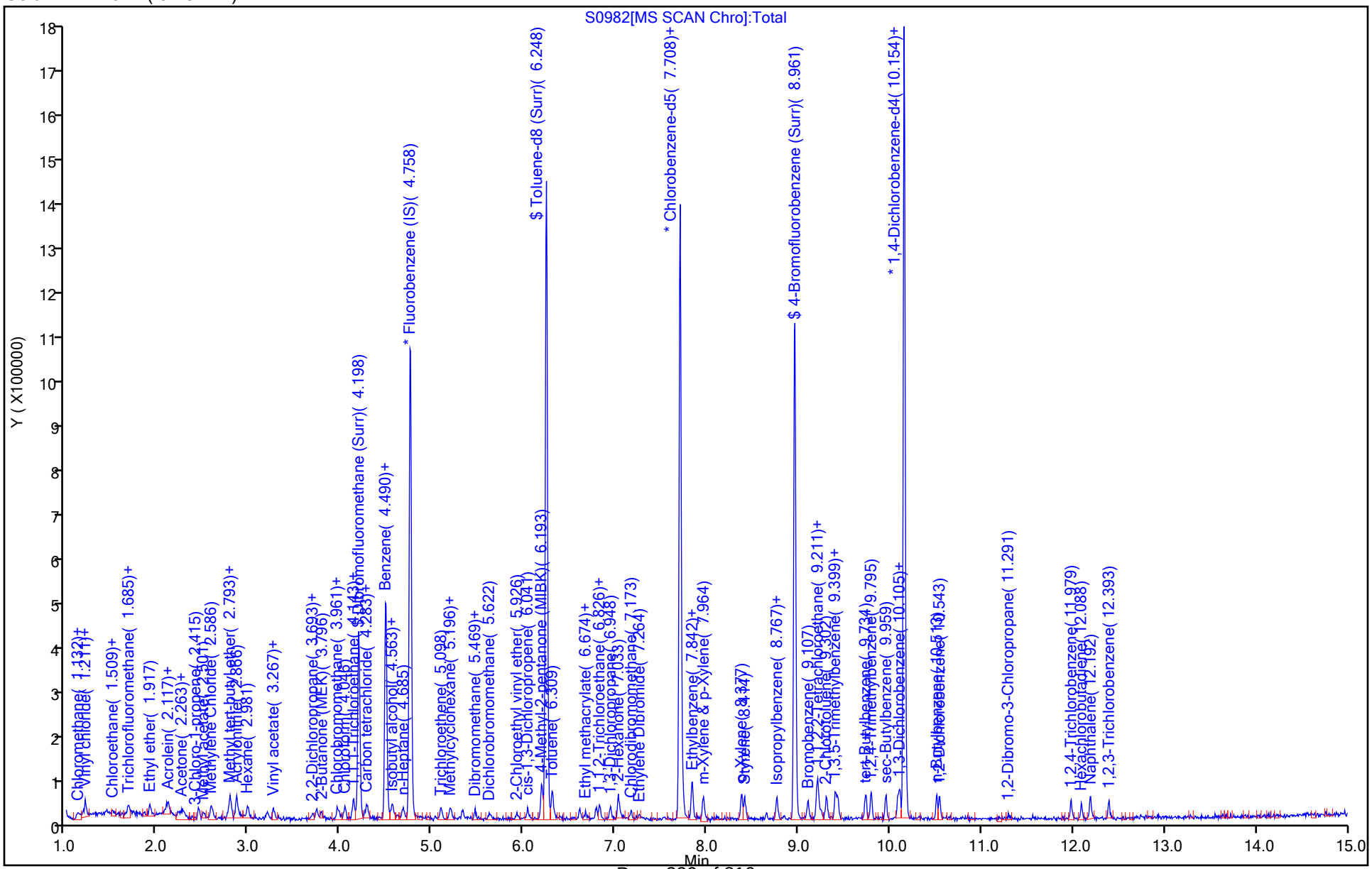
Report Date: 08-Aug-2024 13:17:55 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d

Injection Date:	07-Aug-2024 16:11:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC			Worklist Smp#:	14
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

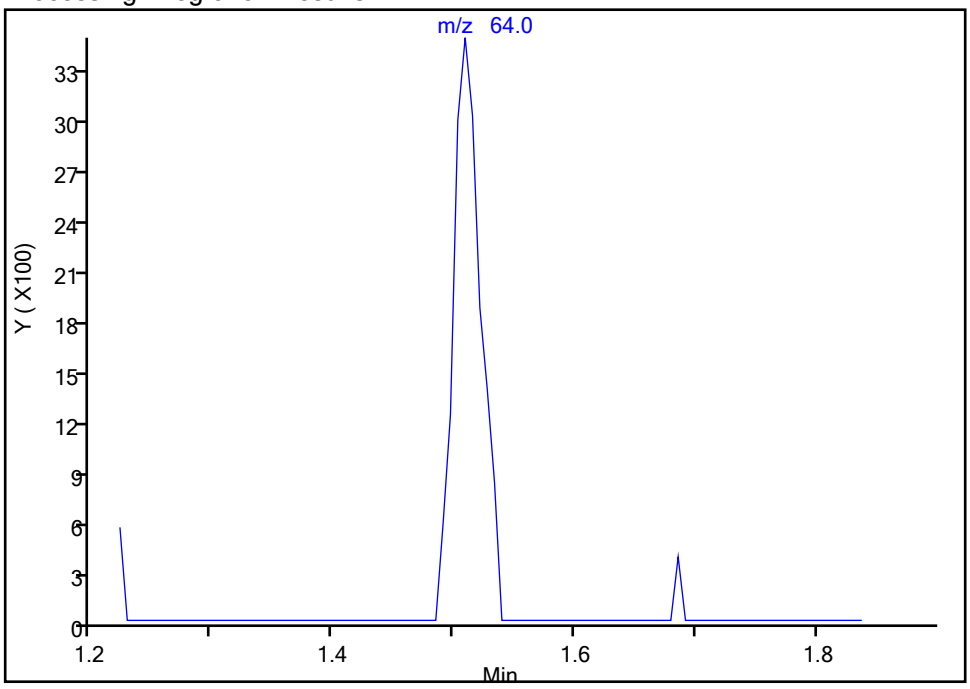
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

15 Chloroethane, CAS: 75-00-3

Signal: 1

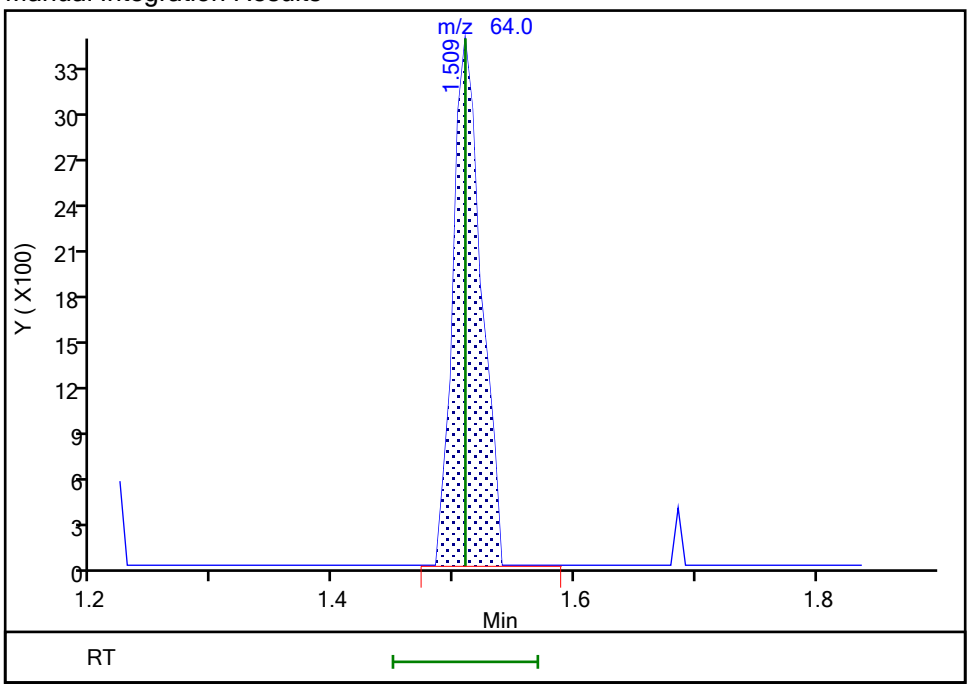
Not Detected
Expected RT: 1.51

Processing Integration Results



Manual Integration Results

RT: 1.51
Area: 5575
Amount: 0.964780
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:50:08 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

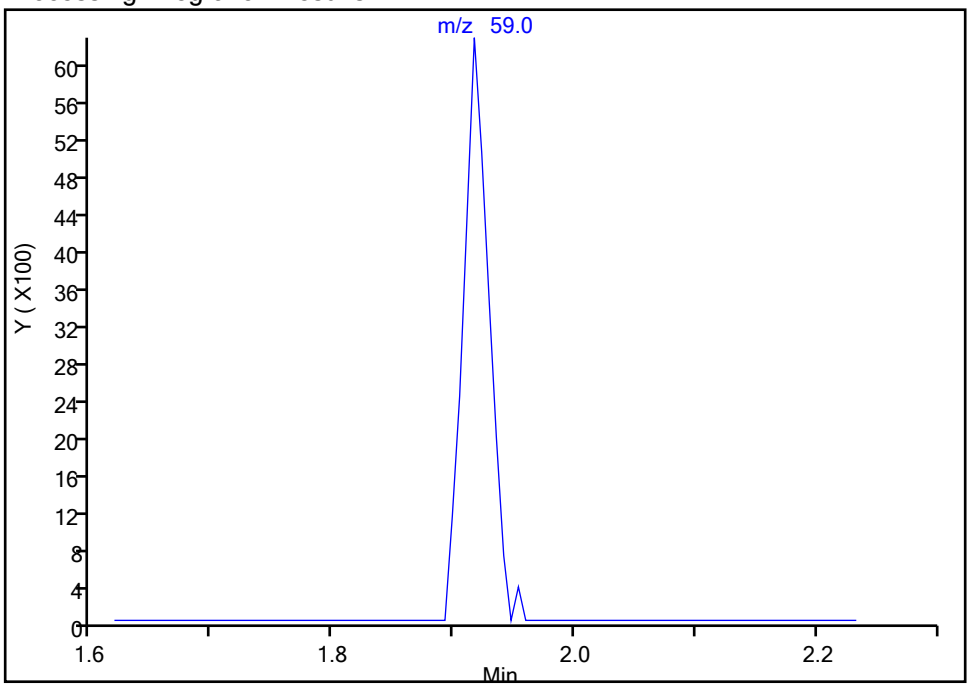
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

18 Ethyl ether, CAS: 60-29-7

Signal: 1

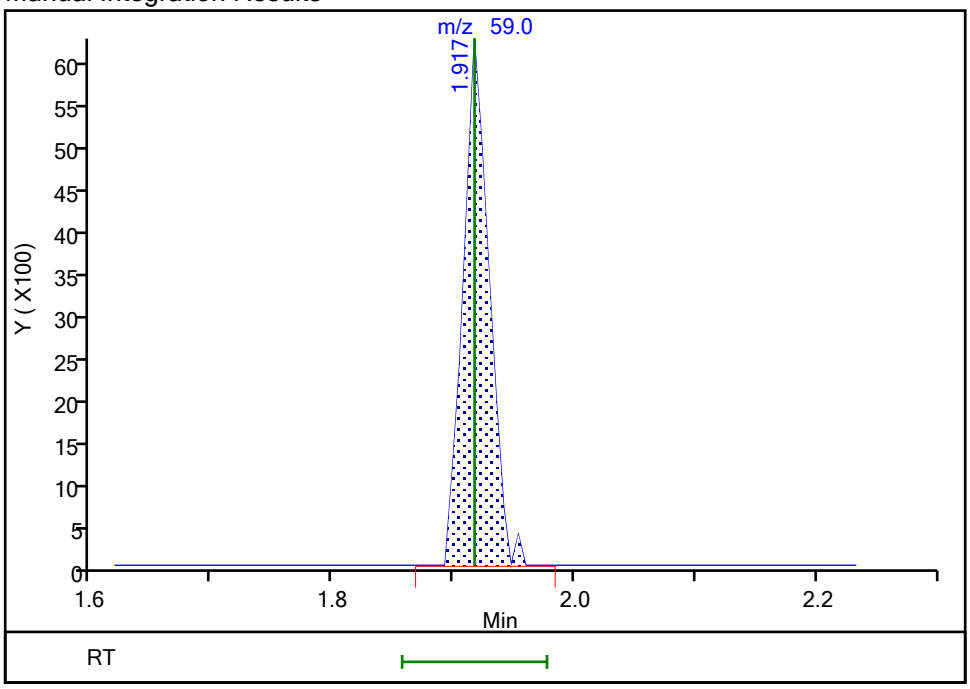
Not Detected
Expected RT: 1.92

Processing Integration Results



Manual Integration Results

RT: 1.92
Area: 9381
Amount: 1.069993
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:50:17 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

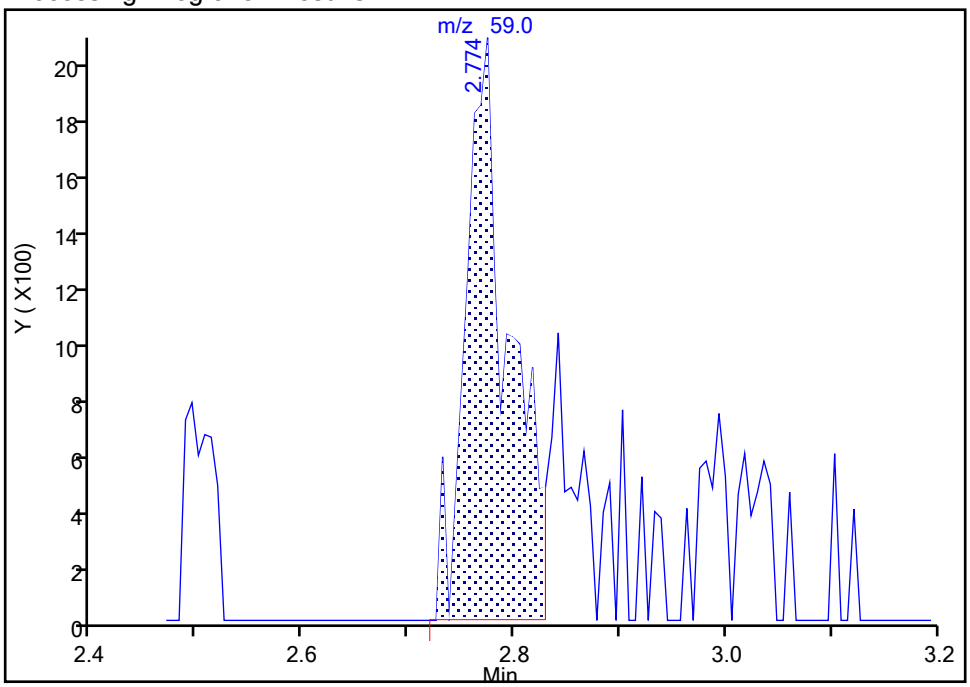
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

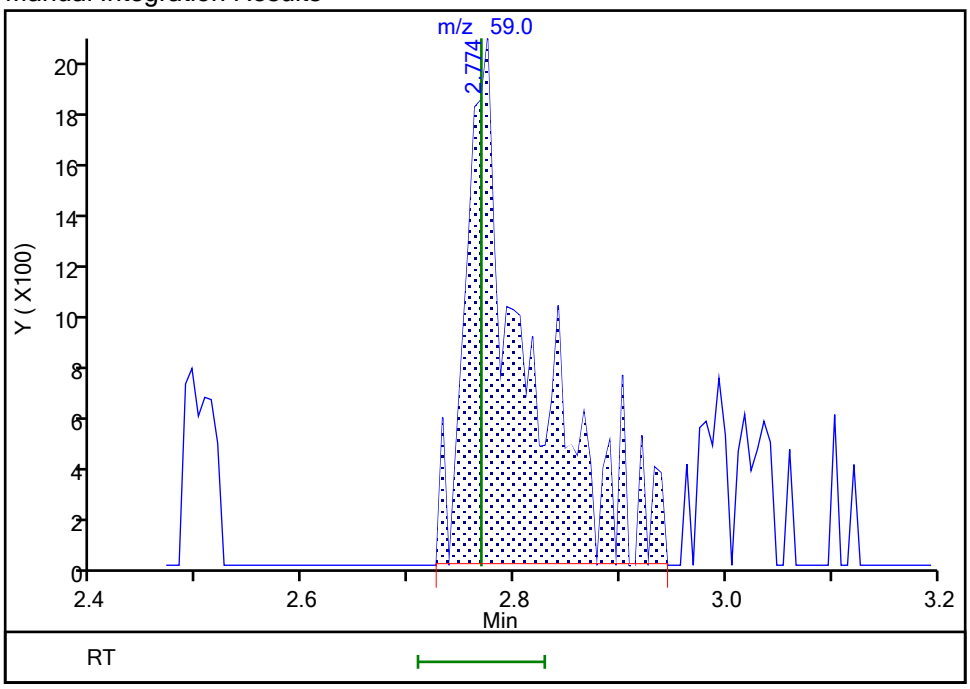
Processing Integration Results

RT: 2.77
Area: 5881
Amount: 7.092139
Amount Units: ug/L



Manual Integration Results

RT: 2.77
Area: 8307
Amount: 8.915580
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:46:39 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

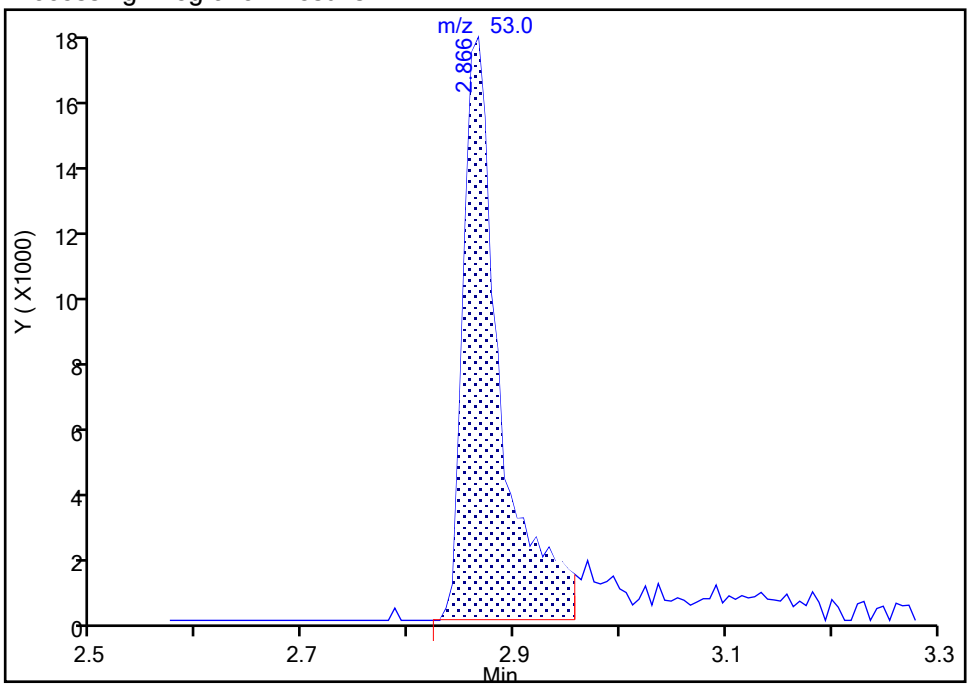
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

33 Acrylonitrile, CAS: 107-13-1

Signal: 1

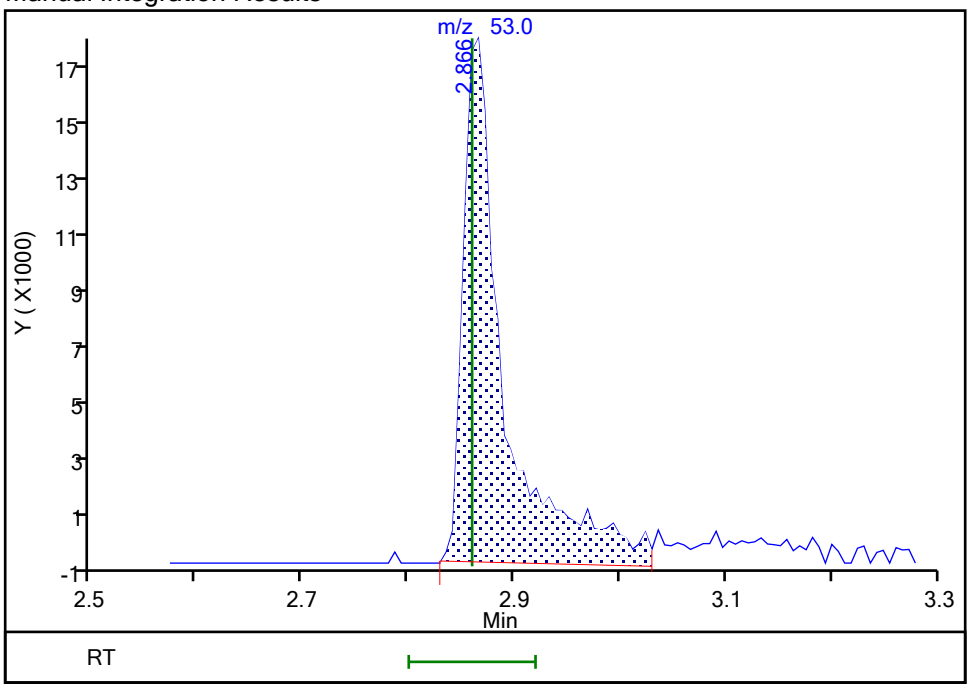
Processing Integration Results

RT: 2.87
Area: 42208
Amount: 8.575219
Amount Units: ug/L



Manual Integration Results

RT: 2.87
Area: 46564
Amount: 9.356702
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:47:42 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

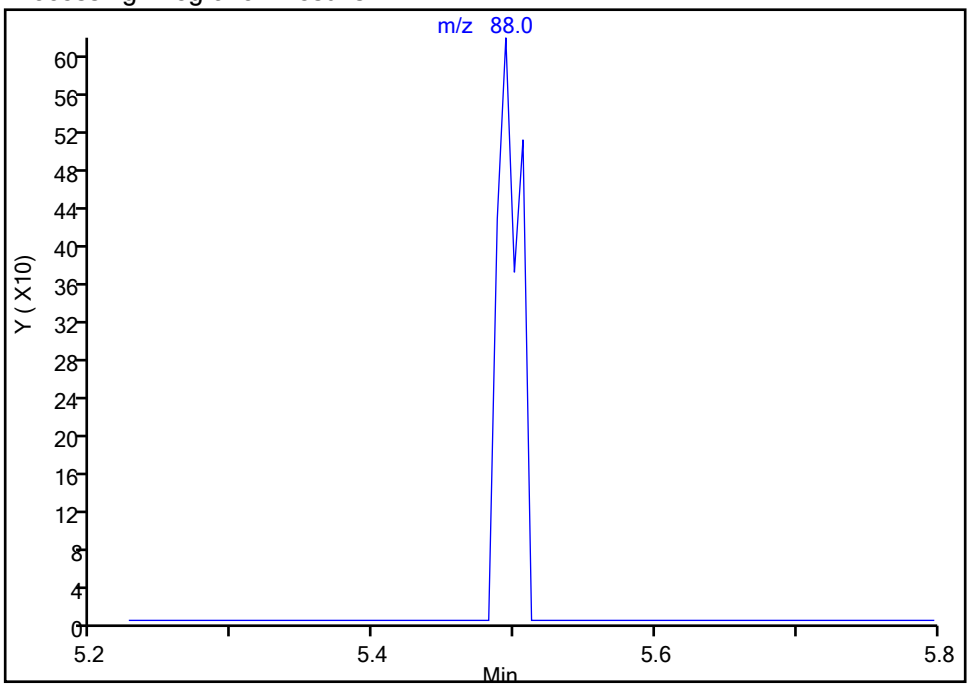
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

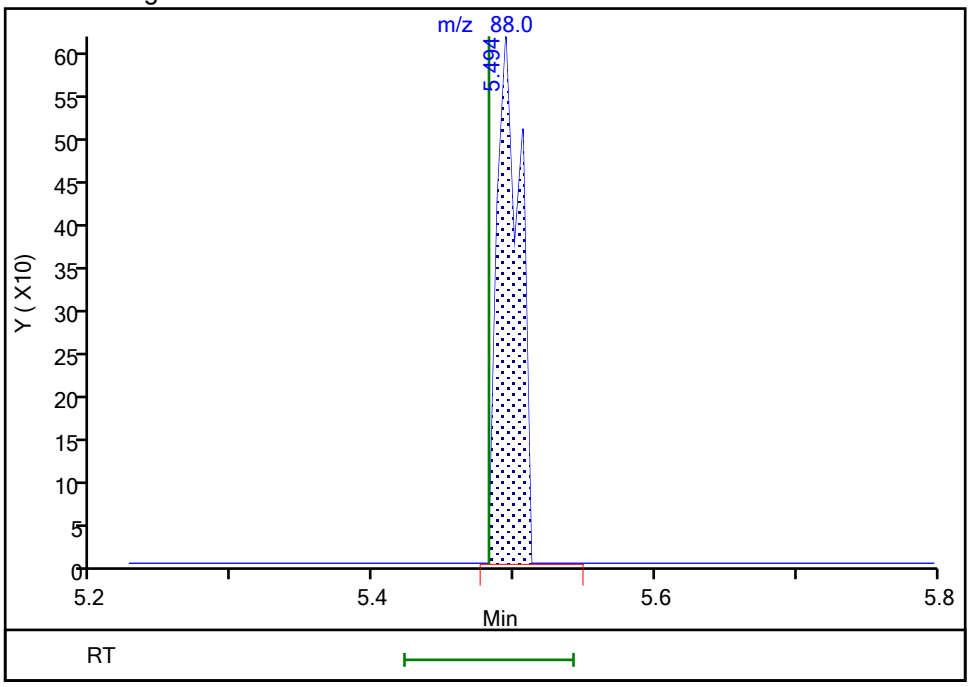
Not Detected
Expected RT: 5.48

Processing Integration Results



Manual Integration Results

RT: 5.49
Area: 694
Amount: 17.408795
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:51:03 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo

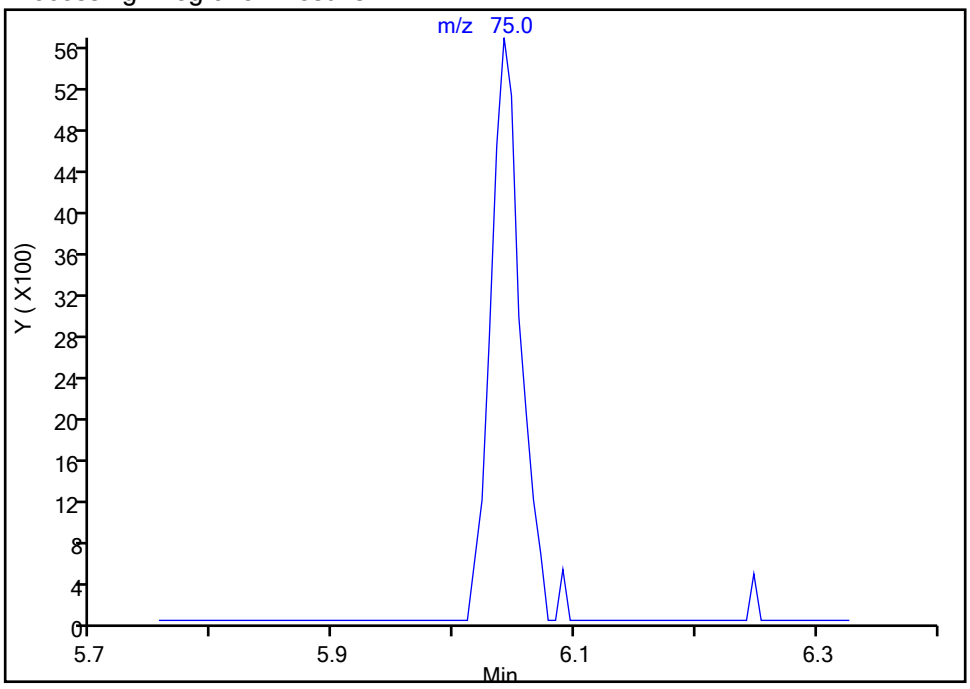
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

72 cis-1,3-Dichloropropene, CAS: 10061-01-5

Signal: 1

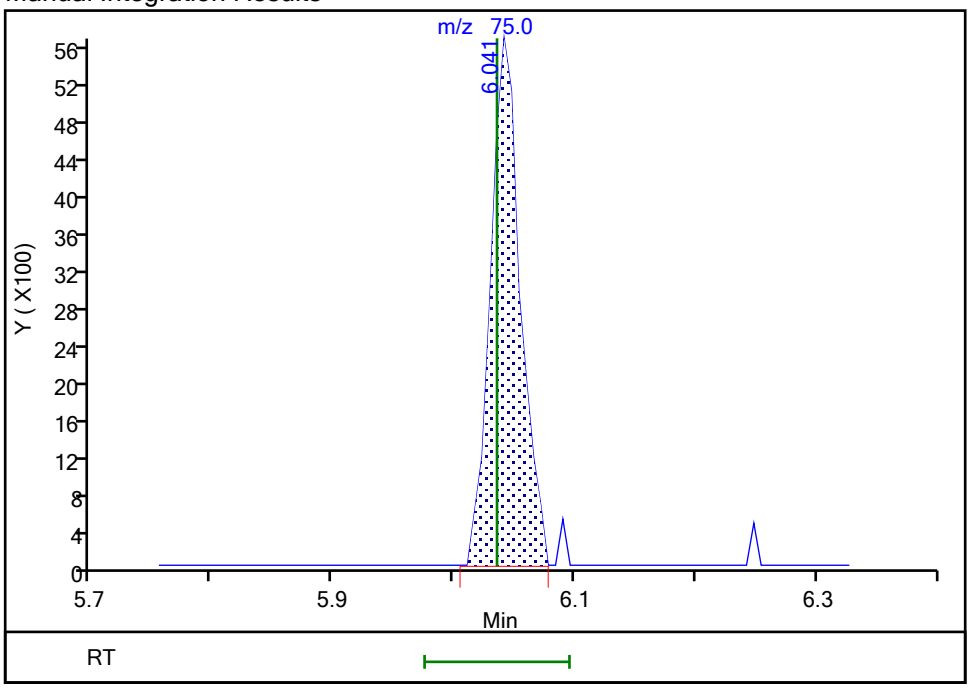
Not Detected
Expected RT: 6.04

Processing Integration Results



Manual Integration Results

RT: 6.04
Area: 9758
Amount: 0.843317
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:51:13 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

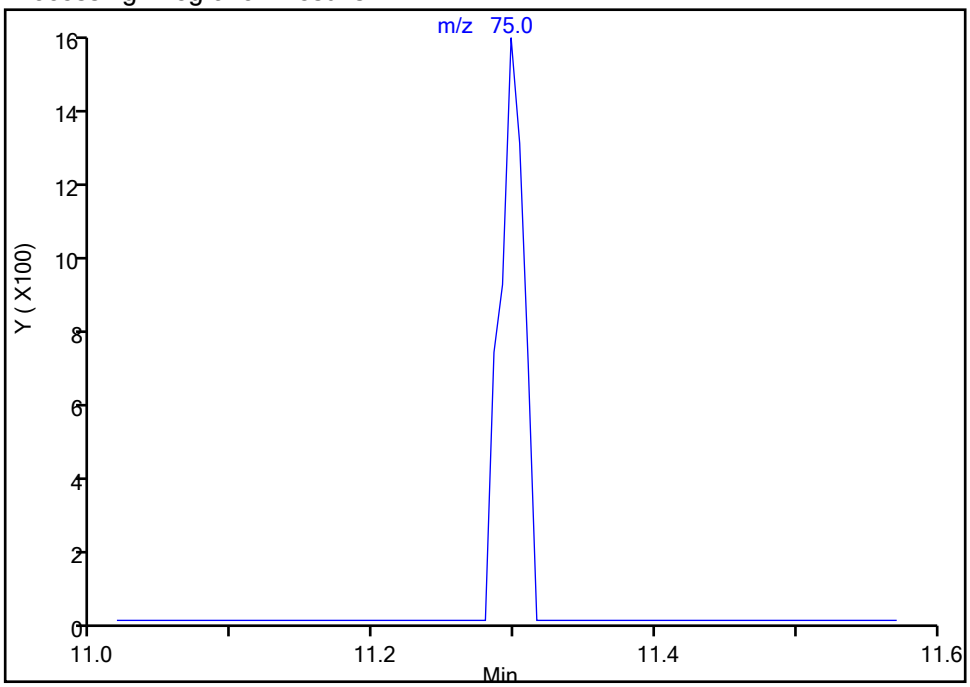
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0982.d
Injection Date: 07-Aug-2024 16:11:30 Instrument ID: HP5973S
Lims ID: IC
Client ID:
Operator ID: LH ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

117 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

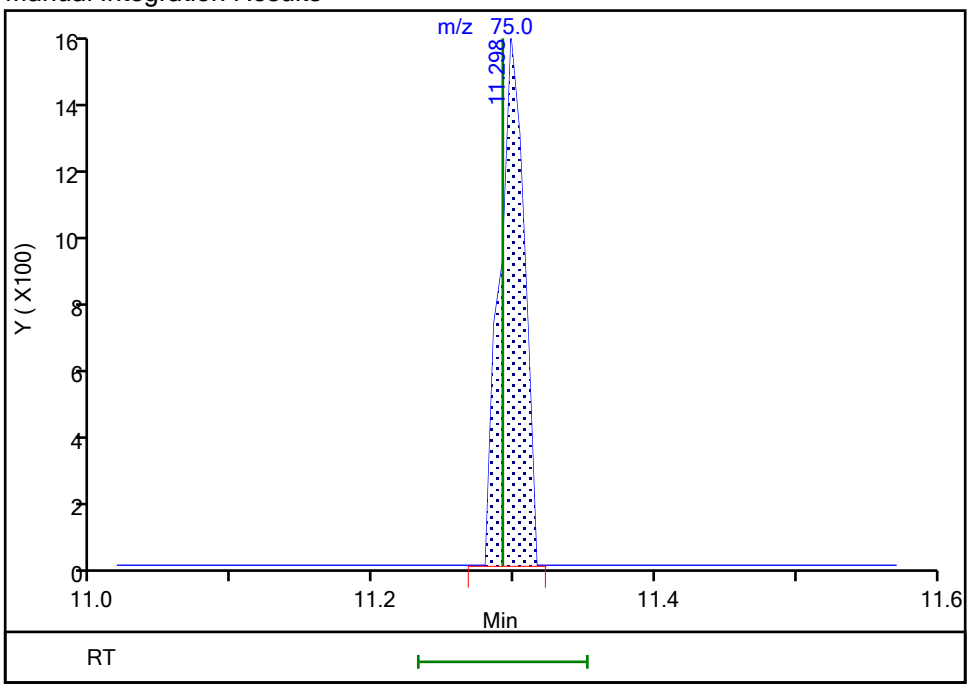
Not Detected
Expected RT: 11.29

Processing Integration Results



Manual Integration Results

RT: 11.30
Area: 1893
Amount: 0.773244
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:51:36 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d
Lims ID: IC 2
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 07-Aug-2024 16:34:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Misc. Info.: 480-0119391-015
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:05 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:54:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	157701	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	376681	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	93	424203	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	212415	25.0	25.0	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.496	-0.006	92	137246	25.0	25.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	92	832089	25.0	24.5	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	91	300848	25.0	24.9	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	79	19346	2.00	1.82	
12 Chloromethane	50	1.126	1.126	0.000	84	23626	2.00	1.88	
13 Vinyl chloride	62	1.193	1.193	0.000	57	17100	2.00	1.83	
151 Butadiene	54	1.211	1.217	-0.006	89	18295	2.00	1.89	
14 Bromomethane	94	1.448	1.442	0.006	71	11513	2.00	2.00	
15 Chloroethane	64	1.515	1.509	0.006	69	11454	2.00	1.93	
16 Dichlorofluoromethane	67	1.685	1.686	-0.001	90	25847	2.00	1.85	
17 Trichlorofluoromethane	101	1.685	1.686	-0.001	68	21654	2.00	1.82	
18 Ethyl ether	59	1.917	1.917	0.000	90	18310	2.00	2.03	Ma
20 Acrolein	56	2.081	2.081	0.000	82	18438	10.0	10.3	
22 1,1-Dichloroethene	96	2.105	2.105	0.000	77	12987	2.00	1.93	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	41	12846	2.00	1.96	
23 Acetone	43	2.227	2.227	0.000	83	34069	10.0	9.30	
25 Iodomethane	142	2.251	2.251	0.000	83	24310	2.00	1.94	
26 Carbon disulfide	76	2.294	2.282	0.012	88	41715	2.00	1.99	
28 3-Chloro-1-propene	41	2.452	2.446	0.006	74	29927	2.00	2.08	
27 Methyl acetate	43	2.501	2.501	0.000	94	44650	4.00	4.03	
30 Methylene Chloride	84	2.586	2.586	0.000	92	19379	2.00	1.98	
31 2-Methyl-2-propanol	59	2.762	2.769	-0.007	62	20696	20.0	21.6	M
32 Methyl tert-butyl ether	73	2.793	2.787	0.006	85	56926	2.00	2.08	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	89	16971	2.00	2.09	
33 Acrylonitrile	53	2.866	2.860	0.006	97	102807	20.0	20.1	
35 Hexane	57	2.981	2.981	0.000	84	23006	2.00	1.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.194	3.194	0.000	84	30152	2.00	2.05	
37 Vinyl acetate	43	3.267	3.261	0.006	97	67952	4.00	3.55	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	71	14504	2.00	1.96	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	61	18744	2.00	2.11	
43 2-Butanone (MEK)	43	3.784	3.778	0.006	95	60328	10.0	10.2	
48 Chlorobromomethane	128	3.955	3.961	-0.006	78	9395	2.00	2.03	
49 Tetrahydrofuran	42	3.985	3.979	0.006	79	19819	4.00	4.37	
50 Chloroform	83	4.046	4.046	0.000	75	30771	2.00	2.10	
52 Cyclohexane	56	4.143	4.137	0.006	82	29357	2.00	1.96	
51 1,1,1-Trichloroethane	97	4.137	4.137	0.000	69	22242	2.00	1.98	
55 Carbon tetrachloride	117	4.265	4.271	-0.006	66	17749	2.00	1.84	
54 1,1-Dichloropropene	75	4.295	4.289	0.006	77	21036	2.00	1.97	
57 Benzene	78	4.490	4.490	0.000	51	64647	2.00	2.02	
53 Isobutyl alcohol	43	4.557	4.551	0.006	45	19285	50.0	46.2	M
58 1,2-Dichloroethane	62	4.563	4.563	0.000	51	25065	2.00	1.98	
59 n-Heptane	43	4.679	4.679	0.000	72	25393	2.00	2.11	
62 Trichloroethene	95	5.098	5.092	0.006	84	16795	2.00	2.02	
64 Methylcyclohexane	83	5.196	5.196	0.000	84	23886	2.00	1.89	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	69	15248	2.00	1.89	
67 Dibromomethane	93	5.469	5.464	0.005	76	10126	2.00	1.95	
66 1,4-Dioxane	88	5.482	5.482	0.000	22	2494	40.0	34.7	M
68 Dichlorobromomethane	83	5.628	5.628	0.000	80	18649	2.00	1.94	
69 2-Chloroethyl vinyl ether	63	5.926	5.914	0.012	59	10527	2.00	1.73	
72 cis-1,3-Dichloropropene	75	6.041	6.035	0.006	59	22180	2.00	1.86	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	96	130783	10.0	9.38	
74 Toluene	92	6.309	6.309	0.000	92	40459	2.00	1.92	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	81	21461	2.00	1.85	
75 Ethyl methacrylate	69	6.674	6.668	0.006	64	19978	2.00	1.89	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	76	12271	2.00	1.84	
81 Tetrachloroethene	166	6.826	6.826	0.000	73	17864	2.00	1.94	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	78	26163	2.00	1.92	
80 2-Hexanone	43	7.033	7.027	0.006	98	90191	10.0	9.20	
83 Chlorodibromomethane	129	7.173	7.173	0.000	52	13583	2.00	1.71	
84 Ethylene Dibromide	107	7.264	7.264	0.000	86	16024	2.00	1.86	
87 Chlorobenzene	112	7.739	7.739	0.000	89	48141	2.00	1.96	
88 Ethylbenzene	91	7.836	7.836	0.000	94	75205	2.00	1.91	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	35	15062	2.00	1.87	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	95	31758	2.00	1.98	
91 o-Xylene	106	8.377	8.378	-0.001	94	31316	2.00	1.95	
92 Styrene	104	8.414	8.408	0.006	90	49428	2.00	1.94	
95 Bromoform	173	8.645	8.645	0.000	66	9422	2.00	1.61	
94 Isopropylbenzene	105	8.761	8.761	0.000	89	74528	2.00	1.93	
101 Bromobenzene	156	9.107	9.102	0.005	86	21880	2.00	1.93	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	59	25672	2.00	1.92	
99 N-Propylbenzene	91	9.211	9.205	0.006	96	93193	2.00	1.98	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	47	9261	2.00	1.95	
98 trans-1,4-Dichloro-2-butene	53	9.247	9.248	-0.001	1	8630	2.00	1.76	
103 2-Chlorotoluene	126	9.308	9.302	0.006	91	21238	2.00	2.03	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	92	62397	2.00	1.87	
105 4-Chlorotoluene	126	9.430	9.430	0.000	75	20742	2.00	1.95	
106 tert-Butylbenzene	134	9.734	9.734	0.000	83	15059	2.00	1.95	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	60	64097	2.00	1.83	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.959	9.953	0.006	85	75206	2.00	1.88	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	90	42152	2.00	1.91	
110 4-Isopropyltoluene	119	10.111	10.105	0.006	91	70098	2.00	1.89	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	87	47243	2.00	2.03	
115 n-Butylbenzene	91	10.507	10.507	0.000	89	55641	2.00	1.84	
116 1,2-Dichlorobenzene	146	10.543	10.537	0.006	89	39334	2.00	1.85	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	24	4746	2.00	1.90	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	80	24210	2.00	1.84	
120 Hexachlorobutadiene	225	12.094	12.089	0.005	68	9751	2.00	1.81	
121 Naphthalene	128	12.186	12.186	0.000	89	78772	2.00	1.77	
122 1,2,3-Trichlorobenzene	180	12.393	12.387	0.006	85	21443	2.00	1.74	
S 125 1,2-Dichloroethene, Total	1				0			4.20	
S 123 Total BTEX	1				0			9.79	
S 126 1,3-Dichloropropene, Total	1				0			3.71	
S 124 Xylenes, Total	1				0			3.93	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8260 CORP mix_00257	Amount Added:	2.00	Units: uL	
GAS CORP mix_00631	Amount Added:	2.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

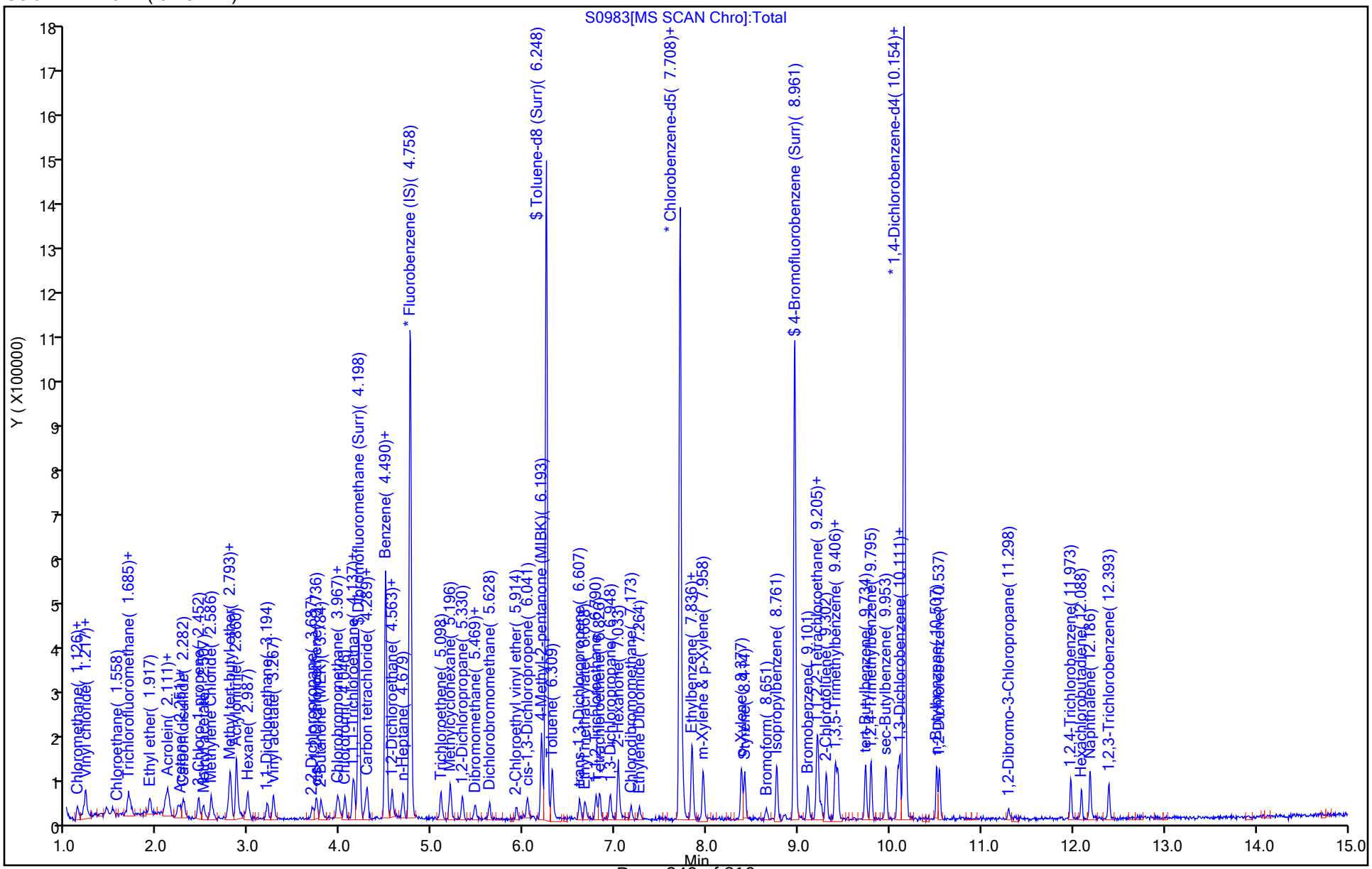
Report Date: 08-Aug-2024 13:18:06 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d

Injection Date:	07-Aug-2024 16:34:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 2			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

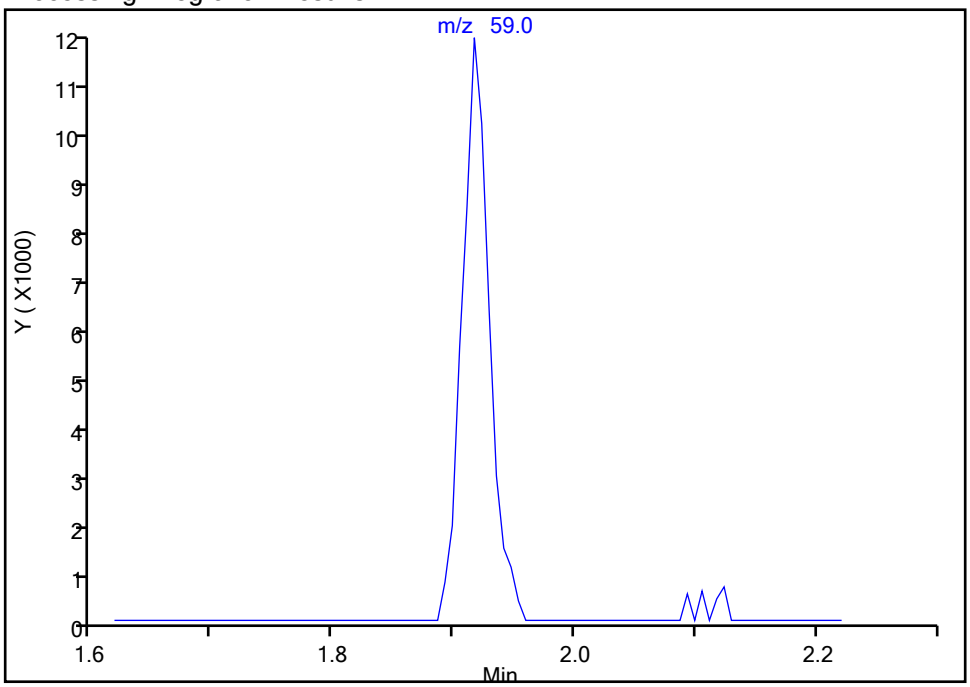
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d
Injection Date: 07-Aug-2024 16:34:30 Instrument ID: HP5973S
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

18 Ethyl ether, CAS: 60-29-7

Signal: 1

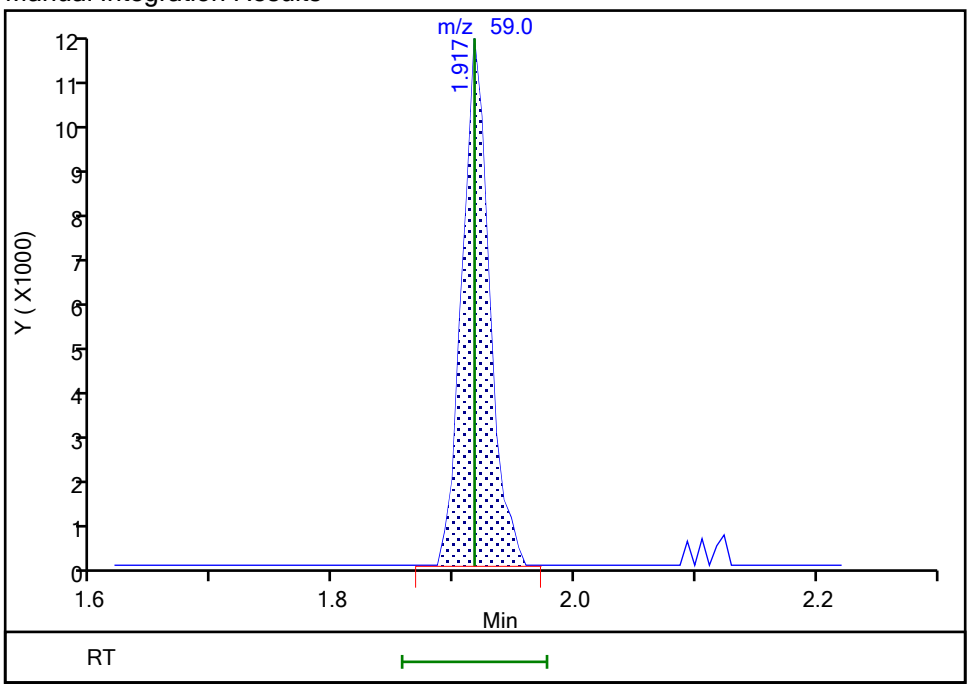
Not Detected
Expected RT: 1.92

Processing Integration Results



Manual Integration Results

RT: 1.92
Area: 18310
Amount: 2.030480
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:52:09 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

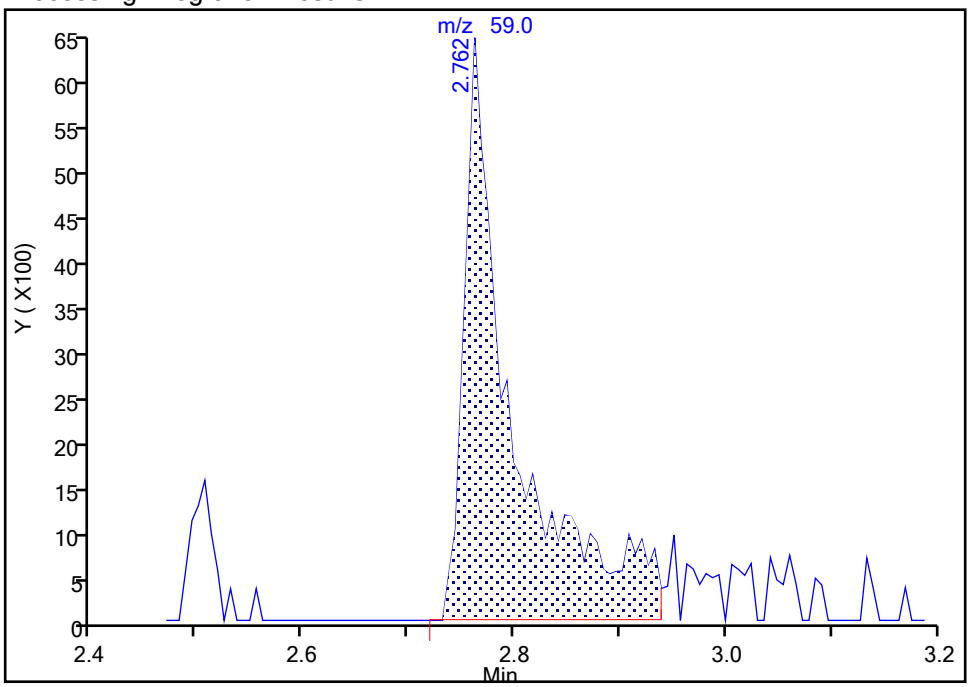
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d
Injection Date: 07-Aug-2024 16:34:30 Instrument ID: HP5973S
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

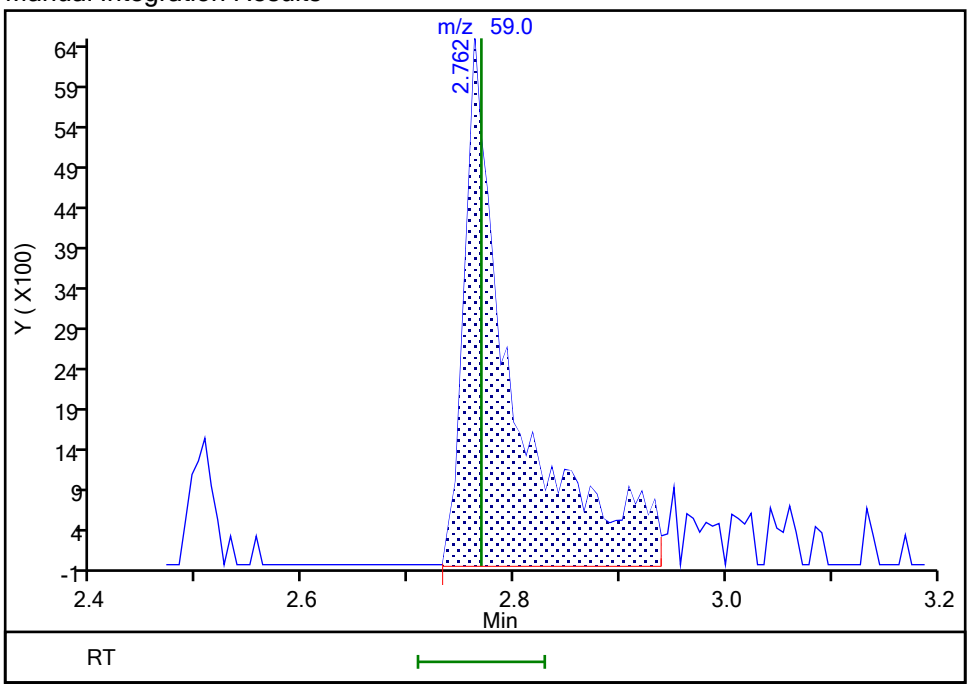
Processing Integration Results

RT: 2.76
Area: 20607
Amount: 22.036339
Amount Units: ug/L



Manual Integration Results

RT: 2.76
Area: 20696
Amount: 21.595851
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:48:33 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

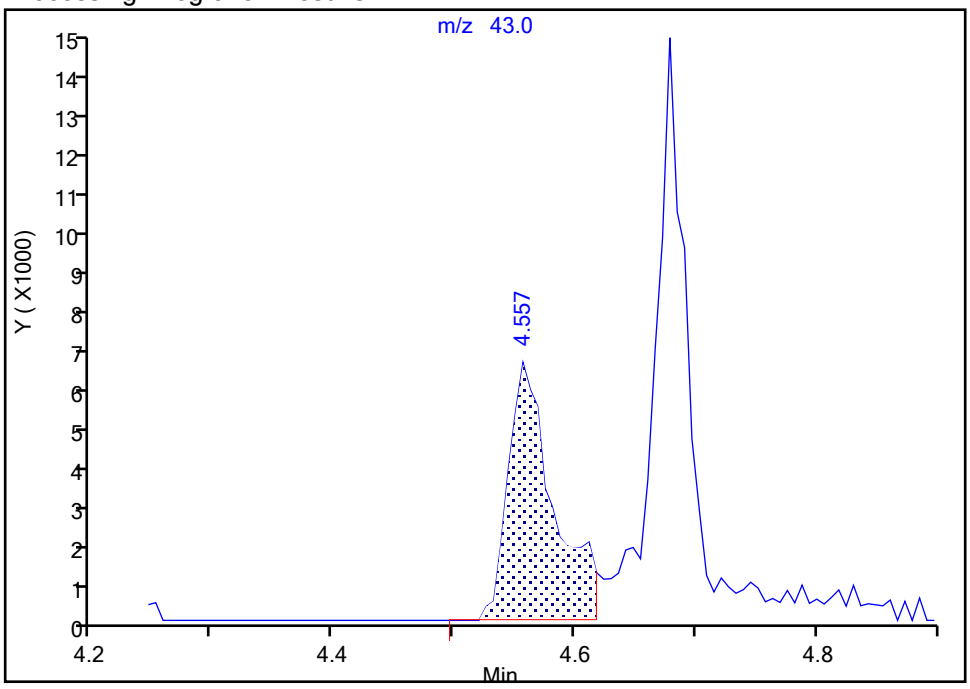
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d
Injection Date: 07-Aug-2024 16:34:30 Instrument ID: HP5973S
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

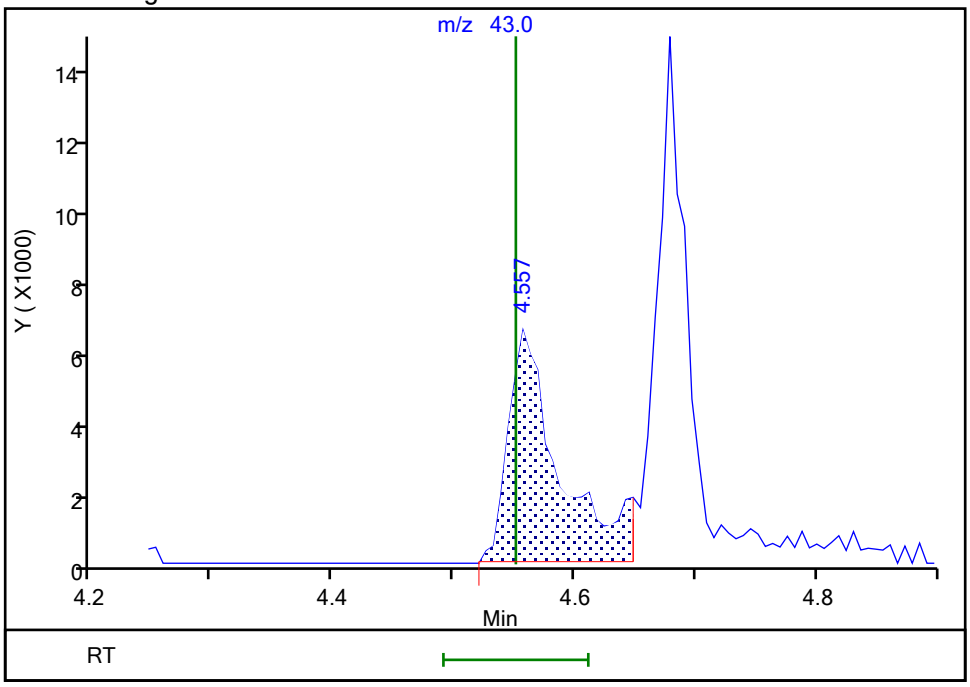
Processing Integration Results

RT: 4.56
Area: 17114
Amount: 43.364798
Amount Units: ug/L



Manual Integration Results

RT: 4.56
Area: 19285
Amount: 46.249333
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:48:55 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

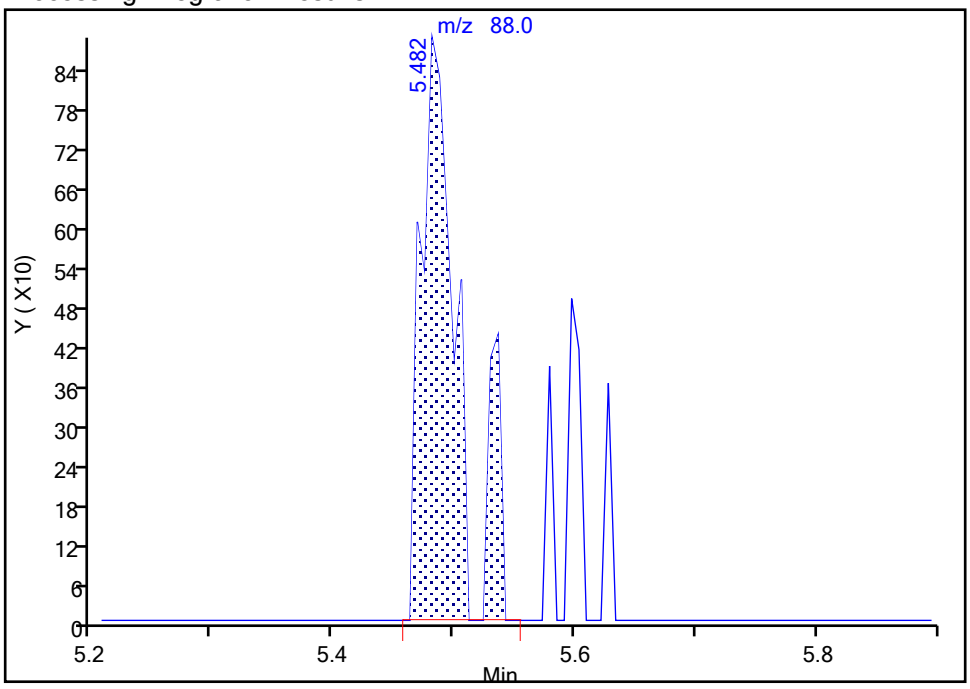
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0983.d
Injection Date: 07-Aug-2024 16:34:30 Instrument ID: HP5973S
Lims ID: IC 2
Client ID:
Operator ID: LH ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

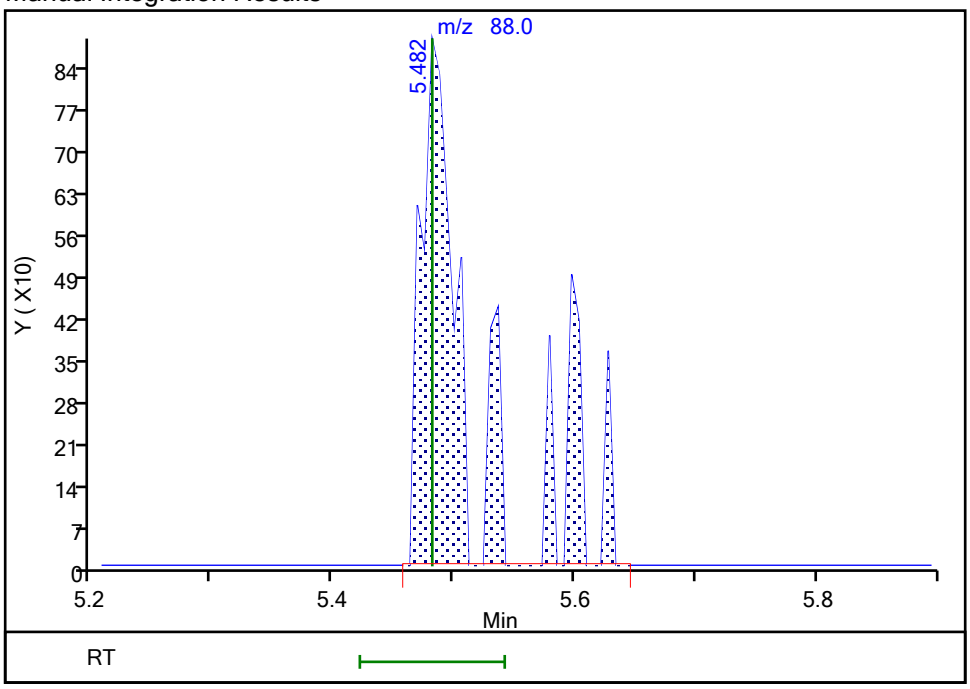
Processing Integration Results

RT: 5.48
Area: 1902
Amount: 33.961564
Amount Units: ug/L



Manual Integration Results

RT: 5.48
Area: 2494
Amount: 34.701293
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:49:16 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Report Date: 08-Aug-2024 13:18:18 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d
Lims ID: IC 3
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 07-Aug-2024 16:58:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Misc. Info.: 480-0119391-016
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:17 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:55:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	167535	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	379274	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	93	423238	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	221959	25.0	24.6	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.496	-0.006	90	141901	25.0	24.7	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	91	854874	25.0	25.0	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	92	309277	25.0	25.5	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	98	59424	5.00	5.25	
12 Chloromethane	50	1.126	1.126	0.000	100	71875	5.00	5.38	
13 Vinyl chloride	62	1.199	1.193	0.006	96	53775	5.00	5.41	
151 Butadiene	54	1.217	1.217	0.000	87	53704	5.00	5.22	
14 Bromomethane	94	1.448	1.442	0.006	80	30702	5.00	5.01	
15 Chloroethane	64	1.509	1.509	0.000	88	30876	5.00	4.89	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	96	79270	5.00	5.33	
17 Trichlorofluoromethane	101	1.686	1.686	0.000	67	65776	5.00	5.22	
18 Ethyl ether	59	1.917	1.917	0.000	97	48842	5.00	5.10	Ma
20 Acrolein	56	2.081	2.081	0.000	88	50396	25.0	26.4	
22 1,1-Dichloroethene	96	2.111	2.105	0.006	97	33337	5.00	4.67	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	61	29533	5.00	4.23	
23 Acetone	43	2.227	2.227	0.000	96	109303	25.0	28.1	M
25 Iodomethane	142	2.251	2.251	0.000	94	63935	5.00	4.79	
26 Carbon disulfide	76	2.294	2.282	0.012	83	101444	5.00	4.55	
28 3-Chloro-1-propene	41	2.452	2.446	0.006	84	73406	5.00	4.79	
27 Methyl acetate	43	2.501	2.501	0.000	96	113532	10.0	9.65	
30 Methylene Chloride	84	2.586	2.586	0.000	92	45659	5.00	4.89	
31 2-Methyl-2-propanol	59	2.768	2.769	-0.001	58	50087	50.0	49.2	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	143258	5.00	4.92	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	80	42176	5.00	4.90	
33 Acrylonitrile	53	2.860	2.860	0.000	99	292284	50.0	53.8	
35 Hexane	57	2.987	2.981	0.006	89	58018	5.00	4.63	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	83	75062	5.00	4.80	
37 Vinyl acetate	43	3.261	3.261	0.000	97	189316	10.0	9.31	
44 2,2-Dichloropropane	77	3.699	3.693	0.006	78	38321	5.00	4.88	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	79	44787	5.00	4.75	
43 2-Butanone (MEK)	43	3.784	3.778	0.006	100	170505	25.0	27.0	
48 Chlorobromomethane	128	3.961	3.961	0.000	89	24377	5.00	4.97	
49 Tetrahydrofuran	42	3.979	3.979	0.000	88	51261	10.0	10.6	
50 Chloroform	83	4.046	4.046	0.000	82	74958	5.00	4.81	
52 Cyclohexane	56	4.143	4.137	0.006	91	72080	5.00	4.54	
51 1,1,1-Trichloroethane	97	4.143	4.137	0.006	81	54614	5.00	4.58	
55 Carbon tetrachloride	117	4.271	4.271	0.000	76	47903	5.00	4.69	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	84	53091	5.00	4.68	
57 Benzene	78	4.490	4.490	0.000	68	162062	5.00	4.78	
53 Isobutyl alcohol	43	4.557	4.551	0.006	75	51991	125.0	117.4	M
58 1,2-Dichloroethane	62	4.563	4.563	0.000	62	67490	5.00	5.01	
59 n-Heptane	43	4.679	4.679	0.000	93	61129	5.00	4.78	
62 Trichloroethene	95	5.092	5.092	0.000	91	42789	5.00	4.85	
64 Methylcyclohexane	83	5.196	5.196	0.000	89	62092	5.00	4.61	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	88	41756	5.00	4.88	
67 Dibromomethane	93	5.470	5.464	0.006	86	27056	5.00	4.90	
66 1,4-Dioxane	88	5.488	5.482	0.006	46	11148	100.0	117.6	M
68 Dichlorobromomethane	83	5.622	5.628	-0.006	95	49669	5.00	4.86	
69 2-Chloroethyl vinyl ether	63	5.920	5.914	0.006	82	31801	5.00	4.92	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	79	59003	5.00	4.67	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	98	362629	25.0	25.8	
74 Toluene	92	6.309	6.309	0.000	79	101443	5.00	4.79	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	92	56547	5.00	4.83	
75 Ethyl methacrylate	69	6.668	6.668	0.000	90	51265	5.00	4.81	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	85	34751	5.00	5.19	
81 Tetrachloroethene	166	6.826	6.826	0.000	75	47512	5.00	5.11	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	94	68513	5.00	4.99	
80 2-Hexanone	43	7.027	7.027	0.000	97	254336	25.0	25.8	
83 Chlorodibromomethane	129	7.173	7.173	0.000	82	37773	5.00	4.71	
84 Ethylene Dibromide	107	7.264	7.264	0.000	97	43258	5.00	4.98	
87 Chlorobenzene	112	7.739	7.739	0.000	92	126225	5.00	5.11	
88 Ethylbenzene	91	7.836	7.836	0.000	99	200413	5.00	5.05	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	38	41325	5.00	5.09	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	98	80971	5.00	5.02	
91 o-Xylene	106	8.377	8.378	-0.001	96	80137	5.00	4.95	
92 Styrene	104	8.414	8.408	0.006	96	130808	5.00	5.11	
95 Bromoform	173	8.645	8.645	0.000	92	28675	5.00	4.88	
94 Isopropylbenzene	105	8.761	8.761	0.000	94	193954	5.00	5.03	
101 Bromobenzene	156	9.101	9.102	-0.001	90	57231	5.00	5.06	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	59	69184	5.00	5.20	
99 N-Propylbenzene	91	9.205	9.205	0.000	96	230516	5.00	4.91	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	58	25422	5.00	5.36	
98 trans-1,4-Dichloro-2-butene	53	9.247	9.248	-0.001	1	24128	5.00	4.93	
103 2-Chlorotoluene	126	9.308	9.302	0.006	95	52655	5.00	5.04	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	93	169393	5.00	5.08	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	55801	5.00	5.27	
106 tert-Butylbenzene	134	9.734	9.734	0.000	92	37485	5.00	4.87	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	66	172379	5.00	4.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	92	194534	5.00	4.88	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	110649	5.00	5.04	
110 4-Isopropyltoluene	119	10.105	10.105	0.000	96	183615	5.00	4.95	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	74	110924	5.00	4.78	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	144275	5.00	4.77	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	92	109134	5.00	5.13	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	64	11357	5.00	4.55	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	92	61204	5.00	4.67	
120 Hexachlorobutadiene	225	12.095	12.089	0.006	86	27360	5.00	5.08	
121 Naphthalene	128	12.186	12.186	0.000	97	214995	5.00	4.84	
122 1,2,3-Trichlorobenzene	180	12.393	12.387	0.006	93	60654	5.00	4.92	
S 125 1,2-Dichloroethene, Total	1				0			9.65	
S 123 Total BTEX	1				0			24.6	
S 126 1,3-Dichloropropene, Total	1				0			9.50	
S 124 Xylenes, Total	1				0			9.97	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8260 CORP mix_00257	Amount Added:	5.00	Units: uL	
GAS CORP mix_00631	Amount Added:	5.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

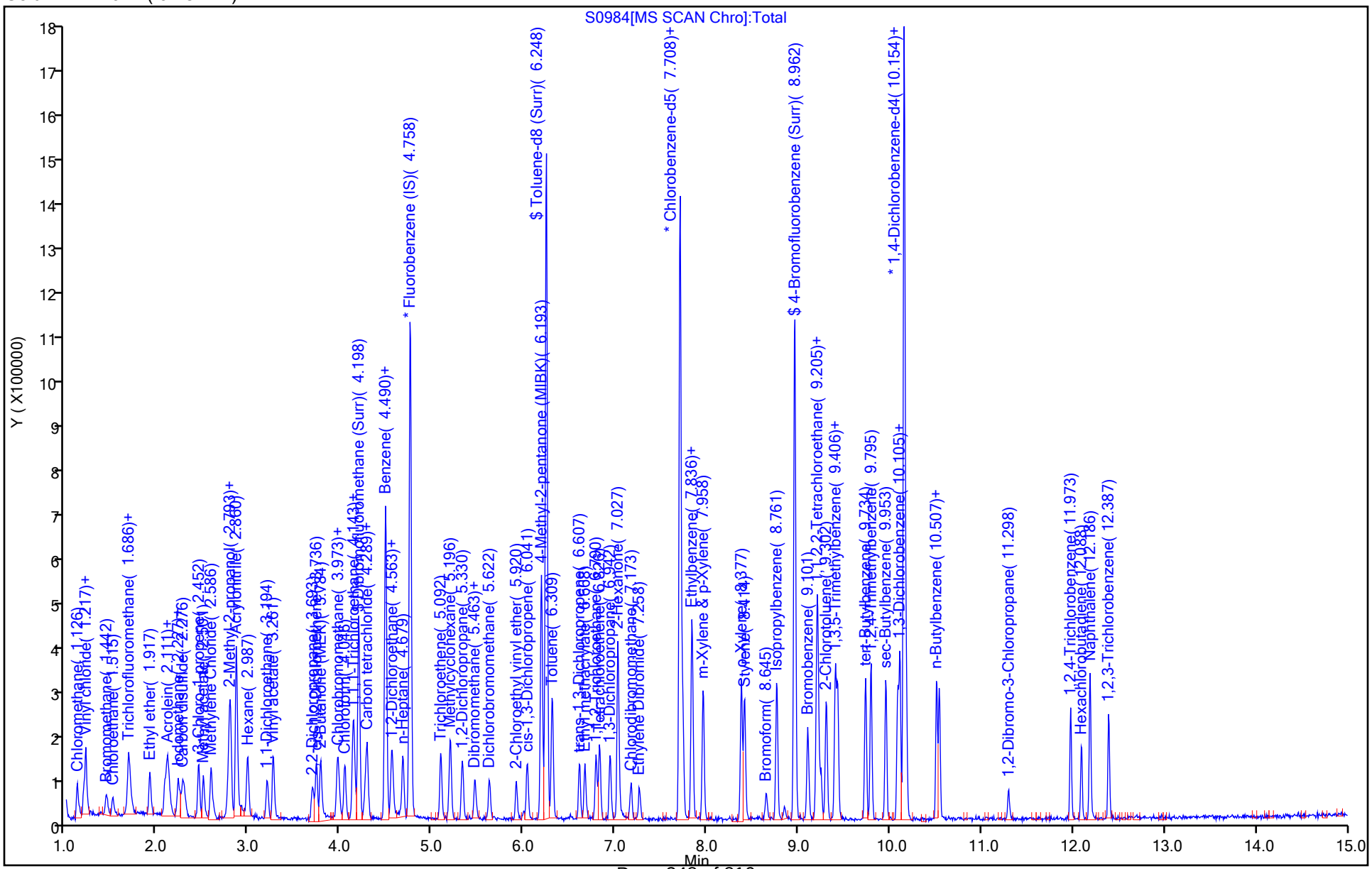
Report Date: 08-Aug-2024 13:18:18 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d

Injection Date:	07-Aug-2024 16:58:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 3			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

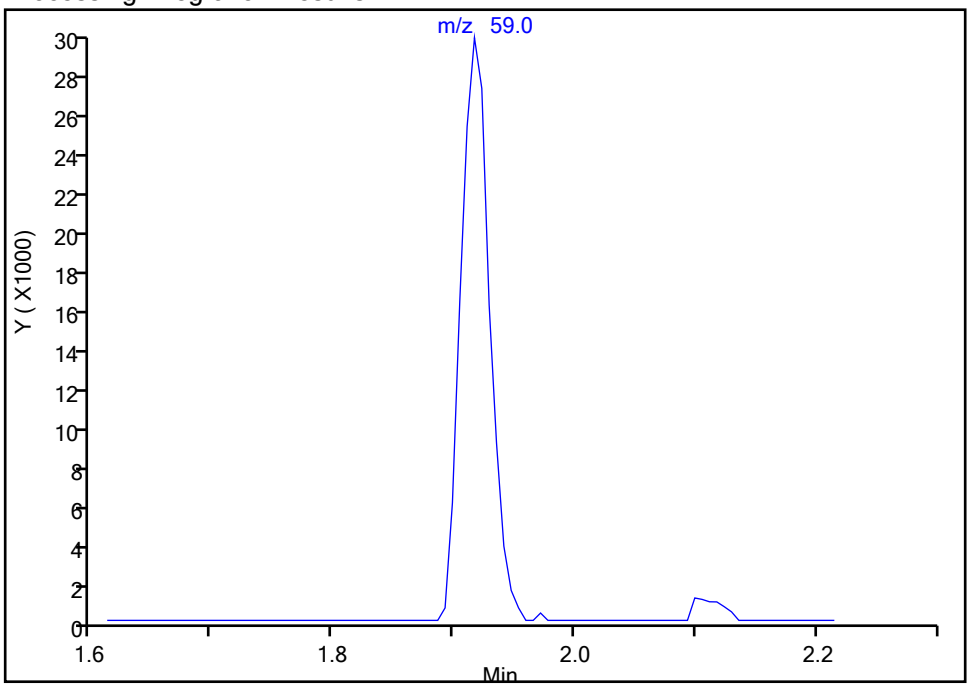
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d
Injection Date: 07-Aug-2024 16:58:30 Instrument ID: HP5973S
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

18 Ethyl ether, CAS: 60-29-7

Signal: 1

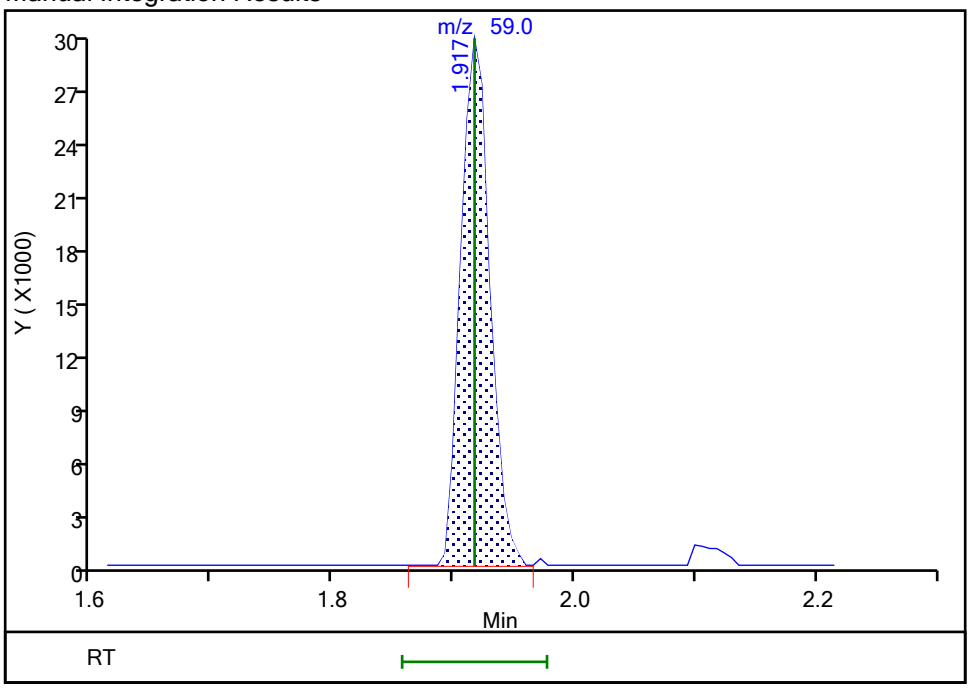
Not Detected
Expected RT: 1.92

Processing Integration Results



Manual Integration Results

RT: 1.92
Area: 48842
Amount: 5.098386
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:54:42 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

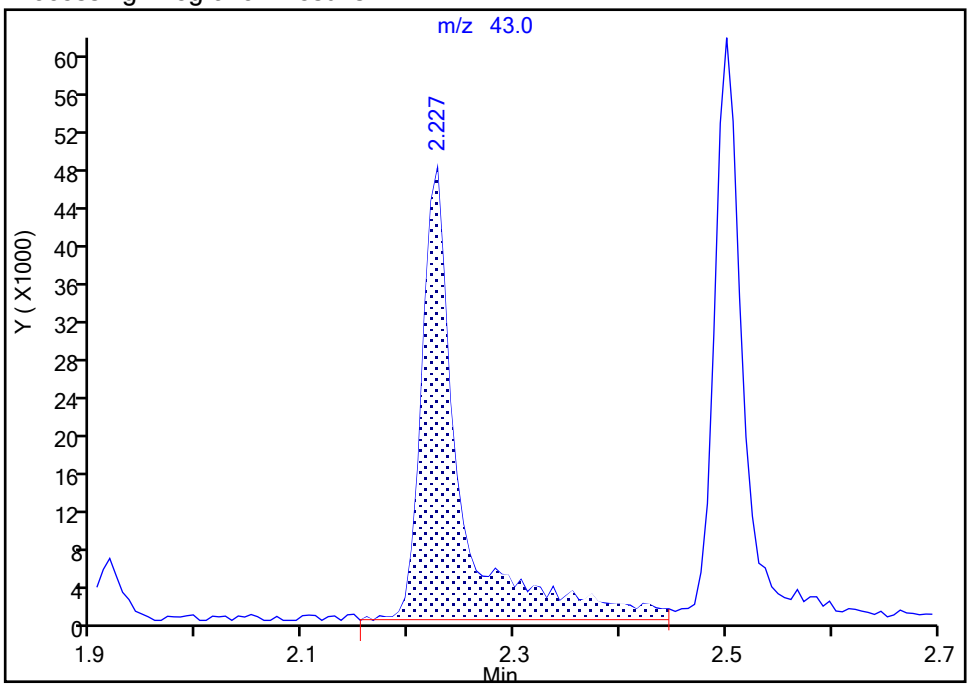
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d
Injection Date: 07-Aug-2024 16:58:30 Instrument ID: HP5973S
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

23 Acetone, CAS: 67-64-1

Signal: 1

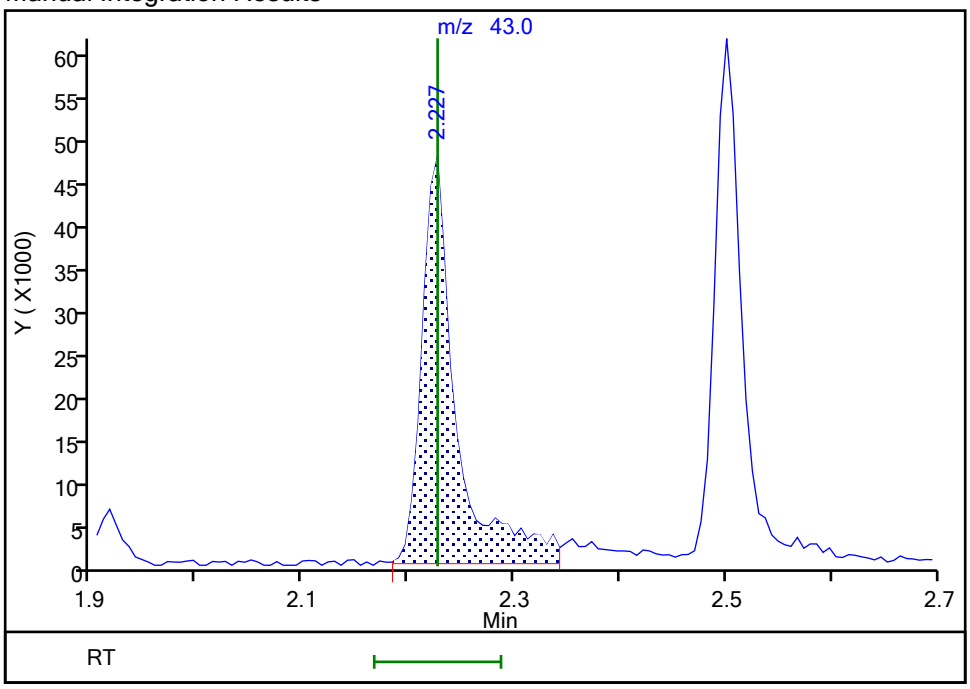
Processing Integration Results

RT: 2.23
Area: 121560
Amount: 29.407493
Amount Units: ug/L



Manual Integration Results

RT: 2.23
Area: 109303
Amount: 28.089341
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:50:08 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

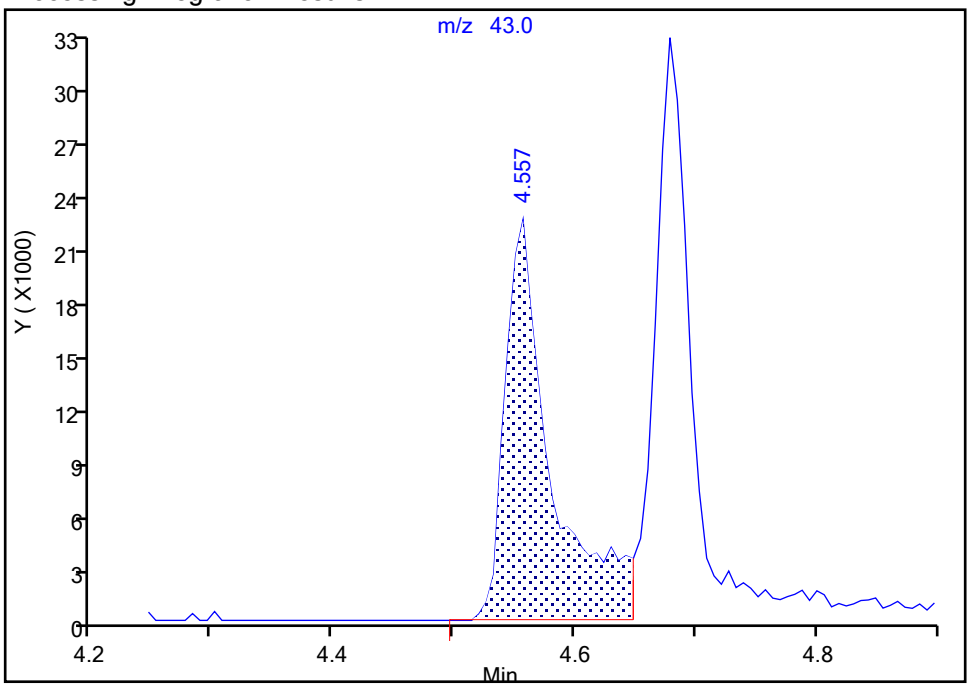
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d
Injection Date: 07-Aug-2024 16:58:30 Instrument ID: HP5973S
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

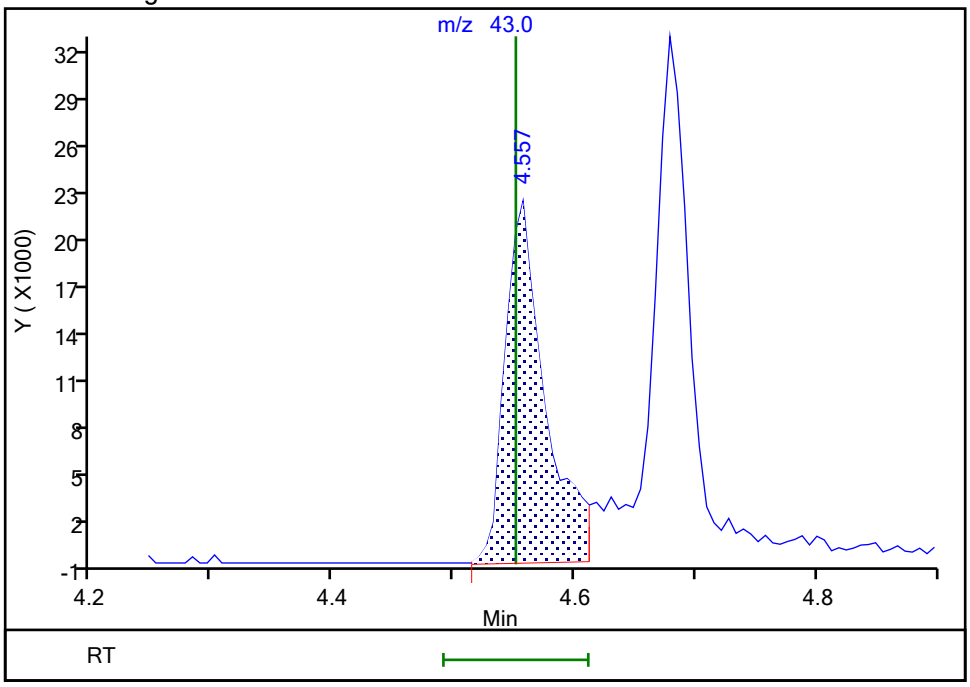
Processing Integration Results

RT: 4.56
Area: 59794
Amount: 138.1546
Amount Units: ug/L



Manual Integration Results

RT: 4.56
Area: 51991
Amount: 117.3662
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:55:26 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

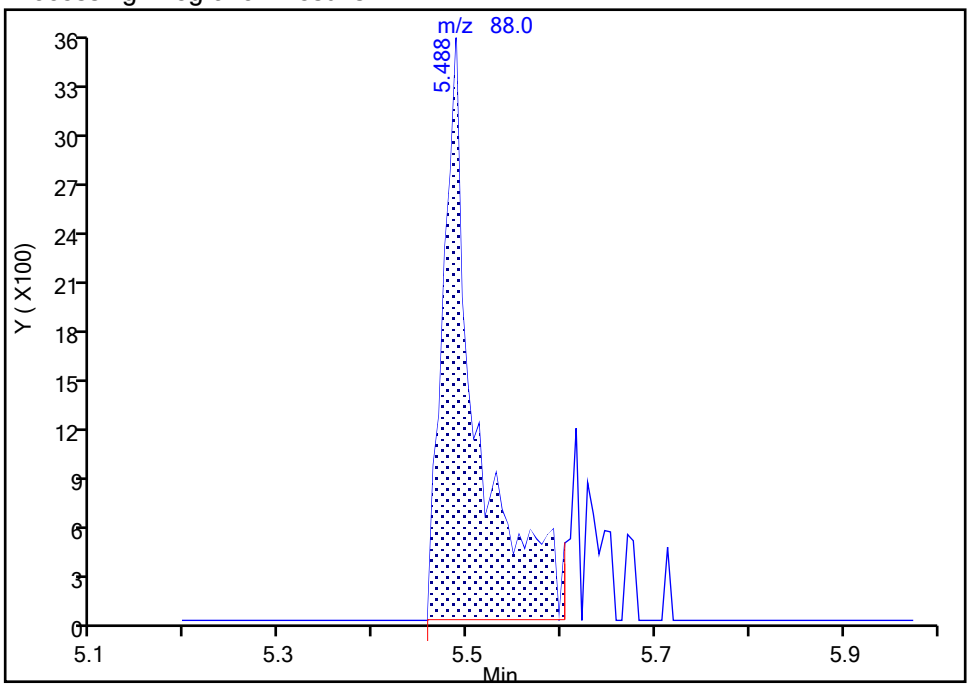
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0984.d
Injection Date: 07-Aug-2024 16:58:30 Instrument ID: HP5973S
Lims ID: IC 3
Client ID:
Operator ID: LH ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

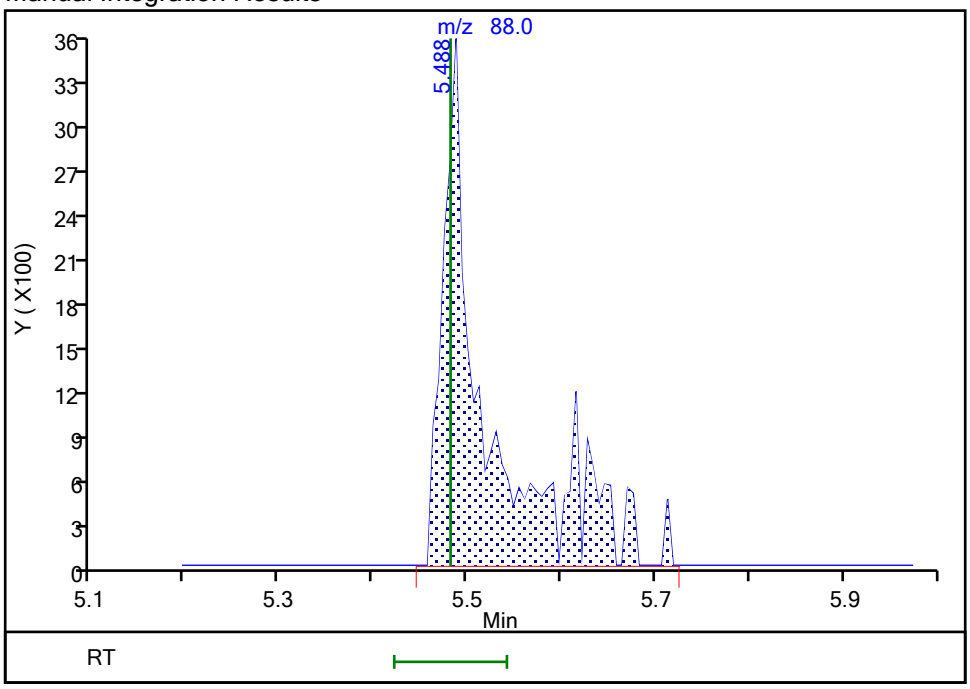
Processing Integration Results

RT: 5.49
Area: 8917
Amount: 113.5322
Amount Units: ug/L



Manual Integration Results

RT: 5.49
Area: 11148
Amount: 117.6412
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:50:36 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Lims ID: IC 4
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 07-Aug-2024 17:21:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Misc. Info.: 480-0119391-017
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:25 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:59:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	159563	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	378882	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	88	425848	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	216062	25.0	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.496	-0.006	80	140482	25.0	25.7	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	89	866392	25.0	25.4	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	92	304999	25.0	25.1	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	112918	10.0	10.5	
12 Chloromethane	50	1.126	1.126	0.000	88	143011	10.0	11.2	
13 Vinyl chloride	62	1.193	1.193	0.000	81	100838	10.0	10.6	
151 Butadiene	54	1.217	1.217	0.000	88	103656	10.0	10.6	
14 Bromomethane	94	1.442	1.442	0.000	89	58734	10.0	10.1	
15 Chloroethane	64	1.515	1.509	0.006	94	58907	10.0	9.80	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	97	154130	10.0	10.9	
17 Trichlorofluoromethane	101	1.686	1.686	0.000	68	126446	10.0	10.5	
18 Ethyl ether	59	1.917	1.917	0.000	97	92849	10.0	10.2	
20 Acrolein	56	2.081	2.081	0.000	83	92401	50.0	50.8	
22 1,1-Dichloroethene	96	2.111	2.105	0.006	85	71147	10.0	10.5	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	62	70500	10.0	10.6	
23 Acetone	43	2.227	2.227	0.000	97	193155	50.0	52.1	
25 Iodomethane	142	2.264	2.251	0.013	97	130912	10.0	10.3	
26 Carbon disulfide	76	2.288	2.282	0.006	99	222266	10.0	10.5	
28 3-Chloro-1-propene	41	2.452	2.446	0.006	87	151617	10.0	10.4	
27 Methyl acetate	43	2.501	2.501	0.000	96	230686	20.0	20.6	
30 Methylene Chloride	84	2.586	2.586	0.000	92	87420	10.0	10.2	
31 2-Methyl-2-propanol	59	2.762	2.769	-0.007	72	99228	100.0	102.3	M
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	280278	10.0	10.1	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	84	83546	10.0	10.2	
33 Acrylonitrile	53	2.860	2.860	0.000	99	530164	100.0	102.4	
35 Hexane	57	2.987	2.981	0.006	91	131303	10.0	11.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	97	153500	10.0	10.3	
37 Vinyl acetate	43	3.261	3.261	0.000	97	382407	20.0	19.7	
44 2,2-Dichloropropane	77	3.699	3.693	0.006	89	78762	10.0	10.5	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	93364	10.0	10.4	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	99	304190	50.0	50.6	M
48 Chlorobromomethane	128	3.961	3.961	0.000	92	48705	10.0	10.4	
49 Tetrahydrofuran	42	3.979	3.979	0.000	90	91160	20.0	19.9	
50 Chloroform	83	4.046	4.046	0.000	81	151876	10.0	10.2	
52 Cyclohexane	56	4.143	4.137	0.006	93	167750	10.0	11.1	
51 1,1,1-Trichloroethane	97	4.137	4.137	0.000	78	118940	10.0	10.5	
55 Carbon tetrachloride	117	4.271	4.271	0.000	80	104656	10.0	10.7	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	86	113344	10.0	10.5	
57 Benzene	78	4.490	4.490	0.000	91	332917	10.0	10.3	
53 Isobutyl alcohol	43	4.557	4.551	0.006	65	95887	250.0	227.3	M
58 1,2-Dichloroethane	62	4.563	4.563	0.000	79	132700	10.0	10.3	
59 n-Heptane	43	4.679	4.679	0.000	95	124602	10.0	10.2	M
62 Trichloroethene	95	5.092	5.092	0.000	92	89285	10.0	10.6	
64 Methylcyclohexane	83	5.196	5.196	0.000	94	138819	10.0	10.8	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	84	83912	10.0	10.3	
67 Dibromomethane	93	5.464	5.464	0.000	90	54455	10.0	10.3	
66 1,4-Dioxane	88	5.488	5.482	0.006	56	19245	200.0	195.6	M
68 Dichlorobromomethane	83	5.622	5.628	-0.006	91	102606	10.0	10.5	
69 2-Chloroethyl vinyl ether	63	5.920	5.914	0.006	89	65920	10.0	10.7	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	83	126020	10.0	10.5	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	720584	50.0	51.4	
74 Toluene	92	6.309	6.309	0.000	80	220341	10.0	10.4	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	93	119935	10.0	10.3	
75 Ethyl methacrylate	69	6.668	6.668	0.000	76	108723	10.0	10.2	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	89	68182	10.0	10.2	
81 Tetrachloroethene	166	6.826	6.826	0.000	87	97321	10.0	10.5	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	95	139361	10.0	10.2	
80 2-Hexanone	43	7.027	7.027	0.000	98	511037	50.0	51.8	
83 Chlorodibromomethane	129	7.173	7.173	0.000	88	81774	10.0	10.2	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	89832	10.0	10.4	
87 Chlorobenzene	112	7.739	7.739	0.000	94	255915	10.0	10.4	
88 Ethylbenzene	91	7.836	7.836	0.000	98	410690	10.0	10.4	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	85810	10.0	10.6	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	97	173475	10.0	10.8	
91 o-Xylene	106	8.378	8.378	0.000	97	169863	10.0	10.5	
92 Styrene	104	8.408	8.408	0.000	94	273251	10.0	10.7	
95 Bromoform	173	8.651	8.645	0.006	97	57784	10.0	9.85	
94 Isopropylbenzene	105	8.761	8.761	0.000	95	415407	10.0	10.7	
101 Bromobenzene	156	9.101	9.102	-0.001	94	116977	10.0	10.3	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	64	136440	10.0	10.2	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	497376	10.0	10.5	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	62	49482	10.0	10.4	
98 trans-1,4-Dichloro-2-butene	53	9.247	9.248	-0.001	1	48140	10.0	9.78	
103 2-Chlorotoluene	126	9.302	9.302	0.000	96	109500	10.0	10.4	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	94	354149	10.0	10.6	
105 4-Chlorotoluene	126	9.424	9.430	-0.006	97	111587	10.0	10.5	
106 tert-Butylbenzene	134	9.734	9.734	0.000	91	81153	10.0	10.5	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	68	375255	10.0	10.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	92	427068	10.0	10.6	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	223247	10.0	10.1	
110 4-Isopropyltoluene	119	10.111	10.105	0.006	97	396969	10.0	10.6	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	92	238333	10.0	10.2	
115 n-Butylbenzene	91	10.507	10.507	0.000	94	320027	10.0	10.5	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	93	219951	10.0	10.3	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	71	24553	10.0	9.79	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	93	135314	10.0	10.3	
120 Hexachlorobutadiene	225	12.089	12.089	-0.001	92	57948	10.0	10.7	
121 Naphthalene	128	12.186	12.186	0.000	97	453588	10.0	10.1	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	93	125809	10.0	10.1	
S 125 1,2-Dichloroethene, Total	1				0			20.6	
S 123 Total BTEX	1				0			52.3	
S 126 1,3-Dichloropropene, Total	1				0			20.7	
S 124 Xylenes, Total	1				0			21.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00257	Amount Added:	5.00	Units: uL	
GAS CORP mix_00631	Amount Added:	5.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

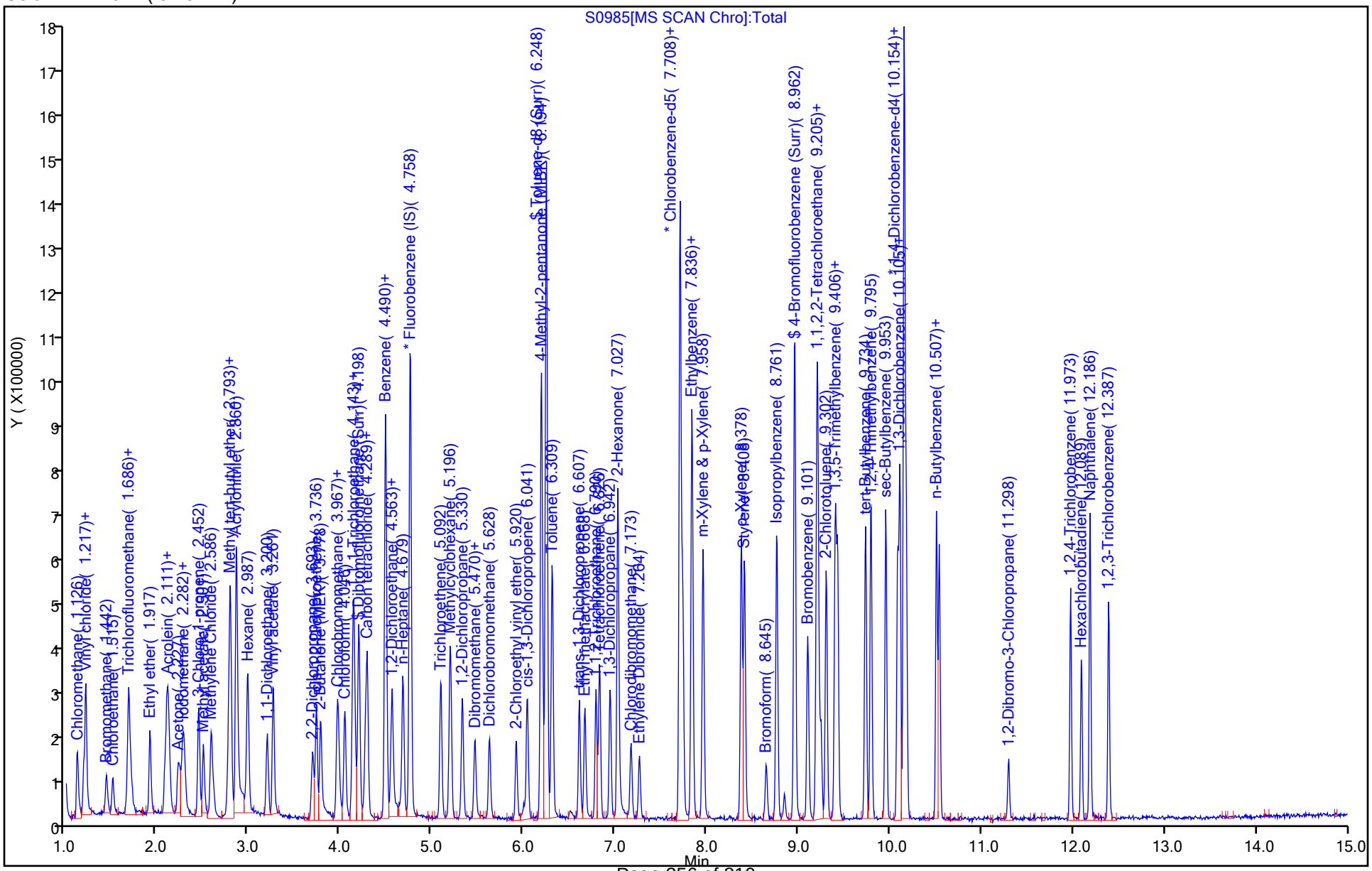
Report Date: 08-Aug-2024 13:18:26 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d

Injection Date:	07-Aug-2024 17:21:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 4			Worklist Smp#:	17
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

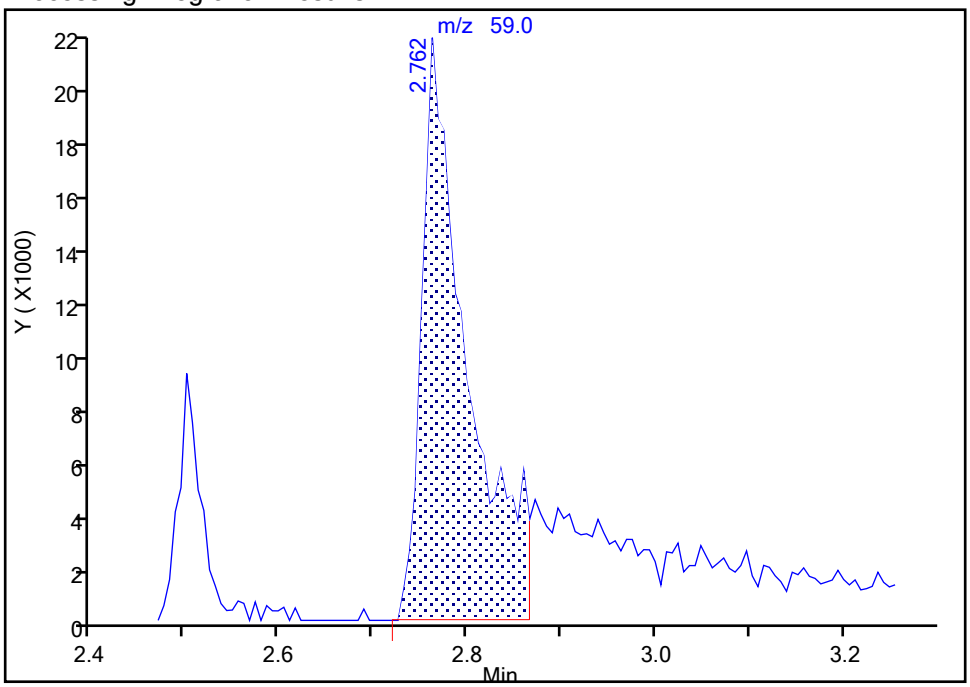
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Injection Date: 07-Aug-2024 17:21:30 Instrument ID: HP5973S
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

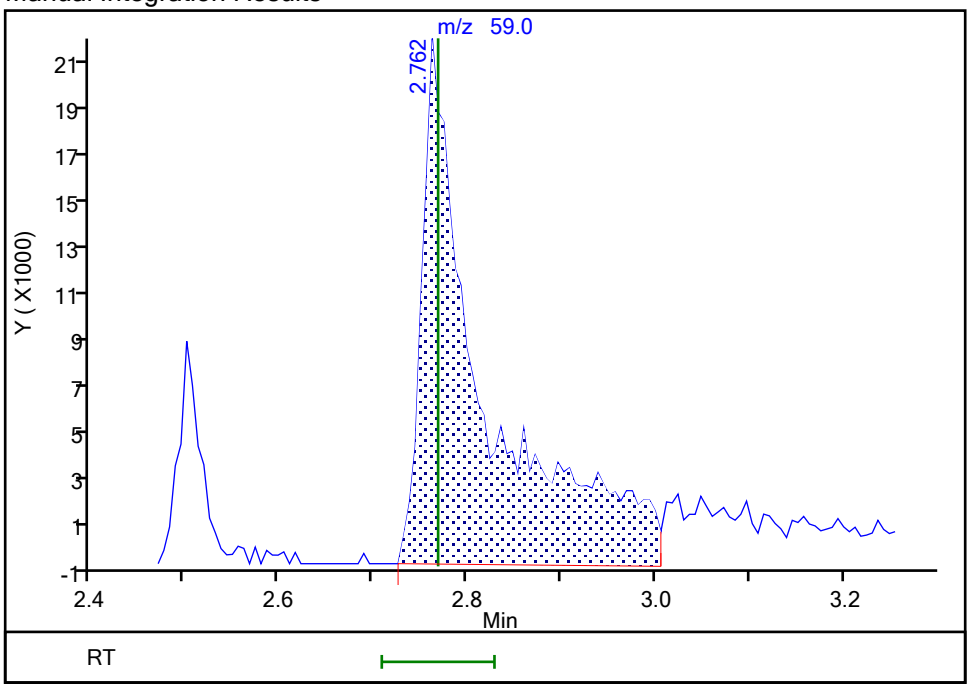
Processing Integration Results

RT: 2.76
Area: 72530
Amount: 78.225765
Amount Units: ug/L



Manual Integration Results

RT: 2.76
Area: 99228
Amount: 102.3341
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:51:58 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

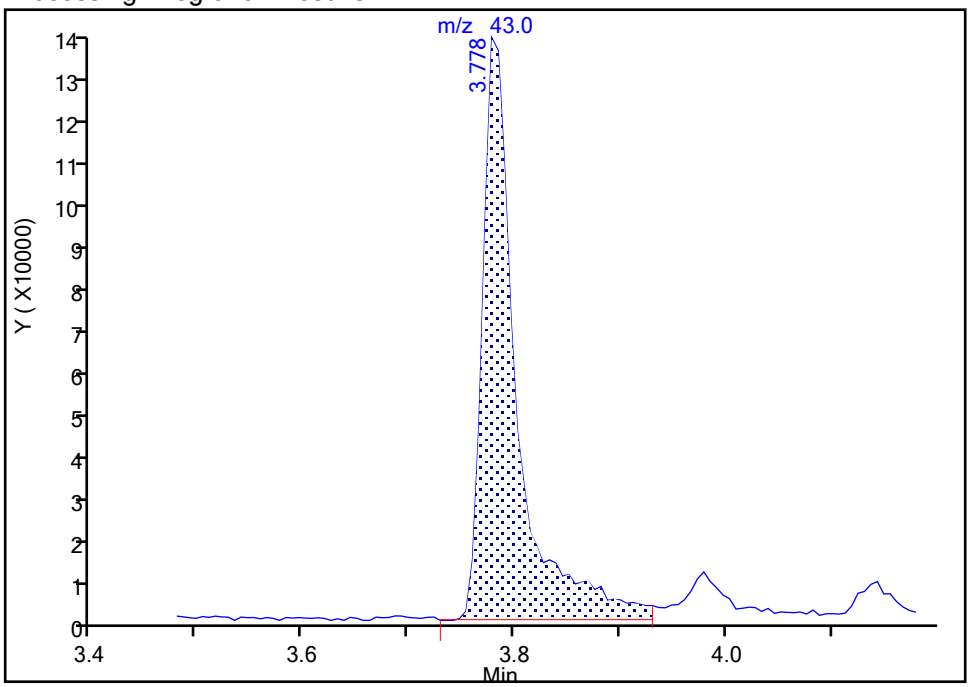
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Injection Date: 07-Aug-2024 17:21:30 Instrument ID: HP5973S
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

43 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

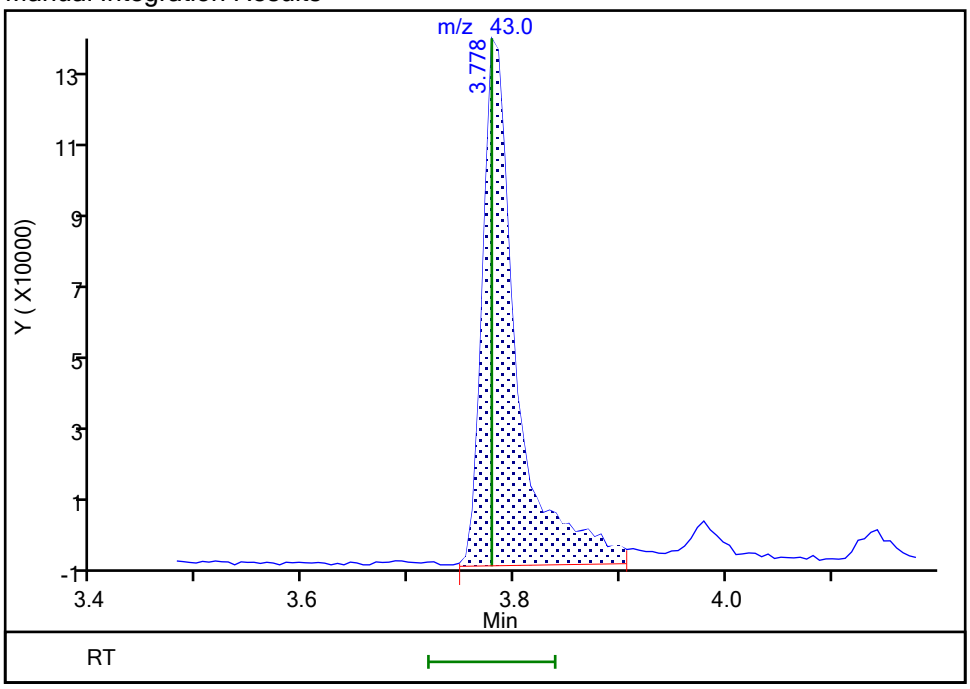
Processing Integration Results

RT: 3.78
Area: 309134
Amount: 51.350823
Amount Units: ug/L



Manual Integration Results

RT: 3.78
Area: 304190
Amount: 50.633524
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:56:54 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

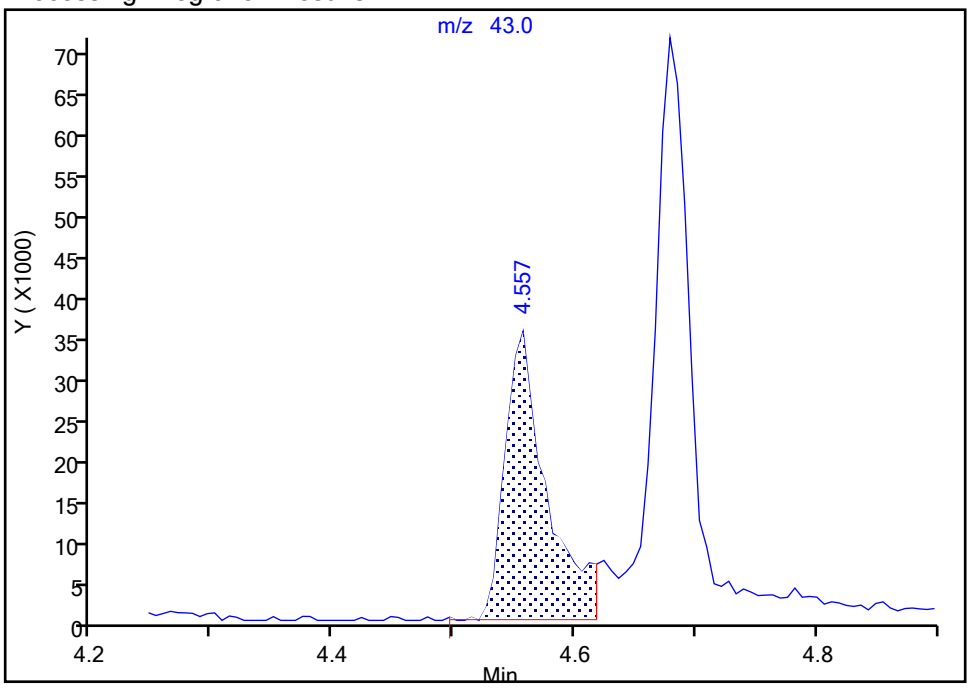
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Injection Date: 07-Aug-2024 17:21:30 Instrument ID: HP5973S
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

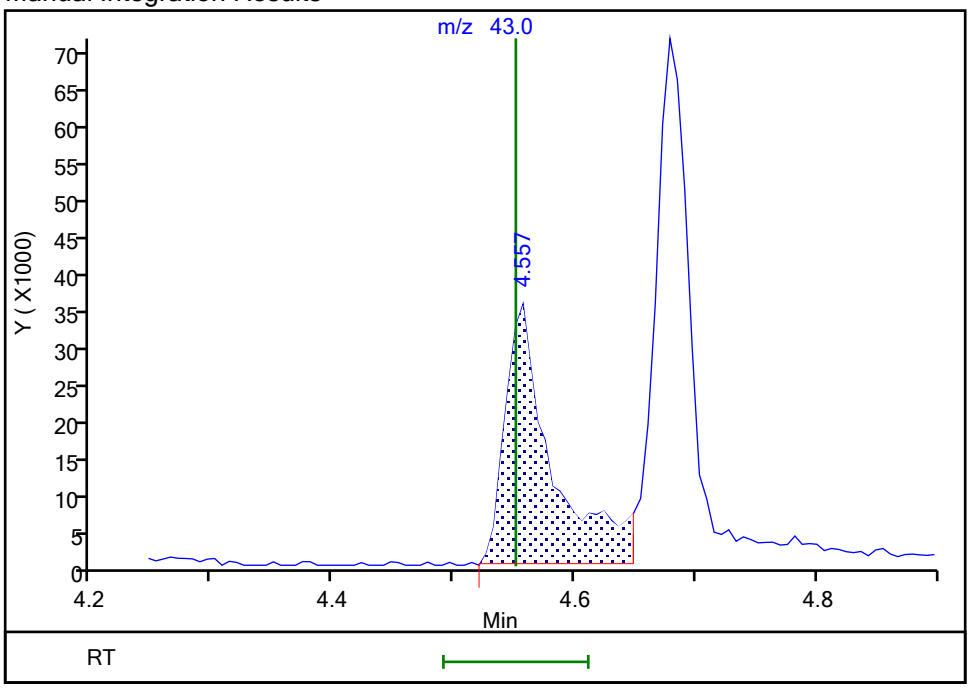
Processing Integration Results

RT: 4.56
Area: 85437
Amount: 211.0709
Amount Units: ug/L



Manual Integration Results

RT: 4.56
Area: 95887
Amount: 227.2730
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:52:20 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

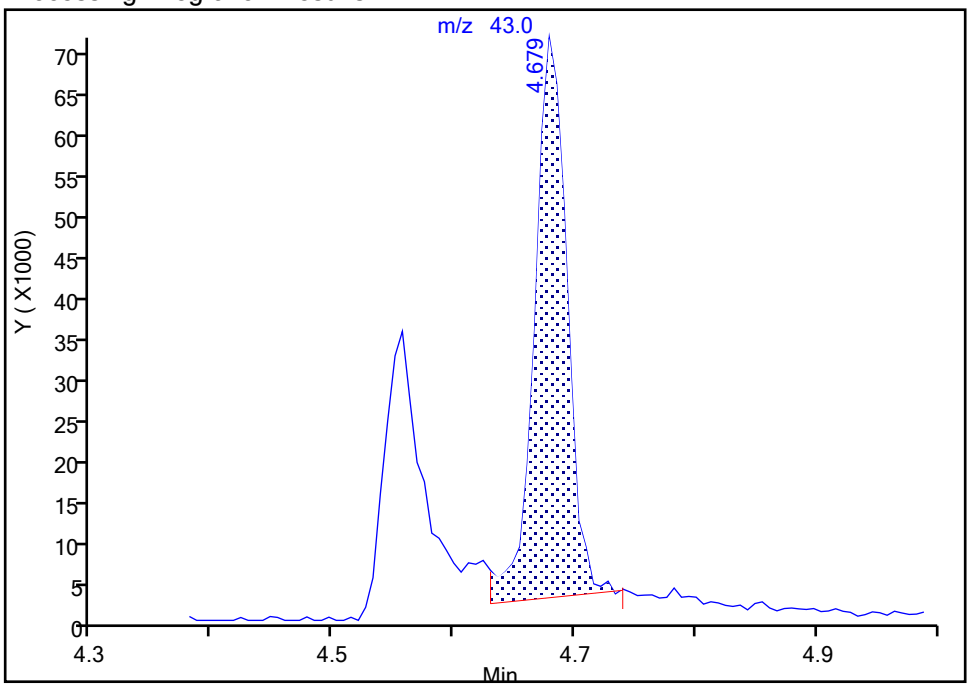
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Injection Date: 07-Aug-2024 17:21:30 Instrument ID: HP5973S
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

59 n-Heptane, CAS: 142-82-5

Signal: 1

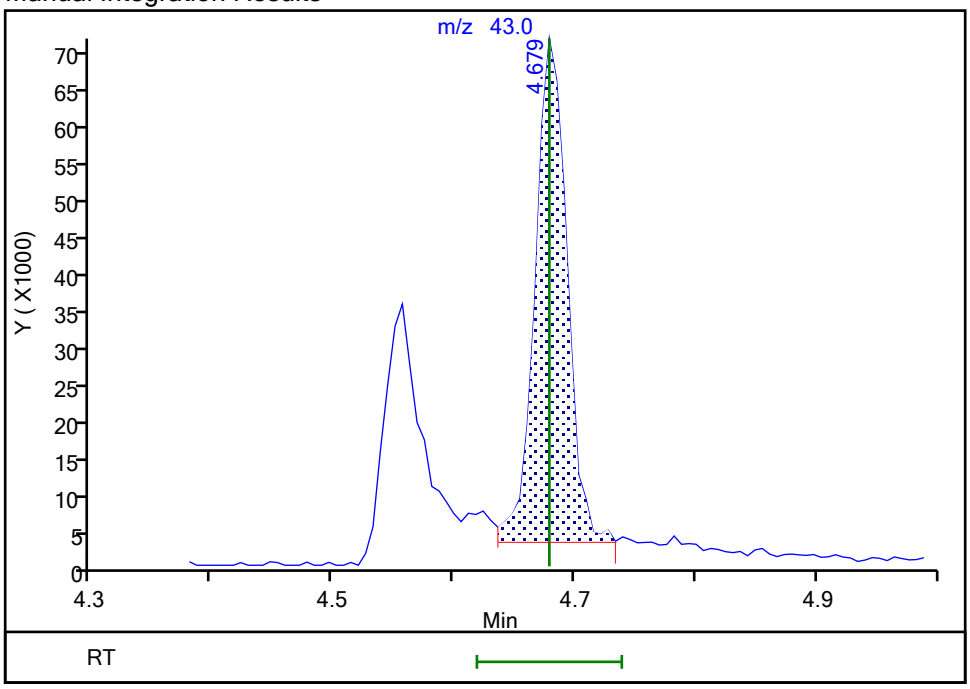
Processing Integration Results

RT: 4.68
Area: 127265
Amount: 9.988495
Amount Units: ug/L



Manual Integration Results

RT: 4.68
Area: 124602
Amount: 10.237575
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:57:43 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

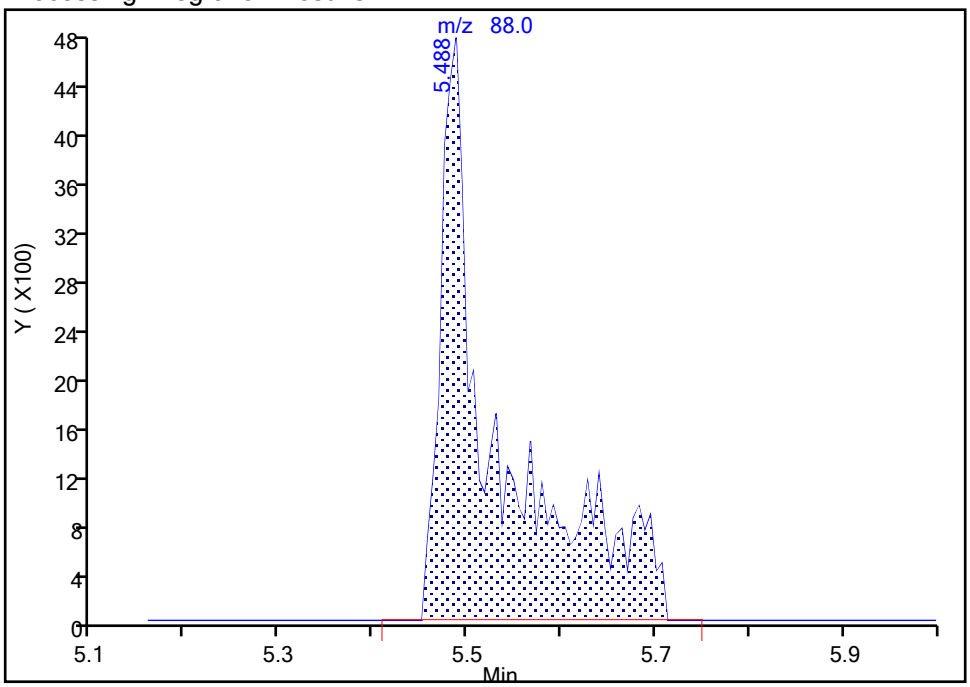
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0985.d
Injection Date: 07-Aug-2024 17:21:30 Instrument ID: HP5973S
Lims ID: IC 4
Client ID:
Operator ID: LH ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

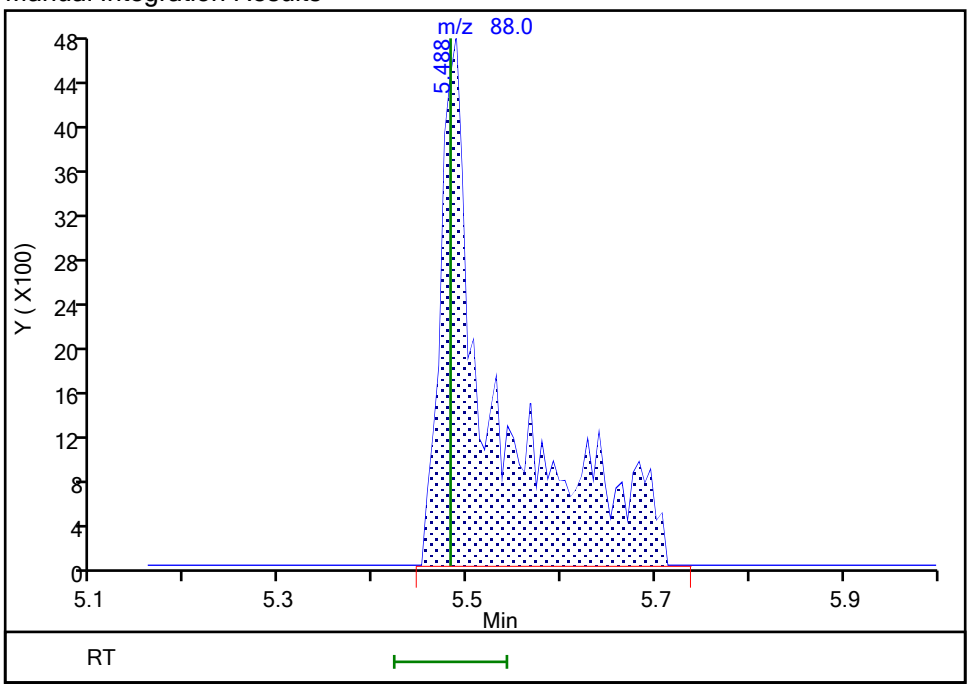
Processing Integration Results

RT: 5.49
Area: 19245
Amount: 205.9478
Amount Units: ug/L



Manual Integration Results

RT: 5.49
Area: 19245
Amount: 195.5884
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:52:35 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Lims ID: ICIS 5
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 07-Aug-2024 17:45:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS 5
Misc. Info.: 480-0119391-018
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:38 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 10:22:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	164820	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	87	396865	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	66	434691	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	56	223577	25.0	25.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	66	144881	25.0	25.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	57	890409	25.0	24.9	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	92	316729	25.0	24.9	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	298579	25.0	26.8	
12 Chloromethane	50	1.126	1.126	0.000	88	358035	25.0	27.2	M
13 Vinyl chloride	62	1.193	1.193	0.000	80	258981	25.0	26.5	
151 Butadiene	54	1.217	1.217	0.000	94	265384	25.0	26.2	
14 Bromomethane	94	1.442	1.442	0.000	91	142333	25.0	23.6	
15 Chloroethane	64	1.509	1.509	0.000	94	156906	25.0	25.3	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	401731	25.0	27.5	
17 Trichlorofluoromethane	101	1.686	1.686	0.000	58	327644	25.0	26.4	
18 Ethyl ether	59	1.917	1.917	0.000	96	231721	25.0	24.6	
20 Acrolein	56	2.081	2.081	0.000	95	243938	125.0	129.8	
22 1,1-Dichloroethene	96	2.105	2.105	0.000	86	174832	25.0	24.9	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.112	2.112	0.000	63	177694	25.0	25.9	
23 Acetone	43	2.227	2.227	0.000	99	534647	125.0	139.7	
25 Iodomethane	142	2.251	2.251	0.000	99	328624	25.0	25.0	
26 Carbon disulfide	76	2.282	2.282	0.000	99	563696	25.0	25.7	
28 3-Chloro-1-propene	41	2.446	2.446	0.000	85	384528	25.0	25.5	
27 Methyl acetate	43	2.501	2.501	0.000	96	561829	50.0	48.6	
30 Methylene Chloride	84	2.586	2.586	0.000	94	218680	25.0	25.4	
31 2-Methyl-2-propanol	59	2.769	2.769	0.000	65	284988	250.0	284.5	M
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	714336	25.0	24.9	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	87	213345	25.0	25.2	
33 Acrylonitrile	53	2.860	2.860	0.000	99	1387589	250.0	259.4	
35 Hexane	57	2.981	2.981	0.000	95	320712	25.0	26.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.194	3.194	0.000	97	391801	25.0	25.4	
37 Vinyl acetate	43	3.261	3.261	0.000	97	1087898	50.0	54.4	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	91	196252	25.0	25.4	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	67	237894	25.0	25.6	M
43 2-Butanone (MEK)	43	3.778	3.778	0.000	99	824152	125.0	132.8	
48 Chlorobromomethane	128	3.961	3.961	0.000	93	124337	25.0	25.8	
49 Tetrahydrofuran	42	3.979	3.979	0.000	90	237597	50.0	50.1	
50 Chloroform	83	4.046	4.046	0.000	81	371096	25.0	24.2	
52 Cyclohexane	56	4.137	4.137	0.000	93	411870	25.0	26.4	
51 1,1,1-Trichloroethane	97	4.137	4.137	0.000	81	300635	25.0	25.7	
55 Carbon tetrachloride	117	4.271	4.271	0.000	81	268816	25.0	26.7	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	90	285825	25.0	25.6	
57 Benzene	78	4.490	4.490	0.000	96	827550	25.0	24.8	
53 Isobutyl alcohol	43	4.551	4.551	0.000	92	318308	625.0	730.4	M
58 1,2-Dichloroethane	62	4.563	4.563	0.000	75	335052	25.0	25.3	
59 n-Heptane	43	4.679	4.679	0.000	96	329982	25.0	26.2	M
62 Trichloroethene	95	5.092	5.092	0.000	92	214664	25.0	24.7	
64 Methylcyclohexane	83	5.196	5.196	0.000	95	356939	25.0	27.0	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	89	214044	25.0	25.4	
67 Dibromomethane	93	5.464	5.464	0.000	89	135622	25.0	25.0	
66 1,4-Dioxane	88	5.482	5.482	0.000	57	63709	500.0	595.3	M
68 Dichlorobromomethane	83	5.628	5.628	0.000	97	262062	25.0	26.0	
69 2-Chloroethyl vinyl ether	63	5.914	5.914	0.000	92	168657	25.0	26.5	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	86	330018	25.0	26.5	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	1838531	125.0	125.1	
74 Toluene	92	6.309	6.309	0.000	92	532859	25.0	24.1	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	94	314307	25.0	25.7	
75 Ethyl methacrylate	69	6.668	6.668	0.000	74	299922	25.0	26.9	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	88	175001	25.0	25.0	
81 Tetrachloroethene	166	6.826	6.826	0.000	90	243170	25.0	25.0	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	95	353392	25.0	24.6	
80 2-Hexanone	43	7.027	7.027	0.000	98	1316624	125.0	127.4	
83 Chlorodibromomethane	129	7.173	7.173	0.000	87	217483	25.0	25.9	
84 Ethylene Dibromide	107	7.264	7.264	0.000	99	232308	25.0	25.6	
87 Chlorobenzene	112	7.739	7.739	0.000	94	644496	25.0	24.9	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1051823	25.0	25.3	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	42	220116	25.0	25.9	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	98	429356	25.0	25.5	
91 o-Xylene	106	8.378	8.378	0.000	97	428424	25.0	25.3	
92 Styrene	104	8.408	8.408	0.000	93	705004	25.0	26.3	
95 Bromoform	173	8.645	8.645	0.000	96	160054	25.0	26.0	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	1058325	25.0	26.7	
101 Bromobenzene	156	9.102	9.102	0.000	93	297421	25.0	25.6	
97 1,1,2,2-Tetrachloroethane	83	9.193	9.193	0.000	68	338884	25.0	24.8	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	1254345	25.0	26.0	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	61	117320	25.0	24.1	
98 trans-1,4-Dichloro-2-butene	53	9.248	9.248	0.000	1	129017	25.0	25.7	
103 2-Chlorotoluene	126	9.302	9.302	0.000	94	270822	25.0	25.2	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	94	900500	25.0	26.3	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	289153	25.0	26.6	
106 tert-Butylbenzene	134	9.734	9.734	0.000	91	205706	25.0	26.0	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	66	936980	25.0	26.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	93	1090903	25.0	26.6	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	565708	25.0	25.1	
110 4-Isopropyltoluene	119	10.105	10.105	0.000	95	1015700	25.0	26.7	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	94	583316	25.0	24.4	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	819519	25.0	26.4	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	96	547442	25.0	25.1	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.292	0.000	73	69609	25.0	27.2	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	92	344952	25.0	25.7	
120 Hexachlorobutadiene	225	12.089	12.089	0.000	95	146729	25.0	26.5	
121 Naphthalene	128	12.186	12.186	0.000	97	1209451	25.0	26.5	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	94	326404	25.0	25.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00257	Amount Added:	12.50	Units: uL	
GAS CORP mix_00631	Amount Added:	12.50	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

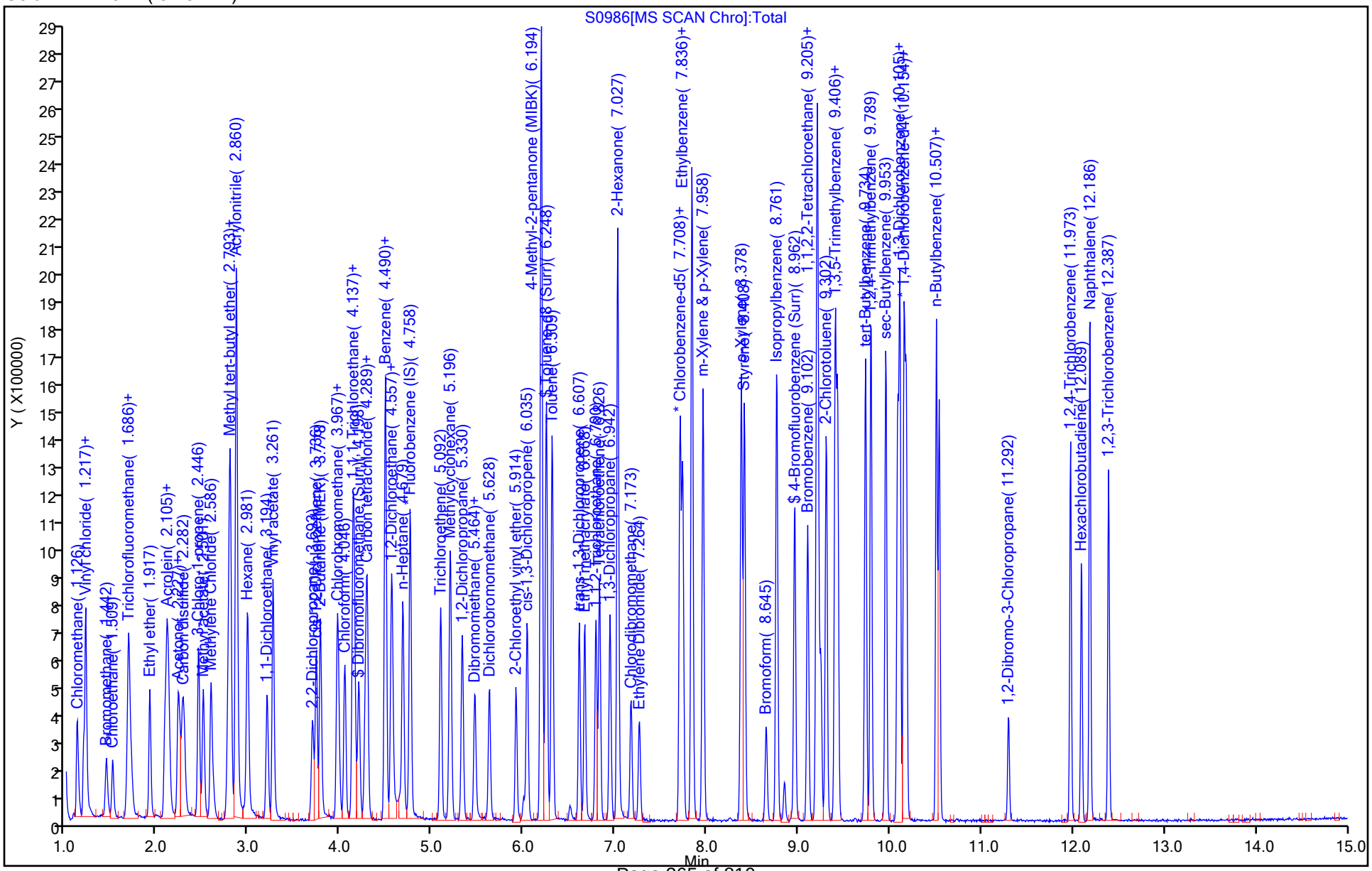
Report Date: 08-Aug-2024 13:18:40 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d

Injection Date:	07-Aug-2024 17:45:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	ICIS 5			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

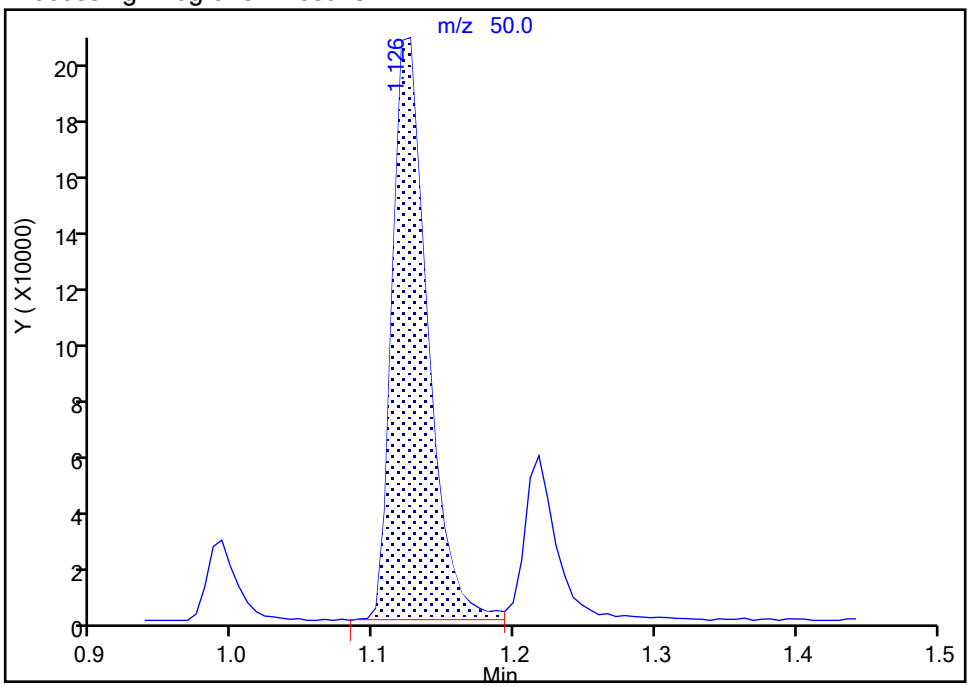
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

12 Chloromethane, CAS: 74-87-3

Signal: 1

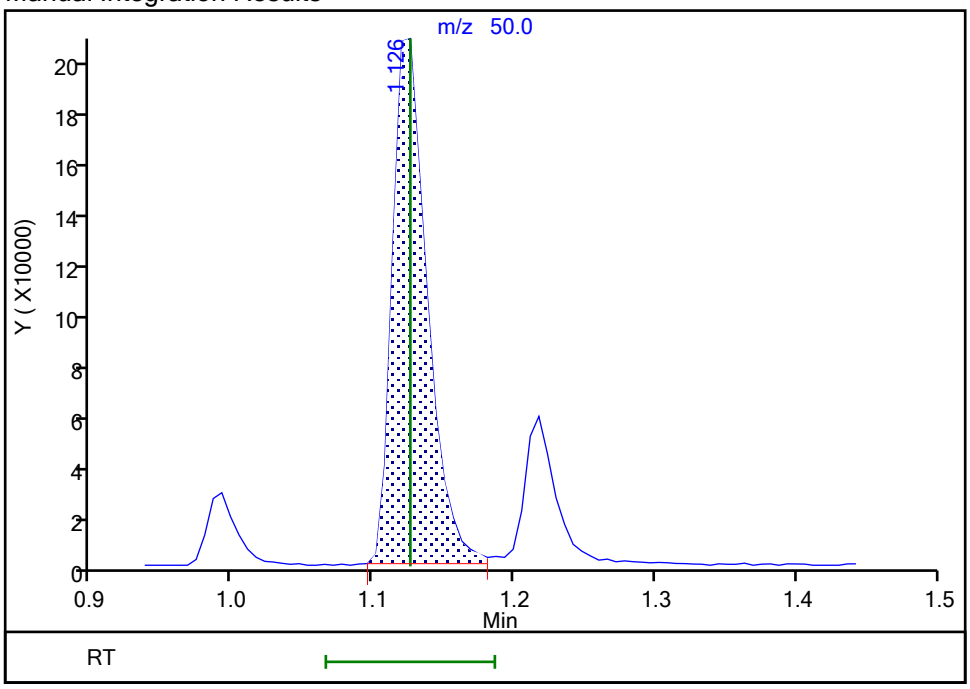
Processing Integration Results

RT: 1.13
Area: 364277
Amount: 27.634292
Amount Units: ug/L



Manual Integration Results

RT: 1.13
Area: 358035
Amount: 27.225228
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:23:43 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo

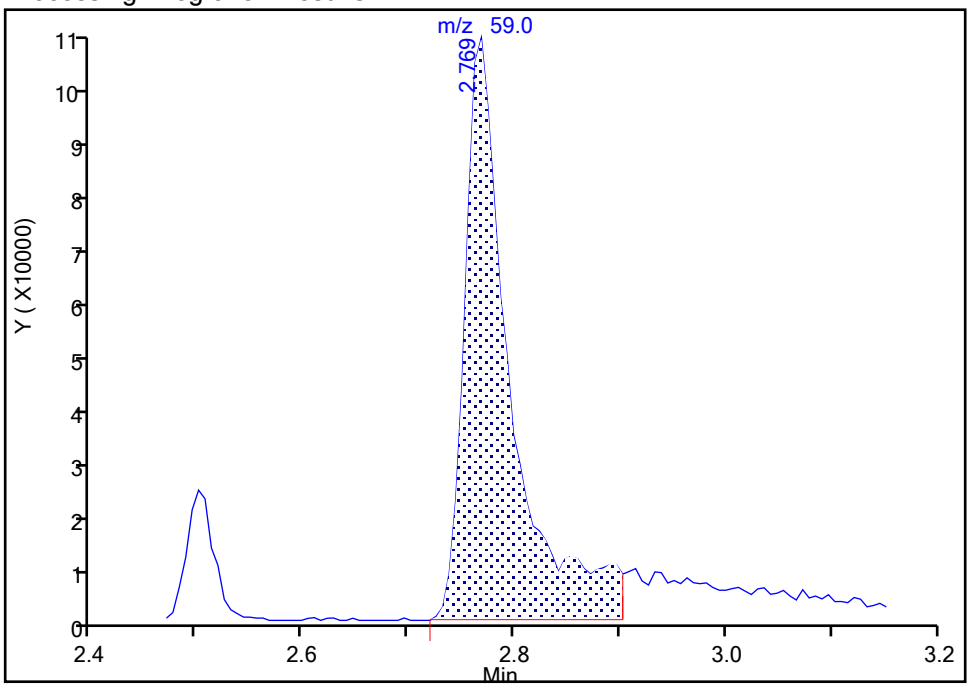
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

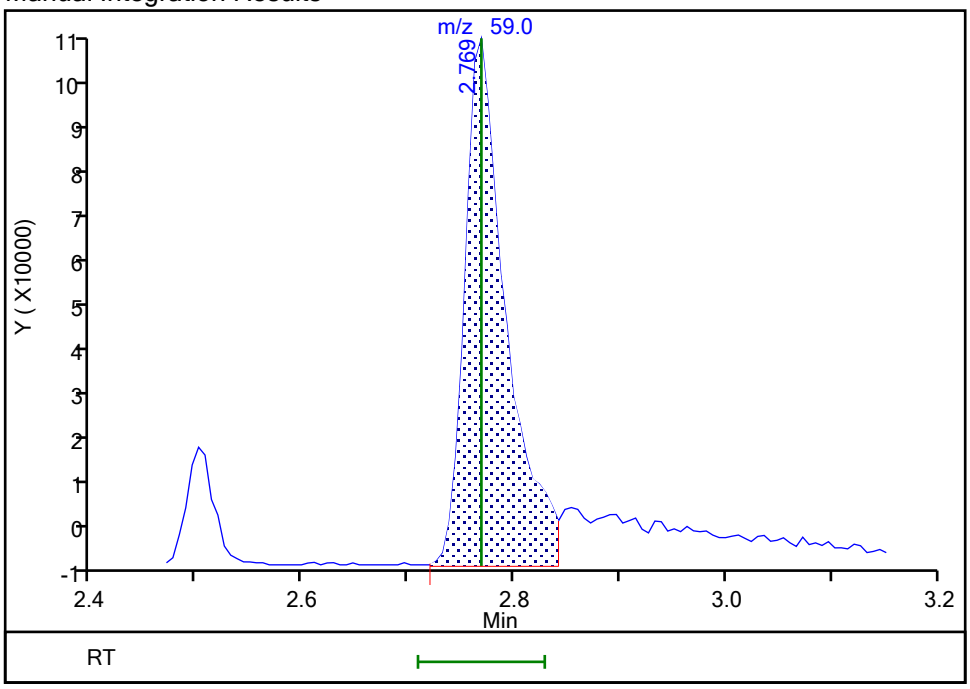
Processing Integration Results

RT: 2.77
Area: 320098
Amount: 321.7368
Amount Units: ug/L



Manual Integration Results

RT: 2.77
Area: 284988
Amount: 284.5346
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 11:22:23 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

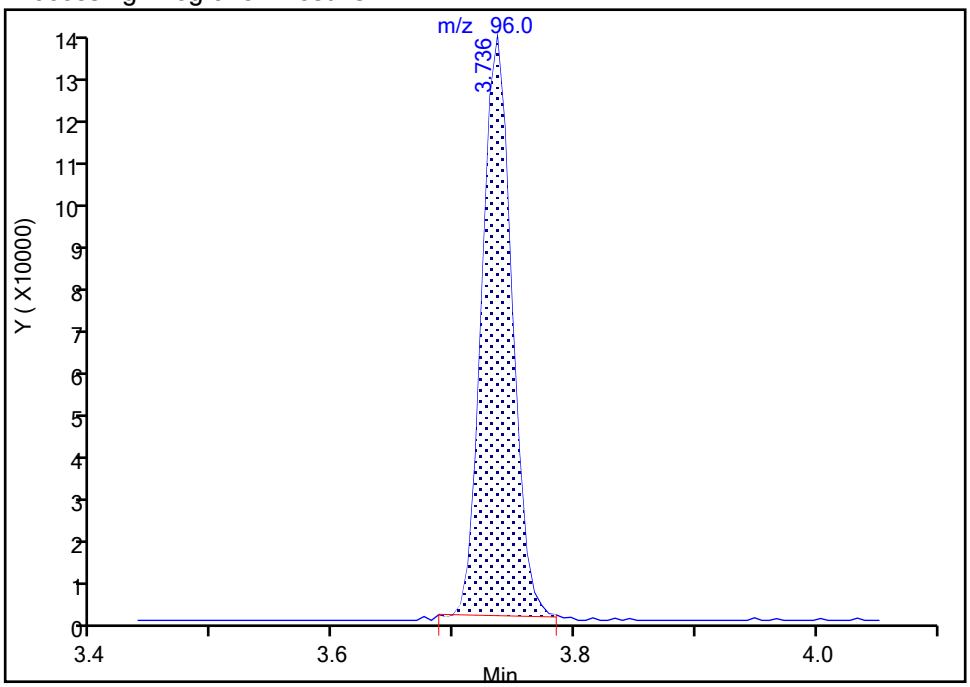
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

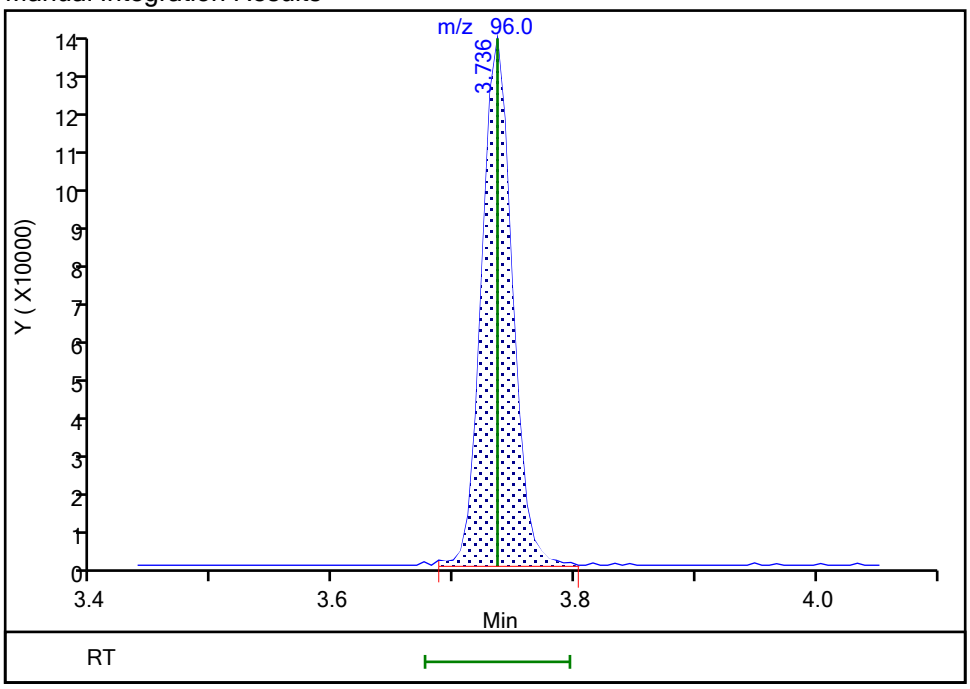
Processing Integration Results

RT: 3.74
Area: 231822
Amount: 24.856778
Amount Units: ug/L



Manual Integration Results

RT: 3.74
Area: 237894
Amount: 25.624829
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:24:39 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

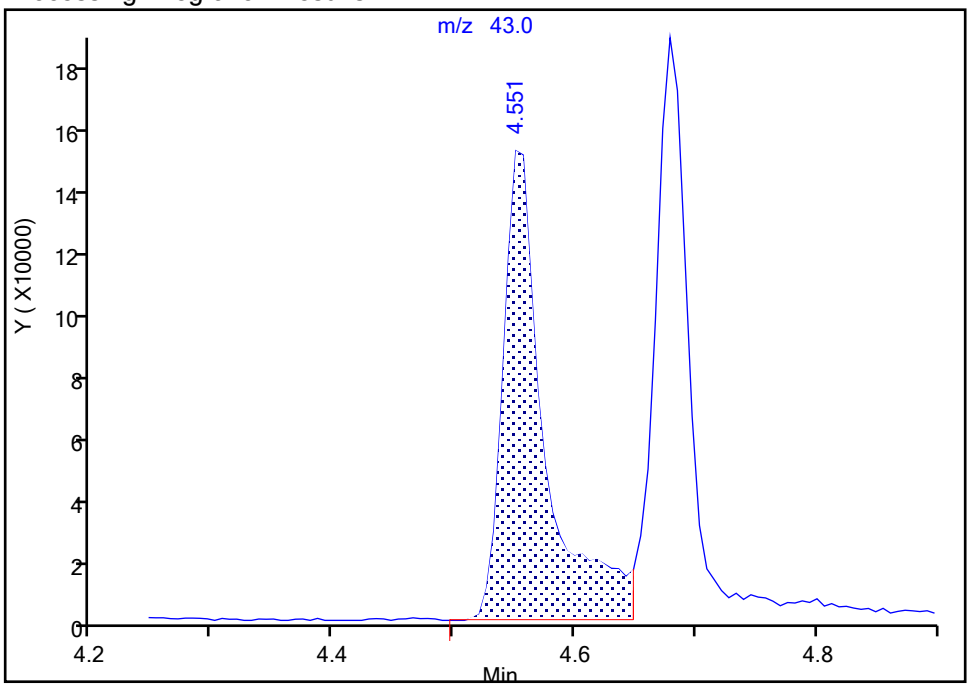
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

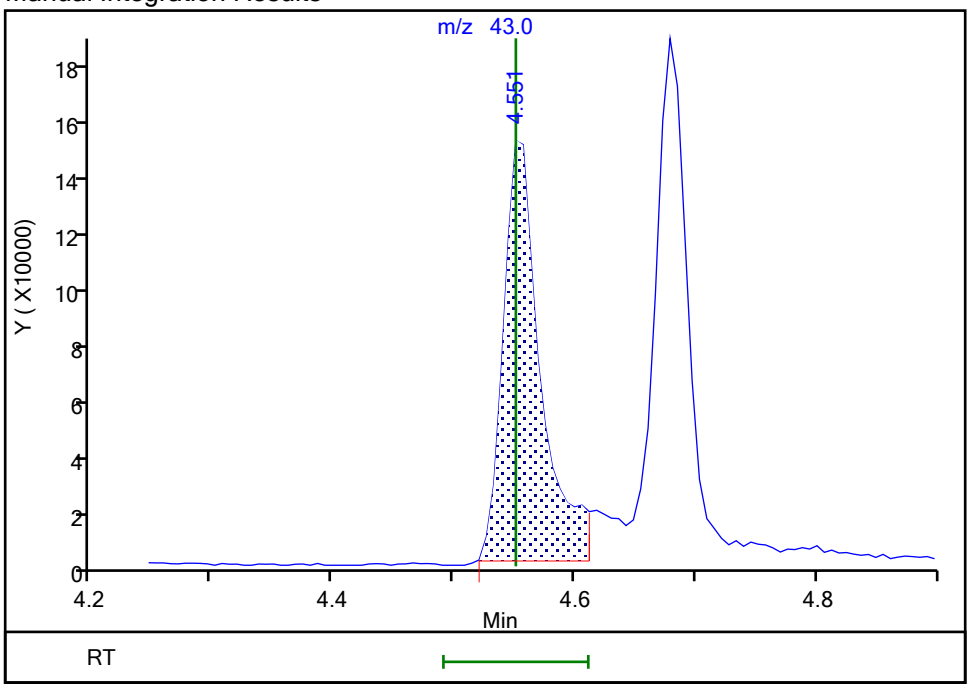
Processing Integration Results

RT: 4.55
Area: 363001
Amount: 817.0450
Amount Units: ug/L



Manual Integration Results

RT: 4.55
Area: 318308
Amount: 730.3952
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:54:09 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

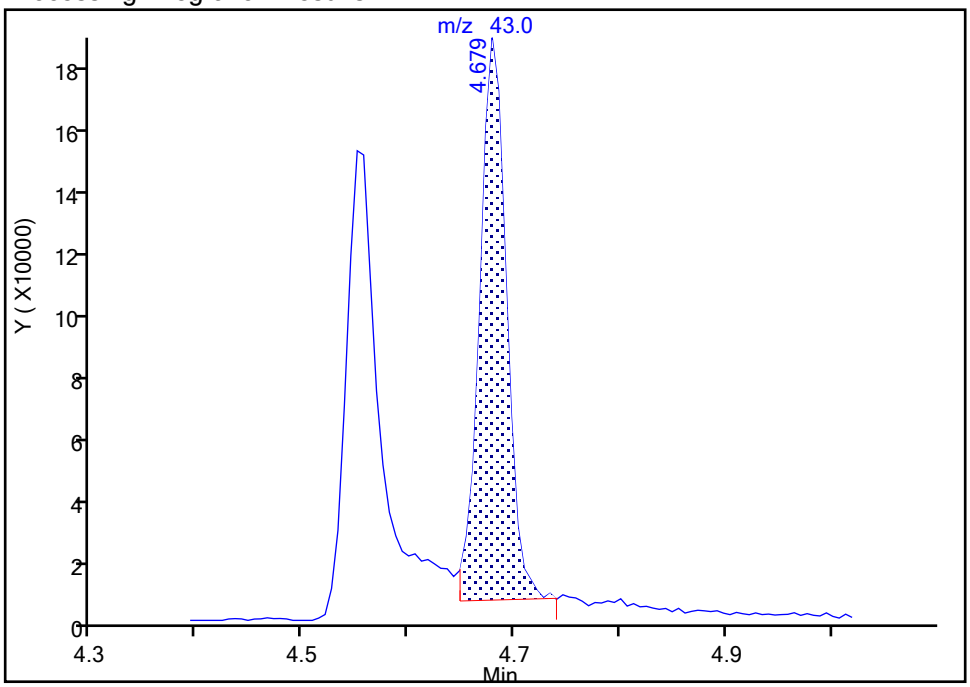
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

59 n-Heptane, CAS: 142-82-5

Signal: 1

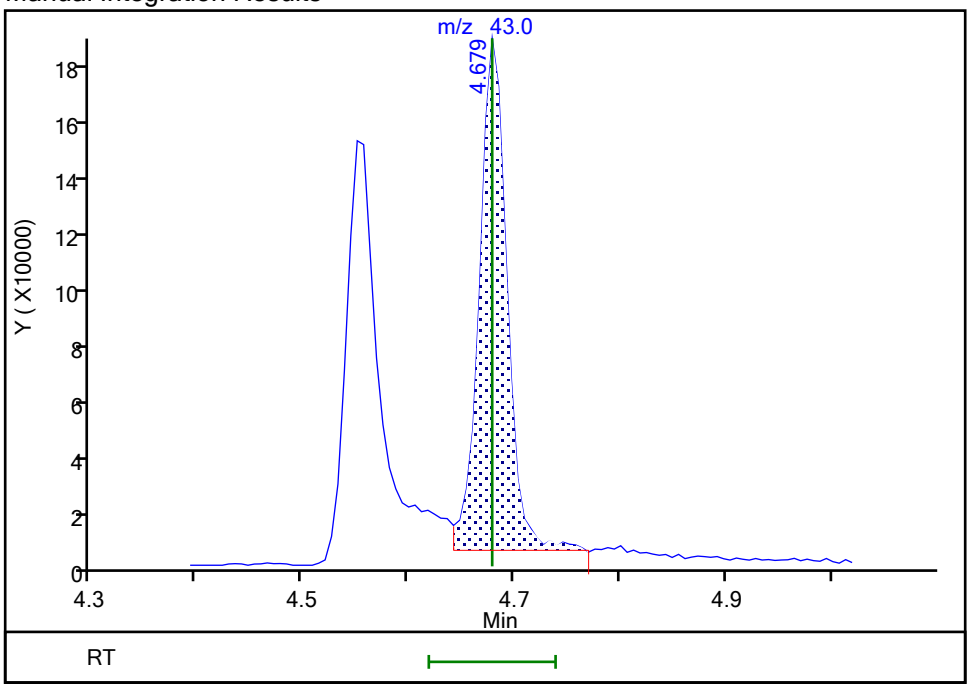
Processing Integration Results

RT: 4.68
Area: 315909
Amount: 23.930632
Amount Units: ug/L



Manual Integration Results

RT: 4.68
Area: 329982
Amount: 26.247299
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 10:27:34 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

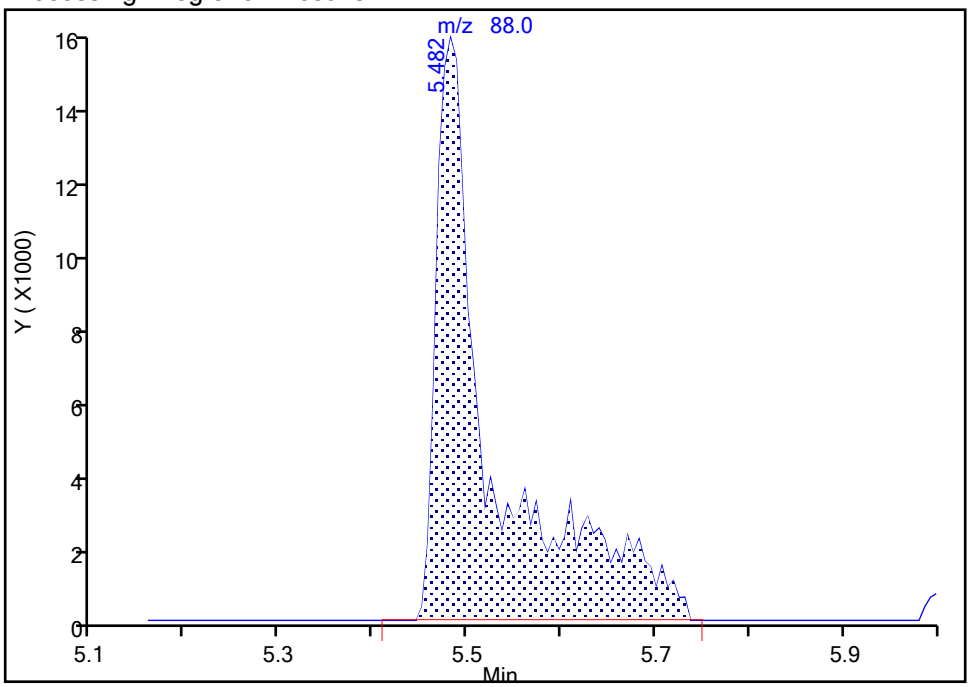
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0986.d
Injection Date: 07-Aug-2024 17:45:30 Instrument ID: HP5973S
Lims ID: ICIS 5
Client ID:
Operator ID: LH ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

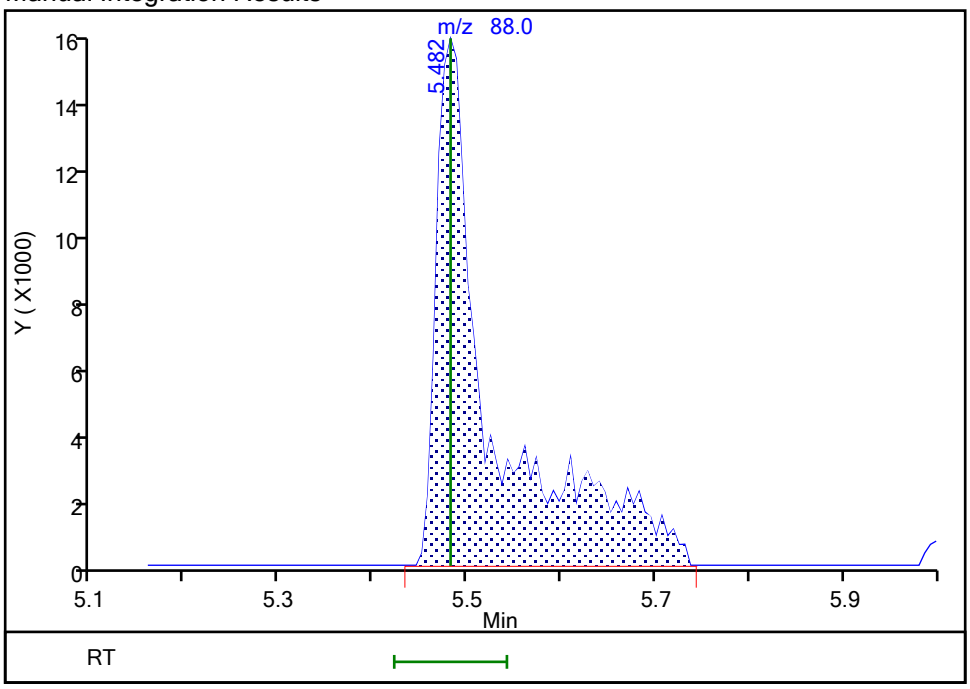
Processing Integration Results

RT: 5.48
Area: 63709
Amount: 599.4545
Amount Units: ug/L



Manual Integration Results

RT: 5.48
Area: 63709
Amount: 595.2692
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:54:34 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0987.d
Lims ID: IC 6
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 07-Aug-2024 18:08:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 6
Misc. Info.: 480-0119391-019
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:47 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 11:01:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.764	4.758	0.006	99	166797	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	384917	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	48	425261	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	221351	25.0	24.7	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	44	137481	25.0	24.0	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	46	873599	25.0	25.2	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	92	309566	25.0	25.1	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	88	587929	50.0	52.2	
12 Chloromethane	50	1.126	1.126	0.000	89	697665	50.0	52.4	
13 Vinyl chloride	62	1.199	1.193	0.006	80	526710	50.0	53.2	
151 Butadiene	54	1.223	1.217	0.006	91	542177	50.0	53.0	
14 Bromomethane	94	1.442	1.442	0.000	91	302630	50.0	49.6	
15 Chloroethane	64	1.515	1.509	0.006	94	316371	50.0	50.3	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	789900	50.0	53.3	
17 Trichlorofluoromethane	101	1.692	1.686	0.006	61	656986	50.0	52.3	
18 Ethyl ether	59	1.923	1.917	0.006	94	453441	50.0	47.5	
20 Acrolein	56	2.081	2.081	0.000	99	447602	250.0	235.4	
22 1,1-Dichloroethene	96	2.111	2.105	0.006	86	365191	50.0	51.4	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.117	2.112	0.005	65	370997	50.0	53.4	
23 Acetone	43	2.227	2.227	0.000	99	934343	250.0	241.2	
25 Iodomethane	142	2.270	2.251	0.019	98	658259	50.0	49.6	
26 Carbon disulfide	76	2.294	2.282	0.012	99	1190613	50.0	53.7	
28 3-Chloro-1-propene	41	2.452	2.446	0.006	86	768845	50.0	50.4	
27 Methyl acetate	43	2.501	2.501	0.000	96	1046799	100.0	89.4	
30 Methylene Chloride	84	2.586	2.586	0.000	93	434014	50.0	50.2	
31 2-Methyl-2-propanol	59	2.768	2.769	-0.001	54	471692	500.0	465.4	M
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	94	1407225	50.0	48.5	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	80	432044	50.0	50.4	
33 Acrylonitrile	53	2.866	2.860	0.006	99	2558003	500.0	472.5	
35 Hexane	57	2.987	2.981	0.006	90	680125	50.0	54.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	85	787710	50.0	50.6	
37 Vinyl acetate	43	3.261	3.261	0.000	97	2298475	100.0	113.5	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	92	395789	50.0	50.7	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	474659	50.0	50.5	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	97	1518192	250.0	241.7	
48 Chlorobromomethane	128	3.967	3.961	0.006	97	245668	50.0	50.3	
49 Tetrahydrofuran	42	3.979	3.979	0.000	88	438393	100.0	91.4	
50 Chloroform	83	4.046	4.046	0.000	95	745564	50.0	48.0	
52 Cyclohexane	56	4.143	4.137	0.006	93	883906	50.0	55.9	
51 1,1,1-Trichloroethane	97	4.143	4.137	0.006	82	628066	50.0	53.0	
55 Carbon tetrachloride	117	4.277	4.271	0.006	78	577266	50.0	56.7	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	91	600845	50.0	53.2	
57 Benzene	78	4.490	4.490	0.000	98	1697522	50.0	50.2	
53 Isobutyl alcohol	43	4.551	4.551	0.000	83	533307	1250.0	1209.2	M
58 1,2-Dichloroethane	62	4.563	4.563	0.000	73	640254	50.0	47.7	
59 n-Heptane	43	4.679	4.679	0.000	97	668749	50.0	52.6	M
62 Trichloroethene	95	5.092	5.092	0.000	93	445382	50.0	50.7	
64 Methylcyclohexane	83	5.202	5.196	0.006	94	754594	50.0	56.3	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	91	437465	50.0	51.3	
67 Dibromomethane	93	5.463	5.464	-0.001	89	266655	50.0	48.5	
66 1,4-Dioxane	88	5.476	5.482	-0.006	38	97682	1000.0	934.9	
68 Dichlorobromomethane	83	5.628	5.628	0.000	98	534912	50.0	52.5	
69 2-Chloroethyl vinyl ether	63	5.914	5.914	0.000	92	347514	50.0	54.0	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	86	686266	50.0	54.5	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	98	3445346	250.0	241.8	
74 Toluene	92	6.309	6.309	0.000	94	1101887	50.0	51.3	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	94	659371	50.0	55.5	
75 Ethyl methacrylate	69	6.668	6.668	0.000	75	622257	50.0	57.6	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	86	343043	50.0	50.5	
81 Tetrachloroethene	166	6.832	6.826	0.006	88	502696	50.0	53.3	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	97	717199	50.0	51.4	
80 2-Hexanone	43	7.027	7.027	0.000	97	2564873	250.0	256.0	
83 Chlorodibromomethane	129	7.173	7.173	0.000	90	450847	50.0	55.4	
84 Ethylene Dibromide	107	7.264	7.264	0.000	97	465463	50.0	52.8	
87 Chlorobenzene	112	7.739	7.739	0.000	94	1292533	50.0	51.6	
88 Ethylbenzene	91	7.836	7.836	0.000	98	2157669	50.0	53.5	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	42	450569	50.0	54.7	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	99	869108	50.0	53.1	
91 o-Xylene	106	8.377	8.378	-0.001	97	869884	50.0	52.9	
92 Styrene	104	8.408	8.408	0.000	94	1417740	50.0	54.5	
95 Bromoform	173	8.651	8.645	0.006	98	346399	50.0	58.1	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	2120600	50.0	54.7	
101 Bromobenzene	156	9.101	9.102	-0.001	93	587267	50.0	51.7	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	57	686733	50.0	51.3	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	2546209	50.0	54.0	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	60	240110	50.0	50.4	
98 trans-1,4-Dichloro-2-butene	53	9.247	9.248	-0.001	62	267051	50.0	54.4	
103 2-Chlorotoluene	126	9.308	9.302	0.006	95	529315	50.0	50.4	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	96	1813486	50.0	54.2	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	565711	50.0	53.1	
106 tert-Butylbenzene	134	9.734	9.734	0.000	91	419182	50.0	54.2	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	66	1867442	50.0	53.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	2196642	50.0	54.8	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	1122462	50.0	50.8	
110 4-Isopropyltoluene	119	10.105	10.105	0.000	97	2059898	50.0	55.3	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	95	1175673	50.0	50.4	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	1670080	50.0	54.9	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	1089224	50.0	51.0	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.292	0.006	84	138747	50.0	55.4	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	94	716852	50.0	54.5	
120 Hexachlorobutadiene	225	12.095	12.089	0.005	94	288501	50.0	53.3	
121 Naphthalene	128	12.186	12.186	0.000	97	2488836	50.0	55.7	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	93	686088	50.0	55.4	
S 125 1,2-Dichloroethene, Total	1				0			100.9	
S 123 Total BTEX	1				0			261.1	
S 126 1,3-Dichloropropene, Total	1				0			110.0	
S 124 Xylenes, Total	1				0			106.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00257	Amount Added:	25.00	Units: uL	
GAS CORP mix_00631	Amount Added:	25.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

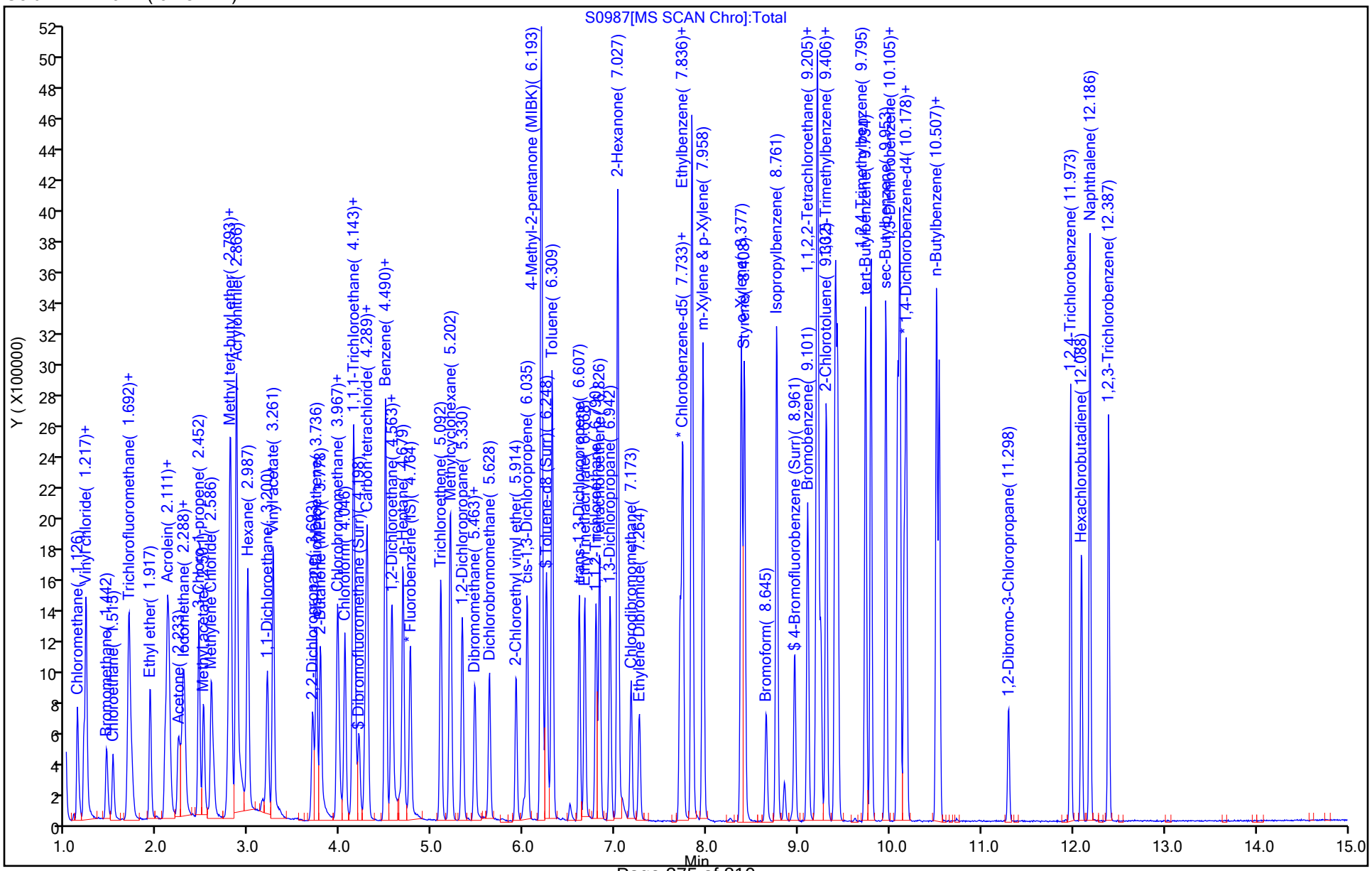
Report Date: 08-Aug-2024 13:18:48 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0987.d

Injection Date:	07-Aug-2024 18:08:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 6			Worklist Smp#:	19
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

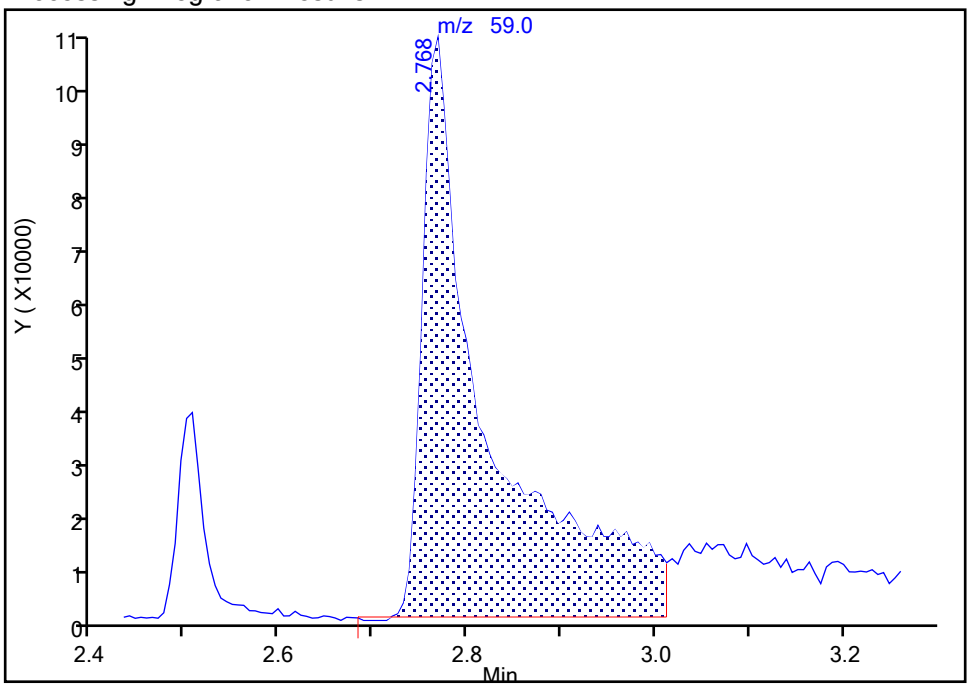
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0987.d
Injection Date: 07-Aug-2024 18:08:30 Instrument ID: HP5973S
Lims ID: IC 6
Client ID:
Operator ID: LH ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

31 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

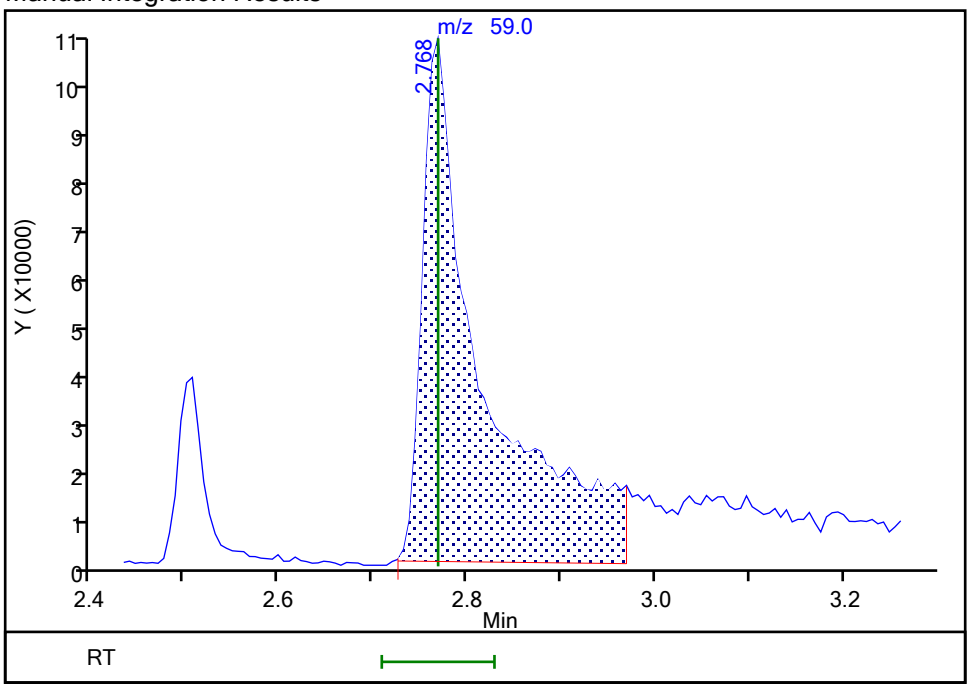
Processing Integration Results

RT: 2.77
Area: 501842
Amount: 513.8144
Amount Units: ug/L



Manual Integration Results

RT: 2.77
Area: 471692
Amount: 465.3595
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 12:55:25 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

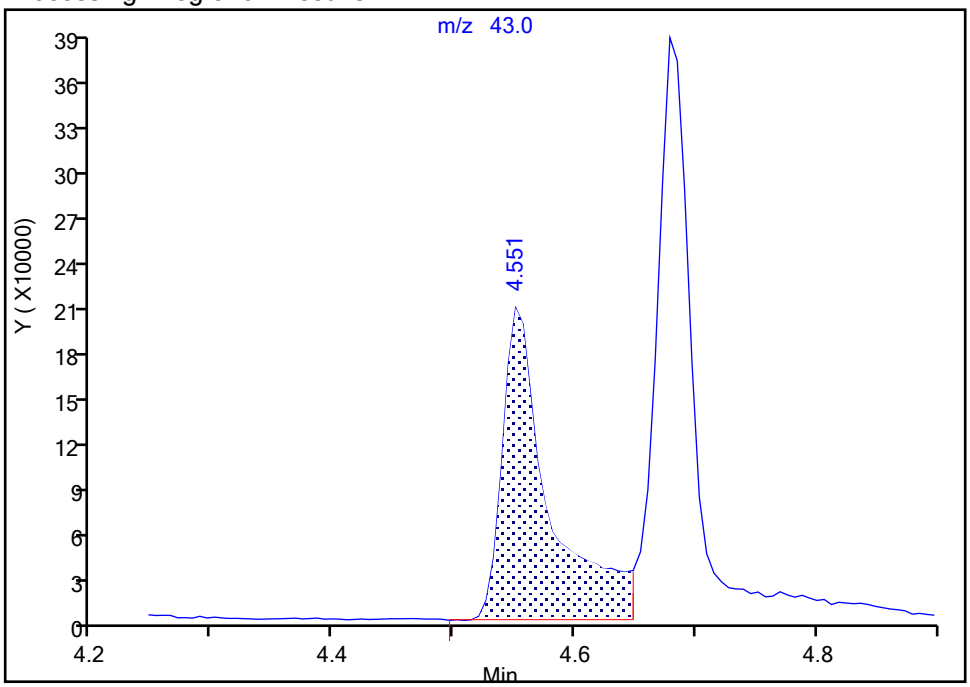
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0987.d
Injection Date: 07-Aug-2024 18:08:30 Instrument ID: HP5973S
Lims ID: IC 6
Client ID:
Operator ID: LH ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

53 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

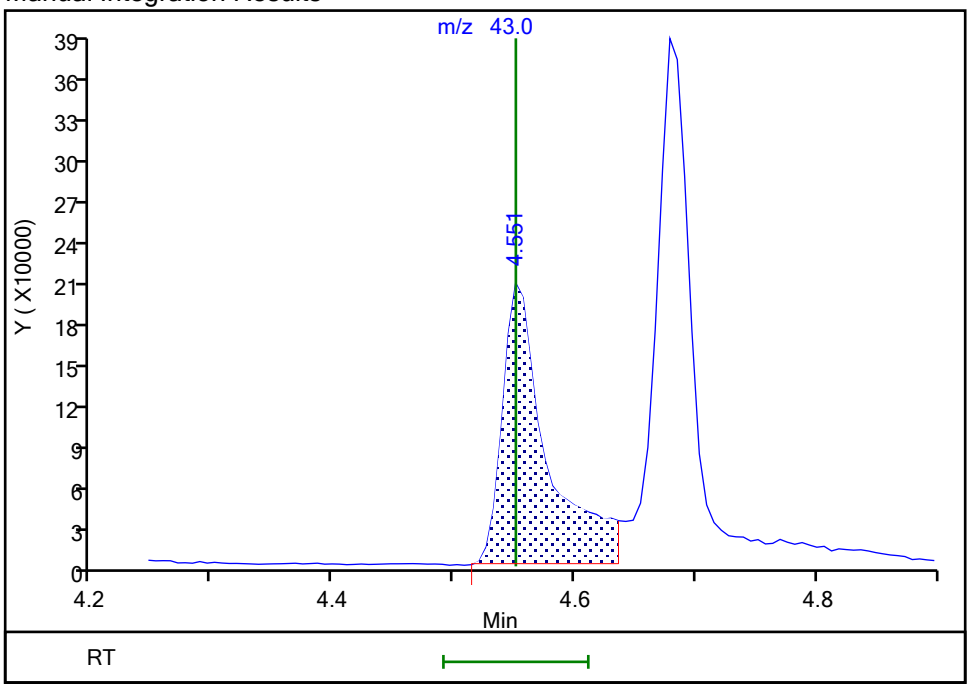
Processing Integration Results

RT: 4.55
Area: 563032
Amount: 1339.3169
Amount Units: ug/L



Manual Integration Results

RT: 4.55
Area: 533307
Amount: 1209.2311
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 11:00:33 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

Eurofins Buffalo

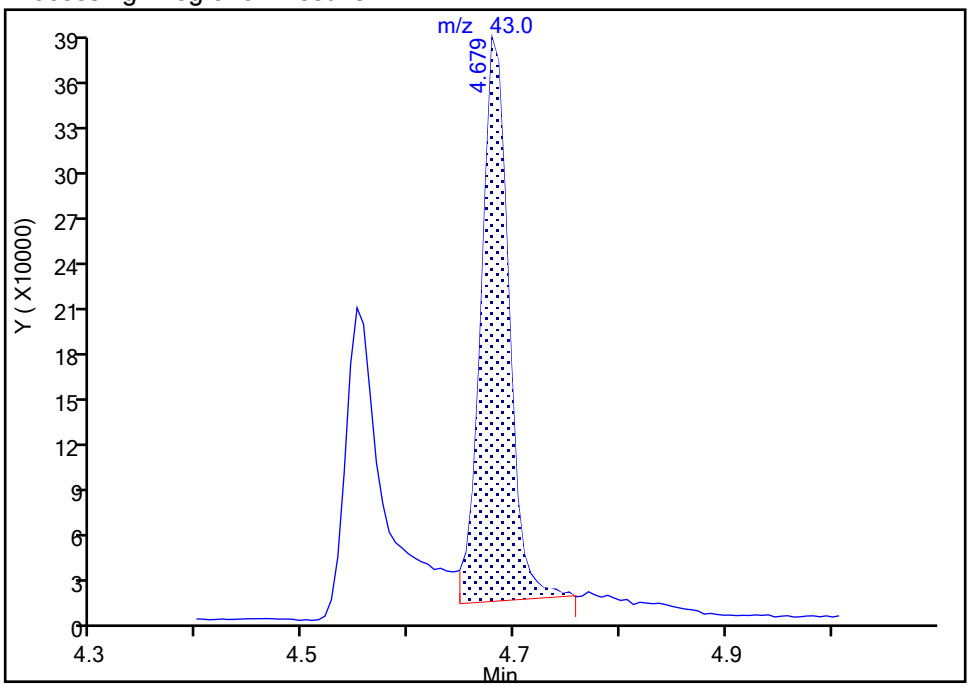
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0987.d
Injection Date: 07-Aug-2024 18:08:30 Instrument ID: HP5973S
Lims ID: IC 6
Client ID:
Operator ID: LH ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

59 n-Heptane, CAS: 142-82-5

Signal: 1

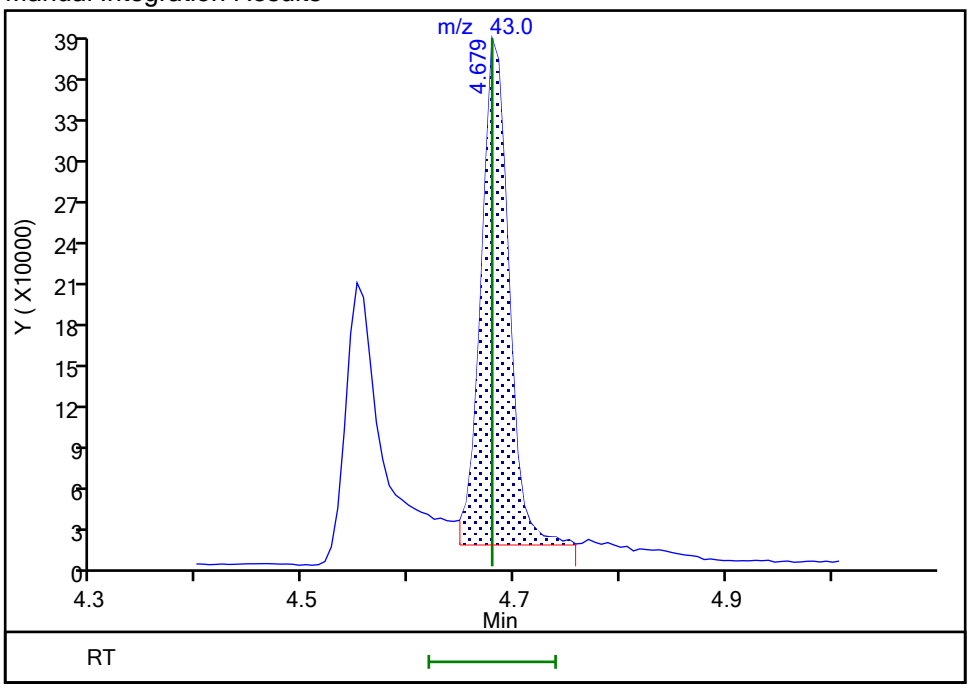
Processing Integration Results

RT: 4.68
Area: 683131
Amount: 51.425100
Amount Units: ug/L



Manual Integration Results

RT: 4.68
Area: 668749
Amount: 52.562883
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 11:01:06 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Report Date: 08-Aug-2024 13:18:56 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0988.d
Lims ID: IC 7
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 07-Aug-2024 18:31:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Misc. Info.: 480-0119391-020
Operator ID: LH Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:18:55 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 11:02:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	171249	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	400300	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	37	441179	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	231105	25.0	25.1	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	37	143796	25.0	24.5	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	27	919042	25.0	25.5	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	90	314513	25.0	24.5	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	88	1183044	100.0	102.3	
12 Chloromethane	50	1.126	1.126	0.000	89	1379974	100.0	101.0	
13 Vinyl chloride	62	1.193	1.193	0.000	80	1060520	100.0	104.4	
151 Butadiene	54	1.217	1.217	0.000	92	1134696	100.0	108.0	
14 Bromomethane	94	1.442	1.442	0.000	90	623463	100.0	99.5	
15 Chloroethane	64	1.509	1.509	0.000	99	669766	100.0	103.8	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	1599978	100.0	105.2	
17 Trichlorofluoromethane	101	1.686	1.686	0.000	59	1339108	100.0	103.9	
18 Ethyl ether	59	1.917	1.917	0.000	96	914766	100.0	93.4	
20 Acrolein	56	2.081	2.081	0.000	99	915832	500.0	469.1	
22 1,1-Dichloroethene	96	2.112	2.105	0.007	87	709806	100.0	97.4	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.112	2.112	0.000	66	733559	100.0	102.8	
23 Acetone	43	2.227	2.227	0.000	98	1654012	500.0	415.8	
25 Iodomethane	142	2.270	2.251	0.019	81	1346020	100.0	98.7	
26 Carbon disulfide	76	2.288	2.282	0.006	99	2463228	100.0	108.1	
28 3-Chloro-1-propene	41	2.446	2.446	0.000	87	1601770	100.0	102.3	
27 Methyl acetate	43	2.501	2.501	0.000	96	2256862	200.0	187.7	
30 Methylene Chloride	84	2.586	2.586	0.000	94	877284	100.0	99.3	
31 2-Methyl-2-propanol	59	2.769	2.769	0.000	60	991244	1000.0	952.5	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	94	2948600	100.0	99.0	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	84	901710	100.0	102.5	
33 Acrylonitrile	53	2.866	2.860	0.006	99	5020576	1000.0	903.3	
35 Hexane	57	2.981	2.981	0.000	92	1381941	100.0	107.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	86	1628515	100.0	101.8	
37 Vinyl acetate	43	3.261	3.261	0.000	97	5138040	200.0	247.2	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	93	791265	100.0	98.7	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	957016	100.0	99.2	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	99	3223330	500.0	499.9	
48 Chlorobromomethane	128	3.961	3.961	0.000	94	502445	100.0	100.2	
49 Tetrahydrofuran	42	3.973	3.979	-0.006	90	965572	200.0	196.0	
50 Chloroform	83	4.046	4.046	0.000	82	1542923	100.0	96.8	
52 Cyclohexane	56	4.143	4.137	0.006	93	1745820	100.0	107.5	
51 1,1,1-Trichloroethane	97	4.143	4.137	0.006	81	1313284	100.0	107.8	
55 Carbon tetrachloride	117	4.271	4.271	0.000	82	1190271	100.0	113.9	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	90	1214888	100.0	104.8	
57 Benzene	78	4.490	4.490	0.000	98	3535552	100.0	101.9	
53 Isobutyl alcohol	43	4.551	4.551	0.000	61	1267450	2500.0	2799.1	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	76	1348315	100.0	97.8	
59 n-Heptane	43	4.679	4.679	0.000	95	1395801	100.0	106.9	M
62 Trichloroethene	95	5.092	5.092	0.000	92	924670	100.0	102.6	
64 Methylcyclohexane	83	5.202	5.196	0.006	93	1498222	100.0	108.9	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	91	904841	100.0	103.4	
67 Dibromomethane	93	5.464	5.464	0.000	89	563642	100.0	99.8	
66 1,4-Dioxane	88	5.482	5.482	0.000	53	214749	2000.0	1964.5	
68 Dichlorobromomethane	83	5.622	5.628	-0.006	93	1154246	100.0	110.4	
69 2-Chloroethyl vinyl ether	63	5.914	5.914	0.000	93	739276	100.0	111.8	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	87	1476690	100.0	114.3	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	7644682	500.0	515.9	
74 Toluene	92	6.309	6.309	0.000	96	2294942	100.0	102.7	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	93	1425594	100.0	115.4	
75 Ethyl methacrylate	69	6.668	6.668	0.000	74	1368838	100.0	121.8	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	88	717361	100.0	101.5	
81 Tetrachloroethene	166	6.826	6.826	0.000	87	1041160	100.0	106.2	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	96	1484771	100.0	102.4	
80 2-Hexanone	43	7.027	7.027	0.000	97	5458080	500.0	523.8	
83 Chlorodibromomethane	129	7.173	7.173	0.000	89	972037	100.0	115.0	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	965384	100.0	105.3	
87 Chlorobenzene	112	7.739	7.739	0.000	95	2686998	100.0	103.1	
88 Ethylbenzene	91	7.836	7.836	0.000	98	4451886	100.0	106.2	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	939079	100.0	109.7	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	99	1798447	100.0	105.7	
91 o-Xylene	106	8.378	8.378	0.000	97	1768201	100.0	103.4	
92 Styrene	104	8.408	8.408	0.000	94	2876258	100.0	106.4	
95 Bromoform	173	8.651	8.645	0.006	97	748100	100.0	120.7	
94 Isopropylbenzene	105	8.767	8.761	0.006	95	4374412	100.0	108.8	
101 Bromobenzene	156	9.102	9.102	0.000	93	1180464	100.0	100.2	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	57	1403313	100.0	101.1	
99 N-Propylbenzene	91	9.205	9.205	0.000	98	5237993	100.0	107.1	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	58	485979	100.0	98.4	
98 trans-1,4-Dichloro-2-butene	53	9.248	9.248	0.000	69	559298	100.0	109.7	
103 2-Chlorotoluene	126	9.308	9.302	0.006	95	1092005	100.0	100.2	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	94	3724537	100.0	107.2	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	1162456	100.0	105.2	
106 tert-Butylbenzene	134	9.734	9.734	0.000	90	844519	100.0	105.3	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	67	3910826	100.0	107.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	4453932	100.0	107.2	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	2314472	100.0	101.1	
110 4-Isopropyltoluene	119	10.111	10.105	0.006	95	4212592	100.0	109.0	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	95	2397333	100.0	99.0	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	3414950	100.0	108.3	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	2259722	100.0	102.0	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.292	0.000	83	310096	100.0	119.3	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	90	1497222	100.0	109.7	
120 Hexachlorobutadiene	225	12.095	12.089	0.006	94	533983	100.0	95.1	
121 Naphthalene	128	12.186	12.186	0.000	96	5290629	100.0	114.2	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	93	1420094	100.0	110.5	
S 125 1,2-Dichloroethene, Total	1				0			201.7	
S 123 Total BTEX	1				0			520.0	
S 126 1,3-Dichloropropene, Total	1				0			229.7	
S 124 Xylenes, Total	1				0			209.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8260 CORP mix_00257	Amount Added:	50.00	Units: uL	
GAS CORP mix_00631	Amount Added:	50.00	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

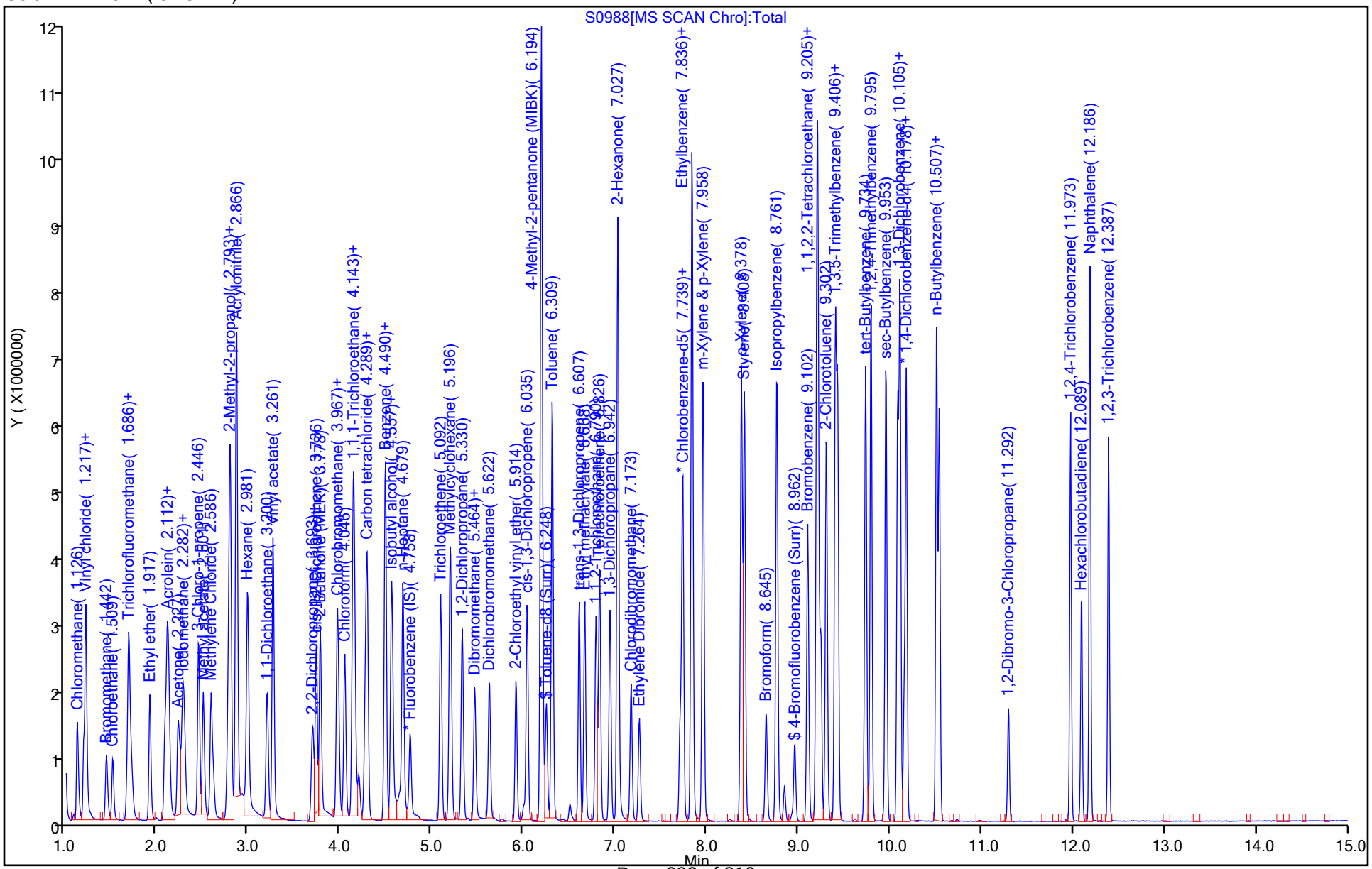
Report Date: 08-Aug-2024 13:18:56 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0988.d

Injection Date:	07-Aug-2024 18:31:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	IC 7			Worklist Smp#:	20
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

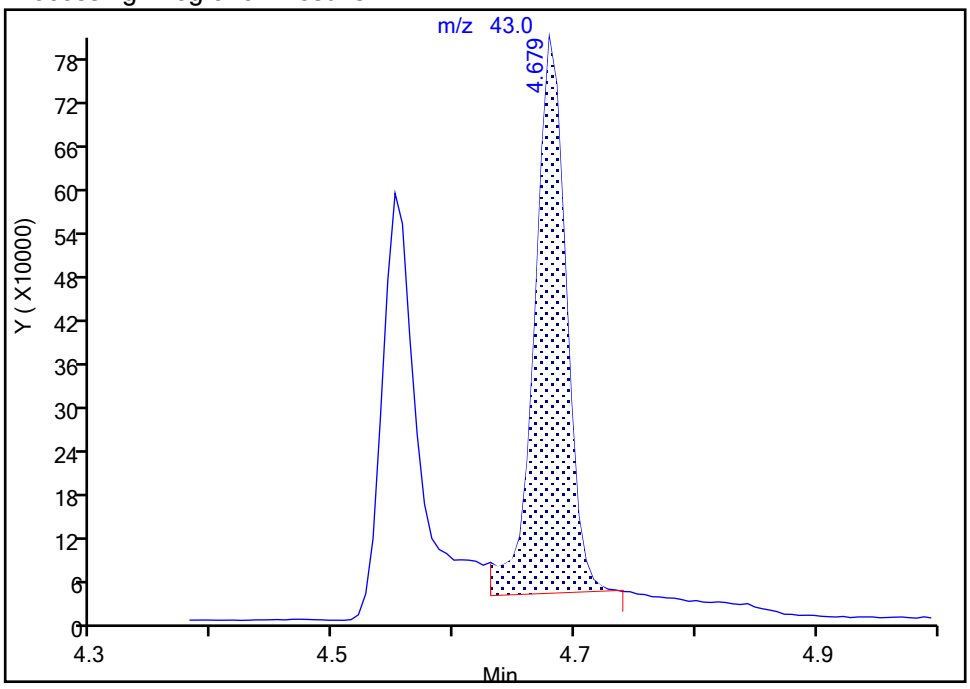
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0988.d
Injection Date: 07-Aug-2024 18:31:30 Instrument ID: HP5973S
Lims ID: IC 7
Client ID:
Operator ID: LH ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

59 n-Heptane, CAS: 142-82-5

Signal: 1

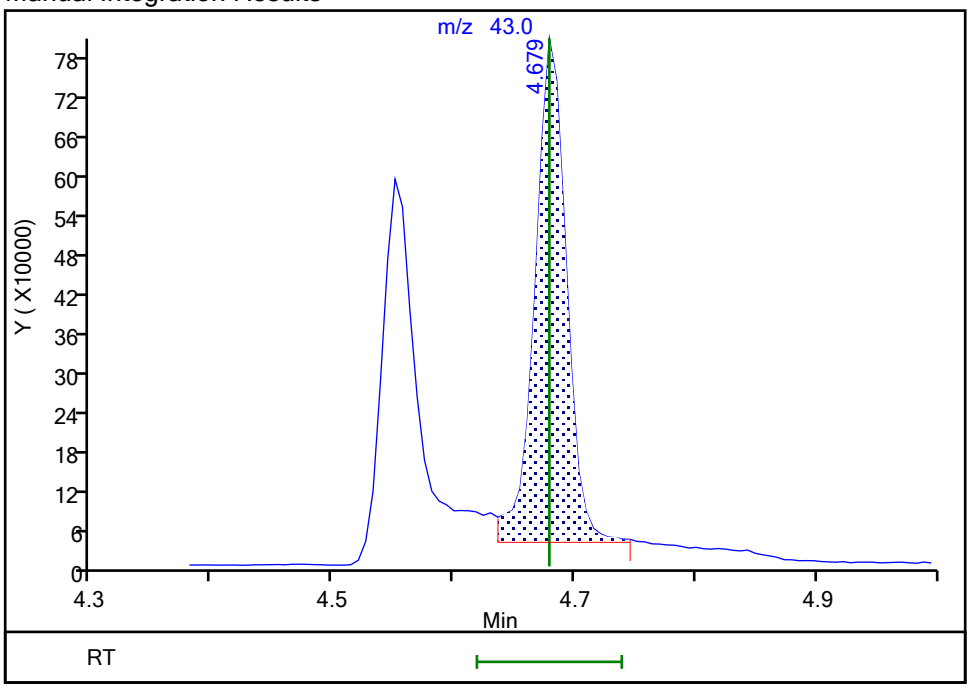
Processing Integration Results

RT: 4.68
Area: 1397575
Amount: 102.7504
Amount Units: ug/L



Manual Integration Results

RT: 4.68
Area: 1395801
Amount: 106.8562
Amount Units: ug/L



Reviewer: MHM2, 08-Aug-2024 11:02:15 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Calibration / Dichlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

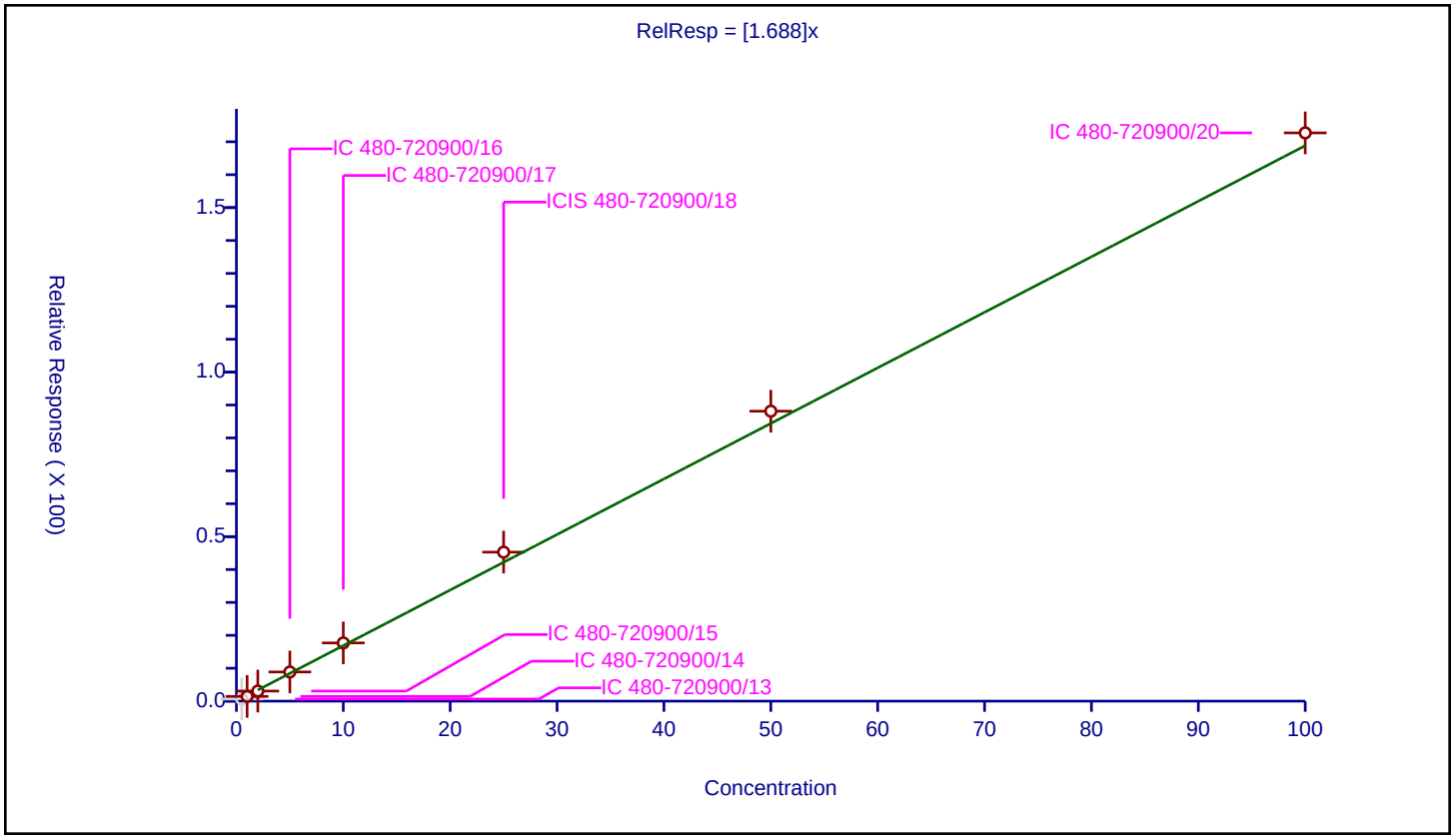
Curve Coefficients

Intercept:	0
Slope:	1.688

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.633681	25.0	160846.0	1.267361	N
2	IC 480-720900/14	1.0	1.440567	25.0	153325.0	1.440567	Y
3	IC 480-720900/15	2.0	3.06688	25.0	157701.0	1.53344	Y
4	IC 480-720900/16	5.0	8.867401	25.0	167535.0	1.77348	Y
5	IC 480-720900/17	10.0	17.691758	25.0	159563.0	1.769176	Y
6	ICIS 480-720900/18	25.0	45.288648	25.0	164820.0	1.811546	Y
7	IC 480-720900/19	50.0	88.12044	25.0	166797.0	1.762409	Y
8	IC 480-720900/20	100.0	172.708162	25.0	171249.0	1.727082	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

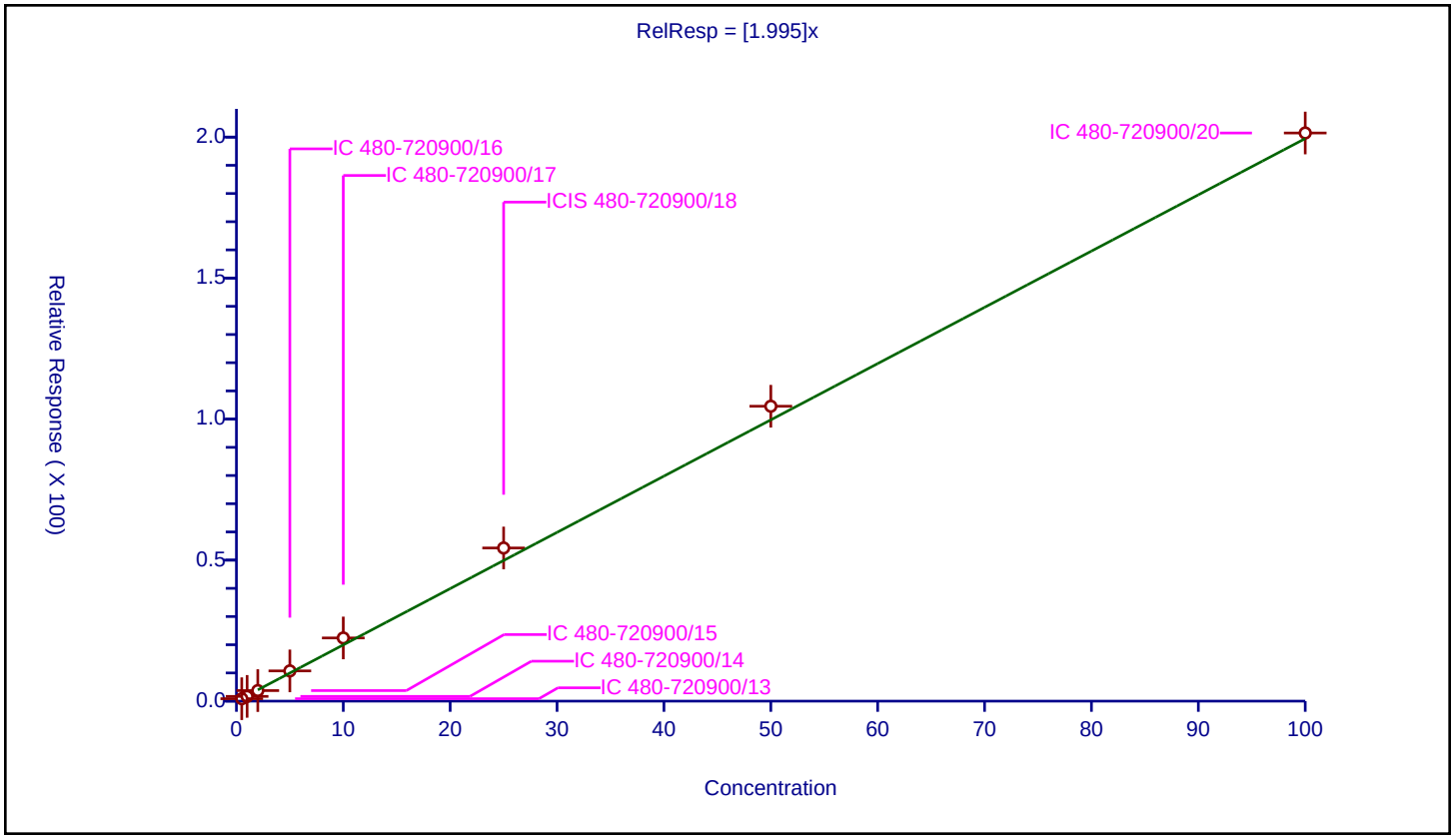
Curve Coefficients

Intercept:	0
Slope:	1.995

Error Coefficients

Relative Standard Deviation:	10.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.865579	25.0	160846.0	1.731159	Y
2	IC 480-720900/14	1.0	1.690038	25.0	153325.0	1.690038	Y
3	IC 480-720900/15	2.0	3.745379	25.0	157701.0	1.872689	Y
4	IC 480-720900/16	5.0	10.725371	25.0	167535.0	2.145074	Y
5	IC 480-720900/17	10.0	22.406667	25.0	159563.0	2.240667	Y
6	ICIS 480-720900/18	25.0	54.306971	25.0	164820.0	2.172279	Y
7	IC 480-720900/19	50.0	104.567978	25.0	166797.0	2.09136	Y
8	IC 480-720900/20	100.0	201.457235	25.0	171249.0	2.014572	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

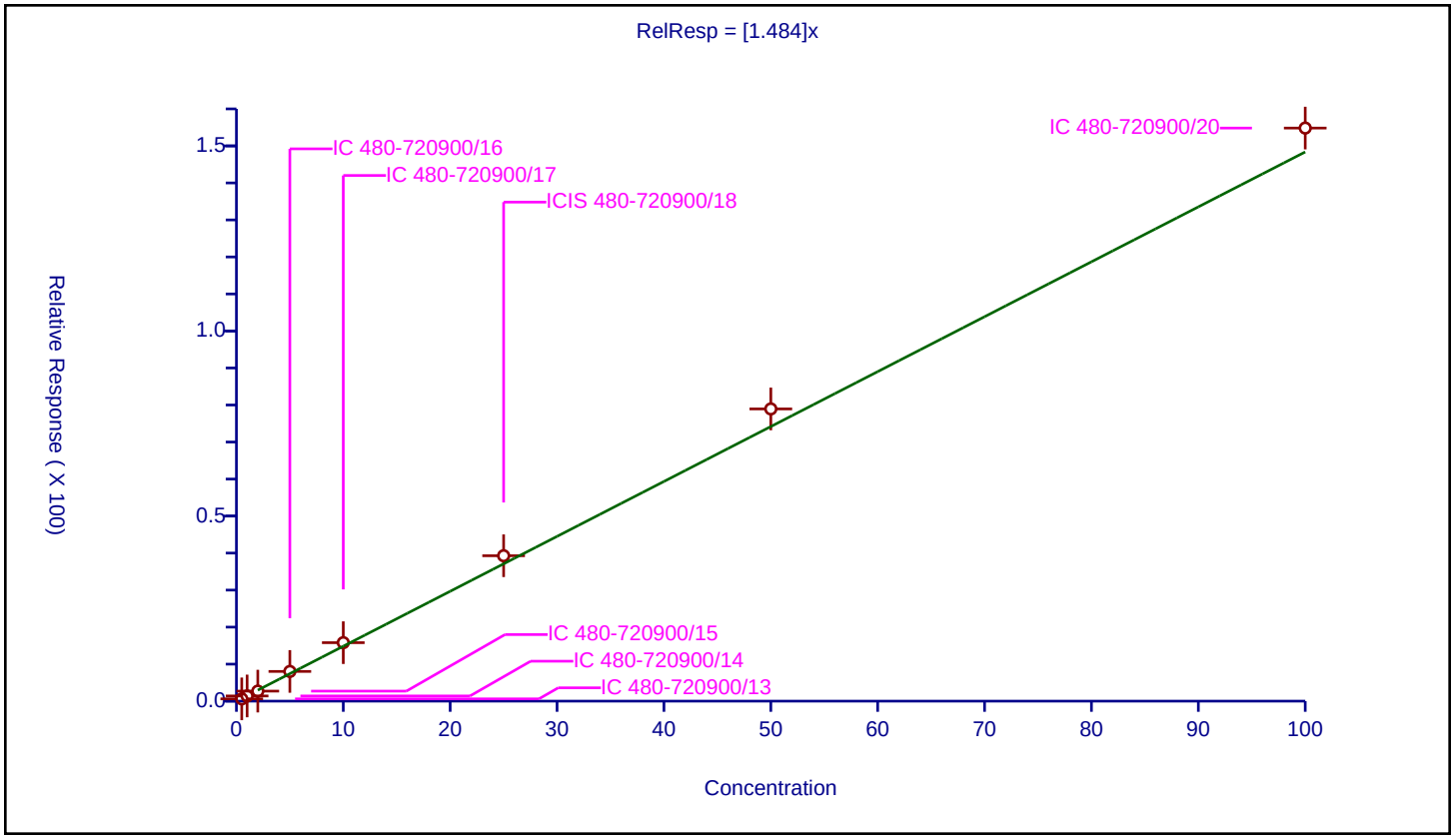
Curve Coefficients

Intercept:	0
Slope:	1.484

Error Coefficients

Relative Standard Deviation:	9.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.615029	25.0	160846.0	1.230059	Y
2	IC 480-720900/14	1.0	1.40062	25.0	153325.0	1.40062	Y
3	IC 480-720900/15	2.0	2.710826	25.0	157701.0	1.355413	Y
4	IC 480-720900/16	5.0	8.024443	25.0	167535.0	1.604889	Y
5	IC 480-720900/17	10.0	15.799089	25.0	159563.0	1.579909	Y
6	ICIS 480-720900/18	25.0	39.282399	25.0	164820.0	1.571296	Y
7	IC 480-720900/19	50.0	78.944765	25.0	166797.0	1.578895	Y
8	IC 480-720900/20	100.0	154.821342	25.0	171249.0	1.548213	Y



Calibration / Butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

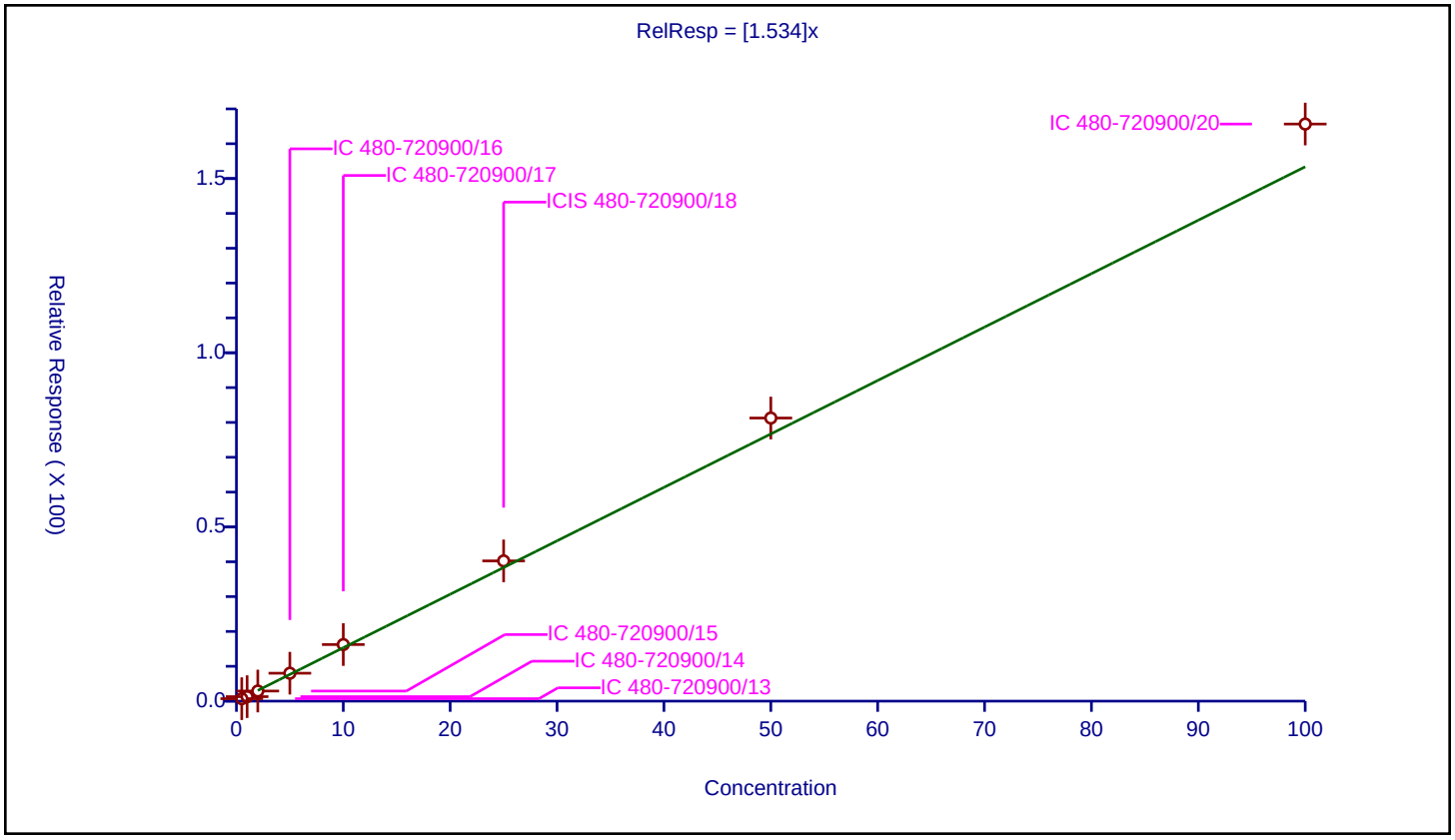
Curve Coefficients

Intercept:	0
Slope:	1.534

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.705955	25.0	160846.0	1.41191	Y
2	IC 480-720900/14	1.0	1.290233	25.0	153325.0	1.290233	Y
3	IC 480-720900/15	2.0	2.900267	25.0	157701.0	1.450133	Y
4	IC 480-720900/16	5.0	8.013848	25.0	167535.0	1.60277	Y
5	IC 480-720900/17	10.0	16.240607	25.0	159563.0	1.624061	Y
6	ICIS 480-720900/18	25.0	40.25361	25.0	164820.0	1.610144	Y
7	IC 480-720900/19	50.0	81.263002	25.0	166797.0	1.62526	Y
8	IC 480-720900/20	100.0	165.650018	25.0	171249.0	1.6565	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

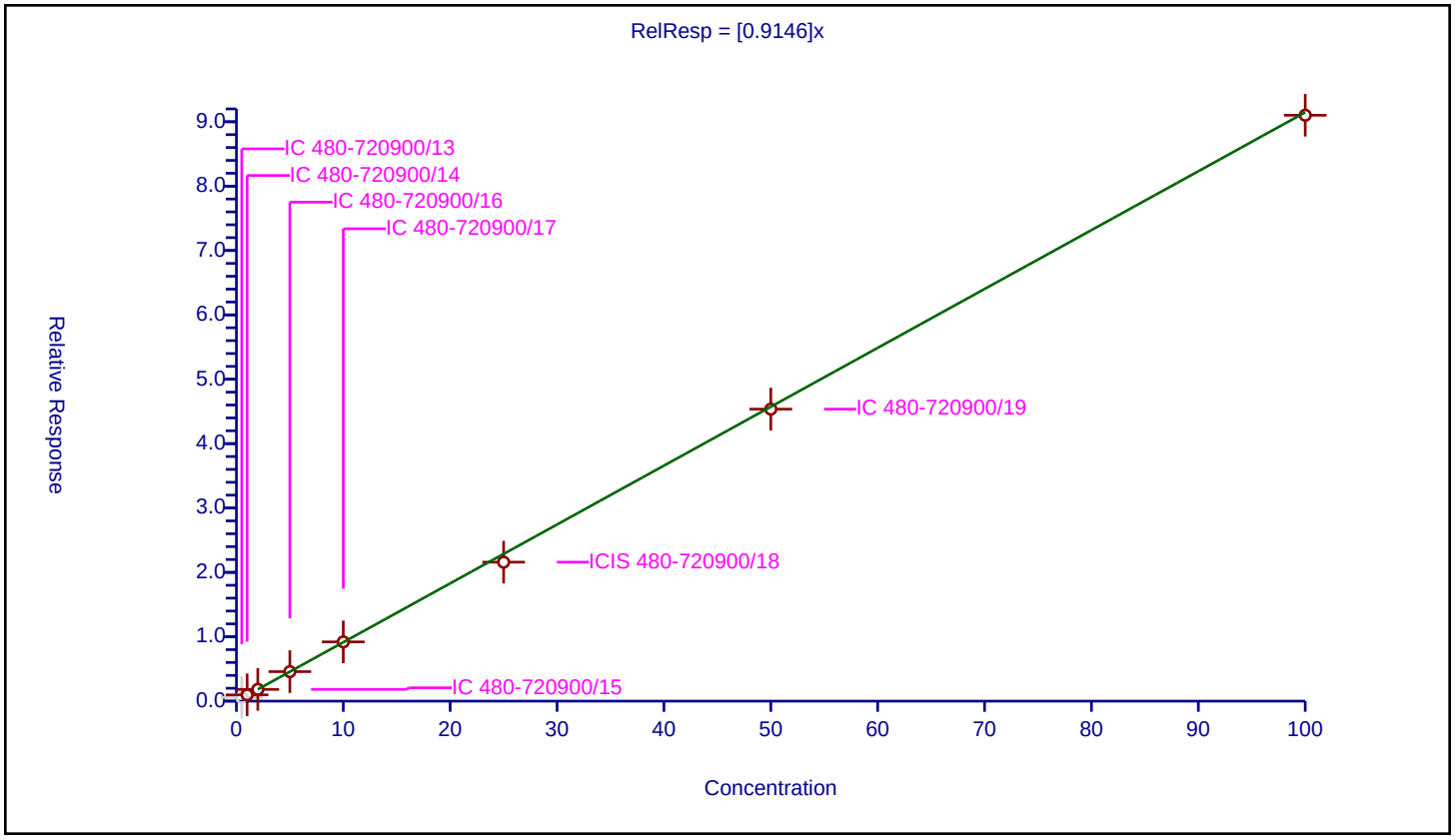
Curve Coefficients

Intercept:	0
Slope:	0.9146

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.585343	25.0	160846.0	1.170685	N
2	IC 480-720900/14	1.0	0.972281	25.0	153325.0	0.972281	Y
3	IC 480-720900/15	2.0	1.825131	25.0	157701.0	0.912566	Y
4	IC 480-720900/16	5.0	4.581431	25.0	167535.0	0.916286	Y
5	IC 480-720900/17	10.0	9.202321	25.0	159563.0	0.920232	Y
6	ICIS 480-720900/18	25.0	21.589158	25.0	164820.0	0.863566	Y
7	IC 480-720900/19	50.0	45.359029	25.0	166797.0	0.907181	Y
8	IC 480-720900/20	100.0	91.017028	25.0	171249.0	0.91017	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

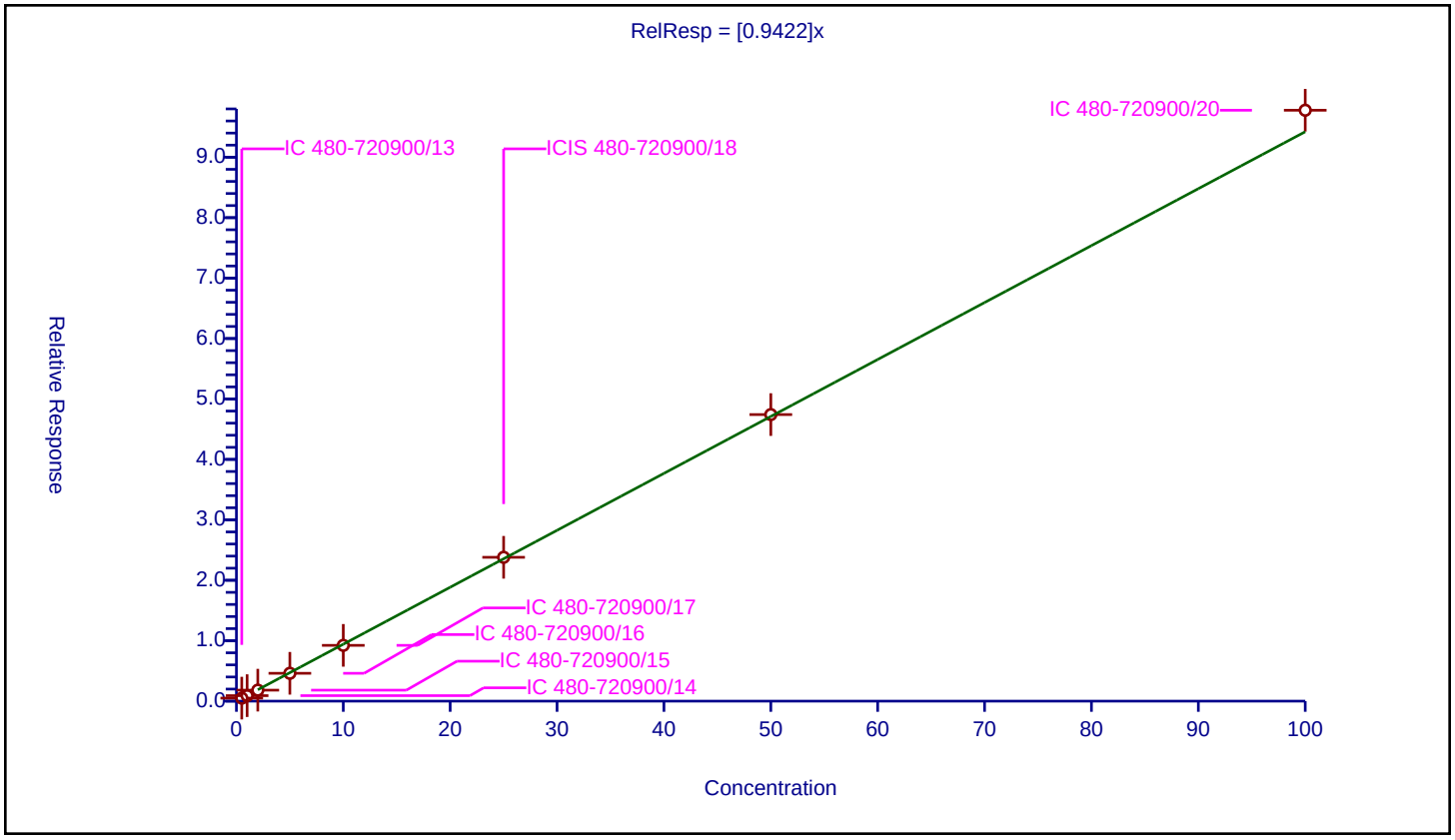
Curve Coefficients

Intercept:	0
Slope:	0.9422

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.49908	25.0	160846.0	0.99816	Y
2	IC 480-720900/14	1.0	0.909017	25.0	153325.0	0.909017	Y
3	IC 480-720900/15	2.0	1.815778	25.0	157701.0	0.907889	Y
4	IC 480-720900/16	5.0	4.607395	25.0	167535.0	0.921479	Y
5	IC 480-720900/17	10.0	9.229427	25.0	159563.0	0.922943	Y
6	ICIS 480-720900/18	25.0	23.7996	25.0	164820.0	0.951984	Y
7	IC 480-720900/19	50.0	47.418569	25.0	166797.0	0.948371	Y
8	IC 480-720900/20	100.0	97.776629	25.0	171249.0	0.977766	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

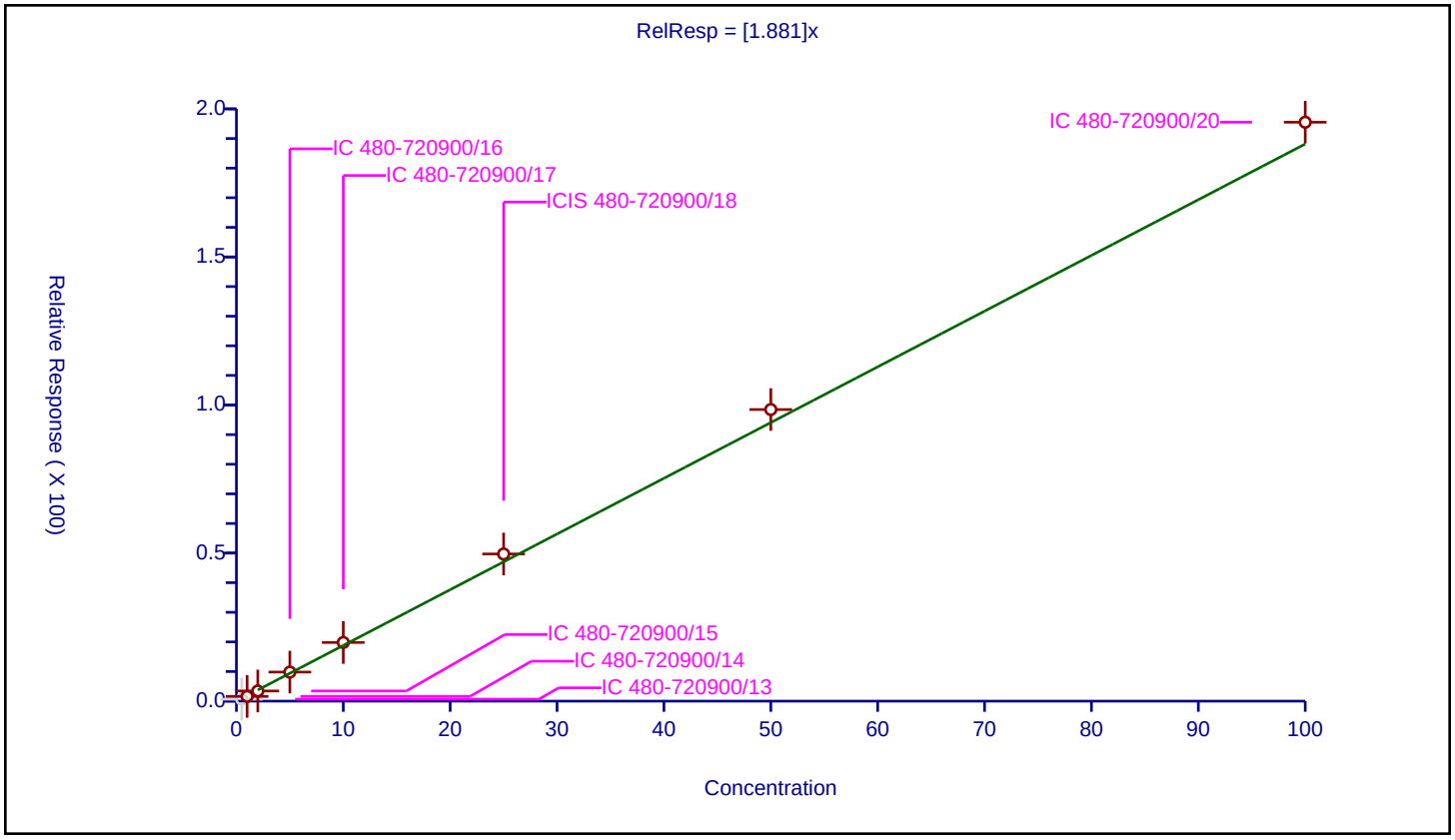
Curve Coefficients

Intercept:	0
Slope:	1.881

Error Coefficients

Relative Standard Deviation:	8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.664922	25.0	160846.0	1.329843	N
2	IC 480-720900/14	1.0	1.597261	25.0	153325.0	1.597261	Y
3	IC 480-720900/15	2.0	3.432762	25.0	157701.0	1.716381	Y
4	IC 480-720900/16	5.0	9.815262	25.0	167535.0	1.963052	Y
5	IC 480-720900/17	10.0	19.811297	25.0	159563.0	1.98113	Y
6	ICIS 480-720900/18	25.0	49.697245	25.0	164820.0	1.98789	Y
7	IC 480-720900/19	50.0	98.470896	25.0	166797.0	1.969418	Y
8	IC 480-720900/20	100.0	195.491361	25.0	171249.0	1.954914	Y



Calibration / Dichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

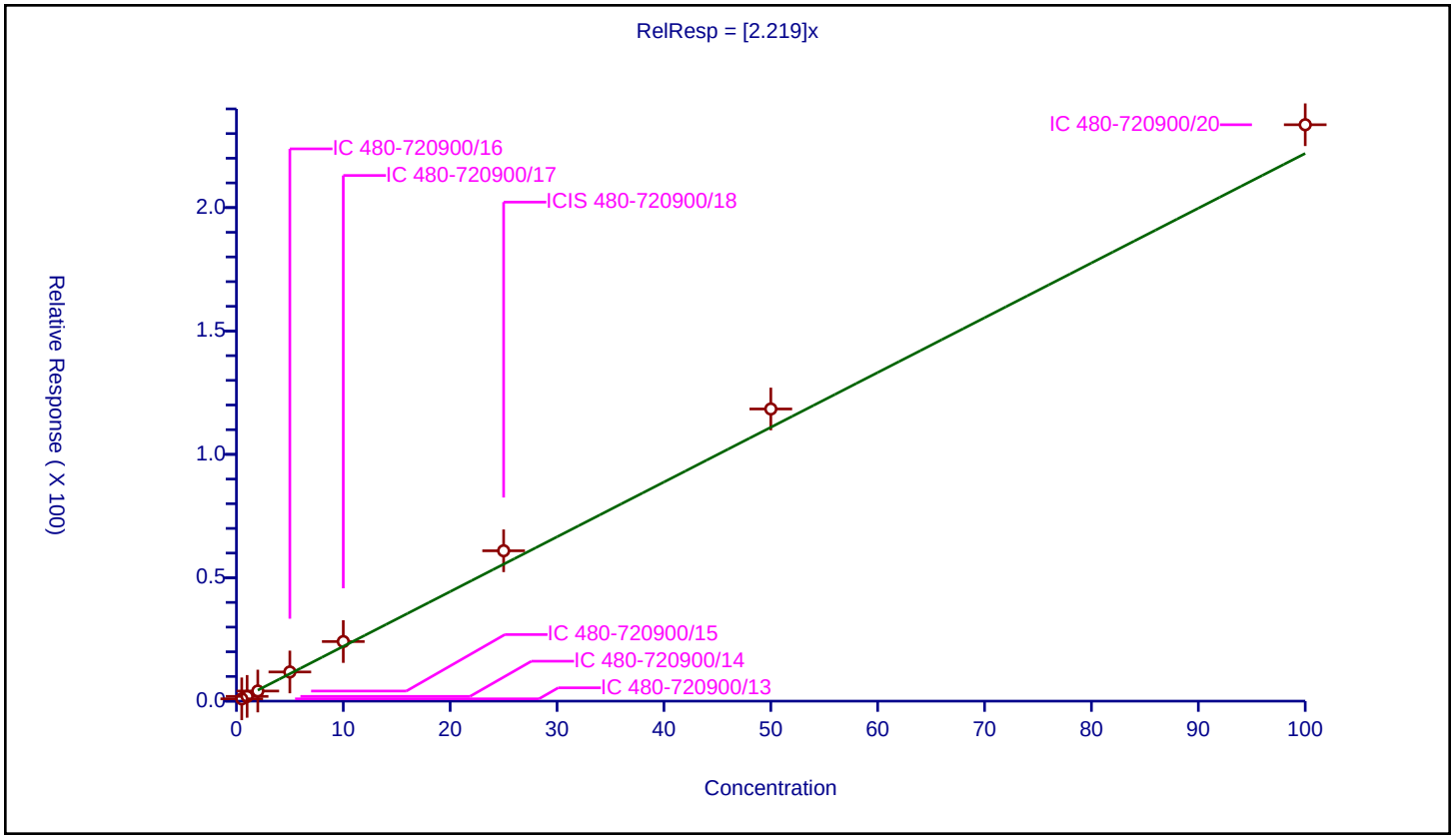
Curve Coefficients

Intercept:	0
Slope:	2.219

Error Coefficients

Relative Standard Deviation:	10.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.92915	25.0	160846.0	1.858299	Y
2	IC 480-720900/14	1.0	1.927116	25.0	153325.0	1.927116	Y
3	IC 480-720900/15	2.0	4.097469	25.0	157701.0	2.048735	Y
4	IC 480-720900/16	5.0	11.828872	25.0	167535.0	2.365774	Y
5	IC 480-720900/17	10.0	24.148769	25.0	159563.0	2.414877	Y
6	ICIS 480-720900/18	25.0	60.934808	25.0	164820.0	2.437392	Y
7	IC 480-720900/19	50.0	118.392417	25.0	166797.0	2.367848	Y
8	IC 480-720900/20	100.0	233.574795	25.0	171249.0	2.335748	Y



Calibration / Ethyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

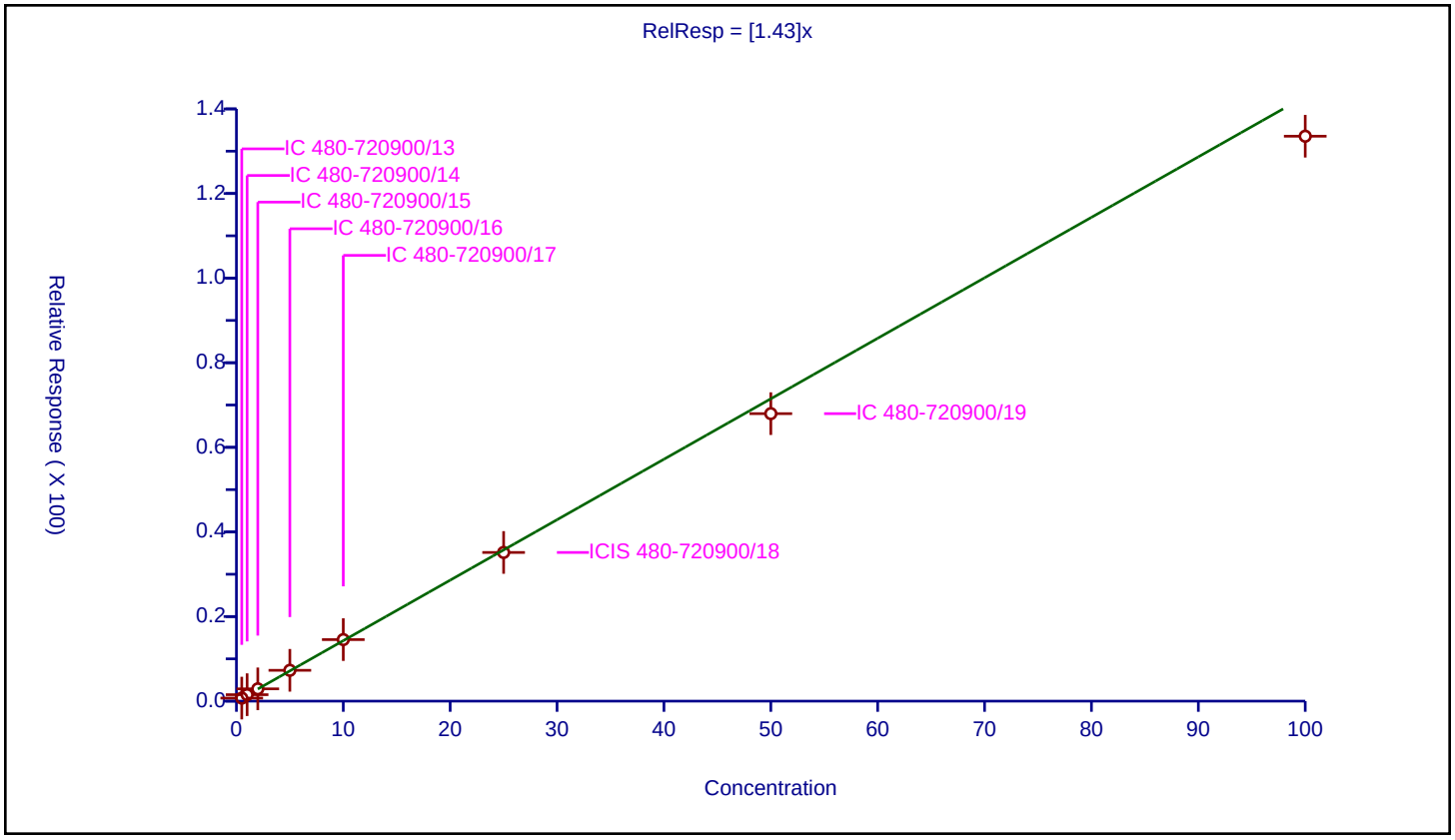
Curve Coefficients

Intercept:	0
Slope:	1.43

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.721187	25.0	160846.0	1.442373	Y
2	IC 480-720900/14	1.0	1.529594	25.0	153325.0	1.529594	Y
3	IC 480-720900/15	2.0	2.902645	25.0	157701.0	1.451322	Y
4	IC 480-720900/16	5.0	7.288328	25.0	167535.0	1.457666	Y
5	IC 480-720900/17	10.0	14.547389	25.0	159563.0	1.454739	Y
6	ICIS 480-720900/18	25.0	35.147585	25.0	164820.0	1.405903	Y
7	IC 480-720900/19	50.0	67.963003	25.0	166797.0	1.35926	Y
8	IC 480-720900/20	100.0	133.543262	25.0	171249.0	1.335433	Y



Calibration / Acrolein

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

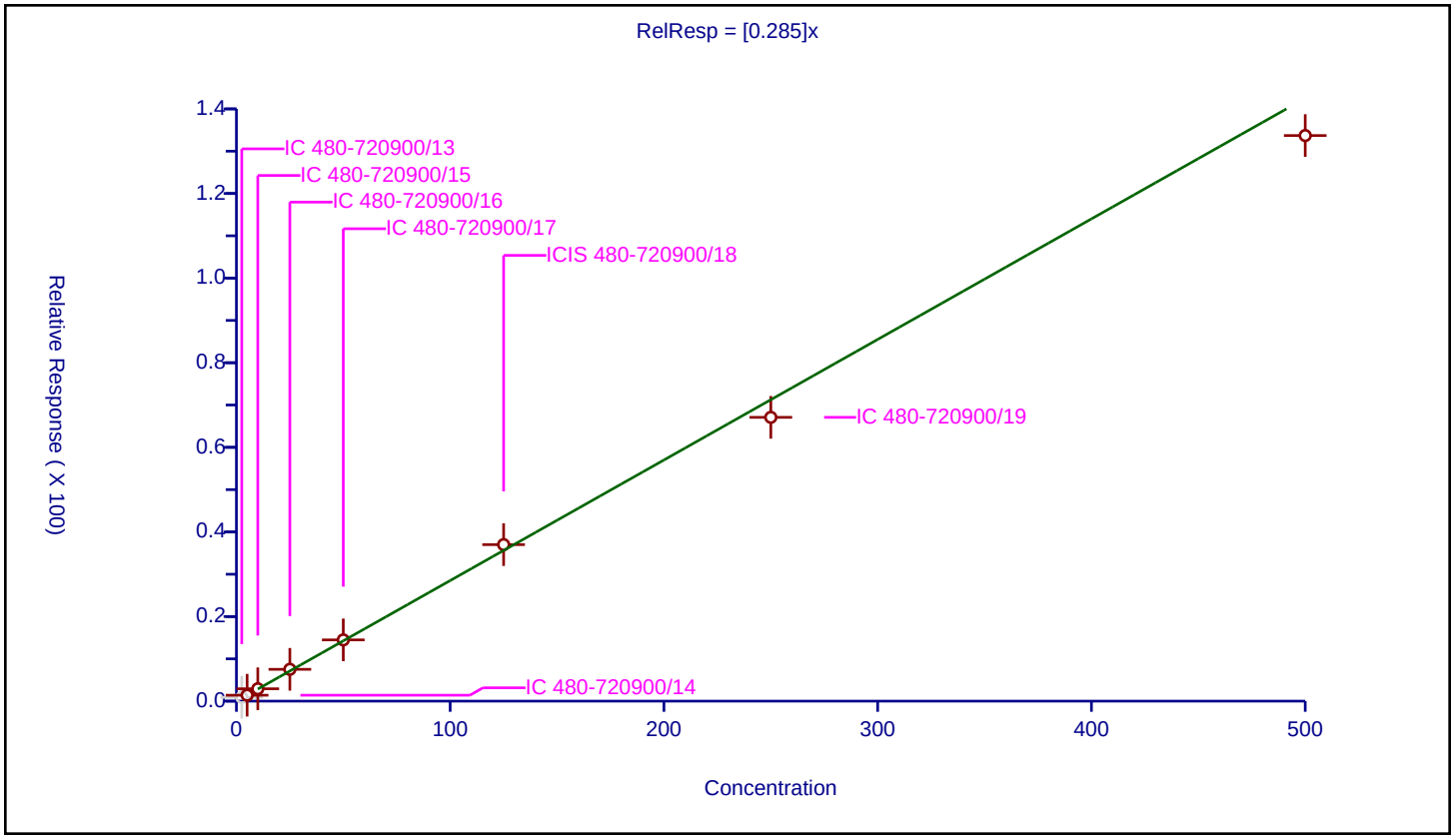
Curve Coefficients

Intercept:	0
Slope:	0.285

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	2.5	0.904903	25.0	160846.0	0.361961	N
2	IC 480-720900/14	5.0	1.403228	25.0	153325.0	0.280646	Y
3	IC 480-720900/15	10.0	2.922936	25.0	157701.0	0.292294	Y
4	IC 480-720900/16	25.0	7.52022	25.0	167535.0	0.300809	Y
5	IC 480-720900/17	50.0	14.477197	25.0	159563.0	0.289544	Y
6	ICIS 480-720900/18	125.0	37.000667	25.0	164820.0	0.296005	Y
7	IC 480-720900/19	250.0	67.087837	25.0	166797.0	0.268351	Y
8	IC 480-720900/20	500.0	133.698883	25.0	171249.0	0.267398	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

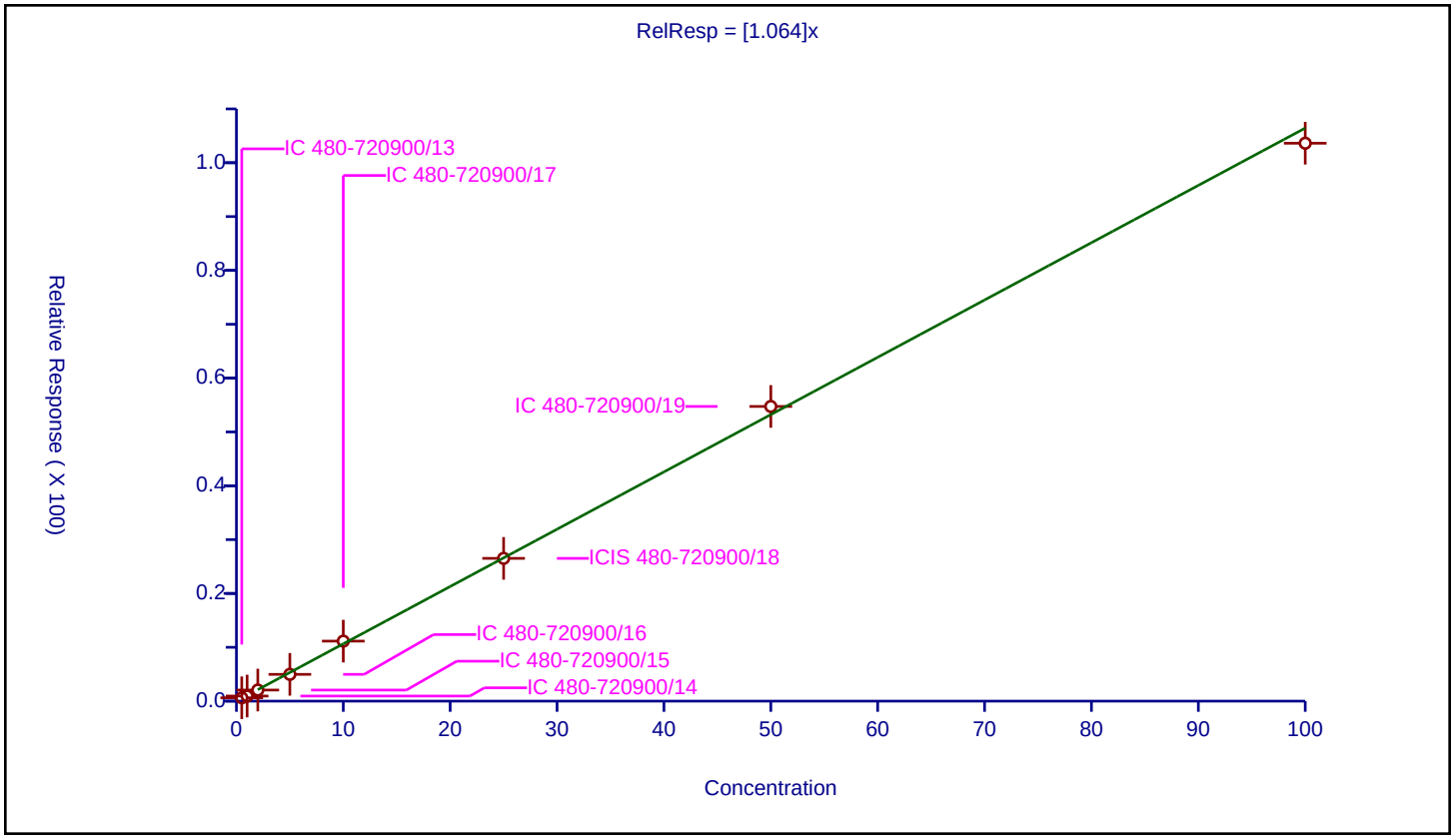
Curve Coefficients

Intercept:	0
Slope:	1.064

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.619381	25.0	160846.0	1.238763	Y
2	IC 480-720900/14	1.0	0.945377	25.0	153325.0	0.945377	Y
3	IC 480-720900/15	2.0	2.058801	25.0	157701.0	1.029401	Y
4	IC 480-720900/16	5.0	4.974632	25.0	167535.0	0.994926	Y
5	IC 480-720900/17	10.0	11.147164	25.0	159563.0	1.114716	Y
6	ICIS 480-720900/18	25.0	26.518626	25.0	164820.0	1.060745	Y
7	IC 480-720900/19	50.0	54.735847	25.0	166797.0	1.094717	Y
8	IC 480-720900/20	100.0	103.621919	25.0	171249.0	1.036219	Y



Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

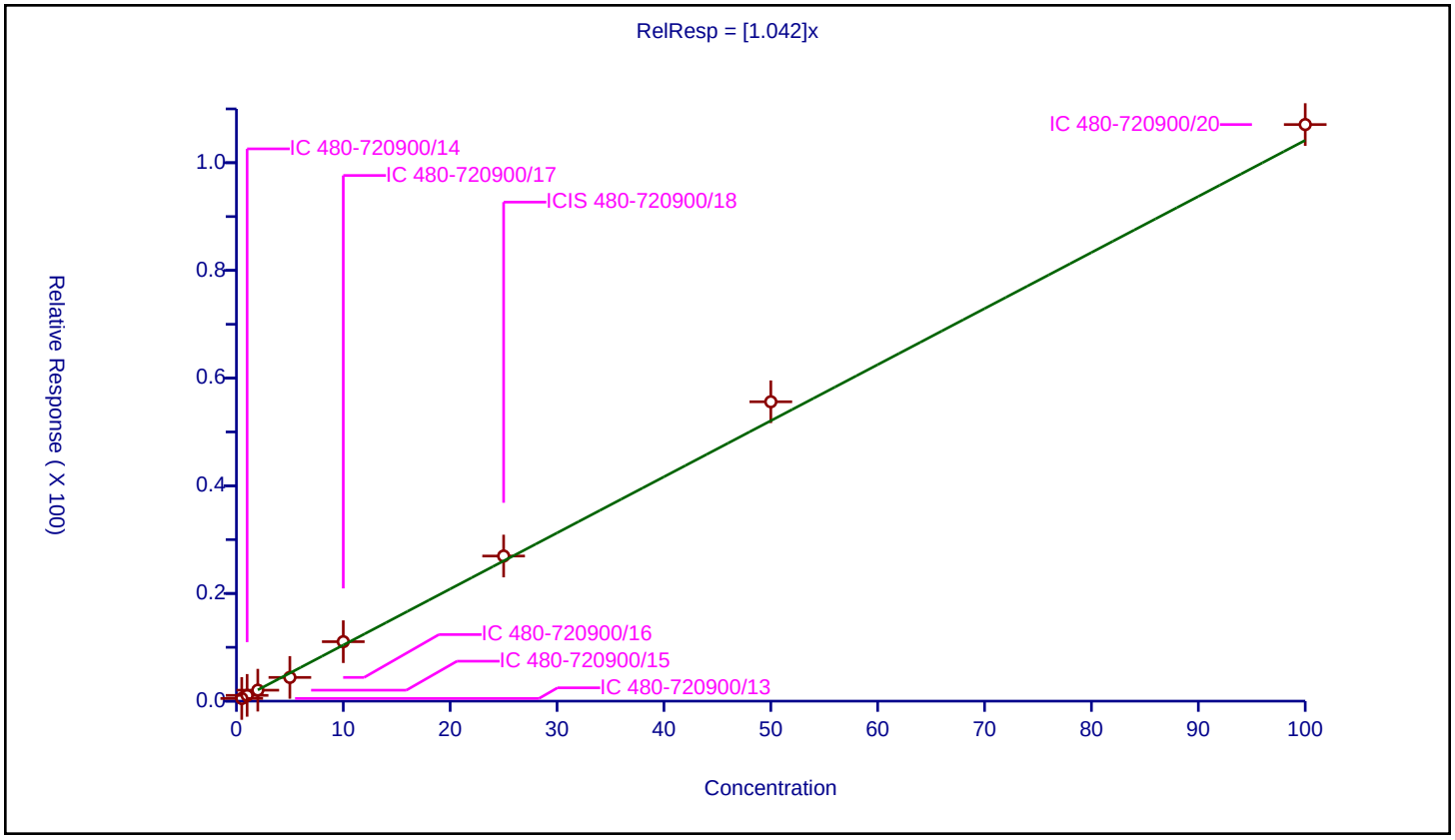
Curve Coefficients

Intercept:	0
Slope:	1.042

Error Coefficients

Relative Standard Deviation:	7.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.499391	25.0	160846.0	0.998781	Y
2	IC 480-720900/14	1.0	1.068808	25.0	153325.0	1.068808	Y
3	IC 480-720900/15	2.0	2.036449	25.0	157701.0	1.018224	Y
4	IC 480-720900/16	5.0	4.40699	25.0	167535.0	0.881398	Y
5	IC 480-720900/17	10.0	11.045794	25.0	159563.0	1.104579	Y
6	ICIS 480-720900/18	25.0	26.952736	25.0	164820.0	1.078109	Y
7	IC 480-720900/19	50.0	55.606066	25.0	166797.0	1.112121	Y
8	IC 480-720900/20	100.0	107.08953	25.0	171249.0	1.070895	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

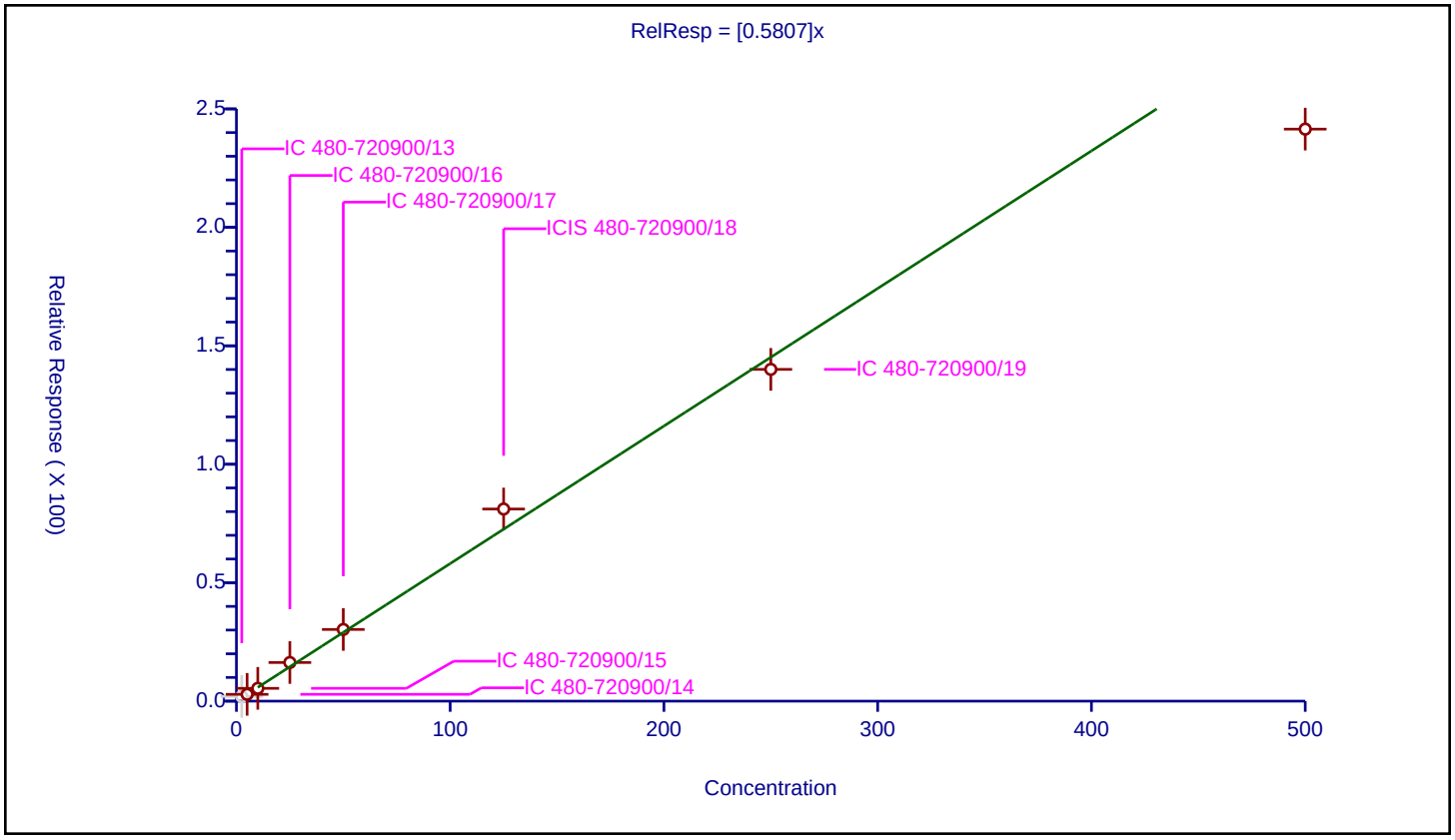
Curve Coefficients

Intercept:	0
Slope:	0.5807

Error Coefficients

Relative Standard Deviation:	10.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	2.5	1.992123	25.0	160846.0	0.796849	N
2	IC 480-720900/14	5.0	2.875102	25.0	153325.0	0.57502	Y
3	IC 480-720900/15	10.0	5.400885	25.0	157701.0	0.540089	Y
4	IC 480-720900/16	25.0	16.310472	25.0	167535.0	0.652419	Y
5	IC 480-720900/17	50.0	30.263125	25.0	159563.0	0.605262	Y
6	ICIS 480-720900/18	125.0	81.095589	25.0	164820.0	0.648765	Y
7	IC 480-720900/19	250.0	140.041937	25.0	166797.0	0.560168	Y
8	IC 480-720900/20	500.0	241.463016	25.0	171249.0	0.482926	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

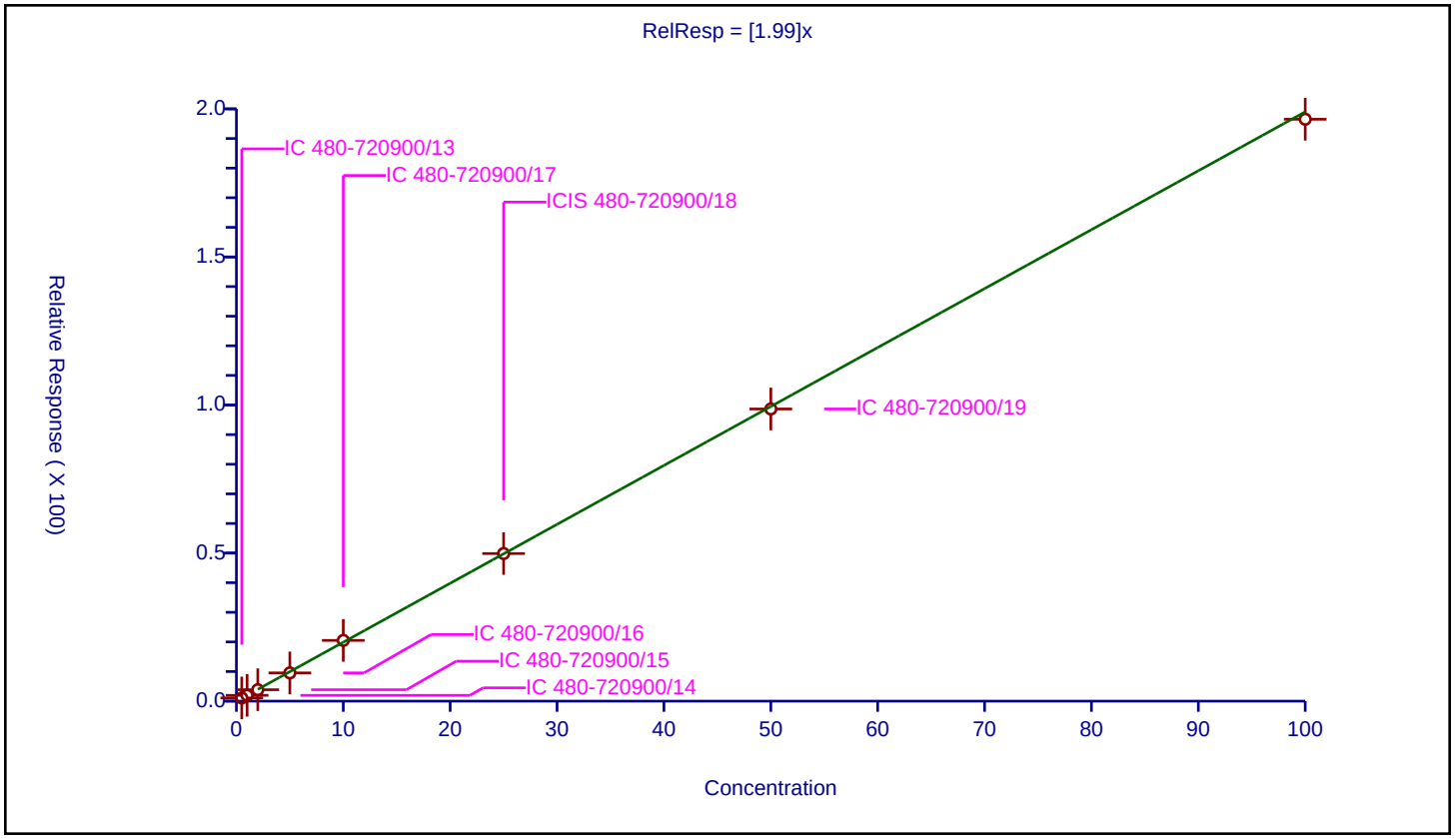
Curve Coefficients

Intercept:	0
Slope:	1.99

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.073542	25.0	160846.0	2.147085	Y
2	IC 480-720900/14	1.0	1.955161	25.0	153325.0	1.955161	Y
3	IC 480-720900/15	2.0	3.853812	25.0	157701.0	1.926906	Y
4	IC 480-720900/16	5.0	9.540544	25.0	167535.0	1.908109	Y
5	IC 480-720900/17	10.0	20.511021	25.0	159563.0	2.051102	Y
6	ICIS 480-720900/18	25.0	49.845892	25.0	164820.0	1.993836	Y
7	IC 480-720900/19	50.0	98.661697	25.0	166797.0	1.973234	Y
8	IC 480-720900/20	100.0	196.500418	25.0	171249.0	1.965004	Y



Calibration / Carbon disulfide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

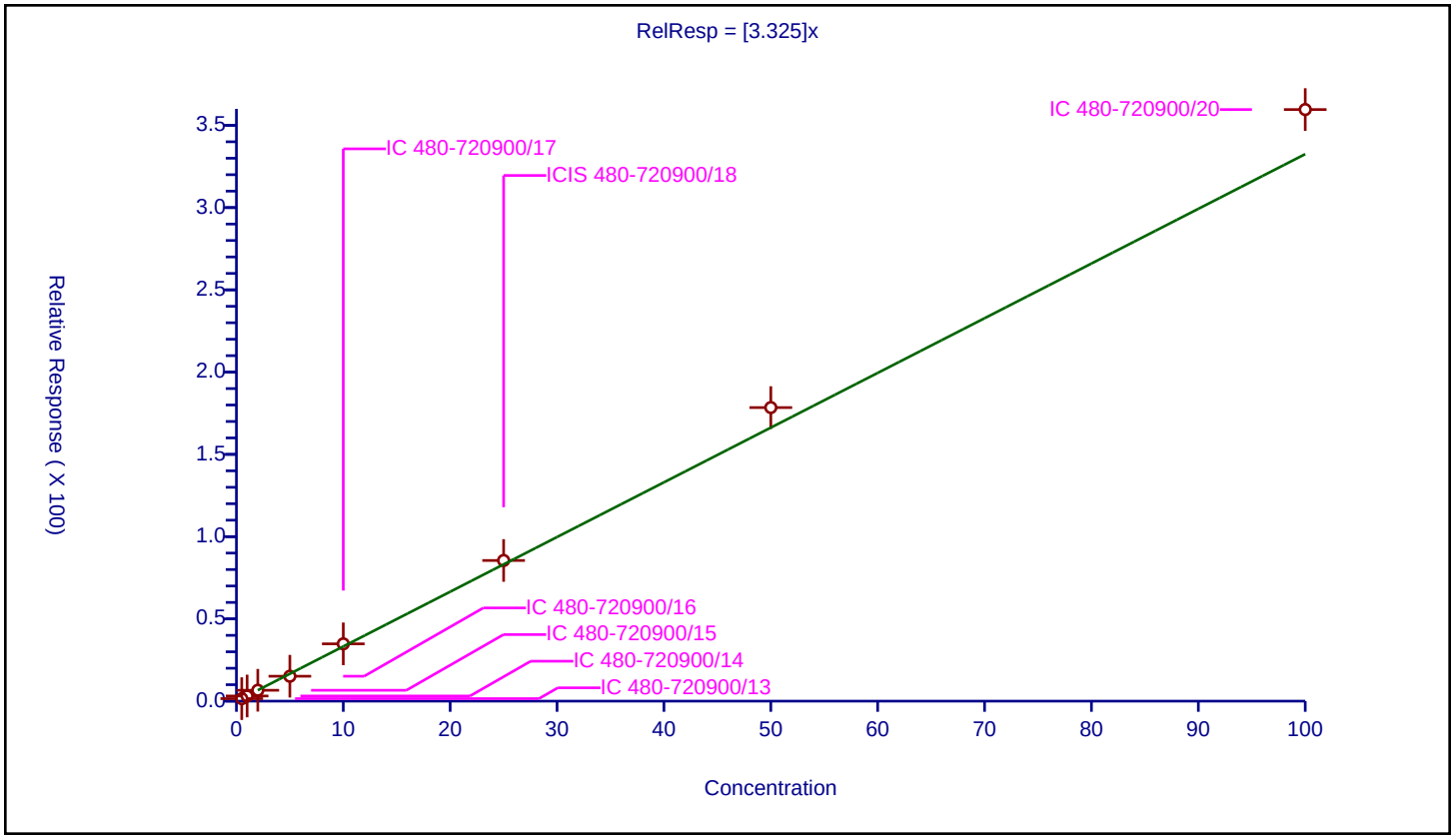
Curve Coefficients

Intercept:	0
Slope:	3.325

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.532366	25.0	160846.0	3.064733	Y
2	IC 480-720900/14	1.0	3.133866	25.0	153325.0	3.133866	Y
3	IC 480-720900/15	2.0	6.612989	25.0	157701.0	3.306495	Y
4	IC 480-720900/16	5.0	15.137732	25.0	167535.0	3.027546	Y
5	IC 480-720900/17	10.0	34.824176	25.0	159563.0	3.482418	Y
6	ICIS 480-720900/18	25.0	85.501759	25.0	164820.0	3.42007	Y
7	IC 480-720900/19	50.0	178.4524	25.0	166797.0	3.569048	Y
8	IC 480-720900/20	100.0	359.597428	25.0	171249.0	3.595974	Y



Calibration / 3-Chloro-1-propene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

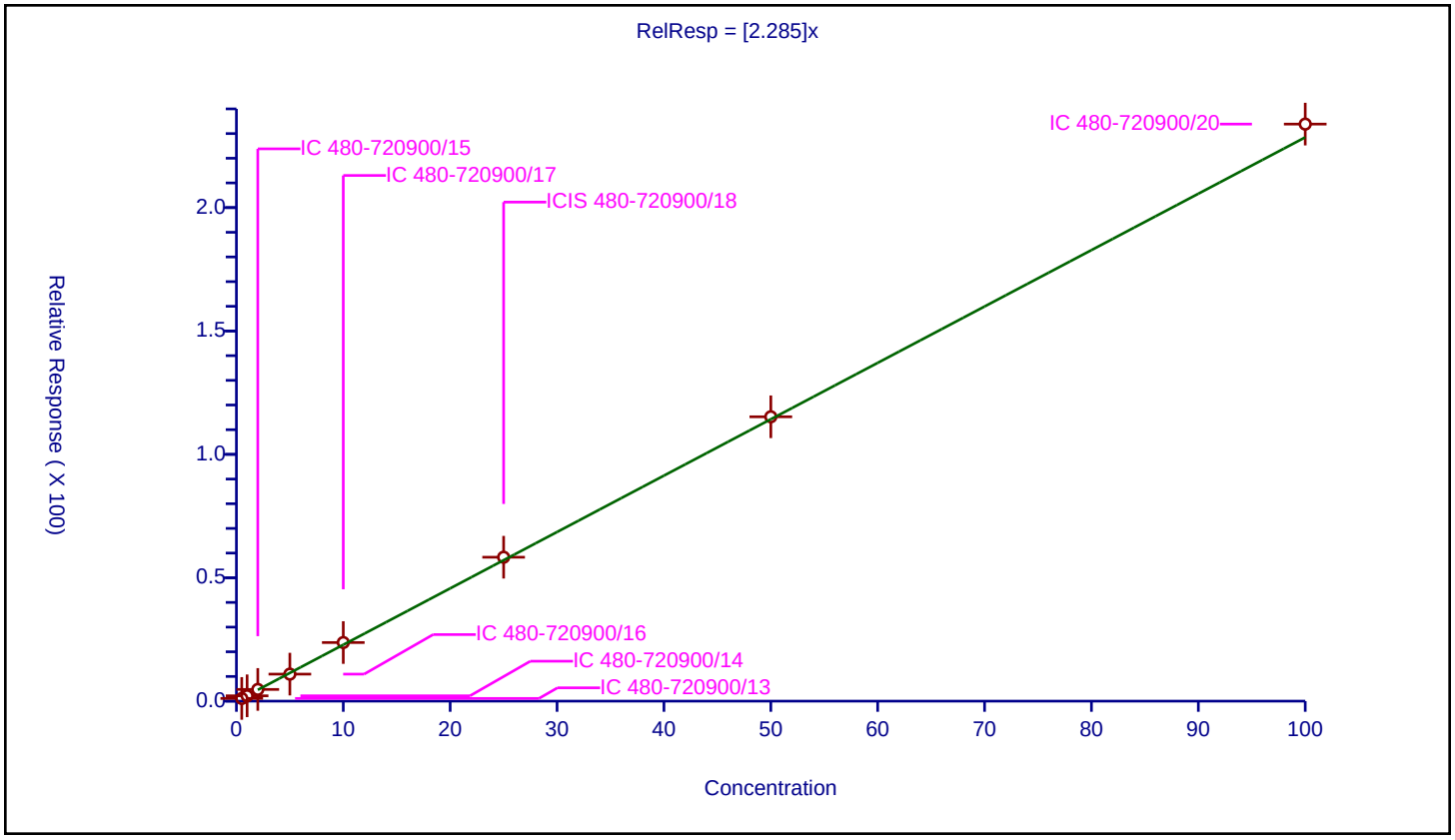
Curve Coefficients

Intercept:	0
Slope:	2.285

Error Coefficients

Relative Standard Deviation:	3.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.096857	25.0	160846.0	2.193713	Y
2	IC 480-720900/14	1.0	2.169248	25.0	153325.0	2.169248	Y
3	IC 480-720900/15	2.0	4.744263	25.0	157701.0	2.372131	Y
4	IC 480-720900/16	5.0	10.953831	25.0	167535.0	2.190766	Y
5	IC 480-720900/17	10.0	23.755037	25.0	159563.0	2.375504	Y
6	ICIS 480-720900/18	25.0	58.325446	25.0	164820.0	2.333018	Y
7	IC 480-720900/19	50.0	115.236635	25.0	166797.0	2.304733	Y
8	IC 480-720900/20	100.0	233.836402	25.0	171249.0	2.338364	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

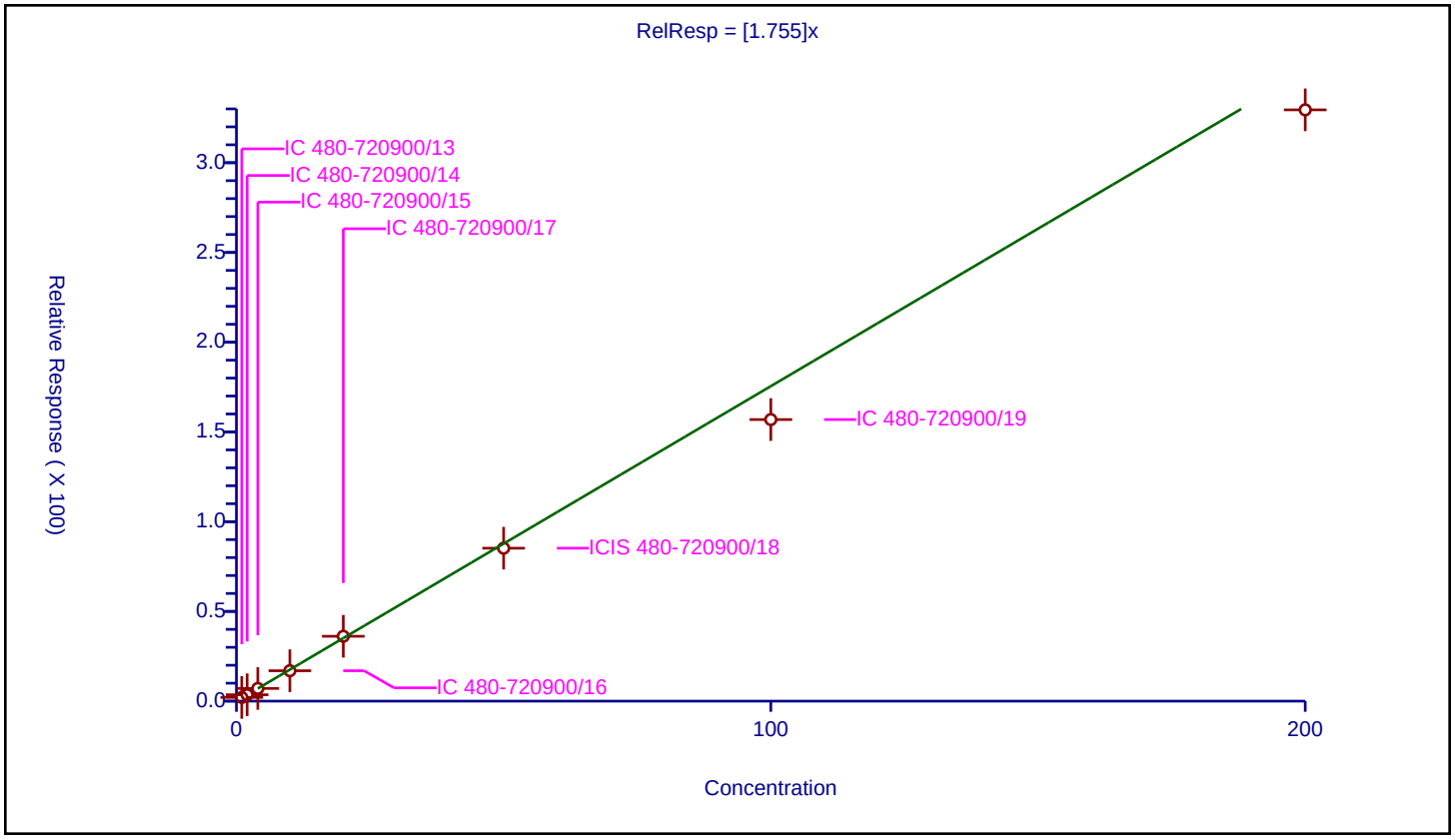
Curve Coefficients

Intercept:	0
Slope:	1.755

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	1.0	2.068438	25.0	160846.0	2.068438	Y
2	IC 480-720900/14	2.0	3.559106	25.0	153325.0	1.779553	Y
3	IC 480-720900/15	4.0	7.078268	25.0	157701.0	1.769567	Y
4	IC 480-720900/16	10.0	16.941535	25.0	167535.0	1.694153	Y
5	IC 480-720900/17	20.0	36.143404	25.0	159563.0	1.80717	Y
6	ICIS 480-720900/18	50.0	85.218572	25.0	164820.0	1.704371	Y
7	IC 480-720900/19	100.0	156.897156	25.0	166797.0	1.568972	Y
8	IC 480-720900/20	200.0	329.470829	25.0	171249.0	1.647354	Y



Calibration / Methylene Chloride

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

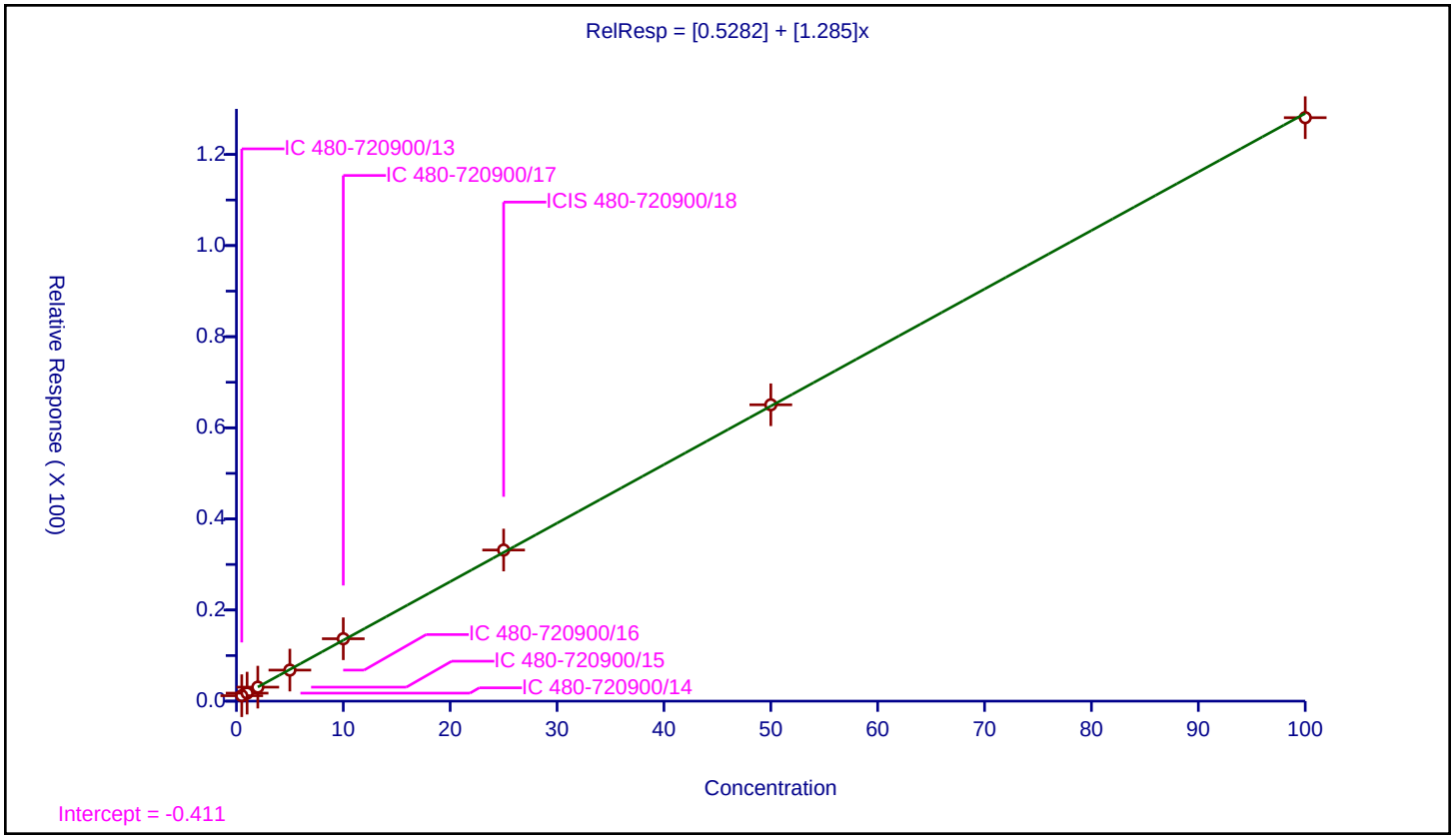
Curve Coefficients

Intercept:	0.5282
Slope:	1.285

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.193378	25.0	160846.0	2.386755	Y
2	IC 480-720900/14	1.0	1.758519	25.0	153325.0	1.758519	Y
3	IC 480-720900/15	2.0	3.072111	25.0	157701.0	1.536056	Y
4	IC 480-720900/16	5.0	6.813352	25.0	167535.0	1.36267	Y
5	IC 480-720900/17	10.0	13.696784	25.0	159563.0	1.369678	Y
6	ICIS 480-720900/18	25.0	33.169518	25.0	164820.0	1.326781	Y
7	IC 480-720900/19	50.0	65.05123	25.0	166797.0	1.301025	Y
8	IC 480-720900/20	100.0	128.071405	25.0	171249.0	1.280714	Y



Calibration / 2-Methyl-2-propanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

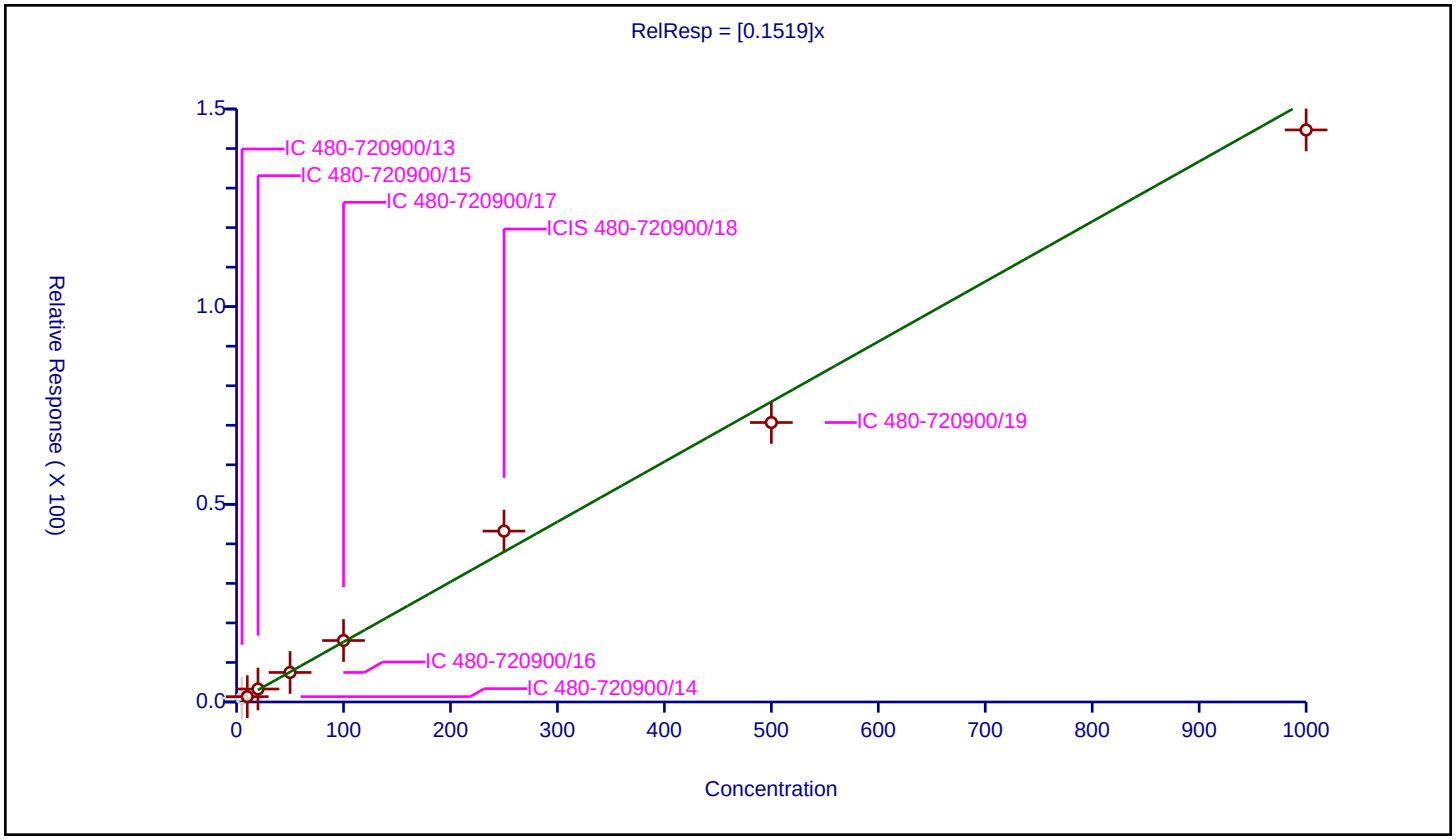
Curve Coefficients

Intercept:	0
Slope:	0.1519

Error Coefficients

Relative Standard Deviation:	8.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	5.0	0.977799	25.0	160846.0	0.19556	N
2	IC 480-720900/14	10.0	1.354476	25.0	153325.0	0.135448	Y
3	IC 480-720900/15	20.0	3.280892	25.0	157701.0	0.164045	Y
4	IC 480-720900/16	50.0	7.47411	25.0	167535.0	0.149482	Y
5	IC 480-720900/17	100.0	15.546837	25.0	159563.0	0.155468	Y
6	ICIS 480-720900/18	250.0	43.227157	25.0	164820.0	0.172909	Y
7	IC 480-720900/19	500.0	70.698514	25.0	166797.0	0.141397	Y
8	IC 480-720900/20	1000.0	144.707998	25.0	171249.0	0.144708	Y



Calibration / Methyl tert-butyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

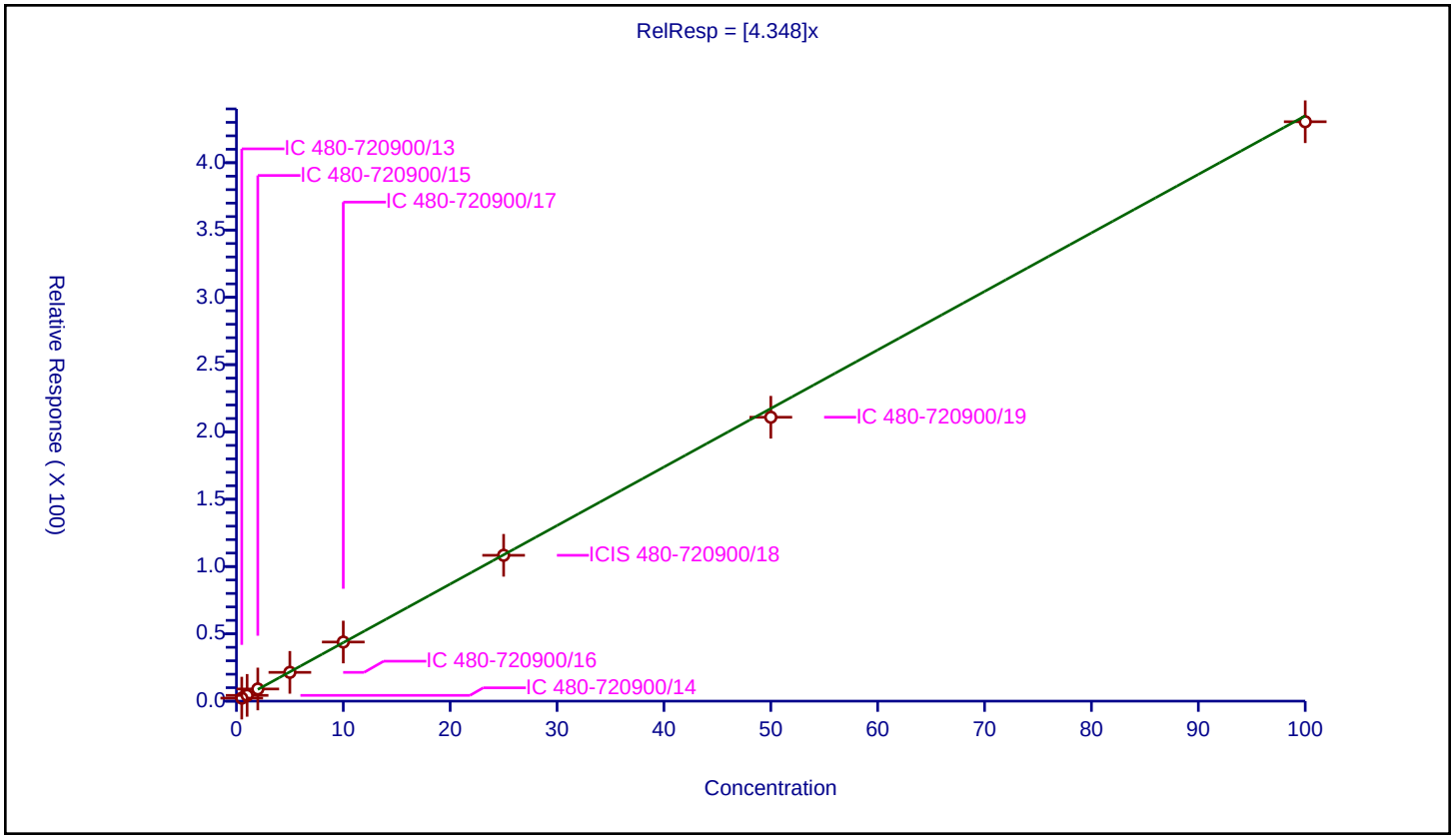
Curve Coefficients

Intercept:	0
Slope:	4.348

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	2.237699	25.0	160846.0	4.475399	Y
2	IC 480-720900/14	1.0	4.274743	25.0	153325.0	4.274743	Y
3	IC 480-720900/15	2.0	9.024356	25.0	157701.0	4.512178	Y
4	IC 480-720900/16	5.0	21.377324	25.0	167535.0	4.275465	Y
5	IC 480-720900/17	10.0	43.913376	25.0	159563.0	4.391338	Y
6	ICIS 480-720900/18	25.0	108.350928	25.0	164820.0	4.334037	Y
7	IC 480-720900/19	50.0	210.918811	25.0	166797.0	4.218376	Y
8	IC 480-720900/20	100.0	430.455068	25.0	171249.0	4.304551	Y



Calibration / trans-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

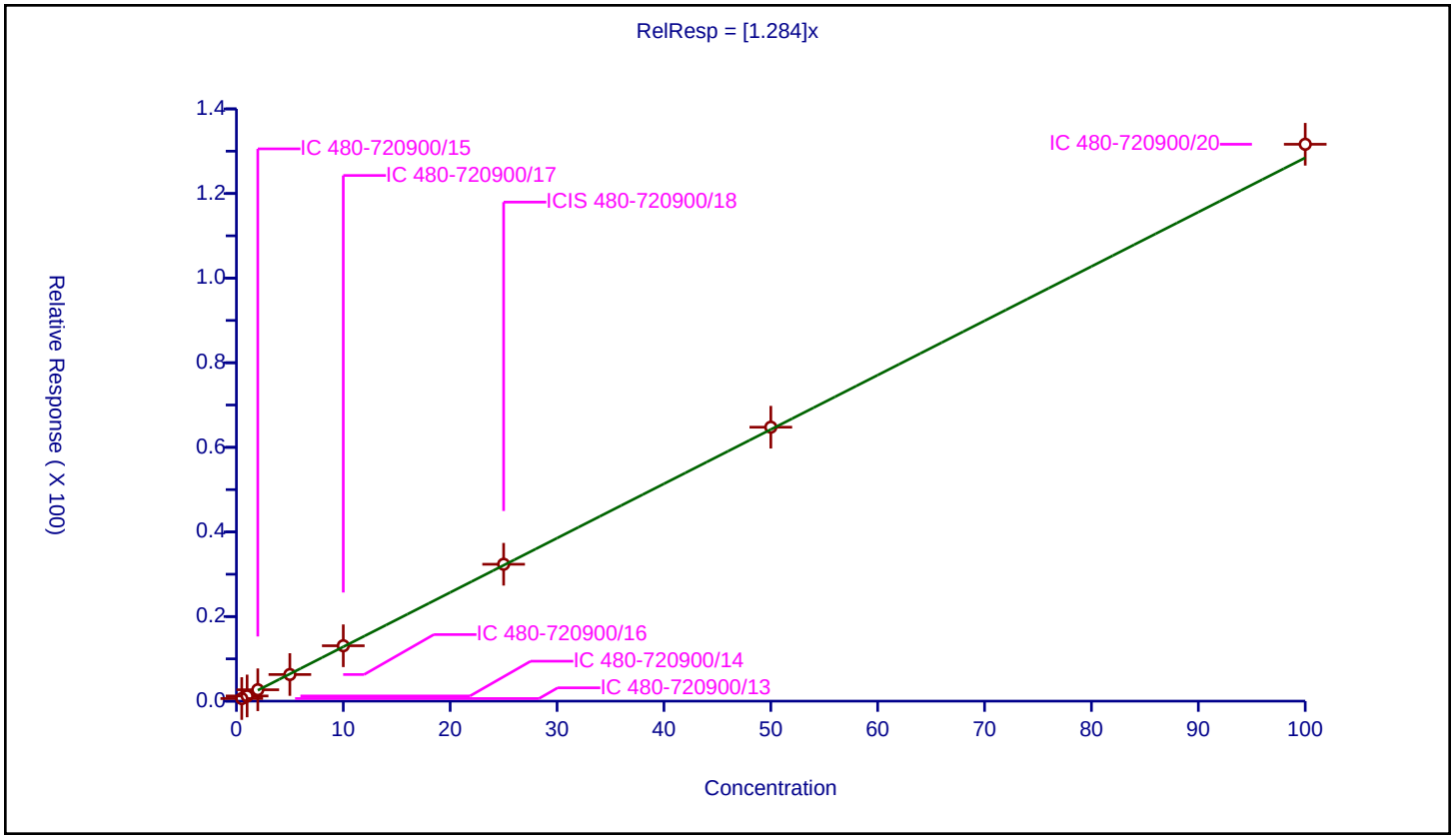
Curve Coefficients

Intercept:	0
Slope:	1.284

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.615496	25.0	160846.0	1.230991	Y
2	IC 480-720900/14	1.0	1.225827	25.0	153325.0	1.225827	Y
3	IC 480-720900/15	2.0	2.690376	25.0	157701.0	1.345188	Y
4	IC 480-720900/16	5.0	6.29361	25.0	167535.0	1.258722	Y
5	IC 480-720900/17	10.0	13.089814	25.0	159563.0	1.308981	Y
6	ICIS 480-720900/18	25.0	32.360302	25.0	164820.0	1.294412	Y
7	IC 480-720900/19	50.0	64.755961	25.0	166797.0	1.295119	Y
8	IC 480-720900/20	100.0	131.637265	25.0	171249.0	1.316373	Y



Calibration / Acrylonitrile

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

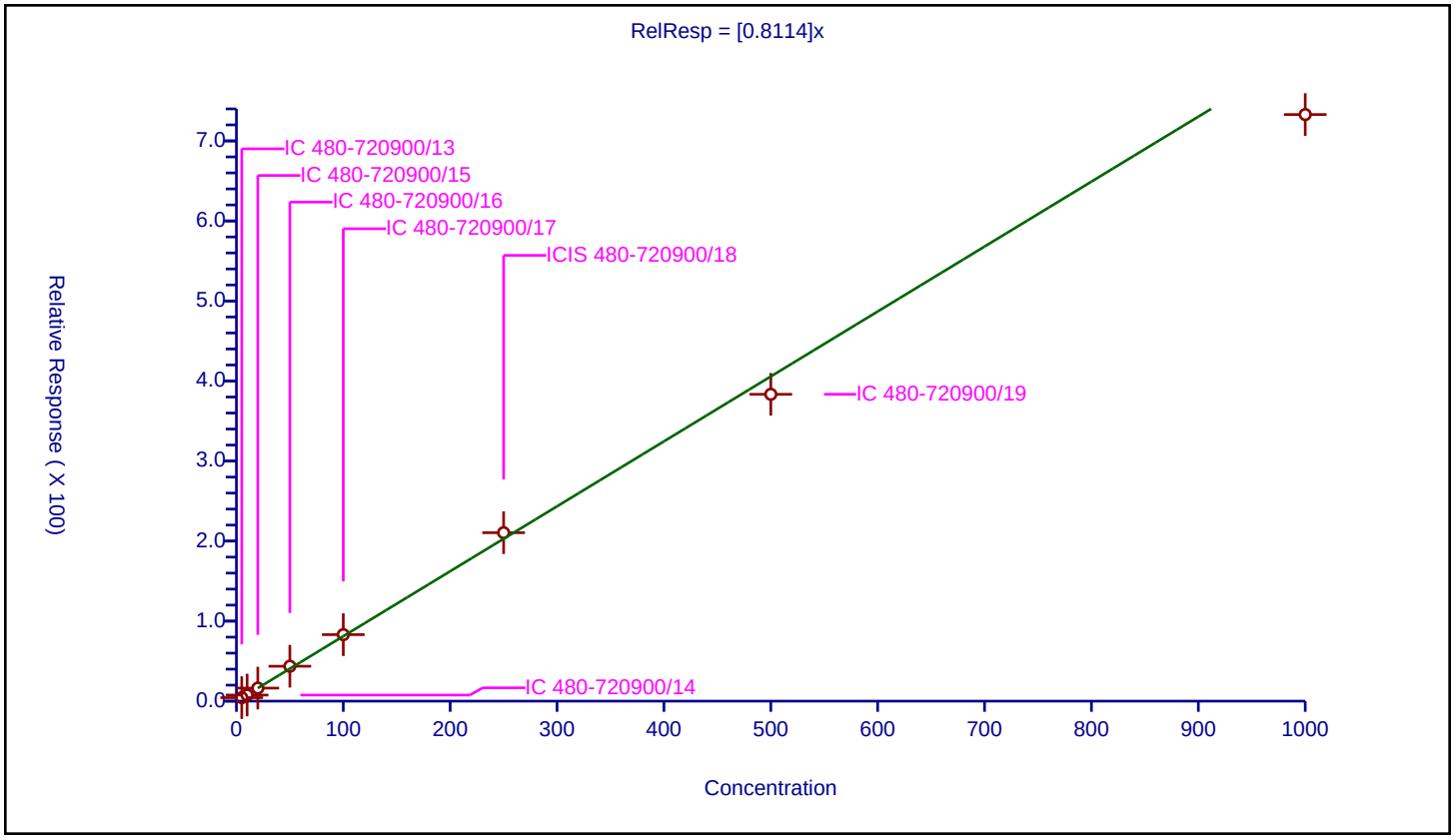
Curve Coefficients

Intercept:	0
Slope:	0.8114

Error Coefficients

Relative Standard Deviation:	6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	5.0	4.363957	25.0	160846.0	0.872791	Y
2	IC 480-720900/14	10.0	7.592369	25.0	153325.0	0.759237	Y
3	IC 480-720900/15	20.0	16.297772	25.0	157701.0	0.814889	Y
4	IC 480-720900/16	50.0	43.615364	25.0	167535.0	0.872307	Y
5	IC 480-720900/17	100.0	83.064996	25.0	159563.0	0.83065	Y
6	ICIS 480-720900/18	250.0	210.470362	25.0	164820.0	0.841881	Y
7	IC 480-720900/19	500.0	383.400631	25.0	166797.0	0.766801	Y
8	IC 480-720900/20	1000.0	732.935083	25.0	171249.0	0.732935	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

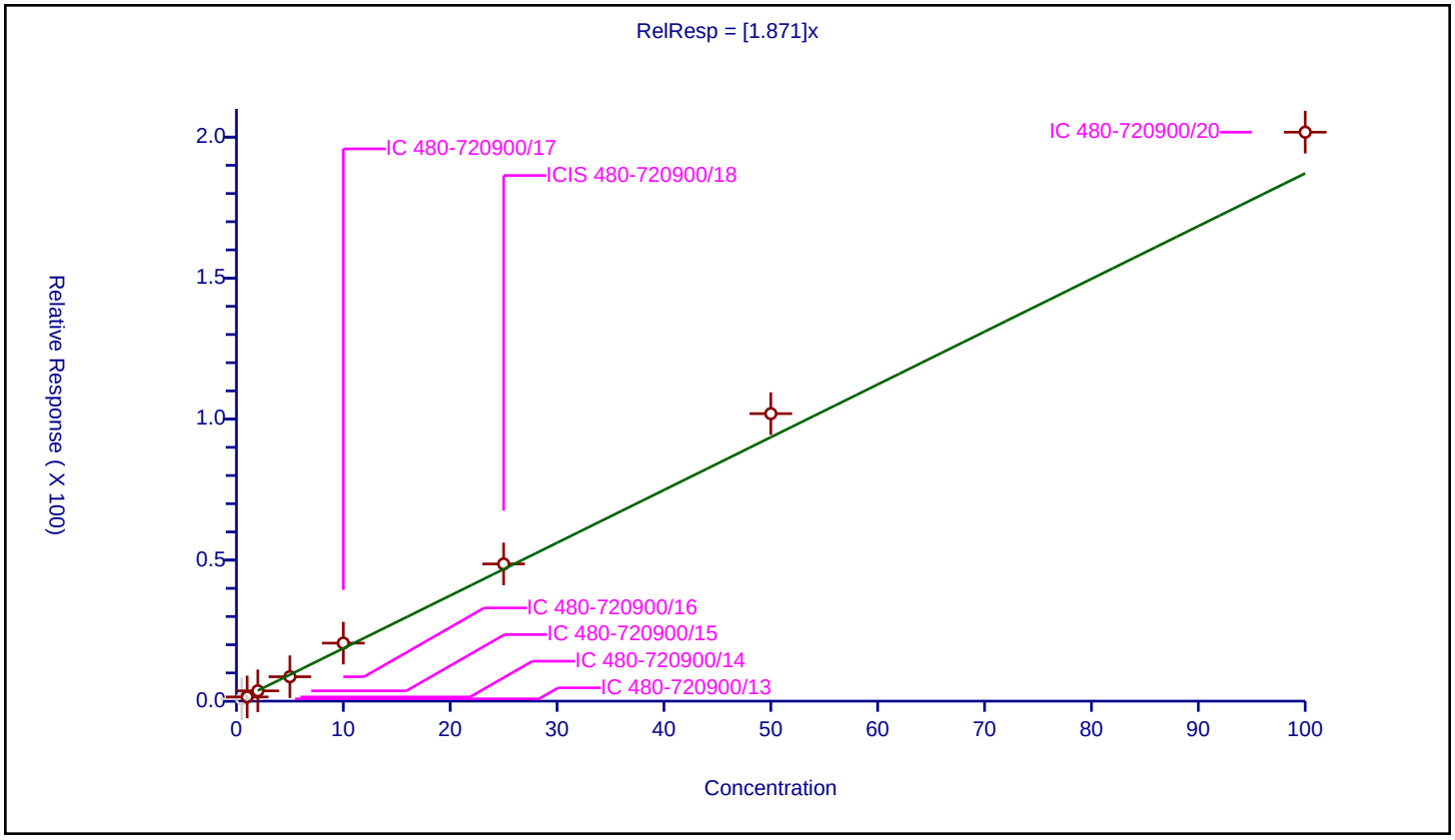
Curve Coefficients

Intercept:	0
Slope:	1.871

Error Coefficients

Relative Standard Deviation:	11.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.812268	25.0	160846.0	1.624535	N
2	IC 480-720900/14	1.0	1.486059	25.0	153325.0	1.486059	Y
3	IC 480-720900/15	2.0	3.647092	25.0	157701.0	1.823546	Y
4	IC 480-720900/16	5.0	8.657594	25.0	167535.0	1.731519	Y
5	IC 480-720900/17	10.0	20.572282	25.0	159563.0	2.057228	Y
6	ICIS 480-720900/18	25.0	48.645795	25.0	164820.0	1.945832	Y
7	IC 480-720900/19	50.0	101.939034	25.0	166797.0	2.038781	Y
8	IC 480-720900/20	100.0	201.74439	25.0	171249.0	2.017444	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

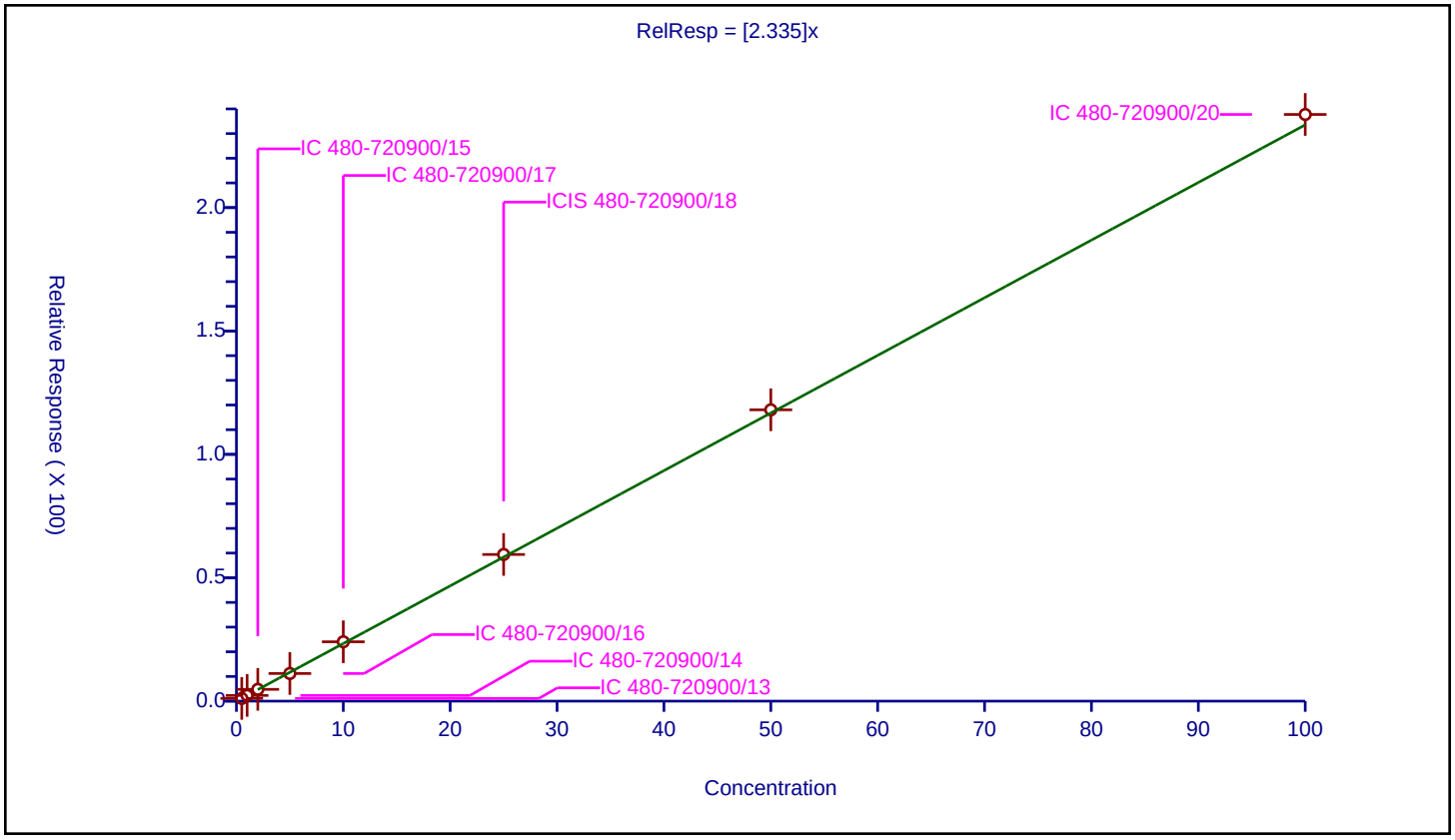
Curve Coefficients

Intercept:	0
Slope:	2.335

Error Coefficients

Relative Standard Deviation:	3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.108514	25.0	160846.0	2.217027	Y
2	IC 480-720900/14	1.0	2.314039	25.0	153325.0	2.314039	Y
3	IC 480-720900/15	2.0	4.779932	25.0	157701.0	2.389966	Y
4	IC 480-720900/16	5.0	11.200943	25.0	167535.0	2.240189	Y
5	IC 480-720900/17	10.0	24.050062	25.0	159563.0	2.405006	Y
6	ICIS 480-720900/18	25.0	59.428619	25.0	164820.0	2.377145	Y
7	IC 480-720900/19	50.0	118.064174	25.0	166797.0	2.361283	Y
8	IC 480-720900/20	100.0	237.740804	25.0	171249.0	2.377408	Y



Calibration / Vinyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

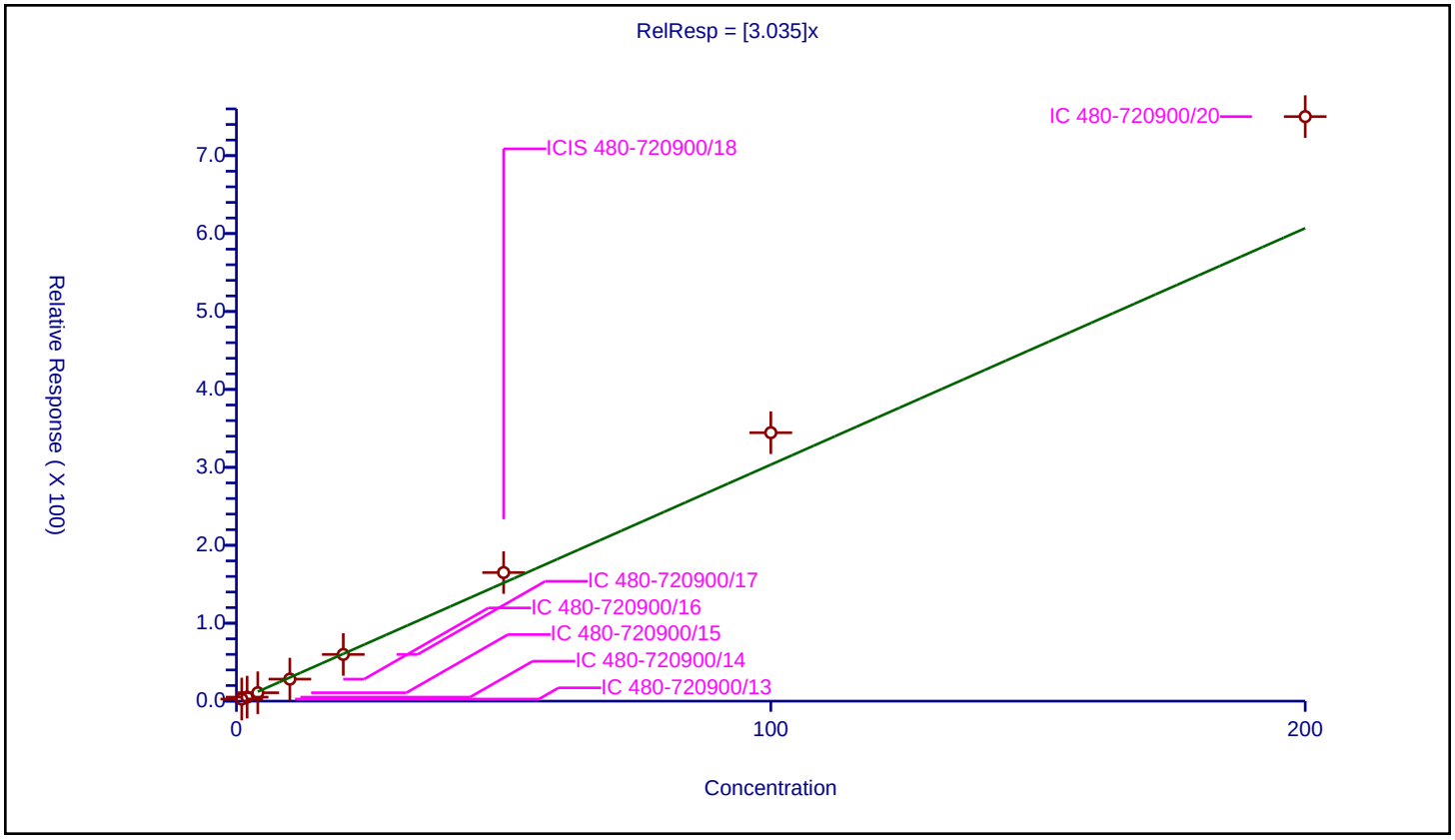
Curve Coefficients

Intercept:	0
Slope:	3.035

Error Coefficients

Relative Standard Deviation:	13.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	1.0	2.69155	25.0	160846.0	2.69155	Y
2	IC 480-720900/14	2.0	5.150171	25.0	153325.0	2.575086	Y
3	IC 480-720900/15	4.0	10.772284	25.0	157701.0	2.693071	Y
4	IC 480-720900/16	10.0	28.250216	25.0	167535.0	2.825022	Y
5	IC 480-720900/17	20.0	59.914736	25.0	159563.0	2.995737	Y
6	ICIS 480-720900/18	50.0	165.013045	25.0	164820.0	3.300261	Y
7	IC 480-720900/19	100.0	344.50185	25.0	166797.0	3.445018	Y
8	IC 480-720900/20	200.0	750.083212	25.0	171249.0	3.750416	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

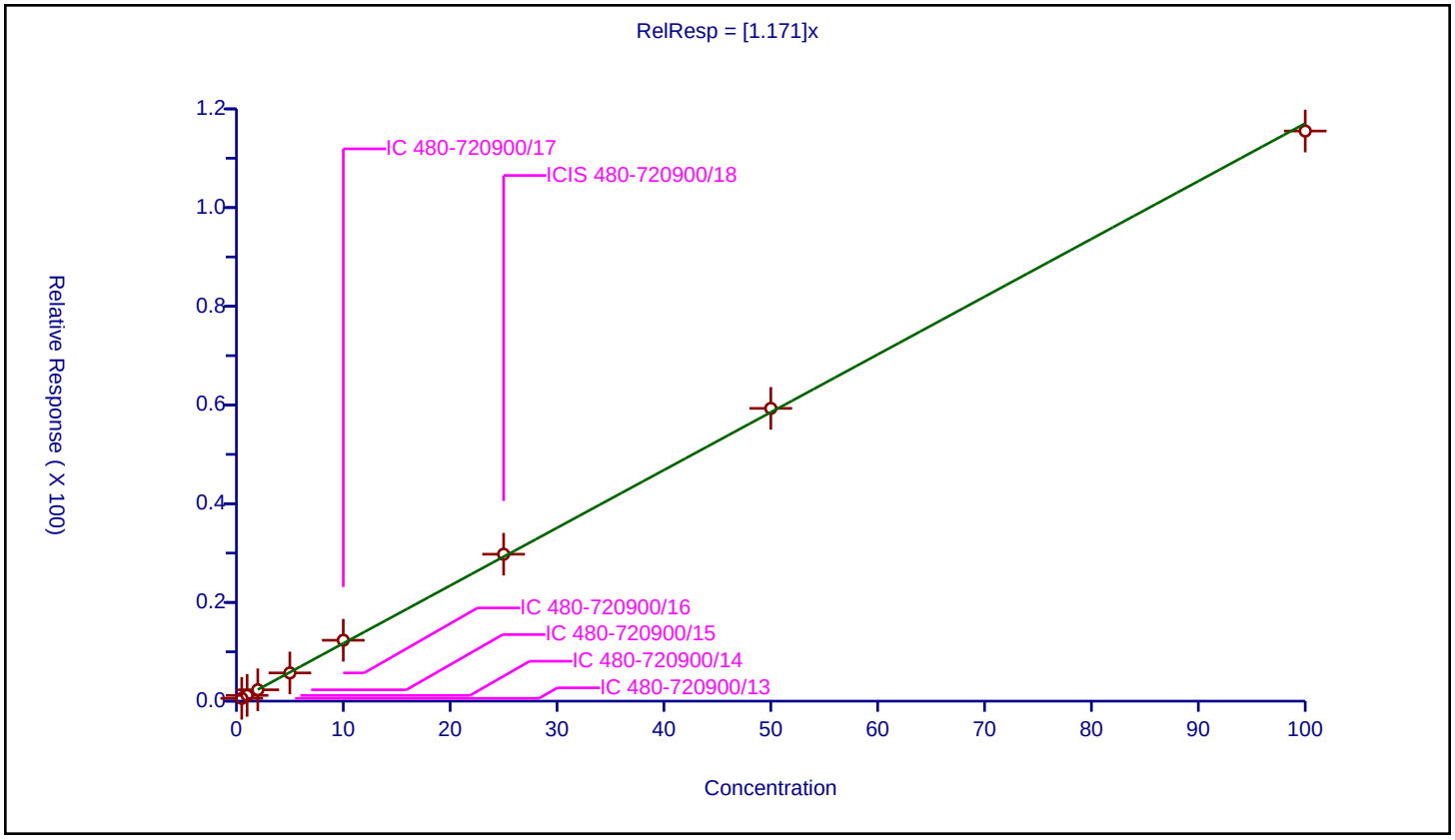
Curve Coefficients

Intercept:	0
Slope:	1.171

Error Coefficients

Relative Standard Deviation:	2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.570266	25.0	160846.0	1.140532	Y
2	IC 480-720900/14	1.0	1.164683	25.0	153325.0	1.164683	Y
3	IC 480-720900/15	2.0	2.299288	25.0	157701.0	1.149644	Y
4	IC 480-720900/16	5.0	5.718357	25.0	167535.0	1.143671	Y
5	IC 480-720900/17	10.0	12.340267	25.0	159563.0	1.234027	Y
6	ICIS 480-720900/18	25.0	29.767625	25.0	164820.0	1.190705	Y
7	IC 480-720900/19	50.0	59.32196	25.0	166797.0	1.186439	Y
8	IC 480-720900/20	100.0	115.513813	25.0	171249.0	1.155138	Y



Calibration / cis-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

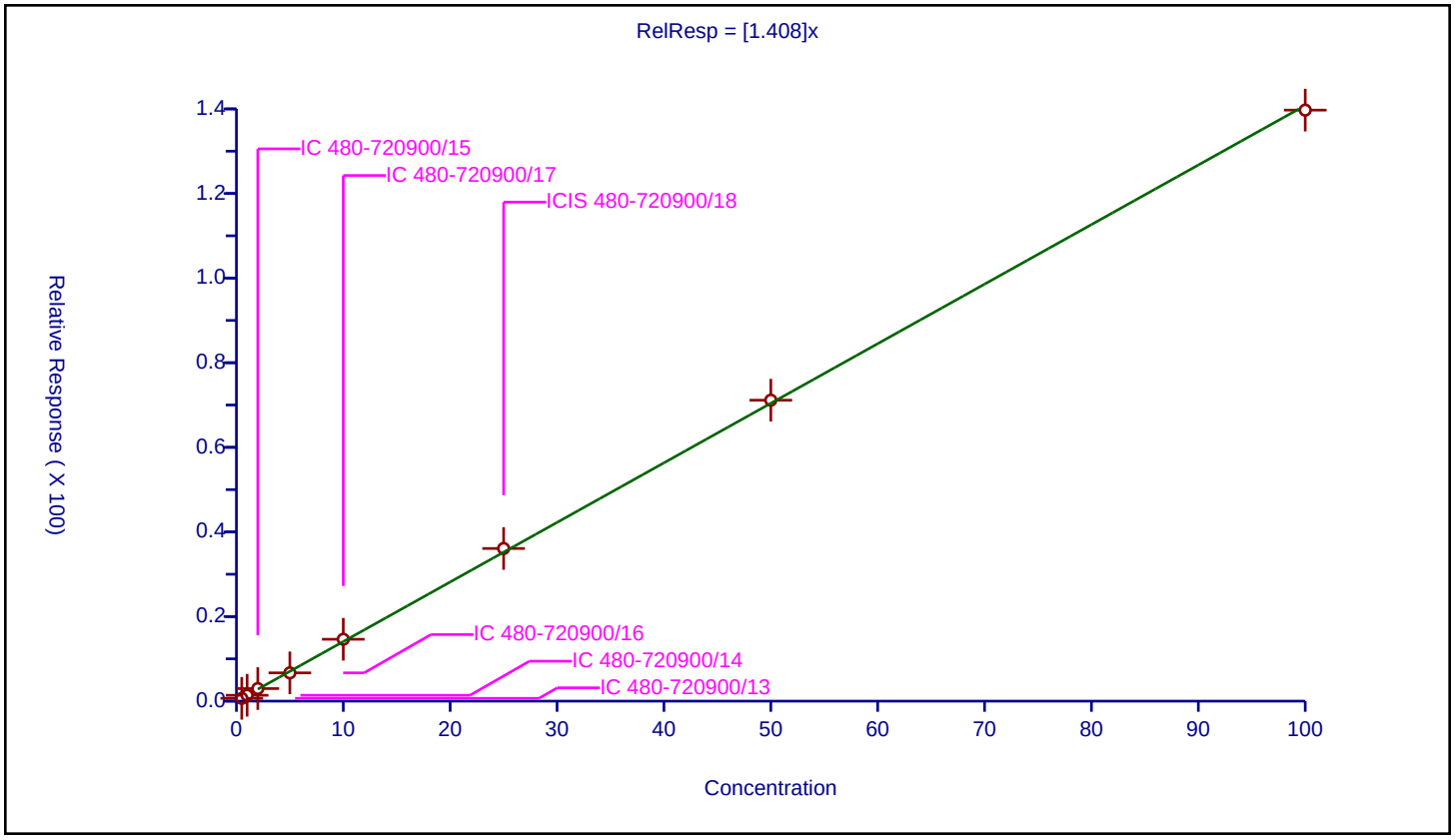
Curve Coefficients

Intercept:	0
Slope:	1.408

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.663057	25.0	160846.0	1.326113	Y
2	IC 480-720900/14	1.0	1.390673	25.0	153325.0	1.390673	Y
3	IC 480-720900/15	2.0	2.971446	25.0	157701.0	1.485723	Y
4	IC 480-720900/16	5.0	6.68323	25.0	167535.0	1.336646	Y
5	IC 480-720900/17	10.0	14.628078	25.0	159563.0	1.462808	Y
6	ICIS 480-720900/18	25.0	36.08391	25.0	164820.0	1.443356	Y
7	IC 480-720900/19	50.0	71.143216	25.0	166797.0	1.422864	Y
8	IC 480-720900/20	100.0	139.711181	25.0	171249.0	1.397112	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

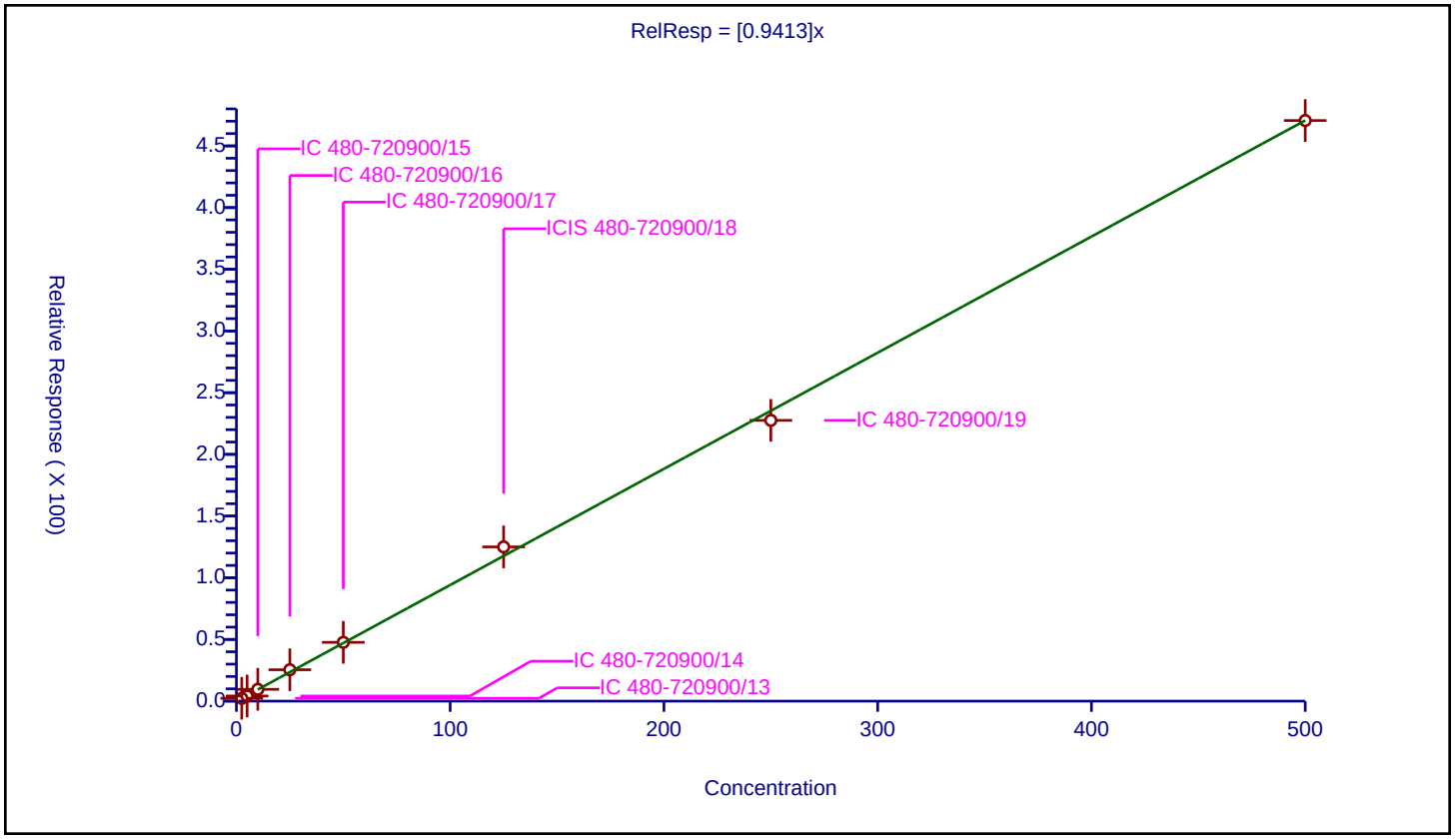
Curve Coefficients

Intercept:	0
Slope:	0.9413

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	2.5	2.301425	25.0	160846.0	0.92057	Y
2	IC 480-720900/14	5.0	4.154574	25.0	153325.0	0.830915	Y
3	IC 480-720900/15	10.0	9.563668	25.0	157701.0	0.956367	Y
4	IC 480-720900/16	25.0	25.443191	25.0	167535.0	1.017728	Y
5	IC 480-720900/17	50.0	47.659858	25.0	159563.0	0.953197	Y
6	ICIS 480-720900/18	125.0	125.007887	25.0	164820.0	1.000063	Y
7	IC 480-720900/19	250.0	227.550855	25.0	166797.0	0.910203	Y
8	IC 480-720900/20	500.0	470.561872	25.0	171249.0	0.941124	Y



Calibration / Chlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

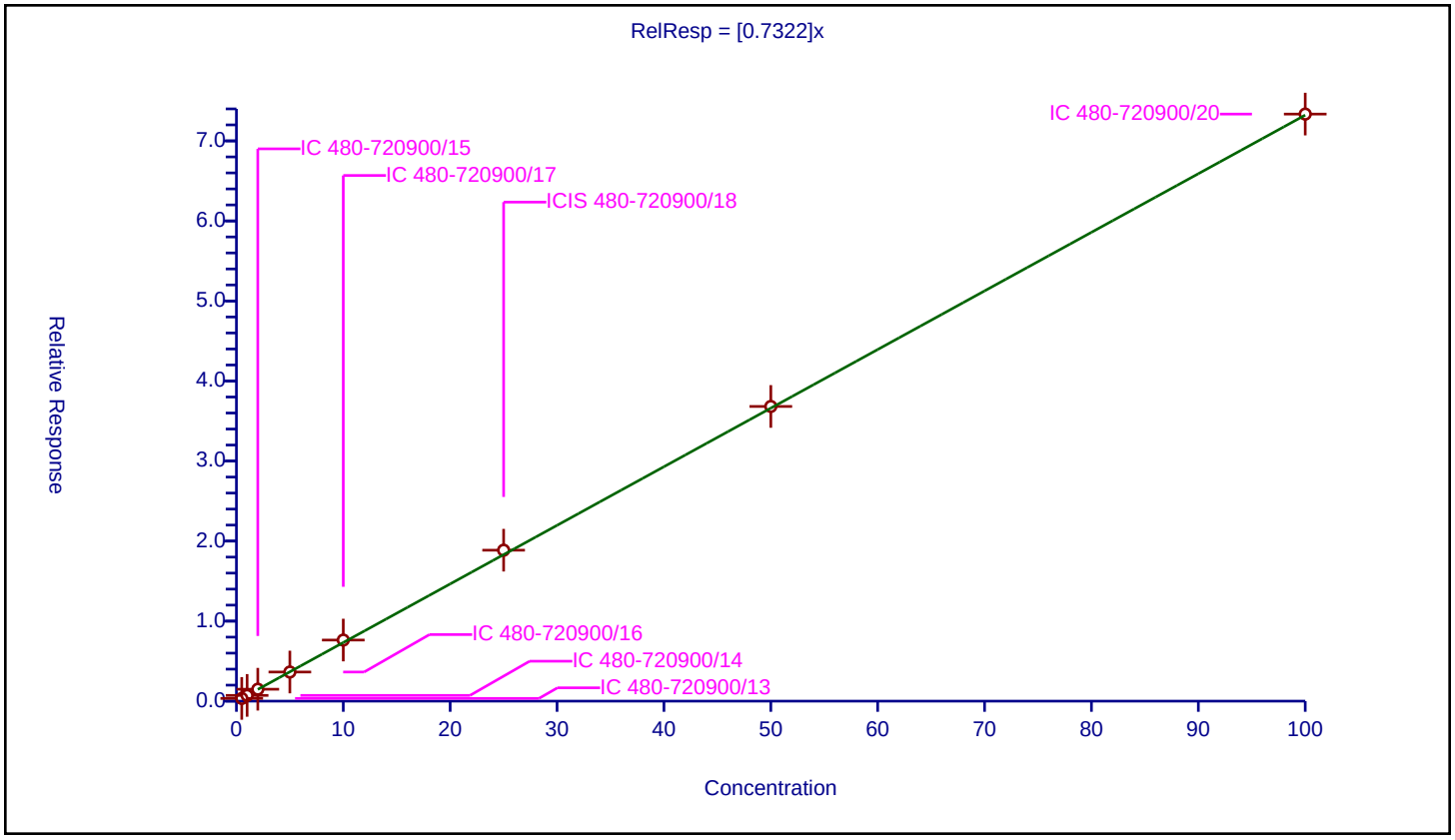
Curve Coefficients

Intercept:	0
Slope:	0.7322

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.340232	25.0	160846.0	0.680465	Y
2	IC 480-720900/14	1.0	0.717756	25.0	153325.0	0.717756	Y
3	IC 480-720900/15	2.0	1.489369	25.0	157701.0	0.744685	Y
4	IC 480-720900/16	5.0	3.637598	25.0	167535.0	0.72752	Y
5	IC 480-720900/17	10.0	7.630998	25.0	159563.0	0.7631	Y
6	ICIS 480-720900/18	25.0	18.859513	25.0	164820.0	0.754381	Y
7	IC 480-720900/19	50.0	36.821406	25.0	166797.0	0.736428	Y
8	IC 480-720900/20	100.0	73.350063	25.0	171249.0	0.733501	Y



Calibration / Tetrahydrofuran

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

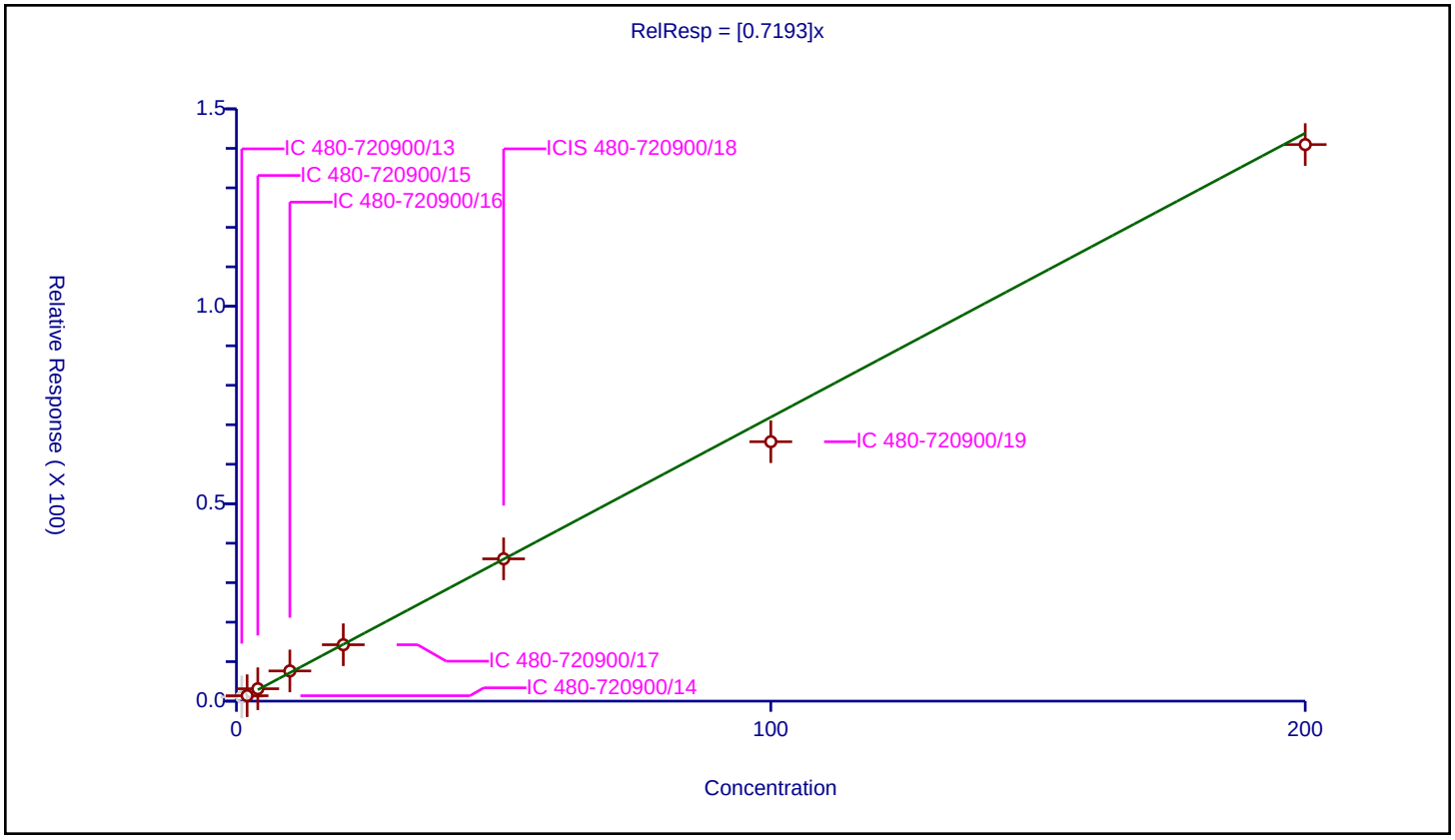
Curve Coefficients

Intercept:	0
Slope:	0.7193

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	1.0	1.069812	25.0	160846.0	1.069812	N
2	IC 480-720900/14	2.0	1.375673	25.0	153325.0	0.687836	Y
3	IC 480-720900/15	4.0	3.141863	25.0	157701.0	0.785466	Y
4	IC 480-720900/16	10.0	7.649297	25.0	167535.0	0.76493	Y
5	IC 480-720900/17	20.0	14.28276	25.0	159563.0	0.714138	Y
6	ICIS 480-720900/18	50.0	36.038861	25.0	164820.0	0.720777	Y
7	IC 480-720900/19	100.0	65.707567	25.0	166797.0	0.657076	Y
8	IC 480-720900/20	200.0	140.960239	25.0	171249.0	0.704801	Y



Calibration / Chloroform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

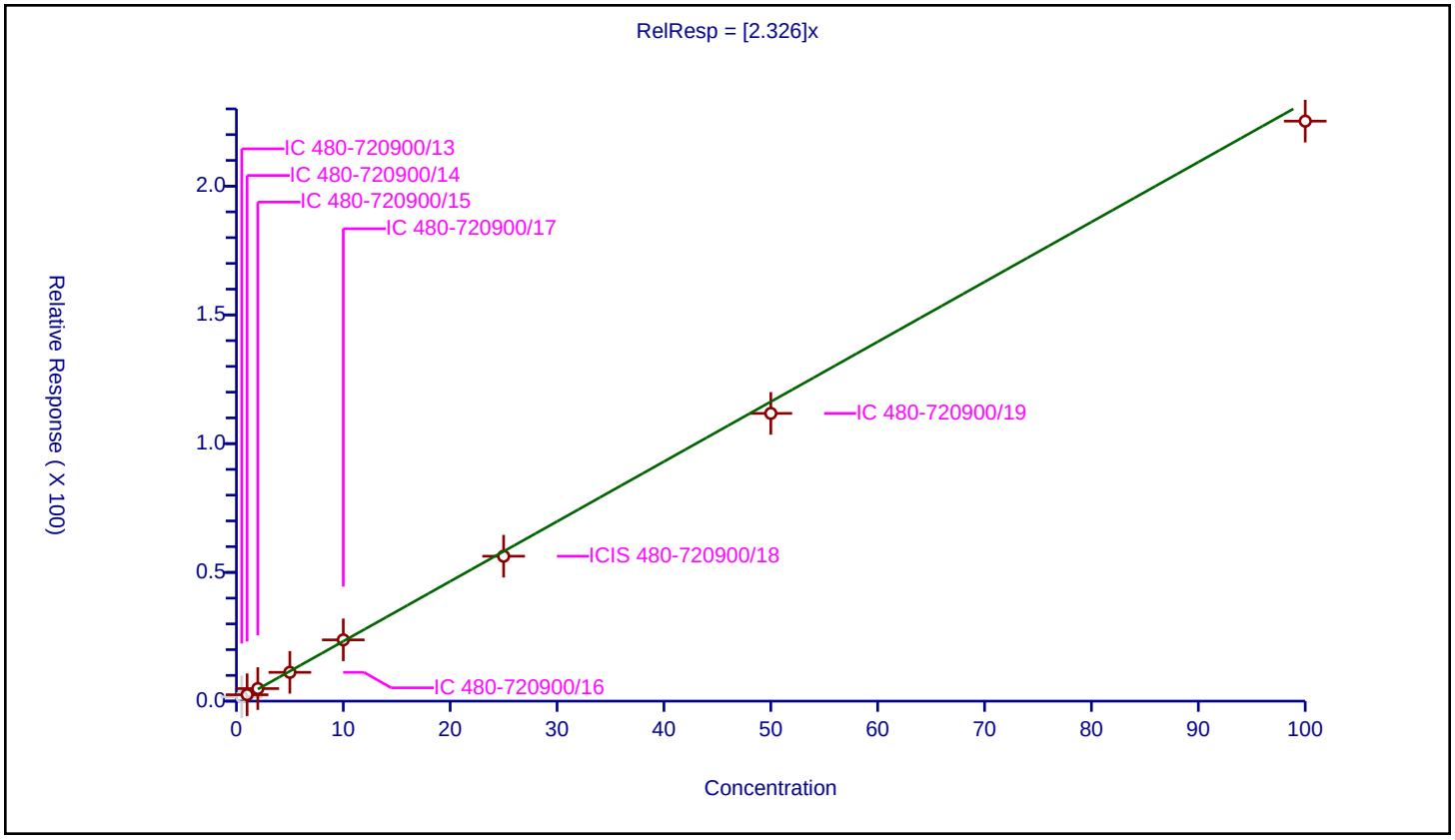
Curve Coefficients

Intercept:	0
Slope:	2.326

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.689971	25.0	160846.0	3.379941	N
2	IC 480-720900/14	1.0	2.486222	25.0	153325.0	2.486222	Y
3	IC 480-720900/15	2.0	4.87806	25.0	157701.0	2.43903	Y
4	IC 480-720900/16	5.0	11.185424	25.0	167535.0	2.237085	Y
5	IC 480-720900/17	10.0	23.795617	25.0	159563.0	2.379562	Y
6	ICIS 480-720900/18	25.0	56.288072	25.0	164820.0	2.251523	Y
7	IC 480-720900/19	50.0	111.747214	25.0	166797.0	2.234944	Y
8	IC 480-720900/20	100.0	225.245549	25.0	171249.0	2.252455	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

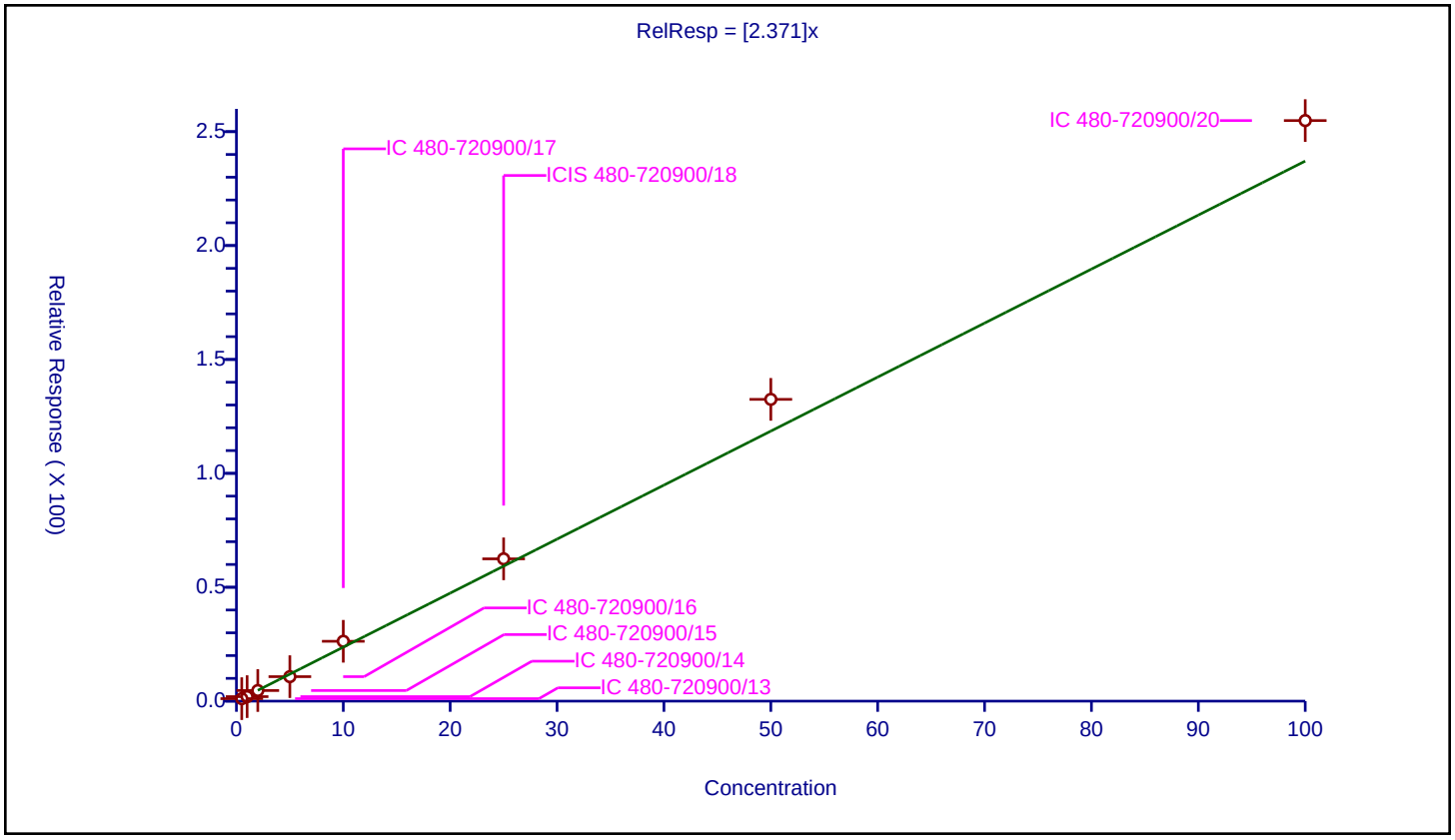
Curve Coefficients

Intercept:	0
Slope:	2.371

Error Coefficients

Relative Standard Deviation:	10.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.090329	25.0	160846.0	2.180657	Y
2	IC 480-720900/14	1.0	1.982553	25.0	153325.0	1.982553	Y
3	IC 480-720900/15	2.0	4.653902	25.0	157701.0	2.326951	Y
4	IC 480-720900/16	5.0	10.755961	25.0	167535.0	2.151192	Y
5	IC 480-720900/17	10.0	26.282722	25.0	159563.0	2.628272	Y
6	ICIS 480-720900/18	25.0	62.472697	25.0	164820.0	2.498908	Y
7	IC 480-720900/19	50.0	132.482299	25.0	166797.0	2.649646	Y
8	IC 480-720900/20	100.0	254.865722	25.0	171249.0	2.548657	Y



Calibration / 1,1,1-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

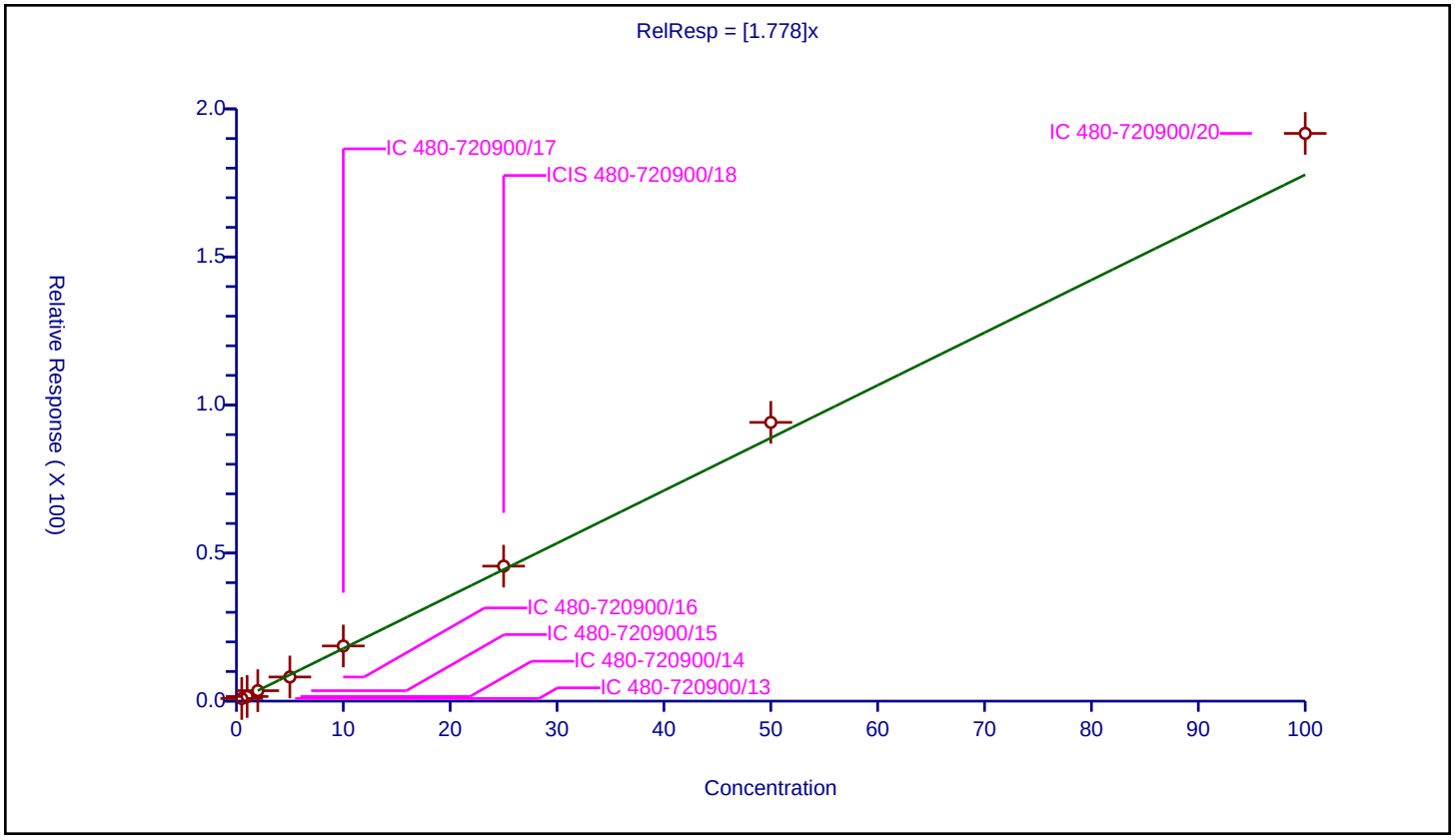
Curve Coefficients

Intercept:	0
Slope:	1.778

Error Coefficients

Relative Standard Deviation:	6.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.885941	25.0	160846.0	1.771881	Y
2	IC 480-720900/14	1.0	1.569868	25.0	153325.0	1.569868	Y
3	IC 480-720900/15	2.0	3.525976	25.0	157701.0	1.762988	Y
4	IC 480-720900/16	5.0	8.14964	25.0	167535.0	1.629928	Y
5	IC 480-720900/17	10.0	18.635273	25.0	159563.0	1.863527	Y
6	ICIS 480-720900/18	25.0	45.600504	25.0	164820.0	1.82402	Y
7	IC 480-720900/19	50.0	94.136285	25.0	166797.0	1.882726	Y
8	IC 480-720900/20	100.0	191.721412	25.0	171249.0	1.917214	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

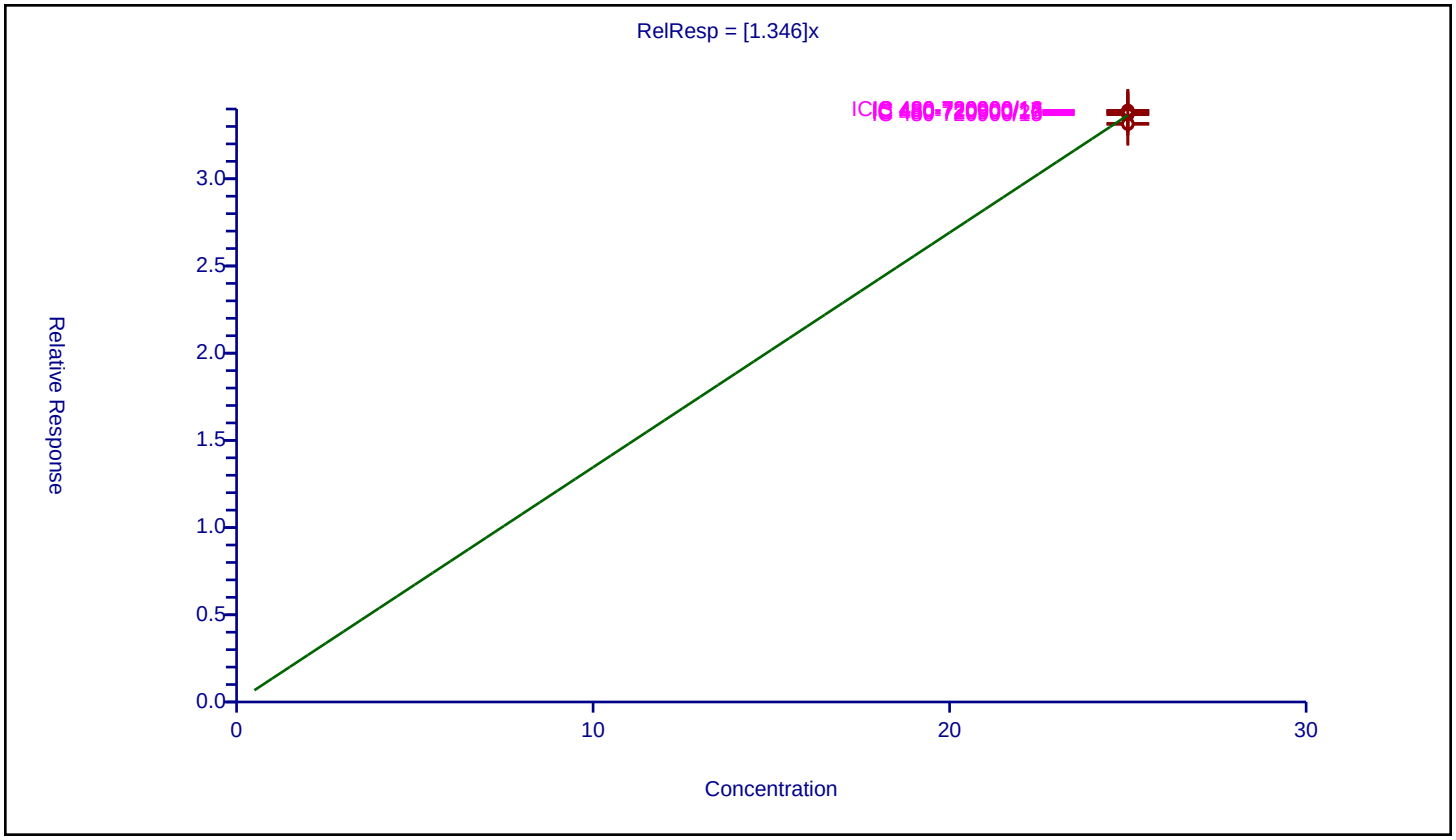
Curve Coefficients

Intercept:	0
Slope:	1.346

Error Coefficients

Relative Standard Deviation:	0.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	25.0	33.758688	25.0	160846.0	1.350348	Y
2	IC 480-720900/14	25.0	33.919941	25.0	153325.0	1.356798	Y
3	IC 480-720900/15	25.0	33.673693	25.0	157701.0	1.346948	Y
4	IC 480-720900/16	25.0	33.121288	25.0	167535.0	1.324852	Y
5	IC 480-720900/17	25.0	33.852146	25.0	159563.0	1.354086	Y
6	ICIS 480-720900/18	25.0	33.912298	25.0	164820.0	1.356492	Y
7	IC 480-720900/19	25.0	33.176706	25.0	166797.0	1.327068	Y
8	IC 480-720900/20	25.0	33.738153	25.0	171249.0	1.349526	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

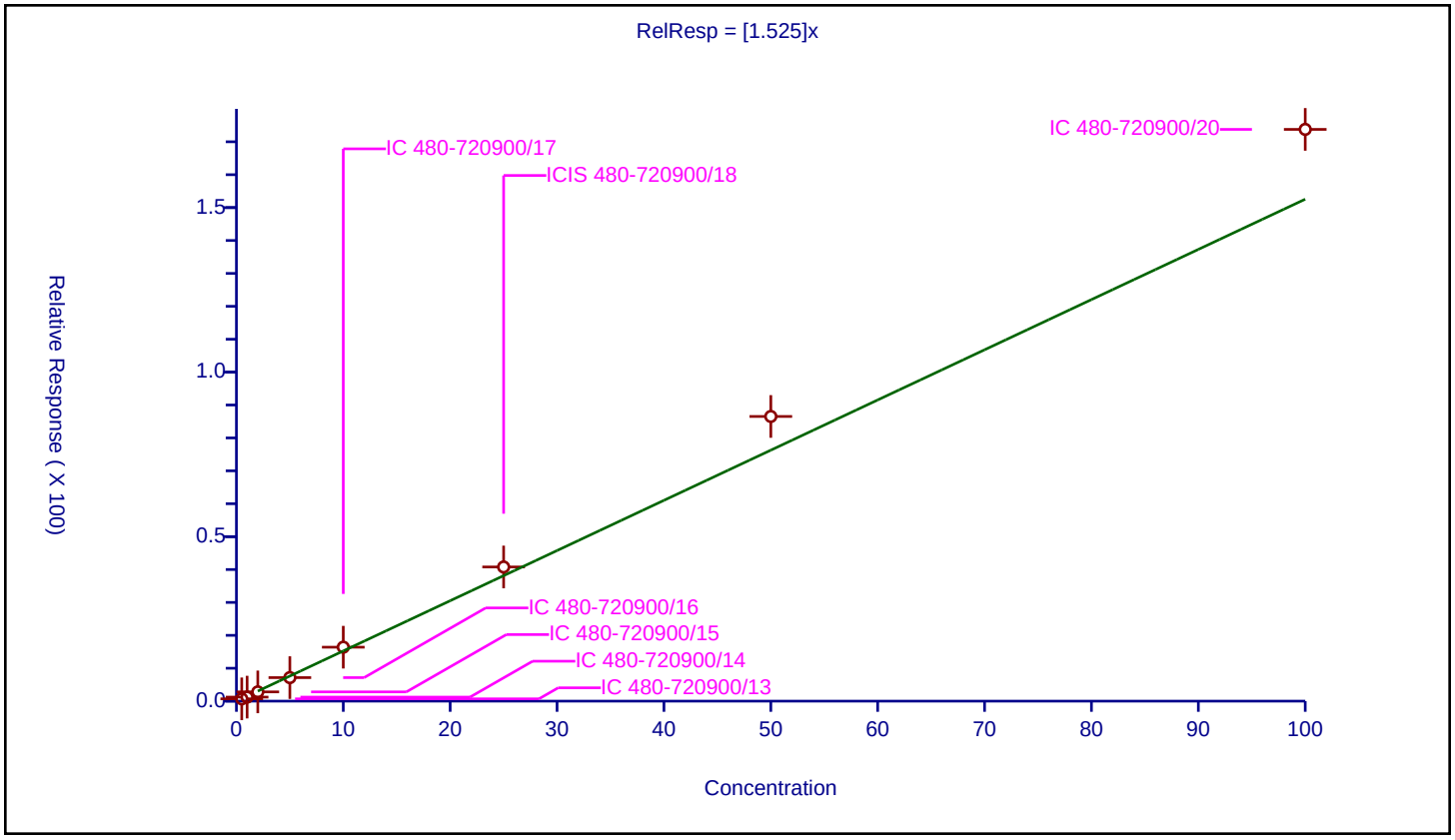
Curve Coefficients

Intercept:	0
Slope:	1.525

Error Coefficients

Relative Standard Deviation:	12.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.70067	25.0	160846.0	1.40134	Y
2	IC 480-720900/14	1.0	1.227295	25.0	153325.0	1.227295	Y
3	IC 480-720900/15	2.0	2.813711	25.0	157701.0	1.406855	Y
4	IC 480-720900/16	5.0	7.148208	25.0	167535.0	1.429642	Y
5	IC 480-720900/17	10.0	16.397285	25.0	159563.0	1.639729	Y
6	ICIS 480-720900/18	25.0	40.774178	25.0	164820.0	1.630967	Y
7	IC 480-720900/19	50.0	86.52224	25.0	166797.0	1.730445	Y
8	IC 480-720900/20	100.0	173.763204	25.0	171249.0	1.737632	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

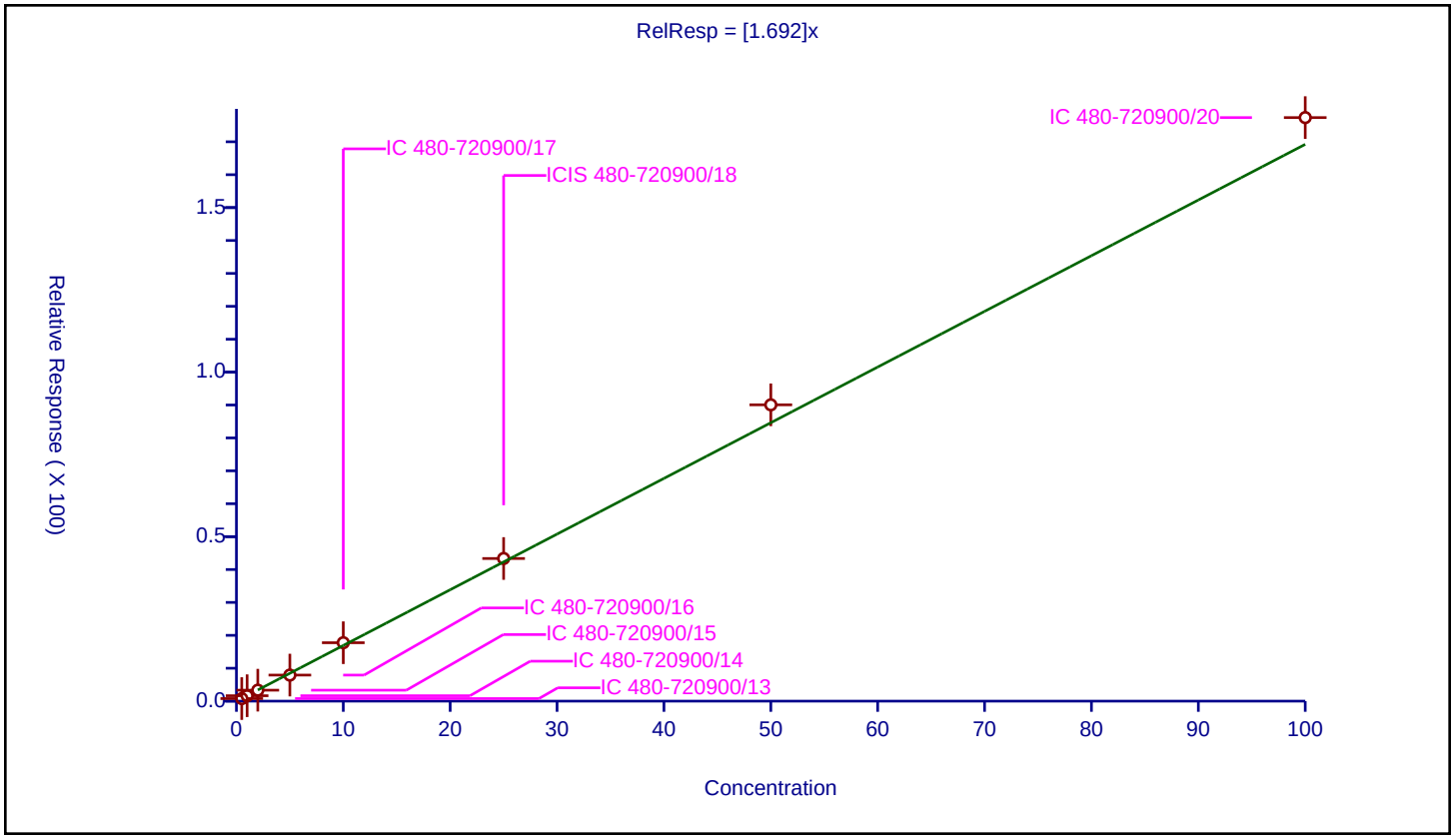
Curve Coefficients

Intercept:	0
Slope:	1.692

Error Coefficients

Relative Standard Deviation:	5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.778384	25.0	160846.0	1.556769	Y
2	IC 480-720900/14	1.0	1.645035	25.0	153325.0	1.645035	Y
3	IC 480-720900/15	2.0	3.334792	25.0	157701.0	1.667396	Y
4	IC 480-720900/16	5.0	7.922374	25.0	167535.0	1.584475	Y
5	IC 480-720900/17	10.0	17.758503	25.0	159563.0	1.77585	Y
6	ICIS 480-720900/18	25.0	43.354114	25.0	164820.0	1.734165	Y
7	IC 480-720900/19	50.0	90.056326	25.0	166797.0	1.801127	Y
8	IC 480-720900/20	100.0	177.356948	25.0	171249.0	1.773569	Y



Calibration / 1,2-Dichloroethane-d4 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

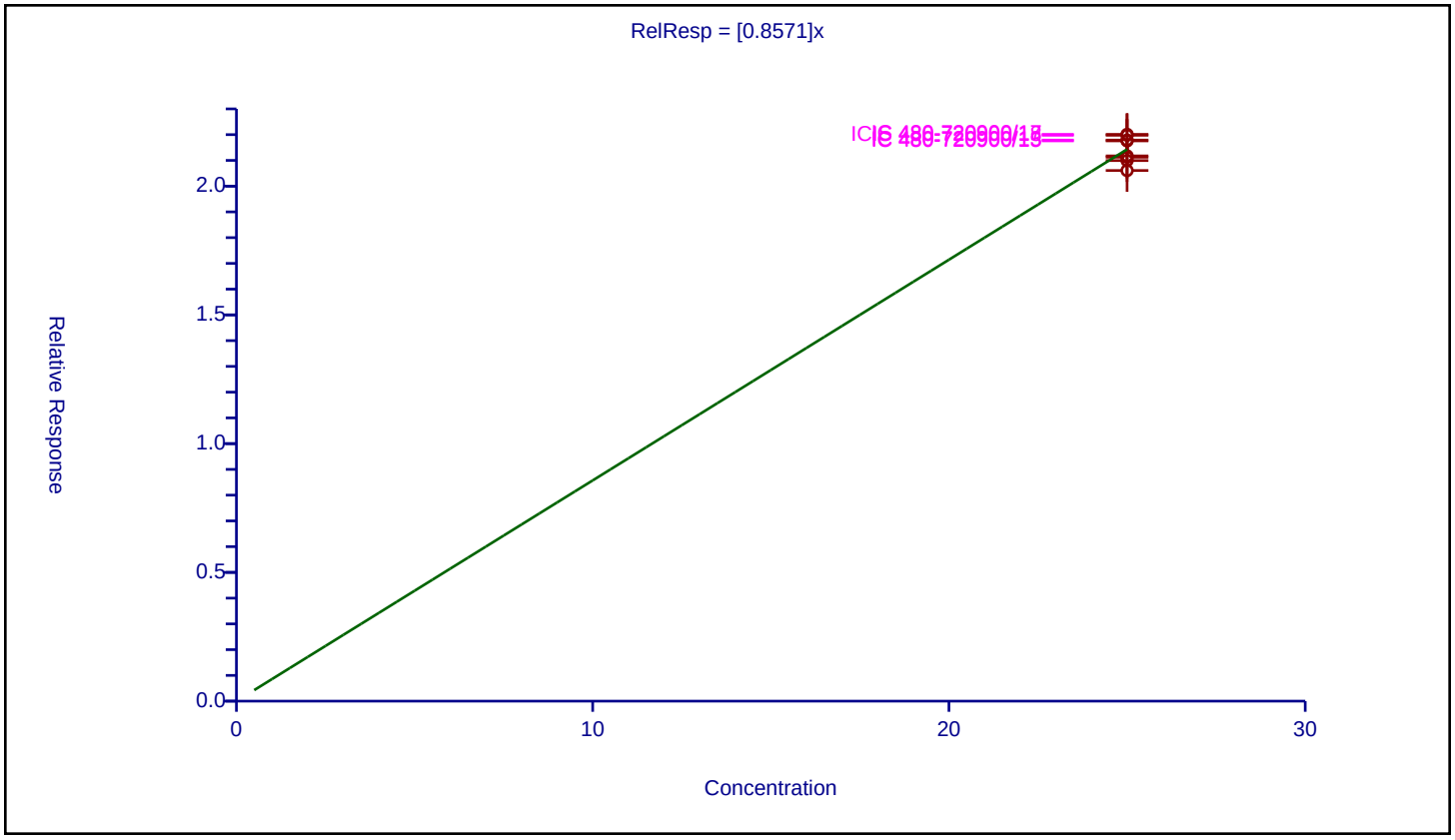
Curve Coefficients

Intercept:	0
Slope:	0.8571

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	25.0	21.789009	25.0	160846.0	0.87156	Y
2	IC 480-720900/14	25.0	21.122941	25.0	153325.0	0.844918	Y
3	IC 480-720900/15	25.0	21.757313	25.0	157701.0	0.870293	Y
4	IC 480-720900/16	25.0	21.174829	25.0	167535.0	0.846993	Y
5	IC 480-720900/17	25.0	22.010428	25.0	159563.0	0.880417	Y
6	ICIS 480-720900/18	25.0	21.97564	25.0	164820.0	0.879026	Y
7	IC 480-720900/19	25.0	20.606036	25.0	166797.0	0.824241	Y
8	IC 480-720900/20	25.0	20.992239	25.0	171249.0	0.83969	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

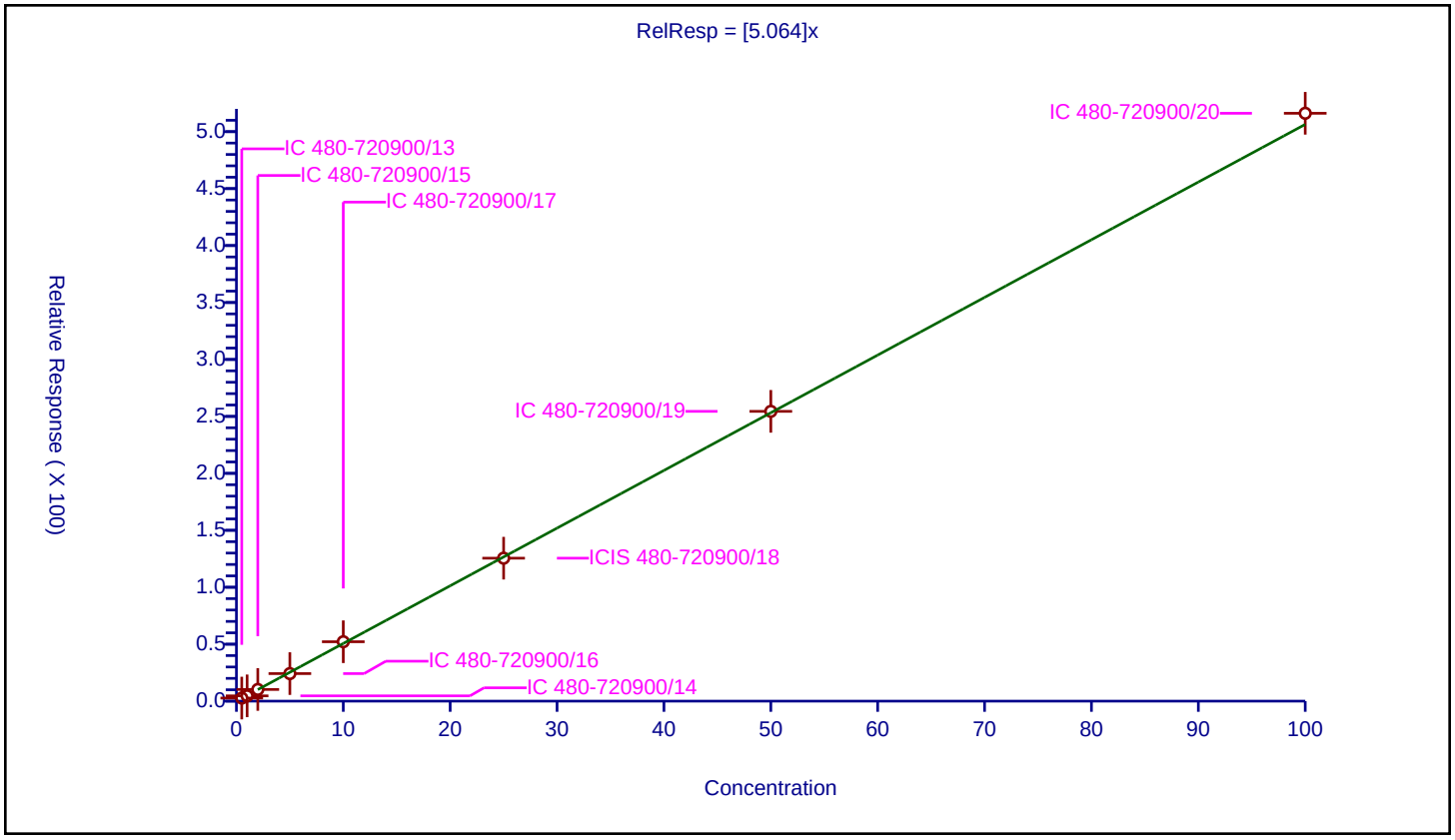
Curve Coefficients

Intercept:	0
Slope:	5.064

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	2.711134	25.0	160846.0	5.422267	Y
2	IC 480-720900/14	1.0	4.641774	25.0	153325.0	4.641774	Y
3	IC 480-720900/15	2.0	10.24835	25.0	157701.0	5.124175	Y
4	IC 480-720900/16	5.0	24.183305	25.0	167535.0	4.836661	Y
5	IC 480-720900/17	10.0	52.160745	25.0	159563.0	5.216075	Y
6	ICIS 480-720900/18	25.0	125.523298	25.0	164820.0	5.020932	Y
7	IC 480-720900/19	50.0	254.429336	25.0	166797.0	5.088587	Y
8	IC 480-720900/20	100.0	516.141992	25.0	171249.0	5.16142	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

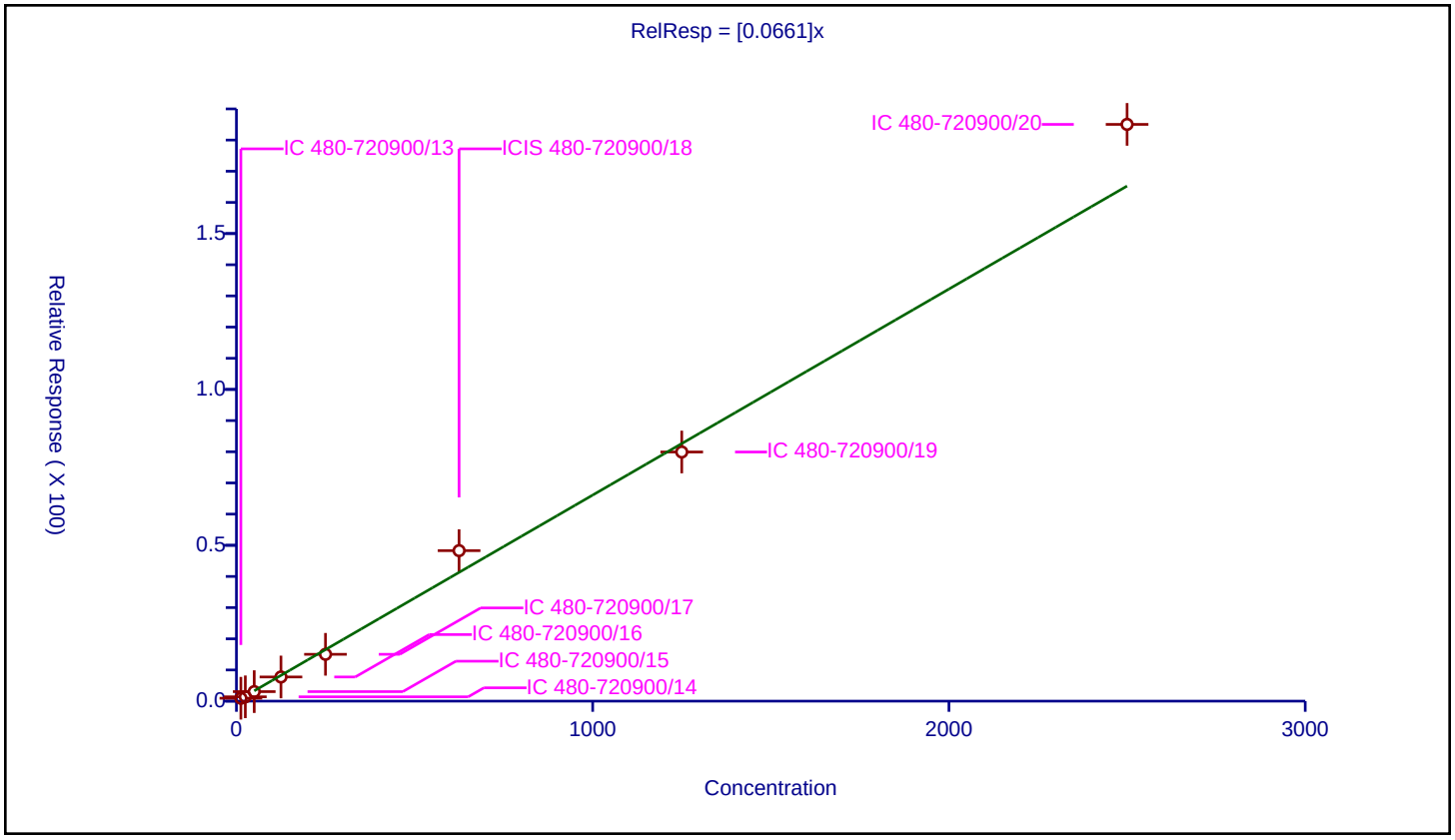
Curve Coefficients

Intercept:	0
Slope:	0.0661

Error Coefficients

Relative Standard Deviation:	12.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	12.5	0.934434	25.0	160846.0	0.074755	Y
2	IC 480-720900/14	25.0	1.38888	25.0	153325.0	0.055555	Y
3	IC 480-720900/15	50.0	3.05721	25.0	157701.0	0.061144	Y
4	IC 480-720900/16	125.0	7.75823	25.0	167535.0	0.062066	Y
5	IC 480-720900/17	250.0	15.023376	25.0	159563.0	0.060094	Y
6	ICIS 480-720900/18	625.0	48.281155	25.0	164820.0	0.07725	Y
7	IC 480-720900/19	1250.0	79.933542	25.0	166797.0	0.063947	Y
8	IC 480-720900/20	2500.0	185.030278	25.0	171249.0	0.074012	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

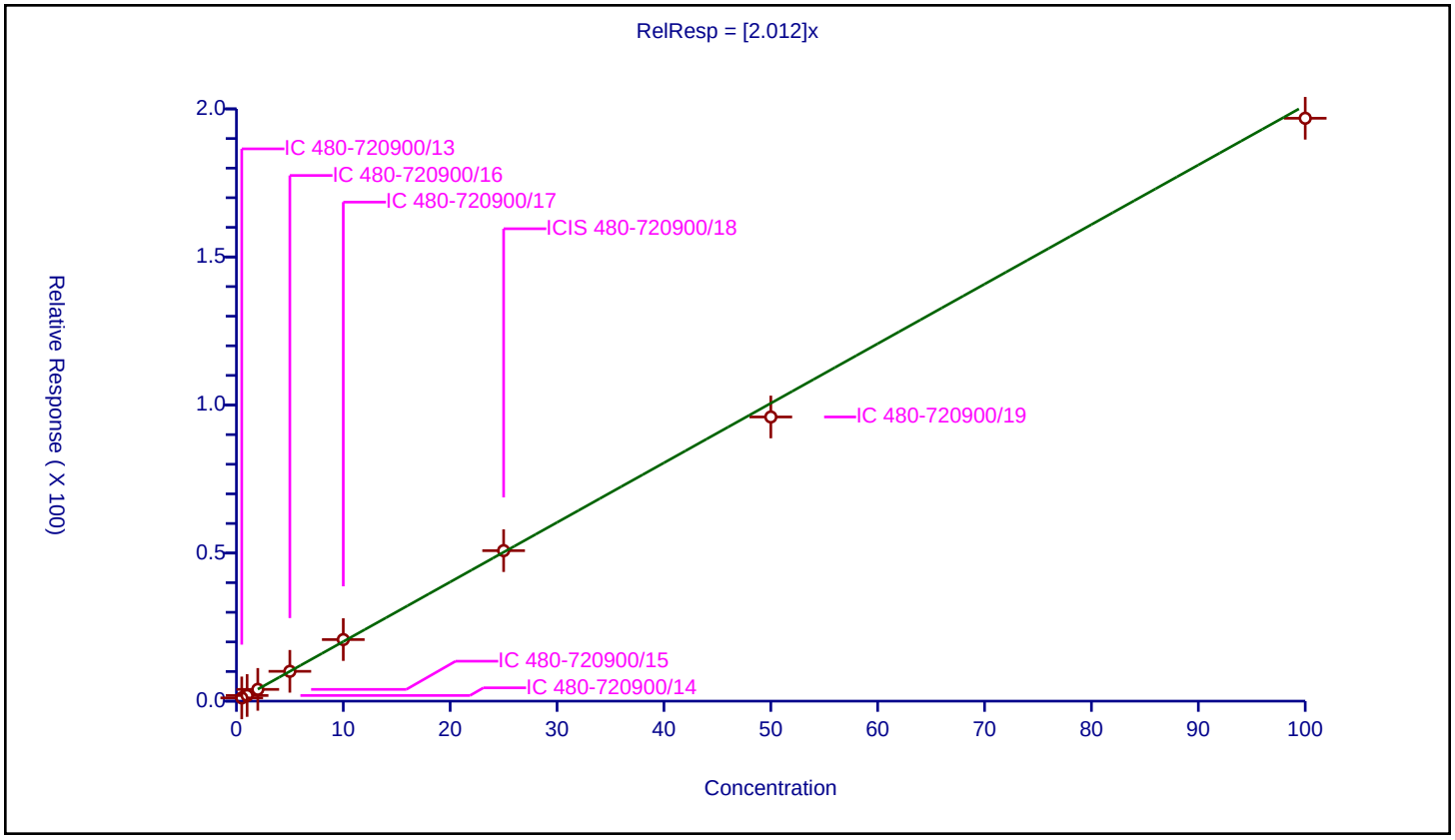
Curve Coefficients

Intercept:	0
Slope:	2.012

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.096235	25.0	160846.0	2.19247	Y
2	IC 480-720900/14	1.0	1.901842	25.0	153325.0	1.901842	Y
3	IC 480-720900/15	2.0	3.9735	25.0	157701.0	1.98675	Y
4	IC 480-720900/16	5.0	10.07103	25.0	167535.0	2.014206	Y
5	IC 480-720900/17	10.0	20.791161	25.0	159563.0	2.079116	Y
6	ICIS 480-720900/18	25.0	50.820896	25.0	164820.0	2.032836	Y
7	IC 480-720900/19	50.0	95.963057	25.0	166797.0	1.919261	Y
8	IC 480-720900/20	100.0	196.835456	25.0	171249.0	1.968355	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

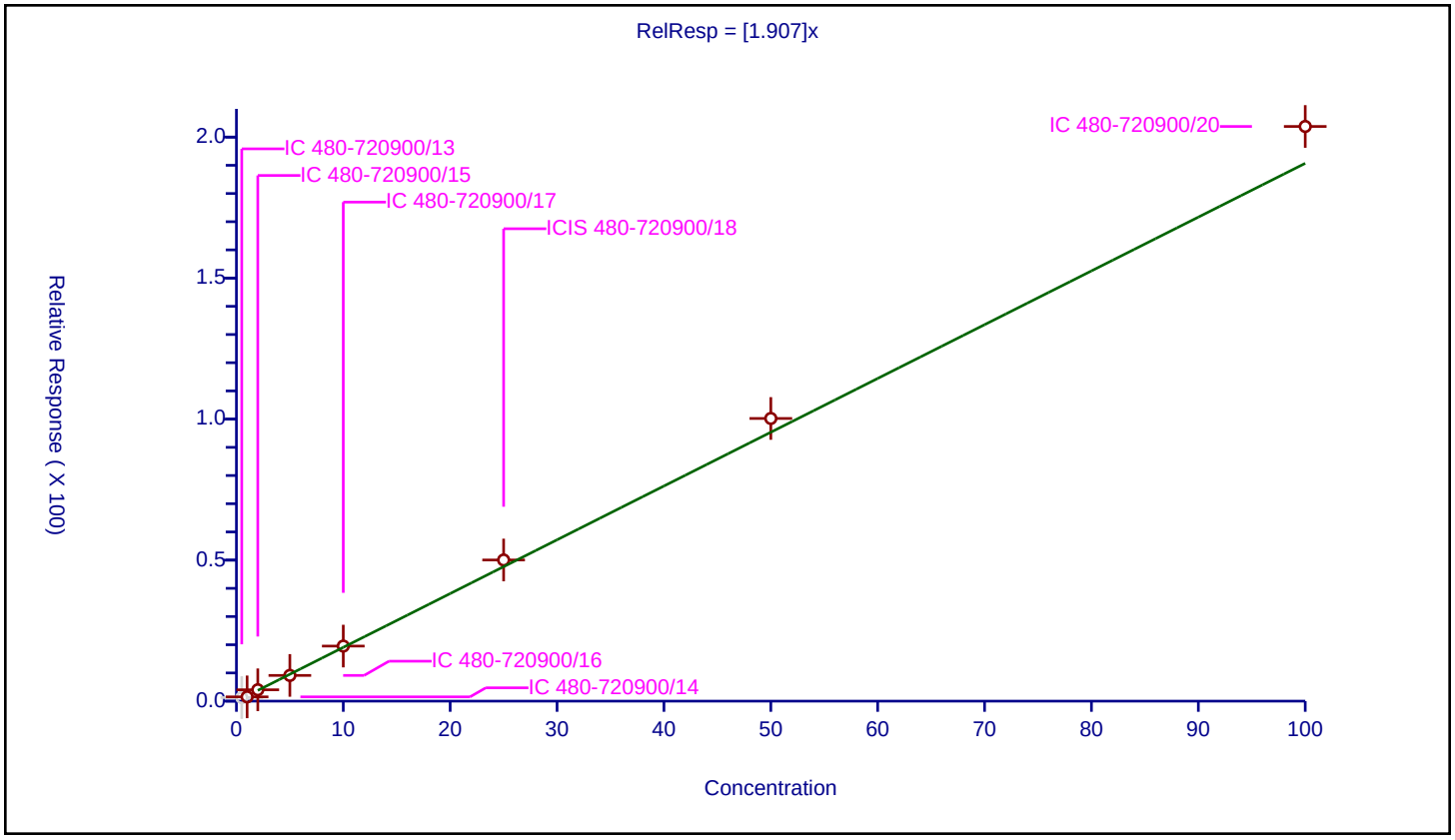
Curve Coefficients

Intercept:	0
Slope:	1.907

Error Coefficients

Relative Standard Deviation:	9.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.26705	25.0	160846.0	2.534101	N
2	IC 480-720900/14	1.0	1.514756	25.0	153325.0	1.514756	Y
3	IC 480-720900/15	2.0	4.025498	25.0	157701.0	2.012749	Y
4	IC 480-720900/16	5.0	9.121825	25.0	167535.0	1.824365	Y
5	IC 480-720900/17	10.0	19.522383	25.0	159563.0	1.952238	Y
6	ICIS 480-720900/18	25.0	50.051875	25.0	164820.0	2.002075	Y
7	IC 480-720900/19	50.0	100.233967	25.0	166797.0	2.004679	Y
8	IC 480-720900/20	100.0	203.767759	25.0	171249.0	2.037678	Y



Calibration / Trichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

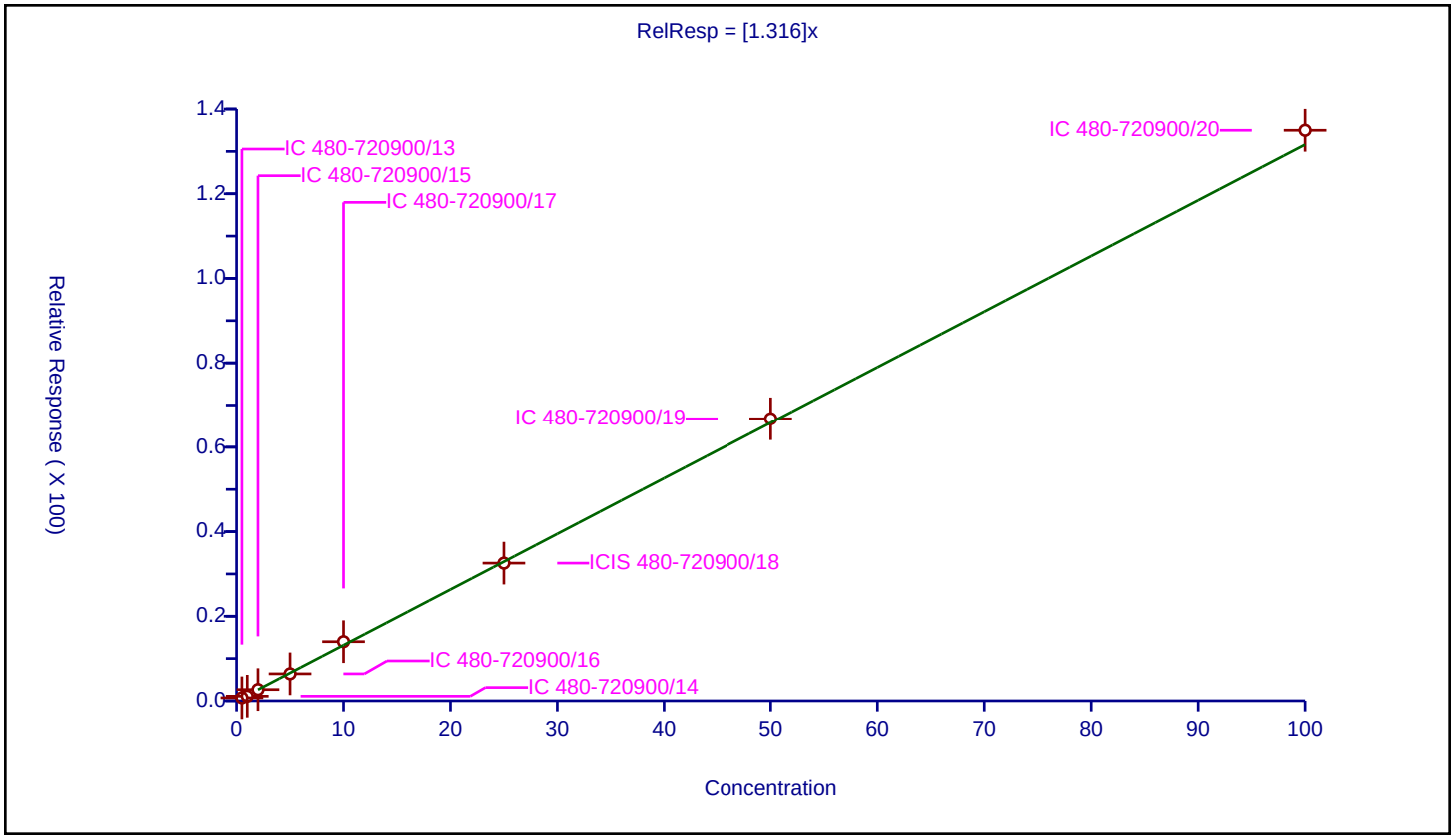
Curve Coefficients

Intercept:	0
Slope:	1.316

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.71699	25.0	160846.0	1.43398	Y
2	IC 480-720900/14	1.0	1.101092	25.0	153325.0	1.101092	Y
3	IC 480-720900/15	2.0	2.662475	25.0	157701.0	1.331238	Y
4	IC 480-720900/16	5.0	6.385084	25.0	167535.0	1.277017	Y
5	IC 480-720900/17	10.0	13.988989	25.0	159563.0	1.398899	Y
6	ICIS 480-720900/18	25.0	32.560369	25.0	164820.0	1.302415	Y
7	IC 480-720900/19	50.0	66.755098	25.0	166797.0	1.335102	Y
8	IC 480-720900/20	100.0	134.989109	25.0	171249.0	1.349891	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

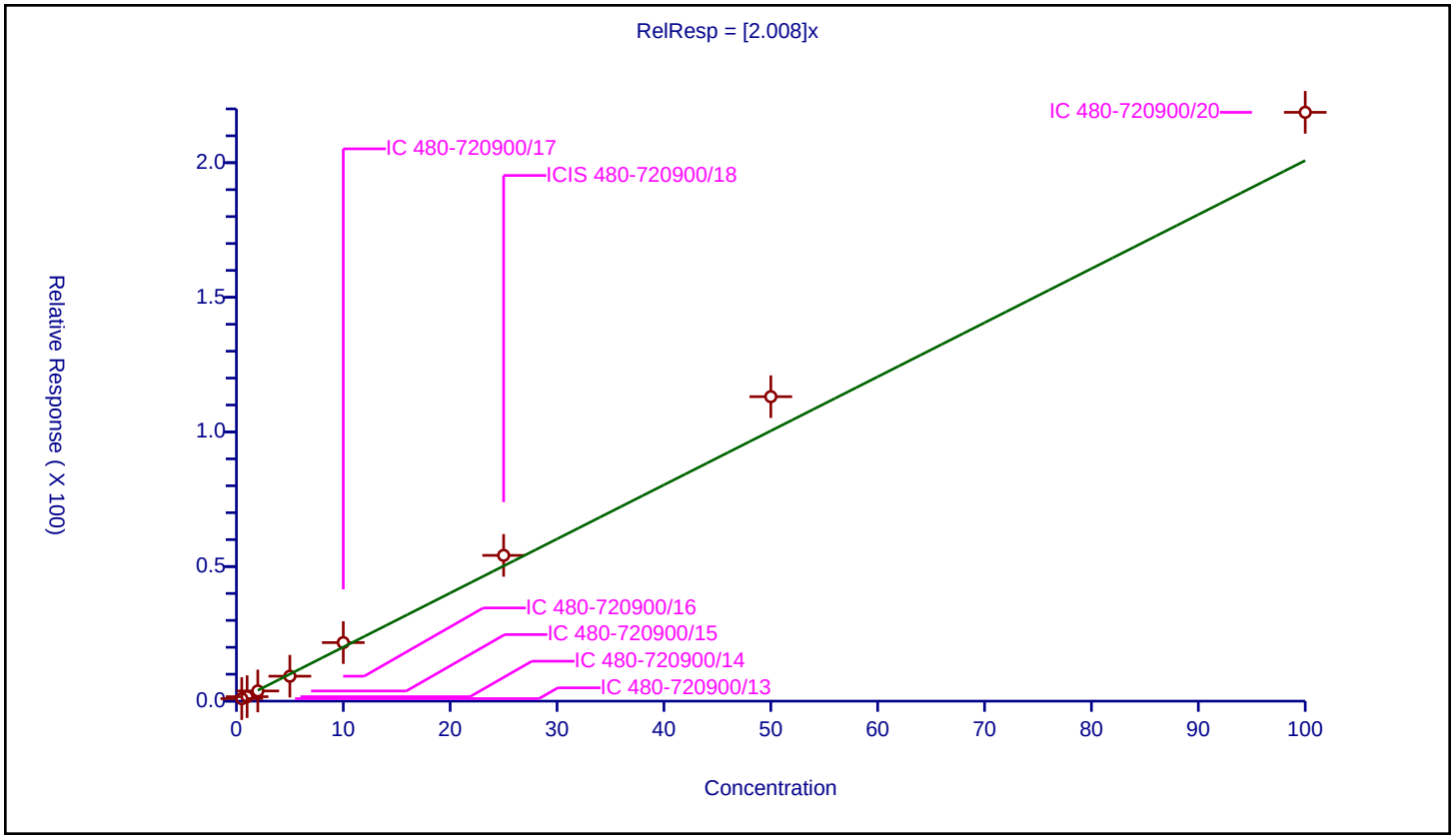
Curve Coefficients

Intercept:	0
Slope:	2.008

Error Coefficients

Relative Standard Deviation:	10.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.933968	25.0	160846.0	1.867936	Y
2	IC 480-720900/14	1.0	1.661177	25.0	153325.0	1.661177	Y
3	IC 480-720900/15	2.0	3.786596	25.0	157701.0	1.893298	Y
4	IC 480-720900/16	5.0	9.265527	25.0	167535.0	1.853105	Y
5	IC 480-720900/17	10.0	21.749873	25.0	159563.0	2.174987	Y
6	ICIS 480-720900/18	25.0	54.140729	25.0	164820.0	2.165629	Y
7	IC 480-720900/19	50.0	113.100655	25.0	166797.0	2.262013	Y
8	IC 480-720900/20	100.0	218.719817	25.0	171249.0	2.187198	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

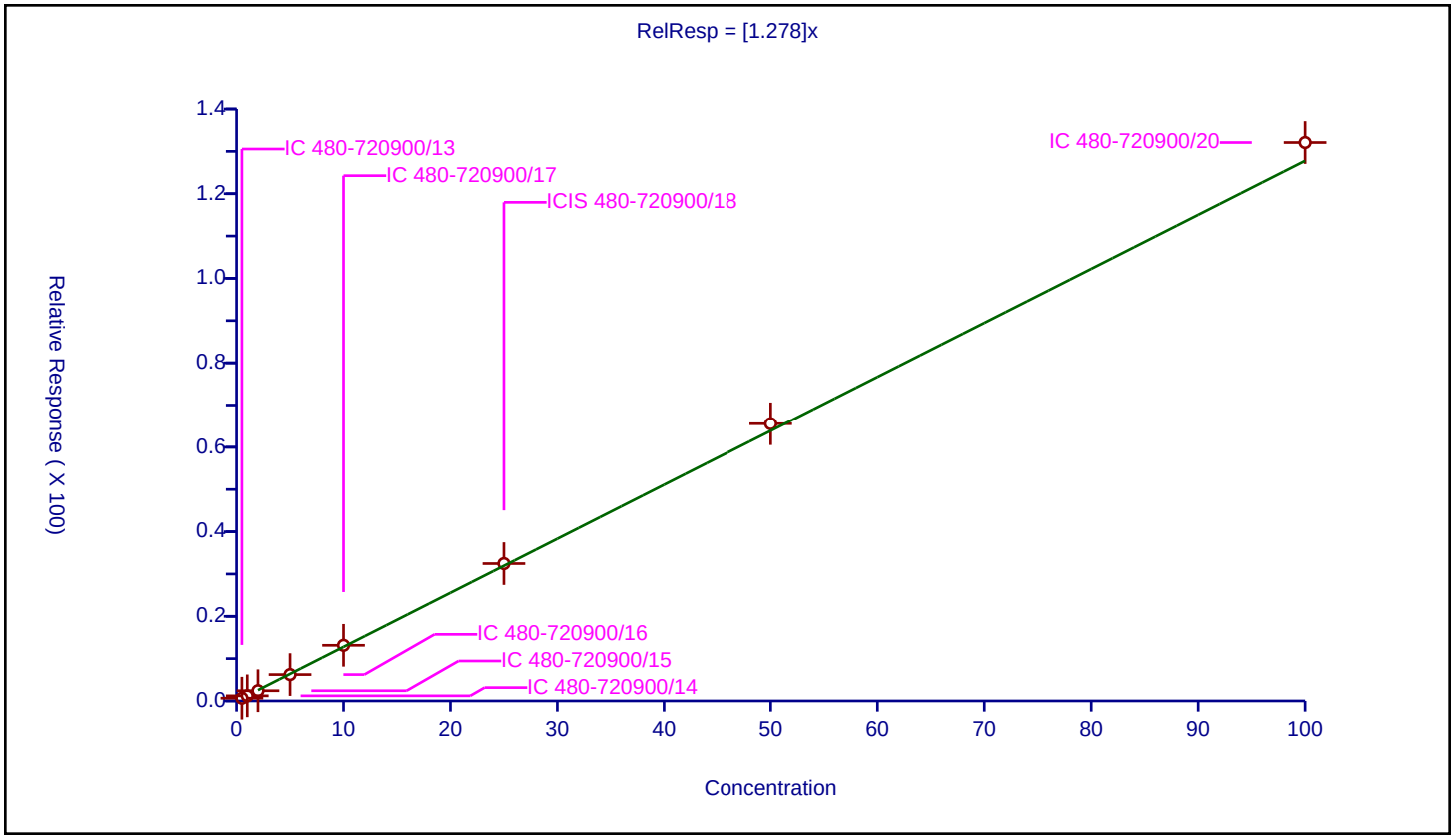
Curve Coefficients

Intercept:	0
Slope:	1.278

Error Coefficients

Relative Standard Deviation:	3.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.653575	25.0	160846.0	1.307151	Y
2	IC 480-720900/14	1.0	1.214903	25.0	153325.0	1.214903	Y
3	IC 480-720900/15	2.0	2.417233	25.0	157701.0	1.208616	Y
4	IC 480-720900/16	5.0	6.230937	25.0	167535.0	1.246187	Y
5	IC 480-720900/17	10.0	13.147158	25.0	159563.0	1.314716	Y
6	ICIS 480-720900/18	25.0	32.466327	25.0	164820.0	1.298653	Y
7	IC 480-720900/19	50.0	65.568475	25.0	166797.0	1.31137	Y
8	IC 480-720900/20	100.0	132.094348	25.0	171249.0	1.320943	Y



Calibration / Dibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

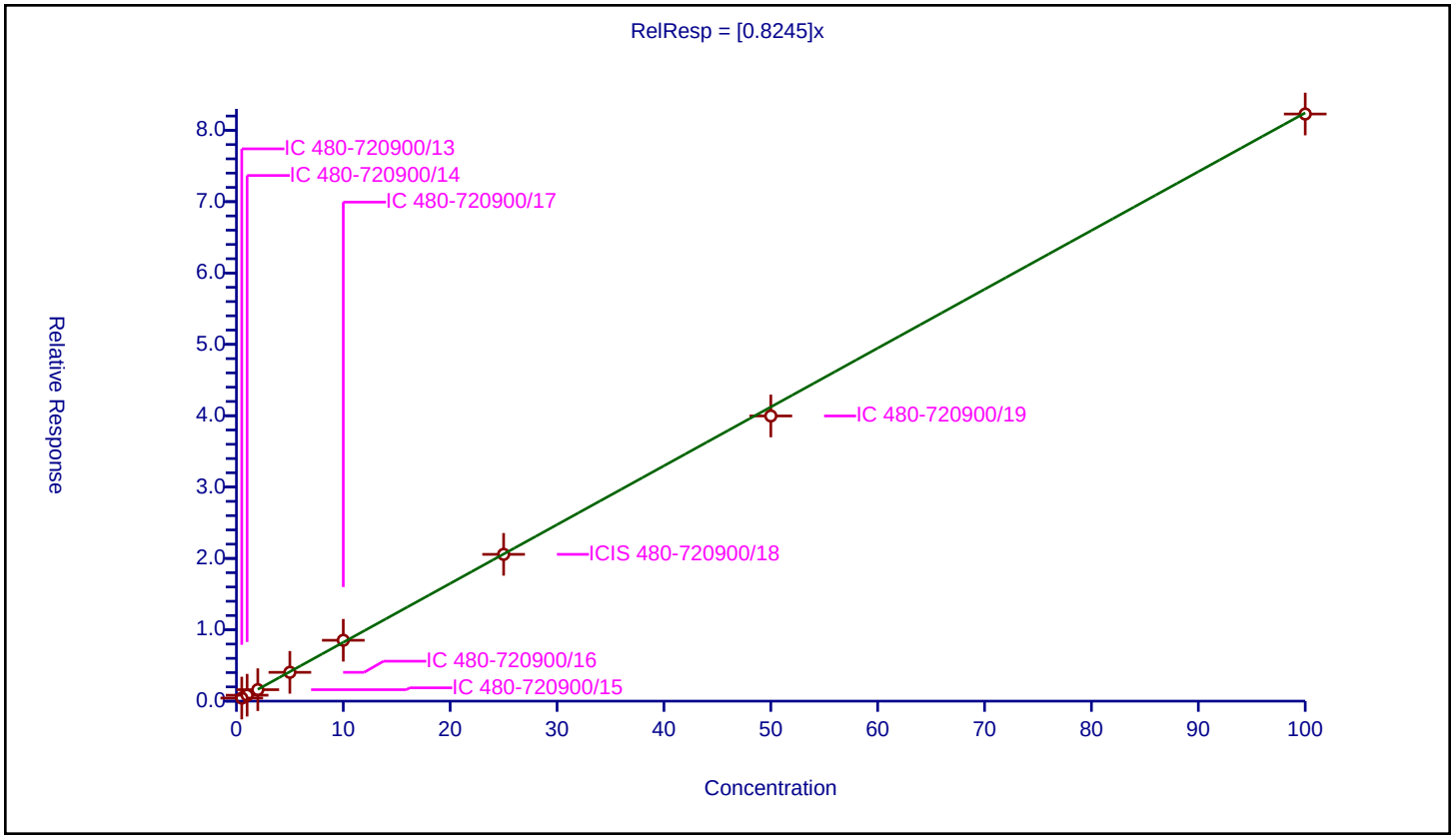
Curve Coefficients

Intercept:	0
Slope:	0.8245

Error Coefficients

Relative Standard Deviation:	2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.429293	25.0	160846.0	0.858585	Y
2	IC 480-720900/14	1.0	0.828958	25.0	153325.0	0.828958	Y
3	IC 480-720900/15	2.0	1.605253	25.0	157701.0	0.802626	Y
4	IC 480-720900/16	5.0	4.037365	25.0	167535.0	0.807473	Y
5	IC 480-720900/17	10.0	8.531896	25.0	159563.0	0.85319	Y
6	ICIS 480-720900/18	25.0	20.571229	25.0	164820.0	0.822849	Y
7	IC 480-720900/19	50.0	39.966996	25.0	166797.0	0.79934	Y
8	IC 480-720900/20	100.0	82.283984	25.0	171249.0	0.82284	Y



Calibration / 1,4-Dioxane

Curve Type:	Linear
Weighting:	Conc
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

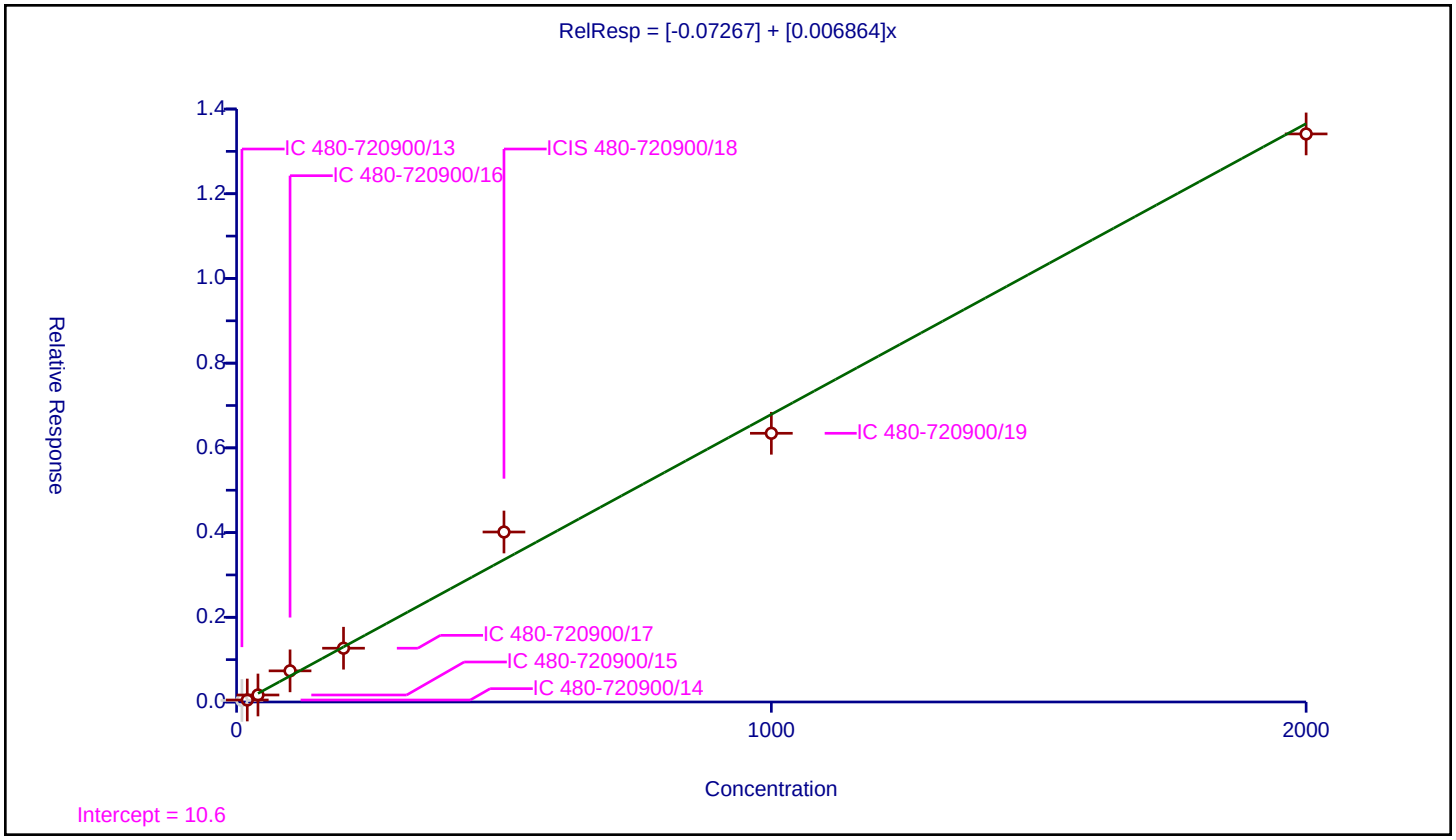
Curve Coefficients

Intercept:	-0.07267
Slope:	0.006864

Error Coefficients

Relative Standard Deviation:	14.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	10.0	0.035953	25.0	383144.0	0.003595	N
2	IC 480-720900/14	20.0	0.046829	25.0	370498.0	0.002341	Y
3	IC 480-720900/15	40.0	0.165525	25.0	376681.0	0.004138	Y
4	IC 480-720900/16	100.0	0.734825	25.0	379274.0	0.007348	Y
5	IC 480-720900/17	200.0	1.269854	25.0	378882.0	0.006349	Y
6	ICIS 480-720900/18	500.0	4.013266	25.0	396865.0	0.008027	Y
7	IC 480-720900/19	1000.0	6.344355	25.0	384917.0	0.006344	Y
8	IC 480-720900/20	2000.0	13.411754	25.0	400300.0	0.006706	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

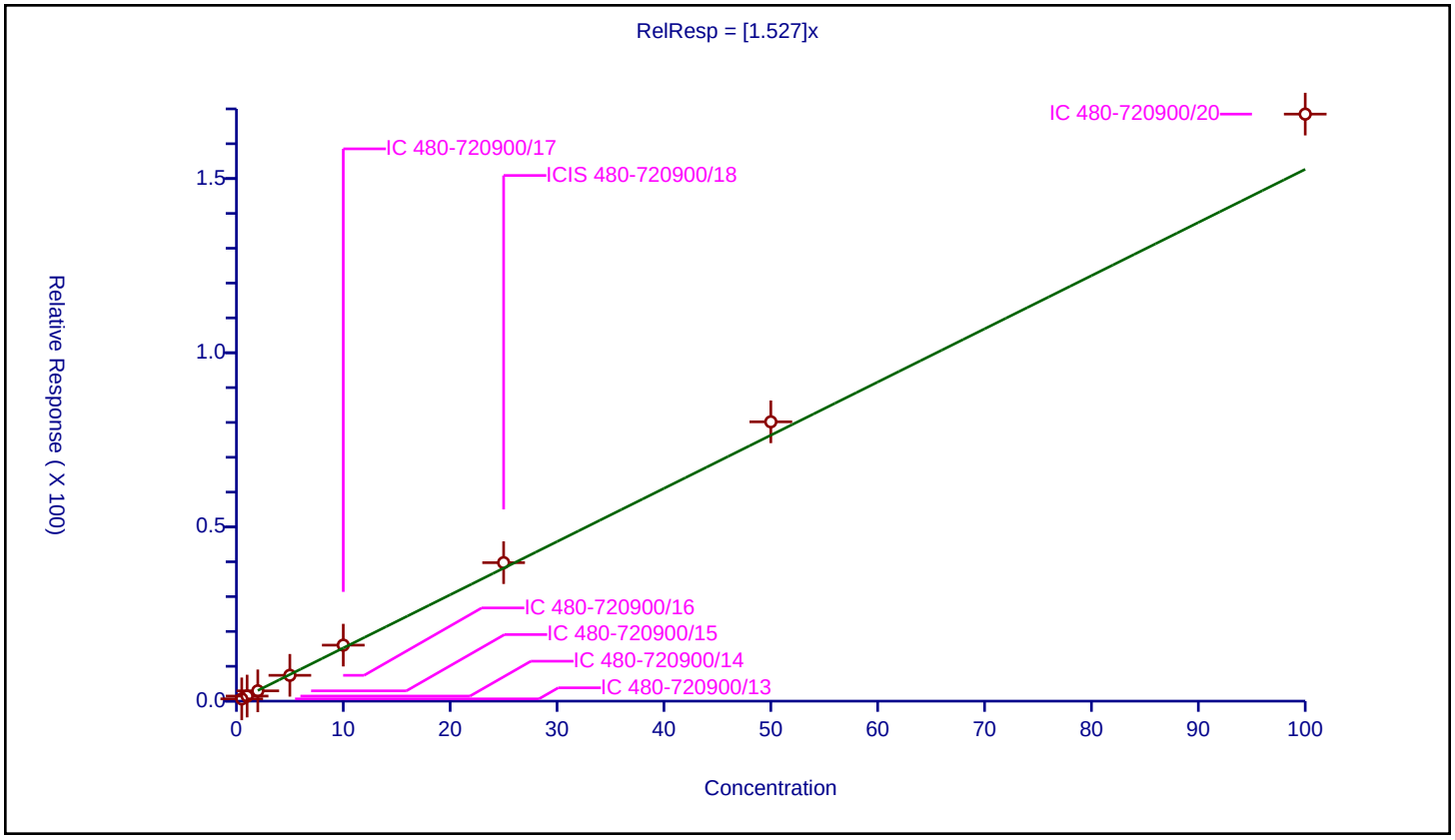
Curve Coefficients

Intercept:	0
Slope:	1.527

Error Coefficients

Relative Standard Deviation:	7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.655596	25.0	160846.0	1.311192	Y
2	IC 480-720900/14	1.0	1.454753	25.0	153325.0	1.454753	Y
3	IC 480-720900/15	2.0	2.956386	25.0	157701.0	1.478193	Y
4	IC 480-720900/16	5.0	7.411735	25.0	167535.0	1.482347	Y
5	IC 480-720900/17	10.0	16.076095	25.0	159563.0	1.60761	Y
6	ICIS 480-720900/18	25.0	39.749727	25.0	164820.0	1.589989	Y
7	IC 480-720900/19	50.0	80.174104	25.0	166797.0	1.603482	Y
8	IC 480-720900/20	100.0	168.50405	25.0	171249.0	1.68504	Y



Calibration / 2-Chloroethyl vinyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

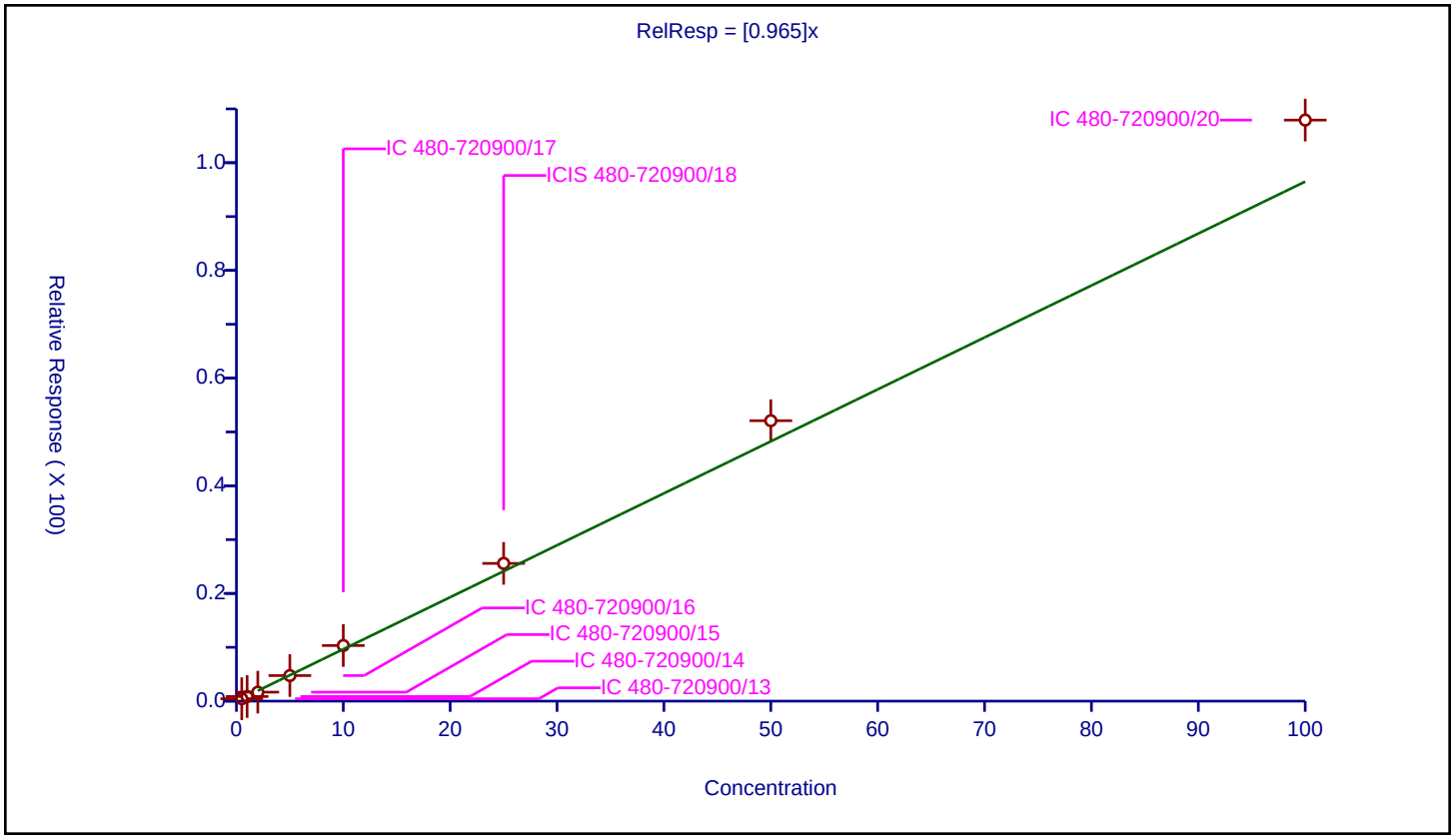
Curve Coefficients

Intercept:	0
Slope:	0.965

Error Coefficients

Relative Standard Deviation:	9.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.449965	25.0	160846.0	0.899929	Y
2	IC 480-720900/14	1.0	0.859286	25.0	153325.0	0.859286	Y
3	IC 480-720900/15	2.0	1.668823	25.0	157701.0	0.834411	Y
4	IC 480-720900/16	5.0	4.745426	25.0	167535.0	0.949085	Y
5	IC 480-720900/17	10.0	10.328209	25.0	159563.0	1.032821	Y
6	ICIS 480-720900/18	25.0	25.581999	25.0	164820.0	1.02328	Y
7	IC 480-720900/19	50.0	52.086368	25.0	166797.0	1.041727	Y
8	IC 480-720900/20	100.0	107.924134	25.0	171249.0	1.079241	Y



Calibration / cis-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

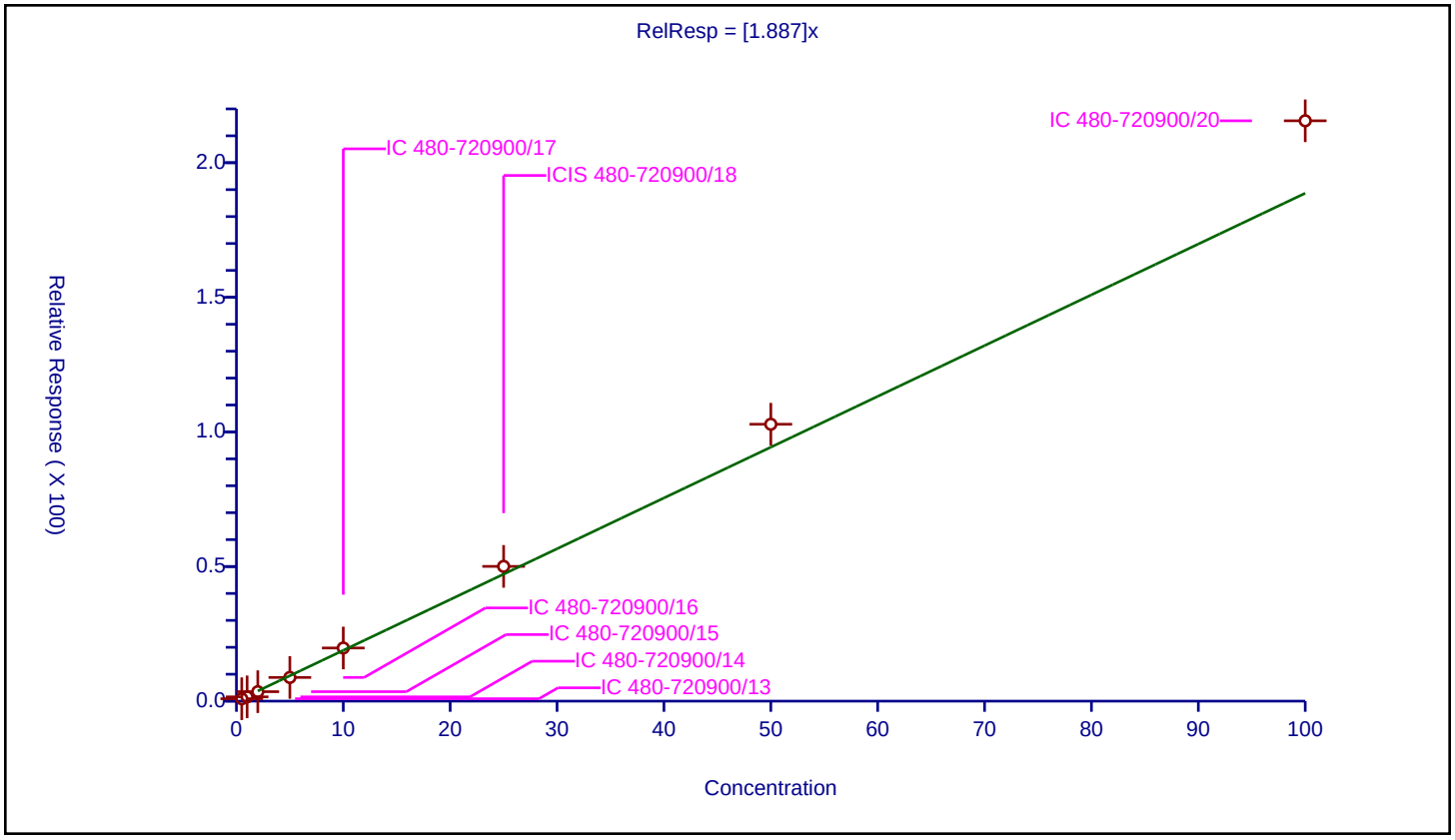
Curve Coefficients

Intercept:	0
Slope:	1.887

Error Coefficients

Relative Standard Deviation:	10.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.896821	25.0	160846.0	1.793641	Y
2	IC 480-720900/14	1.0	1.591065	25.0	153325.0	1.591065	Y
3	IC 480-720900/15	2.0	3.516148	25.0	157701.0	1.758074	Y
4	IC 480-720900/16	5.0	8.804578	25.0	167535.0	1.760916	Y
5	IC 480-720900/17	10.0	19.744552	25.0	159563.0	1.974455	Y
6	ICIS 480-720900/18	25.0	50.057335	25.0	164820.0	2.002293	Y
7	IC 480-720900/19	50.0	102.859464	25.0	166797.0	2.057189	Y
8	IC 480-720900/20	100.0	215.576441	25.0	171249.0	2.155764	Y



Calibration / 4-Methyl-2-pentanone (MIBK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

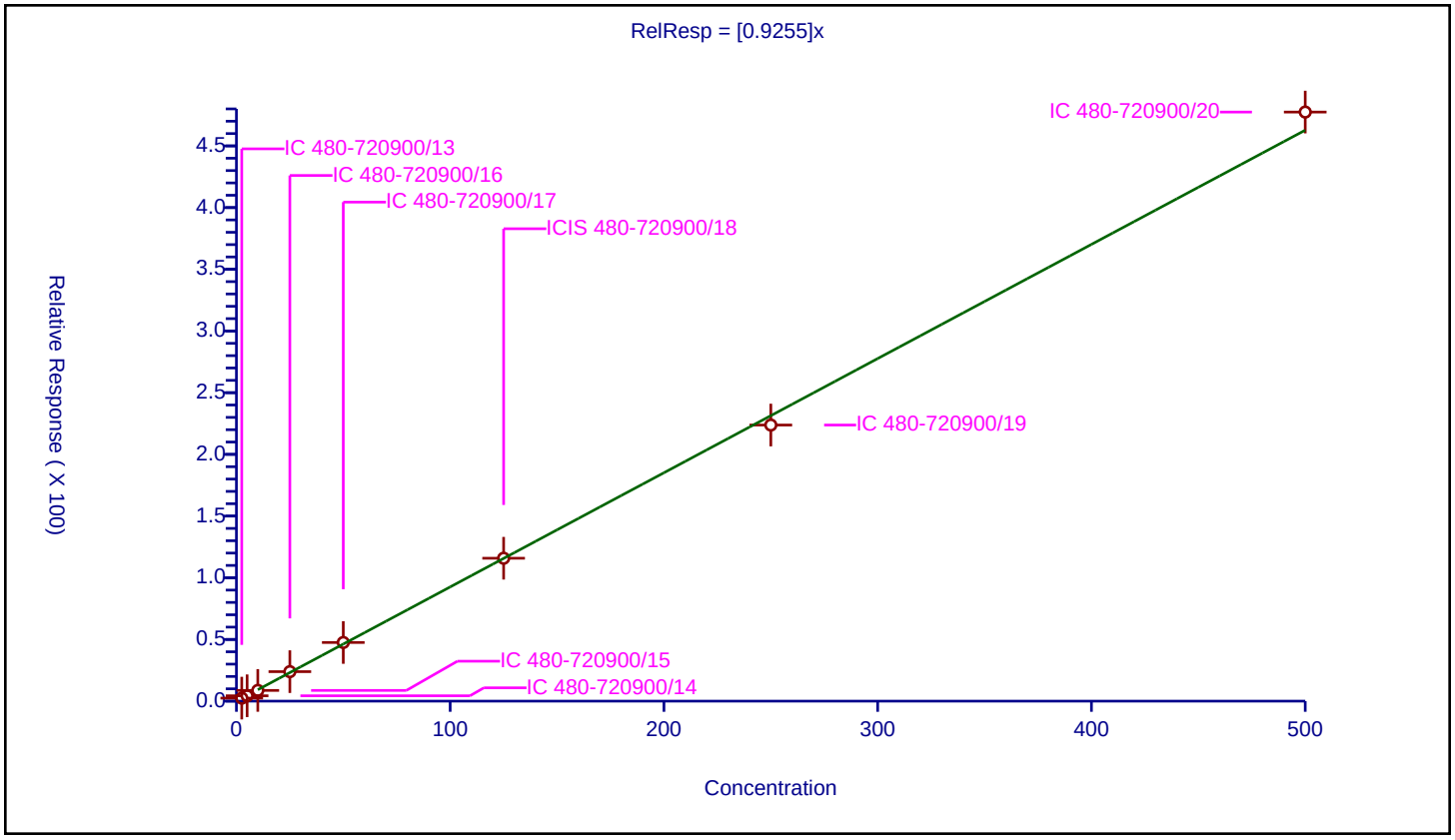
Curve Coefficients

Intercept:	0
Slope:	0.9255

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	2.5	2.455865	25.0	383144.0	0.982346	Y
2	IC 480-720900/14	5.0	4.349619	25.0	370498.0	0.869924	Y
3	IC 480-720900/15	10.0	8.679957	25.0	376681.0	0.867996	Y
4	IC 480-720900/16	25.0	23.902838	25.0	379274.0	0.956114	Y
5	IC 480-720900/17	50.0	47.54673	25.0	378882.0	0.950935	Y
6	ICIS 480-720900/18	125.0	115.815895	25.0	396865.0	0.926527	Y
7	IC 480-720900/19	250.0	223.772008	25.0	384917.0	0.895088	Y
8	IC 480-720900/20	500.0	477.434549	25.0	400300.0	0.954869	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

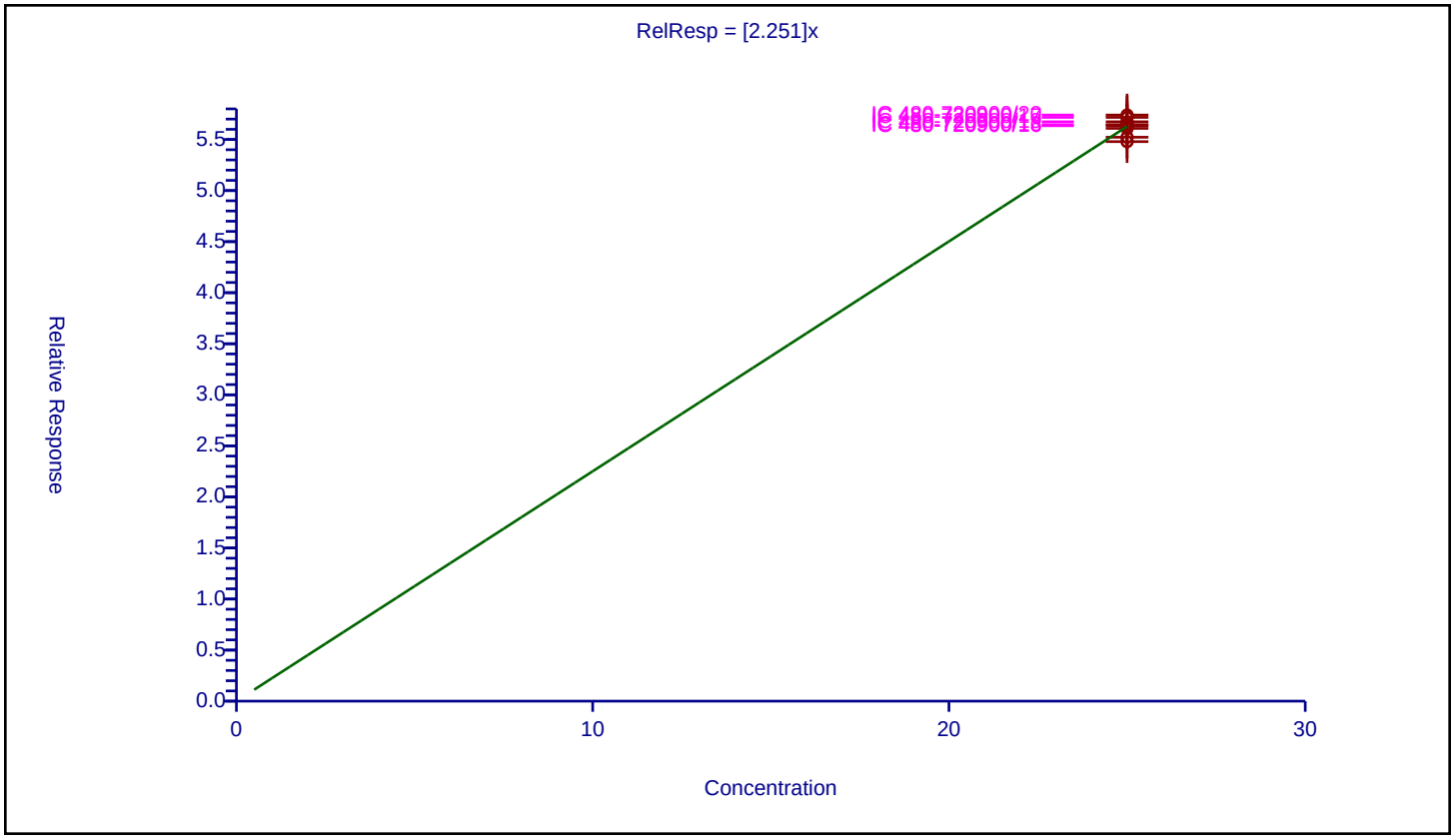
Curve Coefficients

Intercept:	0
Slope:	2.251

Error Coefficients

Relative Standard Deviation:	1.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	25.0	56.456515	25.0	383144.0	2.258261	Y
2	IC 480-720900/14	25.0	54.793211	25.0	370498.0	2.191728	Y
3	IC 480-720900/15	25.0	55.225045	25.0	376681.0	2.209002	Y
4	IC 480-720900/16	25.0	56.349367	25.0	379274.0	2.253975	Y
5	IC 480-720900/17	25.0	57.167667	25.0	378882.0	2.286707	Y
6	ICIS 480-720900/18	25.0	56.090169	25.0	396865.0	2.243607	Y
7	IC 480-720900/19	25.0	56.73944	25.0	384917.0	2.269578	Y
8	IC 480-720900/20	25.0	57.397077	25.0	400300.0	2.295883	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

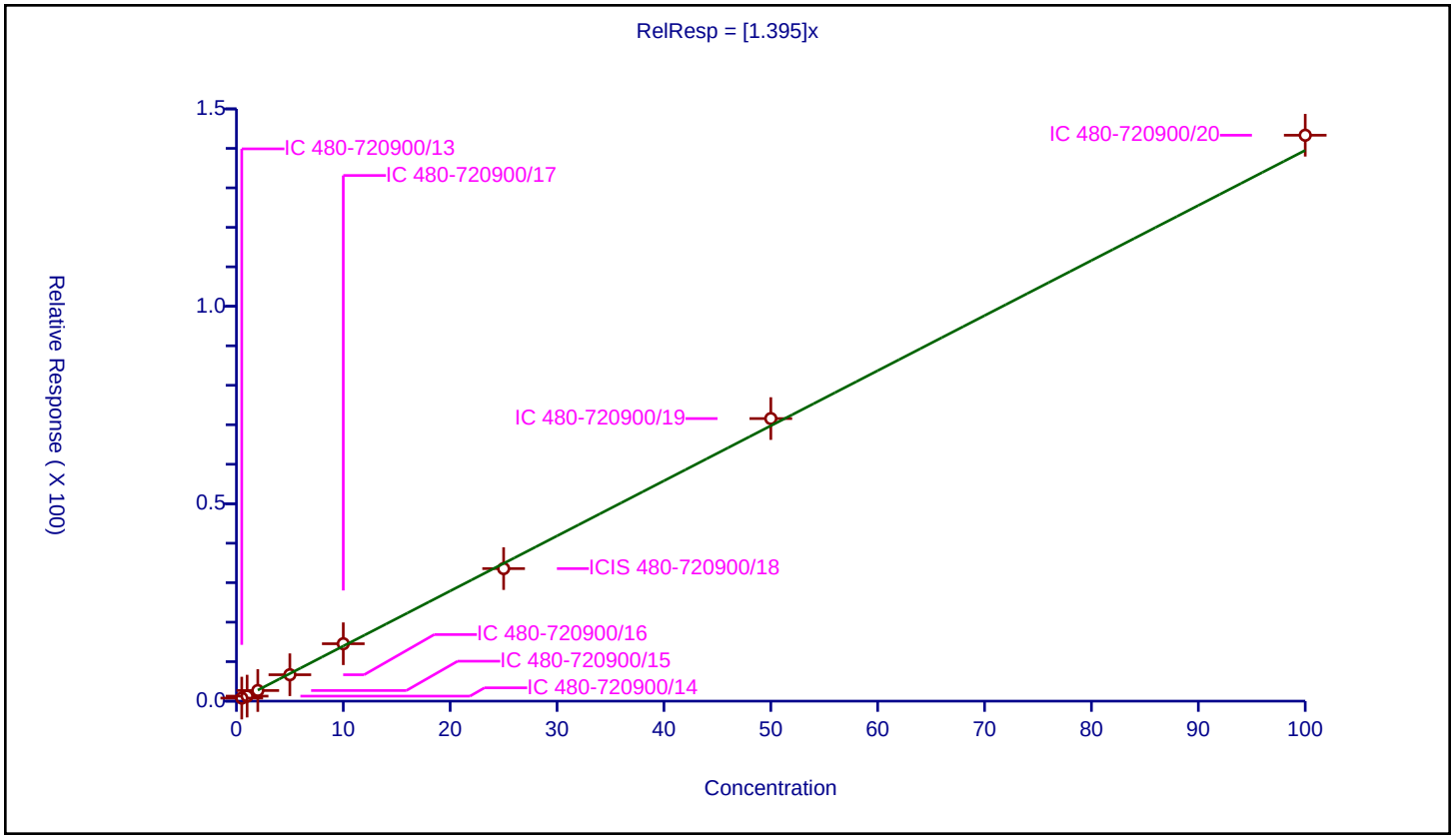
Curve Coefficients

Intercept:	0
Slope:	1.395

Error Coefficients

Relative Standard Deviation:	6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.774643	25.0	383144.0	1.549287	Y
2	IC 480-720900/14	1.0	1.269845	25.0	370498.0	1.269845	Y
3	IC 480-720900/15	2.0	2.68523	25.0	376681.0	1.342615	Y
4	IC 480-720900/16	5.0	6.686657	25.0	379274.0	1.337331	Y
5	IC 480-720900/17	10.0	14.538893	25.0	378882.0	1.453889	Y
6	ICIS 480-720900/18	25.0	33.566767	25.0	396865.0	1.342671	Y
7	IC 480-720900/19	50.0	71.566533	25.0	384917.0	1.431331	Y
8	IC 480-720900/20	100.0	143.32638	25.0	400300.0	1.433264	Y



Calibration / trans-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

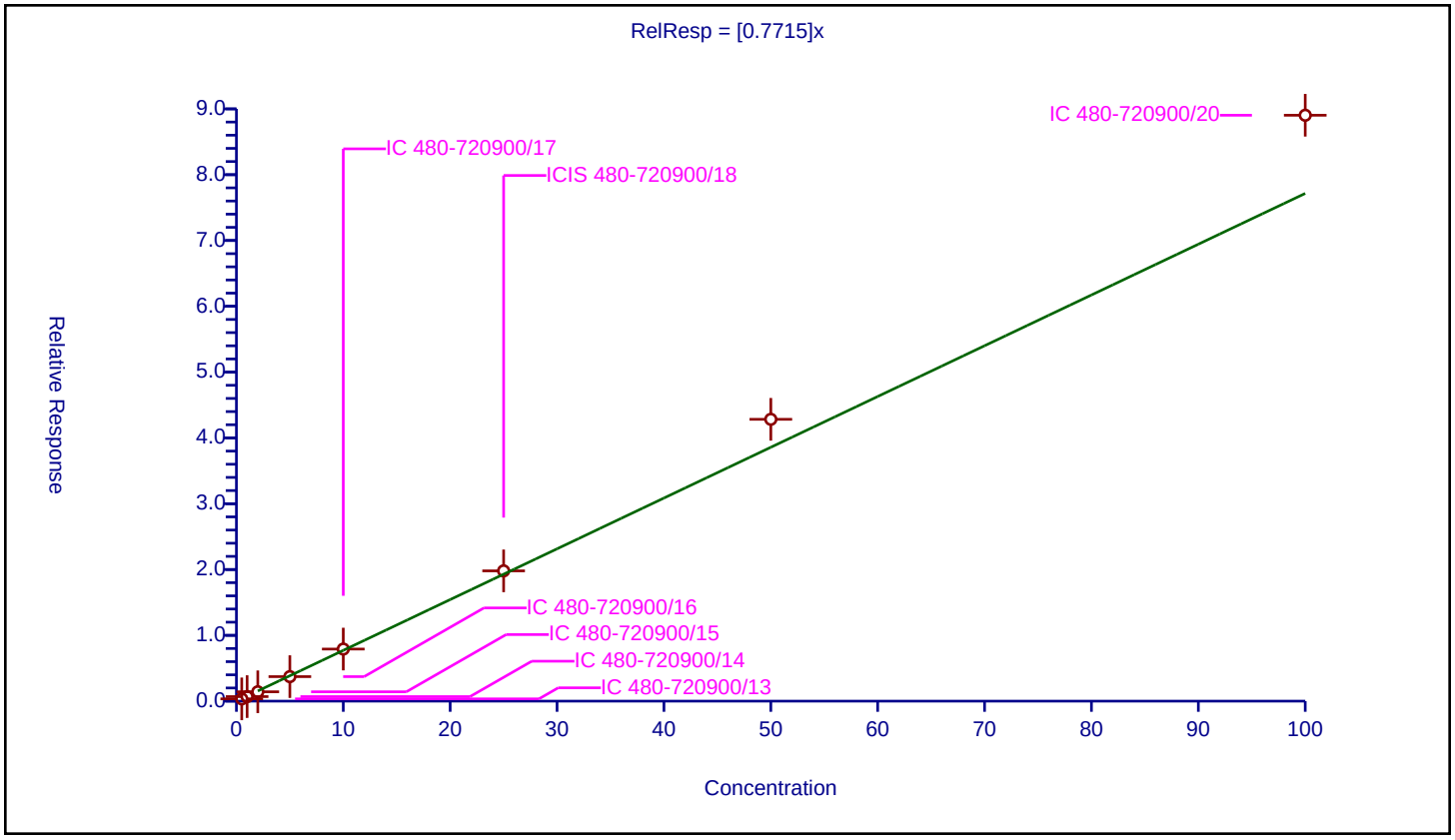
Curve Coefficients

Intercept:	0
Slope:	0.7715

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.347715	25.0	383144.0	0.69543	Y
2	IC 480-720900/14	1.0	0.68887	25.0	370498.0	0.68887	Y
3	IC 480-720900/15	2.0	1.424348	25.0	376681.0	0.712174	Y
4	IC 480-720900/16	5.0	3.727319	25.0	379274.0	0.745464	Y
5	IC 480-720900/17	10.0	7.913744	25.0	378882.0	0.791374	Y
6	ICIS 480-720900/18	25.0	19.799365	25.0	396865.0	0.791975	Y
7	IC 480-720900/19	50.0	42.825531	25.0	384917.0	0.856511	Y
8	IC 480-720900/20	100.0	89.03285	25.0	400300.0	0.890329	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

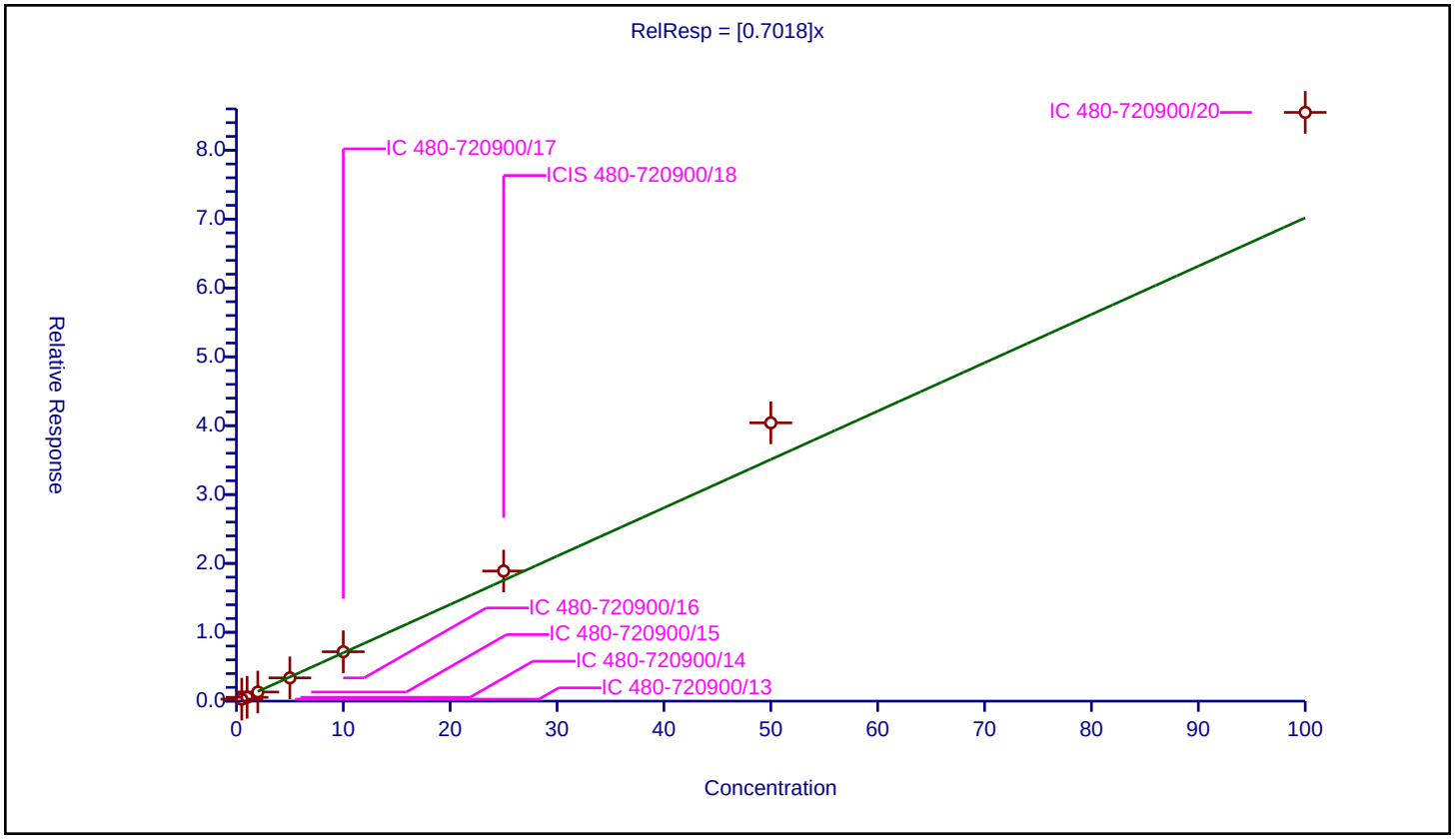
Curve Coefficients

Intercept:	0
Slope:	0.7018

Error Coefficients

Relative Standard Deviation:	14.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.291013	25.0	383144.0	0.582027	Y
2	IC 480-720900/14	1.0	0.557628	25.0	370498.0	0.557628	Y
3	IC 480-720900/15	2.0	1.325923	25.0	376681.0	0.662961	Y
4	IC 480-720900/16	5.0	3.379153	25.0	379274.0	0.675831	Y
5	IC 480-720900/17	10.0	7.173935	25.0	378882.0	0.717394	Y
6	ICIS 480-720900/18	25.0	18.8932	25.0	396865.0	0.755728	Y
7	IC 480-720900/19	50.0	40.415012	25.0	384917.0	0.8083	Y
8	IC 480-720900/20	100.0	85.488259	25.0	400300.0	0.854883	Y



Calibration / 1,1,2-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

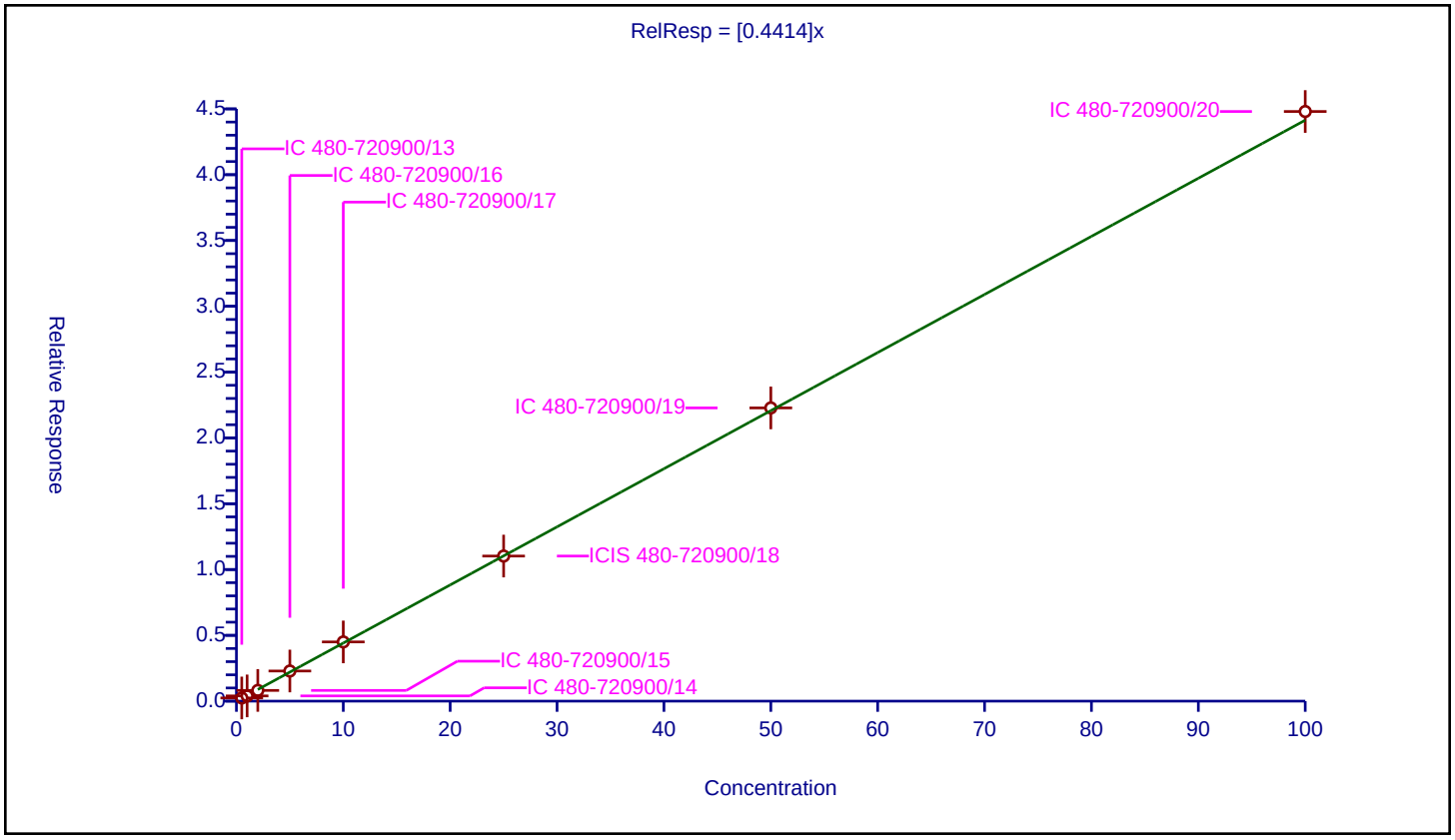
Curve Coefficients

Intercept:	0
Slope:	0.4414

Error Coefficients

Relative Standard Deviation:	6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.241946	25.0	383144.0	0.483891	Y
2	IC 480-720900/14	1.0	0.397708	25.0	370498.0	0.397708	Y
3	IC 480-720900/15	2.0	0.814416	25.0	376681.0	0.407208	Y
4	IC 480-720900/16	5.0	2.290626	25.0	379274.0	0.458125	Y
5	IC 480-720900/17	10.0	4.498894	25.0	378882.0	0.449889	Y
6	ICIS 480-720900/18	25.0	11.023963	25.0	396865.0	0.440959	Y
7	IC 480-720900/19	50.0	22.280323	25.0	384917.0	0.445606	Y
8	IC 480-720900/20	100.0	44.801461	25.0	400300.0	0.448015	Y



Calibration / Tetrachloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

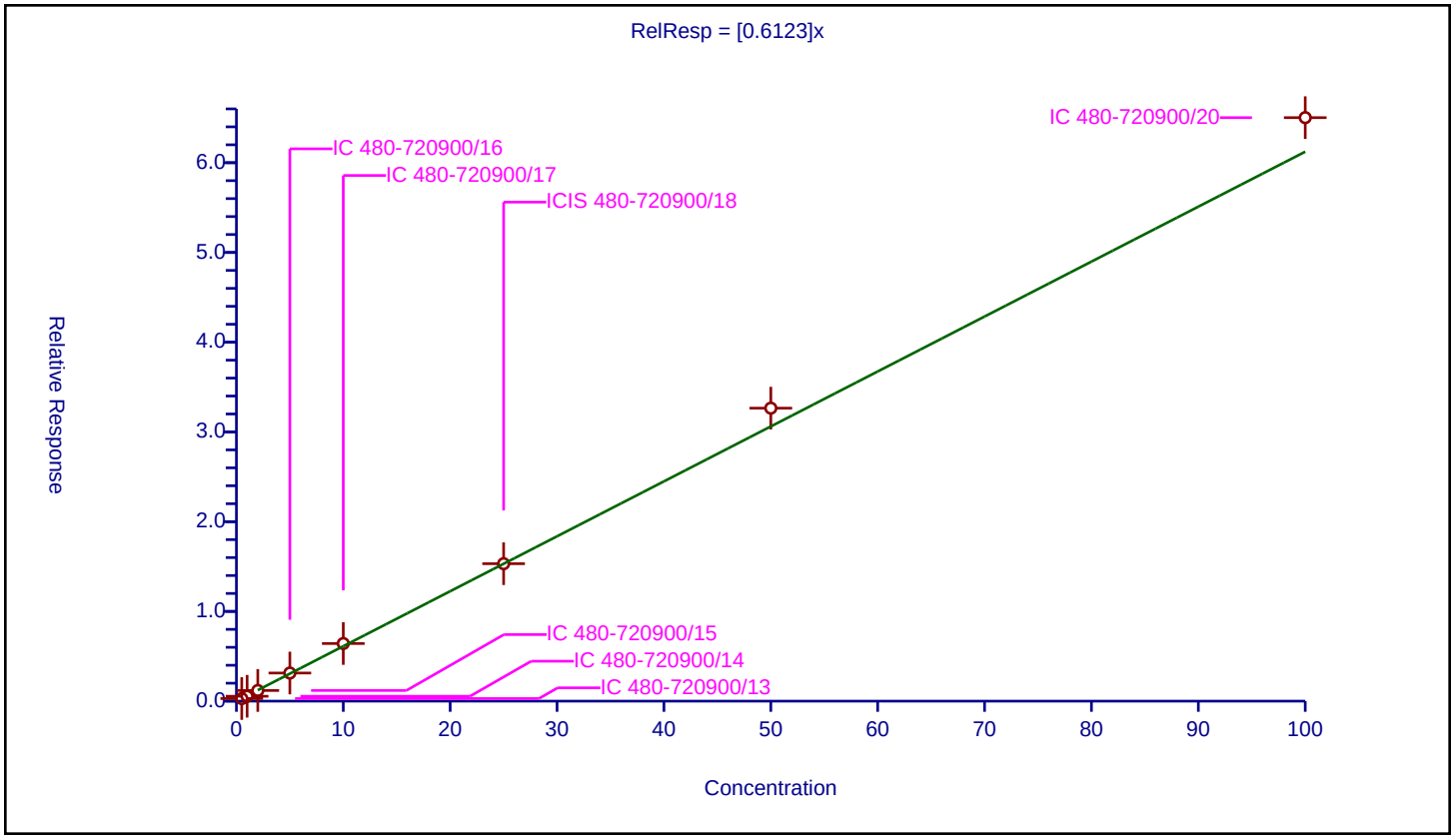
Curve Coefficients

Intercept:	0
Slope:	0.6123

Error Coefficients

Relative Standard Deviation:	6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.288664	25.0	383144.0	0.577329	Y
2	IC 480-720900/14	1.0	0.543593	25.0	370498.0	0.543593	Y
3	IC 480-720900/15	2.0	1.185619	25.0	376681.0	0.592809	Y
4	IC 480-720900/16	5.0	3.131773	25.0	379274.0	0.626355	Y
5	IC 480-720900/17	10.0	6.42159	25.0	378882.0	0.642159	Y
6	ICIS 480-720900/18	25.0	15.318181	25.0	396865.0	0.612727	Y
7	IC 480-720900/19	50.0	32.649636	25.0	384917.0	0.652993	Y
8	IC 480-720900/20	100.0	65.023732	25.0	400300.0	0.650237	Y



Calibration / 1,3-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

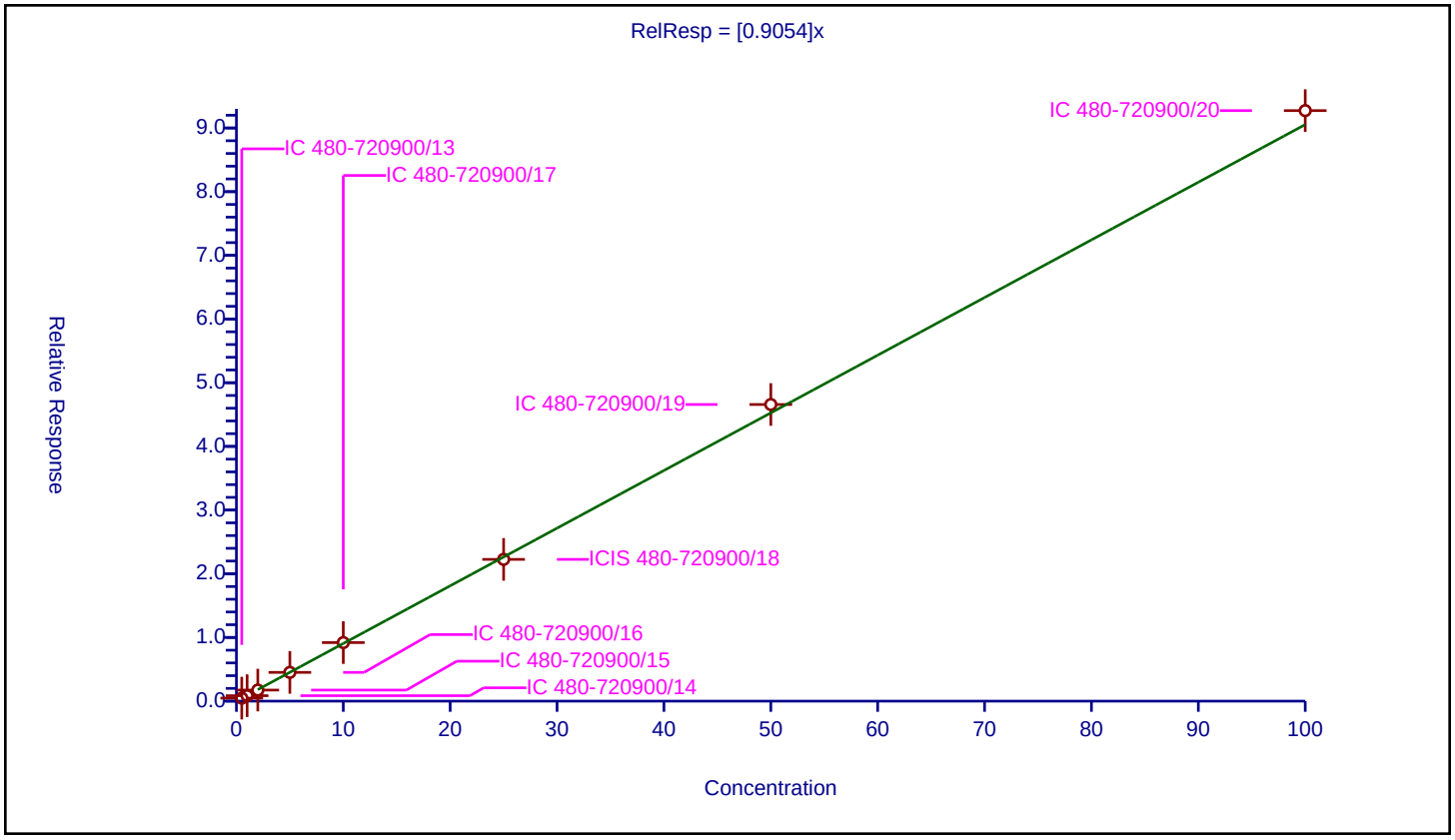
Curve Coefficients

Intercept:	0
Slope:	0.9054

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.474104	25.0	383144.0	0.948207	Y
2	IC 480-720900/14	1.0	0.854458	25.0	370498.0	0.854458	Y
3	IC 480-720900/15	2.0	1.736416	25.0	376681.0	0.868208	Y
4	IC 480-720900/16	5.0	4.516062	25.0	379274.0	0.903212	Y
5	IC 480-720900/17	10.0	9.195541	25.0	378882.0	0.919554	Y
6	ICIS 480-720900/18	25.0	22.261474	25.0	396865.0	0.890459	Y
7	IC 480-720900/19	50.0	46.581406	25.0	384917.0	0.931628	Y
8	IC 480-720900/20	100.0	92.728641	25.0	400300.0	0.927286	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

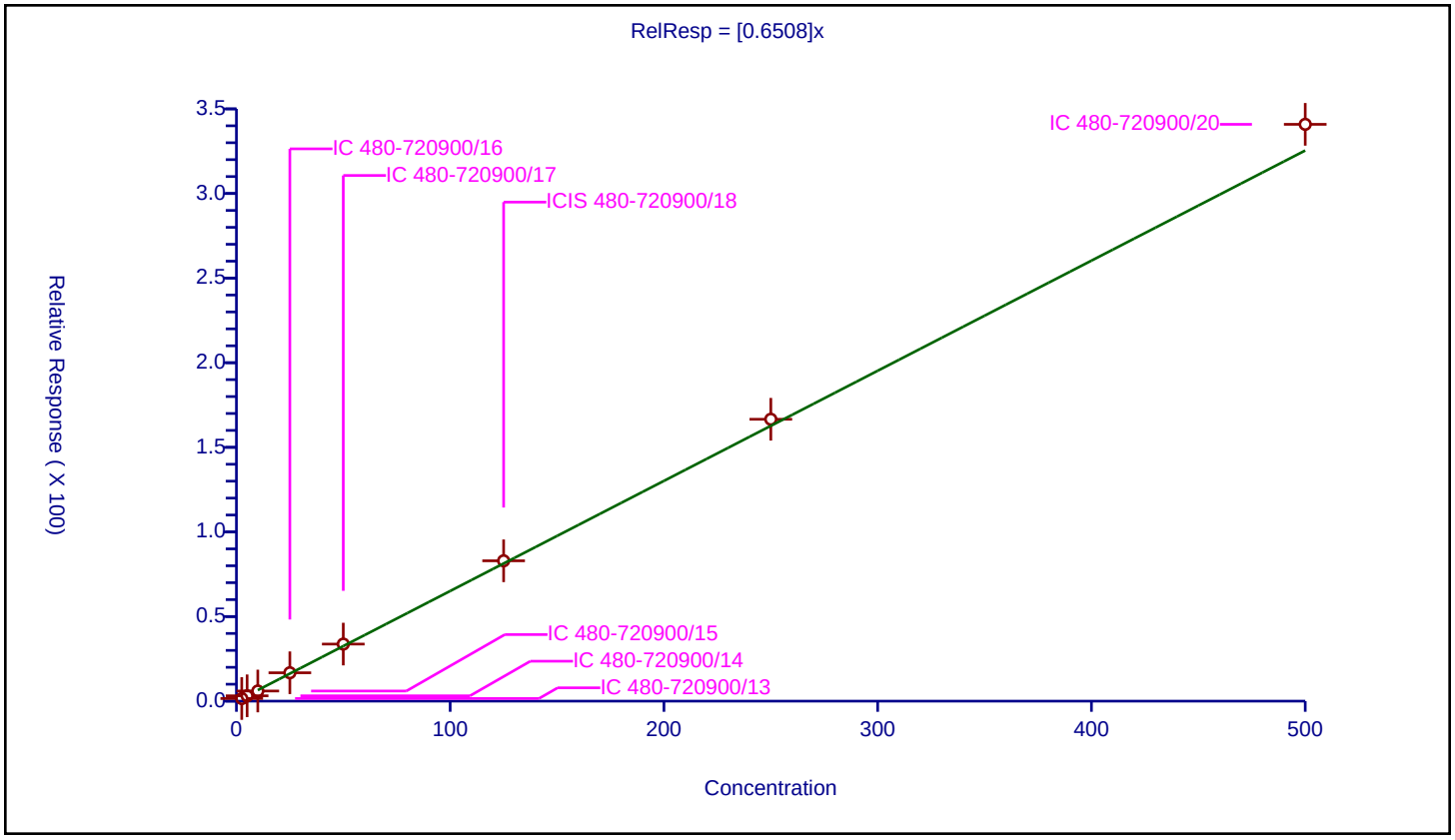
Curve Coefficients

Intercept:	0
Slope:	0.6508

Error Coefficients

Relative Standard Deviation:	4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	2.5	1.5487	25.0	383144.0	0.61948	Y
2	IC 480-720900/14	5.0	3.158991	25.0	370498.0	0.631798	Y
3	IC 480-720900/15	10.0	5.985901	25.0	376681.0	0.59859	Y
4	IC 480-720900/16	25.0	16.764661	25.0	379274.0	0.670586	Y
5	IC 480-720900/17	50.0	33.720063	25.0	378882.0	0.674401	Y
6	ICIS 480-720900/18	125.0	82.939035	25.0	396865.0	0.663512	Y
7	IC 480-720900/19	250.0	166.586108	25.0	384917.0	0.666344	Y
8	IC 480-720900/20	500.0	340.874344	25.0	400300.0	0.681749	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

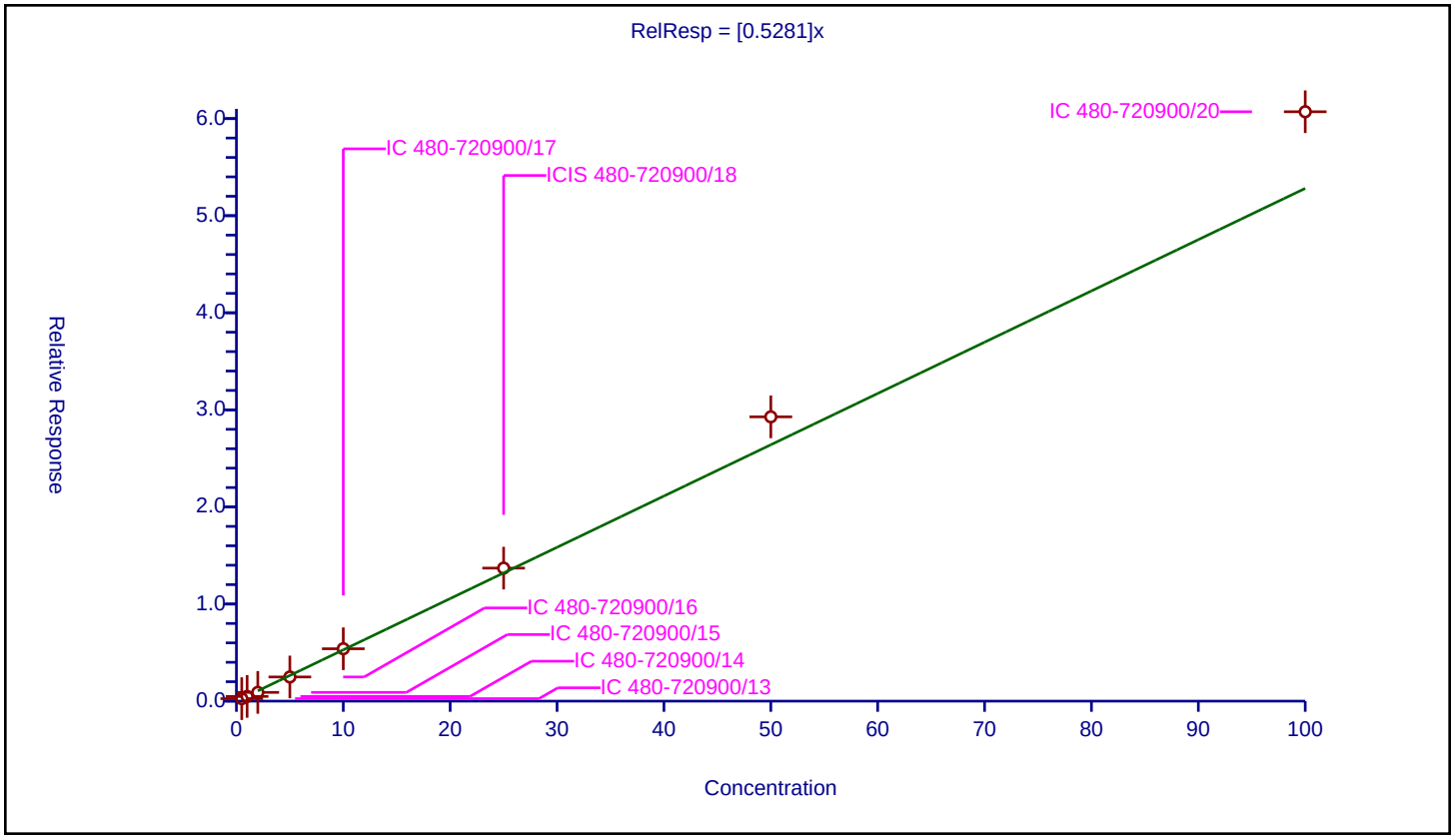
Curve Coefficients

Intercept:	0
Slope:	0.5281

Error Coefficients

Relative Standard Deviation:	9.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.255648	25.0	383144.0	0.511296	Y
2	IC 480-720900/14	1.0	0.484618	25.0	370498.0	0.484618	Y
3	IC 480-720900/15	2.0	0.901492	25.0	376681.0	0.450746	Y
4	IC 480-720900/16	5.0	2.489823	25.0	379274.0	0.497965	Y
5	IC 480-720900/17	10.0	5.395743	25.0	378882.0	0.539574	Y
6	ICIS 480-720900/18	25.0	13.700062	25.0	396865.0	0.548002	Y
7	IC 480-720900/19	50.0	29.282092	25.0	384917.0	0.585642	Y
8	IC 480-720900/20	100.0	60.706782	25.0	400300.0	0.607068	Y



Calibration / Ethylene Dibromide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

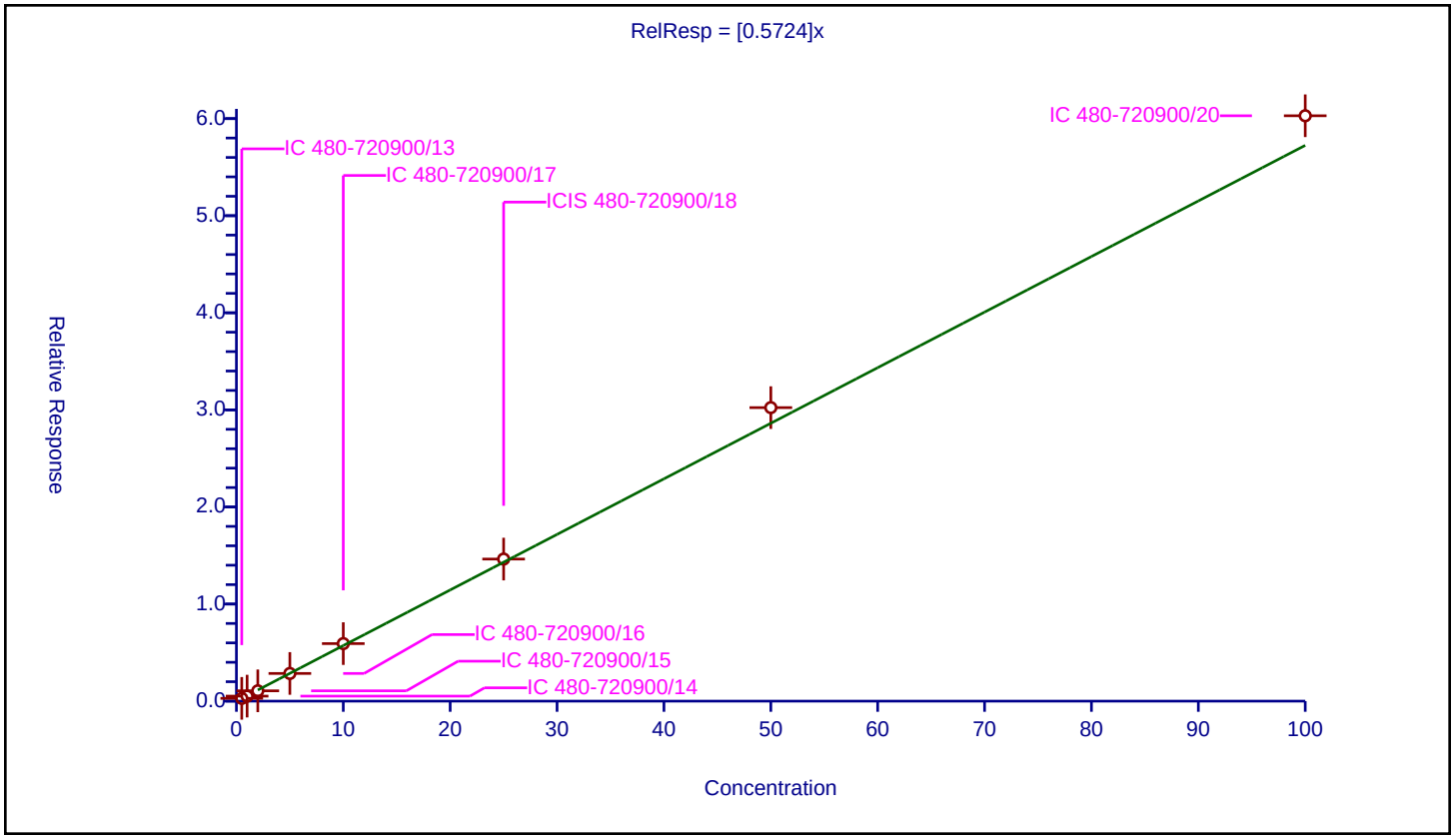
Curve Coefficients

Intercept:	0
Slope:	0.5724

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.287359	25.0	383144.0	0.574719	Y
2	IC 480-720900/14	1.0	0.516939	25.0	370498.0	0.516939	Y
3	IC 480-720900/15	2.0	1.063499	25.0	376681.0	0.53175	Y
4	IC 480-720900/16	5.0	2.851369	25.0	379274.0	0.570274	Y
5	IC 480-720900/17	10.0	5.927439	25.0	378882.0	0.592744	Y
6	ICIS 480-720900/18	25.0	14.633944	25.0	396865.0	0.585358	Y
7	IC 480-720900/19	50.0	30.231388	25.0	384917.0	0.604628	Y
8	IC 480-720900/20	100.0	60.291282	25.0	400300.0	0.602913	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

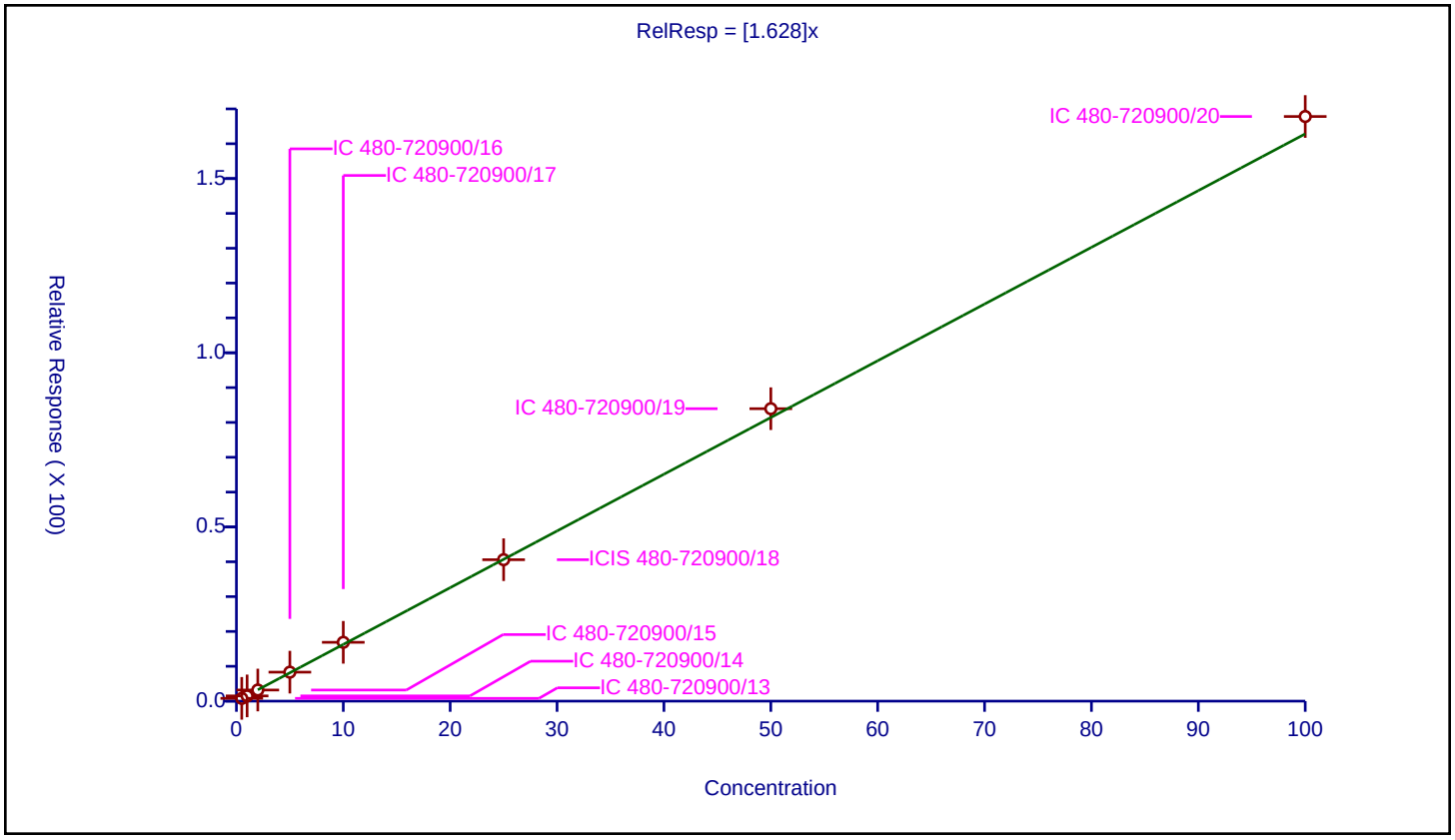
Curve Coefficients

Intercept:	0
Slope:	1.628

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.797285	25.0	383144.0	1.59457	Y
2	IC 480-720900/14	1.0	1.500413	25.0	370498.0	1.500413	Y
3	IC 480-720900/15	2.0	3.195078	25.0	376681.0	1.597539	Y
4	IC 480-720900/16	5.0	8.320172	25.0	379274.0	1.664034	Y
5	IC 480-720900/17	10.0	16.886194	25.0	378882.0	1.688619	Y
6	ICIS 480-720900/18	25.0	40.599196	25.0	396865.0	1.623968	Y
7	IC 480-720900/19	50.0	83.948812	25.0	384917.0	1.678976	Y
8	IC 480-720900/20	100.0	167.811516	25.0	400300.0	1.678115	Y



Calibration / 1,1,1,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

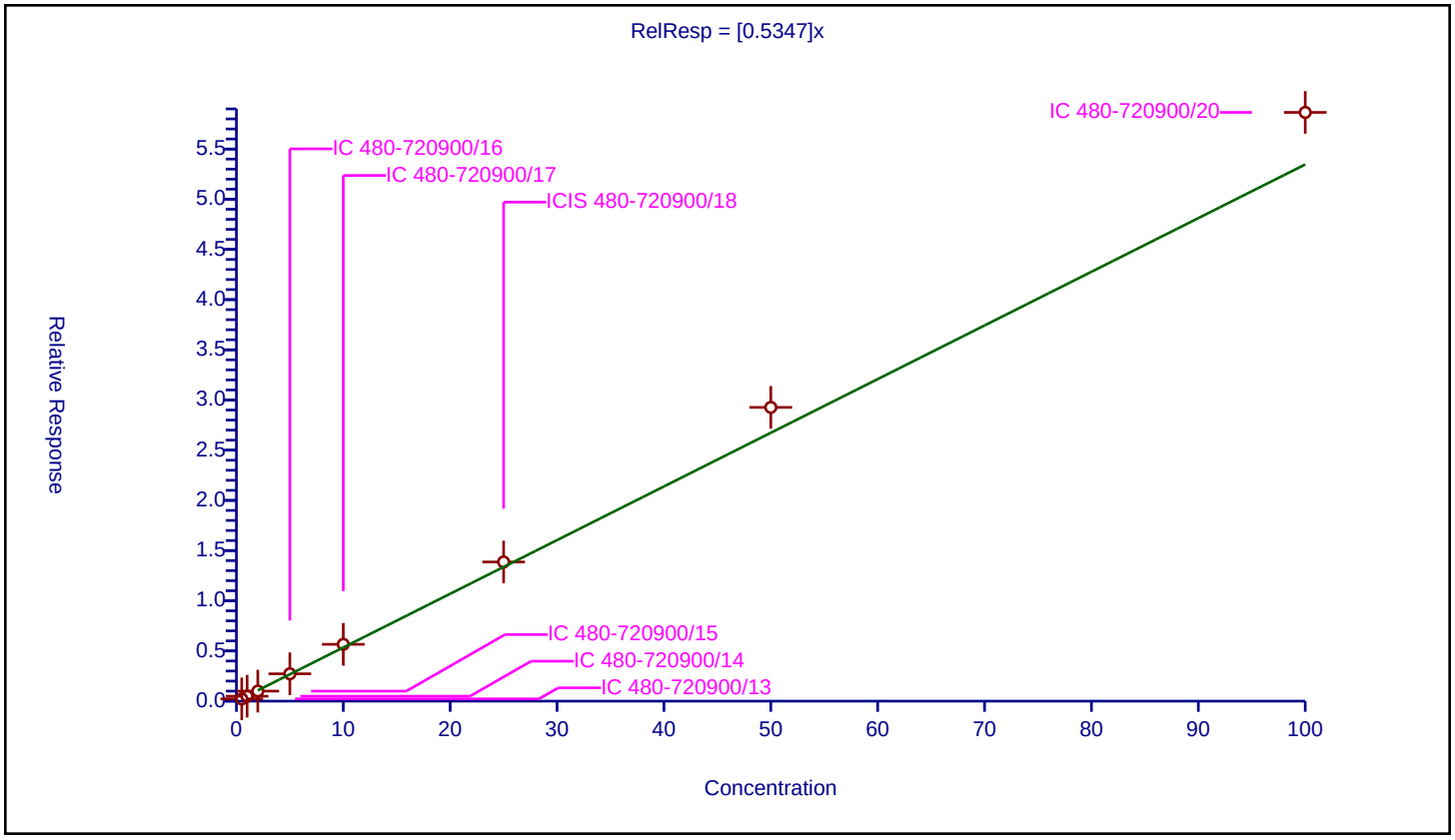
Curve Coefficients

Intercept:	0
Slope:	0.5347

Error Coefficients

Relative Standard Deviation:	9.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.224524	25.0	383144.0	0.449048	Y
2	IC 480-720900/14	1.0	0.490961	25.0	370498.0	0.490961	Y
3	IC 480-720900/15	2.0	0.999652	25.0	376681.0	0.499826	Y
4	IC 480-720900/16	5.0	2.723954	25.0	379274.0	0.544791	Y
5	IC 480-720900/17	10.0	5.662053	25.0	378882.0	0.566205	Y
6	ICIS 480-720900/18	25.0	13.865924	25.0	396865.0	0.554637	Y
7	IC 480-720900/19	50.0	29.264036	25.0	384917.0	0.585281	Y
8	IC 480-720900/20	100.0	58.648451	25.0	400300.0	0.586485	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

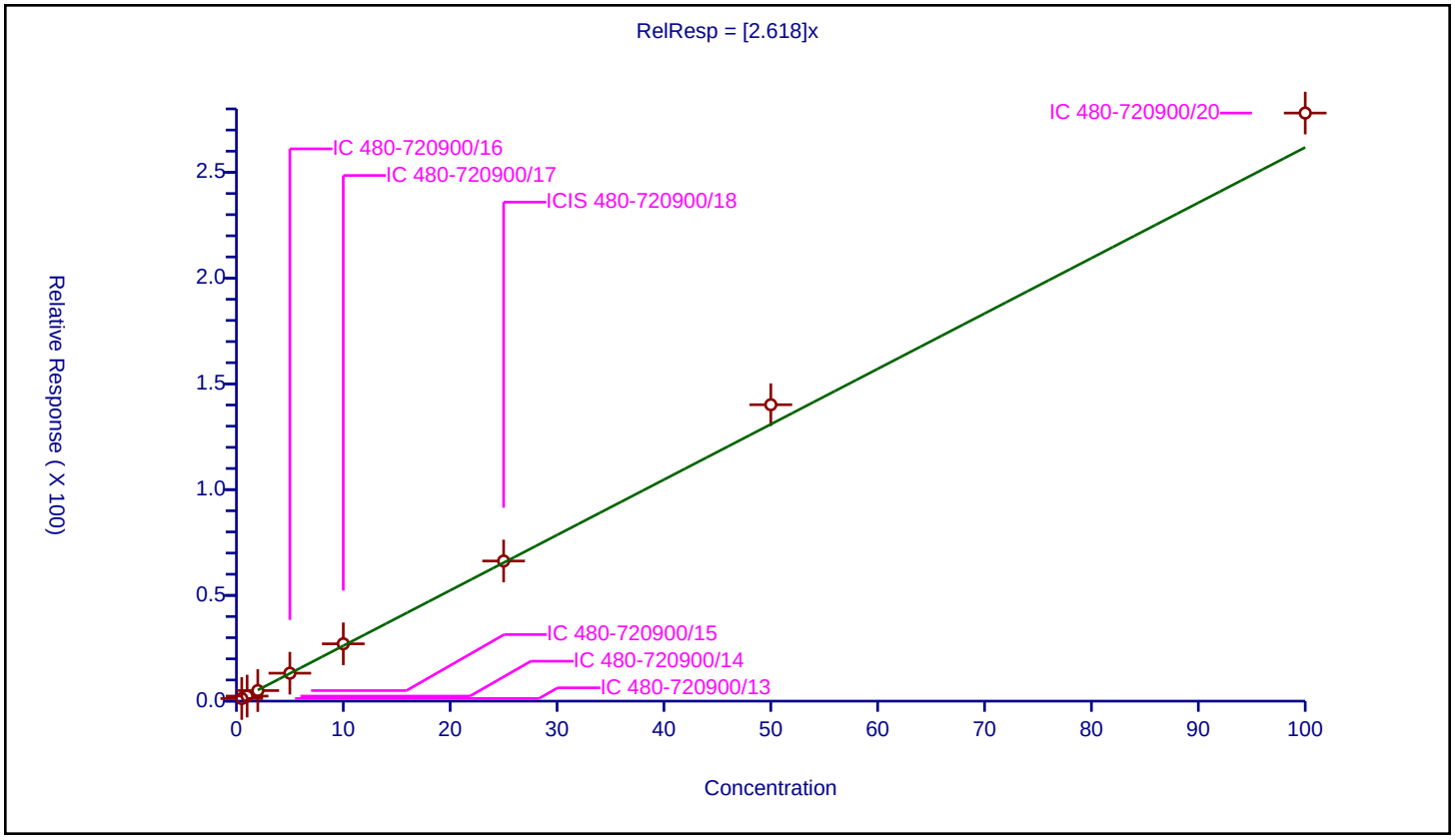
Curve Coefficients

Intercept:	0
Slope:	2.618

Error Coefficients

Relative Standard Deviation:	5.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.237655	25.0	383144.0	2.47531	Y
2	IC 480-720900/14	1.0	2.387732	25.0	370498.0	2.387732	Y
3	IC 480-720900/15	2.0	4.991292	25.0	376681.0	2.495646	Y
4	IC 480-720900/16	5.0	13.210304	25.0	379274.0	2.642061	Y
5	IC 480-720900/17	10.0	27.098806	25.0	378882.0	2.709881	Y
6	ICIS 480-720900/18	25.0	66.258236	25.0	396865.0	2.650329	Y
7	IC 480-720900/19	50.0	140.138588	25.0	384917.0	2.802772	Y
8	IC 480-720900/20	100.0	278.034349	25.0	400300.0	2.780343	Y



Calibration / m-Xylene & p-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

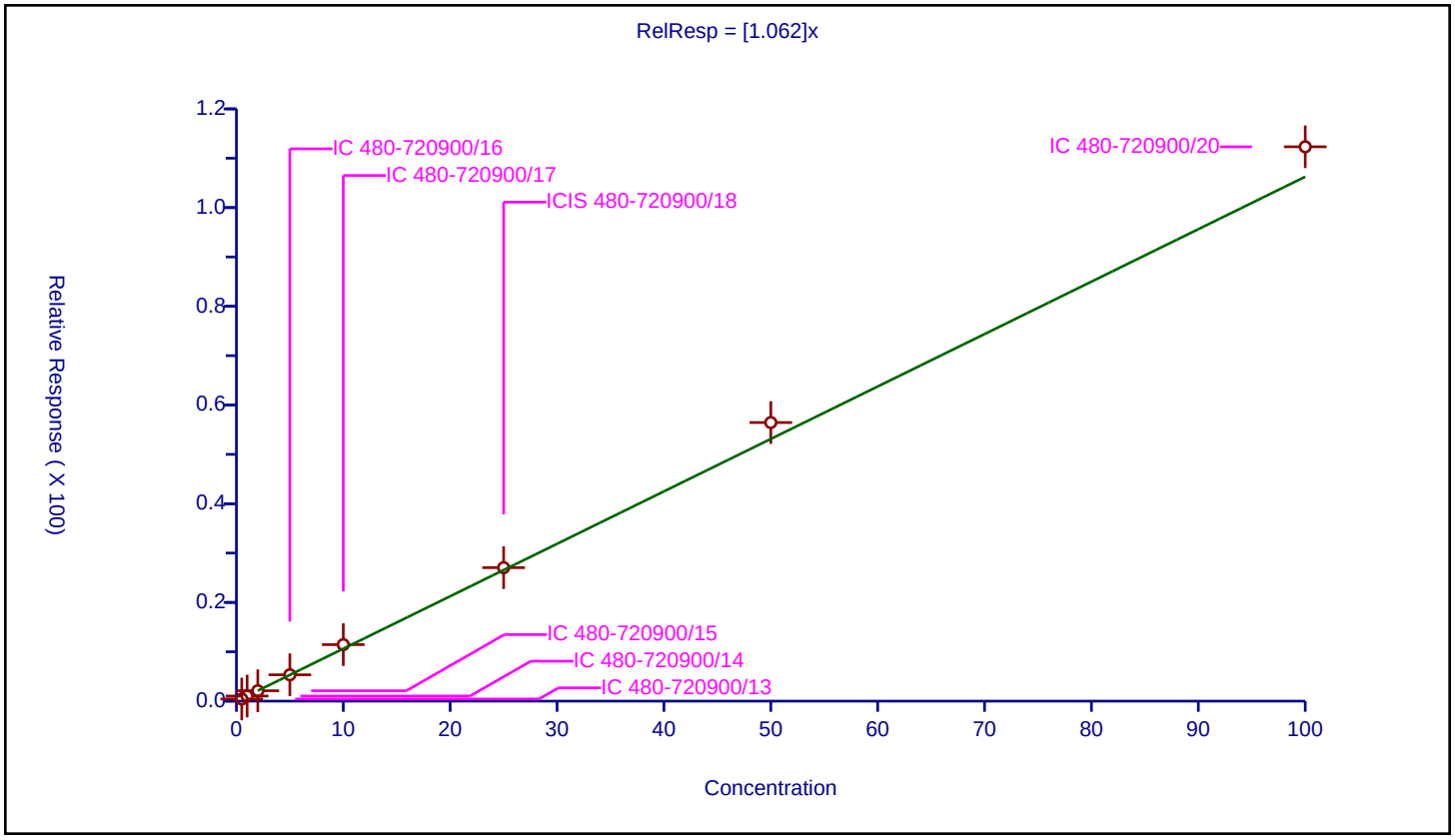
Curve Coefficients

Intercept:	0
Slope:	1.062

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.433975	25.0	383144.0	0.86795	Y
2	IC 480-720900/14	1.0	1.032057	25.0	370498.0	1.032057	Y
3	IC 480-720900/15	2.0	2.107752	25.0	376681.0	1.053876	Y
4	IC 480-720900/16	5.0	5.337236	25.0	379274.0	1.067447	Y
5	IC 480-720900/17	10.0	11.446506	25.0	378882.0	1.144651	Y
6	ICIS 480-720900/18	25.0	27.046729	25.0	396865.0	1.081869	Y
7	IC 480-720900/19	50.0	56.447754	25.0	384917.0	1.128955	Y
8	IC 480-720900/20	100.0	112.318698	25.0	400300.0	1.123187	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

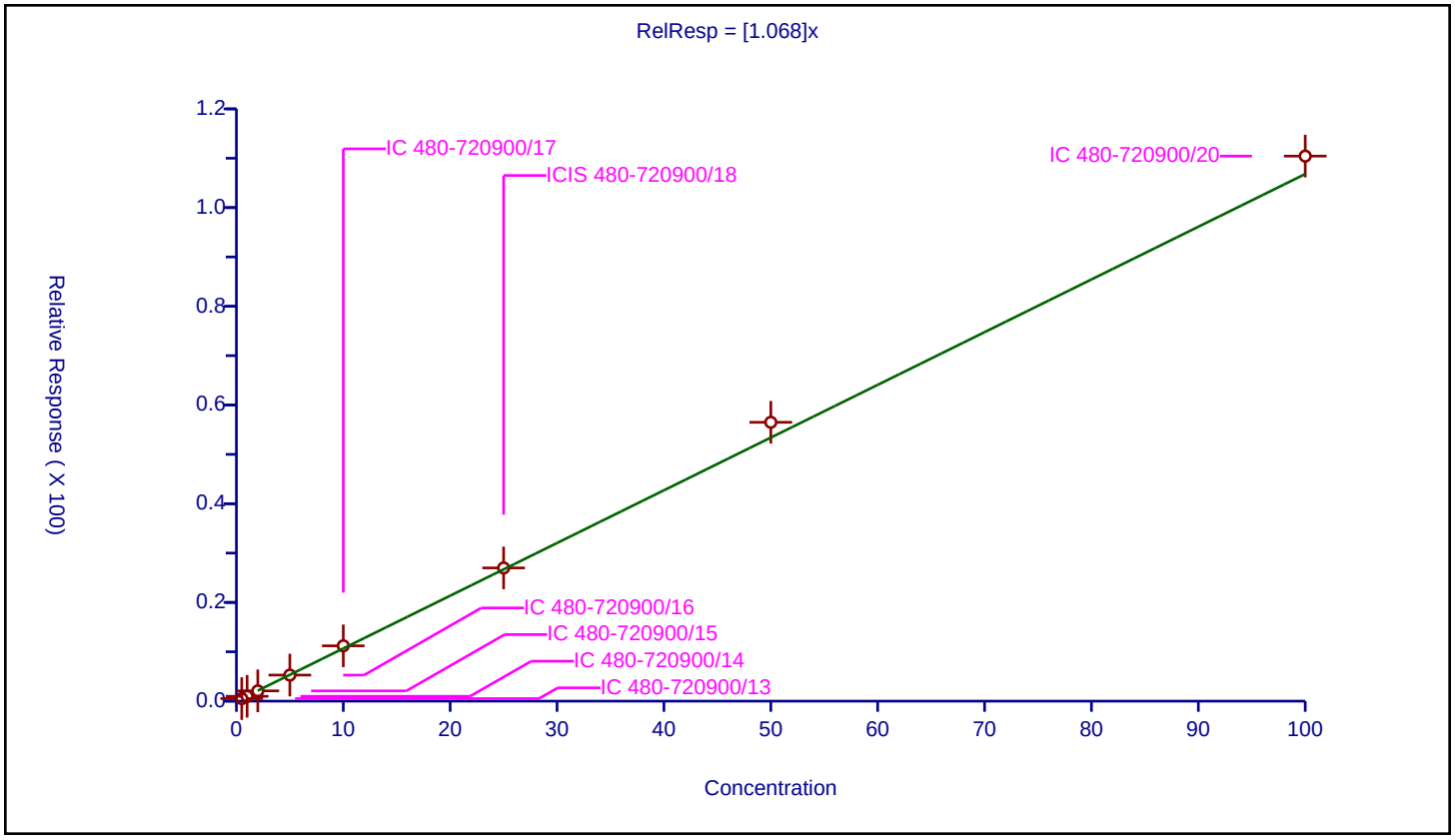
Curve Coefficients

Intercept:	0
Slope:	1.068

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.517234	25.0	383144.0	1.034467	Y
2	IC 480-720900/14	1.0	0.979223	25.0	370498.0	0.979223	Y
3	IC 480-720900/15	2.0	2.078416	25.0	376681.0	1.039208	Y
4	IC 480-720900/16	5.0	5.282263	25.0	379274.0	1.056453	Y
5	IC 480-720900/17	10.0	11.208173	25.0	378882.0	1.120817	Y
6	ICIS 480-720900/18	25.0	26.988019	25.0	396865.0	1.079521	Y
7	IC 480-720900/19	50.0	56.498154	25.0	384917.0	1.129963	Y
8	IC 480-720900/20	100.0	110.42974	25.0	400300.0	1.104297	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

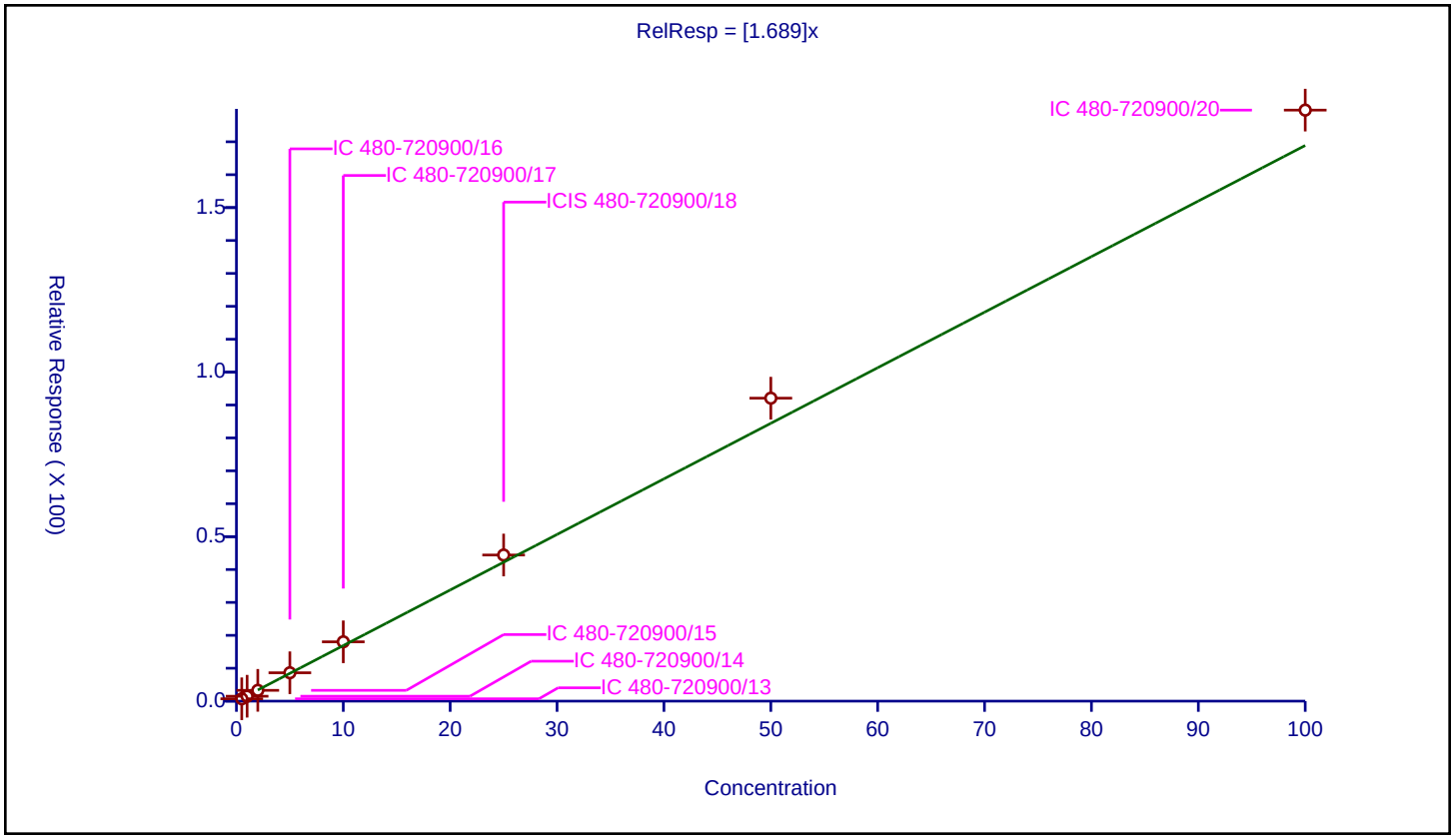
Curve Coefficients

Intercept:	0
Slope:	1.689

Error Coefficients

Relative Standard Deviation:	9.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.716441	25.0	383144.0	1.432882	Y
2	IC 480-720900/14	1.0	1.49542	25.0	370498.0	1.49542	Y
3	IC 480-720900/15	2.0	3.280495	25.0	376681.0	1.640247	Y
4	IC 480-720900/16	5.0	8.622263	25.0	379274.0	1.724453	Y
5	IC 480-720900/17	10.0	18.030086	25.0	378882.0	1.803009	Y
6	ICIS 480-720900/18	25.0	44.41082	25.0	396865.0	1.776433	Y
7	IC 480-720900/19	50.0	92.08089	25.0	384917.0	1.841618	Y
8	IC 480-720900/20	100.0	179.631401	25.0	400300.0	1.796314	Y



Calibration / Bromoform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

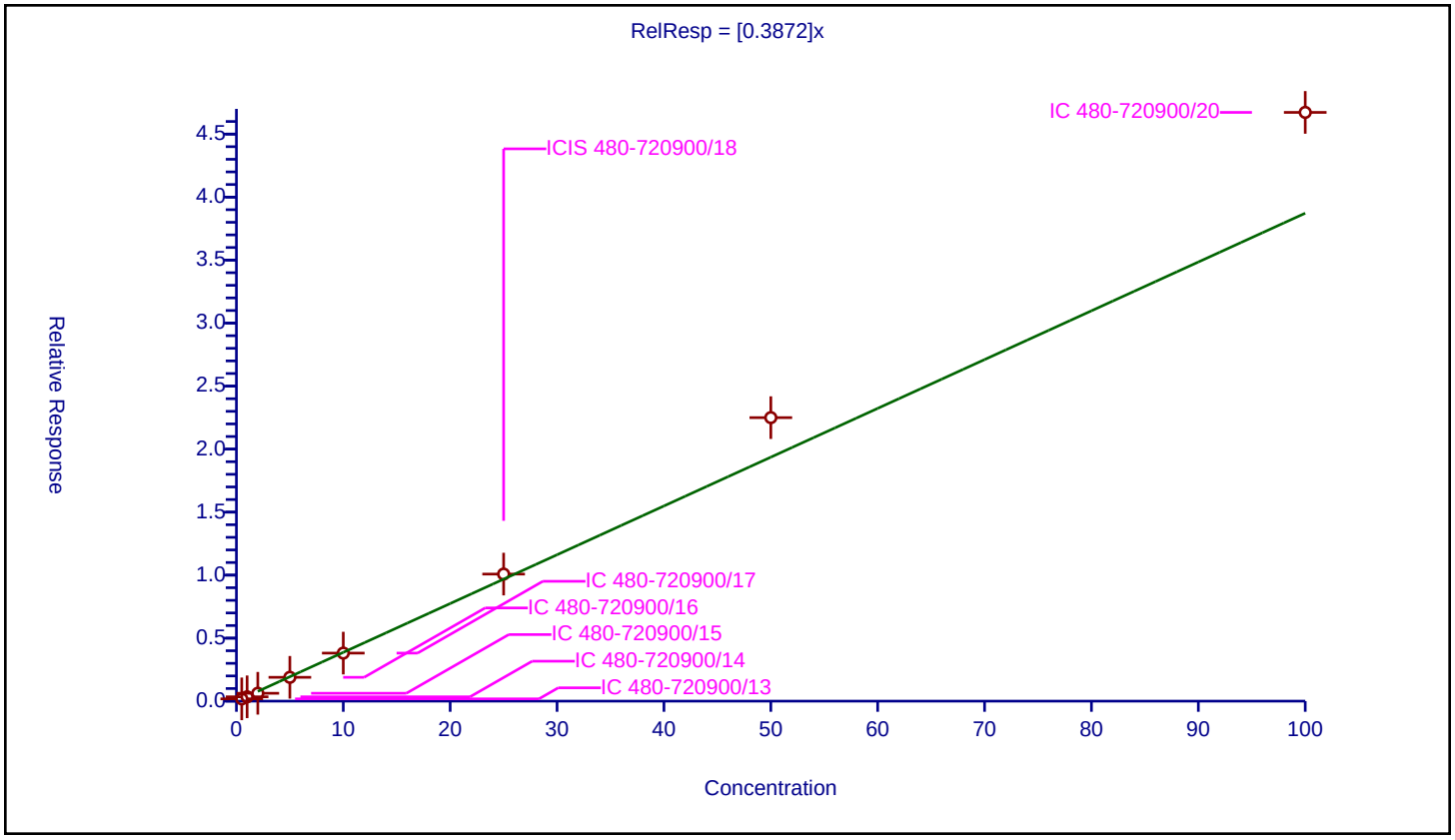
Curve Coefficients

Intercept:	0
Slope:	0.3872

Error Coefficients

Relative Standard Deviation:	13.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.181329	25.0	383144.0	0.362657	Y
2	IC 480-720900/14	1.0	0.342579	25.0	370498.0	0.342579	Y
3	IC 480-720900/15	2.0	0.62533	25.0	376681.0	0.312665	Y
4	IC 480-720900/16	5.0	1.890124	25.0	379274.0	0.378025	Y
5	IC 480-720900/17	10.0	3.812797	25.0	378882.0	0.38128	Y
6	ICIS 480-720900/18	25.0	10.082396	25.0	396865.0	0.403296	Y
7	IC 480-720900/19	50.0	22.498292	25.0	384917.0	0.449966	Y
8	IC 480-720900/20	100.0	46.721209	25.0	400300.0	0.467212	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

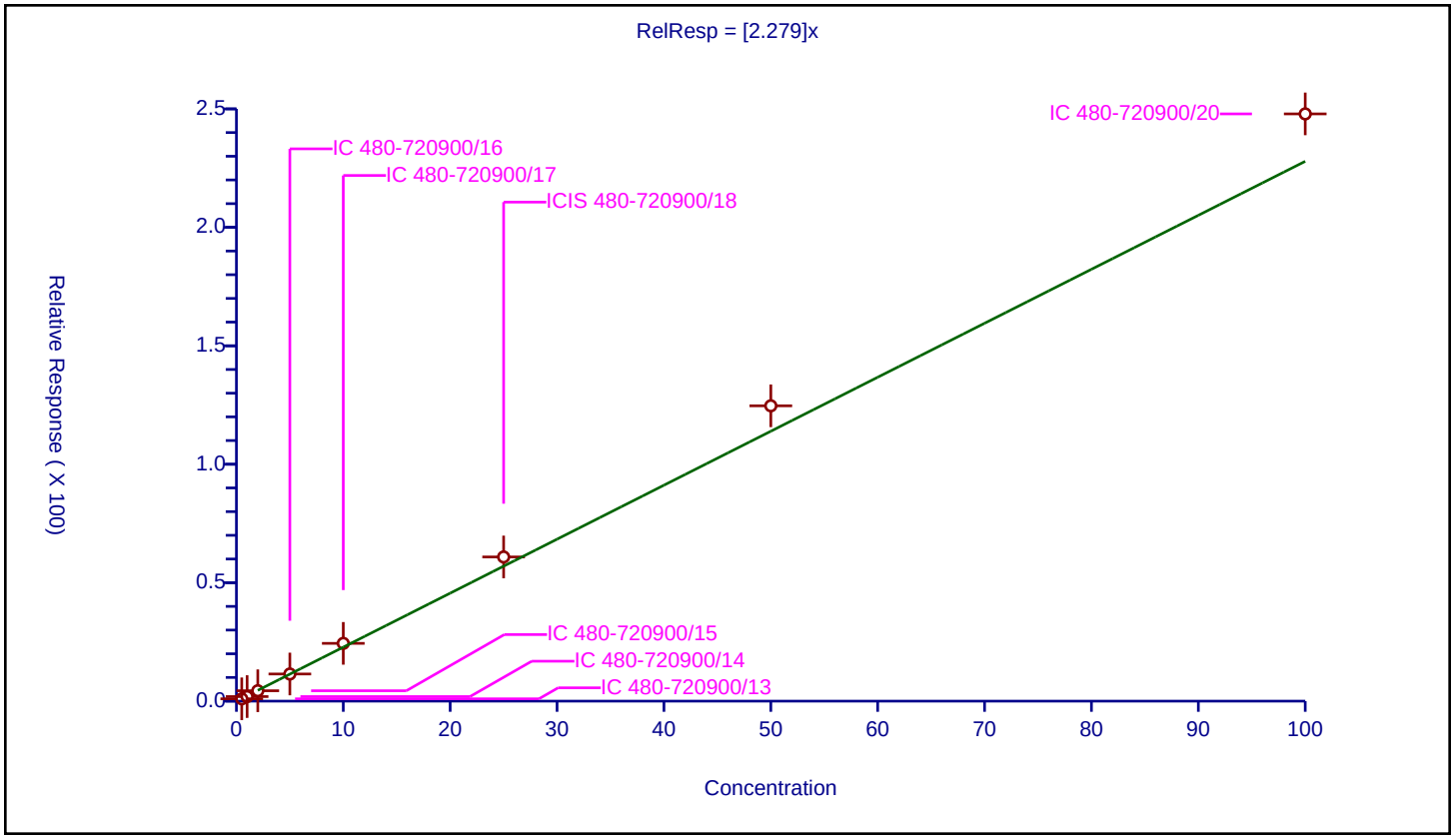
Curve Coefficients

Intercept:	0
Slope:	2.279

Error Coefficients

Relative Standard Deviation:	10.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.985564	25.0	422702.0	1.971129	Y
2	IC 480-720900/14	1.0	1.925035	25.0	415525.0	1.925035	Y
3	IC 480-720900/15	2.0	4.392237	25.0	424203.0	2.196118	Y
4	IC 480-720900/16	5.0	11.456556	25.0	423238.0	2.291311	Y
5	IC 480-720900/17	10.0	24.387047	25.0	425848.0	2.438705	Y
6	ICIS 480-720900/18	25.0	60.866512	25.0	434691.0	2.43466	Y
7	IC 480-720900/19	50.0	124.664618	25.0	425261.0	2.493292	Y
8	IC 480-720900/20	100.0	247.881925	25.0	441179.0	2.478819	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

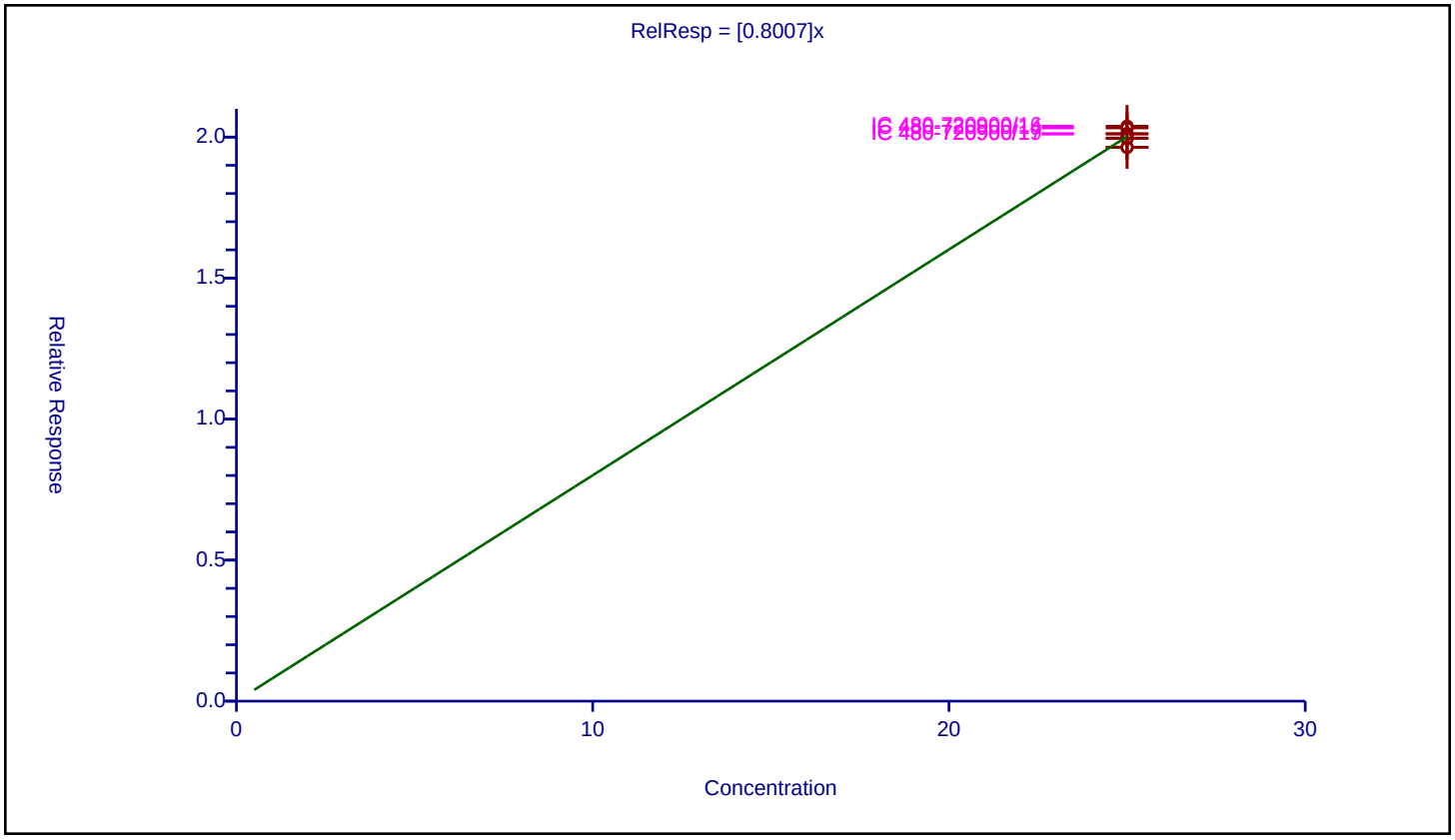
Curve Coefficients

Intercept:	0
Slope:	0.8007

Error Coefficients

Relative Standard Deviation:	1.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	25.0	19.631261	25.0	383144.0	0.78525	Y
2	IC 480-720900/14	25.0	20.322377	25.0	370498.0	0.812895	Y
3	IC 480-720900/15	25.0	19.967028	25.0	376681.0	0.798681	Y
4	IC 480-720900/16	25.0	20.386119	25.0	379274.0	0.815445	Y
5	IC 480-720900/17	25.0	20.124933	25.0	378882.0	0.804997	Y
6	ICIS 480-720900/18	25.0	19.951936	25.0	396865.0	0.798077	Y
7	IC 480-720900/19	25.0	20.106023	25.0	384917.0	0.804241	Y
8	IC 480-720900/20	25.0	19.642331	25.0	400300.0	0.785693	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

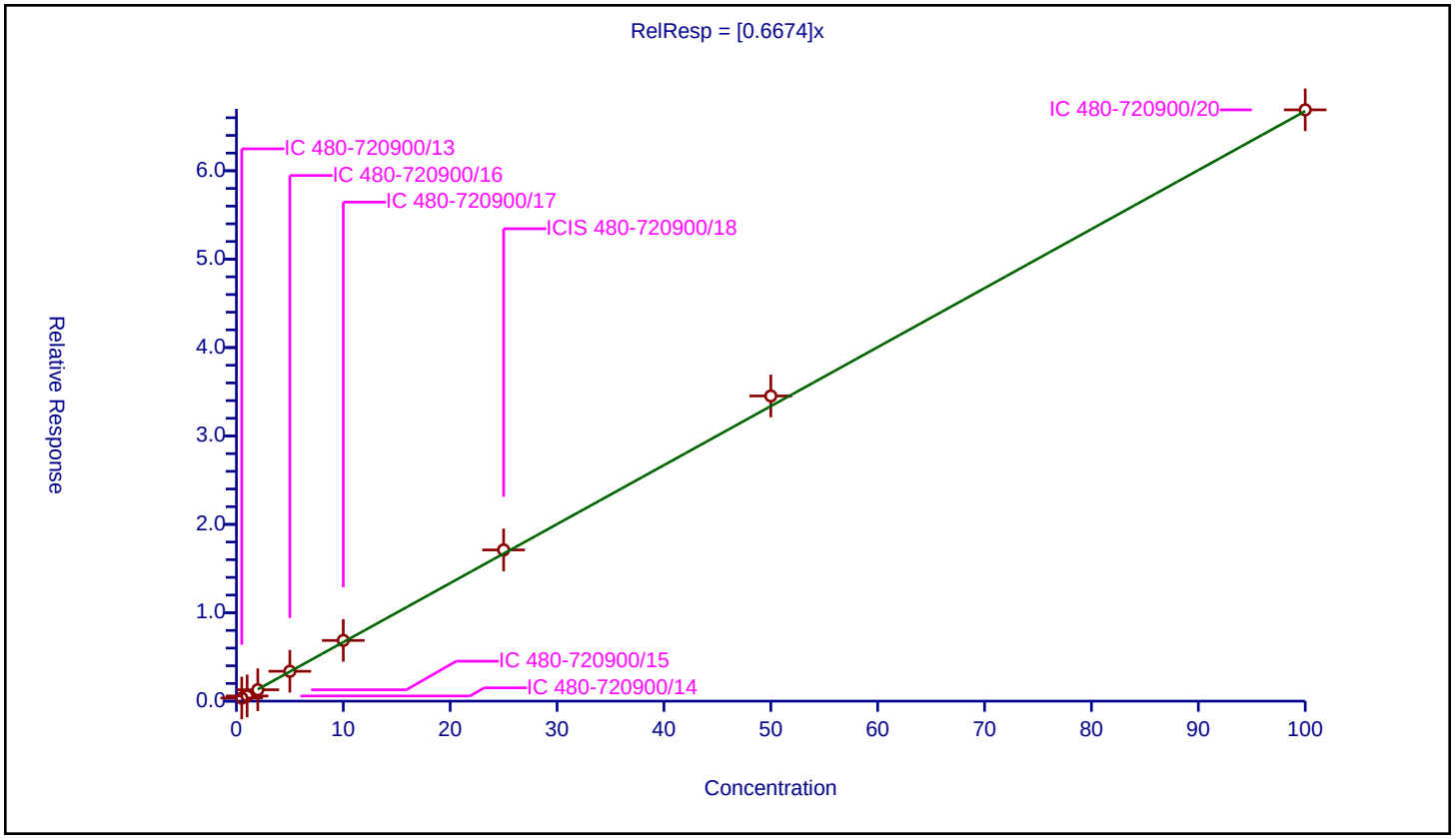
Curve Coefficients

Intercept:	0
Slope:	0.6674

Error Coefficients

Relative Standard Deviation:	5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.350779	25.0	422702.0	0.701558	Y
2	IC 480-720900/14	1.0	0.586728	25.0	415525.0	0.586728	Y
3	IC 480-720900/15	2.0	1.289477	25.0	424203.0	0.644738	Y
4	IC 480-720900/16	5.0	3.380545	25.0	423238.0	0.676109	Y
5	IC 480-720900/17	10.0	6.867298	25.0	425848.0	0.68673	Y
6	ICIS 480-720900/18	25.0	17.105312	25.0	434691.0	0.684212	Y
7	IC 480-720900/19	50.0	34.523916	25.0	425261.0	0.690478	Y
8	IC 480-720900/20	100.0	66.892576	25.0	441179.0	0.668926	Y



Calibration / 1,1,2,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

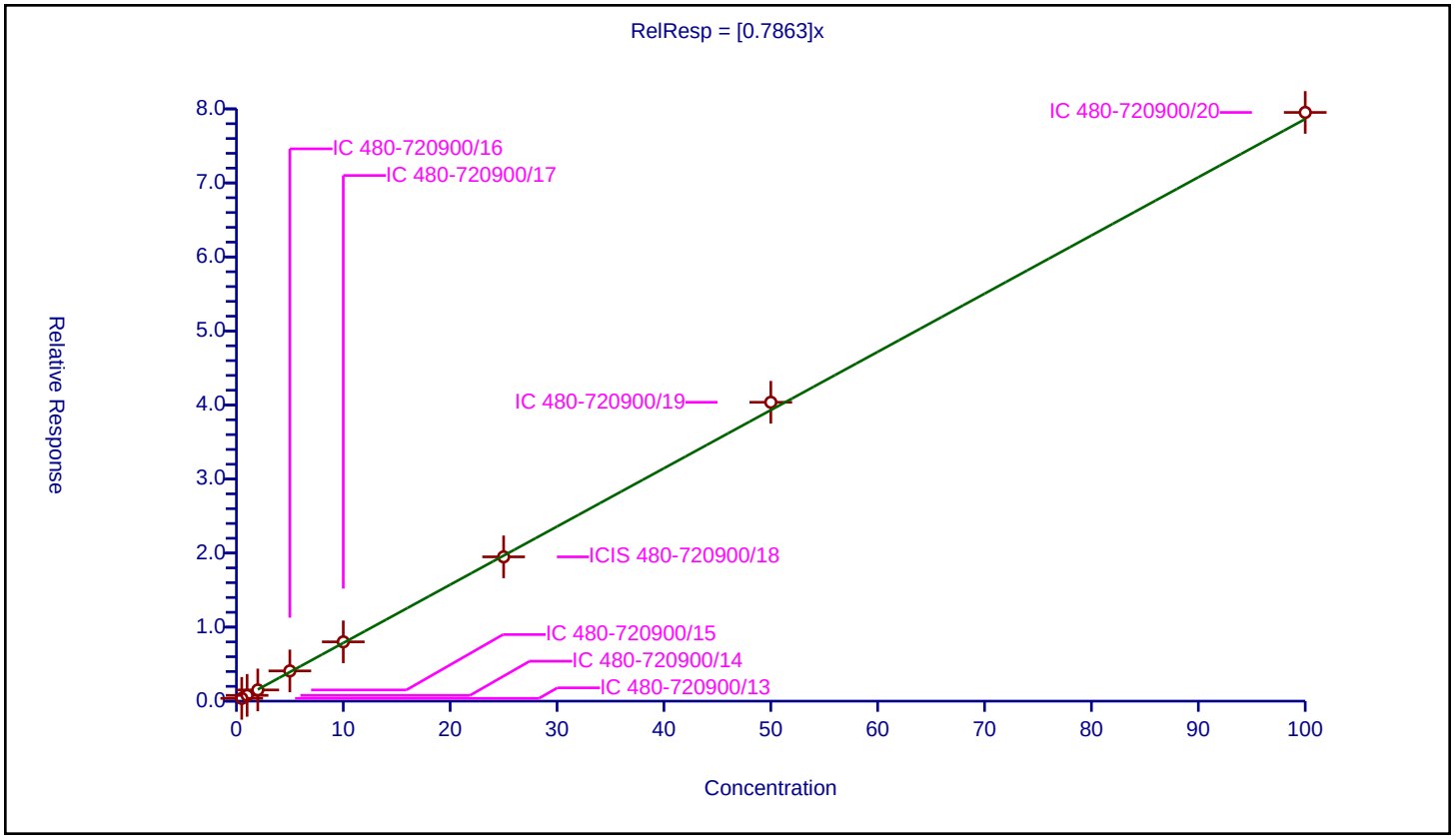
Curve Coefficients

Intercept:	0
Slope:	0.7863

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.376447	25.0	422702.0	0.752894	Y
2	IC 480-720900/14	1.0	0.780458	25.0	415525.0	0.780458	Y
3	IC 480-720900/15	2.0	1.512955	25.0	424203.0	0.756477	Y
4	IC 480-720900/16	5.0	4.08659	25.0	423238.0	0.817318	Y
5	IC 480-720900/17	10.0	8.0099	25.0	425848.0	0.80099	Y
6	ICIS 480-720900/18	25.0	19.489937	25.0	434691.0	0.779597	Y
7	IC 480-720900/19	50.0	40.371266	25.0	425261.0	0.807425	Y
8	IC 480-720900/20	100.0	79.520614	25.0	441179.0	0.795206	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

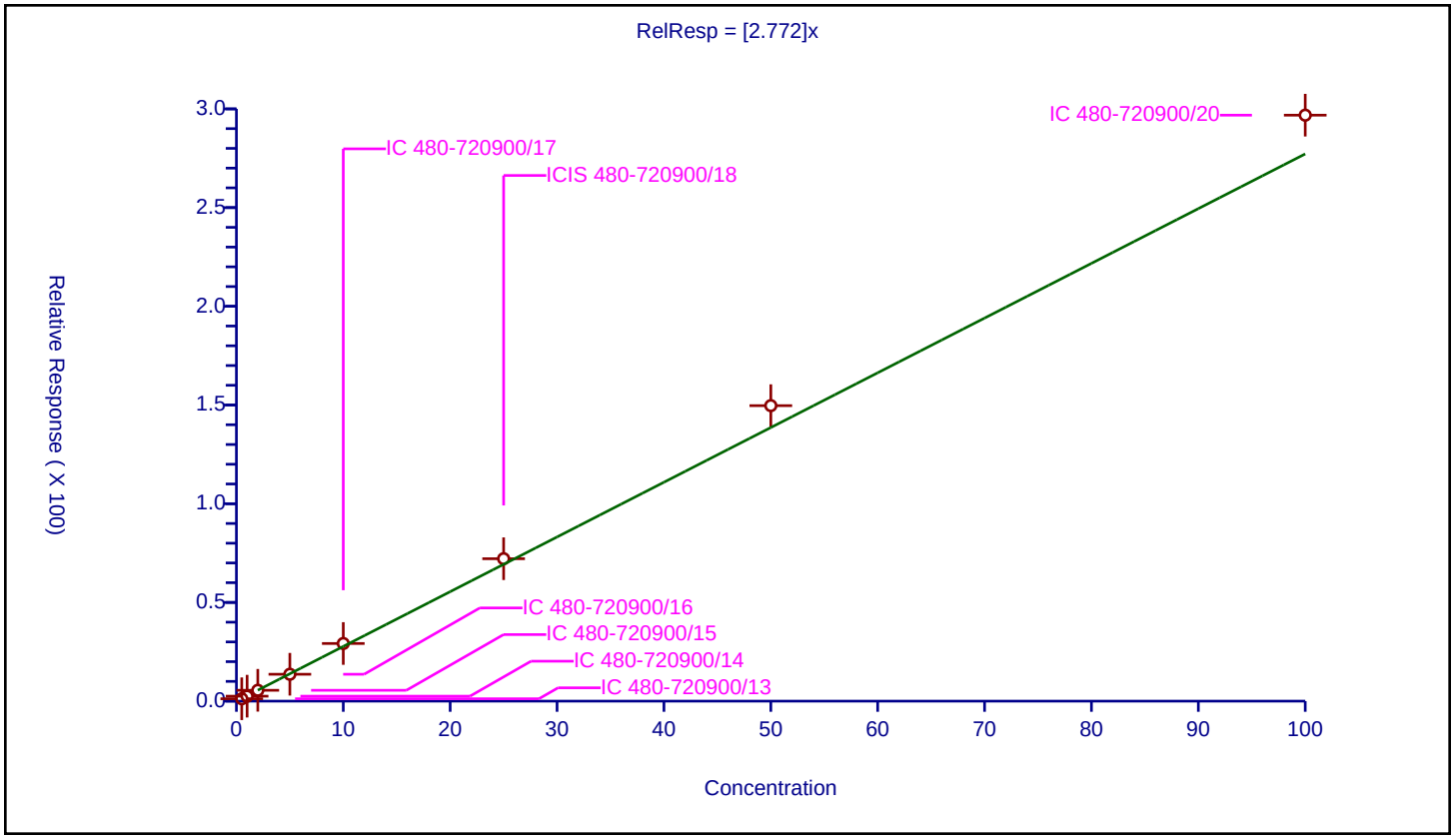
Curve Coefficients

Intercept:	0
Slope:	2.772

Error Coefficients

Relative Standard Deviation:	7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.209717	25.0	422702.0	2.419435	Y
2	IC 480-720900/14	1.0	2.518862	25.0	415525.0	2.518862	Y
3	IC 480-720900/15	2.0	5.492241	25.0	424203.0	2.74612	Y
4	IC 480-720900/16	5.0	13.616216	25.0	423238.0	2.723243	Y
5	IC 480-720900/17	10.0	29.199151	25.0	425848.0	2.919915	Y
6	ICIS 480-720900/18	25.0	72.140037	25.0	434691.0	2.885601	Y
7	IC 480-720900/19	50.0	149.685076	25.0	425261.0	2.993702	Y
8	IC 480-720900/20	100.0	296.817902	25.0	441179.0	2.968179	Y



Calibration / 1,2,3-Trichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

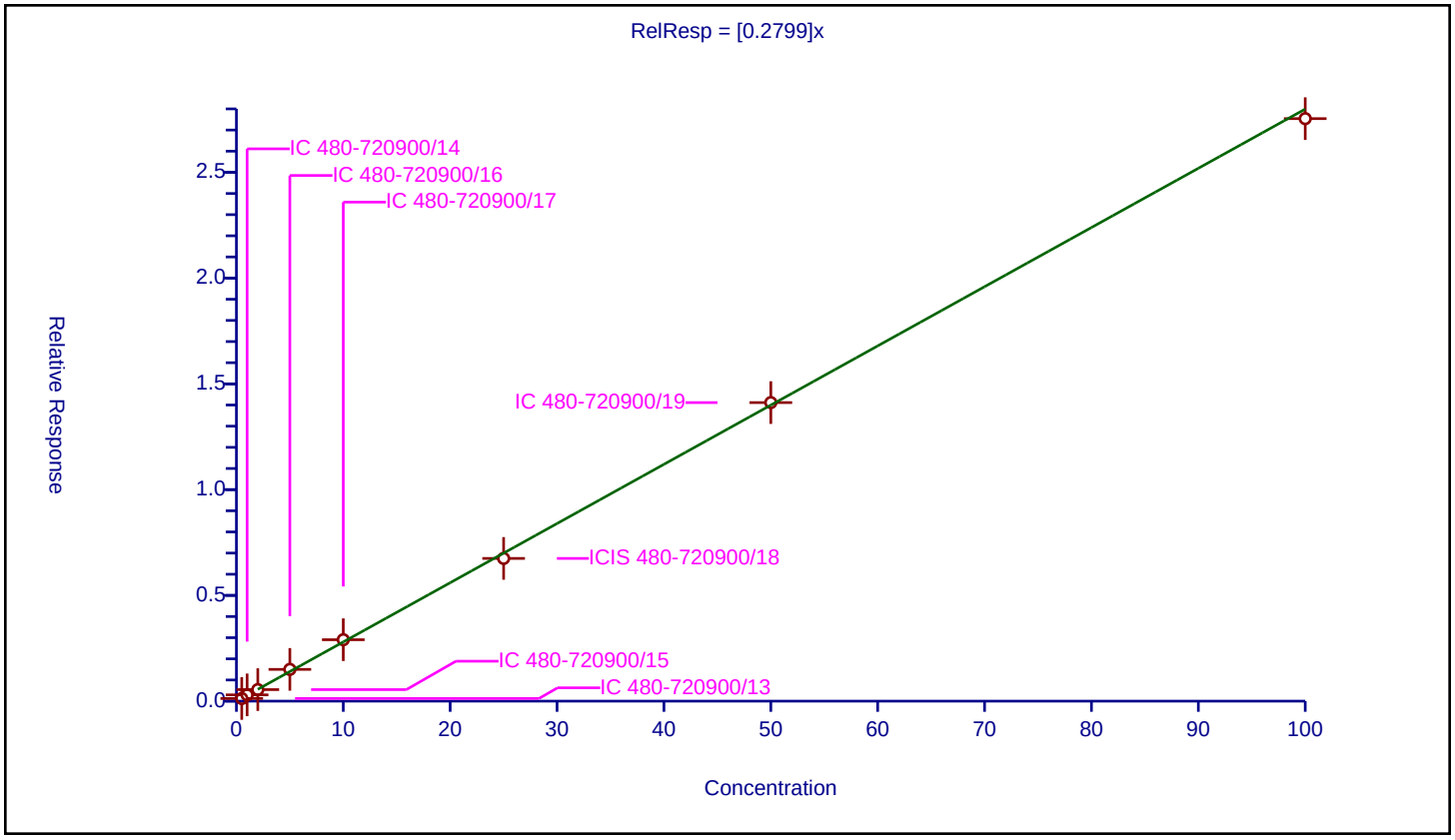
Curve Coefficients

Intercept:	0
Slope:	0.2799

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.12562	25.0	422702.0	0.251241	Y
2	IC 480-720900/14	1.0	0.296673	25.0	415525.0	0.296673	Y
3	IC 480-720900/15	2.0	0.545788	25.0	424203.0	0.272894	Y
4	IC 480-720900/16	5.0	1.501637	25.0	423238.0	0.300327	Y
5	IC 480-720900/17	10.0	2.90491	25.0	425848.0	0.290491	Y
6	ICIS 480-720900/18	25.0	6.747322	25.0	434691.0	0.269893	Y
7	IC 480-720900/19	50.0	14.115449	25.0	425261.0	0.282309	Y
8	IC 480-720900/20	100.0	27.538652	25.0	441179.0	0.275387	Y



Calibration / trans-1,4-Dichloro-2-butene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

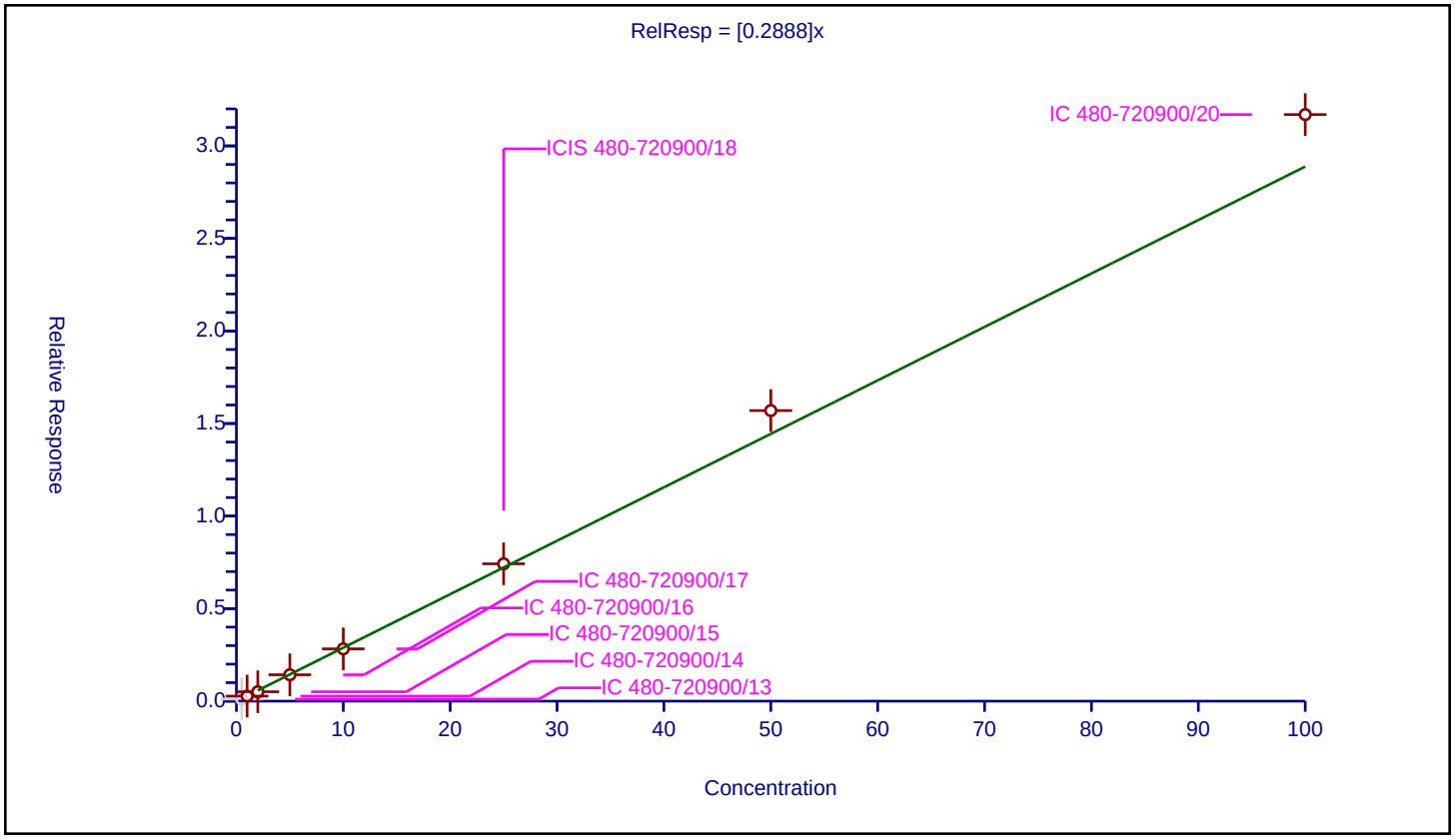
Curve Coefficients

Intercept:	0
Slope:	0.2888

Error Coefficients

Relative Standard Deviation:	7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.112609	25.0	422702.0	0.225218	N
2	IC 480-720900/14	1.0	0.272126	25.0	415525.0	0.272126	Y
3	IC 480-720900/15	2.0	0.508601	25.0	424203.0	0.2543	Y
4	IC 480-720900/16	5.0	1.425203	25.0	423238.0	0.285041	Y
5	IC 480-720900/17	10.0	2.826126	25.0	425848.0	0.282613	Y
6	ICIS 480-720900/18	25.0	7.420041	25.0	434691.0	0.296802	Y
7	IC 480-720900/19	50.0	15.699241	25.0	425261.0	0.313985	Y
8	IC 480-720900/20	100.0	31.693372	25.0	441179.0	0.316934	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

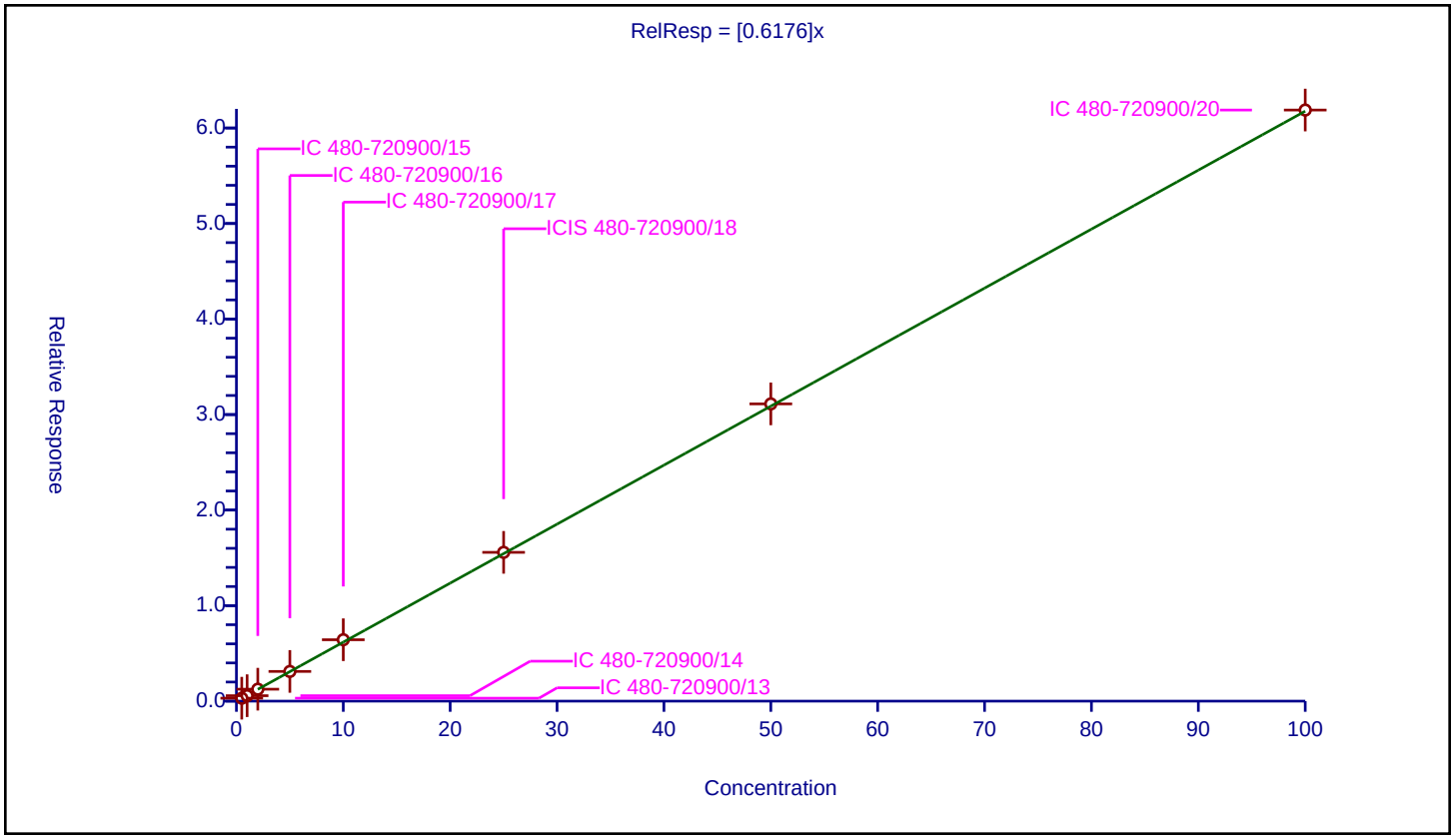
Curve Coefficients

Intercept:	0
Slope:	0.6176

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.307664	25.0	422702.0	0.615327	Y
2	IC 480-720900/14	1.0	0.570904	25.0	415525.0	0.570904	Y
3	IC 480-720900/15	2.0	1.251641	25.0	424203.0	0.625821	Y
4	IC 480-720900/16	5.0	3.110248	25.0	423238.0	0.62205	Y
5	IC 480-720900/17	10.0	6.42835	25.0	425848.0	0.642835	Y
6	ICIS 480-720900/18	25.0	15.575547	25.0	434691.0	0.623022	Y
7	IC 480-720900/19	50.0	31.117067	25.0	425261.0	0.622341	Y
8	IC 480-720900/20	100.0	61.879929	25.0	441179.0	0.618799	Y



Calibration / 1,3,5-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

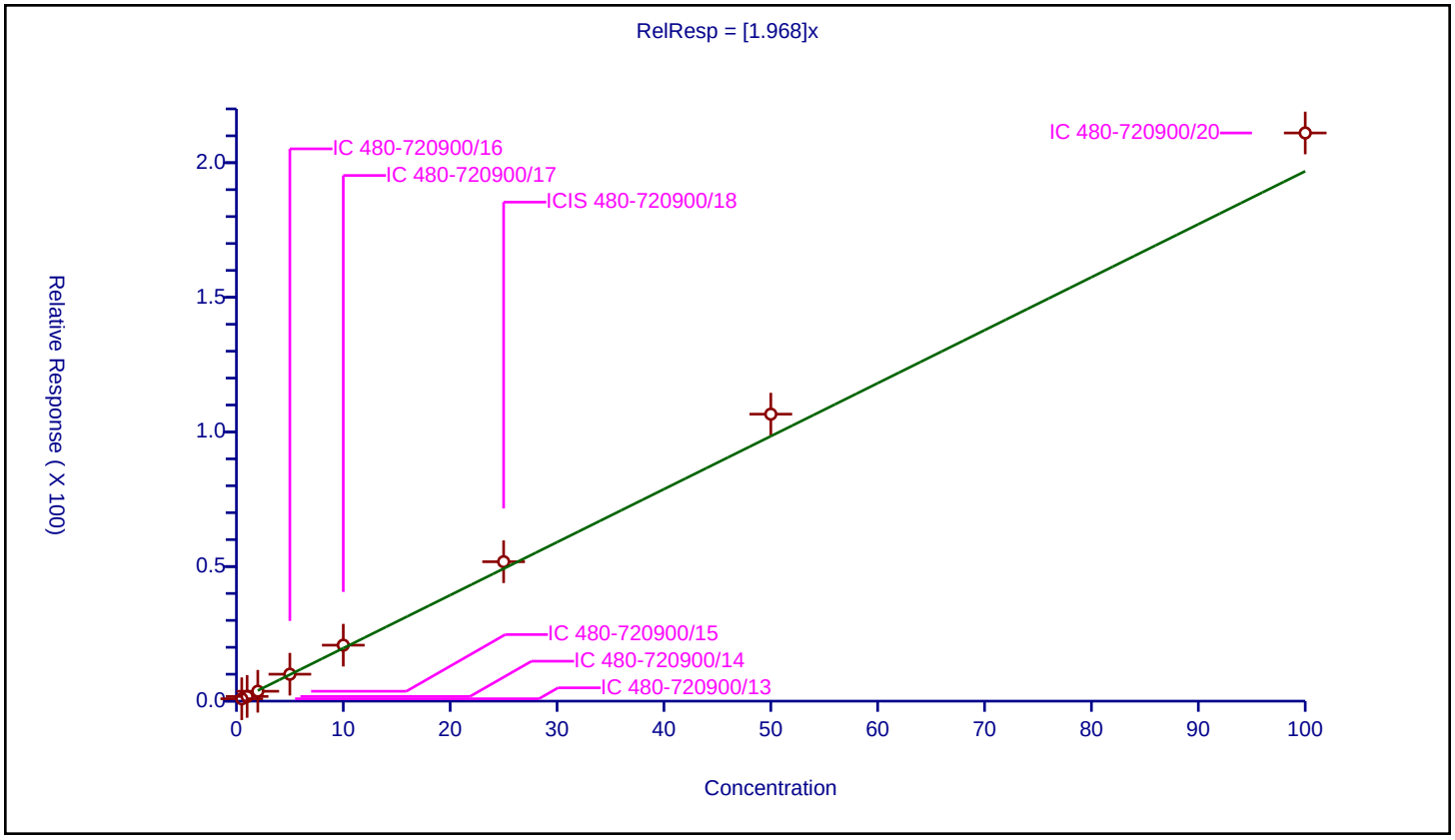
Curve Coefficients

Intercept:	0
Slope:	1.968

Error Coefficients

Relative Standard Deviation:	8.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.886263	25.0	422702.0	1.772525	Y
2	IC 480-720900/14	1.0	1.741532	25.0	415525.0	1.741532	Y
3	IC 480-720900/15	2.0	3.677308	25.0	424203.0	1.838654	Y
4	IC 480-720900/16	5.0	10.005777	25.0	423238.0	2.001155	Y
5	IC 480-720900/17	10.0	20.79081	25.0	425848.0	2.079081	Y
6	ICIS 480-720900/18	25.0	51.789662	25.0	434691.0	2.071586	Y
7	IC 480-720900/19	50.0	106.610176	25.0	425261.0	2.132204	Y
8	IC 480-720900/20	100.0	211.055887	25.0	441179.0	2.110559	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

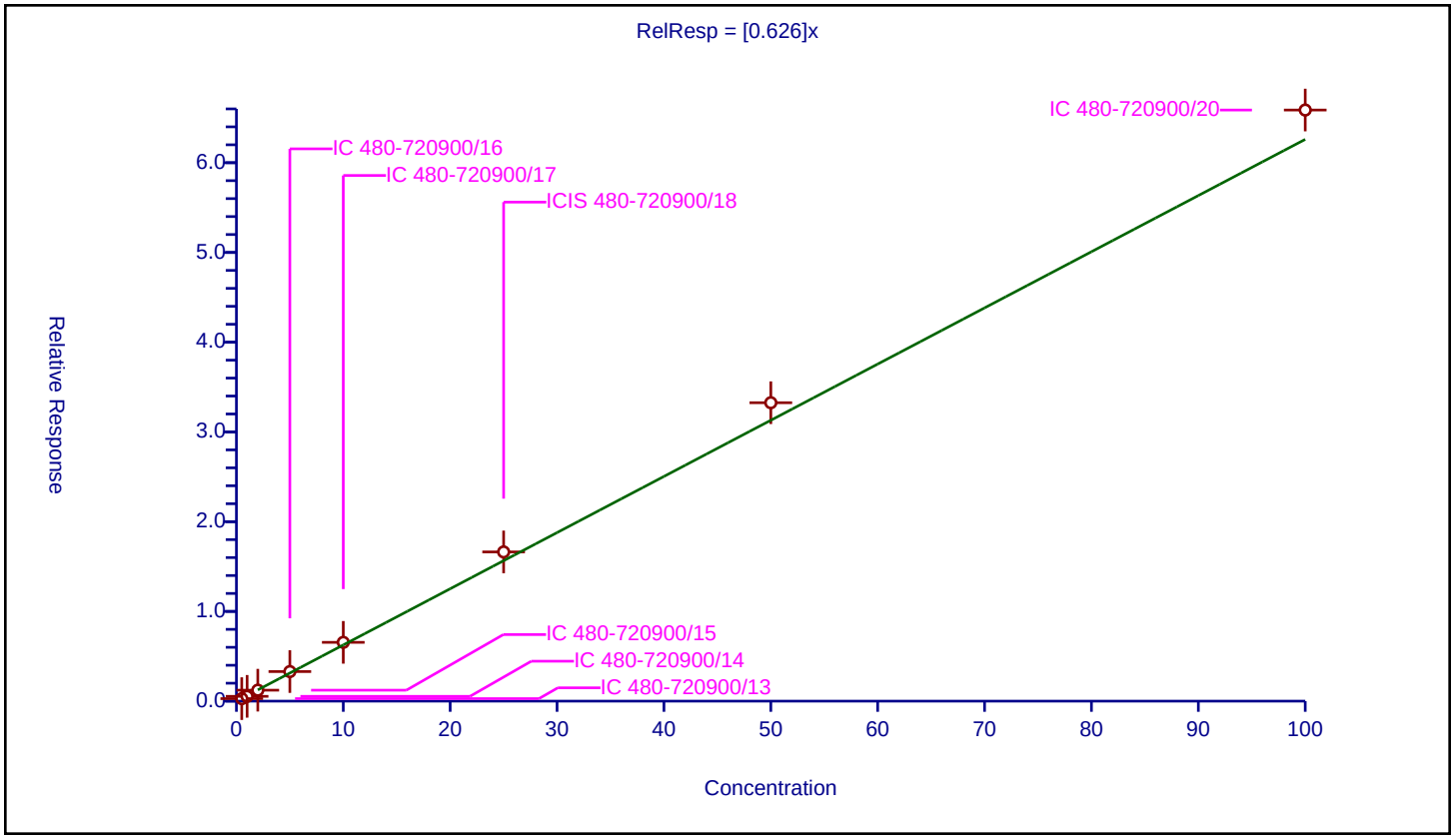
Curve Coefficients

Intercept:	0
Slope:	0.626

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.279334	25.0	422702.0	0.558668	Y
2	IC 480-720900/14	1.0	0.534986	25.0	415525.0	0.534986	Y
3	IC 480-720900/15	2.0	1.22241	25.0	424203.0	0.611205	Y
4	IC 480-720900/16	5.0	3.296077	25.0	423238.0	0.659215	Y
5	IC 480-720900/17	10.0	6.55087	25.0	425848.0	0.655087	Y
6	ICIS 480-720900/18	25.0	16.629801	25.0	434691.0	0.665192	Y
7	IC 480-720900/19	50.0	33.256694	25.0	425261.0	0.665134	Y
8	IC 480-720900/20	100.0	65.872129	25.0	441179.0	0.658721	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

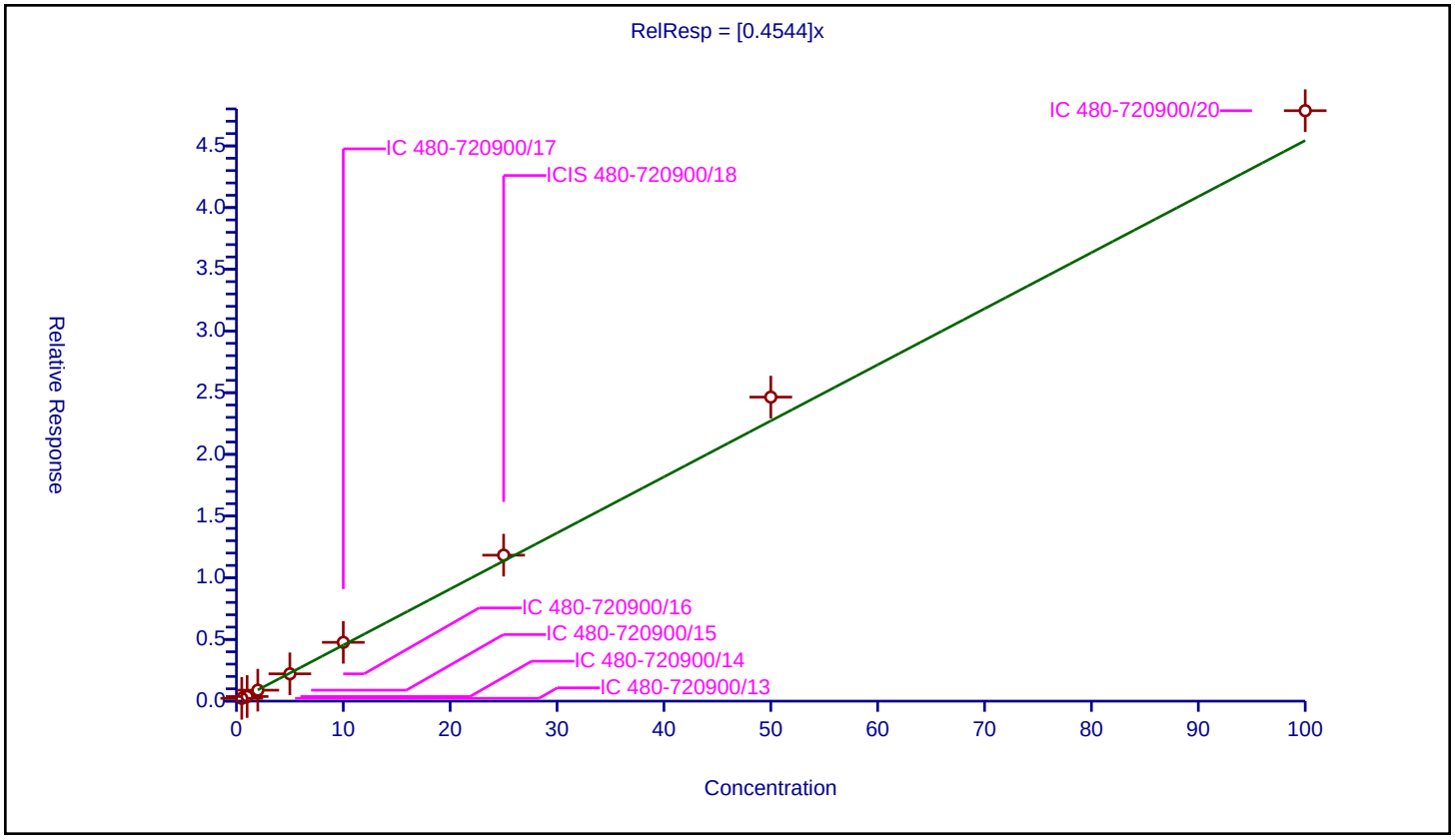
Curve Coefficients

Intercept:	0
Slope:	0.4544

Error Coefficients

Relative Standard Deviation:	8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.226933	25.0	422702.0	0.453866	Y
2	IC 480-720900/14	1.0	0.373564	25.0	415525.0	0.373564	Y
3	IC 480-720900/15	2.0	0.887488	25.0	424203.0	0.443744	Y
4	IC 480-720900/16	5.0	2.21418	25.0	423238.0	0.442836	Y
5	IC 480-720900/17	10.0	4.7642	25.0	425848.0	0.47642	Y
6	ICIS 480-720900/18	25.0	11.830588	25.0	434691.0	0.473224	Y
7	IC 480-720900/19	50.0	24.642631	25.0	425261.0	0.492853	Y
8	IC 480-720900/20	100.0	47.855802	25.0	441179.0	0.478558	Y



Calibration / 1,2,4-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

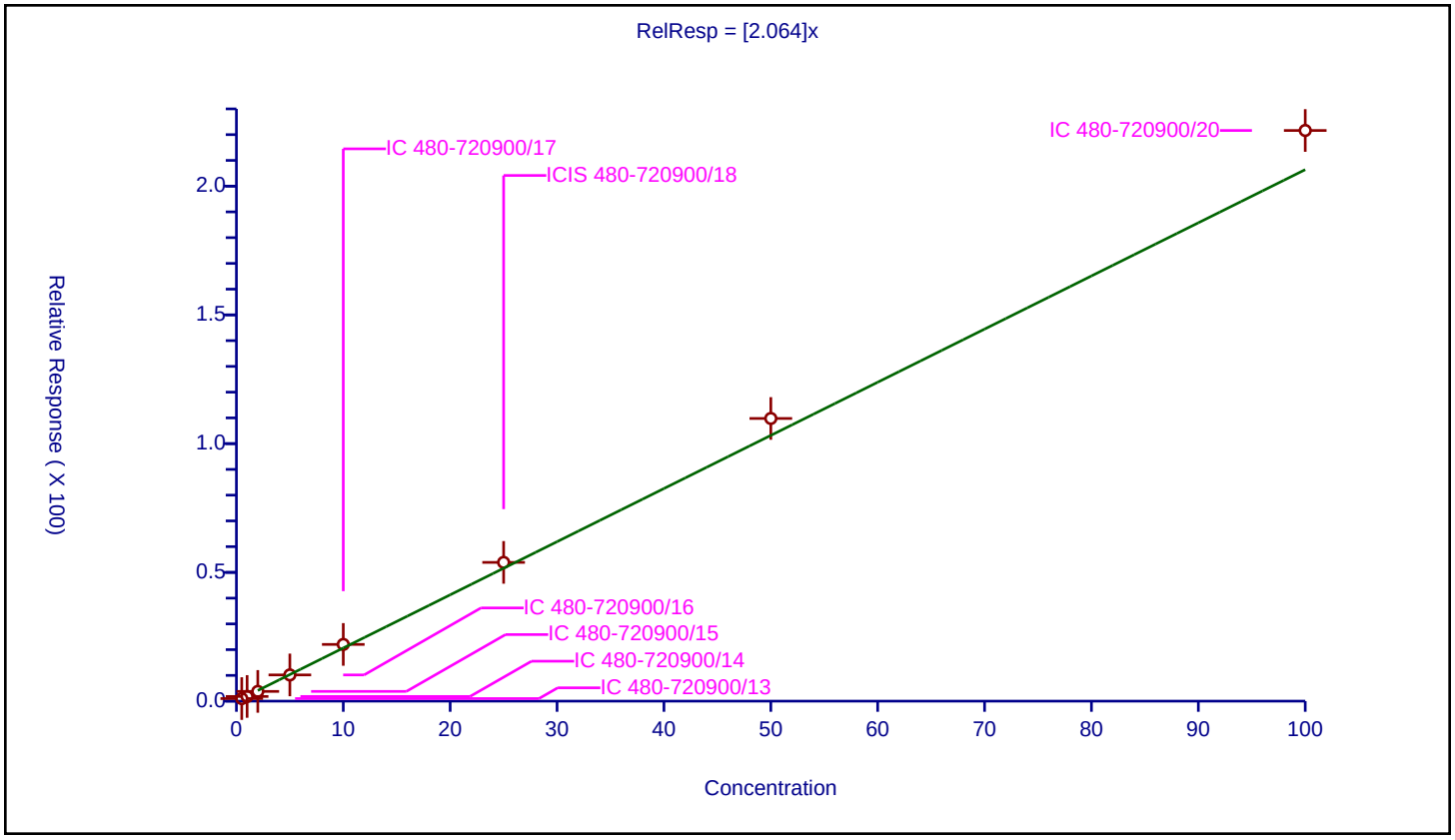
Curve Coefficients

Intercept:	0
Slope:	2.064

Error Coefficients

Relative Standard Deviation:	7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.999226	25.0	422702.0	1.998453	Y
2	IC 480-720900/14	1.0	1.818242	25.0	415525.0	1.818242	Y
3	IC 480-720900/15	2.0	3.777496	25.0	424203.0	1.888748	Y
4	IC 480-720900/16	5.0	10.182155	25.0	423238.0	2.036431	Y
5	IC 480-720900/17	10.0	22.029867	25.0	425848.0	2.202987	Y
6	ICIS 480-720900/18	25.0	53.887704	25.0	434691.0	2.155508	Y
7	IC 480-720900/19	50.0	109.78211	25.0	425261.0	2.195642	Y
8	IC 480-720900/20	100.0	221.612203	25.0	441179.0	2.216122	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

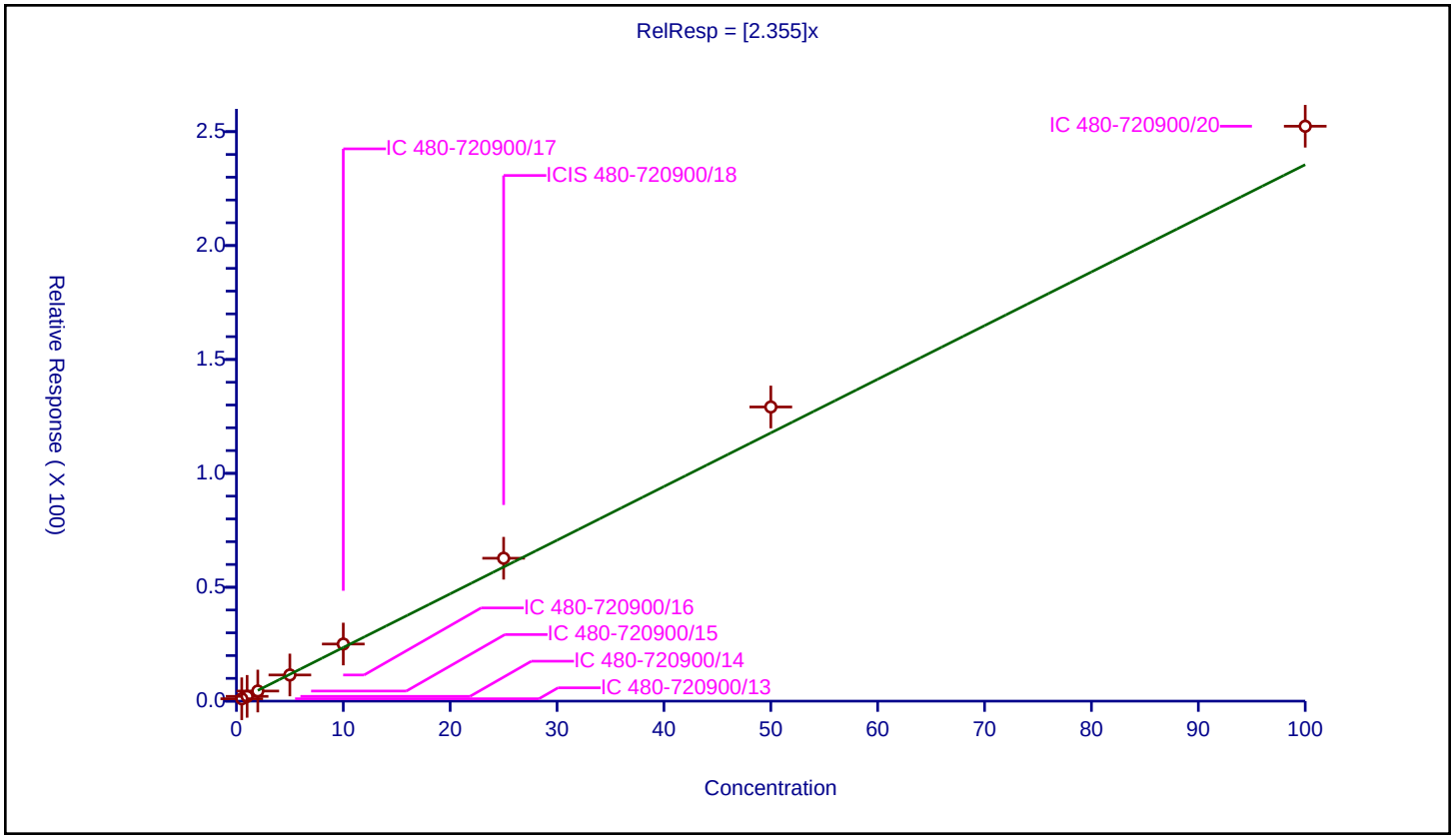
Curve Coefficients

Intercept:	0
Slope:	2.355

Error Coefficients

Relative Standard Deviation:	8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.05145	25.0	422702.0	2.1029	Y
2	IC 480-720900/14	1.0	2.101077	25.0	415525.0	2.101077	Y
3	IC 480-720900/15	2.0	4.432194	25.0	424203.0	2.216097	Y
4	IC 480-720900/16	5.0	11.490816	25.0	423238.0	2.298163	Y
5	IC 480-720900/17	10.0	25.071622	25.0	425848.0	2.507162	Y
6	ICIS 480-720900/18	25.0	62.740142	25.0	434691.0	2.509606	Y
7	IC 480-720900/19	50.0	129.134931	25.0	425261.0	2.582699	Y
8	IC 480-720900/20	100.0	252.388033	25.0	441179.0	2.52388	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

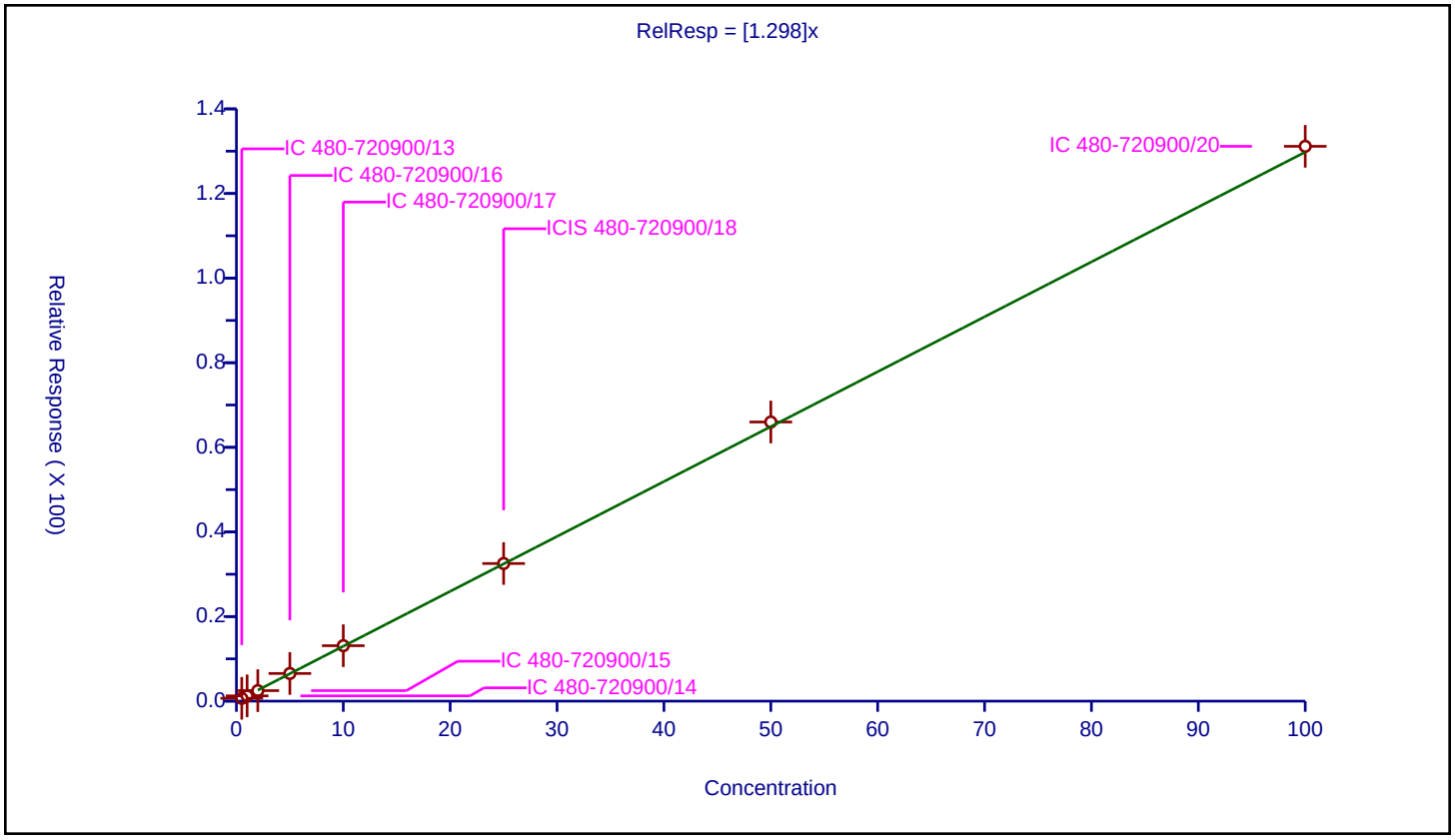
Curve Coefficients

Intercept:	0
Slope:	1.298

Error Coefficients

Relative Standard Deviation:	2.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.66968	25.0	422702.0	1.33936	Y
2	IC 480-720900/14	1.0	1.251068	25.0	415525.0	1.251068	Y
3	IC 480-720900/15	2.0	2.484188	25.0	424203.0	1.242094	Y
4	IC 480-720900/16	5.0	6.535862	25.0	423238.0	1.307172	Y
5	IC 480-720900/17	10.0	13.106026	25.0	425848.0	1.310603	Y
6	ICIS 480-720900/18	25.0	32.535065	25.0	434691.0	1.301403	Y
7	IC 480-720900/19	50.0	65.986653	25.0	425261.0	1.319733	Y
8	IC 480-720900/20	100.0	131.152661	25.0	441179.0	1.311527	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

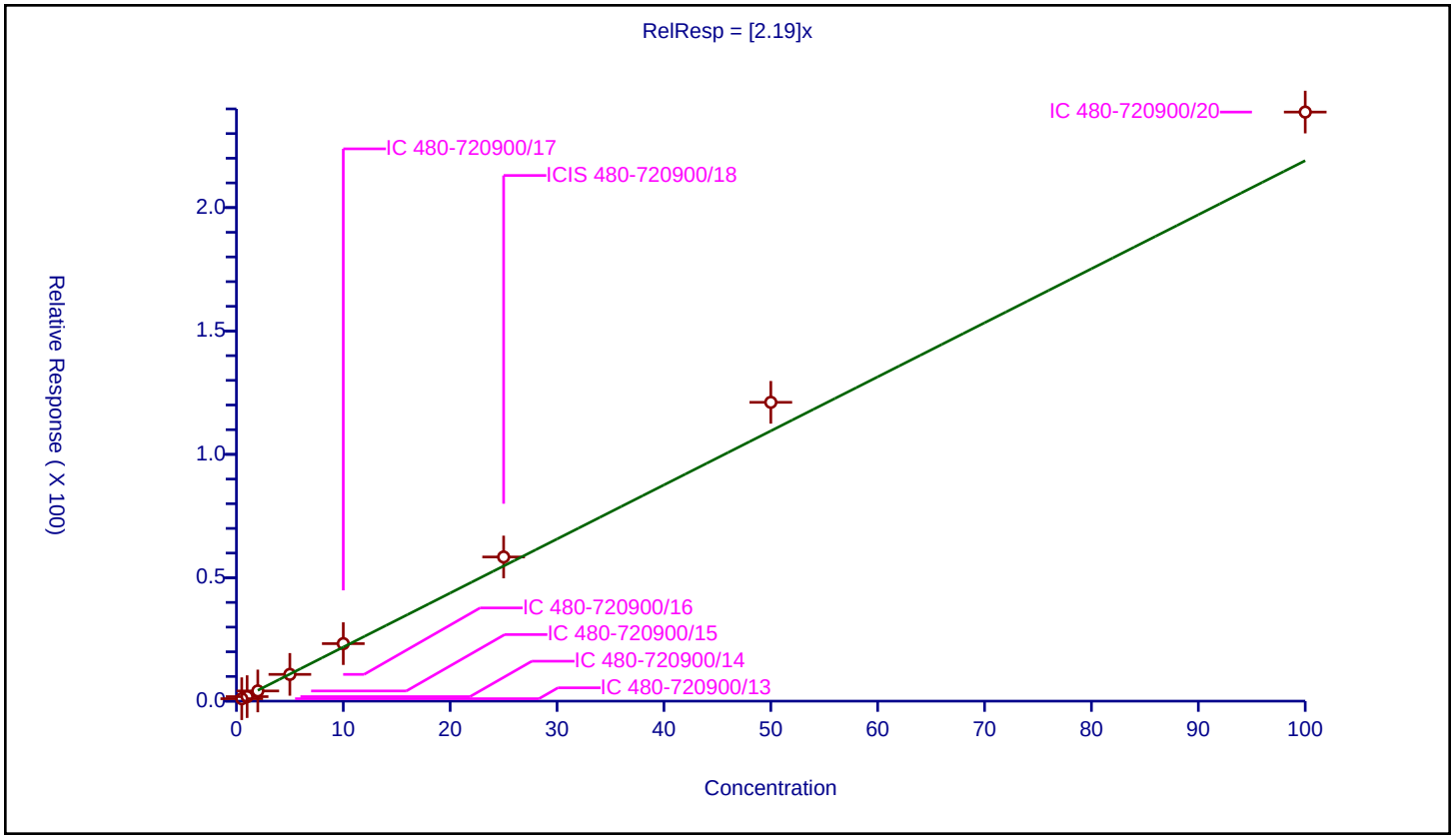
Curve Coefficients

Intercept:	0
Slope:	2.19

Error Coefficients

Relative Standard Deviation:	9.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.991774	25.0	422702.0	1.983549	Y
2	IC 480-720900/14	1.0	1.827507	25.0	415525.0	1.827507	Y
3	IC 480-720900/15	2.0	4.131159	25.0	424203.0	2.065579	Y
4	IC 480-720900/16	5.0	10.845848	25.0	423238.0	2.16917	Y
5	IC 480-720900/17	10.0	23.304618	25.0	425848.0	2.330462	Y
6	ICIS 480-720900/18	25.0	58.415058	25.0	434691.0	2.336602	Y
7	IC 480-720900/19	50.0	121.096103	25.0	425261.0	2.421922	Y
8	IC 480-720900/20	100.0	238.712178	25.0	441179.0	2.387122	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

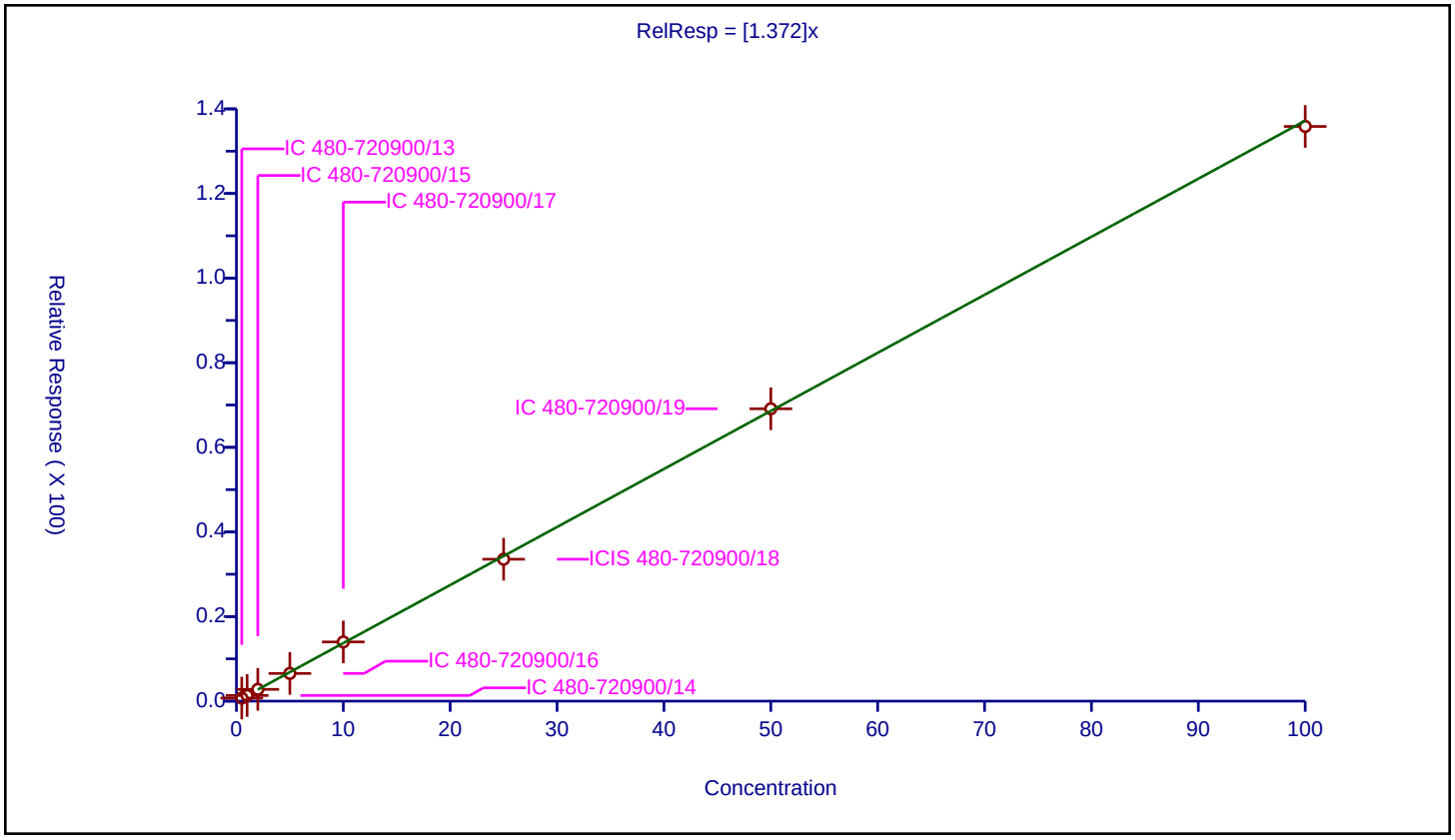
Curve Coefficients

Intercept:	0
Slope:	1.372

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.728705	25.0	422702.0	1.45741	Y
2	IC 480-720900/14	1.0	1.335299	25.0	415525.0	1.335299	Y
3	IC 480-720900/15	2.0	2.784221	25.0	424203.0	1.392111	Y
4	IC 480-720900/16	5.0	6.552105	25.0	423238.0	1.310421	Y
5	IC 480-720900/17	10.0	13.991671	25.0	425848.0	1.399167	Y
6	ICIS 480-720900/18	25.0	33.547739	25.0	434691.0	1.34191	Y
7	IC 480-720900/19	50.0	69.114791	25.0	425261.0	1.382296	Y
8	IC 480-720900/20	100.0	135.848091	25.0	441179.0	1.358481	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

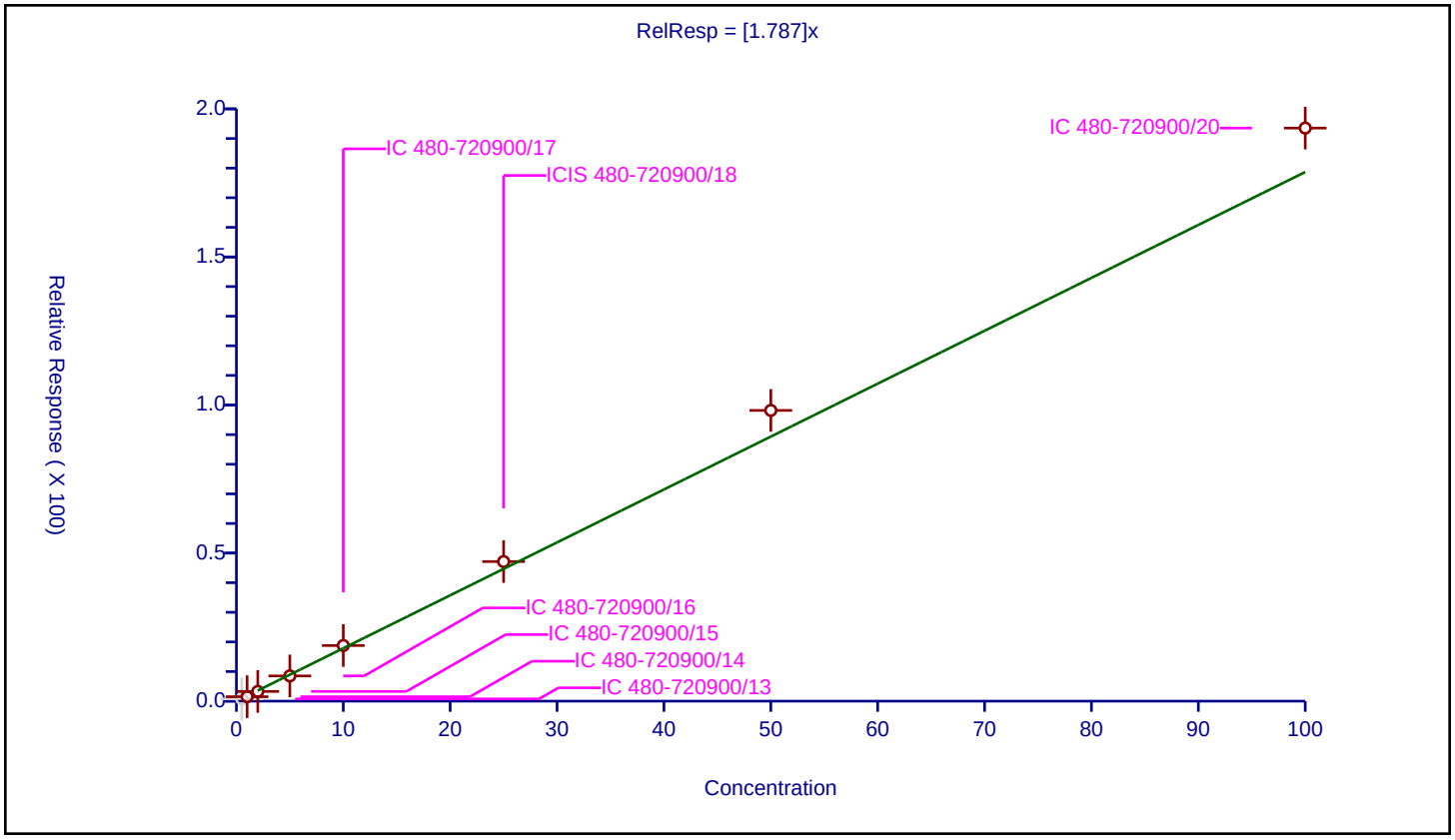
Curve Coefficients

Intercept:	0
Slope:	1.787

Error Coefficients

Relative Standard Deviation:	9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.751061	25.0	422702.0	1.502122	N
2	IC 480-720900/14	1.0	1.500511	25.0	415525.0	1.500511	Y
3	IC 480-720900/15	2.0	3.279149	25.0	424203.0	1.639575	Y
4	IC 480-720900/16	5.0	8.522096	25.0	423238.0	1.704419	Y
5	IC 480-720900/17	10.0	18.787631	25.0	425848.0	1.878763	Y
6	ICIS 480-720900/18	25.0	47.132273	25.0	434691.0	1.885291	Y
7	IC 480-720900/19	50.0	98.179706	25.0	425261.0	1.963594	Y
8	IC 480-720900/20	100.0	193.512724	25.0	441179.0	1.935127	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

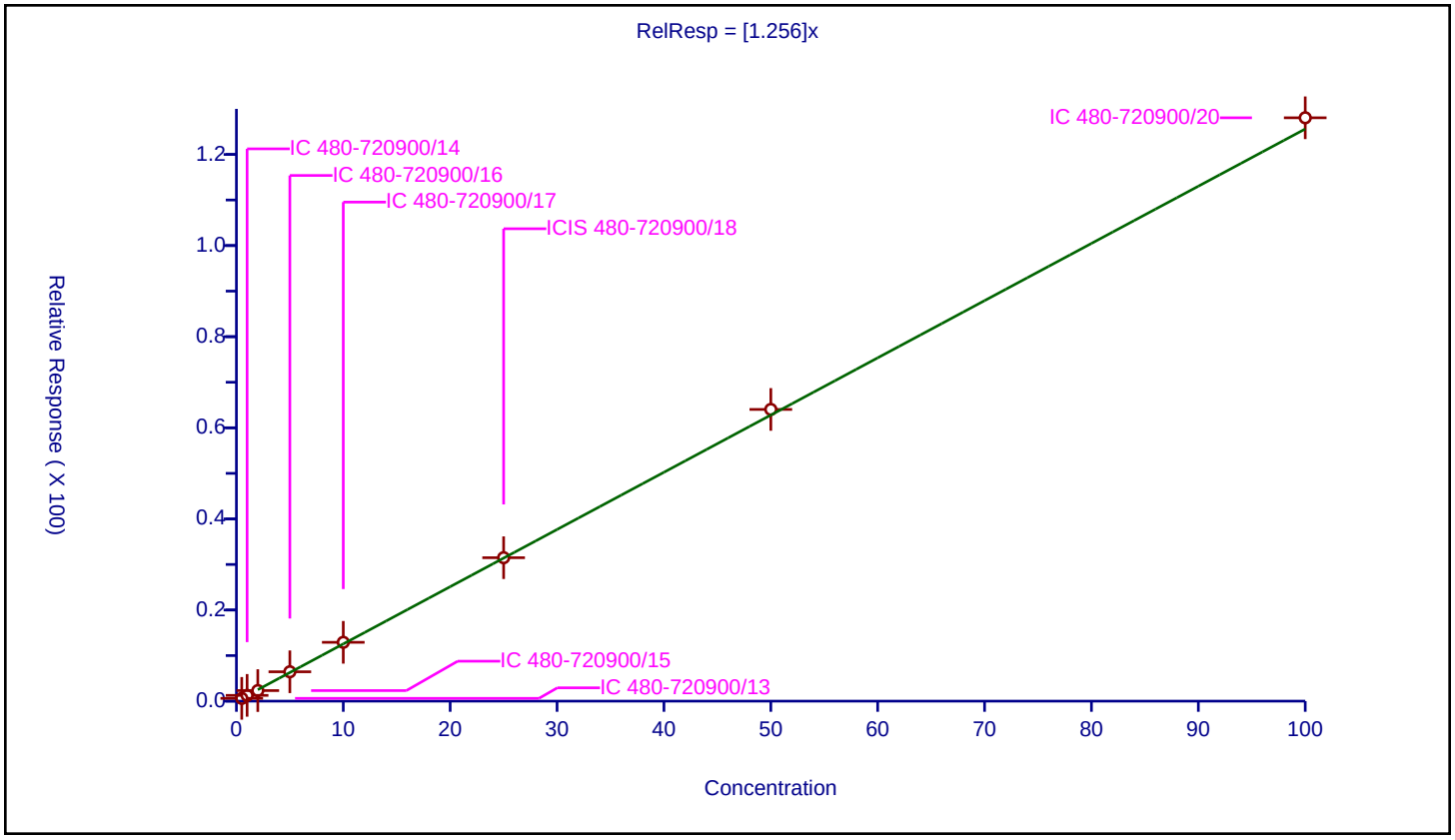
Curve Coefficients

Intercept:	0
Slope:	1.256

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.610418	25.0	422702.0	1.220836	Y
2	IC 480-720900/14	1.0	1.266049	25.0	415525.0	1.266049	Y
3	IC 480-720900/15	2.0	2.318112	25.0	424203.0	1.159056	Y
4	IC 480-720900/16	5.0	6.446373	25.0	423238.0	1.289275	Y
5	IC 480-720900/17	10.0	12.91253	25.0	425848.0	1.291253	Y
6	ICIS 480-720900/18	25.0	31.484549	25.0	434691.0	1.259382	Y
7	IC 480-720900/19	50.0	64.032676	25.0	425261.0	1.280654	Y
8	IC 480-720900/20	100.0	128.050179	25.0	441179.0	1.280502	Y



Calibration / 1,2-Dibromo-3-Chloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

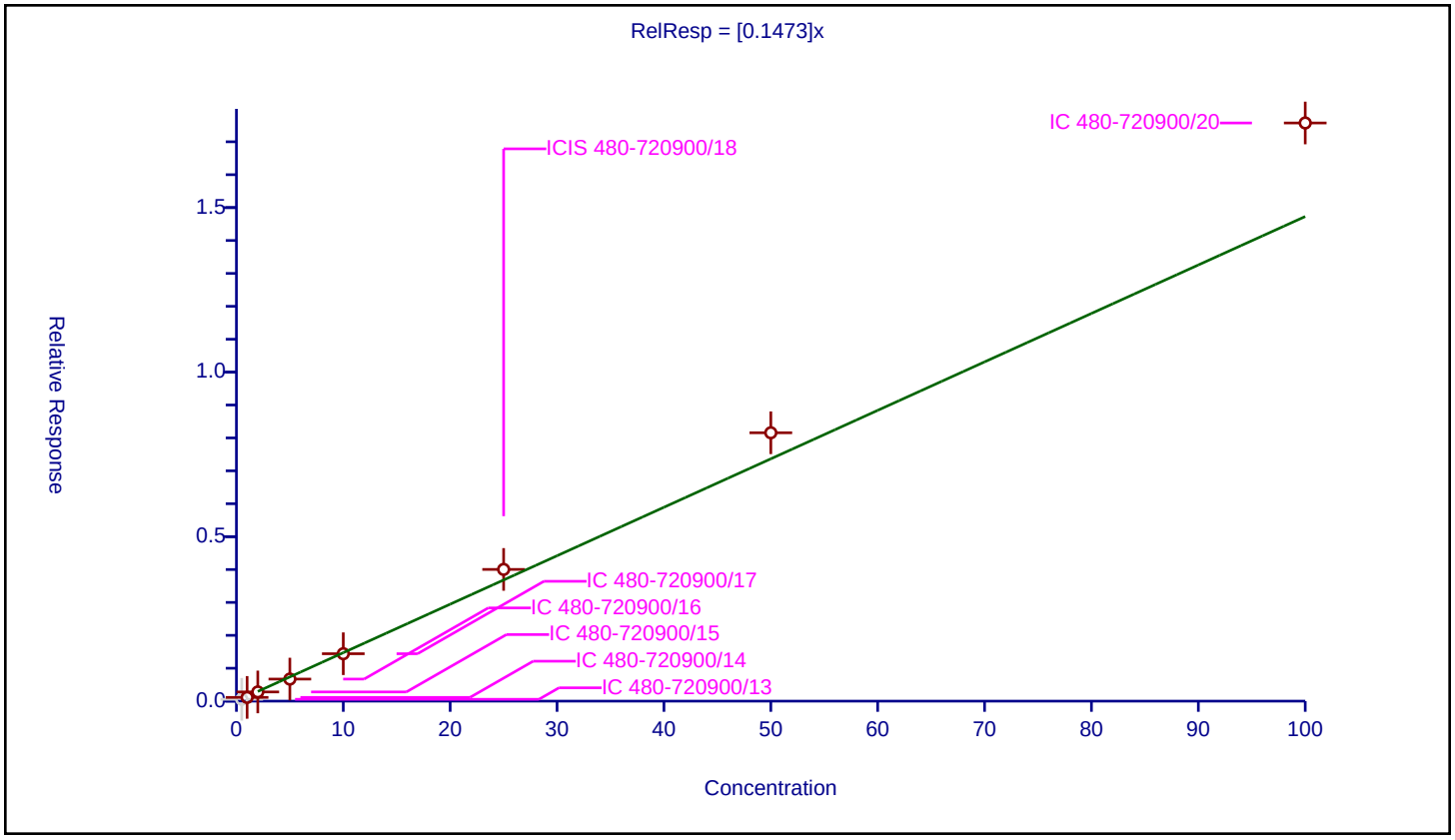
Curve Coefficients

Intercept:	0
Slope:	0.1473

Error Coefficients

Relative Standard Deviation:	14.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.056541	25.0	422702.0	0.113082	N
2	IC 480-720900/14	1.0	0.113892	25.0	415525.0	0.113892	Y
3	IC 480-720900/15	2.0	0.279701	25.0	424203.0	0.13985	Y
4	IC 480-720900/16	5.0	0.67084	25.0	423238.0	0.134168	Y
5	IC 480-720900/17	10.0	1.441418	25.0	425848.0	0.144142	Y
6	ICIS 480-720900/18	25.0	4.003361	25.0	434691.0	0.160134	Y
7	IC 480-720900/19	50.0	8.156579	25.0	425261.0	0.163132	Y
8	IC 480-720900/20	100.0	17.572006	25.0	441179.0	0.17572	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

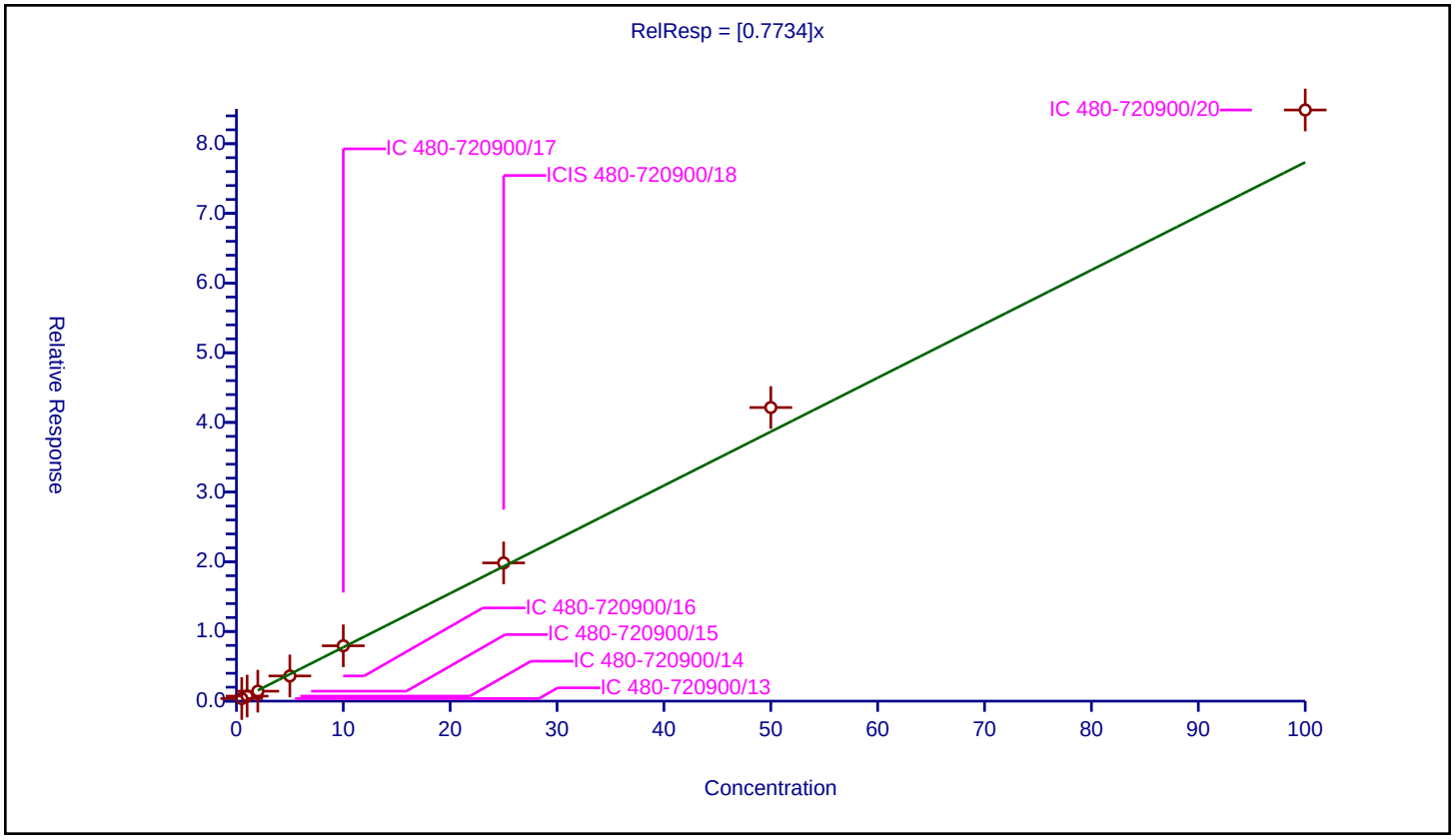
Curve Coefficients

Intercept:	0
Slope:	0.7734

Error Coefficients

Relative Standard Deviation:	7.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.373845	25.0	422702.0	0.74769	Y
2	IC 480-720900/14	1.0	0.724204	25.0	415525.0	0.724204	Y
3	IC 480-720900/15	2.0	1.426793	25.0	424203.0	0.713397	Y
4	IC 480-720900/16	5.0	3.615224	25.0	423238.0	0.723045	Y
5	IC 480-720900/17	10.0	7.943797	25.0	425848.0	0.79438	Y
6	ICIS 480-720900/18	25.0	19.83892	25.0	434691.0	0.793557	Y
7	IC 480-720900/19	50.0	42.141885	25.0	425261.0	0.842838	Y
8	IC 480-720900/20	100.0	84.842094	25.0	441179.0	0.848421	Y



Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

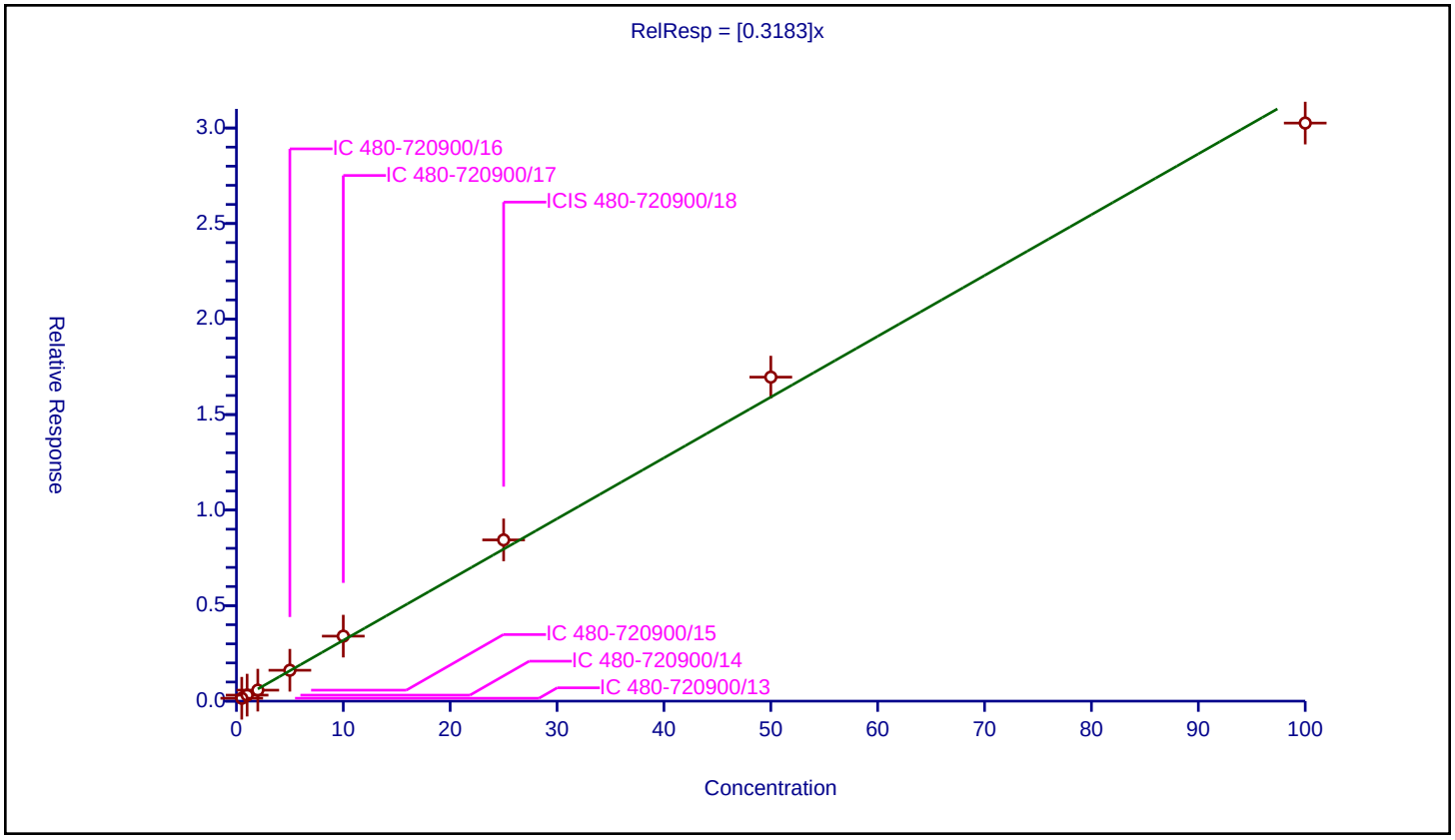
Curve Coefficients

Intercept:	0
Slope:	0.3183

Error Coefficients

Relative Standard Deviation:	6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.150638	25.0	422702.0	0.301276	Y
2	IC 480-720900/14	1.0	0.314903	25.0	415525.0	0.314903	Y
3	IC 480-720900/15	2.0	0.574666	25.0	424203.0	0.287333	Y
4	IC 480-720900/16	5.0	1.616112	25.0	423238.0	0.323222	Y
5	IC 480-720900/17	10.0	3.401918	25.0	425848.0	0.340192	Y
6	ICIS 480-720900/18	25.0	8.438696	25.0	434691.0	0.337548	Y
7	IC 480-720900/19	50.0	16.960231	25.0	425261.0	0.339205	Y
8	IC 480-720900/20	100.0	30.258863	25.0	441179.0	0.302589	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

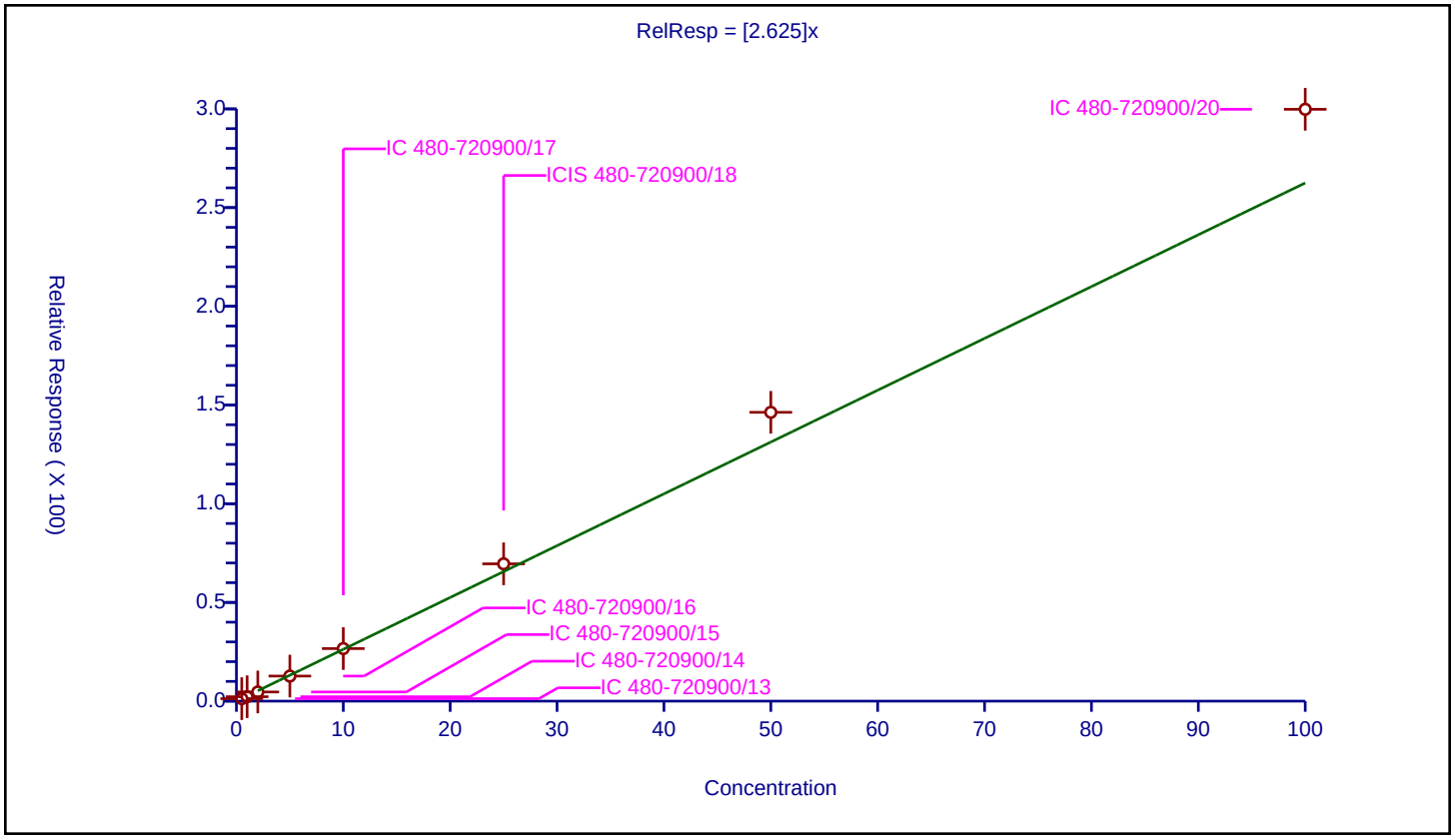
Curve Coefficients

Intercept:	0
Slope:	2.625

Error Coefficients

Relative Standard Deviation:	10.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	1.265076	25.0	422702.0	2.530151	Y
2	IC 480-720900/14	1.0	2.238072	25.0	415525.0	2.238072	Y
3	IC 480-720900/15	2.0	4.642353	25.0	424203.0	2.321176	Y
4	IC 480-720900/16	5.0	12.699415	25.0	423238.0	2.539883	Y
5	IC 480-720900/17	10.0	26.628515	25.0	425848.0	2.662852	Y
6	ICIS 480-720900/18	25.0	69.558088	25.0	434691.0	2.782324	Y
7	IC 480-720900/19	50.0	146.312265	25.0	425261.0	2.926245	Y
8	IC 480-720900/20	100.0	299.800591	25.0	441179.0	2.998006	Y



Calibration / 1,2,3-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

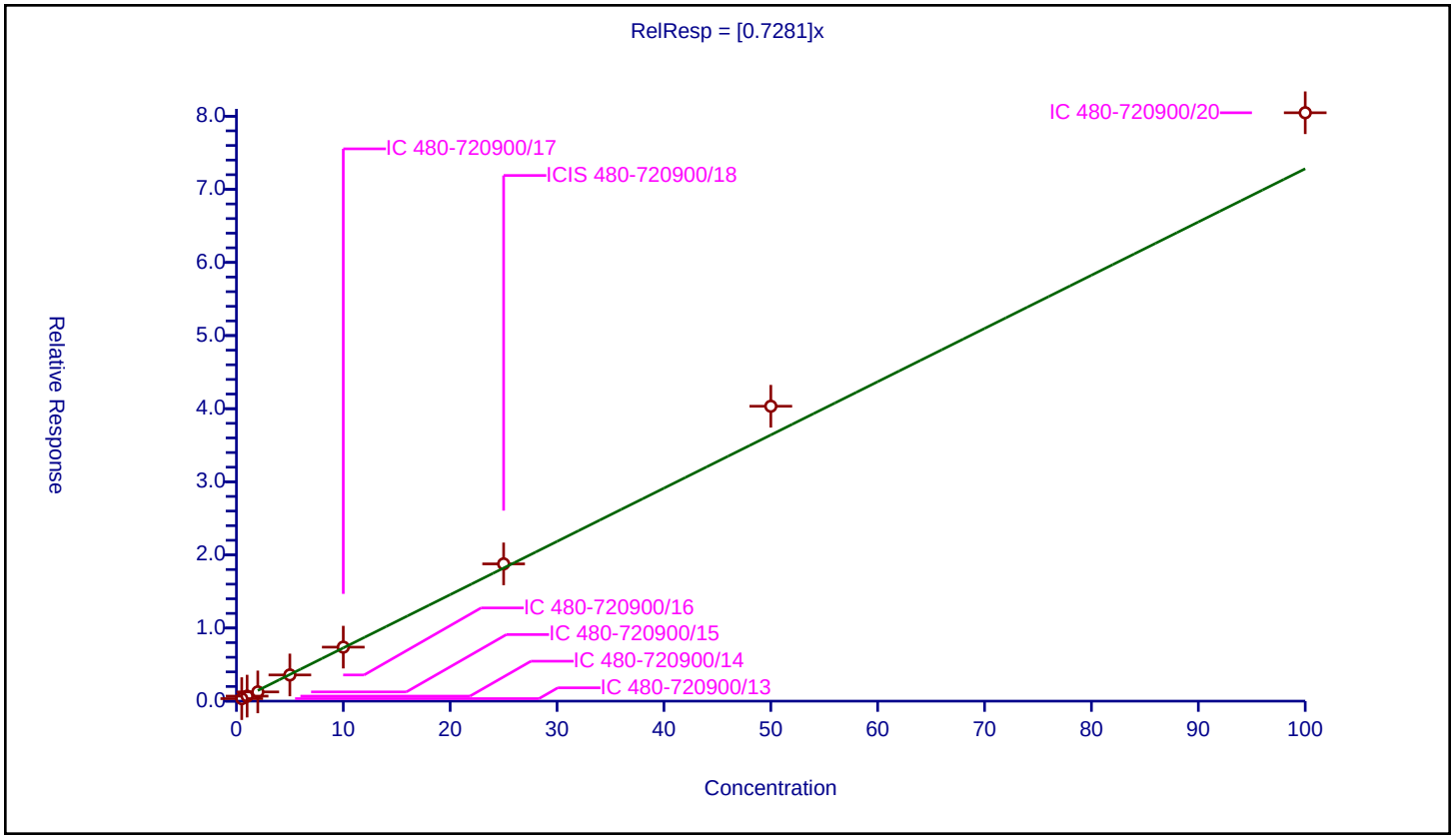
Curve Coefficients

Intercept:	0
Slope:	0.7281

Error Coefficients

Relative Standard Deviation:	8.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 480-720900/13	0.5	0.344332	25.0	422702.0	0.688665	Y
2	IC 480-720900/14	1.0	0.687203	25.0	415525.0	0.687203	Y
3	IC 480-720900/15	2.0	1.263723	25.0	424203.0	0.631861	Y
4	IC 480-720900/16	5.0	3.582736	25.0	423238.0	0.716547	Y
5	IC 480-720900/17	10.0	7.385793	25.0	425848.0	0.738579	Y
6	ICIS 480-720900/18	25.0	18.772185	25.0	434691.0	0.750887	Y
7	IC 480-720900/19	50.0	40.333348	25.0	425261.0	0.806667	Y
8	IC 480-720900/20	100.0	80.471532	25.0	441179.0	0.804715	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICV 480-720900/34 Calibration Date: 08/07/2024 23:58

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1002.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.688	1.908	0.1000	28.3	25.0	13.0	50.0
Chloromethane	Ave	1.995	2.224	0.1000	27.9	25.0	11.5	30.0
Vinyl chloride	Ave	1.484	1.660	0.1000	28.0	25.0	11.9	30.0
Butadiene	Ave	1.534	1.783		29.1	25.0	16.2	30.0
Bromomethane	Ave	0.9146	0.996	0.1000	27.2	25.0	8.9	50.0
Chloroethane	Ave	0.9422	1.068	0.1000	28.3	25.0	13.3	50.0
Dichlorofluoromethane	Ave	2.219	2.495		28.1	25.0	12.4	30.0
Trichlorofluoromethane	Ave	1.881	2.078	0.1000	27.6	25.0	10.5	30.0
Ethyl ether	Ave	1.430	1.473		25.8	25.0	3.0	30.0
Acrolein	Ave	0.2850	0.2994		131	125	5.1	50.0
1,1-Dichloroethene	Ave	1.064	1.165	0.1000	27.4	25.0	9.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.042	1.219	0.1000	29.3	25.0	17.0	30.0
Acetone	Ave	0.5807	0.7222	0.1000	155	125	24.4	50.0
Iodomethane	Ave	1.990	2.203		27.7	25.0	10.7	30.0
Carbon disulfide	Ave	3.325	3.869	0.1000	29.1	25.0	16.4	30.0
Allyl chloride	Ave	2.285	2.557		28.0	25.0	11.9	30.0
Methyl acetate	Ave	1.755	1.834	0.1000	52.3	50.0	4.5	50.0
Methylene Chloride	Lin1		1.453	0.1000	27.9	25.0	11.5	30.0
2-Methyl-2-propanol	Ave	0.1519	0.1336		220	250	-12.1	50.0
Methyl tert-butyl ether	Ave	4.348	4.667	0.1000	26.8	25.0	7.3	30.0
trans-1,2-Dichloroethene	Ave	1.284	1.447	0.1000	28.2	25.0	12.7	30.0
Acrylonitrile	Ave	0.8114	0.9016		278	250	11.1	30.0
Hexane	Ave	1.871	2.124		28.4	25.0	13.5	30.0
1,1-Dichloroethane	Ave	2.335	2.621	0.2000	28.1	25.0	12.2	30.0
Vinyl acetate	Ave	3.035	3.357		55.3	50.0	10.6	30.0
2,2-Dichloropropane	Ave	1.171	1.284		27.4	25.0	9.7	30.0
cis-1,2-Dichloroethene	Ave	1.408	1.529	0.1000	27.1	25.0	8.6	30.0
2-Butanone (MEK)	Ave	0.9413	1.113	0.1000	148	125	18.3	30.0
Chlorobromomethane	Ave	0.7322	0.7996		27.3	25.0	9.2	30.0
Tetrahydrofuran	Ave	0.7193	0.7847		54.5	50.0	9.1	30.0
Chloroform	Ave	2.326	2.453	0.2000	26.4	25.0	5.4	30.0
Cyclohexane	Ave	2.371	2.834	0.1000	29.9	25.0	19.6	30.0
1,1,1-Trichloroethane	Ave	1.778	2.058	0.1000	28.9	25.0	15.7	30.0
Carbon tetrachloride	Ave	1.525	1.820	0.1000	29.8	25.0	19.3	30.0
1,1-Dichloropropene	Ave	1.692	1.910		28.2	25.0	12.9	30.0
Benzene	Ave	5.064	5.512	0.5000	27.2	25.0	8.8	30.0
Isobutyl alcohol	Ave	0.0661	0.0680		643	625	2.8	50.0
1,2-Dichloroethane	Ave	2.012	2.129	0.1000	26.5	25.0	5.8	30.0
n-Heptane	Ave	1.907	2.060		27.0	25.0	8.0	30.0
Trichloroethene	Ave	1.316	1.453	0.2000	27.6	25.0	10.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICV 480-720900/34 Calibration Date: 08/07/2024 23:58

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1002.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.008	2.406	0.1000	30.0	25.0	19.8	30.0
1,2-Dichloropropane	Ave	1.278	1.382	0.1000	27.0	25.0	8.2	30.0
Dibromomethane	Ave	0.8245	0.9029	0.1000	27.4	25.0	9.5	30.0
1,4-Dioxane	Lin1		0.0062		465	500	-7.0	50.0
Bromodichloromethane	Ave	1.527	1.730	0.2000	28.3	25.0	13.3	30.0
2-Chloroethyl vinyl ether	Ave	0.9650	1.087		28.2	25.0	12.7	30.0
cis-1,3-Dichloropropene	Ave	1.887	2.138	0.2000	28.3	25.0	13.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.9255	0.9885	0.1000	134	125	6.8	30.0
Toluene	Ave	1.395	1.444	0.4000	25.9	25.0	3.5	30.0
trans-1,3-Dichloropropene	Ave	0.7715	0.8337	0.1000	27.0	25.0	8.1	30.0
Ethyl methacrylate	Ave	0.7018	0.7759		27.6	25.0	10.6	30.0
1,1,2-Trichloroethane	Ave	0.4414	0.4585	0.1000	26.0	25.0	3.9	30.0
Tetrachloroethene	Ave	0.6123	0.6519	0.2000	26.6	25.0	6.5	30.0
1,3-Dichloropropane	Ave	0.9054	0.9446		26.1	25.0	4.3	30.0
2-Hexanone	Ave	0.6508	0.7026	0.1000	135	125	8.0	30.0
Dibromochloromethane	Ave	0.5281	0.5701	0.1000	27.0	25.0	8.0	30.0
1,2-Dibromoethane	Ave	0.5724	0.6017		26.3	25.0	5.1	30.0
Chlorobenzene	Ave	1.628	1.706	0.5000	26.2	25.0	4.8	30.0
Ethylbenzene	Ave	2.618	2.824	0.1000	27.0	25.0	7.9	30.0
1,1,1,2-Tetrachloroethane	Ave	0.5347	0.5811		27.2	25.0	8.7	30.0
m,p-Xylene	Ave	1.062	1.153	0.1000	27.1	25.0	8.5	30.0
o-Xylene	Ave	1.068	1.136	0.3000	26.6	25.0	6.4	30.0
Styrene	Ave	1.689	1.835	0.3000	27.2	25.0	8.7	30.0
Bromoform	Ave	0.3872	0.4175	0.1000	27.0	25.0	7.8	50.0
Isopropylbenzene	Ave	2.279	2.666	0.1000	29.3	25.0	17.0	30.0
Bromobenzene	Ave	0.6674	0.7232		27.1	25.0	8.4	30.0
1,1,2,2-Tetrachloroethane	Ave	0.7863	0.8448	0.3000	26.9	25.0	7.4	30.0
N-Propylbenzene	Ave	2.772	3.113		28.1	25.0	12.3	30.0
1,2,3-Trichloropropane	Ave	0.2799	0.3142		28.1	25.0	12.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2888	0.3213		27.8	25.0	11.2	50.0
2-Chlorotoluene	Ave	0.6176	0.6603		26.7	25.0	6.9	30.0
1,3,5-Trimethylbenzene	Ave	1.968	2.237		28.4	25.0	13.6	30.0
4-Chlorotoluene	Ave	0.6260	0.6968		27.8	25.0	11.3	30.0
tert-Butylbenzene	Ave	0.4544	0.5163		28.4	25.0	13.6	30.0
1,2,4-Trimethylbenzene	Ave	2.064	2.299		27.8	25.0	11.4	30.0
sec-Butylbenzene	Ave	2.355	2.680		28.4	25.0	13.8	30.0
1,3-Dichlorobenzene	Ave	1.298	1.389	0.6000	26.8	25.0	7.0	30.0
4-Isopropyltoluene	Ave	2.190	2.494		28.5	25.0	13.9	30.0
1,4-Dichlorobenzene	Ave	1.372	1.457	0.5000	26.5	25.0	6.2	30.0
n-Butylbenzene	Ave	1.787	1.992		27.9	25.0	11.5	30.0
1,2-Dichlorobenzene	Ave	1.256	1.337	0.4000	26.6	25.0	6.5	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICV 480-720900/34 Calibration Date: 08/07/2024 23:58

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1002.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1473	0.1632	0.0500	27.7	25.0	10.8	50.0
1,2,4-Trichlorobenzene	Ave	0.7734	0.8002	0.2000	25.9	25.0	3.5	30.0
Hexachlorobutadiene	Ave	0.3183	0.3460		27.2	25.0	8.7	30.0
Naphthalene	Ave	2.625	2.806		26.7	25.0	6.9	30.0
1,2,3-Trichlorobenzene	Ave	0.7281	0.7627		26.2	25.0	4.7	30.0
Dibromofluoromethane (Surr)	Ave	1.346	1.391		25.8	25.0	3.4	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.8571	0.8844		25.8	25.0	3.2	30.0
Toluene-d8 (Surr)	Ave	2.251	2.220		24.7	25.0	-1.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.8007	0.7859		24.5	25.0	-1.8	30.0

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S1002.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 07-Aug-2024 23:58:30 ALS Bottle#: 34 Worklist Smp#: 34
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 480-0119391-034
Operator ID: LH Instrument ID: HP5973S
Sublist:

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:19:54 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: MHM2 Date: 08-Aug-2024 11:21:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.764	-0.006	98	160902	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	396244	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	67	421296	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	223830	25.0	25.8	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	56	142305	25.0	25.8	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	58	879607	25.0	24.7	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	91	311427	25.0	24.5	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	306988	25.0	28.3	
12 Chloromethane	50	1.126	1.126	0.000	88	357829	25.0	27.9	
13 Vinyl chloride	62	1.199	1.193	0.006	79	267130	25.0	28.0	
151 Butadiene	54	1.217	1.217	0.000	95	286831	25.0	29.1	
14 Bromomethane	94	1.448	1.442	0.006	90	160302	25.0	27.2	
15 Chloroethane	64	1.515	1.509	0.006	95	171794	25.0	28.3	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	401421	25.0	28.1	
17 Trichlorofluoromethane	101	1.692	1.686	0.006	59	334387	25.0	27.6	
18 Ethyl ether	59	1.917	1.917	0.000	95	237029	25.0	25.8	
20 Acrolein	56	2.081	2.081	0.000	99	240901	125.0	131.3	
22 1,1-Dichloroethene	96	2.111	2.105	0.006	87	187448	25.0	27.4	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.117	2.112	0.005	67	196133	25.0	29.3	
23 Acetone	43	2.227	2.227	0.000	98	581045	125.0	155.5	
25 Iodomethane	142	2.251	2.251	0.000	99	354426	25.0	27.7	
26 Carbon disulfide	76	2.282	2.282	0.000	99	622540	25.0	29.1	
28 3-Chloro-1-propene	41	2.452	2.446	0.006	87	411414	25.0	28.0	
27 Methyl acetate	43	2.501	2.501	0.000	97	590338	50.0	52.3	
30 Methylene Chloride	84	2.586	2.586	0.000	91	233802	25.0	27.9	
31 2-Methyl-2-propanol	59	2.762	2.769	-0.007	81	214942	250.0	219.8	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	94	750970	25.0	26.8	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	83	232836	25.0	28.2	
33 Acrylonitrile	53	2.860	2.860	0.000	99	1450724	250.0	277.8	
35 Hexane	57	2.987	2.981	0.006	91	341741	25.0	28.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.194	0.006	97	421648	25.0	28.1	
37 Vinyl acetate	43	3.261	3.261	0.000	97	1080319	50.0	55.3	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	91	206649	25.0	27.4	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	245961	25.0	27.1	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	97	895544	125.0	147.8	
48 Chlorobromomethane	128	3.967	3.961	0.006	94	128659	25.0	27.3	
49 Tetrahydrofuran	42	3.979	3.979	0.000	90	252508	50.0	54.5	
50 Chloroform	83	4.046	4.046	0.000	81	394614	25.0	26.4	
52 Cyclohexane	56	4.137	4.137	0.000	94	456055	25.0	29.9	
51 1,1,1-Trichloroethane	97	4.143	4.137	0.006	81	331092	25.0	28.9	
55 Carbon tetrachloride	117	4.271	4.271	0.000	82	292816	25.0	29.8	
54 1,1-Dichloropropene	75	4.295	4.289	0.006	90	307322	25.0	28.2	
57 Benzene	78	4.490	4.490	0.000	96	886829	25.0	27.2	
53 Isobutyl alcohol	43	4.551	4.551	0.000	60	273368	625.0	642.5	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	73	342538	25.0	26.5	
59 n-Heptane	43	4.679	4.679	0.000	95	331405	25.0	27.0	
62 Trichloroethene	95	5.092	5.092	0.000	96	233840	25.0	27.6	
64 Methylcyclohexane	83	5.202	5.196	0.006	93	387166	25.0	30.0	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	88	222412	25.0	27.0	
67 Dibromomethane	93	5.463	5.464	-0.001	90	145277	25.0	27.4	
66 1,4-Dioxane	88	5.482	5.482	0.000	52	49464	500.0	465.2	M
68 Dichlorobromomethane	83	5.628	5.628	0.000	92	278381	25.0	28.3	
69 2-Chloroethyl vinyl ether	63	5.920	5.914	0.006	89	174922	25.0	28.2	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	86	344032	25.0	28.3	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	98	1958480	125.0	133.5	
74 Toluene	92	6.315	6.309	0.006	92	572177	25.0	25.9	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	94	330335	25.0	27.0	
75 Ethyl methacrylate	69	6.668	6.668	0.000	77	307460	25.0	27.6	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	87	181666	25.0	26.0	
81 Tetrachloroethene	166	6.826	6.826	0.000	87	258325	25.0	26.6	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	97	374290	25.0	26.1	
80 2-Hexanone	43	7.027	7.027	0.000	98	1391921	125.0	134.9	
83 Chlorodibromomethane	129	7.173	7.173	0.000	86	225911	25.0	27.0	
84 Ethylene Dibromide	107	7.264	7.264	0.000	100	238437	25.0	26.3	
87 Chlorobenzene	112	7.739	7.739	0.000	94	676135	25.0	26.2	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1118983	25.0	27.0	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	230275	25.0	27.2	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	98	456988	25.0	27.1	
91 o-Xylene	106	8.377	8.378	-0.001	97	450243	25.0	26.6	
92 Styrene	104	8.408	8.408	0.000	92	727211	25.0	27.2	
95 Bromoform	173	8.651	8.645	0.006	96	165431	25.0	27.0	
94 Isopropylbenzene	105	8.767	8.761	0.006	95	1123302	25.0	29.3	
101 Bromobenzene	156	9.101	9.102	-0.001	94	304690	25.0	27.1	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.193	0.006	55	355920	25.0	26.9	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	1311383	25.0	28.1	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	61	132375	25.0	28.1	
98 trans-1,4-Dichloro-2-butene	53	9.241	9.248	-0.007	66	135342	25.0	27.8	
103 2-Chlorotoluene	126	9.302	9.302	0.000	94	278181	25.0	26.7	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	94	942271	25.0	28.4	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	293538	25.0	27.8	
106 tert-Butylbenzene	134	9.734	9.734	0.000	90	217521	25.0	28.4	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	67	968471	25.0	27.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	93	1129117	25.0	28.4	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	97	585235	25.0	26.8	
110 4-Isopropyltoluene	119	10.105	10.105	0.000	95	1050678	25.0	28.5	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	95	613823	25.0	26.5	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	839066	25.0	27.9	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	96	563269	25.0	26.6	
117 1,2-Dibromo-3-Chloropropane	75	11.291	11.292	-0.001	77	68775	25.0	27.7	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	91	337119	25.0	25.9	
120 Hexachlorobutadiene	225	12.088	12.089	-0.001	95	145770	25.0	27.2	
121 Naphthalene	128	12.186	12.186	0.000	97	1182015	25.0	26.7	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	94	321332	25.0	26.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

SS 8260 CORP_00115	Amount Added: 12.50	Units: uL	
SS GAS CORP_00588	Amount Added: 12.50	Units: uL	
S_8260_IS_00394	Amount Added: 1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added: 1.00	Units: uL	Run Reagent

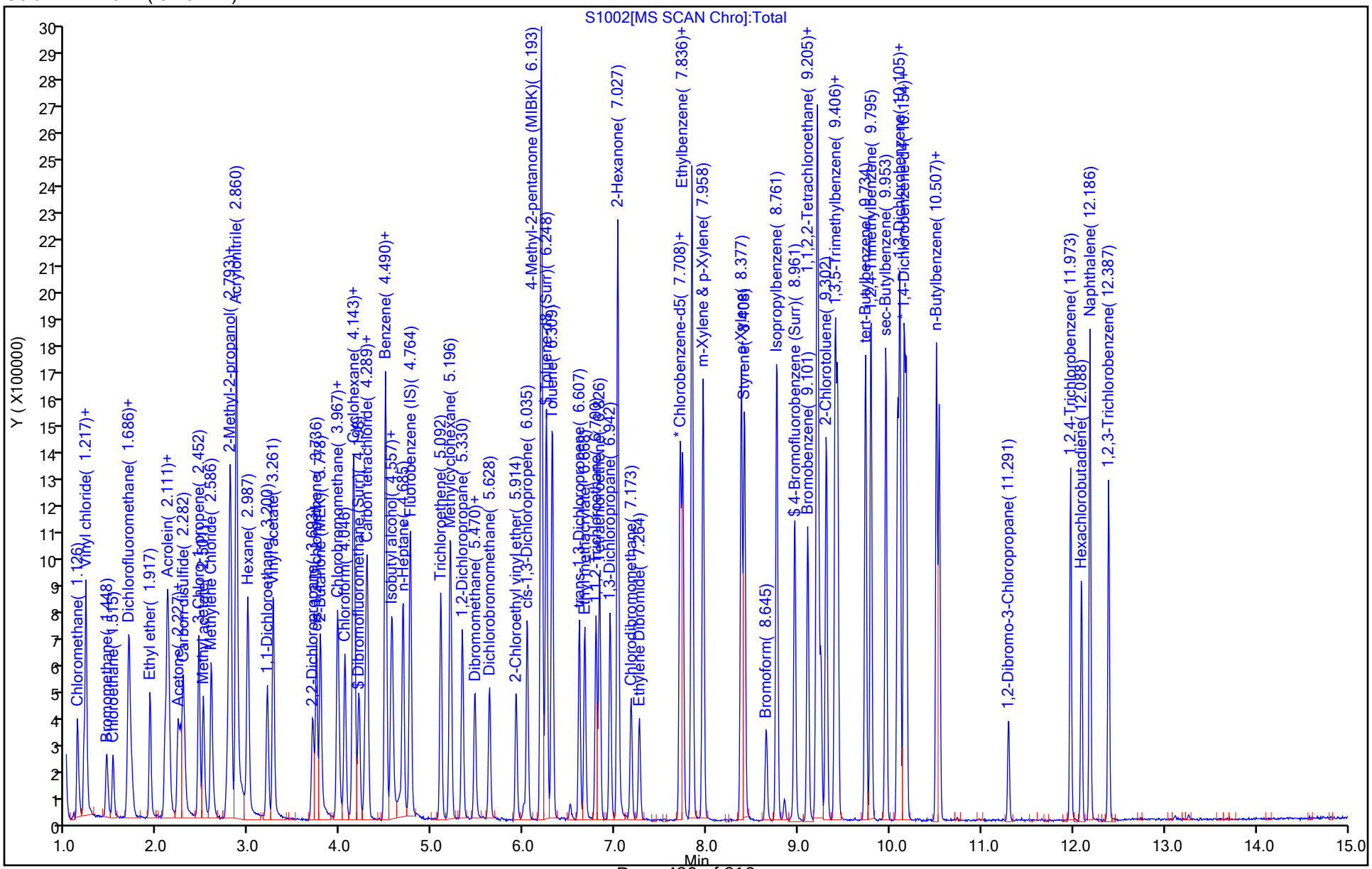
Report Date: 08-Aug-2024 13:25:58 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S1002.d

Injection Date:	07-Aug-2024 23:58:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	ICV			Worklist Smp#:	34
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Buffalo

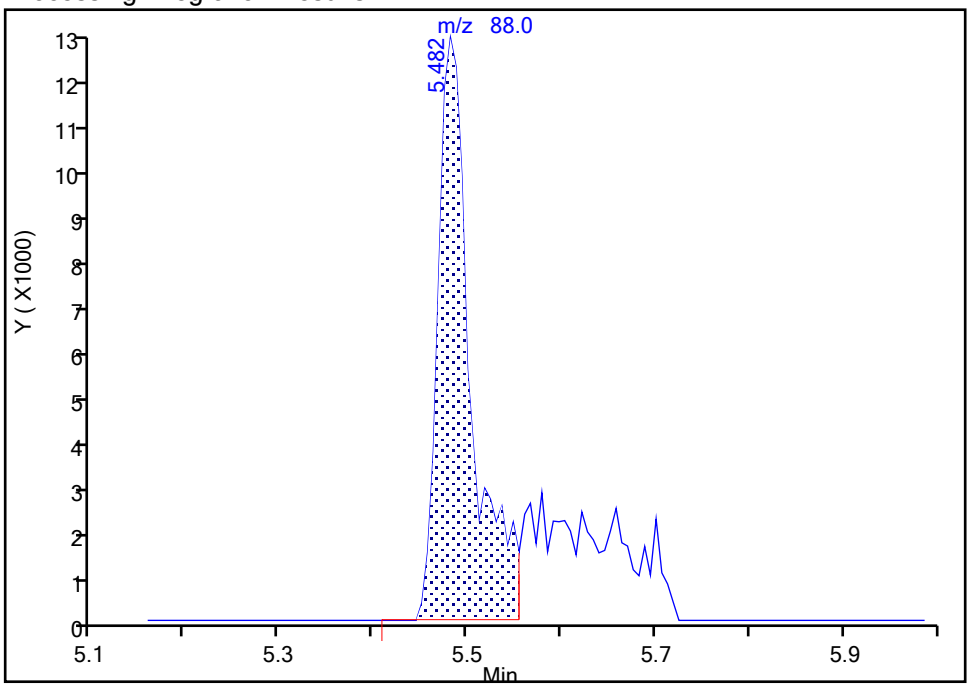
Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S1002.d
Injection Date: 07-Aug-2024 23:58:30 Instrument ID: HP5973S
Lims ID: ICV
Client ID:
Operator ID: LH ALS Bottle#: 34 Worklist Smp#: 34
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Column: ZB-624 (0.18 mm) Detector MS SCAN

66 1,4-Dioxane, CAS: 123-91-1

Signal: 1

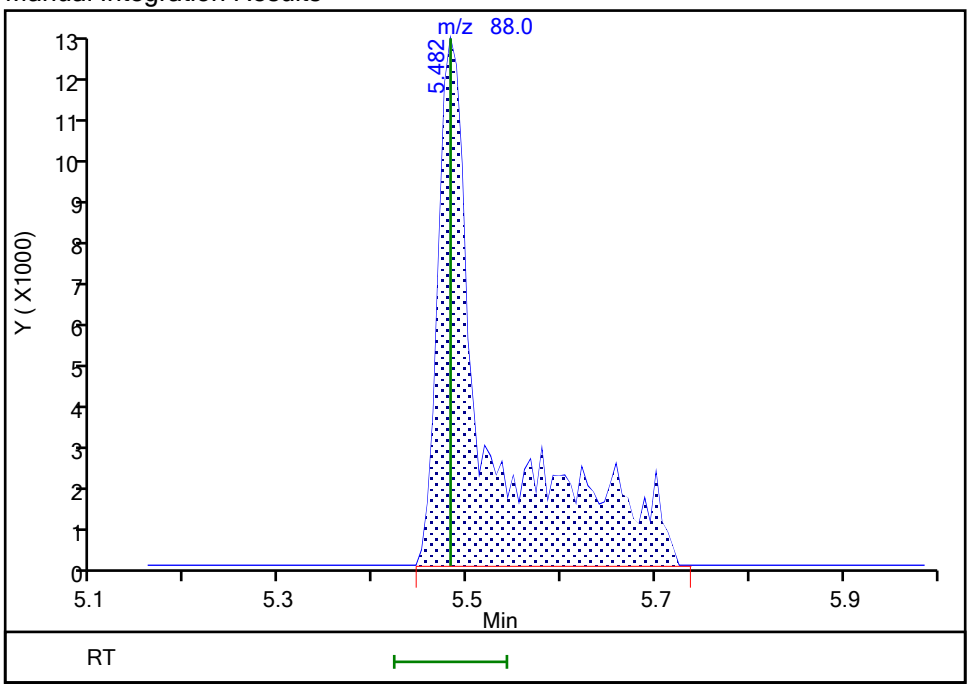
Processing Integration Results

RT: 5.48
Area: 32106
Amount: 305.6977
Amount Units: ug/L



Manual Integration Results

RT: 5.48
Area: 49464
Amount: 465.2486
Amount Units: ug/L



Reviewer: WLL8, 08-Aug-2024 13:11:34 -04:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721476/4 Calibration Date: 08/12/2024 20:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1151.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.688	1.547	0.1000	22.9	25.0	-8.4	50.0
Chloromethane	Ave	1.995	2.104	0.1000	26.4	25.0	5.5	20.0
Vinyl chloride	Ave	1.484	1.557	0.1000	26.2	25.0	4.9	20.0
Butadiene	Ave	1.534	1.717		28.0	25.0	12.0	20.0
Bromomethane	Ave	0.9146	0.9122	0.1000	24.9	25.0	-0.3	50.0
Chloroethane	Ave	0.9422	0.9728	0.1000	25.8	25.0	3.3	50.0
Dichlorofluoromethane	Ave	2.219	2.413		27.2	25.0	8.7	20.0
Trichlorofluoromethane	Ave	1.881	1.900	0.1000	25.2	25.0	1.0	20.0
Ethyl ether	Ave	1.430	1.463		25.6	25.0	2.3	20.0
Acrolein	Ave	0.2850	0.2910		128	125	2.1	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.042	1.150	0.1000	27.6	25.0	10.4	20.0
1,1-Dichloroethene	Ave	1.064	1.135	0.1000	26.7	25.0	6.6	20.0
Acetone	Ave	0.5807	0.7121	0.1000	153	125	22.6	50.0
Iodomethane	Ave	1.990	1.986		25.0	25.0	-0.2	20.0
Carbon disulfide	Ave	3.325	3.610	0.1000	27.1	25.0	8.6	20.0
Allyl chloride	Ave	2.285	2.400		26.3	25.0	5.1	20.0
Methyl acetate	Ave	1.755	1.688	0.1000	48.1	50.0	-3.8	50.0
Methylene Chloride	Lin1		1.354	0.1000	25.9	25.0	3.7	20.0
2-Methyl-2-propanol	Ave	0.1519	0.2139		352	250	40.8	50.0
Methyl tert-butyl ether	Ave	4.348	4.337	0.1000	24.9	25.0	-0.3	20.0
trans-1,2-Dichloroethene	Ave	1.284	1.387	0.1000	27.0	25.0	8.0	20.0
Acrylonitrile	Ave	0.8114	0.8764		270	250	8.0	20.0
Hexane	Ave	1.871	2.253		30.1	25.0	20.4*	20.0
1,1-Dichloroethane	Ave	2.335	2.539	0.2000	27.2	25.0	8.7	20.0
Vinyl acetate	Ave	3.035	3.201		52.7	50.0	5.5	20.0
2,2-Dichloropropane	Ave	1.171	1.174		25.1	25.0	0.3	20.0
cis-1,2-Dichloroethene	Ave	1.408	1.468	0.1000	26.1	25.0	4.3	20.0
2-Butanone (MEK)	Ave	0.9413	1.098	0.1000	146	125	16.6	20.0
Chlorobromomethane	Ave	0.7322	0.7501		25.6	25.0	2.4	20.0
Tetrahydrofuran	Ave	0.7193	0.8021		55.8	50.0	11.5	20.0
Chloroform	Ave	2.326	2.335	0.2000	25.1	25.0	0.4	20.0
1,1,1-Trichloroethane	Ave	1.778	1.894	0.1000	26.6	25.0	6.5	20.0
Cyclohexane	Ave	2.371	2.818	0.1000	29.7	25.0	18.8	20.0
Carbon tetrachloride	Ave	1.525	1.665	0.1000	27.3	25.0	9.2	20.0
1,1-Dichloropropene	Ave	1.692	1.880		27.8	25.0	11.1	20.0
Benzene	Ave	5.064	5.428	0.5000	26.8	25.0	7.2	20.0
Isobutyl alcohol	Ave	0.0661	0.0671		634	625	1.5	50.0
1,2-Dichloroethane	Ave	2.012	1.943	0.1000	24.1	25.0	-3.4	20.0
n-Heptane	Ave	1.907	2.135		28.0	25.0	12.0	20.0
Trichloroethene	Ave	1.316	1.391	0.2000	26.4	25.0	5.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721476/4 Calibration Date: 08/12/2024 20:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1151.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.008	2.385	0.1000	29.7	25.0	18.8	20.0
1,2-Dichloropropane	Ave	1.278	1.426	0.1000	27.9	25.0	11.6	20.0
Dibromomethane	Ave	0.8245	0.8363	0.1000	25.4	25.0	1.4	20.0
1,4-Dioxane	Lin1		0.0075		558	500	11.6	50.0
Bromodichloromethane	Ave	1.527	1.601	0.2000	26.2	25.0	4.9	20.0
2-Chloroethyl vinyl ether	Ave	0.9650	1.055		27.3	25.0	9.3	20.0
cis-1,3-Dichloropropene	Ave	1.887	2.062	0.2000	27.3	25.0	9.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.9255	0.9711	0.1000	131	125	4.9	20.0
Toluene	Ave	1.395	1.504	0.4000	27.0	25.0	7.8	20.0
trans-1,3-Dichloropropene	Ave	0.7715	0.8199	0.1000	26.6	25.0	6.3	20.0
Ethyl methacrylate	Ave	0.7018	0.7809		27.8	25.0	11.3	20.0
1,1,2-Trichloroethane	Ave	0.4414	0.4711	0.1000	26.7	25.0	6.7	20.0
Tetrachloroethene	Ave	0.6123	0.6609	0.2000	27.0	25.0	7.9	20.0
1,3-Dichloropropane	Ave	0.9054	0.9371		25.9	25.0	3.5	20.0
2-Hexanone	Ave	0.6508	0.6736	0.1000	129	125	3.5	20.0
Dibromochloromethane	Ave	0.5281	0.5390	0.1000	25.5	25.0	2.1	20.0
1,2-Dibromoethane	Ave	0.5724	0.5922		25.9	25.0	3.5	20.0
Chlorobenzene	Ave	1.628	1.671	0.5000	25.7	25.0	2.6	20.0
Ethylbenzene	Ave	2.618	2.828	0.1000	27.0	25.0	8.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5347	0.5494		25.7	25.0	2.8	20.0
m,p-Xylene	Ave	1.062	1.130	0.1000	26.6	25.0	6.3	20.0
o-Xylene	Ave	1.068	1.122	0.3000	26.3	25.0	5.1	20.0
Styrene	Ave	1.689	1.830	0.3000	27.1	25.0	8.4	20.0
Bromoform	Ave	0.3872	0.3751	0.1000	24.2	25.0	-3.1	50.0
Isopropylbenzene	Ave	2.279	2.554	0.1000	28.0	25.0	12.1	20.0
Bromobenzene	Ave	0.6674	0.6802		25.5	25.0	1.9	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7863	0.8106	0.3000	25.8	25.0	3.1	20.0
N-Propylbenzene	Ave	2.772	3.008		27.1	25.0	8.5	20.0
1,2,3-Trichloropropane	Ave	0.2799	0.2751		24.6	25.0	-1.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2888	0.2406		20.8	25.0	-16.7	50.0
2-Chlorotoluene	Ave	0.6176	0.6296		25.5	25.0	1.9	20.0
1,3,5-Trimethylbenzene	Ave	1.968	2.161		27.4	25.0	9.8	20.0
4-Chlorotoluene	Ave	0.6260	0.6639		26.5	25.0	6.1	20.0
tert-Butylbenzene	Ave	0.4544	0.5022		27.6	25.0	10.5	20.0
1,2,4-Trimethylbenzene	Ave	2.064	2.245		27.2	25.0	8.8	20.0
sec-Butylbenzene	Ave	2.355	2.690		28.6	25.0	14.2	20.0
1,3-Dichlorobenzene	Ave	1.298	1.328	0.6000	25.6	25.0	2.3	20.0
4-Isopropyltoluene	Ave	2.190	2.478		28.3	25.0	13.2	20.0
1,4-Dichlorobenzene	Ave	1.372	1.373	0.5000	25.0	25.0	0.0	20.0
n-Butylbenzene	Ave	1.787	2.002		28.0	25.0	12.1	20.0
1,2-Dichlorobenzene	Ave	1.256	1.282	0.4000	25.5	25.0	2.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721476/4 Calibration Date: 08/12/2024 20:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1151.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1473	0.1522	0.0500	25.8	25.0	3.4	50.0
1,2,4-Trichlorobenzene	Ave	0.7734	0.7935	0.2000	25.6	25.0	2.6	20.0
Hexachlorobutadiene	Ave	0.3183	0.3334		26.2	25.0	4.8	20.0
Naphthalene	Ave	2.625	2.727		26.0	25.0	3.9	20.0
1,2,3-Trichlorobenzene	Ave	0.7281	0.7497		25.7	25.0	3.0	20.0
Dibromofluoromethane (Surr)	Ave	1.346	1.372		25.5	25.0	1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.8571	0.8761		25.6	25.0	2.2	20.0
Toluene-d8 (Surr)	Ave	2.251	2.453		27.2	25.0	9.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.8007	0.7782		24.3	25.0	-2.8	20.0

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1151.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Aug-2024 20:44:30 ALS Bottle#: 32 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 480-0119480-004
Operator ID: ZN Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:18:44 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:18:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	164890	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	84	380111	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	61	422725	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	226221	25.0	25.5	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	53	144459	25.0	25.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	58	932598	25.0	27.2	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	91	295784	25.0	24.3	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	255020	25.0	22.9	
12 Chloromethane	50	1.126	1.126	0.000	89	346880	25.0	26.4	
13 Vinyl chloride	62	1.199	1.199	0.000	82	256716	25.0	26.2	
151 Butadiene	54	1.217	1.217	0.000	91	283175	25.0	28.0	
14 Bromomethane	94	1.442	1.442	0.000	90	150410	25.0	24.9	
15 Chloroethane	64	1.515	1.515	0.000	95	160410	25.0	25.8	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	397805	25.0	27.2	
17 Trichlorofluoromethane	101	1.692	1.692	0.000	59	313267	25.0	25.2	
18 Ethyl ether	59	1.917	1.917	0.000	96	241156	25.0	25.6	
20 Acrolein	56	2.081	2.081	0.000	96	239886	125.0	127.6	
22 1,1-Dichloroethene	96	2.112	2.112	0.000	85	187153	25.0	26.7	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.112	2.112	0.000	57	189699	25.0	27.6	
23 Acetone	43	2.227	2.227	0.000	99	587131	125.0	153.3	
25 Iodomethane	142	2.251	2.251	0.000	98	327539	25.0	25.0	
26 Carbon disulfide	76	2.288	2.288	0.000	99	595249	25.0	27.1	
28 3-Chloro-1-propene	41	2.452	2.452	0.000	88	395774	25.0	26.3	
27 Methyl acetate	43	2.501	2.501	0.000	96	556679	50.0	48.1	
30 Methylene Chloride	84	2.586	2.586	0.000	98	223231	25.0	25.9	
31 2-Methyl-2-propanol	59	2.769	2.769	0.000	60	352779	250.0	352.1	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	715089	25.0	24.9	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	83	228716	25.0	27.0	
33 Acrylonitrile	53	2.860	2.860	0.000	99	1445168	250.0	270.0	
35 Hexane	57	2.988	2.988	0.000	92	371440	25.0	30.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.201	3.201	0.000	84	418716	25.0	27.2	
37 Vinyl acetate	43	3.267	3.267	0.000	97	1055496	50.0	52.7	
44 2,2-Dichloropropane	77	3.699	3.699	0.000	93	193597	25.0	25.1	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	67	242113	25.0	26.1	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	97	904862	125.0	145.8	
48 Chlorobromomethane	128	3.967	3.967	0.000	94	123679	25.0	25.6	
49 Tetrahydrofuran	42	3.979	3.979	0.000	92	264513	50.0	55.8	
50 Chloroform	83	4.046	4.046	0.000	81	384949	25.0	25.1	
51 1,1,1-Trichloroethane	97	4.143	4.143	0.000	74	312240	25.0	26.6	
52 Cyclohexane	56	4.143	4.143	0.000	89	464608	25.0	29.7	
55 Carbon tetrachloride	117	4.271	4.271	0.000	80	274600	25.0	27.3	
54 1,1-Dichloropropene	75	4.296	4.296	0.000	93	310000	25.0	27.8	
57 Benzene	78	4.490	4.490	0.000	96	894977	25.0	26.8	
53 Isobutyl alcohol	43	4.557	4.557	0.000	49	276571	625.0	634.4	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	73	320386	25.0	24.1	
59 n-Heptane	43	4.679	4.679	0.000	95	352040	25.0	28.0	
62 Trichloroethene	95	5.093	5.093	0.000	93	229282	25.0	26.4	
64 Methylcyclohexane	83	5.196	5.196	0.000	93	393331	25.0	29.7	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	93	235104	25.0	27.9	
67 Dibromomethane	93	5.464	5.464	0.000	89	137897	25.0	25.4	
66 1,4-Dioxane	88	5.482	5.482	0.000	50	57104	500.0	557.8	
68 Dichlorobromomethane	83	5.628	5.628	0.000	92	263964	25.0	26.2	
69 2-Chloroethyl vinyl ether	63	5.920	5.920	0.000	91	173884	25.0	27.3	
72 cis-1,3-Dichloropropene	75	6.042	6.042	0.000	88	339993	25.0	27.3	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	1845578	125.0	131.2	
74 Toluene	92	6.309	6.309	0.000	92	571864	25.0	27.0	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	93	311637	25.0	26.6	
75 Ethyl methacrylate	69	6.668	6.668	0.000	75	296831	25.0	27.8	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	84	179055	25.0	26.7	
81 Tetrachloroethene	166	6.832	6.832	0.000	84	251233	25.0	27.0	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	96	356184	25.0	25.9	
80 2-Hexanone	43	7.027	7.027	0.000	97	1280228	125.0	129.4	
83 Chlorodibromomethane	129	7.173	7.173	0.000	88	204865	25.0	25.5	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	225108	25.0	25.9	
87 Chlorobenzene	112	7.739	7.739	0.000	94	635220	25.0	25.7	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1074827	25.0	27.0	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	208850	25.0	25.7	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	98	429491	25.0	26.6	
91 o-Xylene	106	8.378	8.378	0.000	97	426670	25.0	26.3	
92 Styrene	104	8.408	8.408	0.000	93	695566	25.0	27.1	
95 Bromoform	173	8.645	8.645	0.000	95	142592	25.0	24.2	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	1079538	25.0	28.0	
101 Bromobenzene	156	9.102	9.102	0.000	93	287546	25.0	25.5	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.199	0.000	55	342645	25.0	25.8	
99 N-Propylbenzene	91	9.205	9.205	0.000	98	1271586	25.0	27.1	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	60	116293	25.0	24.6	
98 trans-1,4-Dichloro-2-butene	53	9.248	9.248	0.000	49	101701	25.0	20.8	
103 2-Chlorotoluene	126	9.302	9.302	0.000	96	266153	25.0	25.5	
102 1,3,5-Trimethylbenzene	105	9.400	9.400	0.000	94	913580	25.0	27.4	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	280661	25.0	26.5	
106 tert-Butylbenzene	134	9.734	9.734	0.000	86	212297	25.0	27.6	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	67	949165	25.0	27.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	1137157	25.0	28.6	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	561187	25.0	25.6	
110 4-Isopropyltoluene	119	10.111	10.111	0.000	95	1047688	25.0	28.3	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	94	580394	25.0	25.0	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	846494	25.0	28.0	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	542074	25.0	25.5	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.292	0.000	76	64351	25.0	25.8	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	93	335448	25.0	25.6	
120 Hexachlorobutadiene	225	12.089	12.089	0.000	95	140939	25.0	26.2	
121 Naphthalene	128	12.186	12.186	0.000	97	1152883	25.0	26.0	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	93	316931	25.0	25.7	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added: 12.50	Units: uL	
GAS CORP mix_00631	Amount Added: 12.50	Units: uL	
S_8260_IS_00394	Amount Added: 1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added: 1.00	Units: uL	Run Reagent

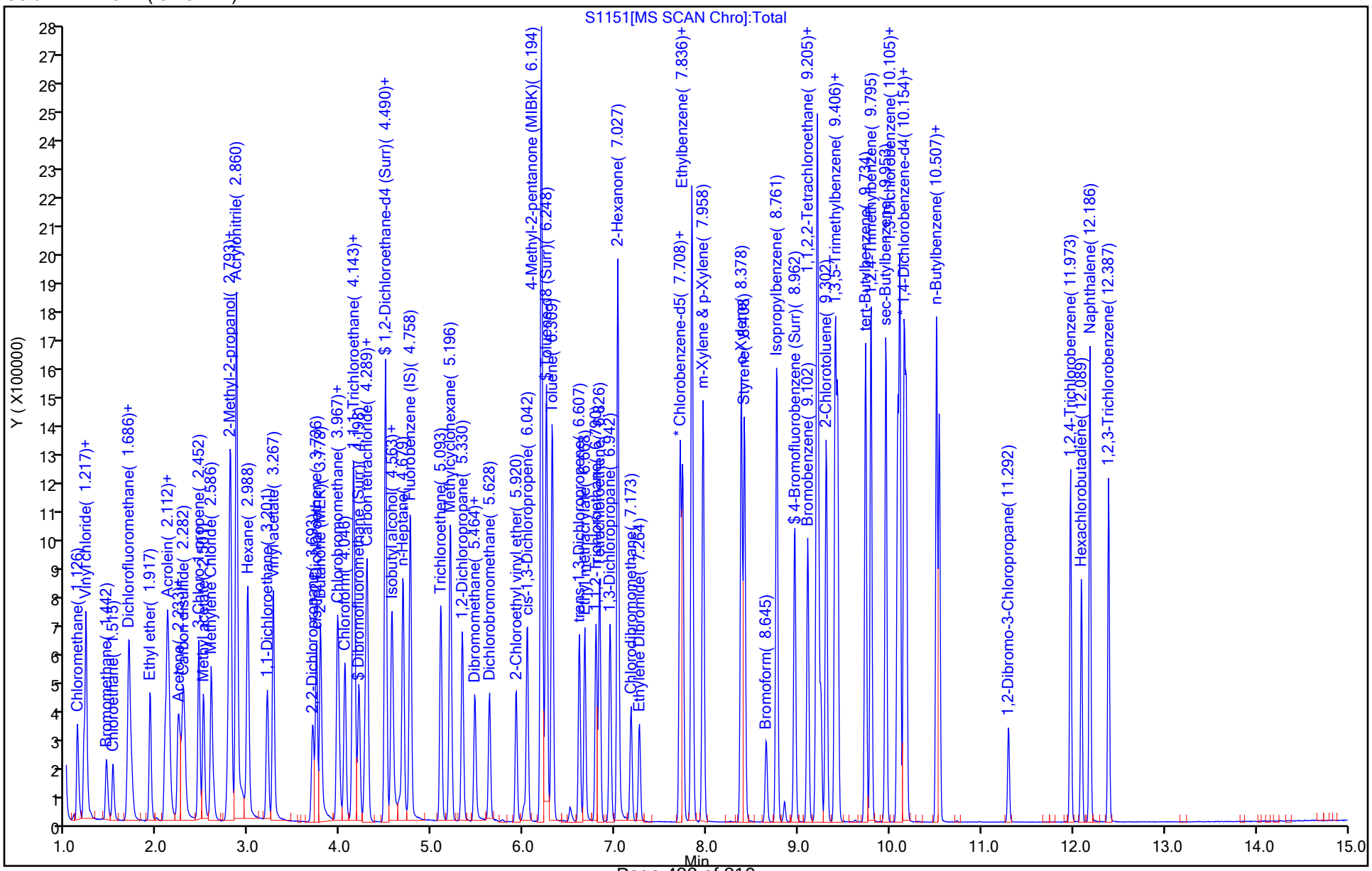
Report Date: 13-Aug-2024 13:18:46 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1151.d

Injection Date:	12-Aug-2024 20:44:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721538/4 Calibration Date: 08/13/2024 09:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1182.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	1.688	1.162	0.1000	17.2	25.0	-31.2	50.0
Chloromethane	Ave	1.995	1.840	0.1000	23.1	25.0	-7.8	20.0
Vinyl chloride	Ave	1.484	1.384	0.1000	23.3	25.0	-6.7	20.0
Butadiene	Ave	1.534	1.487		24.2	25.0	-3.1	20.0
Bromomethane	Ave	0.9146	0.8078	0.1000	22.1	25.0	-11.7	50.0
Chloroethane	Ave	0.9422	0.8954	0.1000	23.8	25.0	-5.0	50.0
Dichlorofluoromethane	Ave	2.219	2.136		24.1	25.0	-3.8	20.0
Trichlorofluoromethane	Ave	1.881	1.568	0.1000	20.8	25.0	-16.7	20.0
Ethyl ether	Ave	1.430	1.315		23.0	25.0	-8.0	20.0
Acrolein	Ave	0.2850	0.2648		116	125	-7.1	50.0
1,1-Dichloroethene	Ave	1.064	1.052	0.1000	24.7	25.0	-1.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	1.042	0.9897	0.1000	23.8	25.0	-5.0	20.0
Acetone	Ave	0.5807	0.6891	0.1000	148	125	18.7	50.0
Iodomethane	Ave	1.990	1.870		23.5	25.0	-6.0	20.0
Carbon disulfide	Ave	3.325	3.225	0.1000	24.3	25.0	-3.0	20.0
Allyl chloride	Ave	2.285	2.223		24.3	25.0	-2.7	20.0
Methyl acetate	Ave	1.755	1.563	0.1000	44.5	50.0	-10.9	50.0
Methylene Chloride	Lin1		1.269	0.1000	24.3	25.0	-2.9	20.0
2-Methyl-2-propanol	Ave	0.1519	0.1502		247	250	-1.2	50.0
Methyl tert-butyl ether	Ave	4.348	3.931	0.1000	22.6	25.0	-9.6	20.0
trans-1,2-Dichloroethene	Ave	1.284	1.236	0.1000	24.1	25.0	-3.7	20.0
Acrylonitrile	Ave	0.8114	0.8101		250	250	-0.2	20.0
Hexane	Ave	1.871	1.808		24.2	25.0	-3.4	20.0
1,1-Dichloroethane	Ave	2.335	2.283	0.2000	24.4	25.0	-2.2	20.0
Vinyl acetate	Ave	3.035	2.955		48.7	50.0	-2.6	20.0
2,2-Dichloropropane	Ave	1.171	1.117		23.9	25.0	-4.5	20.0
cis-1,2-Dichloroethene	Ave	1.408	1.327	0.1000	23.6	25.0	-5.8	20.0
2-Butanone (MEK)	Ave	0.9413	1.053	0.1000	140	125	11.8	20.0
Chlorobromomethane	Ave	0.7322	0.6733		23.0	25.0	-8.0	20.0
Tetrahydrofuran	Ave	0.7193	0.6909		48.0	50.0	-3.9	20.0
Chloroform	Ave	2.326	2.088	0.2000	22.4	25.0	-10.2	20.0
Cyclohexane	Ave	2.371	2.314	0.1000	24.4	25.0	-2.4	20.0
1,1,1-Trichloroethane	Ave	1.778	1.715	0.1000	24.1	25.0	-3.5	20.0
Carbon tetrachloride	Ave	1.525	1.489	0.1000	24.4	25.0	-2.4	20.0
1,1-Dichloropropene	Ave	1.692	1.692		25.0	25.0	-0.0	20.0
Benzene	Ave	5.064	4.958	0.5000	24.5	25.0	-2.1	20.0
Isobutyl alcohol	Ave	0.0661	0.0621		587	625	-6.1	50.0
1,2-Dichloroethane	Ave	2.012	1.756	0.1000	21.8	25.0	-12.7	20.0
n-Heptane	Ave	1.907	1.981		26.0	25.0	3.9	20.0
Trichloroethene	Ave	1.316	1.276	0.2000	24.2	25.0	-3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721538/4 Calibration Date: 08/13/2024 09:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1182.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	2.008	1.906	0.1000	23.7	25.0	-5.1	20.0
1,2-Dichloropropane	Ave	1.278	1.272	0.1000	24.9	25.0	-0.5	20.0
Dibromomethane	Ave	0.8245	0.7510	0.1000	22.8	25.0	-8.9	20.0
1,4-Dioxane	Lin1		0.0067		497	500	-0.5	50.0
Bromodichloromethane	Ave	1.527	1.441	0.2000	23.6	25.0	-5.6	20.0
2-Chloroethyl vinyl ether	Ave	0.9650	0.9647		25.0	25.0	-0.0	20.0
cis-1,3-Dichloropropene	Ave	1.887	1.892	0.2000	25.1	25.0	0.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.9255	0.9030	0.1000	122	125	-2.4	20.0
Toluene	Ave	1.395	1.381	0.4000	24.7	25.0	-1.0	20.0
trans-1,3-Dichloropropene	Ave	0.7715	0.7387	0.1000	23.9	25.0	-4.3	20.0
Ethyl methacrylate	Ave	0.7018	0.7274		25.9	25.0	3.6	20.0
1,1,2-Trichloroethane	Ave	0.4414	0.4160	0.1000	23.6	25.0	-5.8	20.0
Tetrachloroethene	Ave	0.6123	0.6059	0.2000	24.7	25.0	-1.0	20.0
1,3-Dichloropropane	Ave	0.9054	0.8704		24.0	25.0	-3.9	20.0
2-Hexanone	Ave	0.6508	0.6653	0.1000	128	125	2.2	20.0
Dibromochloromethane	Ave	0.5281	0.4846	0.1000	22.9	25.0	-8.2	20.0
1,2-Dibromoethane	Ave	0.5724	0.5320		23.2	25.0	-7.1	20.0
Chlorobenzene	Ave	1.628	1.538	0.5000	23.6	25.0	-5.6	20.0
Ethylbenzene	Ave	2.618	2.598	0.1000	24.8	25.0	-0.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5347	0.5099		23.8	25.0	-4.6	20.0
m,p-Xylene	Ave	1.062	1.042	0.1000	24.5	25.0	-2.0	20.0
o-Xylene	Ave	1.068	1.040	0.3000	24.4	25.0	-2.6	20.0
Styrene	Ave	1.689	1.669	0.3000	24.7	25.0	-1.2	20.0
Bromoform	Ave	0.3872	0.3410	0.1000	22.0	25.0	-11.9	50.0
Isopropylbenzene	Ave	2.279	2.390	0.1000	26.2	25.0	4.9	20.0
Bromobenzene	Ave	0.6674	0.6261		23.5	25.0	-6.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7863	0.7580	0.3000	24.1	25.0	-3.6	20.0
N-Propylbenzene	Ave	2.772	2.829		25.5	25.0	2.1	20.0
1,2,3-Trichloropropane	Ave	0.2799	0.2654		23.7	25.0	-5.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2888	0.2442		21.1	25.0	-15.4	50.0
2-Chlorotoluene	Ave	0.6176	0.5987		24.2	25.0	-3.1	20.0
1,3,5-Trimethylbenzene	Ave	1.968	2.034		25.8	25.0	3.3	20.0
4-Chlorotoluene	Ave	0.6260	0.6367		25.4	25.0	1.7	20.0
tert-Butylbenzene	Ave	0.4544	0.4555		25.1	25.0	0.2	20.0
1,2,4-Trimethylbenzene	Ave	2.064	2.109		25.5	25.0	2.2	20.0
sec-Butylbenzene	Ave	2.355	2.485		26.4	25.0	5.5	20.0
1,3-Dichlorobenzene	Ave	1.298	1.246	0.6000	24.0	25.0	-4.0	20.0
4-Isopropyltoluene	Ave	2.190	2.312		26.4	25.0	5.6	20.0
1,4-Dichlorobenzene	Ave	1.372	1.279	0.5000	23.3	25.0	-6.8	20.0
n-Butylbenzene	Ave	1.787	1.871		26.2	25.0	4.7	20.0
1,2-Dichlorobenzene	Ave	1.256	1.209	0.4000	24.1	25.0	-3.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: CCVIS 480-721538/4 Calibration Date: 08/13/2024 09:44

Instrument ID: HP5973S Calib Start Date: 08/07/2024 15:47

GC Column: ZB-624 (20) ID: 0.18(mm) Calib End Date: 08/07/2024 18:31

Lab File ID: S1182.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dibromo-3-Chloropropane	Ave	0.1473	0.1461	0.0500	24.8	25.0	-0.8	50.0
1,2,4-Trichlorobenzene	Ave	0.7734	0.7522	0.2000	24.3	25.0	-2.8	20.0
Hexachlorobutadiene	Ave	0.3183	0.3181		25.0	25.0	-0.0	20.0
Naphthalene	Ave	2.625	2.606		24.8	25.0	-0.7	20.0
1,2,3-Trichlorobenzene	Ave	0.7281	0.7110		24.4	25.0	-2.3	20.0
Dibromofluoromethane (Surr)	Ave	1.346	1.276		23.7	25.0	-5.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.8571	0.8284		24.2	25.0	-3.4	20.0
Toluene-d8 (Surr)	Ave	2.251	2.301		25.6	25.0	2.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.8007	0.7554		23.6	25.0	-5.7	20.0

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1182.d
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 13-Aug-2024 09:44:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 480-0119487-004
Operator ID: ZN Instrument ID: HP5973S
Sublist: chrom-S-8260*sub26

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 10:03:55 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 10:03:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	169686	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	389313	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	69	421814	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	216534	25.0	23.7	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.496	0.000	59	140570	25.0	24.2	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	65	895809	25.0	25.6	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.961	0.000	91	294092	25.0	23.6	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	197218	25.0	17.2	
12 Chloromethane	50	1.120	1.120	0.000	89	312167	25.0	23.1	
13 Vinyl chloride	62	1.193	1.193	0.000	82	234896	25.0	23.3	
151 Butadiene	54	1.217	1.217	0.000	93	252270	25.0	24.2	
14 Bromomethane	94	1.436	1.436	0.000	91	137073	25.0	22.1	
15 Chloroethane	64	1.509	1.509	0.000	94	151933	25.0	23.8	
17 Trichlorofluoromethane	101	1.685	1.685	0.000	56	266073	25.0	20.8	
16 Dichlorofluoromethane	67	1.685	1.685	0.000	82	362437	25.0	24.1	
18 Ethyl ether	59	1.917	1.917	0.000	95	223115	25.0	23.0	
20 Acrolein	56	2.081	2.081	0.000	96	224659	125.0	116.1	
22 1,1-Dichloroethene	96	2.105	2.105	0.000	87	178566	25.0	24.7	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.111	0.000	59	167937	25.0	23.8	
23 Acetone	43	2.221	2.221	0.000	98	584643	125.0	148.3	
25 Iodomethane	142	2.251	2.251	0.000	99	317271	25.0	23.5	
26 Carbon disulfide	76	2.282	2.282	0.000	98	547314	25.0	24.3	
28 3-Chloro-1-propene	41	2.452	2.452	0.000	89	377227	25.0	24.3	
27 Methyl acetate	43	2.501	2.501	0.000	99	530580	50.0	44.5	
30 Methylene Chloride	84	2.586	2.586	0.000	95	215312	25.0	24.3	
31 2-Methyl-2-propanol	59	2.768	2.768	0.000	53	254821	250.0	247.1	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	666971	25.0	22.6	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	90	209796	25.0	24.1	
33 Acrylonitrile	53	2.860	2.860	0.000	100	1374618	250.0	249.6	
35 Hexane	57	2.981	2.981	0.000	91	306834	25.0	24.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
39 1,1-Dichloroethane	63	3.200	3.200	0.000	84	387380	25.0	24.4	
37 Vinyl acetate	43	3.261	3.261	0.000	98	1002876	50.0	48.7	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	91	189606	25.0	23.9	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	225161	25.0	23.6	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	99	893042	125.0	139.8	
48 Chlorobromomethane	128	3.961	3.961	0.000	92	114252	25.0	23.0	
49 Tetrahydrofuran	42	3.979	3.979	0.000	94	234485	50.0	48.0	
50 Chloroform	83	4.046	4.046	0.000	81	354364	25.0	22.4	
52 Cyclohexane	56	4.137	4.137	0.000	93	392620	25.0	24.4	
51 1,1,1-Trichloroethane	97	4.143	4.143	0.000	82	290989	25.0	24.1	
55 Carbon tetrachloride	117	4.271	4.271	0.000	82	252660	25.0	24.4	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	91	287138	25.0	25.0	
57 Benzene	78	4.490	4.490	0.000	96	841237	25.0	24.5	
53 Isobutyl alcohol	43	4.551	4.551	0.000	59	263392	625.0	587.1	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	73	297958	25.0	21.8	
59 n-Heptane	43	4.679	4.679	0.000	95	336216	25.0	26.0	
62 Trichloroethene	95	5.092	5.092	0.000	94	216528	25.0	24.2	
64 Methylcyclohexane	83	5.202	5.202	0.000	93	323354	25.0	23.7	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	93	215758	25.0	24.9	
67 Dibromomethane	93	5.463	5.463	0.000	89	127427	25.0	22.8	
66 1,4-Dioxane	88	5.482	5.482	0.000	51	52031	500.0	497.4	
68 Dichlorobromomethane	83	5.628	5.628	0.000	92	244526	25.0	23.6	
69 2-Chloroethyl vinyl ether	63	5.920	5.920	0.000	91	163693	25.0	25.0	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	88	321099	25.0	25.1	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.193	0.000	98	1757828	125.0	122.0	
74 Toluene	92	6.309	6.309	0.000	92	537574	25.0	24.7	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	93	287584	25.0	23.9	
75 Ethyl methacrylate	69	6.668	6.668	0.000	74	283198	25.0	25.9	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	85	161936	25.0	23.6	
81 Tetrachloroethene	166	6.832	6.832	0.000	85	235874	25.0	24.7	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	96	338877	25.0	24.0	
80 2-Hexanone	43	7.027	7.027	0.000	97	1295083	125.0	127.8	
83 Chlorodibromomethane	129	7.173	7.173	0.000	88	188653	25.0	22.9	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	207126	25.0	23.2	
87 Chlorobenzene	112	7.739	7.739	0.000	93	598683	25.0	23.6	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1011389	25.0	24.8	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	40	198523	25.0	23.8	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	98	405564	25.0	24.5	
91 o-Xylene	106	8.377	8.377	0.000	97	405055	25.0	24.4	
92 Styrene	104	8.408	8.408	0.000	94	649701	25.0	24.7	
95 Bromoform	173	8.645	8.645	0.000	95	132751	25.0	22.0	
94 Isopropylbenzene	105	8.761	8.761	0.000	95	1008213	25.0	26.2	
101 Bromobenzene	156	9.101	9.101	0.000	93	264079	25.0	23.5	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.199	0.000	56	319716	25.0	24.1	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	1193297	25.0	25.5	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	59	111954	25.0	23.7	
98 trans-1,4-Dichloro-2-butene	53	9.247	9.247	0.000	58	103017	25.0	21.1	
103 2-Chlorotoluene	126	9.302	9.302	0.000	95	252523	25.0	24.2	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	95	858041	25.0	25.8	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	268558	25.0	25.4	
106 tert-Butylbenzene	134	9.734	9.734	0.000	92	192116	25.0	25.1	
107 1,2,4-Trimethylbenzene	105	9.789	9.789	0.000	85	889725	25.0	25.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	1048364	25.0	26.4	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	525548	25.0	24.0	
110 4-Isopropyltoluene	119	10.111	10.111	0.000	97	975379	25.0	26.4	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	93	539403	25.0	23.3	
115 n-Butylbenzene	91	10.507	10.507	0.000	94	789298	25.0	26.2	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	96	510109	25.0	24.1	
117 1,2-Dibromo-3-Chloropropane	75	11.298	11.298	0.000	84	61623	25.0	24.8	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	94	317276	25.0	24.3	
120 Hexachlorobutadiene	225	12.094	12.094	0.000	94	134185	25.0	25.0	
121 Naphthalene	128	12.186	12.186	0.000	97	1099187	25.0	24.8	
122 1,2,3-Trichlorobenzene	180	12.386	12.386	0.000	94	299929	25.0	24.4	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added: 12.50	Units: uL	
GAS CORP mix_00631	Amount Added: 12.50	Units: uL	
S_8260_IS_00394	Amount Added: 1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added: 1.00	Units: uL	Run Reagent

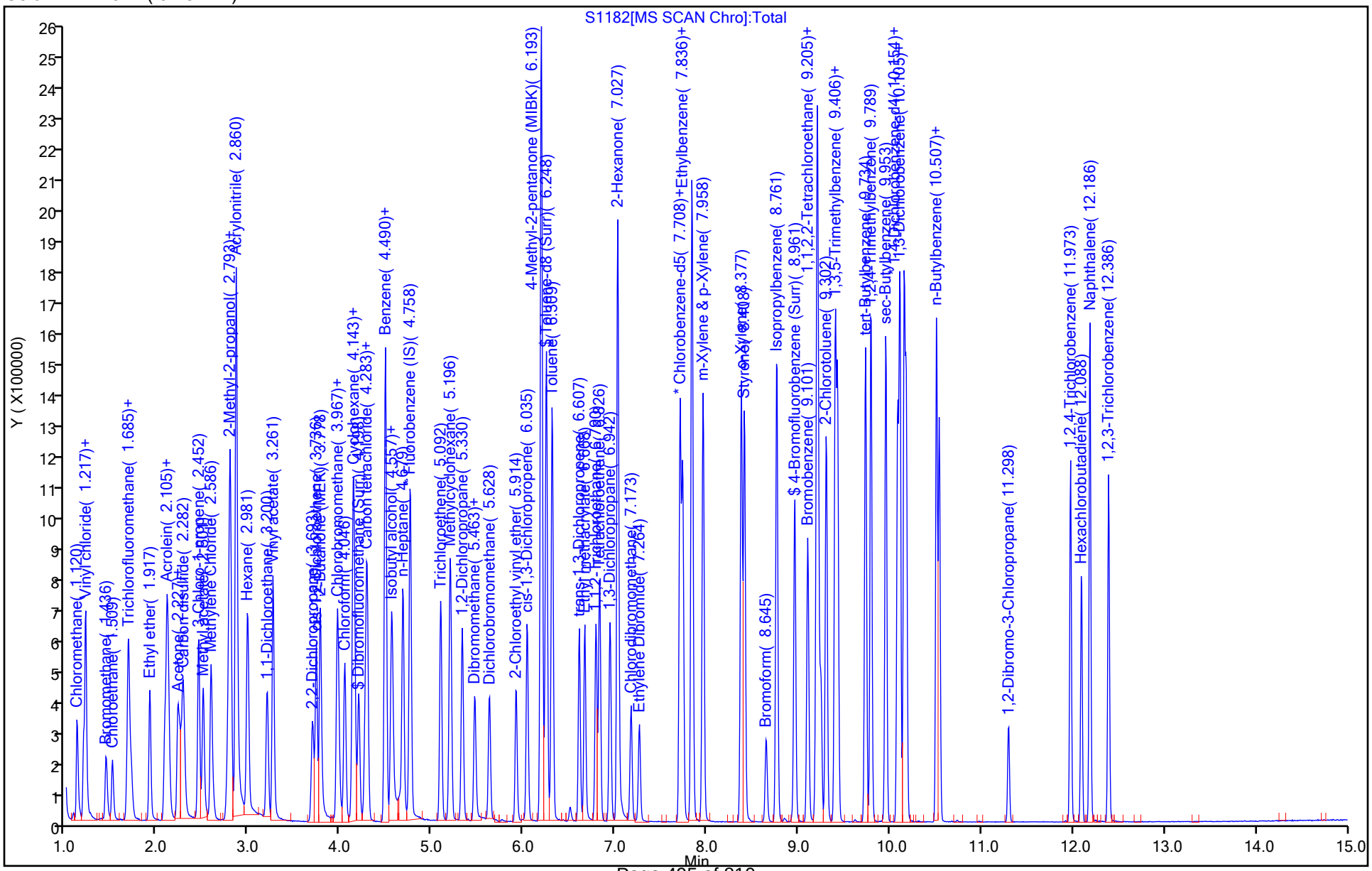
Report Date: 13-Aug-2024 10:03:56 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1182.d

Injection Date:	13-Aug-2024 09:44:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	CCVIS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0979.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 07-Aug-2024 14:57:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 480-0119391-011
Operator ID: LH Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 08-Aug-2024 13:26:43 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: WLL8 Date: 07-Aug-2024 15:08:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	3.169	3.169	0.000	0	179831	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

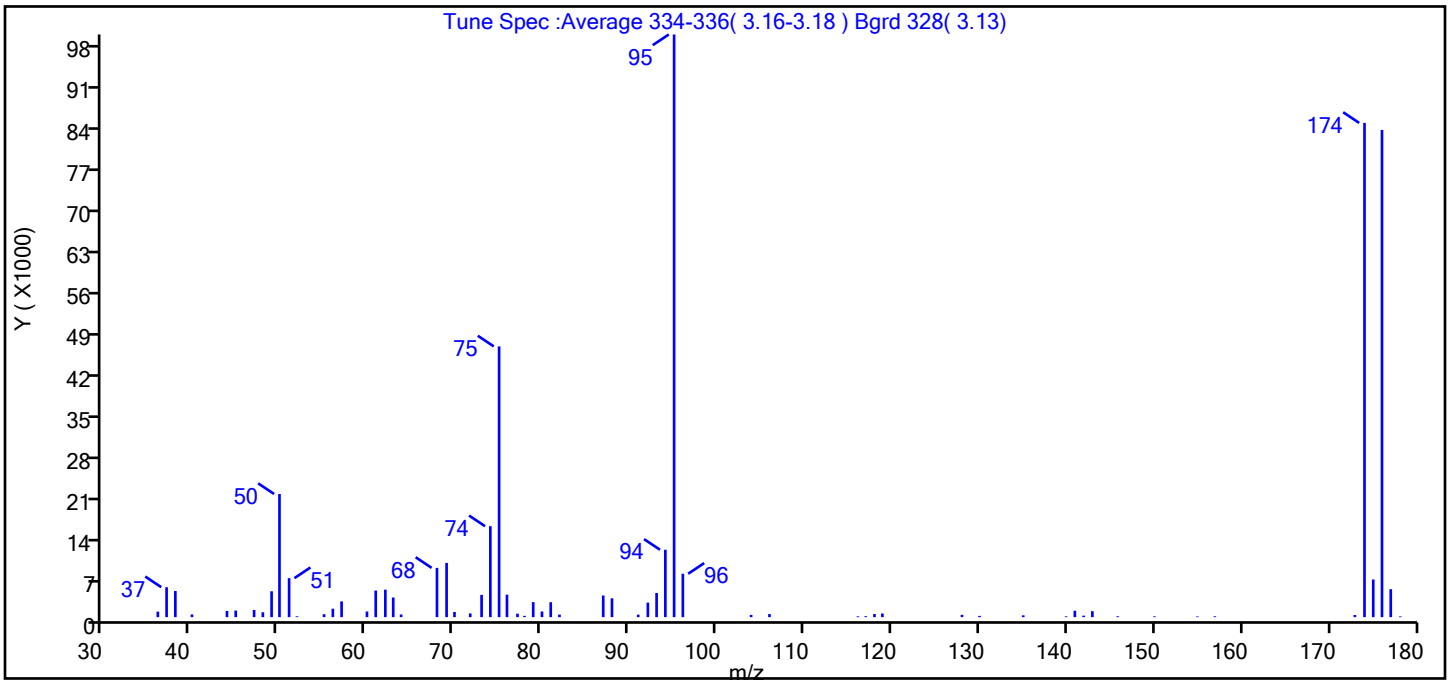
BFB_WRK_00164 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0979.d
Injection Date: 07-Aug-2024 14:57:30 Instrument ID: HP5973S
Lims ID: BFB
Client ID:
Operator ID: LH ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.1
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	84.8
175	5 to 9% of m/z 174	6.5 (7.6)
176	Greater than 95% but less than 101% of m/z 174	83.6 (98.6)
177	5 to 9% of m/z 176	4.8 (5.7)

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0979.d\S-8260.rslt\spectra.d
Injection Date: 07-Aug-2024 14:57:30
Spectrum: Tune Spec :Average 334-336(3.16-3.18) Bgrd 328(3.13)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	938	62.00	4701	87.00	3698	140.00	132
37.00	5124	63.00	3362	88.00	3225	141.00	1097
38.00	4479	64.00	458	91.00	430	142.00	256
40.00	469	68.00	8429	92.00	2487	143.00	1026
44.00	1063	69.00	9280	93.00	4139	146.00	148
45.00	1127	70.00	887	94.00	11531	150.00	134
47.00	1226	72.00	636	95.00	99720	155.00	118
48.00	831	73.00	3812	96.00	7427	157.00	144
49.00	4430	74.00	15565	104.00	383	173.00	368
50.00	21072	75.00	46336	106.00	521	174.00	84584
51.00	6676	76.00	3847	116.00	135	175.00	6448
52.00	142	77.00	590	117.00	162	176.00	83384
55.00	496	78.00	224	118.00	530	177.00	4785
56.00	1448	79.00	2572	119.00	621	178.00	123
57.00	2697	80.00	969	128.00	397		
60.00	967	81.00	2557	130.00	216		
61.00	4554	82.00	436	135.00	311		

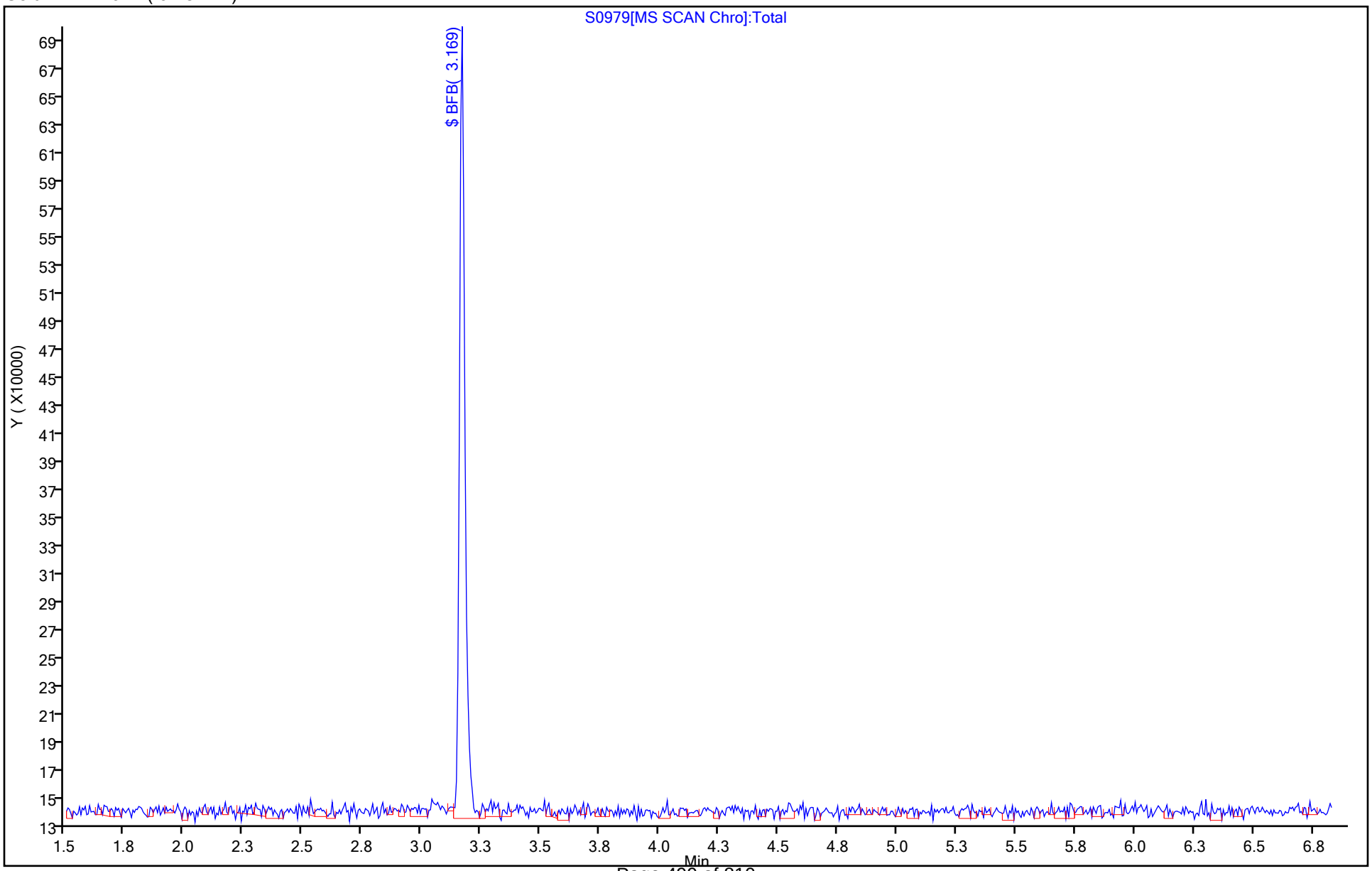
Report Date: 08-Aug-2024 13:26:44 Chrom Revision: 2.3 31-Jul-2024 13:18:04

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0979.d

Injection Date:	07-Aug-2024 14:57:30	Instrument ID:	HP5973S	Operator ID:	LH
Lims ID:	BFB			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1149.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-Aug-2024 19:58:30 ALS Bottle#: 30 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: IBLK
Misc. Info.: 480-0119480-002
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:35:06 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:14:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	3.254	3.254	0.000	0	1253502	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

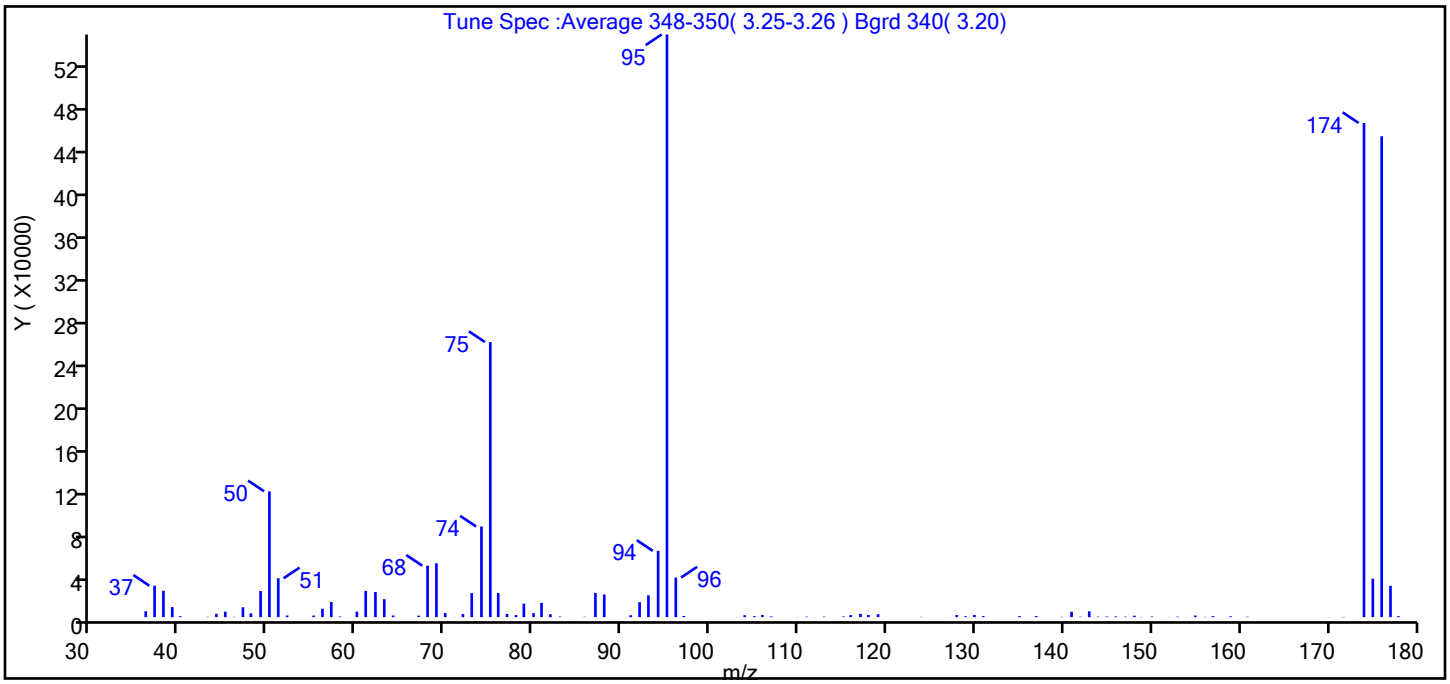
BFB_WRK_00164 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1149.d
Injection Date: 12-Aug-2024 19:58:30 Instrument ID: HP5973S
Lims ID: BFB
Client ID:
Operator ID: ZN ALS Bottle#: 30 Worklist Smp#: 2
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	47.2
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	84.8
175	5 to 9% of m/z 174	6.6 (7.8)
176	Greater than 95% but less than 101% of m/z 174	82.5 (97.3)
177	5 to 9% of m/z 176	5.4 (6.5)

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1149.d\S-8260.rslt\spectra.d
Injection Date: 12-Aug-2024 19:58:30
Spectrum: Tune Spec :Average 348-350(3.25-3.26) Bgrd 340(3.20)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5490	68.00	47736	97.00	1081	142.00	405
37.00	29216	69.00	49992	103.00	121	143.00	5429
38.00	24464	70.00	3725	104.00	1783	144.00	429
39.00	9321	71.00	143	105.00	928	145.00	564
40.00	878	72.00	2817	106.00	2011	146.00	688
43.00	293	73.00	22328	107.00	668	147.00	475
44.00	3135	74.00	84056	110.00	163	148.00	1367
45.00	5112	75.00	255168	111.00	466	149.00	173
46.00	299	76.00	22368	112.00	121	150.00	593
47.00	9166	77.00	2977	113.00	445	152.00	143
48.00	3541	78.00	1937	115.00	619	153.00	465
49.00	24256	79.00	12545	116.00	1906	154.00	116
50.00	116736	80.00	3690	117.00	3099	155.00	1512
51.00	36064	81.00	13174	118.00	2044	156.00	265
52.00	1538	82.00	2706	119.00	2706	157.00	980
55.00	1480	83.00	517	124.00	284	159.00	768
56.00	7761	86.00	340	127.00	119	161.00	409
57.00	14172	87.00	22472	128.00	1959	170.00	130
58.00	586	88.00	21024	129.00	862	172.00	180
60.00	5055	91.00	1776	130.00	1992	172.00	191
61.00	24368	92.00	13870	131.00	981	174.00	458368
62.00	23352	93.00	20264	135.00	957	175.00	35736
63.00	16680	94.00	61480	137.00	1007	176.00	446016
64.00	1566	95.00	540480	140.00	266	177.00	29048
67.00	1384	96.00	36784	141.00	5027	178.00	912

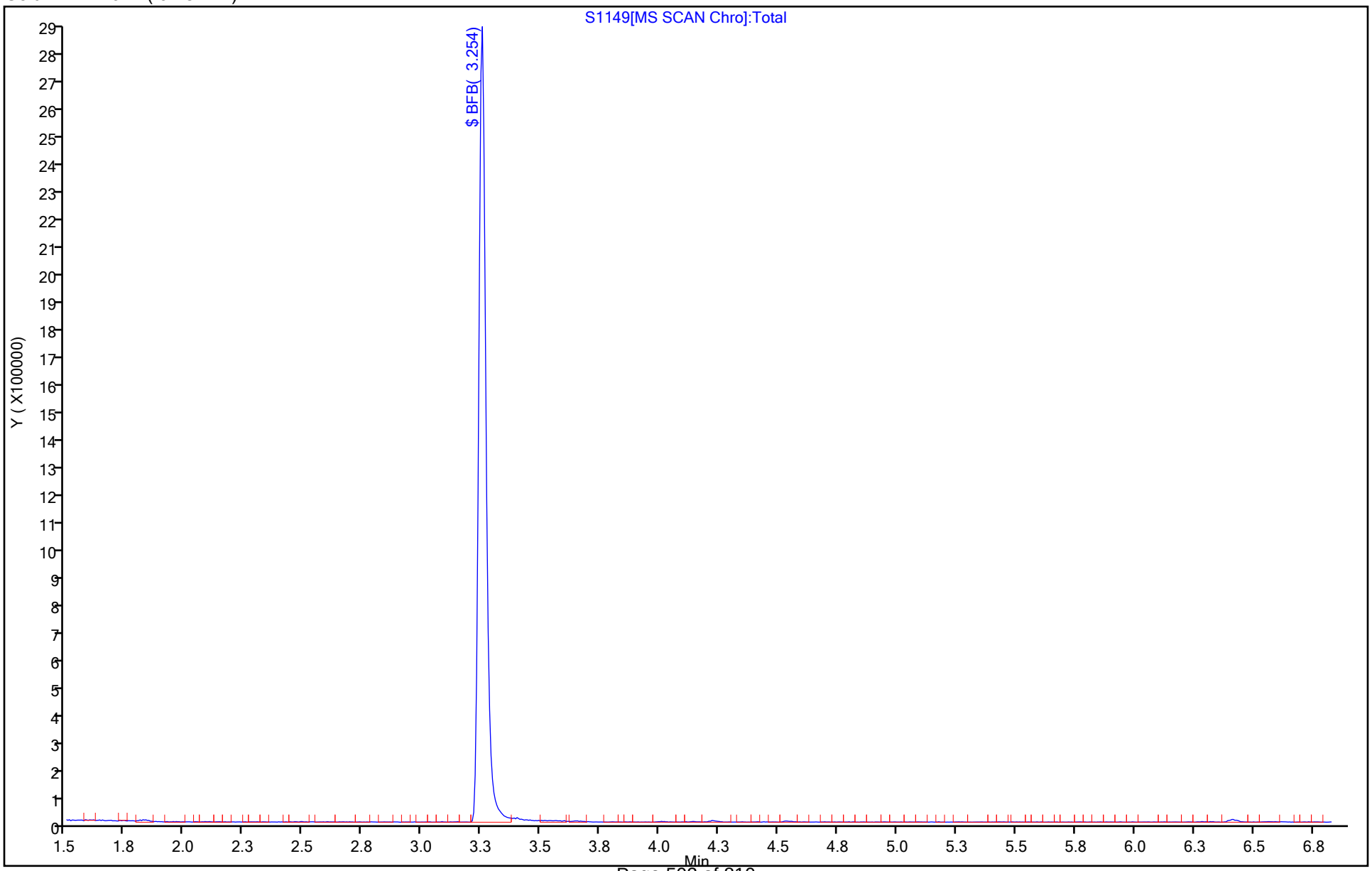
Report Date: 13-Aug-2024 13:35:06 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1149.d

Injection Date:	12-Aug-2024 19:58:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1181.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 13-Aug-2024 09:18:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 480-0119487-003
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 10:12:40 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 10:12:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
$ 61 BFB	95	3.157	3.157	0.000	0	171668	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

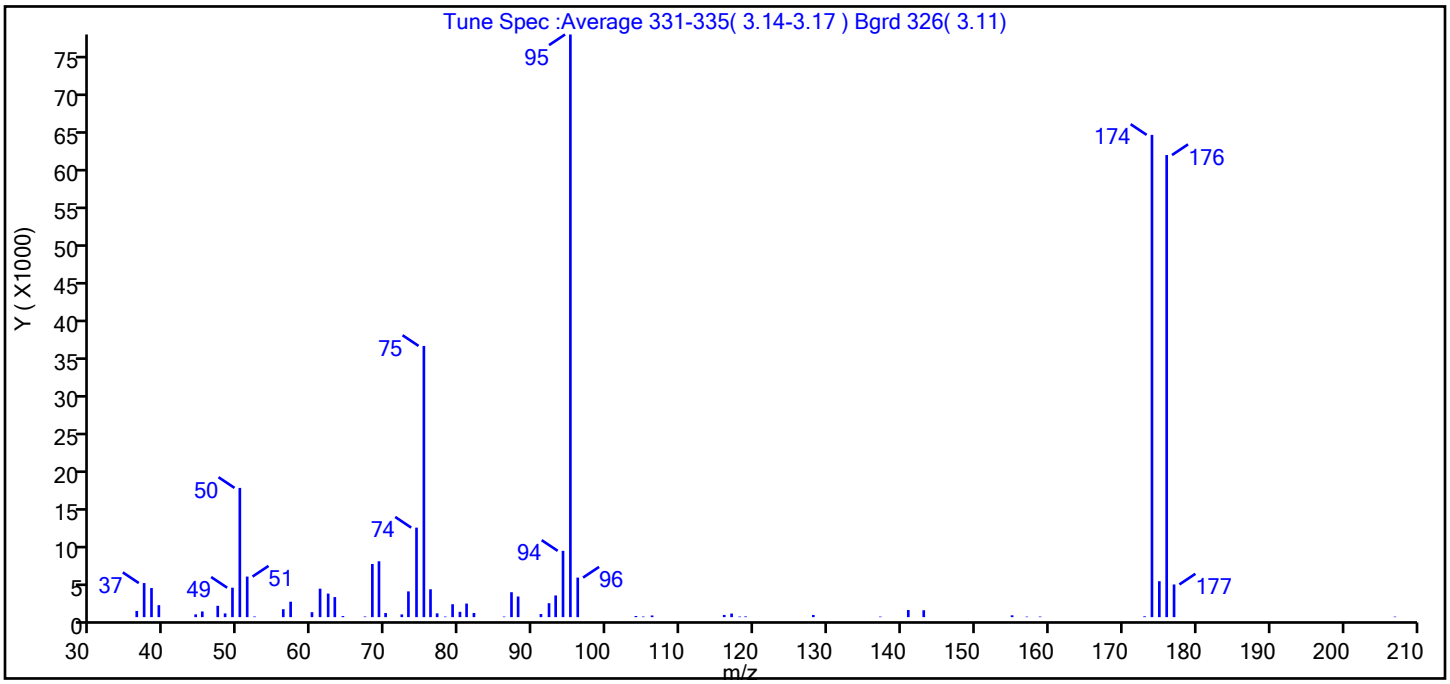
BFB_WRK_00164 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1181.d
Injection Date: 13-Aug-2024 09:18:30 Instrument ID: HP5973S
Lims ID: BFB
Client ID:
Operator ID: ZN ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: S-8260 Limit Group: MV - 8260C ICAL
Tune Method: BFB Method 8260

$ 61 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	22.2
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.1 (0.2)
174	50 to 120% of m/z 95	82.8
175	5 to 9% of m/z 174	6.2 (7.4)
176	Greater than 95% but less than 101% of m/z 174	79.3 (95.8)
177	5 to 9% of m/z 176	5.6 (7.1)

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1181.d\S-8260.rslt\spectra.d
Injection Date: 13-Aug-2024 09:18:30
Spectrum: Tune Spec :Average 331-335(3.14-3.17) Bgrd 326(3.11)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 63

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	824	62.00	3141	81.00	1810	118.00	75
37.00	4545	63.00	2676	82.00	558	119.00	98
38.00	3881	64.00	145	86.00	75	128.00	288
39.00	1599	67.00	86	87.00	3325	137.00	73
44.00	371	68.00	7083	88.00	2751	141.00	949
45.00	757	69.00	7450	91.00	416	143.00	922
47.00	1510	70.00	547	92.00	1858	155.00	245
48.00	496	72.00	362	93.00	2891	157.00	71
49.00	3926	73.00	3431	94.00	8839	159.00	78
50.00	17232	74.00	11936	95.00	77680	173.00	111
51.00	5408	75.00	36160	96.00	5275	174.00	64296
52.00	83	76.00	3715	104.00	153	175.00	4788
56.00	1059	77.00	508	105.00	82	176.00	61608
57.00	2058	78.00	79	106.00	222	177.00	4356
60.00	660	79.00	1723	116.00	294	207.00	71
61.00	3793	80.00	710	117.00	479		

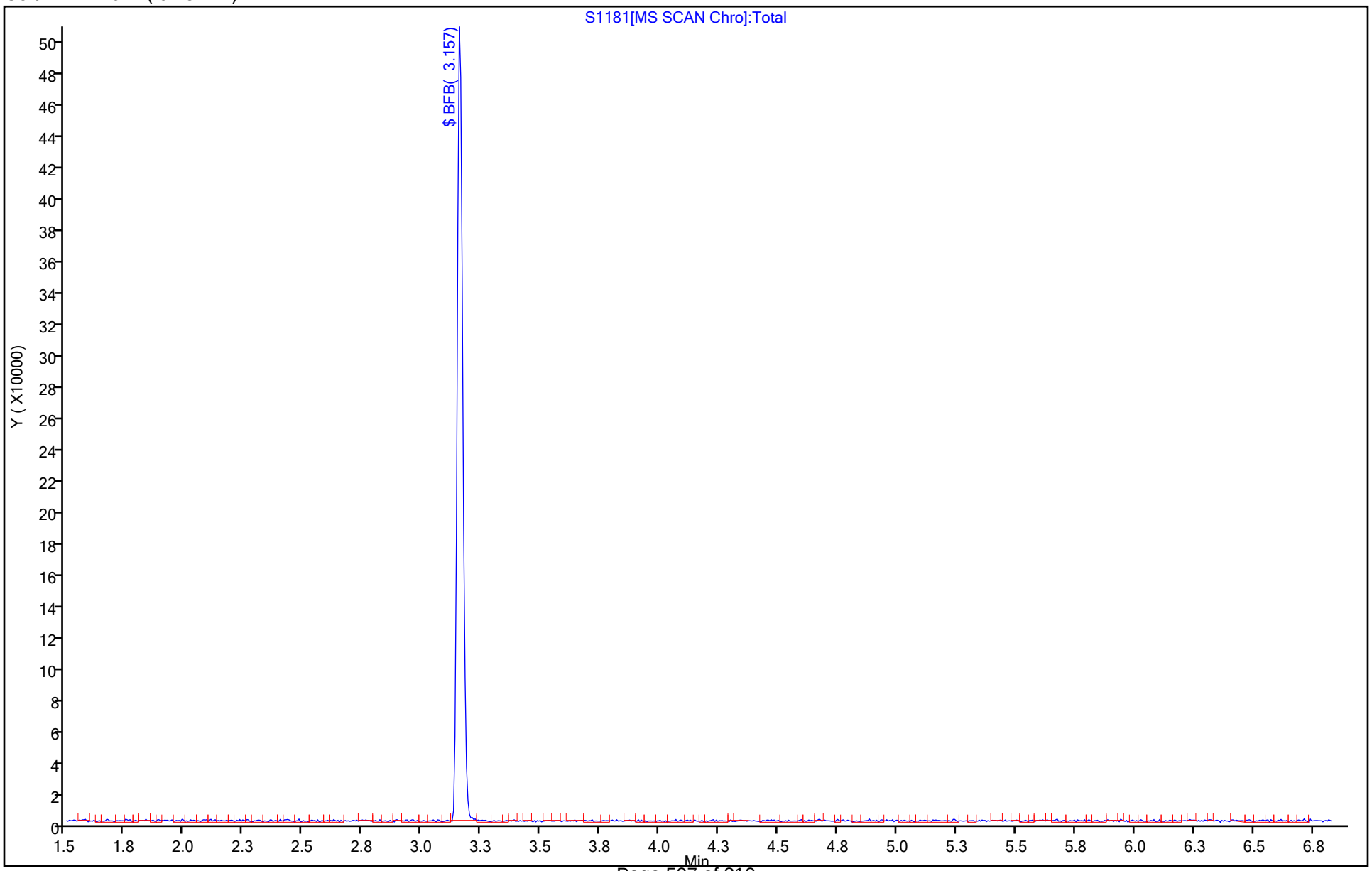
Report Date: 13-Aug-2024 10:12:40 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1181.d

Injection Date:	13-Aug-2024 09:18:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	BFB			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-721476/8

Matrix: Water | Lab File ID: S1155.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 22:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-721476/8

Matrix: Water | Lab File ID: S1155.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 22:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		77-120
2037-26-5	Toluene-d8 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1155.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2024 22:17:30 ALS Bottle#: 36 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0119480-008
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:22:10 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:22:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	159227	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	87	347209	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	390856	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	59	212075	25.0	24.7	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	93	134037	25.0	24.6	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	842119	25.0	26.9	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	91	282293	25.0	25.4	
10 Dichlorodifluoromethane	85		0.992					ND	
11 Chlorodifluoromethane	51		1.010					ND	
12 Chloromethane	50		1.126					ND	
13 Vinyl chloride	62		1.199					ND	
151 Butadiene	54		1.217					ND	
14 Bromomethane	94		1.442					ND	
15 Chloroethane	64		1.515					ND	
16 Dichlorofluoromethane	67		1.686					ND	
17 Trichlorofluoromethane	101		1.692					ND	
18 Ethyl ether	59		1.917					ND	
148 Ethanol	45		1.929					ND	
19 Propene oxide	58		1.996					ND	
20 Acrolein	56		2.081					ND	
22 1,1-Dichloroethene	96		2.112					ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.112					ND	
23 Acetone	43		2.227					ND	
25 Iodomethane	142		2.251					ND	
26 Carbon disulfide	76		2.288					ND	
24 Isopropyl alcohol	45		2.410					ND	
28 3-Chloro-1-propene	41		2.452					ND	
27 Methyl acetate	43		2.501					ND	
29 Acetonitrile	40		2.513					ND	
30 Methylene Chloride	84		2.586					ND	7
31 2-Methyl-2-propanol	59		2.769					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
32 Methyl tert-butyl ether	73		2.787					ND	
34 trans-1,2-Dichloroethene	96		2.799					ND	
33 Acrylonitrile	53		2.860					ND	
35 Hexane	57		2.988					ND	
39 1,1-Dichloroethane	63		3.201					ND	
36 Isopropyl ether	45		3.219					ND	
40 2-Chloro-1,3-butadiene	53		3.255					ND	
37 Vinyl acetate	43		3.267					ND	
38 1,1-Dimethoxyethane	75		3.292					ND	
41 Tert-butyl ethyl ether	59		3.547					ND	
44 2,2-Dichloropropane	77		3.699					ND	
45 cis-1,2-Dichloroethene	96		3.736					ND	
43 2-Butanone (MEK)	43		3.778					ND	
42 Ethyl acetate	43		3.821					ND	
139 Halothane	117		3.822					ND	
46 Propionitrile	54		3.882					ND	
48 Chlorobromomethane	128		3.967					ND	
49 Tetrahydrofuran	42		3.979					ND	
47 Methacrylonitrile	41		3.985					ND	
50 Chloroform	83	4.052	4.046	0.006	25	3325		0.2245	
51 1,1,1-Trichloroethane	97		4.143					ND	
52 Cyclohexane	56		4.143					ND	
55 Carbon tetrachloride	117		4.271					ND	
54 1,1-Dichloropropene	75		4.296					ND	
152 Isooctane	57		4.490					ND	U
57 Benzene	78		4.490					ND	
53 Isobutyl alcohol	43		4.557					ND	
58 1,2-Dichloroethane	62		4.563					ND	
56 Tert-amyl methyl ether	73		4.581					ND	
147 t-Amyl alcohol	59		4.600					ND	
59 n-Heptane	43		4.679					ND	
141 2,4,4-Trimethyl-1-pentene	55		4.877					ND	
1 1,4-Difluorobenzene	114		4.879					ND	
62 Trichloroethene	95		5.093					ND	
60 n-Butanol	56		5.165					ND	
64 Methylcyclohexane	83		5.196					ND	
140 2,4,4-Trimethyl-2-pentene	97		5.202					ND	
142 Ethyl acrylate	55		5.244					ND	
65 1,2-Dichloropropane	63		5.330					ND	
63 Methyl methacrylate	41		5.451					ND	
67 Dibromomethane	93		5.464					ND	
66 1,4-Dioxane	88		5.482					ND	
68 Dichlorobromomethane	83		5.628					ND	
70 2-Nitropropane	43		5.883					ND	
69 2-Chloroethyl vinyl ether	63		5.920					ND	
71 Epichlorohydrin	57		5.999					ND	
72 cis-1,3-Dichloropropene	75		6.042					ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.194					ND	
74 Toluene	92		6.309					ND	
76 2-Methylthiophene	97		6.443					ND	
78 3-Methylthiophene	97		6.607					ND	
77 trans-1,3-Dichloropropene	75		6.607					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
75 Ethyl methacrylate	69		6.668					ND	
79 1,1,2-Trichloroethane	83		6.790					ND	
81 Tetrachloroethene	166		6.832					ND	
82 1,3-Dichloropropane	76		6.942					ND	
80 2-Hexanone	43		7.027					ND	
155 n-Butyl acetate	43		7.149					ND	
83 Chlorodibromomethane	129		7.173					ND	
84 Ethylene Dibromide	107		7.264					ND	
146 1-Chlorohexane	55		7.708					ND	U
85 3-Chlorobenzotrifluoride	180		7.733					ND	
87 Chlorobenzene	112		7.739					ND	
86 4-Chlorobenzotrifluoride	180		7.800					ND	
88 Ethylbenzene	91		7.836					ND	
89 1,1,1,2-Tetrachloroethane	131		7.842					ND	
90 m-Xylene & p-Xylene	106		7.958					ND	
91 o-Xylene	106		8.378					ND	
92 Styrene	104		8.408					ND	
95 Bromoform	173		8.645					ND	
93 2-Chlorobenzotrifluoride	180		8.700					ND	
94 Isopropylbenzene	105		8.761					ND	
96 Cyclohexanone	55		8.937					ND	
101 Bromobenzene	156		9.102					ND	
97 1,1,2,2-Tetrachloroethane	83		9.199					ND	
99 N-Propylbenzene	91		9.205					ND	
100 1,2,3-Trichloropropane	110		9.217					ND	
98 trans-1,4-Dichloro-2-butene	53		9.248					ND	
103 2-Chlorotoluene	126		9.302					ND	
104 3-Chlorotoluene	126		9.375					ND	
102 1,3,5-Trimethylbenzene	105		9.400					ND	
105 4-Chlorotoluene	126		9.430					ND	
106 tert-Butylbenzene	134		9.734					ND	
108 Pentachloroethane	167		9.789					ND	
107 1,2,4-Trimethylbenzene	105		9.795					ND	
109 sec-Butylbenzene	105		9.953					ND	7
111 1,3-Dichlorobenzene	146		10.087					ND	
110 4-Isopropyltoluene	119		10.111					ND	
114 Dicyclopentadiene	66		10.148					ND	
113 1,4-Dichlorobenzene	146		10.178					ND	
112 1,2,3-Trimethylbenzene	105		10.215					ND	
150 Benzyl chloride	126		10.336					ND	
115 n-Butylbenzene	91		10.507					ND	7
116 1,2-Dichlorobenzene	146		10.537					ND	
117 1,2-Dibromo-3-Chloropropane	75		11.292					ND	
118 1,3,5-Trichlorobenzene	180		11.425					ND	
119 1,2,4-Trichlorobenzene	180		11.973					ND	
120 Hexachlorobutadiene	225		12.089					ND	
121 Naphthalene	128		12.186					ND	
122 1,2,3-Trichlorobenzene	180		12.387					ND	
149 2-Methylnaphthalene	142		13.104					ND	
144 1-Bromopropane TIC	1		0.000					ND	
145 Ethylene oxide TIC	1		0.000					ND	
143 Propene oxide TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
134 Pentachloroethane TIC	1		0.000					ND	
136 Nitrobenzene	77		0.000					ND	
138 cis-1,4-Dichloro-2-butene	88		0.000					ND	
135 Hexachloroethane	117		0.000					ND	
S 125 1,2-Dichloroethene, Total	1		30.000					ND	7
S 123 Total BTEX	1		30.000					ND	7
S 126 1,3-Dichloropropene, Total	1		30.000					ND	7
S 124 Xylenes, Total	1		30.000					ND	7
S 157 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

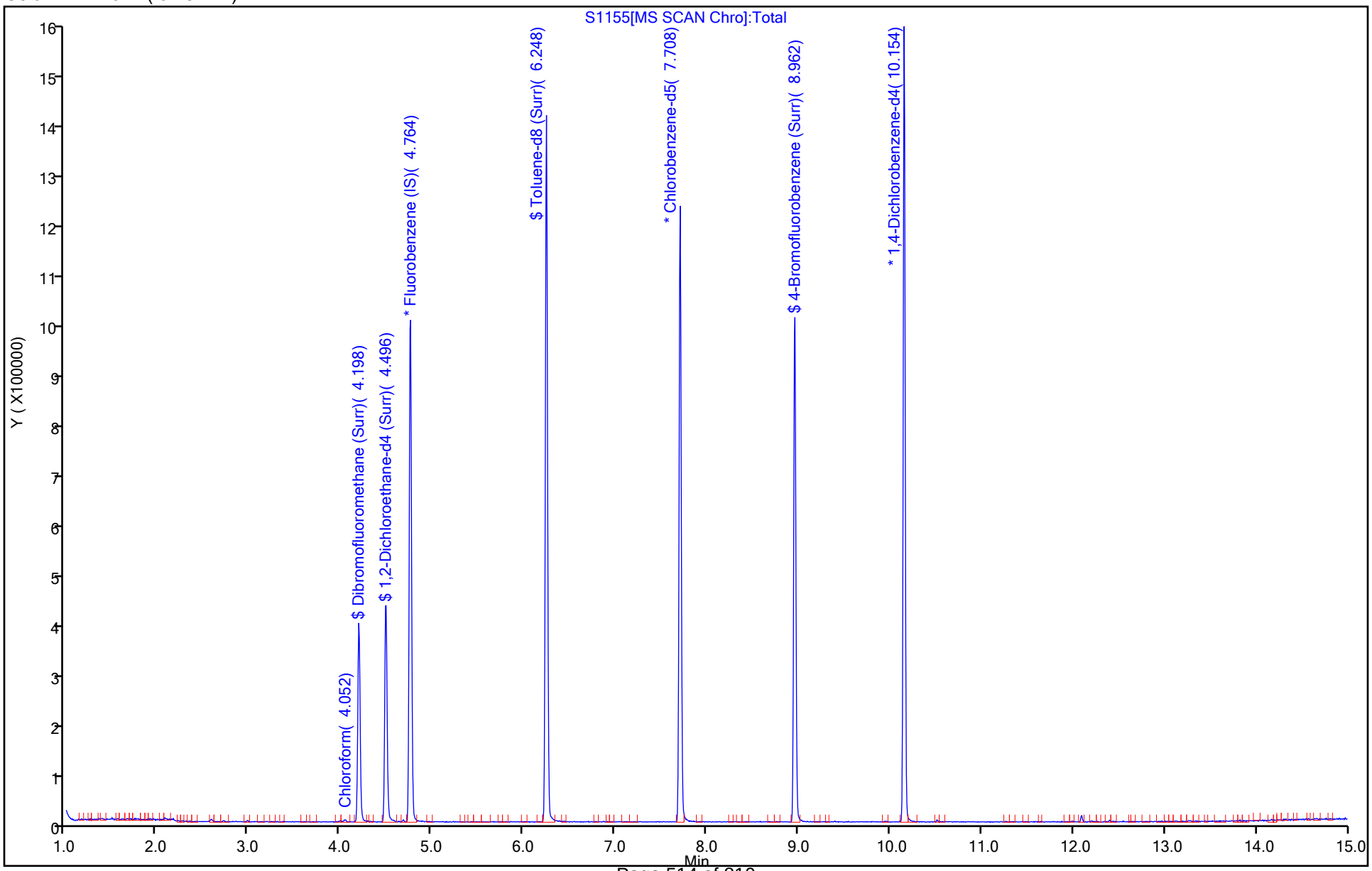
Report Date: 13-Aug-2024 13:22:11 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1155.d

Injection Date:	12-Aug-2024 22:17:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 13:22:11 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1155.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 12-Aug-2024 22:17:30 ALS Bottle#: 36 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0119480-008
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:22:10 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:22:10

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.7	98.97
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	24.6	98.21
$ 5 Toluene-d8 (Surr)	25.0	26.9	107.74
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.4	101.55

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-721538/8

Matrix: Water | Lab File ID: S1187.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 11:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.21
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31
75-34-3	1,1-Dichloroethane	ND		1.0	0.38
75-35-4	1,1-Dichloroethene	ND		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	ND		1.0	0.39
106-93-4	1,2-Dibromoethane	ND		1.0	0.73
95-50-1	1,2-Dichlorobenzene	ND		1.0	0.79
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
78-87-5	1,2-Dichloropropane	ND		1.0	0.72
541-73-1	1,3-Dichlorobenzene	ND		1.0	0.78
106-46-7	1,4-Dichlorobenzene	ND		1.0	0.84
591-78-6	2-Hexanone	ND		5.0	1.2
78-93-3	2-Butanone (MEK)	ND		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1
67-64-1	Acetone	ND		10	3.0
71-43-2	Benzene	ND		1.0	0.41
75-27-4	Bromodichloromethane	ND		1.0	0.39
75-25-2	Bromoform	ND		1.0	0.26
74-83-9	Bromomethane	ND		1.0	0.69
75-15-0	Carbon disulfide	ND		1.0	0.19
56-23-5	Carbon tetrachloride	ND		1.0	0.27
108-90-7	Chlorobenzene	ND		1.0	0.75
124-48-1	Dibromochloromethane	ND		1.0	0.32
75-00-3	Chloroethane	ND		1.0	0.32
67-66-3	Chloroform	ND		1.0	0.34
74-87-3	Chloromethane	ND		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.36
110-82-7	Cyclohexane	ND		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 480-721538/8

Matrix: Water | Lab File ID: S1187.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 11:55

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	ND		1.0	0.68
100-41-4	Ethylbenzene	ND		1.0	0.74
98-82-8	Isopropylbenzene	ND		1.0	0.79
79-20-9	Methyl acetate	ND		2.5	1.3
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.16
108-87-2	Methylcyclohexane	ND		1.0	0.16
75-09-2	Methylene Chloride	ND		1.0	0.44
100-42-5	Styrene	ND		1.0	0.73
127-18-4	Tetrachloroethene	ND		1.0	0.36
108-88-3	Toluene	ND		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.37
79-01-6	Trichloroethene	ND		1.0	0.46
75-69-4	Trichlorofluoromethane	ND		1.0	0.88
75-01-4	Vinyl chloride	ND		1.0	0.90
1330-20-7	Xylenes, Total	ND		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		77-120
2037-26-5	Toluene-d8 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1187.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Aug-2024 11:55:30 ALS Bottle#: 9 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0119487-008
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 12:34:33 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: QR3Z Date: 13-Aug-2024 12:34:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	146396	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	86	330428	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	94	374694	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	205222	25.0	26.0	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	93	130436	25.0	26.0	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	93	791198	25.0	26.6	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.961	0.000	91	274614	25.0	26.0	
10 Dichlorodifluoromethane	85		0.992					ND	
11 Chlorodifluoromethane	51		1.010					ND	
12 Chloromethane	50		1.120					ND	7
13 Vinyl chloride	62		1.193					ND	
151 Butadiene	54		1.217					ND	
14 Bromomethane	94		1.436					ND	
15 Chloroethane	64		1.509					ND	
17 Trichlorofluoromethane	101		1.685					ND	
16 Dichlorofluoromethane	67		1.685					ND	
18 Ethyl ether	59		1.917					ND	
148 Ethanol	45		1.929					ND	
19 Propene oxide	58		1.996					ND	
20 Acrolein	56		2.081					ND	
22 1,1-Dichloroethene	96		2.105					ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		2.111					ND	
23 Acetone	43		2.221					ND	
25 Iodomethane	142		2.251					ND	
26 Carbon disulfide	76		2.282					ND	
24 Isopropyl alcohol	45		2.409					ND	
28 3-Chloro-1-propene	41		2.452					ND	
27 Methyl acetate	43		2.501					ND	
29 Acetonitrile	40		2.513					ND	U
30 Methylene Chloride	84		2.586					ND	7
31 2-Methyl-2-propanol	59		2.768					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
32 Methyl tert-butyl ether	73		2.787					ND	
34 trans-1,2-Dichloroethene	96		2.799					ND	
33 Acrylonitrile	53		2.860					ND	
35 Hexane	57		2.981					ND	
39 1,1-Dichloroethane	63		3.200					ND	
36 Isopropyl ether	45		3.219					ND	
40 2-Chloro-1,3-butadiene	53		3.255					ND	
37 Vinyl acetate	43		3.261					ND	
38 1,1-Dimethoxyethane	75		3.292					ND	
41 Tert-butyl ethyl ether	59		3.547					ND	
44 2,2-Dichloropropane	77		3.693					ND	
45 cis-1,2-Dichloroethene	96		3.736					ND	
43 2-Butanone (MEK)	43		3.778					ND	
42 Ethyl acetate	43		3.815					ND	
139 Halothane	117		3.822					ND	
46 Propionitrile	54		3.882					ND	
48 Chlorobromomethane	128		3.961					ND	
49 Tetrahydrofuran	42		3.979					ND	
47 Methacrylonitrile	41		3.985					ND	
50 Chloroform	83	4.052	4.046	0.006	30	2553		0.1874	
52 Cyclohexane	56		4.137					ND	
51 1,1,1-Trichloroethane	97		4.143					ND	
55 Carbon tetrachloride	117		4.271					ND	
54 1,1-Dichloropropene	75		4.289					ND	
57 Benzene	78		4.490					ND	
152 Isooctane	57		4.490					ND	
53 Isobutyl alcohol	43		4.551					ND	
58 1,2-Dichloroethane	62		4.563					ND	
56 Tert-amyl methyl ether	73		4.581					ND	
147 t-Amyl alcohol	59		4.600					ND	
59 n-Heptane	43		4.679					ND	
141 2,4,4-Trimethyl-1-pentene	55		4.877					ND	
1 1,4-Difluorobenzene	114		4.879					ND	
62 Trichloroethene	95		5.092					ND	
60 n-Butanol	56		5.165					ND	
64 Methylcyclohexane	83		5.202					ND	
140 2,4,4-Trimethyl-2-pentene	97		5.202					ND	
142 Ethyl acrylate	55		5.244					ND	
65 1,2-Dichloropropane	63		5.330					ND	
63 Methyl methacrylate	41		5.451					ND	
67 Dibromomethane	93		5.463					ND	
66 1,4-Dioxane	88		5.482					ND	
68 Dichlorobromomethane	83		5.628					ND	
70 2-Nitropropane	43		5.877					ND	
69 2-Chloroethyl vinyl ether	63		5.920					ND	
71 Epichlorohydrin	57		5.999					ND	
72 cis-1,3-Dichloropropene	75		6.035					ND	
73 4-Methyl-2-pentanone (MIBK)	43		6.193					ND	
74 Toluene	92		6.309					ND	
76 2-Methylthiophene	97		6.443					ND	
77 trans-1,3-Dichloropropene	75		6.607					ND	
78 3-Methylthiophene	97		6.607					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
75 Ethyl methacrylate	69		6.668					ND	
79 1,1,2-Trichloroethane	83		6.790					ND	
81 Tetrachloroethene	166		6.832					ND	
82 1,3-Dichloropropane	76		6.942					ND	
80 2-Hexanone	43		7.027					ND	
155 n-Butyl acetate	43		7.149					ND	
83 Chlorodibromomethane	129		7.173					ND	
84 Ethylene Dibromide	107		7.264					ND	
146 1-Chlorohexane	55		7.708					ND	U
85 3-Chlorobenzotrifluoride	180		7.733					ND	
87 Chlorobenzene	112		7.739					ND	
86 4-Chlorobenzotrifluoride	180		7.800					ND	
88 Ethylbenzene	91		7.836					ND	
89 1,1,1,2-Tetrachloroethane	131		7.842					ND	
90 m-Xylene & p-Xylene	106		7.958					ND	
91 o-Xylene	106		8.377					ND	
92 Styrene	104		8.408					ND	
95 Bromoform	173		8.645					ND	
93 2-Chlorobenzotrifluoride	180		8.700					ND	
94 Isopropylbenzene	105		8.761					ND	
96 Cyclohexanone	55		8.931					ND	
101 Bromobenzene	156		9.101					ND	
97 1,1,2,2-Tetrachloroethane	83		9.199					ND	
99 N-Propylbenzene	91		9.205					ND	
100 1,2,3-Trichloropropane	110		9.217					ND	
98 trans-1,4-Dichloro-2-butene	53		9.247					ND	
103 2-Chlorotoluene	126		9.302					ND	
104 3-Chlorotoluene	126		9.381					ND	
102 1,3,5-Trimethylbenzene	105		9.406					ND	
105 4-Chlorotoluene	126		9.430					ND	
106 tert-Butylbenzene	134		9.734					ND	
107 1,2,4-Trimethylbenzene	105		9.789					ND	
108 Pentachloroethane	167		9.789					ND	
109 sec-Butylbenzene	105		9.953					ND	7
111 1,3-Dichlorobenzene	146		10.087					ND	
110 4-Isopropyltoluene	119		10.111					ND	
114 Dicyclopentadiene	66		10.148					ND	
113 1,4-Dichlorobenzene	146		10.178					ND	
112 1,2,3-Trimethylbenzene	105		10.215					ND	
150 Benzyl chloride	126		10.342					ND	
115 n-Butylbenzene	91	10.513	10.507	0.006	15	2688		0.1004	
116 1,2-Dichlorobenzene	146		10.537					ND	
117 1,2-Dibromo-3-Chloropropane	75		11.298					ND	
118 1,3,5-Trichlorobenzene	180		11.425					ND	
119 1,2,4-Trichlorobenzene	180		11.973					ND	
120 Hexachlorobutadiene	225	12.094	12.094	0.000	24	2936		0.6155	
121 Naphthalene	128		12.186					ND	
122 1,2,3-Trichlorobenzene	180		12.386					ND	
149 2-Methylnaphthalene	142		13.104					ND	
144 1-Bromopropane TIC	1		0.000					ND	
145 Ethylene oxide TIC	1		0.000					ND	
143 Propene oxide TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
134 Pentachloroethane TIC	1		0.000					ND	
136 Nitrobenzene	77		0.000					ND	
138 cis-1,4-Dichloro-2-butene	88		0.000					ND	
135 Hexachloroethane	117		0.000					ND	
S 125 1,2-Dichloroethene, Total	1		30.000					ND	7
S 123 Total BTEX	1		30.000					ND	7
S 126 1,3-Dichloropropene, Total	1		30.000					ND	7
S 124 Xylenes, Total	1		30.000					ND	7
S 157 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Reagents:

S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

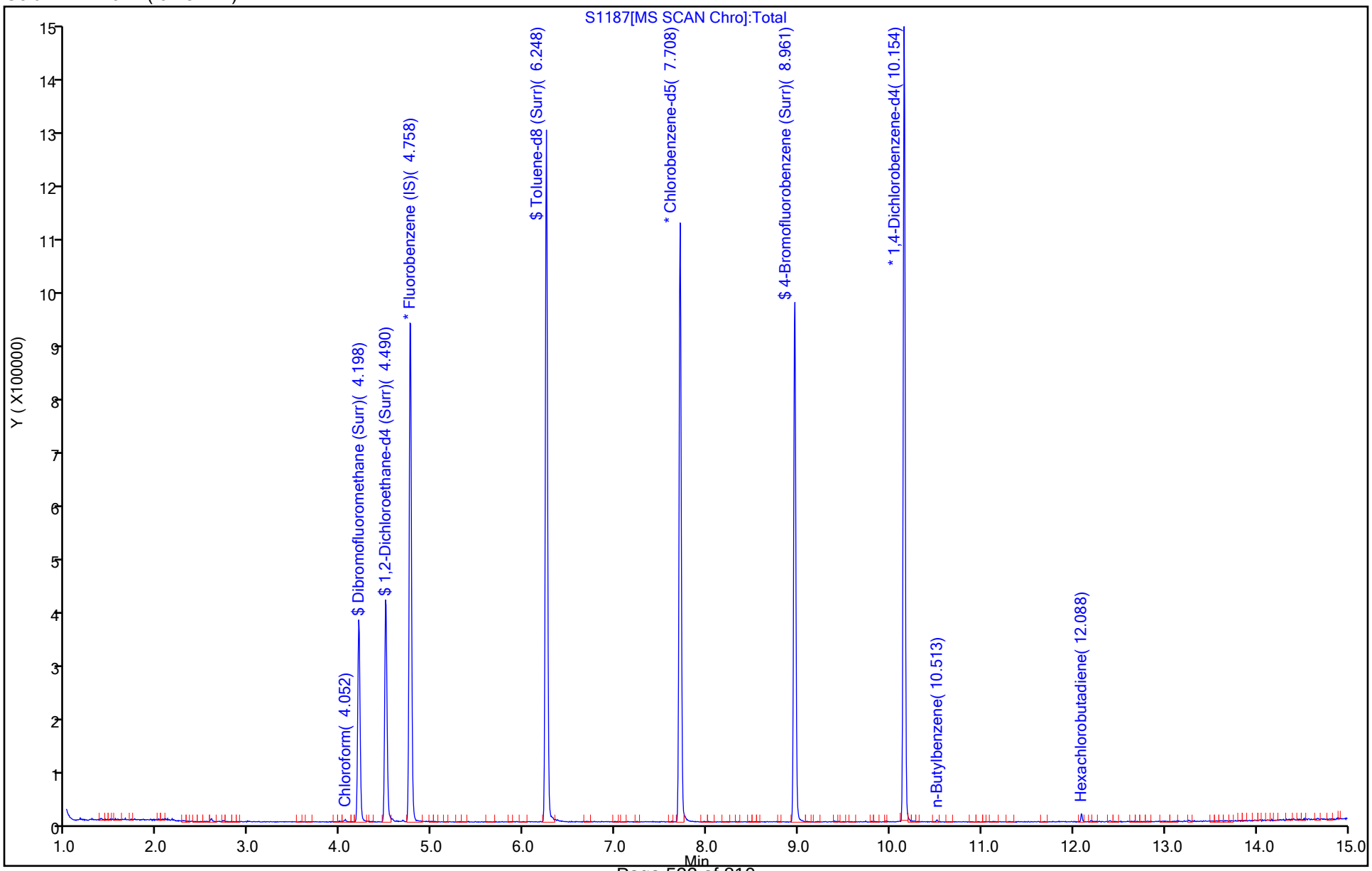
Report Date: 13-Aug-2024 12:34:34 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1187.d

Injection Date:	13-Aug-2024 11:55:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	MB			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1187.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 13-Aug-2024 11:55:30 ALS Bottle#: 9 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 480-0119487-008
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 12:34:33 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: QR3Z Date: 13-Aug-2024 12:34:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	26.0	104.17
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	26.0	103.95
$ 5 Toluene-d8 (Surr)	25.0	26.6	106.37
$ 6 4-Bromofluorobenzene (Surr)	25.0	26.0	103.80

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-721476/6

Matrix: Water | Lab File ID: S1153.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 21:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	27.9		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	27.0		1.0	0.21
79-00-5	1,1,2-Trichloroethane	27.6		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	28.8		1.0	0.31
75-34-3	1,1-Dichloroethane	28.1		1.0	0.38
75-35-4	1,1-Dichloroethene	27.8		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	27.1		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	27.1		1.0	0.39
106-93-4	1,2-Dibromoethane	27.0		1.0	0.73
95-50-1	1,2-Dichlorobenzene	27.1		1.0	0.79
107-06-2	1,2-Dichloroethane	24.8		1.0	0.21
78-87-5	1,2-Dichloropropane	28.0		1.0	0.72
541-73-1	1,3-Dichlorobenzene	26.7		1.0	0.78
106-46-7	1,4-Dichlorobenzene	26.2		1.0	0.84
591-78-6	2-Hexanone	129		5.0	1.2
78-93-3	2-Butanone (MEK)	144		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	136		5.0	2.1
67-64-1	Acetone	143		10	3.0
71-43-2	Benzene	27.6		1.0	0.41
75-27-4	Bromodichloromethane	26.7		1.0	0.39
75-25-2	Bromoform	25.2		1.0	0.26
74-83-9	Bromomethane	25.5		1.0	0.69
75-15-0	Carbon disulfide	28.4		1.0	0.19
56-23-5	Carbon tetrachloride	28.2		1.0	0.27
108-90-7	Chlorobenzene	27.2		1.0	0.75
124-48-1	Dibromochloromethane	26.3		1.0	0.32
75-00-3	Chloroethane	27.9		1.0	0.32
67-66-3	Chloroform	25.3		1.0	0.34
74-87-3	Chloromethane	27.6		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	26.7		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	27.7		1.0	0.36
110-82-7	Cyclohexane	31.1		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-721476/6

Matrix: Water | Lab File ID: S1153.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/12/2024 21:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	24.3		1.0	0.68
100-41-4	Ethylbenzene	28.2		1.0	0.74
98-82-8	Isopropylbenzene	29.3		1.0	0.79
79-20-9	Methyl acetate	53.4		2.5	1.3
1634-04-4	Methyl tert-butyl ether	25.6		1.0	0.16
108-87-2	Methylcyclohexane	30.7		1.0	0.16
75-09-2	Methylene Chloride	27.7		1.0	0.44
100-42-5	Styrene	27.6		1.0	0.73
127-18-4	Tetrachloroethene	28.4		1.0	0.36
108-88-3	Toluene	28.2		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	27.7		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	27.1		1.0	0.37
79-01-6	Trichloroethene	27.0		1.0	0.46
75-69-4	Trichlorofluoromethane	26.5		1.0	0.88
75-01-4	Vinyl chloride	28.5		1.0	0.90
1330-20-7	Xylenes, Total	55.4		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		77-120
2037-26-5	Toluene-d8 (Surr)	110		80-120
460-00-4	4-Bromofluorobenzene (Surr)	104		73-120
1868-53-7	Dibromofluoromethane (Surr)	104		75-123

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1153.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2024 21:31:30 ALS Bottle#: 34 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0119480-006
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:19:07 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:19:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	158286	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	357329	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	62	395471	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	221490	25.0	26.0	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	57	142148	25.0	26.2	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	70	885037	25.0	27.5	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	91	296646	25.0	25.9	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	259972	25.0	24.3	
12 Chloromethane	50	1.120	1.126	-0.006	89	348989	25.0	27.6	
13 Vinyl chloride	62	1.193	1.199	-0.006	82	267526	25.0	28.5	
151 Butadiene	54	1.217	1.217	0.000	94	291902	25.0	30.1	
14 Bromomethane	94	1.442	1.442	0.000	89	147752	25.0	25.5	
15 Chloroethane	64	1.509	1.515	-0.006	94	166307	25.0	27.9	
16 Dichlorofluoromethane	67	1.686	1.686	0.000	81	399366	25.0	28.4	
17 Trichlorofluoromethane	101	1.686	1.692	-0.006	59	316008	25.0	26.5	
18 Ethyl ether	59	1.917	1.917	0.000	97	236363	25.0	26.1	
20 Acrolein	56	2.081	2.081	0.000	97	228026	125.0	126.4	
22 1,1-Dichloroethene	96	2.105	2.112	-0.007	87	187331	25.0	27.8	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	61	189672	25.0	28.8	
23 Acetone	43	2.227	2.227	0.000	99	527407	125.0	143.5	
25 Iodomethane	142	2.251	2.251	0.000	99	329973	25.0	26.2	
26 Carbon disulfide	76	2.282	2.288	-0.006	99	598514	25.0	28.4	
28 3-Chloro-1-propene	41	2.452	2.452	0.000	88	395154	25.0	27.3	
27 Methyl acetate	43	2.501	2.501	0.000	95	593843	50.0	53.4	
30 Methylene Chloride	84	2.586	2.586	0.000	94	228830	25.0	27.7	
31 2-Methyl-2-propanol	59	2.768	2.769	-0.001	50	242614	250.0	252.2	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	704714	25.0	25.6	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	90	225428	25.0	27.7	
33 Acrylonitrile	53	2.860	2.860	0.000	99	1473018	250.0	286.7	
35 Hexane	57	2.987	2.988	-0.001	90	366283	25.0	30.9	
39 1,1-Dichloroethane	63	3.200	3.201	0.000	84	414987	25.0	28.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
37 Vinyl acetate	43	3.261	3.267	-0.006	97	1035636	50.0	53.9	
44 2,2-Dichloropropane	77	3.693	3.699	-0.006	94	201265	25.0	27.2	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	67	238484	25.0	26.7	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	99	856476	125.0	143.7	
48 Chlorobromomethane	128	3.961	3.967	-0.006	92	125346	25.0	27.0	
49 Tetrahydrofuran	42	3.979	3.979	0.000	93	233264	50.0	51.2	
50 Chloroform	83	4.046	4.046	0.000	81	372158	25.0	25.3	
51 1,1,1-Trichloroethane	97	4.137	4.143	-0.006	76	314450	25.0	27.9	
52 Cyclohexane	56	4.143	4.143	0.000	89	466145	25.0	31.1	
55 Carbon tetrachloride	117	4.271	4.271	0.000	80	271892	25.0	28.2	
54 1,1-Dichloropropene	75	4.289	4.296	-0.007	91	297358	25.0	27.8	
57 Benzene	78	4.490	4.490	0.000	96	885638	25.0	27.6	
53 Isobutyl alcohol	43	4.557	4.557	0.000	68	227120	625.0	542.7	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	73	315616	25.0	24.8	
59 n-Heptane	43	4.679	4.679	0.000	94	369669	25.0	30.6	
62 Trichloroethene	95	5.092	5.093	0.000	90	225221	25.0	27.0	
64 Methylcyclohexane	83	5.196	5.196	0.000	94	389714	25.0	30.7	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	89	226598	25.0	28.0	
67 Dibromomethane	93	5.463	5.464	-0.001	88	130943	25.0	25.1	
66 1,4-Dioxane	88	5.488	5.482	0.006	68	42310	500.0	441.8	
68 Dichlorobromomethane	83	5.628	5.628	0.000	92	257659	25.0	26.7	
69 2-Chloroethyl vinyl ether	63	5.920	5.920	0.000	92	169778	25.0	27.8	
72 cis-1,3-Dichloropropene	75	6.035	6.042	-0.007	85	330868	25.0	27.7	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	1794964	125.0	135.7	
74 Toluene	92	6.309	6.309	0.000	93	563147	25.0	28.2	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	92	299288	25.0	27.1	
75 Ethyl methacrylate	69	6.668	6.668	0.000	74	288624	25.0	28.8	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	86	174128	25.0	27.6	
81 Tetrachloroethene	166	6.826	6.832	-0.006	84	248854	25.0	28.4	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	96	350881	25.0	27.1	
80 2-Hexanone	43	7.027	7.027	0.000	98	1202286	125.0	129.2	
83 Chlorodibromomethane	129	7.173	7.173	0.000	87	198782	25.0	26.3	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	221249	25.0	27.0	
87 Chlorobenzene	112	7.739	7.739	0.000	94	633584	25.0	27.2	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1055373	25.0	28.2	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	211366	25.0	27.7	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	99	419442	25.0	27.6	
91 o-Xylene	106	8.378	8.378	0.000	97	425080	25.0	27.8	
92 Styrene	104	8.408	8.408	0.000	94	666246	25.0	27.6	
95 Bromoform	173	8.651	8.645	0.006	96	139387	25.0	25.2	
94 Isopropylbenzene	105	8.767	8.761	0.006	95	1057909	25.0	29.3	
101 Bromobenzene	156	9.101	9.102	-0.001	94	281957	25.0	26.7	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.199	0.000	56	335666	25.0	27.0	
99 N-Propylbenzene	91	9.205	9.205	0.000	97	1248956	25.0	28.5	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	59	114035	25.0	25.8	
98 trans-1,4-Dichloro-2-butene	53	9.241	9.248	-0.007	1	100998	25.0	22.1	
103 2-Chlorotoluene	126	9.302	9.302	0.000	97	266850	25.0	27.3	
102 1,3,5-Trimethylbenzene	105	9.400	9.400	0.000	96	899187	25.0	28.9	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	277488	25.0	28.0	
106 tert-Butylbenzene	134	9.734	9.734	0.000	90	209838	25.0	29.2	
107 1,2,4-Trimethylbenzene	105	9.795	9.795	0.000	67	914472	25.0	28.0	
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	1101754	25.0	29.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
111 1,3-Dichlorobenzene	146	10.081	10.087	-0.006	98	547379	25.0	26.7	
110 4-Isopropyltoluene	119	10.105	10.111	-0.006	97	1018894	25.0	29.4	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	95	568547	25.0	26.2	
115 n-Butylbenzene	91	10.507	10.507	0.000	95	823111	25.0	29.1	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	538584	25.0	27.1	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.292	0.000	77	63182	25.0	27.1	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	94	331216	25.0	27.1	
120 Hexachlorobutadiene	225	12.095	12.089	0.006	93	140425	25.0	27.9	
121 Naphthalene	128	12.186	12.186	0.000	97	1157188	25.0	27.9	
122 1,2,3-Trichlorobenzene	180	12.387	12.387	0.000	96	315253	25.0	27.4	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added: 12.50	Units: uL	
GAS CORP mix_00631	Amount Added: 12.50	Units: uL	
S_8260_IS_00394	Amount Added: 1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added: 1.00	Units: uL	Run Reagent

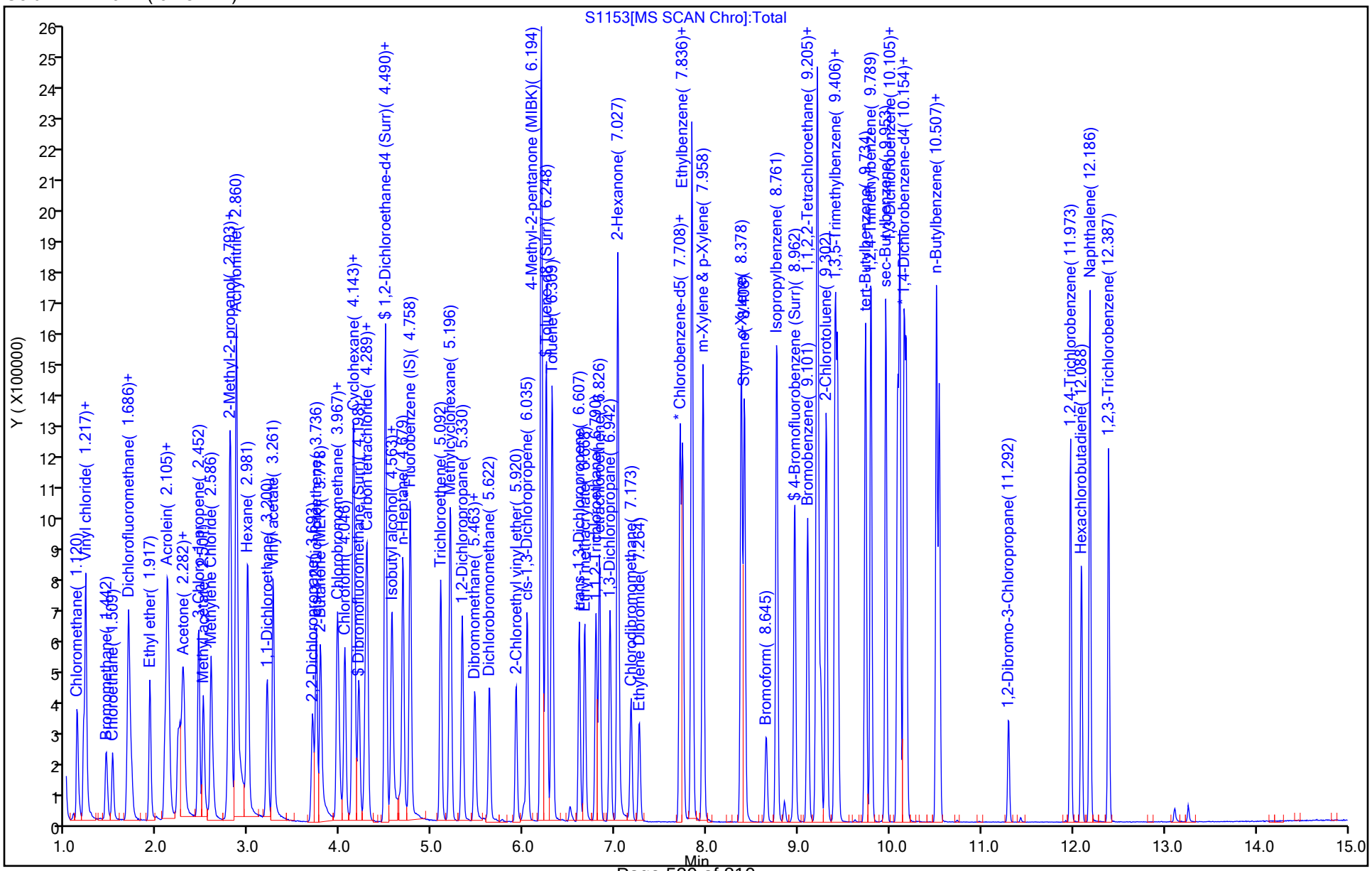
Report Date: 13-Aug-2024 13:19:41 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1153.d

Injection Date:	12-Aug-2024 21:31:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	LCS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1153.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 12-Aug-2024 21:31:30 ALS Bottle#: 34 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0119480-006
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:19:07 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:19:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	26.0	103.98
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	26.2	104.77
$ 5 Toluene-d8 (Surr)	25.0	27.5	110.03
$ 6 4-Bromofluorobenzene (Surr)	25.0	25.9	103.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-721538/6

Matrix: Water | Lab File ID: S1184.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 10:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.4		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	22.5		1.0	0.21
79-00-5	1,1,2-Trichloroethane	23.7		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	21.6		1.0	0.31
75-34-3	1,1-Dichloroethane	24.1		1.0	0.38
75-35-4	1,1-Dichloroethene	23.1		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	24.7		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	23.3		1.0	0.39
106-93-4	1,2-Dibromoethane	23.7		1.0	0.73
95-50-1	1,2-Dichlorobenzene	23.5		1.0	0.79
107-06-2	1,2-Dichloroethane	22.2		1.0	0.21
78-87-5	1,2-Dichloropropane	24.5		1.0	0.72
541-73-1	1,3-Dichlorobenzene	23.2		1.0	0.78
106-46-7	1,4-Dichlorobenzene	22.7		1.0	0.84
591-78-6	2-Hexanone	119		5.0	1.2
78-93-3	2-Butanone (MEK)	138		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	119		5.0	2.1
67-64-1	Acetone	149		10	3.0
71-43-2	Benzene	24.1		1.0	0.41
75-27-4	Bromodichloromethane	23.6		1.0	0.39
75-25-2	Bromoform	21.9		1.0	0.26
74-83-9	Bromomethane	21.3		1.0	0.69
75-15-0	Carbon disulfide	24.0		1.0	0.19
56-23-5	Carbon tetrachloride	23.7		1.0	0.27
108-90-7	Chlorobenzene	23.6		1.0	0.75
124-48-1	Dibromochloromethane	23.1		1.0	0.32
75-00-3	Chloroethane	23.0		1.0	0.32
67-66-3	Chloroform	22.0		1.0	0.34
74-87-3	Chloromethane	22.5		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	23.7		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	24.9		1.0	0.36
110-82-7	Cyclohexane	23.8		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 480-721538/6

Matrix: Water | Lab File ID: S1184.d

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 10:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721538 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	16.2		1.0	0.68
100-41-4	Ethylbenzene	24.3		1.0	0.74
98-82-8	Isopropylbenzene	25.1		1.0	0.79
79-20-9	Methyl acetate	46.0		2.5	1.3
1634-04-4	Methyl tert-butyl ether	22.8		1.0	0.16
108-87-2	Methylcyclohexane	23.8		1.0	0.16
75-09-2	Methylene Chloride	24.1		1.0	0.44
100-42-5	Styrene	24.7		1.0	0.73
127-18-4	Tetrachloroethene	24.4		1.0	0.36
108-88-3	Toluene	24.5		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	24.2		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	24.0		1.0	0.37
79-01-6	Trichloroethene	23.7		1.0	0.46
75-69-4	Trichlorofluoromethane	20.8		1.0	0.88
75-01-4	Vinyl chloride	22.8		1.0	0.90
1330-20-7	Xylenes, Total	48.8		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		77-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	97		75-123

Report Date: 13-Aug-2024 11:07:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1184.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2024 10:45:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0119487-006
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 09:02:02 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 11:07:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	98	171630	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	389410	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	68	439296	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	223733	25.0	24.2	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.496	4.490	0.006	58	143580	25.0	24.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	58	898254	25.0	25.6	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.001	92	304731	25.0	24.4	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	88	187393	25.0	16.2	
12 Chloromethane	50	1.126	1.120	0.006	88	308066	25.0	22.5	
13 Vinyl chloride	62	1.199	1.193	0.006	79	232567	25.0	22.8	
151 Butadiene	54	1.217	1.217	0.000	92	241761	25.0	23.0	
14 Bromomethane	94	1.448	1.436	0.012	91	133942	25.0	21.3	
15 Chloroethane	64	1.509	1.509	0.000	99	148634	25.0	23.0	
17 Trichlorofluoromethane	101	1.692	1.685	0.007	57	268280	25.0	20.8	
16 Dichlorofluoromethane	67	1.686	1.685	0.001	82	359824	25.0	23.6	
18 Ethyl ether	59	1.917	1.917	0.000	96	222812	25.0	22.7	
20 Acrolein	56	2.081	2.081	0.000	97	236969	125.0	121.1	
22 1,1-Dichloroethene	96	2.112	2.105	0.007	88	168672	25.0	23.1	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.118	2.111	0.007	65	154227	25.0	21.6	
23 Acetone	43	2.227	2.221	0.006	99	592229	125.0	148.6	
25 Iodomethane	142	2.251	2.251	0.000	97	311115	25.0	22.8	
26 Carbon disulfide	76	2.282	2.282	0.000	98	548858	25.0	24.0	
28 3-Chloro-1-propene	41	2.452	2.452	0.000	88	380151	25.0	24.2	
27 Methyl acetate	43	2.501	2.501	0.000	96	554315	50.0	46.0	
30 Methylene Chloride	84	2.586	2.586	0.000	91	216548	25.0	24.1	
31 2-Methyl-2-propanol	59	2.775	2.768	0.007	58	317054	250.0	304.0	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	92	681969	25.0	22.8	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	86	213571	25.0	24.2	
33 Acrylonitrile	53	2.860	2.860	0.000	99	1429467	250.0	256.6	
35 Hexane	57	2.988	2.981	0.007	91	295530	25.0	23.0	
39 1,1-Dichloroethane	63	3.200	3.200	0.000	85	385978	25.0	24.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
37 Vinyl acetate	43	3.261	3.261	0.000	97	1011676	50.0	48.6	
44 2,2-Dichloropropane	77	3.693	3.693	0.000	91	193390	25.0	24.1	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	67	228650	25.0	23.7	
43 2-Butanone (MEK)	43	3.778	3.778	0.000	97	891551	125.0	138.0	
48 Chlorobromomethane	128	3.961	3.961	0.000	95	119625	25.0	23.8	
49 Tetrahydrofuran	42	3.979	3.979	0.000	91	248158	50.0	50.3	
50 Chloroform	83	4.046	4.046	0.000	80	352059	25.0	22.0	
52 Cyclohexane	56	4.143	4.137	0.006	93	387039	25.0	23.8	
51 1,1,1-Trichloroethane	97	4.143	4.143	0.000	84	285755	25.0	23.4	
55 Carbon tetrachloride	117	4.271	4.271	0.000	81	248695	25.0	23.7	
54 1,1-Dichloropropene	75	4.289	4.289	0.000	92	284360	25.0	24.5	
57 Benzene	78	4.490	4.490	0.000	96	837149	25.0	24.1	
53 Isobutyl alcohol	43	4.551	4.551	0.000	60	321216	625.0	707.8	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	74	306507	25.0	22.2	
59 n-Heptane	43	4.679	4.679	0.000	95	290743	25.0	22.2	
62 Trichloroethene	95	5.092	5.092	0.000	93	214320	25.0	23.7	
64 Methylcyclohexane	83	5.196	5.202	-0.006	94	328263	25.0	23.8	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	90	214958	25.0	24.5	
67 Dibromomethane	93	5.464	5.463	0.001	90	128997	25.0	22.8	
66 1,4-Dioxane	88	5.482	5.482	0.000	62	59860	500.0	570.5	
68 Dichlorobromomethane	83	5.622	5.628	-0.006	92	247274	25.0	23.6	
69 2-Chloroethyl vinyl ether	63	5.914	5.920	-0.006	92	164477	25.0	24.8	
72 cis-1,3-Dichloropropene	75	6.035	6.035	0.000	88	322517	25.0	24.9	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.001	98	1718558	125.0	119.2	
74 Toluene	92	6.309	6.309	0.000	87	532292	25.0	24.5	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	92	288652	25.0	24.0	
75 Ethyl methacrylate	69	6.668	6.668	0.000	75	275190	25.0	25.2	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	86	162719	25.0	23.7	
81 Tetrachloroethene	166	6.826	6.832	-0.006	85	232302	25.0	24.4	
82 1,3-Dichloropropane	76	6.942	6.942	0.000	96	330750	25.0	23.5	
80 2-Hexanone	43	7.027	7.027	0.000	97	1210420	125.0	119.4	
83 Chlorodibromomethane	129	7.173	7.173	0.000	90	190183	25.0	23.1	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	210913	25.0	23.7	
87 Chlorobenzene	112	7.739	7.739	0.000	94	598670	25.0	23.6	
88 Ethylbenzene	91	7.836	7.836	0.000	98	989320	25.0	24.3	
89 1,1,1,2-Tetrachloroethane	131	7.842	7.842	0.000	41	196481	25.0	23.6	
90 m-Xylene & p-Xylene	106	7.958	7.958	0.000	99	403877	25.0	24.4	
91 o-Xylene	106	8.378	8.378	0.001	96	406706	25.0	24.4	
92 Styrene	104	8.408	8.408	0.000	94	650739	25.0	24.7	
95 Bromoform	173	8.651	8.645	0.006	95	132166	25.0	21.9	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	1003364	25.0	25.1	
101 Bromobenzene	156	9.102	9.101	0.001	93	266764	25.0	22.7	
97 1,1,2,2-Tetrachloroethane	83	9.193	9.199	-0.006	68	310550	25.0	22.5	
99 N-Propylbenzene	91	9.205	9.205	0.000	98	1202928	25.0	24.7	
100 1,2,3-Trichloropropane	110	9.217	9.217	0.000	59	107726	25.0	21.9	
98 trans-1,4-Dichloro-2-butene	53	9.241	9.248	-0.006	1	99534	25.0	19.6	
103 2-Chlorotoluene	126	9.302	9.302	0.000	96	251612	25.0	23.2	
102 1,3,5-Trimethylbenzene	105	9.406	9.406	0.000	94	853423	25.0	24.7	
105 4-Chlorotoluene	126	9.430	9.430	0.000	97	262502	25.0	23.9	
106 tert-Butylbenzene	134	9.734	9.734	0.000	89	200994	25.0	25.2	
107 1,2,4-Trimethylbenzene	105	9.789	9.789	0.000	86	901410	25.0	24.9	
109 sec-Butylbenzene	105	9.953	9.953	0.000	94	1050001	25.0	25.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
111 1,3-Dichlorobenzene	146	10.081	10.087	-0.006	98	528915	25.0	23.2	
110 4-Isopropyltoluene	119	10.105	10.111	-0.006	97	981212	25.0	25.5	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	94	547314	25.0	22.7	
115 n-Butylbenzene	91	10.507	10.507	0.000	94	809805	25.0	25.8	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	519275	25.0	23.5	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.298	-0.006	75	60226	25.0	23.3	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	95	335450	25.0	24.7	
120 Hexachlorobutadiene	225	12.095	12.094	0.001	92	140743	25.0	25.2	
121 Naphthalene	128	12.186	12.186	0.000	97	1122776	25.0	24.3	
122 1,2,3-Trichlorobenzene	180	12.387	12.386	0.001	92	312681	25.0	24.4	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added: 12.50	Units: uL	
GAS CORP mix_00631	Amount Added: 12.50	Units: uL	
S_8260_IS_00394	Amount Added: 1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added: 1.00	Units: uL	Run Reagent

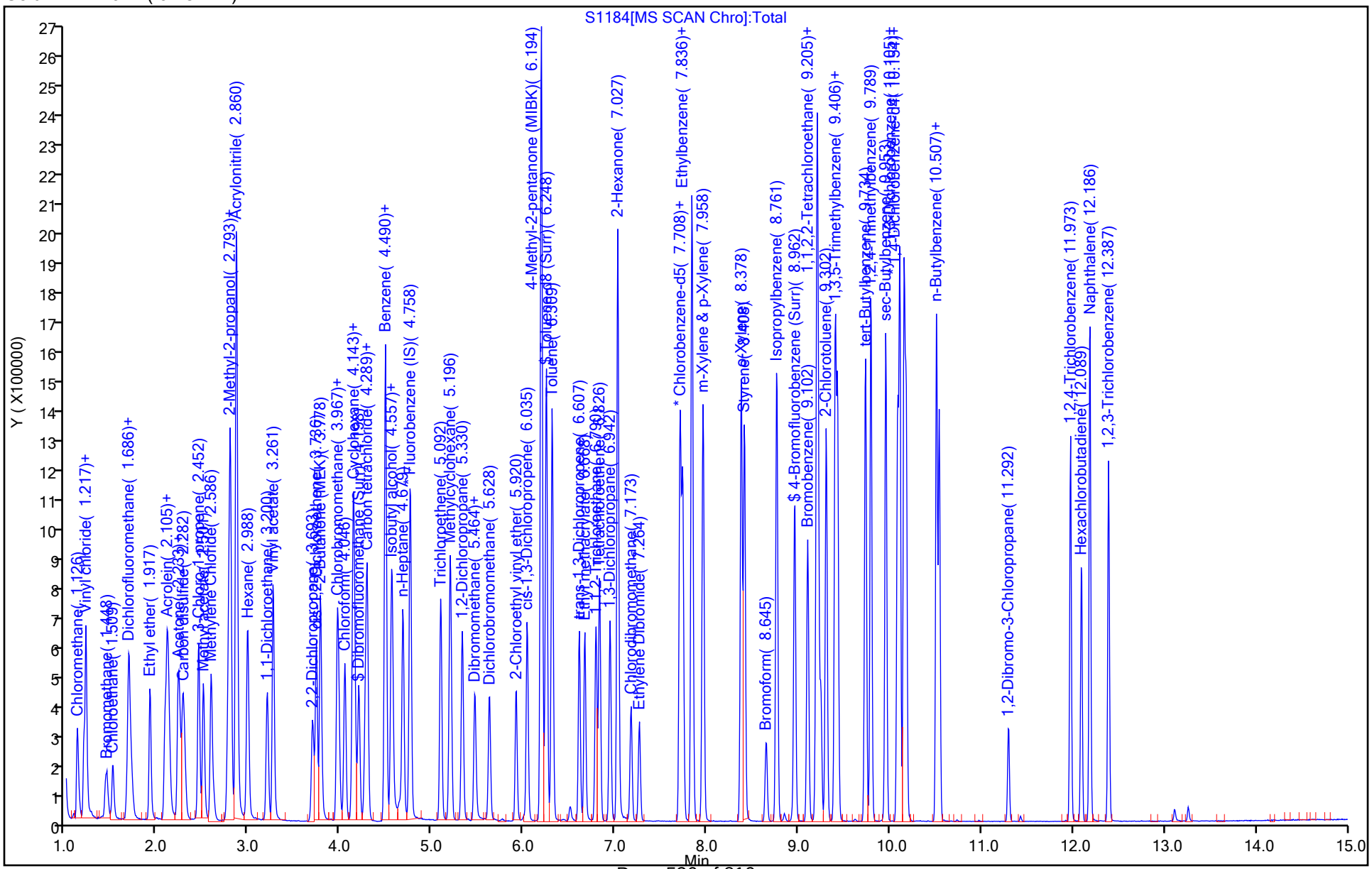
Report Date: 13-Aug-2024 11:07:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1184.d

Injection Date:	13-Aug-2024 10:45:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	LCS			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 11:07:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S1184.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 13-Aug-2024 10:45:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 480-0119487-006
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240813-119487.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 09:02:02 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 11:07:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.2	96.87
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	24.4	97.60
$ 5 Toluene-d8 (Surr)	25.0	25.6	102.47
$ 6 4-Bromofluorobenzene (Surr)	25.0	24.4	97.74

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R MS | Lab Sample ID: 480-222377-5 MS

Matrix: Water | Lab File ID: S1174.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 05:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	29.0		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	26.5		1.0	0.21
79-00-5	1,1,2-Trichloroethane	26.2		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	30.3		1.0	0.31
75-34-3	1,1-Dichloroethane	29.0		1.0	0.38
75-35-4	1,1-Dichloroethene	29.7		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	28.7		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	26.0		1.0	0.39
106-93-4	1,2-Dibromoethane	25.7		1.0	0.73
95-50-1	1,2-Dichlorobenzene	26.8		1.0	0.79
107-06-2	1,2-Dichloroethane	25.7		1.0	0.21
78-87-5	1,2-Dichloropropane	28.2		1.0	0.72
541-73-1	1,3-Dichlorobenzene	27.2		1.0	0.78
106-46-7	1,4-Dichlorobenzene	26.5		1.0	0.84
591-78-6	2-Hexanone	135		5.0	1.2
78-93-3	2-Butanone (MEK)	160		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	135		5.0	2.1
67-64-1	Acetone	173		10	3.0
71-43-2	Benzene	28.3		1.0	0.41
75-27-4	Bromodichloromethane	26.3		1.0	0.39
75-25-2	Bromoform	23.5		1.0	0.26
74-83-9	Bromomethane	22.6		1.0	0.69
75-15-0	Carbon disulfide	27.9		1.0	0.19
56-23-5	Carbon tetrachloride	29.1		1.0	0.27
108-90-7	Chlorobenzene	27.4		1.0	0.75
124-48-1	Dibromochloromethane	24.2		1.0	0.32
75-00-3	Chloroethane	28.4		1.0	0.32
67-66-3	Chloroform	26.6		1.0	0.34
74-87-3	Chloromethane	28.4		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	28.2		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	25.8		1.0	0.36
110-82-7	Cyclohexane	33.2		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R MS | Lab Sample ID: 480-222377-5 MS

Matrix: Water | Lab File ID: S1174.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 05:41

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	22.8		1.0	0.68
100-41-4	Ethylbenzene	28.4		1.0	0.74
98-82-8	Isopropylbenzene	29.7		1.0	0.79
79-20-9	Methyl acetate	51.2		2.5	1.3
1634-04-4	Methyl tert-butyl ether	25.9		1.0	0.16
108-87-2	Methylcyclohexane	32.1		1.0	0.16
75-09-2	Methylene Chloride	28.4		1.0	0.44
100-42-5	Styrene	28.6		1.0	0.73
127-18-4	Tetrachloroethene	28.7		1.0	0.36
108-88-3	Toluene	27.5		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	29.3		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	24.4		1.0	0.37
79-01-6	Trichloroethene	27.8		1.0	0.46
75-69-4	Trichlorofluoromethane	27.0		1.0	0.88
75-01-4	Vinyl chloride	29.3		1.0	0.90
1330-20-7	Xylenes, Total	57.1		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		77-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		73-120
1868-53-7	Dibromofluoromethane (Surr)	98		75-123

Report Date: 13-Aug-2024 13:33:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1174.d
Lims ID: 480-222377-B-5 MS
Client ID: MW-05R
Sample Type: MS
Inject. Date: 13-Aug-2024 05:41:30 ALS Bottle#: 55 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-B-5 MS
Misc. Info.: 480-0119480-027
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:33:30 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:33:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	159914	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	85	376633	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	66	428306	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	58	211494	25.0	24.6	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	51	138207	25.0	25.2	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	56	856869	25.0	25.3	
$ 6 4-Bromofluorobenzene (Surr)	174	8.961	8.962	-0.001	93	295980	25.0	24.5	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	87	246653	25.0	22.8	
12 Chloromethane	50	1.120	1.126	-0.006	89	362549	25.0	28.4	
13 Vinyl chloride	62	1.193	1.199	-0.006	82	277909	25.0	29.3	
14 Bromomethane	94	1.430	1.442	-0.012	91	132184	25.0	22.6	
15 Chloroethane	64	1.503	1.515	-0.012	99	171308	25.0	28.4	
17 Trichlorofluoromethane	101	1.679	1.692	-0.013	56	324561	25.0	27.0	
22 1,1-Dichloroethene	96	2.105	2.112	-0.007	86	202544	25.0	29.7	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	61	201932	25.0	30.3	
23 Acetone	43	2.227	2.227	0.000	99	641575	125.0	172.7	
26 Carbon disulfide	76	2.282	2.288	-0.006	99	593859	25.0	27.9	
27 Methyl acetate	43	2.501	2.501	0.000	96	575216	50.0	51.2	
30 Methylene Chloride	84	2.586	2.586	0.000	94	236764	25.0	28.4	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	92	719965	25.0	25.9	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	93	240526	25.0	29.3	
39 1,1-Dichloroethane	63	3.194	3.201	-0.006	86	433817	25.0	29.0	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	67	253743	25.0	28.2	
43 2-Butanone (MEK)	43	3.778	3.784	0.000	99	961518	125.0	159.7	
50 Chloroform	83	4.046	4.046	0.000	81	395261	25.0	26.6	
51 1,1,1-Trichloroethane	97	4.137	4.143	-0.006	71	329325	25.0	29.0	
52 Cyclohexane	56	4.137	4.143	-0.006	90	503040	25.0	33.2	
55 Carbon tetrachloride	117	4.271	4.271	0.000	81	283587	25.0	29.1	
57 Benzene	78	4.490	4.490	0.000	96	917944	25.0	28.3	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	75	331198	25.0	25.7	
62 Trichloroethene	95	5.092	5.093	0.000	92	234043	25.0	27.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83	5.196	5.196	0.000	94	412525	25.0	32.1	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	92	230595	25.0	28.2	
68 Dichlorobromomethane	83	5.622	5.628	-0.006	93	257270	25.0	26.3	
72 cis-1,3-Dichloropropene	75	6.035	6.042	-0.007	87	311771	25.0	25.8	
73 4-Methyl-2-pentanone (MIBK)	43	6.193	6.194	-0.001	98	1885578	125.0	135.2	
74 Toluene	92	6.309	6.309	0.000	94	577154	25.0	27.5	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	97	284123	25.0	24.4	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	86	174287	25.0	26.2	
81 Tetrachloroethene	166	6.832	6.832	0.000	83	264493	25.0	28.7	
80 2-Hexanone	43	7.027	7.027	0.000	98	1323915	125.0	135.0	
83 Chlorodibromomethane	129	7.173	7.173	0.000	87	192262	25.0	24.2	
84 Ethylene Dibromide	107	7.264	7.264	0.000	98	221957	25.0	25.7	
87 Chlorobenzene	112	7.739	7.739	0.000	94	671898	25.0	27.4	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1121614	25.0	28.4	
90 m-Xylene & p-Xylene	106	7.958	7.970	0.000	98	460552		28.8	
91 o-Xylene	106	8.377	8.378	-0.001	97	455273		28.3	
92 Styrene	104	8.408	8.408	0.000	94	727284	25.0	28.6	
95 Bromoform	173	8.651	8.645	0.006	96	136877	25.0	23.5	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	1159861	25.0	29.7	
97 1,1,2,2-Tetrachloroethane	83	9.199	9.199	0.000	55	357301	25.0	26.5	
111 1,3-Dichlorobenzene	146	10.081	10.087	-0.006	98	603919	25.0	27.2	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	95	622754	25.0	26.5	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	576960	25.0	26.8	
117 1,2-Dibromo-3-Chloropropane	75	11.291	11.292	-0.001	77	65668	25.0	26.0	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	92	380113	25.0	28.7	
S 124 Xylenes, Total	1				0			57.1	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added:	12.50	Units: uL	
GAS CORP mix_00631	Amount Added:	12.50	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

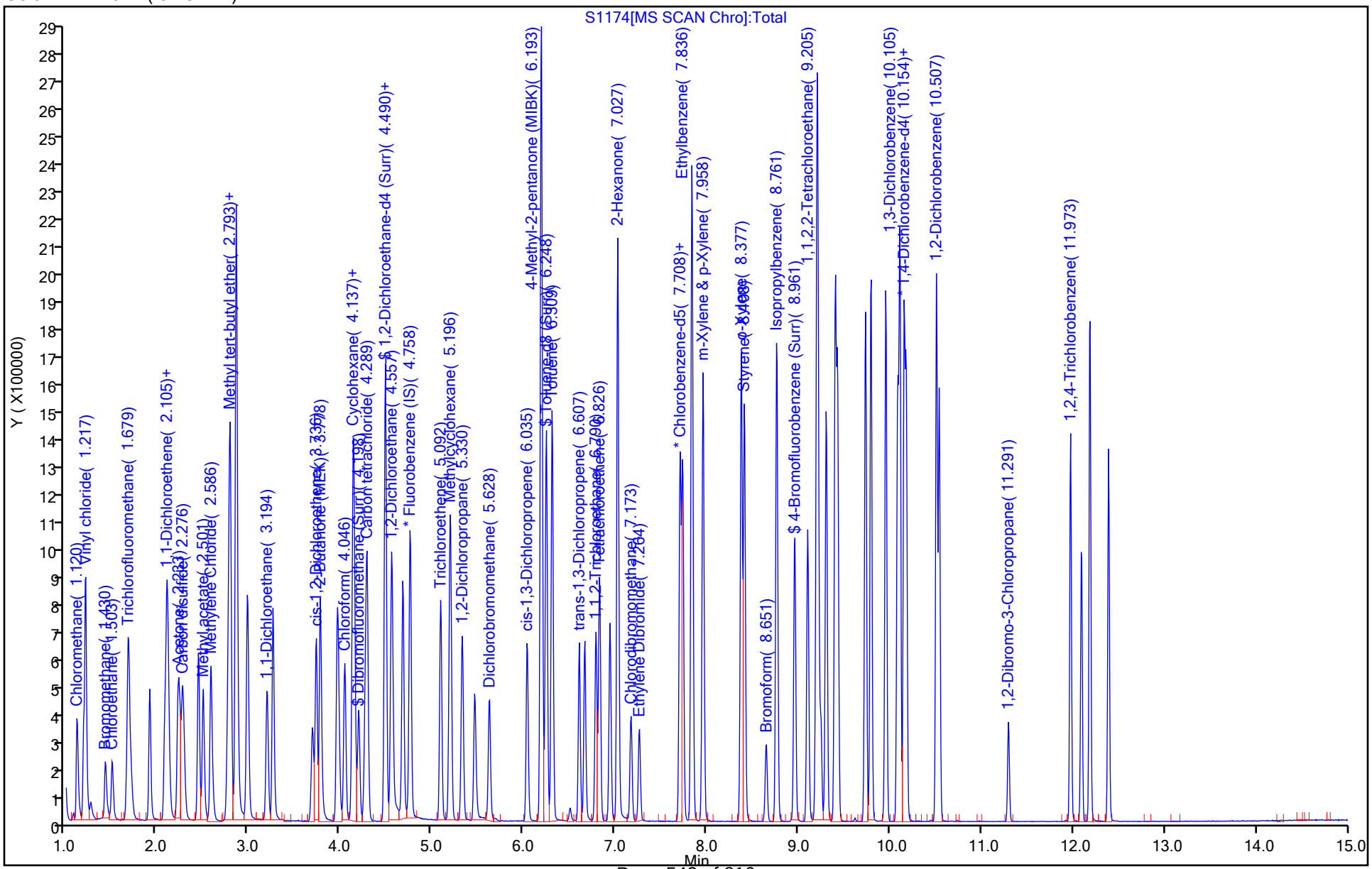
Report Date: 13-Aug-2024 13:33:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1174.d

Injection Date:	13-Aug-2024 05:41:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-B-5 MS			Worklist Smp#:	27
Client ID:	MW-05R				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	55
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 13:33:50 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1174.d
Lims ID: 480-222377-B-5 MS
Client ID: MW-05R
Sample Type: MS
Inject. Date: 13-Aug-2024 05:41:30 ALS Bottle#: 55 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-B-5 MS
Misc. Info.: 480-0119480-027
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:33:30 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:33:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.6	98.27
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.2	100.83
$ 5 Toluene-d8 (Surr)	25.0	25.3	101.07
$ 6 4-Bromofluorobenzene (Surr)	25.0	24.5	98.15

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R MSD | Lab Sample ID: 480-222377-5 MSD

Matrix: Water | Lab File ID: S1175.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 06:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	28.1		1.0	0.82
79-34-5	1,1,2,2-Tetrachloroethane	26.0		1.0	0.21
79-00-5	1,1,2-Trichloroethane	26.3		1.0	0.23
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	30.3		1.0	0.31
75-34-3	1,1-Dichloroethane	28.0		1.0	0.38
75-35-4	1,1-Dichloroethene	29.2		1.0	0.29
120-82-1	1,2,4-Trichlorobenzene	27.2		1.0	0.41
96-12-8	1,2-Dibromo-3-Chloropropane	25.0		1.0	0.39
106-93-4	1,2-Dibromoethane	25.7		1.0	0.73
95-50-1	1,2-Dichlorobenzene	26.3		1.0	0.79
107-06-2	1,2-Dichloroethane	24.9		1.0	0.21
78-87-5	1,2-Dichloropropane	27.6		1.0	0.72
541-73-1	1,3-Dichlorobenzene	26.5		1.0	0.78
106-46-7	1,4-Dichlorobenzene	25.9		1.0	0.84
591-78-6	2-Hexanone	134		5.0	1.2
78-93-3	2-Butanone (MEK)	152		10	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	134		5.0	2.1
67-64-1	Acetone	153		10	3.0
71-43-2	Benzene	28.0		1.0	0.41
75-27-4	Bromodichloromethane	26.0		1.0	0.39
75-25-2	Bromoform	22.3		1.0	0.26
74-83-9	Bromomethane	23.5		1.0	0.69
75-15-0	Carbon disulfide	26.8		1.0	0.19
56-23-5	Carbon tetrachloride	28.4		1.0	0.27
108-90-7	Chlorobenzene	26.8		1.0	0.75
124-48-1	Dibromochloromethane	24.1		1.0	0.32
75-00-3	Chloroethane	27.9		1.0	0.32
67-66-3	Chloroform	26.3		1.0	0.34
74-87-3	Chloromethane	27.8		1.0	0.35
156-59-2	cis-1,2-Dichloroethene	26.9		1.0	0.81
10061-01-5	cis-1,3-Dichloropropene	25.8		1.0	0.36
110-82-7	Cyclohexane	32.5		1.0	0.18

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Client Sample ID: MW-05R MSD | Lab Sample ID: 480-222377-5 MSD

Matrix: Water | Lab File ID: S1175.d

Analysis Method: 8260C | Date Collected: 08/07/2024 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 08/13/2024 06:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (20) ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 721476 | Units: ug/L

Preparation Batch No.: | Instrument ID: HP5973S

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-71-8	Dichlorodifluoromethane	23.4		1.0	0.68
100-41-4	Ethylbenzene	28.0		1.0	0.74
98-82-8	Isopropylbenzene	29.4		1.0	0.79
79-20-9	Methyl acetate	48.4		2.5	1.3
1634-04-4	Methyl tert-butyl ether	25.3		1.0	0.16
108-87-2	Methylcyclohexane	32.8		1.0	0.16
75-09-2	Methylene Chloride	28.0		1.0	0.44
100-42-5	Styrene	27.4		1.0	0.73
127-18-4	Tetrachloroethene	28.0		1.0	0.36
108-88-3	Toluene	27.4		1.0	0.51
156-60-5	trans-1,2-Dichloroethene	28.6		1.0	0.90
10061-02-6	trans-1,3-Dichloropropene	24.9		1.0	0.37
79-01-6	Trichloroethene	27.8		1.0	0.46
75-69-4	Trichlorofluoromethane	26.9		1.0	0.88
75-01-4	Vinyl chloride	27.9		1.0	0.90
1330-20-7	Xylenes, Total	55.3		2.0	0.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		77-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		73-120
1868-53-7	Dibromofluoromethane (Surr)	99		75-123

Report Date: 13-Aug-2024 13:34:10 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Target Compound Quantitation Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1175.d
Lims ID: 480-222377-B-5 MSD
Client ID: MW-05R
Sample Type: MSD
Inject. Date: 13-Aug-2024 06:05:30 ALS Bottle#: 56 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-B-5 MSD
Misc. Info.: 480-0119480-028
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:33:30 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:34:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
* 153 Fluorobenzene (IS)	70	4.758	4.758	0.000	99	166664	25.0	25.0	
* 2 Chlorobenzene-d5	82	7.708	7.708	0.000	87	386738	25.0	25.0	
* 3 1,4-Dichlorobenzene-d4	152	10.154	10.154	0.000	64	429177	25.0	25.0	
$ 154 Dibromofluoromethane (Surr)	113	4.198	4.198	0.000	57	223157	25.0	24.9	
$ 4 1,2-Dichloroethane-d4 (Surr)	67	4.490	4.490	0.000	52	145346	25.0	25.4	
$ 5 Toluene-d8 (Surr)	98	6.248	6.248	0.000	58	886366	25.0	25.5	
$ 6 4-Bromofluorobenzene (Surr)	174	8.962	8.962	0.000	92	295190	25.0	23.8	
10 Dichlorodifluoromethane	85	0.992	0.992	0.000	88	263297	25.0	23.4	
12 Chloromethane	50	1.120	1.126	-0.006	88	370188	25.0	27.8	
13 Vinyl chloride	62	1.193	1.199	-0.006	98	276013	25.0	27.9	
14 Bromomethane	94	1.442	1.442	0.000	90	143531	25.0	23.5	
15 Chloroethane	64	1.509	1.515	-0.006	95	175331	25.0	27.9	
17 Trichlorofluoromethane	101	1.686	1.692	-0.006	56	337231	25.0	26.9	
22 1,1-Dichloroethene	96	2.105	2.112	-0.007	95	207392	25.0	29.2	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.111	2.112	-0.001	71	210107	25.0	30.3	
23 Acetone	43	2.227	2.227	0.000	100	593764	125.0	153.4	
26 Carbon disulfide	76	2.282	2.288	-0.006	99	594767	25.0	26.8	
27 Methyl acetate	43	2.501	2.501	0.000	96	566780	50.0	48.4	
30 Methylene Chloride	84	2.586	2.586	0.000	92	243216	25.0	28.0	
32 Methyl tert-butyl ether	73	2.787	2.787	0.000	93	734303	25.0	25.3	
34 trans-1,2-Dichloroethene	96	2.799	2.799	0.000	93	244985	25.0	28.6	
39 1,1-Dichloroethane	63	3.194	3.201	-0.006	85	436187	25.0	28.0	
45 cis-1,2-Dichloroethene	96	3.736	3.736	0.000	66	252177	25.0	26.9	
43 2-Butanone (MEK)	43	3.778	3.784	0.000	99	956072	125.0	152.4	
50 Chloroform	83	4.046	4.046	0.000	82	407295	25.0	26.3	
51 1,1,1-Trichloroethane	97	4.137	4.143	-0.006	77	332835	25.0	28.1	
52 Cyclohexane	56	4.137	4.143	-0.006	90	513616	25.0	32.5	
55 Carbon tetrachloride	117	4.271	4.271	0.000	85	288701	25.0	28.4	
57 Benzene	78	4.490	4.490	0.000	96	943655	25.0	28.0	
58 1,2-Dichloroethane	62	4.563	4.563	0.000	81	333722	25.0	24.9	
62 Trichloroethene	95	5.092	5.093	0.000	94	244106	25.0	27.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/L	OnCol Amt ug/L	Flags
64 Methylcyclohexane	83	5.196	5.196	0.000	95	438750	25.0	32.8	
65 1,2-Dichloropropane	63	5.330	5.330	0.000	91	235004	25.0	27.6	
68 Dichlorobromomethane	83	5.622	5.628	-0.006	91	264535	25.0	26.0	
72 cis-1,3-Dichloropropene	75	6.035	6.042	-0.007	87	324132	25.0	25.8	
73 4-Methyl-2-pentanone (MIBK)	43	6.194	6.194	0.000	98	1924597	125.0	134.4	
74 Toluene	92	6.309	6.309	0.000	93	591427	25.0	27.4	
77 trans-1,3-Dichloropropene	75	6.607	6.607	0.000	93	297093	25.0	24.9	
79 1,1,2-Trichloroethane	83	6.790	6.790	0.000	87	179272	25.0	26.3	
81 Tetrachloroethene	166	6.826	6.832	-0.006	83	265579	25.0	28.0	
80 2-Hexanone	43	7.027	7.027	0.000	98	1351163	125.0	134.2	
83 Chlorodibromomethane	129	7.173	7.173	0.000	91	196888	25.0	24.1	
84 Ethylene Dibromide	107	7.264	7.264	0.000	97	227816	25.0	25.7	
87 Chlorobenzene	112	7.739	7.739	0.000	93	675641	25.0	26.8	
88 Ethylbenzene	91	7.836	7.836	0.000	98	1135572	25.0	28.0	
90 m-Xylene & p-Xylene	106	7.958	7.970	0.000	98	461999		28.1	
91 o-Xylene	106	8.378	8.378	0.000	97	449793		27.2	
92 Styrene	104	8.408	8.408	0.000	94	716559	25.0	27.4	
95 Bromoform	173	8.645	8.645	0.000	96	133451	25.0	22.3	
94 Isopropylbenzene	105	8.761	8.761	0.000	96	1150264	25.0	29.4	
97 1,1,2,2-Tetrachloroethane	83	9.193	9.199	-0.006	67	350516	25.0	26.0	
111 1,3-Dichlorobenzene	146	10.087	10.087	0.000	98	589720	25.0	26.5	
113 1,4-Dichlorobenzene	146	10.178	10.178	0.000	94	609607	25.0	25.9	
116 1,2-Dichlorobenzene	146	10.537	10.537	0.000	97	567887	25.0	26.3	
117 1,2-Dibromo-3-Chloropropane	75	11.292	11.292	0.000	75	63305	25.0	25.0	
119 1,2,4-Trichlorobenzene	180	11.973	11.973	0.000	94	361325	25.0	27.2	
S 124 Xylenes, Total	1				0			55.3	

QC Flag Legend

Processing Flags

Reagents:

8260 CORP mix_00257	Amount Added:	12.50	Units: uL	
GAS CORP mix_00631	Amount Added:	12.50	Units: uL	
S_8260_IS_00394	Amount Added:	1.00	Units: uL	Run Reagent
S_8260_Surr_00485	Amount Added:	1.00	Units: uL	Run Reagent

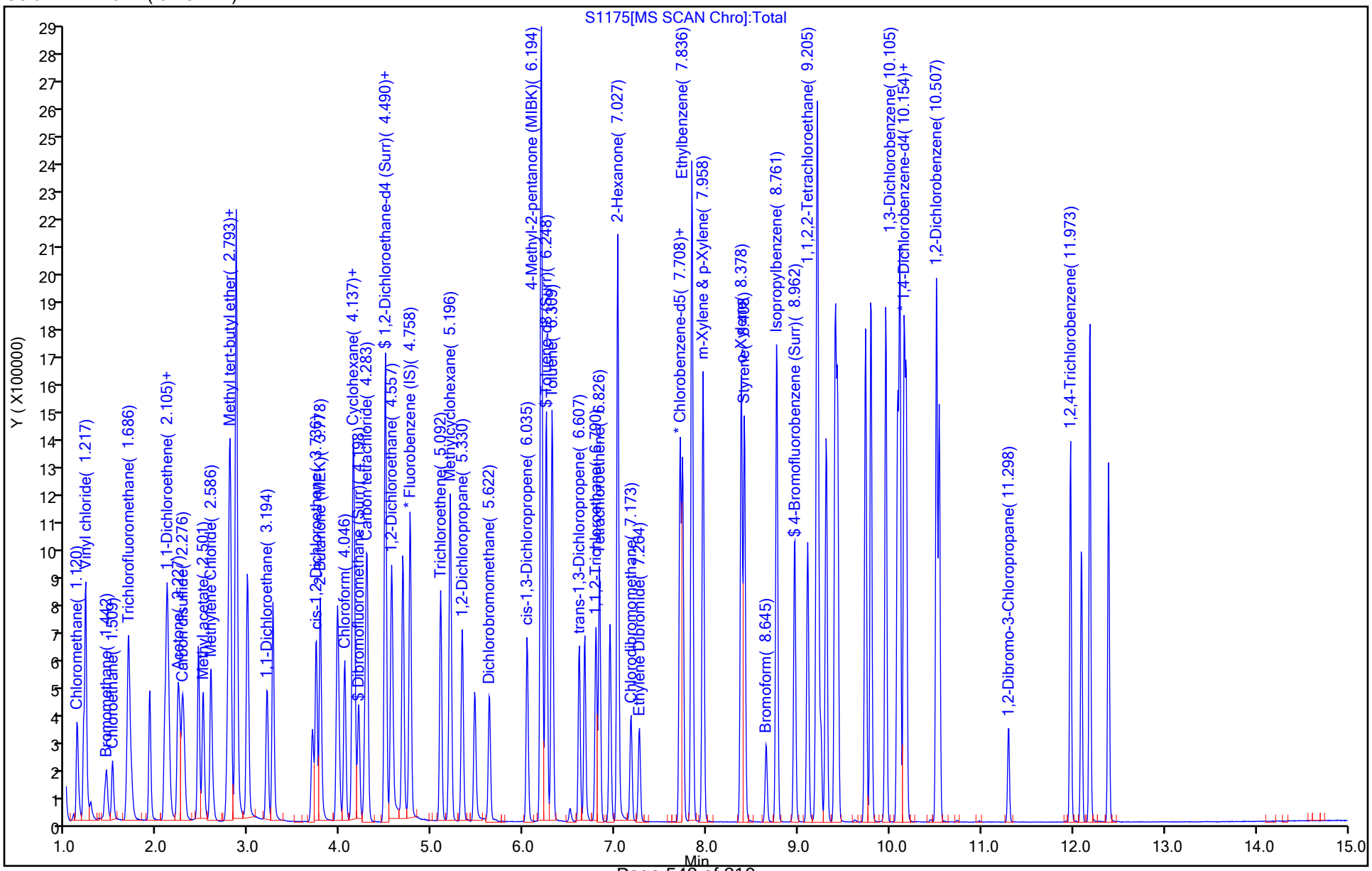
Report Date: 13-Aug-2024 13:34:10 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1175.d

Injection Date:	13-Aug-2024 06:05:30	Instrument ID:	HP5973S	Operator ID:	ZN
Lims ID:	480-222377-B-5 MSD			Worklist Smp#:	28
Client ID:	MW-05R				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	56
Method:	S-8260	Limit Group:	MV - 8260C ICAL		

Column: ZB-624 (0.18 mm)



Report Date: 13-Aug-2024 13:34:10 Chrom Revision: 2.3 07-Aug-2024 17:44:18

Eurofins Buffalo
Recovery Report

Data File: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S1175.d
Lims ID: 480-222377-B-5 MSD
Client ID: MW-05R
Sample Type: MSD
Inject. Date: 13-Aug-2024 06:05:30 ALS Bottle#: 56 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 480-222377-B-5 MSD
Misc. Info.: 480-0119480-028
Operator ID: ZN Instrument ID: HP5973S

Method: \\chromfs\Buffalo\ChromData\HP5973S\20240812-119480.b\S-8260.m
Limit Group: MV - 8260C ICAL
Last Update: 13-Aug-2024 13:33:30 Calib Date: 07-Aug-2024 22:48:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Buffalo\ChromData\HP5973S\20240807-119391.b\S0999.d

Column 1 : ZB-624 (0.18 mm) Det: MS SCAN
Process Host: CTX1640

First Level Reviewer: QR3Z Date: 13-Aug-2024 13:34:09

Compound	Amount Added	Amount Recovered	% Rec.
$ 154 Dibromofluoromethane (Surr)	25.0	24.9	99.49
$ 4 1,2-Dichloroethane-d4 (Surr)	25.0	25.4	101.74
$ 5 Toluene-d8 (Surr)	25.0	25.5	101.81
$ 6 4-Bromofluorobenzene (Surr)	25.0	23.8	95.33

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: HP5973S Start Date: 08/07/2024 14:57

Analysis Batch Number: 720900 End Date: 08/08/2024 00:21

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-720900/11		08/07/2024 14:57	1	S0979.d	ZB-624 (20) 0.18(mm)
IC 480-720900/13		08/07/2024 15:47	1	S0981.d	ZB-624 (20) 0.18(mm)
IC 480-720900/14		08/07/2024 16:11	1	S0982.d	ZB-624 (20) 0.18(mm)
IC 480-720900/15		08/07/2024 16:34	1	S0983.d	ZB-624 (20) 0.18(mm)
IC 480-720900/16		08/07/2024 16:58	1	S0984.d	ZB-624 (20) 0.18(mm)
IC 480-720900/17		08/07/2024 17:21	1	S0985.d	ZB-624 (20) 0.18(mm)
ICIS 480-720900/18		08/07/2024 17:45	1	S0986.d	ZB-624 (20) 0.18(mm)
IC 480-720900/19		08/07/2024 18:08	1	S0987.d	ZB-624 (20) 0.18(mm)
IC 480-720900/20		08/07/2024 18:31	1	S0988.d	ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/07/2024 19:18	1		ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/07/2024 19:41	1		ZB-624 (20) 0.18(mm)
IC 480-720900/25		08/07/2024 20:28	1		ZB-624 (20) 0.18(mm)
IC 480-720900/26		08/07/2024 20:51	1		ZB-624 (20) 0.18(mm)
IC 480-720900/27		08/07/2024 21:14	1		ZB-624 (20) 0.18(mm)
IC 480-720900/28		08/07/2024 21:37	1		ZB-624 (20) 0.18(mm)
IC 480-720900/29		08/07/2024 22:01	1		ZB-624 (20) 0.18(mm)
IC 480-720900/30		08/07/2024 22:24	1		ZB-624 (20) 0.18(mm)
IC 480-720900/31		08/07/2024 22:48	1		ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/07/2024 23:35	1		ZB-624 (20) 0.18(mm)
ICV 480-720900/34		08/07/2024 23:58	1	S1002.d	ZB-624 (20) 0.18(mm)
ICV 480-720900/35		08/08/2024 00:21	1		ZB-624 (20) 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: HP5973S Start Date: 08/12/2024 19:58

Analysis Batch Number: 721476 End Date: 08/13/2024 06:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-721476/2		08/12/2024 19:58	1	S1149.d	ZB-624 (20) 0.18(mm)
CCVIS 480-721476/4		08/12/2024 20:44	1	S1151.d	ZB-624 (20) 0.18(mm)
CCV 480-721476/5		08/12/2024 21:08	1		ZB-624 (20) 0.18(mm)
LCS 480-721476/6		08/12/2024 21:31	1	S1153.d	ZB-624 (20) 0.18(mm)
RL 480-721476/7		08/12/2024 21:54	1		ZB-624 (20) 0.18(mm)
MB 480-721476/8		08/12/2024 22:17	1	S1155.d	ZB-624 (20) 0.18(mm)
480-222377-1	MW-01	08/12/2024 22:40	1	S1156.d	ZB-624 (20) 0.18(mm)
480-222377-2	MW-02	08/12/2024 23:03	1	S1157.d	ZB-624 (20) 0.18(mm)
480-222377-3	MW-03	08/12/2024 23:27	1	S1158.d	ZB-624 (20) 0.18(mm)
480-222377-4	MW-04	08/12/2024 23:50	800	S1159.d	ZB-624 (20) 0.18(mm)
480-222377-5	MW-05R	08/13/2024 00:14	1	S1160.d	ZB-624 (20) 0.18(mm)
480-222377-6	MW-06	08/13/2024 00:37	1	S1161.d	ZB-624 (20) 0.18(mm)
480-222377-7	MW-07	08/13/2024 01:01	1	S1162.d	ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 01:24	5		ZB-624 (20) 0.18(mm)
480-222377-9	DUP	08/13/2024 01:47	1	S1164.d	ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 02:11	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 02:34	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 02:57	10		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 03:21	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 03:44	10		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 04:08	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 04:31	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 04:55	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 05:18	1		ZB-624 (20) 0.18(mm)
480-222377-5 MS	MW-05R MS	08/13/2024 05:41	1	S1174.d	ZB-624 (20) 0.18(mm)
480-222377-5 MSD	MW-05R MSD	08/13/2024 06:05	1	S1175.d	ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/13/2024 06:28	1		ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/13/2024 06:52	1		ZB-624 (20) 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: HP5973S Start Date: 08/13/2024 09:18

Analysis Batch Number: 721538 End Date: 08/13/2024 19:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 480-721538/3		08/13/2024 09:18	1	S1181.d	ZB-624 (20) 0.18(mm)
CCVIS 480-721538/4		08/13/2024 09:44	1	S1182.d	ZB-624 (20) 0.18(mm)
CCV 480-721538/5		08/13/2024 10:22	1		ZB-624 (20) 0.18(mm)
LCS 480-721538/6		08/13/2024 10:45	1	S1184.d	ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/13/2024 11:08	1		ZB-624 (20) 0.18(mm)
RL 480-721538/7		08/13/2024 11:31	1		ZB-624 (20) 0.18(mm)
MB 480-721538/8		08/13/2024 11:55	1	S1187.d	ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/13/2024 12:18	1		ZB-624 (20) 0.18(mm)
ZZZZZ (QC)		08/13/2024 12:56	10		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 13:21	10		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 13:44	4		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 14:08	20		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 14:31	1		ZB-624 (20) 0.18(mm)
480-222377-4 DL	MW-04 DL	08/13/2024 15:18	2000	S1195.d	ZB-624 (20) 0.18(mm)
480-222377-8	DRUM	08/13/2024 15:41	2	S1196.d	ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 16:04	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 16:28	40		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 16:51	8000		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 17:14	8		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 17:37	10000		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 18:00	10000		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 18:24	2000		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 18:47	1		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 19:10	2000		ZB-624 (20) 0.18(mm)
ZZZZZ (Client)		08/13/2024 19:33	2000		ZB-624 (20) 0.18(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 720900 Batch Start Date: 08/07/24 14:57 Batch Analyst: Hill, Leah C

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	8260 CORP mix 00257	BFB_WRK 00164	GAS CORP mix 00631	S_8260_IS 00394
BFB 480-720900/11		8260C			1 uL	1 uL		1 uL		
IC 480-720900/13		8260C			5 mL	5 mL	0.5 uL		0.5 uL	1 uL
IC 480-720900/14		8260C			5 mL	5 mL	1 uL		1 uL	1 uL
IC 480-720900/15		8260C			5 mL	5 mL	2 uL		2 uL	1 uL
IC 480-720900/16		8260C			5 mL	5 mL	5 uL		5 uL	1 uL
IC 480-720900/17		8260C			5 mL	5 mL	5 uL		5 uL	1 uL
ICIS 480-720900/18		8260C			5 mL	5 mL	12.5 uL		12.5 uL	1 uL
IC 480-720900/19		8260C			5 mL	5 mL	25 uL		25 uL	1 uL
IC 480-720900/20		8260C			5 mL	5 mL	50 uL		50 uL	1 uL
ICV 480-720900/34		8260C			5 mL	5 mL				1 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	S_8260_Surr 00485	SS 8260 CORP 00115	SS GAS CORP 00588			
BFB 480-720900/11		8260C								
IC 480-720900/13		8260C			1 uL					
IC 480-720900/14		8260C			1 uL					
IC 480-720900/15		8260C			1 uL					
IC 480-720900/16		8260C			1 uL					
IC 480-720900/17		8260C			1 uL					
ICIS 480-720900/18		8260C			1 uL					
IC 480-720900/19		8260C			1 uL					
IC 480-720900/20		8260C			1 uL					

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 720900 Batch Start Date: 08/07/24 14:57 Batch Analyst: Hill, Leah C

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	S_8260_Surr 00485	SS 8260 CORP 00115	SS GAS CORP 00588			
ICV 480-720900/34		8260C			1 uL	12.5 uL	12.5 uL			

Batch Notes	

Basis	Basis Description

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721476 Batch Start Date: 08/12/24 19:58 Batch Analyst: Nyhart, Zachary

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Initial pH	8260 CORP mix 00257	BFB_WRK 00164	GAS CORP mix 00631
BFB 480-721476/2		8260C			1 uL	1 uL			1 uL	
CCVIS 480-721476/4		8260C			5 mL	5 mL		12.5 uL		12.5 uL
LCS 480-721476/6		8260C			5 mL	5 mL		12.5 uL		12.5 uL
MB 480-721476/8		8260C			5 mL	5 mL				
480-222377-C-1	MW-01	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-2	MW-02	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-3	MW-03	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-4	MW-04	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-5	MW-05R	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-6	MW-06	8260C	Water	T	5 mL	5 mL	7 SU			
480-222377-C-7	MW-07	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-C-9	DUP	8260C	Water	T	5 mL	5 mL	7 SU			
480-222377-B-5 MS	MW-05R	8260C	Water	T	5 mL	5 mL	<2 SU	12.5 uL		12.5 uL
480-222377-B-5 MSD	MW-05R	8260C	Water	T	5 mL	5 mL	<2 SU	12.5 uL		12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	S_8260_IS 00394	S_8260_Surr 00485	AnalysisComment			
BFB 480-721476/2		8260C								
CCVIS 480-721476/4		8260C			1 uL	1 uL				
LCS 480-721476/6		8260C			1 uL	1 uL				
MB 480-721476/8		8260C			1 uL	1 uL				
480-222377-C-1	MW-01	8260C	Water	T	1 uL	1 uL				
480-222377-C-2	MW-02	8260C	Water	T	1 uL	1 uL				
480-222377-C-3	MW-03	8260C	Water	T	1 uL	1 uL				
480-222377-C-4	MW-04	8260C	Water	T	1 uL	1 uL	E flag, rr 2000x			
480-222377-C-5	MW-05R	8260C	Water	T	1 uL	1 uL				

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721476 Batch Start Date: 08/12/24 19:58 Batch Analyst: Nyhart, Zachary

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	S_8260_IS 00394	S_8260_Surr 00485	AnalysisComment			
480-222377-C-6	MW-06	8260C	Water	T	1 uL	1 uL	Preserved			
480-222377-C-7	MW-07	8260C	Water	T	1 uL	1 uL				
480-222377-C-9	DUP	8260C	Water	T	1 uL	1 uL	Preserved			
480-222377-B-5 MS	MW-05R	8260C	Water	T	1 uL	1 uL				
480-222377-B-5 MSD	MW-05R	8260C	Water	T	1 uL	1 uL				

Batch Notes	

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721538 Batch Start Date: 08/13/24 09:18 Batch Analyst: Nyhart, Zachary

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Initial pH	8260 CORP mix 00257	BFB_WRK 00164	GAS CORP mix 00631
BFB 480-721538/3		8260C			1 uL	1 uL			1 uL	
CCVIS 480-721538/4		8260C			5 mL	5 mL		12.5 uL		12.5 uL
LCS 480-721538/6		8260C			5 mL	5 mL		12.5 uL		12.5 uL
MB 480-721538/8		8260C			5 mL	5 mL				
480-222377-D-4	MW-04	8260C	Water	T	5 mL	5 mL	<2 SU			
480-222377-D-8	DRUM	8260C	Water	T	5 mL	5 mL	<2 SU			

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	S_8260_IS 00394	S_8260_Surr 00485	AnalysisComment			
BFB 480-721538/3		8260C								
CCVIS 480-721538/4		8260C			1 uL	1 uL				
LCS 480-721538/6		8260C			1 uL	1 uL				
MB 480-721538/8		8260C			1 uL	1 uL				
480-222377-D-4	MW-04	8260C	Water	T	1 uL	1 uL	target			
480-222377-D-8	DRUM	8260C	Water	T	1 uL	1 uL	target			

Batch Notes	

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.

METALS

COVER PAGE
METALS

Lab Name: Eurofins Buffalo Job Number: 480-222377-1

SDG No.:

Project: NYSDEC Highland Plaza; 0924016

Client Sample ID	Lab Sample ID
MW-01	480-222377-1
MW-02	480-222377-2
MW-03	480-222377-3
MW-04	480-222377-4
MW-05R	480-222377-5
MW-06	480-222377-6
MW-07	480-222377-7
DUP	480-222377-9

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-01 | Lab Sample ID: 480-222377-1

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/06/2024 09:03

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	21.6	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	0.011	0.015	0.0056	mg/L	J		1	200.7 Rev 4.4
7440-39-3	Barium	0.45	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	0.00095	0.0020	0.00040	mg/L	J		1	200.7 Rev 4.4
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	254	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	0.033	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.0095	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	0.041	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	24.8	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.023	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	202	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.63	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.024	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	9.9	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	418	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.034	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.13	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00040	0.000084	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-02 | Lab Sample ID: 480-222377-2

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/07/2024 07:30

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	34.2	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	0.015	0.015	0.0056	mg/L			1	200.7 Rev 4.4
7440-39-3	Barium	0.32	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	0.0015	0.0020	0.00040	mg/L	J		1	200.7 Rev 4.4
7440-43-9	Cadmium	0.00068	0.0020	0.00050	mg/L	J		1	200.7 Rev 4.4
7440-70-2	Calcium	152	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	0.063	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.019	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	0.032	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	48.2	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.026	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	140	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.95	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.048	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	14.7	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	41.2	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.064	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.15	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00060	0.00013	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-03 | Lab Sample ID: 480-222377-3

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/07/2024 08:40

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	17.4	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	0.0082	0.015	0.0056	mg/L	J		1	200.7 Rev 4.4
7440-39-3	Barium	0.18	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	0.00076	0.0020	0.00040	mg/L	J		1	200.7 Rev 4.4
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	108	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	0.026	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.0089	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	0.017	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	22.6	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.0088	0.010	0.0039	mg/L	J		1	200.7 Rev 4.4
7439-95-4	Magnesium	142	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.49	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.024	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	9.9	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	60.5	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.032	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.069	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00040	0.000084	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-04 | Lab Sample ID: 480-222377-4

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/07/2024 12:35

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	7.4	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	0.0083	0.015	0.0056	mg/L	J		1	200.7 Rev 4.4
7440-39-3	Barium	0.13	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	ND	0.0020	0.00040	mg/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	72.9	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	0.014	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.0039	0.0040	0.00060	mg/L	J		1	200.7 Rev 4.4
7440-50-8	Copper	0.0095	0.010	0.0045	mg/L	J		1	200.7 Rev 4.4
7439-89-6	Iron	9.3	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.0080	0.010	0.0039	mg/L	J		1	200.7 Rev 4.4
7439-95-4	Magnesium	122	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.20	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.010	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	5.9	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	33.9	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.014	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.041	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00020	0.000042	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-05R
Lab Sample ID: 480-222377-5
Lab Name: Eurofins Buffalo
Job No.: 480-222377-1
SDG ID.:
Matrix: Water
Date Sampled: 08/07/2024 11:30
Reporting Basis: WET
Date Received: 08/07/2024 16:13
Preparation Batch Number: 721282
Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.17	0.20	0.088	mg/L	J		1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	200.7 Rev 4.4
7440-39-3	Barium	0.16	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	ND	0.0020	0.00040	mg/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	75.1	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	ND	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	ND	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	ND	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	0.21	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	ND	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	107	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.017	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	ND	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	4.6	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	34.7	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	ND	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.023	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00020	0.000042	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-06 | Lab Sample ID: 480-222377-6

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/07/2024 10:00

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	132	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	0.044	0.015	0.0056	mg/L			1	200.7 Rev 4.4
7440-39-3	Barium	0.81	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	0.0063	0.0020	0.00040	mg/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	0.0029	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	498	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	0.35	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.11	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	0.24	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	173	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.14	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	308	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	4.2	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.22	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	40.3	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	0.0035	0.0060	0.0017	mg/L	J		1	200.7 Rev 4.4
7440-23-5	Sodium	76.2	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.25	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	0.86	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	0.00038	0.00060	0.00013	mg/L	J		1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: MW-07 | Lab Sample ID: 480-222377-7

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG ID.:

Matrix: Water | Date Sampled: 08/07/2024 13:35

Reporting Basis: WET | Date Received: 08/07/2024 16:13

Preparation Batch Number: 721282 | Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	0.36	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	ND	0.020	0.0068	mg/L			1	200.7 Rev 4.4
7440-38-2	Arsenic	ND	0.015	0.0056	mg/L			1	200.7 Rev 4.4
7440-39-3	Barium	0.056	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	ND	0.0020	0.00040	mg/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	ND	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	63.5	0.50	0.13	mg/L			1	200.7 Rev 4.4
7440-47-3	Chromium	ND	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	ND	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	ND	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	0.42	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	ND	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	163	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	0.012	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	ND	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	5.4	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	ND	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	65.6	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.0019	0.0050	0.0015	mg/L	J		1	200.7 Rev 4.4
7440-66-6	Zinc	0.038	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	ND	0.00020	0.000042	mg/L			1	245.1

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: DUP
Lab Sample ID: 480-222377-9
Lab Name: Eurofins Buffalo
Job No.: 480-222377-1
SDG ID.:
Matrix: Water
Date Sampled: 08/07/2024 10:00
Reporting Basis: WET
Date Received: 08/07/2024 16:13
Preparation Batch Number: 721282
Instrument ID: ICAP4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7429-90-5	Aluminum	338	0.20	0.088	mg/L			1	200.7 Rev 4.4
7440-36-0	Antimony	0.010	0.020	0.0068	mg/L	J		1	200.7 Rev 4.4
7440-38-2	Arsenic	0.096	0.015	0.0056	mg/L			1	200.7 Rev 4.4
7440-39-3	Barium	2.2	0.0020	0.00070	mg/L			1	200.7 Rev 4.4
7440-41-7	Beryllium	0.015	0.0020	0.00040	mg/L			1	200.7 Rev 4.4
7440-43-9	Cadmium	0.0064	0.0020	0.00050	mg/L			1	200.7 Rev 4.4
7440-70-2	Calcium	2320	5.0	1.3	mg/L			10	200.7 Rev 4.4
7440-47-3	Chromium	0.92	0.0040	0.0024	mg/L			1	200.7 Rev 4.4
7440-48-4	Cobalt	0.42	0.0040	0.00060	mg/L			1	200.7 Rev 4.4
7440-50-8	Copper	0.66	0.010	0.0045	mg/L			1	200.7 Rev 4.4
7439-89-6	Iron	268	0.050	0.026	mg/L			1	200.7 Rev 4.4
7439-92-1	Lead	0.54	0.010	0.0039	mg/L			1	200.7 Rev 4.4
7439-95-4	Magnesium	485	0.20	0.043	mg/L			1	200.7 Rev 4.4
7439-96-5	Manganese	11.0	0.0030	0.0010	mg/L			1	200.7 Rev 4.4
7440-02-0	Nickel	0.54	0.010	0.0034	mg/L			1	200.7 Rev 4.4
7440-09-7	Potassium	84.2	0.50	0.20	mg/L			1	200.7 Rev 4.4
7782-49-2	Selenium	ND	0.025	0.0087	mg/L			1	200.7 Rev 4.4
7440-22-4	Silver	0.0074	0.0060	0.0017	mg/L			1	200.7 Rev 4.4
7440-23-5	Sodium	44.0	1.0	0.38	mg/L			1	200.7 Rev 4.4
7440-28-0	Thallium	ND	0.020	0.010	mg/L			1	200.7 Rev 4.4
7440-62-2	Vanadium	0.64	0.0050	0.0015	mg/L			1	200.7 Rev 4.4
7440-66-6	Zinc	2.1	0.010	0.0068	mg/L			1	200.7 Rev 4.4
7439-97-6	Mercury	0.0014	0.00060	0.00013	mg/L			1	245.1

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEI_MSS_ICV_00166 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00343

Analyte	ICV 480-721448/6 08/12/2024 10:49				CCV 480-721448/16 08/12/2024 11:08							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	36.56		37.5	97	49.37		50.0	99				
Antimony	0.736		0.750	98	1.00		1.00	100				
Arsenic	0.745		0.752	99	0.994		1.00	99				
Barium	0.750		0.751	100	1.01		1.00	101				
Beryllium	0.756		0.751	101	1.02		1.00	102				
Cadmium	0.747		0.750	100	0.995		1.00	99				
Calcium	37.46		37.5	100	50.12		50.0	100				
Chromium	0.758		0.751	101	1.02		1.00	101				
Cobalt	0.727		0.750	97	0.992		1.00	99				
Copper	0.749		0.751	100	0.998		1.00	100				
Iron	38.15		37.5	102	50.66		50.0	101				
Lead	0.717		0.750	96	0.989		1.00	99				
Magnesium	35.85		37.5	96	48.75		50.0	97				
Manganese	0.741		0.751	99	1.00		1.00	100				
Nickel	0.753		0.750	100	1.01		1.00	101				
Potassium	37.08		37.5	99	49.92		50.0	100				
Selenium	0.754		0.750	101	0.988		1.00	99				
Silver	0.747		0.750	100	0.996		1.00	100				
Sodium	37.07		37.5	99	49.50		50.0	99				
Thallium	0.781		0.750	104	0.998		1.00	100				
Vanadium	0.755		0.750	101	1.01		1.00	101				
Zinc	0.789		0.750	105	1.02		1.00	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEI_10_CCVL_00524 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00343

Analyte	ICVL 480-721448/8 08/12/2024 10:53				CCV 480-721448/16 08/12/2024 11:08							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.164	J	0.200	82	49.37		50.0	99				
Antimony	0.0196	J	0.0200	98	1.00		1.00	100				
Arsenic	0.0162		0.0150	108	0.994		1.00	99				
Barium	0.00199	J	0.00200	99	1.01		1.00	101				
Beryllium	0.00192	J	0.00200	96	1.02		1.00	102				
Cadmium	0.00198	J	0.00200	99	0.995		1.00	99				
Calcium	0.485	J	0.500	97	50.12		50.0	100				
Chromium	0.00460		0.00400	115	1.02		1.00	101				
Cobalt	0.00386	J	0.00400	96	0.992		1.00	99				
Copper	0.00948	J	0.0100	95	0.998		1.00	100				
Iron	0.0517		0.0500	103	50.66		50.0	101				
Lead	0.00876	J	0.0100	88	0.989		1.00	99				
Magnesium	0.186	J	0.200	93	48.75		50.0	97				
Manganese	0.00311		0.00300	104	1.00		1.00	100				
Nickel	0.0106		0.0100	106	1.01		1.00	101				
Potassium	0.483	J	0.500	97	49.92		50.0	100				
Selenium	0.0179	J	0.0250	71	0.988		1.00	99				
Silver	0.00584	J	0.00600	97	0.996		1.00	100				
Sodium	0.972	J	1.01	97	49.50		50.0	99				
Thallium	0.0163	J	0.0200	82	0.998		1.00	100				
Vanadium	0.00523		0.00500	105	1.01		1.00	101				
Zinc	0.0111		0.0100	111	1.02		1.00	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEI_MSS_STD2_00343 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00343

Analyte	ICV 480-721539/5 08/12/2024 15:33				CCV 480-721539/13 08/12/2024 15:49				CCV 480-721539/25 08/12/2024 16:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	48.06		50.0	96	48.34		50.0	97	48.16		50.0	96
Antimony	0.969		1.00	97	0.973		1.00	97	0.973		1.00	97
Arsenic	0.949		1.00	95	0.946		1.00	94	0.938		1.00	94
Barium	0.981		1.00	98	0.989		1.00	99	0.984		1.00	98
Beryllium	1.00		1.00	100	1.01		1.00	101	1.00		1.00	100
Cadmium	1.01		1.00	101	0.996		1.00	100	1.01		1.00	101
Calcium	49.39		50.0	99	49.64		50.0	99	49.76		50.0	100
Chromium	1.02		1.00	102	1.01		1.00	101	1.02		1.00	102
Cobalt	0.984		1.00	98	0.969		1.00	97	0.983		1.00	98
Copper	1.02		1.00	102	1.01		1.00	100	1.02		1.00	102
Iron	49.34		50.0	99	49.39		50.0	99	49.55		50.0	99
Lead	0.955		1.00	96	0.949		1.00	95	0.955		1.00	96
Magnesium	48.82		50.0	98	48.54		50.0	97	48.84		50.0	98
Manganese	0.973		1.00	97	0.973		1.00	97	0.973		1.00	97
Nickel	1.00		1.00	100	1.00		1.00	100	1.00		1.00	100
Potassium	49.47		50.0	99	49.54		50.0	99	49.73		50.0	99
Selenium	0.972		1.00	97	0.965		1.00	96	0.967		1.00	97
Silver	1.02		1.00	102	1.00		1.00	100	1.02		1.00	102
Sodium	49.21		50.0	98	49.49		50.0	99	49.39		50.0	99
Vanadium	1.00		1.00	100	1.00		1.00	100	1.00		1.00	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEI_MSS_ICV_00166 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00343

Analyte	ICV 480-721648/6 08/13/2024 11:16				CCV 480-721648/16 08/13/2024 11:38							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	36.17		37.5	96	48.70		50.0	97				
Antimony	0.735		0.750	98	0.986		1.00	99				
Arsenic	0.746		0.752	99	0.983		1.00	98				
Barium	0.738		0.751	98	0.995		1.00	99				
Beryllium	0.747		0.751	100	1.01		1.00	100				
Cadmium	0.738		0.750	98	0.979		1.00	98				
Calcium	37.25		37.5	99	49.38		50.0	99				
Chromium	0.755		0.751	101	1.01		1.00	100				
Cobalt	0.723		0.750	96	0.983		1.00	98				
Copper	0.735		0.751	98	0.975		1.00	97				
Iron	37.93		37.5	101	49.81		50.0	100				
Lead	0.715		0.750	95	0.986		1.00	99				
Magnesium	35.71		37.5	95	48.50		50.0	97				
Manganese	0.736		0.751	98	0.995		1.00	99				
Nickel	0.757		0.750	101	1.01		1.00	101				
Potassium	36.64		37.5	98	49.16		50.0	98				
Selenium	0.744		0.750	99	0.971		1.00	97				
Silver	0.735		0.750	98	0.976		1.00	98				
Sodium	36.84		37.5	98	48.89		50.0	98				
Thallium	0.743		0.750	99	0.986		1.00	99				
Vanadium	0.749		0.750	100	0.998		1.00	100				
Zinc	0.770		0.750	103	0.996		1.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEI_10_CCVL_00524 Concentration Units: mg/L

CCV Source: MEI_MSS_STD2_00343

Analyte	ICVL 480-721648/8 08/13/2024 11:22				CCV 480-721648/16 08/13/2024 11:38							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.176	J	0.200	88	48.70		50.0	97				
Antimony	0.0202		0.0200	101	0.986		1.00	99				
Arsenic	0.0134	J	0.0150	89	0.983		1.00	98				
Barium	0.00193	J	0.00200	96	0.995		1.00	99				
Beryllium	0.00193	J	0.00200	96	1.01		1.00	100				
Cadmium	0.00200		0.00200	100	0.979		1.00	98				
Calcium	0.448	J	0.500	90	49.38		50.0	99				
Chromium	0.00425		0.00400	106	1.01		1.00	100				
Cobalt	0.00355	J	0.00400	89	0.983		1.00	98				
Copper	0.00950	J	0.0100	95	0.975		1.00	97				
Iron	0.0421	J	0.0500	84	49.81		50.0	100				
Lead	0.00961	J	0.0100	96	0.986		1.00	99				
Magnesium	0.171	J	0.200	85	48.50		50.0	97				
Manganese	0.00293	J	0.00300	98	0.995		1.00	99				
Nickel	0.0102		0.0100	102	1.01		1.00	101				
Potassium	0.489	J	0.500	98	49.16		50.0	98				
Selenium	0.0202	J	0.0250	81	0.971		1.00	97				
Silver	0.00547	J	0.00600	91	0.976		1.00	98				
Sodium	0.962	J	1.01	96	48.89		50.0	98				
Thallium	0.0158	J	0.0200	79	0.986		1.00	99				
Vanadium	0.00488	J	0.00500	98	0.998		1.00	100				
Zinc	0.0107		0.0100	107	0.996		1.00	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEH_HG1_WKG_03422 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_03422

Analyte	ICV 480-721512/7 08/12/2024 14:21				ICVL 480-721512/9 08/12/2024 14:24				CCV 480-721512/10 08/12/2024 14:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00308		0.00301	102	0.000214		0.000201	107	0.00210		0.00201	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEH_HG1_WKG_03422 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_03422

Analyte	CCV 480-721512/22 08/12/2024 14:46				CCV 480-721512/34 08/12/2024 15:02				CCV 480-721512/46 08/12/2024 15:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00211		0.00201	105	0.00214		0.00201	106	0.00210		0.00201	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

ICV Source: MEH_HG1_WKG_03422 Concentration Units: mg/L

CCV Source: MEH_HG1_WKG_03422

Analyte	CCVL 480-721512/48 08/12/2024 15:20											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.000218		0.000201	109								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721448/7 08/12/2024 10:51		CCB 480-721448/17 08/12/2024 11:10					
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	ND		ND					
Antimony	0.020	ND		ND					
Arsenic	0.015	ND		ND					
Barium	0.0020	ND		ND					
Beryllium	0.0020	ND		ND					
Cadmium	0.0020	ND		ND					
Calcium	0.50	ND		ND					
Chromium	0.0040	ND		ND					
Cobalt	0.0040	ND		ND					
Copper	0.010	ND		ND					
Iron	0.050	ND		ND					
Lead	0.010	ND		ND					
Magnesium	0.20	ND		ND					
Manganese	0.0030	ND		ND					
Nickel	0.010	ND		ND					
Potassium	0.50	ND		ND					
Selenium	0.025	ND		ND					
Silver	0.0060	ND		ND					
Sodium	1.0	ND		ND					
Thallium	0.020	ND		ND					
Vanadium	0.0050	ND		ND					
Zinc	0.010	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721539/6 08/12/2024 15:35		CCB 480-721539/14 08/12/2024 15:51		CCB 480-721539/26 08/12/2024 16:13			
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	ND		ND		ND			
Antimony	0.020	ND		ND		ND			
Arsenic	0.015	ND		ND		ND			
Barium	0.0020	ND		ND		ND			
Beryllium	0.0020	ND		ND		ND			
Cadmium	0.0020	ND		ND		ND			
Calcium	0.50	ND		ND		ND			
Chromium	0.0040	ND		ND		ND			
Cobalt	0.0040	ND		ND		ND			
Copper	0.010	ND		ND		ND			
Iron	0.050	ND		ND		0.0289	J		
Lead	0.010	ND		0.00404	J	ND			
Magnesium	0.20	ND		ND		ND			
Manganese	0.0030	ND		ND		ND			
Nickel	0.010	ND		ND		ND			
Potassium	0.50	ND		ND		ND			
Selenium	0.025	ND		ND		ND			
Silver	0.0060	ND		ND		ND			
Sodium	1.0	ND		ND		ND			
Vanadium	0.0050	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721648/7 08/13/2024 11:20		CCB 480-721648/17 08/13/2024 11:40					
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.20	ND		ND					
Antimony	0.020	ND		ND					
Arsenic	0.015	ND		ND					
Barium	0.0020	ND		ND					
Beryllium	0.0020	ND		ND					
Cadmium	0.0020	ND		ND					
Calcium	0.50	ND		ND					
Chromium	0.0040	ND		ND					
Cobalt	0.0040	ND		ND					
Copper	0.010	ND		ND					
Iron	0.050	ND		ND					
Lead	0.010	ND		ND					
Magnesium	0.20	ND		ND					
Manganese	0.0030	ND		ND					
Nickel	0.010	ND		ND					
Potassium	0.50	ND		ND					
Selenium	0.025	ND		ND					
Silver	0.0060	ND		ND					
Sodium	1.0	ND		ND					
Thallium	0.020	ND		ND					
Vanadium	0.0050	ND		ND					
Zinc	0.010	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721614/15 08/13/2024 12:40							
		Found	C	Found	C	Found	C	Found	C
Calcium	0.50	ND							
Aluminum	0.20	ND							
Antimony	0.020	ND							
Arsenic	0.015	ND							
Barium	0.0020	ND							
Beryllium	0.0020	0.000414	J						
Cadmium	0.0020	0.000579	J						
Chromium	0.0040	ND							
Cobalt	0.0040	ND							
Copper	0.010	ND							
Iron	0.050	ND							
Lead	0.010	ND							
Magnesium	0.20	ND							
Manganese	0.0030	ND							
Nickel	0.010	ND							
Potassium	0.50	ND							
Selenium	0.025	ND							
Silver	0.0060	ND							
Sodium	1.0	ND							
Thallium	0.020	ND							
Vanadium	0.0050	ND							
Zinc	0.010	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-721512/8 08/12/2024 14:23		CCB 480-721512/11 08/12/2024 14:27		CCB 480-721512/23 08/12/2024 14:47		CCB 480-721512/35 08/12/2024 15:03	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 480-721512/47 08/12/2024 15:19							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 480-721282/1-A

Instrument Code: ICAP4 Batch No.: 721539

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			200.7
7440-36-0	Antimony	ND			200.7
7440-38-2	Arsenic	ND			200.7
7440-39-3	Barium	ND			200.7
7440-41-7	Beryllium	ND			200.7
7440-43-9	Cadmium	ND			200.7
7440-70-2	Calcium	ND			200.7
7440-47-3	Chromium	ND			200.7
7440-48-4	Cobalt	ND			200.7
7440-50-8	Copper	ND			200.7
7439-89-6	Iron	ND			200.7
7439-92-1	Lead	ND			200.7
7439-95-4	Magnesium	ND			200.7
7439-96-5	Manganese	ND			200.7
7440-02-0	Nickel	ND			200.7
7440-09-7	Potassium	ND			200.7
7782-49-2	Selenium	ND			200.7
7440-22-4	Silver	ND			200.7
7440-23-5	Sodium	ND			200.7
7440-28-0	Thallium	ND			200.7
7440-62-2	Vanadium	ND			200.7
7440-66-6	Zinc	ND			200.7

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 480-721391/1-A

Instrument Code: LEEMAN5 Batch No.: 721512

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			245.1

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICSA 480-721448/9 Instrument ID: ICAP4

Lab File ID: I420240812C.csv ICS Source: MEI_MSS_ICSA_00066

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Aluminum	*500*	*499*	*100*
Antimony		*0.0080*	
Arsenic		*0.0023*	
Barium	*0.0120*	*0.0025*	
Beryllium		*0.0000*	
Boron		*0.0014*	
Cadmium		*0.0008*	
Calcium	*500*	*474*	*95*
Chromium		*0.0018*	
Cobalt		*0.0000*	
Copper		*0.0006*	
Iron	*200*	*172*	*86*
Lead		*0.0000*	
Lithium		*0.0004*	
Magnesium	*500*	*522*	*104*
Manganese		*0.0017*	
Molybdenum		*0.0016*	
Nickel		*0.0003*	
Potassium		*0.0393*	
Selenium		*0.0072*	
Silver		*0.0018*	
Sodium		*0.190*	
Strontium		*0.0043*	
Sulfur		*0.0406*	
Thallium		*0.0127*	
Tin		*0.0033*	
Titanium		*-0.0028*	
Vanadium		*0.0005*	
Zinc		*0.0022*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICSAB 480-721448/10 Instrument ID: ICAP4

Lab File ID: I420240812C.csv ICS Source: MEI_MSS_ICSAB_00066

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	*500*	*486*	*97*
Antimony	*0.500*	*0.498*	*100*
Arsenic	*0.500*	*0.483*	*97*
Barium	*0.513*	*0.515*	*100*
Beryllium	*0.250*	*0.248*	*99*
Boron	*5.00*	*4.89*	*98*
Cadmium	*0.500*	*0.493*	*99*
Calcium	*500*	*460*	*92*
Chromium	*0.500*	*0.472*	*94*
Cobalt	*0.500*	*0.493*	*99*
Copper	*0.500*	*0.514*	*103*
Iron	*200*	*169*	*84*
Lead	*0.500*	*0.506*	*101*
Lithium		*0.0007*	
Magnesium	*500*	*505*	*101*
Manganese	*0.501*	*0.457*	*91*
Molybdenum	*0.500*	*0.486*	*97*
Nickel	*0.501*	*0.466*	*93*
Potassium	*5.00*	*5.08*	*102*
Selenium	*0.500*	*0.481*	*96*
Silver	*0.500*	*0.501*	*100*
Sodium	*5.00*	*5.18*	*104*
Strontium	*0.500*	*0.493*	*99*
Sulfur		*0.0614*	
Thallium	*0.500*	*0.500*	*100*
Tin	*0.500*	*0.505*	*101*
Titanium	*0.500*	*0.498*	*100*
Vanadium	*0.500*	*0.483*	*97*
Zinc	*0.501*	*0.445*	*89*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICSA 480-721648/9 Instrument ID: ICAP4

Lab File ID: I420240813B.csv ICS Source: MEI_MSS_ICSA_00066

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	*500*	*497*	*99*
Antimony		*-0.0028*	
Arsenic		*0.0034*	
Barium	*0.0120*	*0.0026*	
Beryllium		*0.0000*	
Boron		*0.0011*	
Cadmium		*0.0007*	
Calcium	*500*	*470*	*94*
Chromium		*0.0018*	
Cobalt		*0.0000*	
Copper		*0.0009*	
Iron	*200*	*169*	*85*
Lead		*0.0101*	
Lithium		*-0.0004*	
Magnesium	*500*	*512*	*102*
Manganese		*0.0014*	
Molybdenum		*0.0007*	
Nickel		*0.0011*	
Potassium		*0.0267*	
Selenium		*0.0053*	
Silver		*0.0013*	
Sodium		*0.177*	
Strontium		*0.0041*	
Sulfur		*0.0315*	
Thallium		*0.0103*	
Tin		*0.0043*	
Titanium		*-0.0029*	
Vanadium		*0.0007*	
Zinc		*0.0020*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Lab Sample ID: ICSAB 480-721648/10 Instrument ID: ICAP4

Lab File ID: I420240813B.csv ICS Source: MEI_MSS_ICSAB_00066

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	*500*	*479*	*96*
Antimony	*0.500*	*0.483*	*97*
Arsenic	*0.500*	*0.469*	*94*
Barium	*0.513*	*0.503*	*98*
Beryllium	*0.250*	*0.241*	*96*
Boron	*5.00*	*4.79*	*96*
Cadmium	*0.500*	*0.483*	*97*
Calcium	*500*	*452*	*90*
Chromium	*0.500*	*0.458*	*92*
Cobalt	*0.500*	*0.472*	*94*
Copper	*0.500*	*0.507*	*101*
Iron	*200*	*164*	*82*
Lead	*0.500*	*0.491*	*98*
Lithium		*0.0001*	
Magnesium	*500*	*493*	*99*
Manganese	*0.501*	*0.448*	*89*
Molybdenum	*0.500*	*0.478*	*96*
Nickel	*0.501*	*0.453*	*91*
Potassium	*5.00*	*4.91*	*98*
Selenium	*0.500*	*0.470*	*94*
Silver	*0.500*	*0.487*	*97*
Sodium	*5.00*	*5.08*	*102*
Strontium	*0.500*	*0.480*	*96*
Sulfur		*0.0425*	
Thallium	*0.500*	*0.485*	*97*
Tin	*0.500*	*0.482*	*96*
Titanium	*0.500*	*0.485*	*97*
Vanadium	*0.500*	*0.471*	*94*
Zinc	*0.501*	*0.433*	*87*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: MW-05R MS Lab ID: 480-222377-5 MS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	5.38		0.17	J	5.10	102	70-130		200.7 Rev 4.4
Antimony	0.504		ND		0.500	101	70-130		200.7 Rev 4.4
Arsenic	0.986		ND		1.00	99	70-130		200.7 Rev 4.4
Barium	1.20		0.16		1.00	103	70-130		200.7 Rev 4.4
Beryllium	0.520		ND		0.500	104	70-130		200.7 Rev 4.4
Cadmium	0.516		ND		0.500	103	70-130		200.7 Rev 4.4
Calcium	101.2		75.1		25.0	104	70-130		200.7 Rev 4.4
Chromium	0.511		ND		0.500	102	70-130		200.7 Rev 4.4
Cobalt	0.494		ND		0.500	99	70-130		200.7 Rev 4.4
Copper	0.519		ND		0.500	104	70-130		200.7 Rev 4.4
Iron	5.76		0.21		5.10	109	70-130		200.7 Rev 4.4
Lead	0.490		ND		0.500	98	70-130		200.7 Rev 4.4
Magnesium	135.2		107		25.0	115	70-130	4	200.7 Rev 4.4
Manganese	0.512		0.017		0.500	99	70-130		200.7 Rev 4.4
Nickel	0.509		ND		0.500	102	70-130		200.7 Rev 4.4
Potassium	30.78		4.6		25.0	105	70-130		200.7 Rev 4.4
Selenium	0.987		ND		1.00	99	70-130		200.7 Rev 4.4
Silver	0.0522		ND		0.0500	104	70-130		200.7 Rev 4.4
Sodium	61.57		34.7		25.0	108	70-130		200.7 Rev 4.4
Thallium	0.972		ND		1.00	97	70-130		200.7 Rev 4.4
Vanadium	0.511		ND		0.500	102	70-130		200.7 Rev 4.4
Zinc	0.572		0.023		0.500	110	70-130		200.7 Rev 4.4
Mercury	0.00709		ND		0.00669	106	70-130		245.1

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: MW-05R MSD Lab ID: 480-222377-5 MSD

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Matrix: Water Concentration Units: mg/L

% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	5.33		5.10	101	70-130	1	20		200.7 Rev 4.4
Antimony	0.494		0.500	99	70-130	2	20		200.7 Rev 4.4
Arsenic	0.970		1.00	97	70-130	2	20		200.7 Rev 4.4
Barium	1.18		1.00	101	70-130	2	20		200.7 Rev 4.4
Beryllium	0.512		0.500	102	70-130	1	20		200.7 Rev 4.4
Cadmium	0.509		0.500	102	70-130	1	20		200.7 Rev 4.4
Calcium	101.3		25.0	105	70-130	0	20		200.7 Rev 4.4
Chromium	0.504		0.500	101	70-130	1	20		200.7 Rev 4.4
Cobalt	0.489		0.500	98	70-130	1	20		200.7 Rev 4.4
Copper	0.512		0.500	102	70-130	1	20		200.7 Rev 4.4
Iron	5.68		5.10	107	70-130	1	20		200.7 Rev 4.4
Lead	0.484		0.500	97	70-130	1	20		200.7 Rev 4.4
Magnesium	135.2		25.0	115	70-130	0	20	4	200.7 Rev 4.4
Manganese	0.505		0.500	98	70-130	1	20		200.7 Rev 4.4
Nickel	0.503		0.500	101	70-130	1	20		200.7 Rev 4.4
Potassium	30.39		25.0	103	70-130	1	20		200.7 Rev 4.4
Selenium	0.972		1.00	97	70-130	2	20		200.7 Rev 4.4
Silver	0.0518		0.0500	104	70-130	1	20		200.7 Rev 4.4
Sodium	61.11		25.0	106	70-130	1	20		200.7 Rev 4.4
Thallium	0.955		1.00	95	70-130	2	20		200.7 Rev 4.4
Vanadium	0.504		0.500	101	70-130	1	20		200.7 Rev 4.4
Zinc	0.569		0.500	109	70-130	1	20		200.7 Rev 4.4
Mercury	0.00709		0.00669	106	70-130	0	20		245.1

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: MW-05R PDS | Lab ID: 480-222377-5 PDS

Lab Name: Eurofins Buffalo | Job No.: 480-222377-1

SDG No.:

Matrix: Water | Concentration Units: mg/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	5.15		0.17	J	5.10	98	85-115		200.7 Rev 4.4
Antimony	0.495		ND		0.500	99	85-115		200.7 Rev 4.4
Arsenic	0.976		ND		1.00	98	85-115		200.7 Rev 4.4
Barium	1.19		0.16		1.00	102	85-115		200.7 Rev 4.4
Beryllium	0.515		ND		0.500	103	85-115		200.7 Rev 4.4
Cadmium	0.512		ND		0.500	102	85-115		200.7 Rev 4.4
Calcium	98.38		75.1		25.0	93	85-115		200.7 Rev 4.4
Chromium	0.507		ND		0.500	101	85-115		200.7 Rev 4.4
Cobalt	0.489		ND		0.500	98	85-115		200.7 Rev 4.4
Copper	0.513		ND		0.500	103	85-115		200.7 Rev 4.4
Iron	5.59		0.21		5.10	105	85-115		200.7 Rev 4.4
Lead	0.488		ND		0.500	98	85-115		200.7 Rev 4.4
Magnesium	130.1		107		25.0	94	85-115		200.7 Rev 4.4
Manganese	0.505		0.017		0.500	98	85-115		200.7 Rev 4.4
Nickel	0.504		ND		0.500	101	85-115		200.7 Rev 4.4
Potassium	30.21		4.6		25.0	103	85-115		200.7 Rev 4.4
Selenium	0.984		ND		1.00	98	85-115		200.7 Rev 4.4
Silver	0.0476		ND		0.0500	95	85-115		200.7 Rev 4.4
Sodium	59.67		34.7		25.0	100	85-115		200.7 Rev 4.4
Thallium	0.959		ND		1.00	96	85-115		200.7 Rev 4.4
Vanadium	0.506		ND		0.500	101	85-115		200.7 Rev 4.4
Zinc	0.543		0.023		0.500	104	85-115		200.7 Rev 4.4

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-721282/2-A

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

Sample Matrix: Water LCS Source: Spike Mx 2_00003

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	5.10	4.79		94	85	115		200.7 Rev 4.4
Antimony	0.500	0.475		95	85	115		200.7 Rev 4.4
Arsenic	1.00	0.938		94	85	115		200.7 Rev 4.4
Barium	1.00	0.984		98	85	115		200.7 Rev 4.4
Beryllium	0.500	0.504		101	85	115		200.7 Rev 4.4
Cadmium	0.500	0.491		98	85	115		200.7 Rev 4.4
Calcium	25.0	24.59		98	85	115		200.7 Rev 4.4
Chromium	0.500	0.505		101	85	115		200.7 Rev 4.4
Cobalt	0.500	0.482		96	85	115		200.7 Rev 4.4
Copper	0.500	0.484		97	85	115		200.7 Rev 4.4
Iron	5.10	5.31		104	85	115		200.7 Rev 4.4
Lead	0.500	0.471		94	85	115		200.7 Rev 4.4
Magnesium	25.0	23.69		95	85	115		200.7 Rev 4.4
Manganese	0.500	0.484		97	85	115		200.7 Rev 4.4
Nickel	0.500	0.509		102	85	115		200.7 Rev 4.4
Potassium	25.0	24.36		97	85	115		200.7 Rev 4.4
Selenium	1.00	0.938		94	85	115		200.7 Rev 4.4
Silver	0.0500	0.0494		99	85	115		200.7 Rev 4.4
Sodium	25.0	24.45		98	85	115		200.7 Rev 4.4
Thallium	1.00	0.923		92	85	115		200.7 Rev 4.4
Vanadium	0.500	0.495		99	85	115		200.7 Rev 4.4
Zinc	0.500	0.551		110	85	115		200.7 Rev 4.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 480-721391/2-A

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

Sample Matrix: Water LCS Source: MEH_HG1_WKG_03422

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00669	0.00711		106	85	115		245.1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-222377-5

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-222377-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	0.17	J	ND		NC		200.7 Rev 4.4
Antimony	ND		ND		NC		200.7 Rev 4.4
Arsenic	ND		ND		NC		200.7 Rev 4.4
Barium	0.16		0.162		1.6		200.7 Rev 4.4
Beryllium	ND		ND		NC		200.7 Rev 4.4
Cadmium	ND		ND		NC		200.7 Rev 4.4
Calcium	75.1		76.45		1.7		200.7 Rev 4.4
Chromium	ND		ND		NC		200.7 Rev 4.4
Cobalt	ND		ND		NC		200.7 Rev 4.4
Copper	ND		ND		NC		200.7 Rev 4.4
Iron	0.21		0.215	J	NC		200.7 Rev 4.4
Lead	ND		ND		NC		200.7 Rev 4.4
Magnesium	107		103.5		2.8		200.7 Rev 4.4
Manganese	0.017		0.0182		NC		200.7 Rev 4.4
Nickel	ND		ND		NC		200.7 Rev 4.4
Potassium	4.6		4.60		NC		200.7 Rev 4.4
Selenium	ND		ND		NC		200.7 Rev 4.4
Silver	ND		ND		NC		200.7 Rev 4.4
Sodium	34.7		34.51		0.50		200.7 Rev 4.4
Thallium	ND		ND		NC		200.7 Rev 4.4
Vanadium	ND		ND		NC		200.7 Rev 4.4
Zinc	0.023		ND		NC		200.7 Rev 4.4

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 480-222377-5

SDG No:

Lab Name: Eurofins Buffalo Job No: 480-222377-1

Matrix: Water Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Mercury	ND		ND		NC		245.1

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Buffalo Job Number: 480-222377-1

SDG Number:

Matrix: Water Instrument ID: ICAP4

Method: 200.7 Rev 4.4 MDL Date: 05/31/2024 11:11

Prep Method: 200.7

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Aluminum	308.215	0.2	0.088
Antimony	206.833	0.02	0.00679
Arsenic	189.042	0.015	0.00555
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0004
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.126
Chromium	267.716	0.004	0.0024
Cobalt	228.616	0.004	0.0006
Copper	327.396	0.01	0.0045
Iron	259.940	0.05	0.026
Lead	220.353	0.01	0.0039
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.001
Nickel	231.604	0.01	0.0034
Potassium	766.490	0.5	0.202
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.38
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.200	0.01	0.0068

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Buffalo Job Number: 480-222377-1

SDG Number:

Matrix: Water Instrument ID: ICAP4

Method: 200.7 Rev 4.4 XMDL Date: 05/31/2024 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum	308.215	0.2	0.088
Antimony	206.833	0.02	0.00679
Arsenic	189.042	0.015	0.00555
Barium	455.403	0.002	0.0007
Beryllium	313.042	0.002	0.0004
Cadmium	228.802	0.002	0.0005
Calcium	317.933	0.5	0.126
Chromium	267.716	0.004	0.0024
Cobalt	228.616	0.004	0.00063
Copper	327.396	0.01	0.0045
Iron	259.940	0.05	0.026
Lead	220.353	0.01	0.0039
Magnesium	279.079	0.2	0.0434
Manganese	257.610	0.003	0.001
Nickel	231.064	0.01	0.0034
Potassium	766.490	0.5	0.202
Selenium	196.090	0.025	0.0087
Silver	328.068	0.006	0.0017
Sodium	589.592	1	0.38
Thallium	190.856	0.02	0.01024
Vanadium	292.402	0.005	0.0015
Zinc	206.200	0.01	0.0068

9-IN
DETECTION LIMITS
METALS

Lab Name: Eurofins Buffalo Job Number: 480-222377-1

SDG Number:

Matrix: Water Instrument ID: LEEMAN5

Method: 245.1 MDL Date: 03/26/2024 14:50

Prep Method: 245.1

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Mercury	253.7	0.0002	0.000042

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: Eurofins Buffalo Job Number: 480-222377-1

SDG Number:

Matrix: Water Instrument ID: LEEMAN5

Method: 245.1 XMDL Date: 03/26/2024 14:50

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Mercury	253.7	0.0002	0.000042

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Buffalo Job No: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Date: 04/22/2024 00:00

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum	15	600	200.7 Rev 4.4
Antimony	15	5	200.7 Rev 4.4
Arsenic	15	5	200.7 Rev 4.4
Barium	15	20	200.7 Rev 4.4
Beryllium	15	25	200.7 Rev 4.4
Cadmium	15	5	200.7 Rev 4.4
Calcium	15	700	200.7 Rev 4.4
Chromium	15	10	200.7 Rev 4.4
Cobalt	15	20	200.7 Rev 4.4
Copper	15	8	200.7 Rev 4.4
Iron	15	600	200.7 Rev 4.4
Lead	15	40	200.7 Rev 4.4
Magnesium	15	500	200.7 Rev 4.4
Manganese	15	40	200.7 Rev 4.4
Nickel	15	10	200.7 Rev 4.4
Potassium	15	500	200.7 Rev 4.4
Selenium	15	40	200.7 Rev 4.4
Silver	15	3	200.7 Rev 4.4
Sodium	15	800	200.7 Rev 4.4
Thallium	15	20	200.7 Rev 4.4
Vanadium	15	5	200.7 Rev 4.4
Zinc	15	20	200.7 Rev 4.4

11-IN
LINEAR RANGES
METALS

Lab Name: Eurofins Buffalo Job No: 480-222377-1

SDG No.:

Instrument ID: LEEMAN5 Date: 03/21/2024 14:38

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	30	245.1

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Prep Method: 200.7

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-721282/1-A	08/12/2024 09:09	721282		50	50
LCS 480-721282/2-A	08/12/2024 09:09	721282		50	50
480-222377-1	08/12/2024 09:09	721282		50	50
480-222377-2	08/12/2024 09:09	721282		50	50
480-222377-3	08/12/2024 09:09	721282		50	50
480-222377-4	08/12/2024 09:09	721282		50	50
480-222377-5	08/12/2024 09:09	721282		50	50
480-222377-5 MS	08/12/2024 09:09	721282		50	50
480-222377-5 MSD	08/12/2024 09:09	721282		50	50
480-222377-6	08/12/2024 09:09	721282		50	50
480-222377-7	08/12/2024 09:09	721282		50	50
480-222377-9	08/12/2024 09:09	721282		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Prep Method: 245.1

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 480-721391/1-A	08/12/2024 11:18	721391		30	50
LCS 480-721391/2-A	08/12/2024 11:18	721391		30	50
480-222377-1	08/12/2024 11:18	721391		15	50
480-222377-2	08/12/2024 11:18	721391		10	50
480-222377-3	08/12/2024 11:18	721391		15	50
480-222377-4	08/12/2024 11:18	721391		30	50
480-222377-5	08/12/2024 11:18	721391		30	50
480-222377-5 MS	08/12/2024 11:18	721391		30	50
480-222377-5 MSD	08/12/2024 11:18	721391		30	50
480-222377-6	08/12/2024 11:18	721391		10	50
480-222377-7	08/12/2024 11:18	721391		30	50
480-222377-9	08/12/2024 11:18	721391		10	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/12/2024 10:39 End Date: 08/12/2024 11:14

Lab Sample ID	D / F	Type	Time	Analytes																			
RINSE 480-721448/1			10:39																				
ICIS 480-721448/2	1		10:41																				
IC 480-721448/3			10:43																				
IC 480-721448/4			10:45																				
IC 480-721448/5			10:47																				
ICV 480-721448/6	1		10:49																				
ICB 480-721448/7	1		10:51																				
ICVL 480-721448/8	1		10:53																				
ICSA 480-721448/9	1		10:55																				
ICSAB 480-721448/10	1		10:57																				
ZZZZZZ			10:59																				
ZZZZZZ			11:01																				
ZZZZZZ			11:03																				
ZZZZZZ			11:05																				
ZZZZZZ			11:07																				
CCV 480-721448/16	1		11:08																				
CCB 480-721448/17	1		11:10																				
CCVL 480-721448/18			11:12																				
LRC 480-721448/19			11:14																				

Prep Types

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/12/2024 10:41 End Date: 08/12/2024 17:35

Lab Sample ID	D/F	Type	Time	Analytes																		
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
ICIS 480-721539/1	1		10:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IC 480-721539/2			10:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IC 480-721539/3			10:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IC 480-721539/4			10:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 480-721539/5	1		15:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICB 480-721539/6	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 480-721539/7			15:37																				
MB 480-721282/1-A	1	T	15:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 480-721282/2-A	1	T	15:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-1	1	T	15:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-2	1	T	15:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-3	1	T	15:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 480-721539/13	1		15:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 480-721539/14	1		15:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 480-721539/15			15:52																				
480-222377-4	1	T	15:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-5	1	T	15:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-5 SD	5	T	15:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-5 PDS	1	T	16:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-5 MS	1	T	16:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-5 MSD	1	T	16:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-6	1	T	16:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-7	1	T	16:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
480-222377-9	1	T	16:09	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 480-721539/25	1		16:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 480-721539/26	1		16:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 480-721539/27			16:15																				
ZZZZZZ (QC)			16:17																				
ZZZZZZ (QC)			16:19																				
ZZZZZZ (Client)			16:21																				
ZZZZZZ (Client)			16:23																				
ZZZZZZ (Client)			16:25																				
ZZZZZZ (Client)			16:27																				
ZZZZZZ (Client)			16:28																				
ZZZZZZ (Client)			16:30																				
ZZZZZZ (Client)			16:32																				
CCV 480-721539/37			16:34																				
CCB 480-721539/38			16:36																				
CCVL 480-721539/39			16:38																				
ZZZZZZ (Client)			16:40																				
ZZZZZZ (Client)			16:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/12/2024 10:41 End Date: 08/12/2024 17:35

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
ZZZZZZ (Client)			16:44																				
ZZZZZZ (Client)			16:45																				
ZZZZZZ (Client)			16:47																				
ZZZZZZ (Client)			16:49																				
ZZZZZZ (QC)			16:51																				
ZZZZZZ (QC)			16:53																				
ZZZZZZ (QC)			16:55																				
CCV 480-721539/49			16:57																				
CCB 480-721539/50			16:59																				
CCVL 480-721539/51			17:01																				
ZZZZZZ (QC)			17:03																				
ZZZZZZ (Client)			17:04																				
ZZZZZZ (QC)			17:06																				
ZZZZZZ (QC)			17:08																				
ZZZZZZ (Client)			17:10																				
ZZZZZZ (Client)			17:12																				
ZZZZZZ (Client)			17:14																				
ZZZZZZ (Client)			17:16																				
RINSE 480-721539/60			17:18																				
CCV 480-721539/61			17:20																				
CCB 480-721539/62			17:21																				
CCVL 480-721539/63			17:23																				
ZZZZZZ (Client)			17:25																				
ZZZZZZ (Client)			17:27																				
RINSE 480-721539/66			17:29																				
CCV 480-721539/67			17:31																				
CCB 480-721539/68			17:33																				
CCVL 480-721539/69			17:35																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/12/2024 10:41 End Date: 08/12/2024 17:35

Lab Sample ID	D / F	Type	Time	Analytes																			
				V	Zn																		
ICIS 480-721539/1	1		10:41	X	X																		
IC 480-721539/2			10:43	X	X																		
IC 480-721539/3			10:45	X	X																		
IC 480-721539/4			10:47	X	X																		
ICV 480-721539/5	1		15:33	X																			
ICB 480-721539/6	1		15:35	X																			
CCVL 480-721539/7			15:37																				
MB 480-721282/1-A	1	T	15:39	X	X																		
LCS 480-721282/2-A	1	T	15:41	X	X																		
480-222377-1	1	T	15:43	X	X																		
480-222377-2	1	T	15:45	X	X																		
480-222377-3	1	T	15:47	X	X																		
CCV 480-721539/13	1		15:49	X	X																		
CCB 480-721539/14	1		15:51	X	X																		
CCVL 480-721539/15			15:52																				
480-222377-4	1	T	15:54	X	X																		
480-222377-5	1	T	15:56	X	X																		
480-222377-5 SD	5	T	15:58	X	X																		
480-222377-5 PDS	1	T	16:00	X	X																		
480-222377-5 MS	1	T	16:02	X	X																		
480-222377-5 MSD	1	T	16:04	X	X																		
480-222377-6	1	T	16:06	X	X																		
480-222377-7	1	T	16:08	X	X																		
480-222377-9	1	T	16:09	X	X																		
CCV 480-721539/25	1		16:11	X	X																		
CCB 480-721539/26	1		16:13	X	X																		
CCVL 480-721539/27			16:15																				
ZZZZZZ (QC)			16:17																				
ZZZZZZ (QC)			16:19																				
ZZZZZZ (Client)			16:21																				
ZZZZZZ (Client)			16:23																				
ZZZZZZ (Client)			16:25																				
ZZZZZZ (Client)			16:27																				
ZZZZZZ (Client)			16:28																				
ZZZZZZ (Client)			16:30																				
ZZZZZZ (Client)			16:32																				
CCV 480-721539/37			16:34																				
CCB 480-721539/38			16:36																				
CCVL 480-721539/39			16:38																				
ZZZZZZ (Client)			16:40																				
ZZZZZZ (Client)			16:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/12/2024 10:41 End Date: 08/12/2024 17:35

Lab Sample ID	D / F	Type	Time	Analytes																			
				V	Zn																		
ZZZZZZ (Client)			16:44																				
ZZZZZZ (Client)			16:45																				
ZZZZZZ (Client)			16:47																				
ZZZZZZ (Client)			16:49																				
ZZZZZZ (QC)			16:51																				
ZZZZZZ (QC)			16:53																				
ZZZZZZ (QC)			16:55																				
CCV 480-721539/49			16:57																				
CCB 480-721539/50			16:59																				
CCVL 480-721539/51			17:01																				
ZZZZZZ (QC)			17:03																				
ZZZZZZ (Client)			17:04																				
ZZZZZZ (QC)			17:06																				
ZZZZZZ (QC)			17:08																				
ZZZZZZ (Client)			17:10																				
ZZZZZZ (Client)			17:12																				
ZZZZZZ (Client)			17:14																				
ZZZZZZ (Client)			17:16																				
RINSE 480-721539/60			17:18																				
CCV 480-721539/61			17:20																				
CCB 480-721539/62			17:21																				
CCVL 480-721539/63			17:23																				
ZZZZZZ (Client)			17:25																				
ZZZZZZ (Client)			17:27																				
RINSE 480-721539/66			17:29																				
CCV 480-721539/67			17:31																				
CCB 480-721539/68			17:33																				
CCVL 480-721539/69			17:35																				

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/13/2024 11:07 End Date: 08/13/2024 11:55

Lab Sample ID	D / F	Type	Time	Analytes																			
RINSE 480-721648/1			11:07																				
ICIS 480-721648/2	1		11:09																				
IC 480-721648/3			11:10																				
IC 480-721648/4			11:12																				
IC 480-721648/5			11:14																				
ICV 480-721648/6	1		11:16																				
ICB 480-721648/7	1		11:20																				
ICVL 480-721648/8	1		11:22																				
ICSA 480-721648/9	1		11:25																				
ICSAB 480-721648/10	1		11:27																				
ZZZZZZ			11:29																				
ZZZZZZ			11:31																				
ZZZZZZ			11:33																				
ZZZZZZ			11:35																				
ZZZZZZ			11:36																				
CCV 480-721648/16	1		11:38																				
CCB 480-721648/17	1		11:40																				
CCVL 480-721648/18			11:42																				
CCVL 480-721648/19			11:53																				
LRC 480-721648/20			11:55																				

Prep Types

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: ICAP4 Method: 200.7 Rev 4.4

Start Date: 08/13/2024 11:09 End Date: 08/13/2024 12:41

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca																			
ICIS 480-721614/1	1		11:09	X																			
IC 480-721614/2			11:10	X																			
IC 480-721614/3			11:12	X																			
IC 480-721614/4			11:14	X																			
ZZZZZZ (QC)			12:21																				
ZZZZZZ (Client)			12:23																				
ZZZZZZ (Client)			12:24																				
ZZZZZZ (Client)			12:26																				
ZZZZZZ (Client)			12:28																				
ZZZZZZ (Client)			12:30																				
ZZZZZZ (Client)			12:32																				
480-222377-9	10	T	12:34	X																			
RINSE 480-721614/13			12:36																				
ICV 480-721614/14	1		12:38	X																			
ICB 480-721614/15	1		12:40	X																			
CCVL 480-721614/16			12:41																				

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: LEEMAN5 Method: 245.1

Start Date: 08/12/2024 14:14 End Date: 08/12/2024 17:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 480-721500/1-A			14:14	X																			
IC 480-721500/2-A			14:15	X																			
IC 480-721500/3-A			14:16	X																			
IC 480-721500/4-A			14:18	X																			
IC 480-721500/5-A			14:19	X																			
IC 480-721500/6-A			14:20	X																			
ICV 480-721512/7	1		14:21	X																			
ICB 480-721512/8	1		14:23	X																			
ICVL 480-721512/9	1		14:24	X																			
CCV 480-721512/10	1		14:25	X																			
CCB 480-721512/11	1		14:27	X																			
MB 480-721391/1-A	1	T	14:33	X																			
LCS 480-721391/2-A	1	T	14:34	X																			
ZZZZZZ (Client)			14:36																				
ZZZZZZ (Client)			14:37																				
ZZZZZZ (Client)			14:38																				
ZZZZZZ (Client)			14:40																				
ZZZZZZ (Client)			14:41																				
ZZZZZZ (Client)			14:42																				
ZZZZZZ (Client)			14:44																				
ZZZZZZ (Client)			14:45																				
CCV 480-721512/22	1		14:46	X																			
CCB 480-721512/23	1		14:47	X																			
ZZZZZZ (Client)			14:49																				
480-222377-1	1	T	14:50	X																			
480-222377-2	1	T	14:51	X																			
480-222377-3	1	T	14:53	X																			
480-222377-4	1	T	14:54	X																			
480-222377-5	1	T	14:55	X																			
480-222377-5 SD	5	T	14:57	X																			
480-222377-5 MS	1	T	14:58	X																			
480-222377-5 MSD	1	T	14:59	X																			
480-222377-6	1	T	15:00	X																			
CCV 480-721512/34	1		15:02	X																			
CCB 480-721512/35	1		15:03	X																			
480-222377-7	1	T	15:04	X																			
480-222377-9	1	T	15:06	X																			
ZZZZZZ (Client)			15:07																				
ZZZZZZ (Client)			15:08																				
ZZZZZZ (Client)			15:10																				
ZZZZZZ (QC)			15:11																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: LEEMAN5 Method: 245.1

Start Date: 08/12/2024 14:14 End Date: 08/12/2024 17:05

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ (QC)			15:12																				
ZZZZZZ (Client)			15:14																				
ZZZZZZ (Client)			15:15																				
ZZZZZZ (Client)			15:16																				
CCV 480-721512/46	1		15:17	X																			
CCB 480-721512/47	1		15:19	X																			
CCVL 480-721512/48	1		15:20	X																			
ZZZZZZ (Client)			15:21																				
ZZZZZZ (Client)			15:23																				
ZZZZZZ (Client)			15:24																				
ZZZZZZ (Client)			15:25																				
ZZZZZZ (Client)			15:27																				
ZZZZZZ (Client)			15:28																				
ZZZZZZ (Client)			15:29																				
ZZZZZZ (Client)			15:31																				
ZZZZZZ (Client)			15:32																				
ZZZZZZ (QC)			15:33																				
CCV 480-721512/59			15:34																				
CCB 480-721512/60			15:36																				
ZZZZZZ (QC)			15:37																				
ZZZZZZ (QC)			15:38																				
ZZZZZZ (Client)			15:40																				
ZZZZZZ (Client)			15:41																				
ZZZZZZ (Client)			15:42																				
ZZZZZZ (Client)			15:44																				
ZZZZZZ (Client)			15:45																				
ZZZZZZ (Client)			15:46																				
ZZZZZZ (Client)			15:48																				
ZZZZZZ (Client)			15:49																				
CCV 480-721512/71			15:50																				
CCB 480-721512/72			15:51																				
CCVL 480-721512/73			15:53																				
ZZZZZZ (QC)			15:54																				
ZZZZZZ (QC)			15:55																				
ZZZZZZ (Client)			15:57																				
ZZZZZZ (Client)			15:58																				
ZZZZZZ (Client)			15:59																				
ZZZZZZ (Client)			16:01																				
ZZZZZZ (Client)			16:02																				
ZZZZZZ (Client)			16:03																				
ZZZZZZ (Client)			16:04																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: LEEMAN5 Method: 245.1

Start Date: 08/12/2024 14:14 End Date: 08/12/2024 17:05

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ (Client)			16:06																				
CCV 480-721512/84			16:07																				
CCB 480-721512/85			16:08																				
ZZZZZZ (Client)			16:10																				
ZZZZZZ (Client)			16:11																				
ZZZZZZ (Client)			16:12																				
ZZZZZZ (Client)			16:14																				
ZZZZZZ (Client)			16:15																				
ZZZZZZ (Client)			16:16																				
ZZZZZZ (Client)			16:18																				
ZZZZZZ (Client)			16:19																				
ZZZZZZ (QC)			16:20																				
ZZZZZZ (QC)			16:21																				
CCV 480-721512/96			16:23																				
CCB 480-721512/97			16:24																				
ZZZZZZ (QC)			16:25																				
ZZZZZZ (Client)			16:27																				
ZZZZZZ (Client)			16:28																				
ZZZZZZ (Client)			16:29																				
ZZZZZZ (Client)			16:31																				
ZZZZZZ (QC)			16:32																				
ZZZZZZ (QC)			16:33																				
ZZZZZZ (Client)			16:35																				
ZZZZZZ (Client)			16:36																				
ZZZZZZ (Client)			16:37																				
CCV 480-721512/108			16:39																				
CCB 480-721512/109			16:40																				
ZZZZZZ (Client)			16:41																				
ZZZZZZ (QC)			16:42																				
ZZZZZZ (QC)			16:44																				
ZZZZZZ (QC)			16:45																				
ZZZZZZ (Client)			16:46																				
ZZZZZZ (Client)			16:48																				
ZZZZZZ (Client)			16:49																				
ZZZZZZ (Client)			16:50																				
ZZZZZZ (Client)			16:52																				
ZZZZZZ (Client)			16:53																				
CCV 480-721512/120			16:54																				
CCB 480-721512/121			16:56																				
ZZZZZZ (Client)			16:57																				
ZZZZZZ (Client)			16:58																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Instrument ID: LEEMAN5 Method: 245.1

Start Date: 08/12/2024 14:14 End Date: 08/12/2024 17:05

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ (Client)			17:00																				
ZZZZZZ (Client)			17:01																				
CCV 480-721512/126			17:02																				
CCB 480-721512/127			17:03																				
CCVL 480-721512/128			17:05																				

Prep Types

T = Total/NA

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.: Analysis Batch No.: 721448

ICP Instrument ID: ICAP4 Start Date: 08/12/2024 End Date: 08/12/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-721448/2	10:41										
ICV 480-721448/6	10:49	97		99		100		100			
ICB 480-721448/7	10:51	99		99		100		99			
ICVL 480-721448/8	10:53	101		102		103		103			
ICSA 480-721448/9	10:55	84		94		98		98			
ICSAB 480-721448/10	10:57	84		95		99		99			
CCV 480-721448/16	11:08	95		100		102		101			
CCB 480-721448/17	11:10	99		100		100		99			
CCVL 480-721448/18	11:12	100		100		100		100			
IS Name on Instrument											

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.: Analysis Batch No.: 721539

ICP Instrument ID: ICAP4 Start Date: 08/12/2024 End Date: 08/12/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-721539/1	10:41										
ICV 480-721539/5	15:33	96		99		99		99			
ICB 480-721539/6	15:35	99		102		100		100			
CCVL 480-721539/7	15:37	101		102		101		102			
MB 480-721282/1-A	15:39	100		102		101		101			
LCS 480-721282/2-A	15:41	98		100		100		100			
480-222377-1	15:43	87		95		97		97			
480-222377-2	15:45	93		99		101		101			
480-222377-3	15:47	94		98		100		100			
CCV 480-721539/13	15:49	96		99		99		99			
CCB 480-721539/14	15:51	100		101		100		99			
CCVL 480-721539/15	15:52	101		101		100		100			
480-222377-4	15:54	96		98		99		99			
480-222377-5	15:56	96		97		98		99			
480-222377-5 SD	15:58	98		98		98		98			
480-222377-5 PDS	16:00	94		97		98		98			
480-222377-5 MS	16:02	94		96		98		98			
480-222377-5 MSD	16:04	94		97		98		98			
480-222377-6	16:06	84		111		116		115			
480-222377-7	16:08	95		97		98		98			
480-222377-9	16:09	71		146							
CCV 480-721539/25	16:11	95		99		99		99			
CCB 480-721539/26	16:13	99		100		99		100			
CCVL 480-721539/27	16:15	100		101		101		101			
IS Name on Instrument											

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.: Analysis Batch No.: 721614

ICP Instrument ID: ICAP4 Start Date: 08/13/2024 End Date: 08/13/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-721614/1	11:09										
480-222377-9	12:34	93		107		111		110			
ICV 480-721614/14	12:38	96		99		100		100			
ICB 480-721614/15	12:40	99		99		99		99			
CCVL 480-721614/16	12:41	101		101		101		101			
IS Name on Instrument											

15-IN
ICP INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.: Analysis Batch No.: 721648

ICP Instrument ID: ICAP4 Start Date: 08/13/2024 End Date: 08/13/2024

Lab Sample ID	Time	Internal Standards %RI For:									
		Element In 230.606	Q	Element Y 224.306	Q	Element Y 360.073	Q	Element Y 377.433	Q	Element	Q
ICIS 480-721648/2	11:09										
ICV 480-721648/6	11:16	97		99		100		100			
ICB 480-721648/7	11:20	99		100		99		100			
ICVL 480-721648/8	11:22	102		101		101		102			
ICSA 480-721648/9	11:25	85		93		97		97			
ICSAB 480-721648/10	11:27	87		95		99		99			
CCV 480-721648/16	11:38	96		101		103		103			
CCB 480-721648/17	11:40	100		100		99		100			
CCVL 480-721648/19	11:53	102		101		101		102			
IS Name on Instrument											

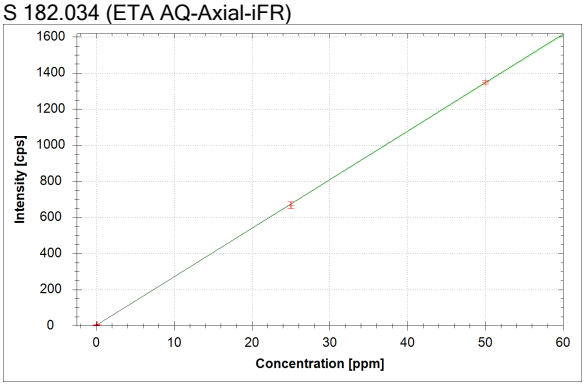
Calibration Summary

8/12/2024 11:44:51 AM

LabBook: I420240812C.imexp

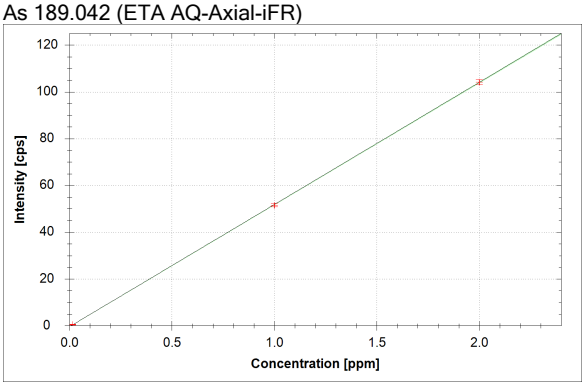
Calibration Graphs

S 182.034 (ETA AQ-Axial-iFR)



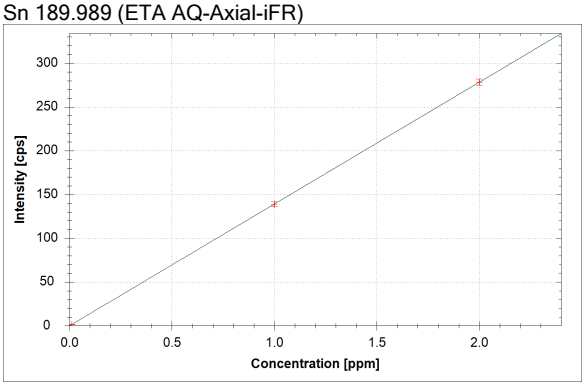
f(x) = 26.8630*x + 2.6137
R² = 0.9999
BEC = 0.097 ppm
LoD = 0.0073 ppm

As 189.042 (ETA AQ-Axial-iFR)



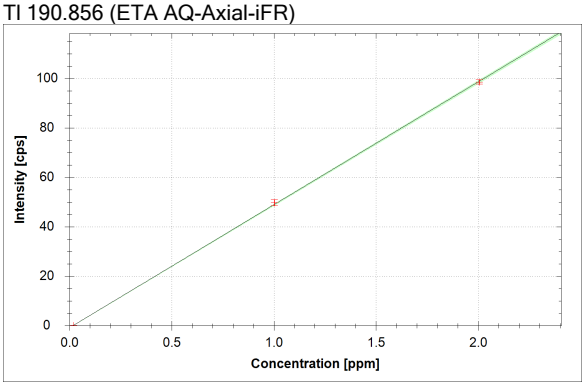
f(x) = 52.2148*x + -0.4102
R² = 1.0000
BEC = -0.008 ppm
LoD = 0.0016 ppm

Sn 189.989 (ETA AQ-Axial-iFR)



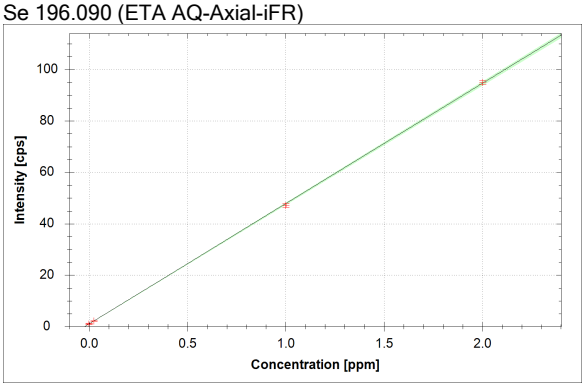
f(x) = 139.1552*x + -0.1267
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0041 ppm

Tl 190.856 (ETA AQ-Axial-iFR)



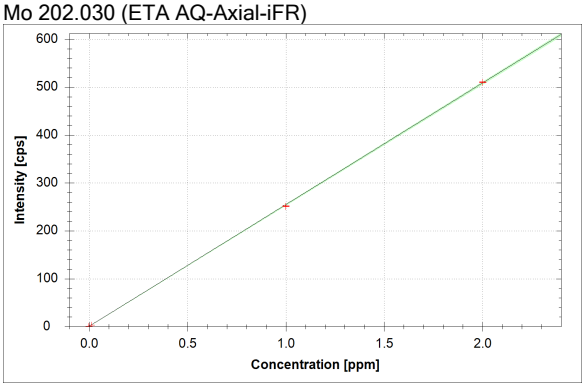
f(x) = 49.7433*x + -0.8179
R² = 0.9999
BEC = -0.016 ppm
LoD = 0.0137 ppm

Se 196.090 (ETA AQ-Axial-iFR)



f(x) = 46.7762*x + 1.0566
R² = 0.9999
BEC = 0.023 ppm
LoD = 0.0142 ppm

Mo 202.030 (ETA AQ-Axial-iFR)



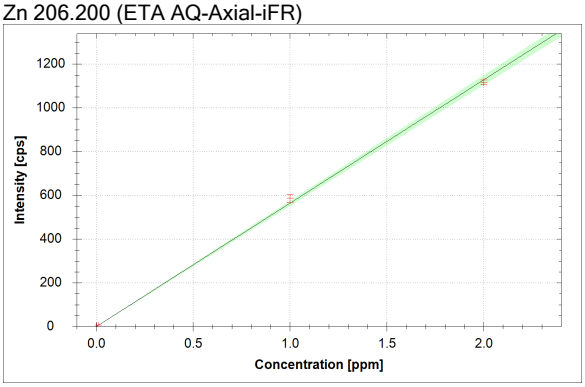
f(x) = 254.0375*x + 0.5758
R² = 0.9999
BEC = 0.002 ppm
LoD = 0.0037 ppm

Calibration Summary

8/12/2024 11:44:51 AM

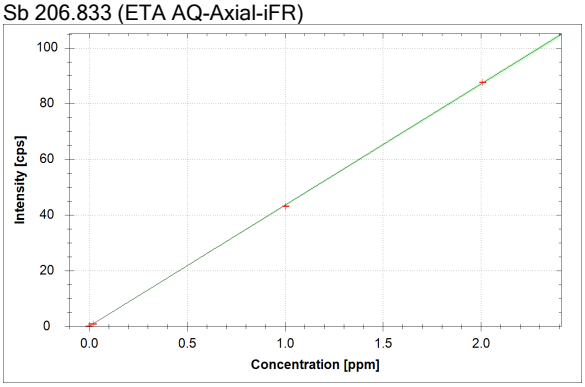
QTEGRA

Zn 206.200 (ETA AQ-Axial-iFR)



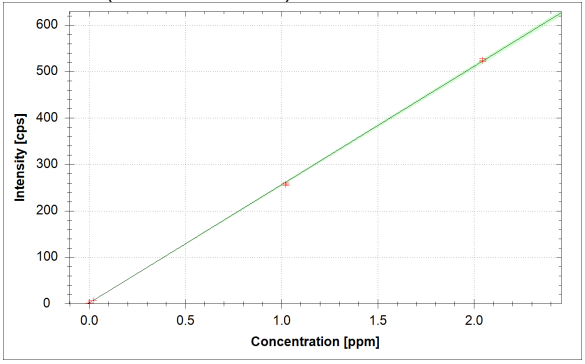
f(x) = 563.9947*x + 0.0407
R² = 0.9993
BEC = 0.000 ppm
LoD = 0.0010 ppm

Sb 206.833 (ETA AQ-Axial-iFR)



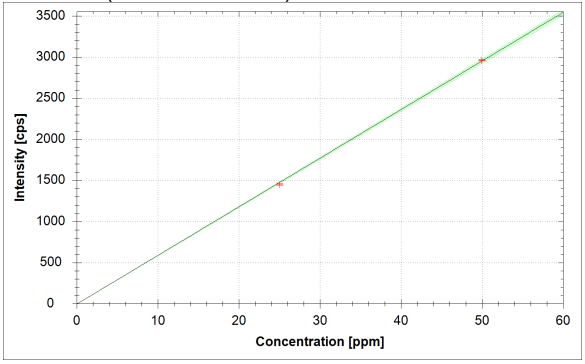
f(x) = 43.4756*x + 0.0851
R² = 0.9999
BEC = 0.002 ppm
LoD = 0.0133 ppm

B 208.959 (ETA AQ-Axial-iFR)



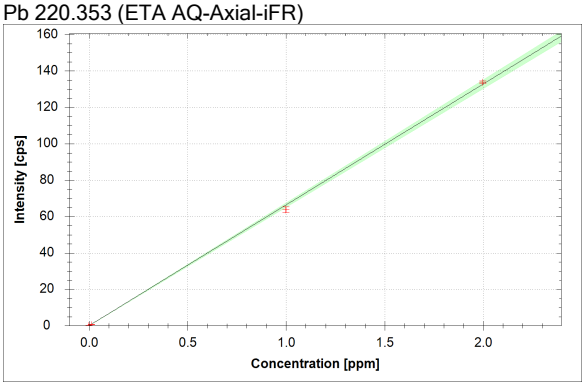
f(x) = 254.6610*x + 1.5637
R² = 0.9998
BEC = 0.006 ppm
LoD = 0.0015 ppm

P 213.618 (ETA AQ-Axial-iFR)



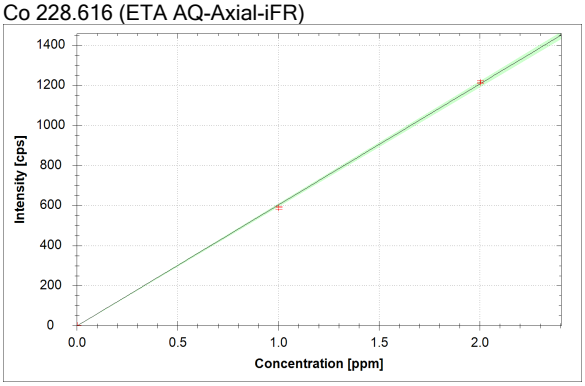
f(x) = 59.0916*x + -2.9126
R² = 0.9998
BEC = -0.049 ppm
LoD = 0.0080 ppm

Pb 220.353 (ETA AQ-Axial-iFR)



f(x) = 66.3733*x + 0.0650
R² = 0.9993
BEC = 0.001 ppm
LoD = 0.0039 ppm

Co 228.616 (ETA AQ-Axial-iFR)



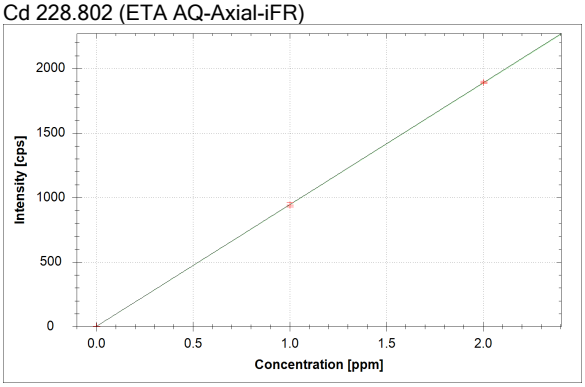
f(x) = 603.6863*x + -1.0810
R² = 0.9997
BEC = -0.002 ppm
LoD = 0.0010 ppm

Calibration Summary

8/12/2024 11:44:51 AM

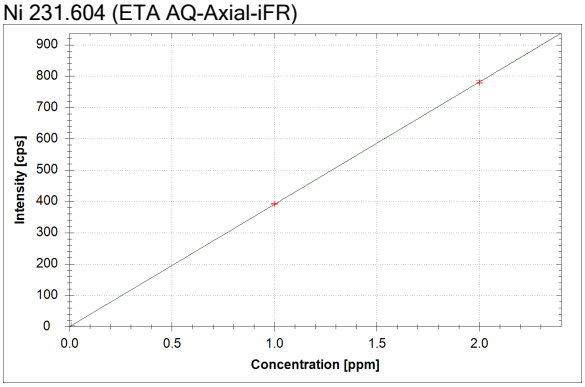
QTEGRA

Cd 228.802 (ETA AQ-Axial-iFR)



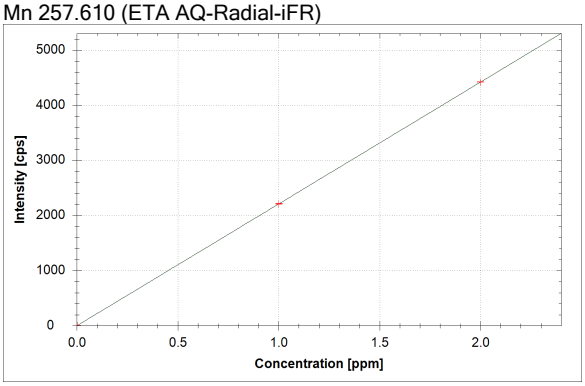
f(x) = 943.8029*x + 1.1167
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0004 ppm

Ni 231.604 (ETA AQ-Axial-iFR)



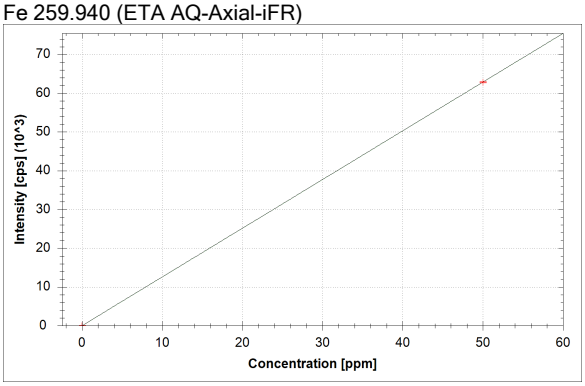
f(x) = 390.6974*x + -0.4013
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0013 ppm

Mn 257.610 (ETA AQ-Radial-iFR)



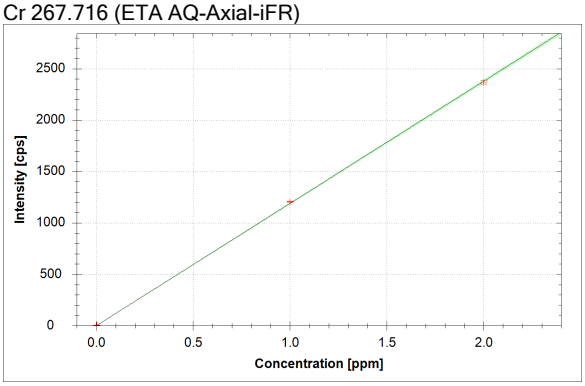
f(x) = 2210.0423*x + -0.1909
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Fe 259.940 (ETA AQ-Axial-iFR)



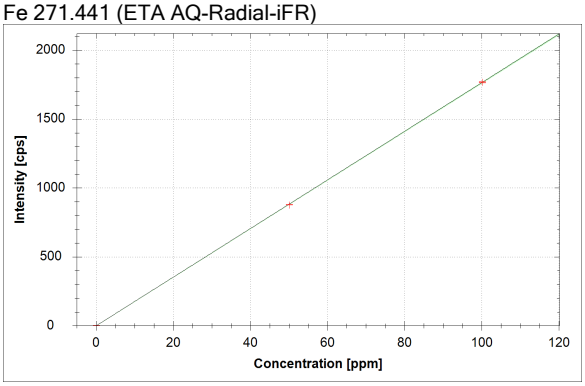
f(x) = 1257.0838*x + 9.3364
R² = 1.0000
BEC = 0.007 ppm
LoD = 0.0006 ppm

Cr 267.716 (ETA AQ-Axial-iFR)



f(x) = 1188.7705*x + 0.6285
R² = 0.9999
BEC = 0.001 ppm
LoD = 0.0009 ppm

Fe 271.441 (ETA AQ-Radial-iFR)



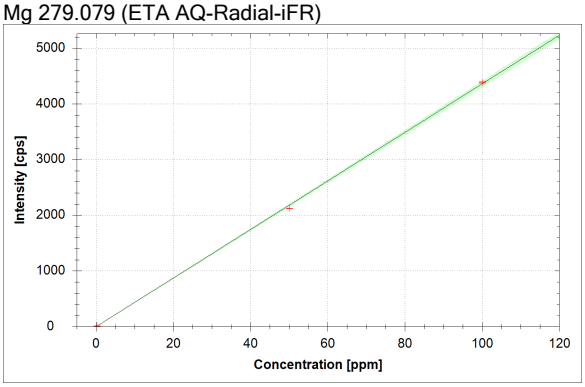
f(x) = 17.6309*x + 0.0099
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0791 ppm

Calibration Summary

8/12/2024 11:44:51 AM

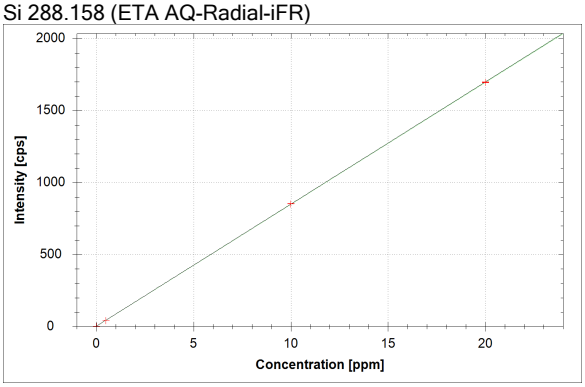
QTEGRA

Mg 279.079 (ETA AQ-Radial-iFR)



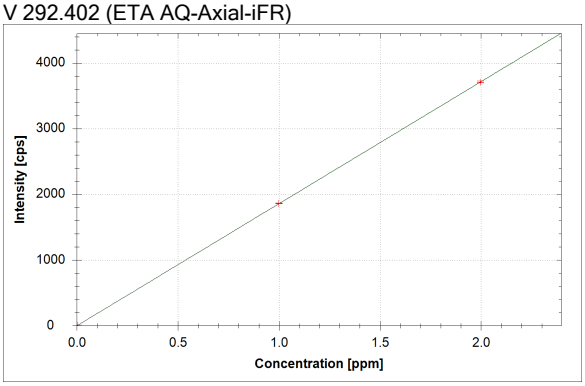
f(x) = 43.5924*x + 0.1724
R² = 0.9997
BEC = 0.004 ppm
LoD = 0.0585 ppm

Si 288.158 (ETA AQ-Radial-iFR)



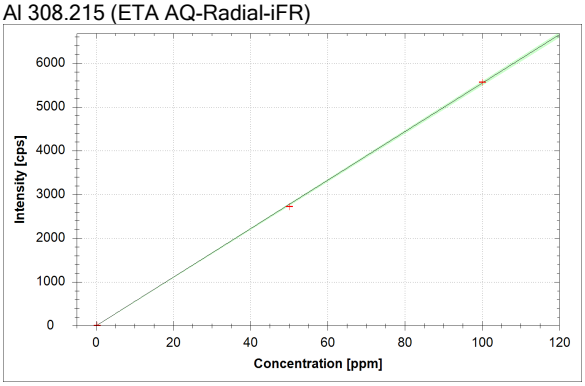
f(x) = 84.7596*x + 2.5749
R² = 1.0000
BEC = 0.030 ppm
LoD = 0.0123 ppm

V 292.402 (ETA AQ-Axial-iFR)



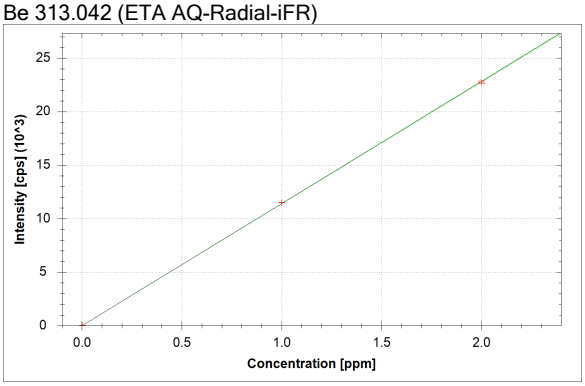
f(x) = 1857.9114*x + -0.1720
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0005 ppm

Al 308.215 (ETA AQ-Radial-iFR)



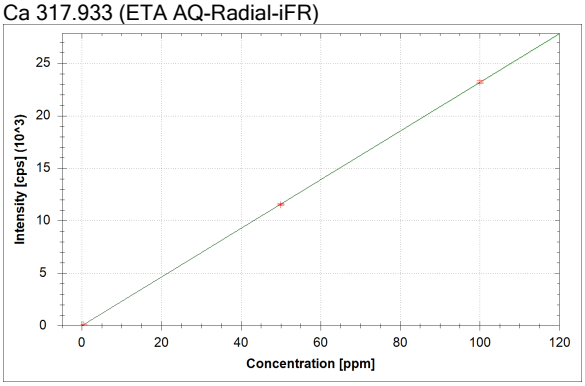
f(x) = 55.4131*x + 0.9069
R² = 0.9999
BEC = 0.016 ppm
LoD = 0.0227 ppm

Be 313.042 (ETA AQ-Radial-iFR)



f(x) = 11407.6081*x + 2.4740
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0001 ppm

Ca 317.933 (ETA AQ-Radial-iFR)



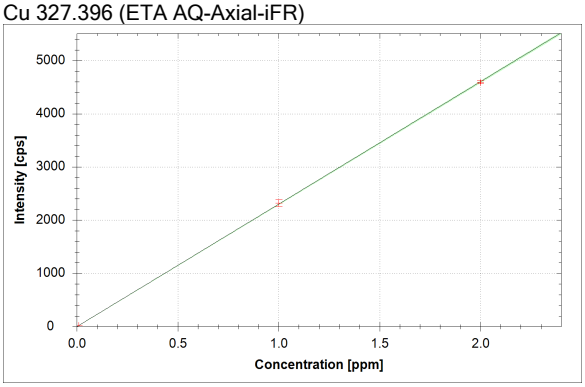
f(x) = 231.7088*x + 4.5381
R² = 1.0000
BEC = 0.020 ppm
LoD = 0.0021 ppm

Calibration Summary

8/12/2024 11:44:51 AM

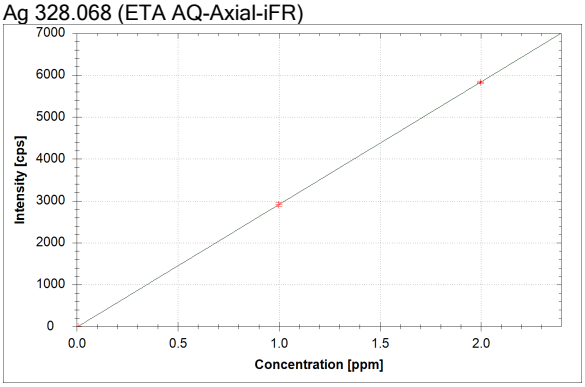
QTEGRA

Cu 327.396 (ETA AQ-Axial-iFR)



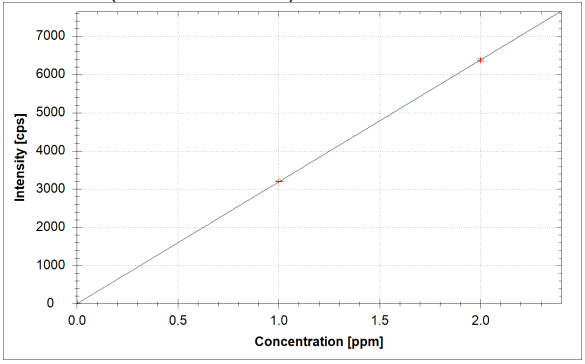
f(x) = 2300.7345*x + -0.0604
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0005 ppm

Ag 328.068 (ETA AQ-Axial-iFR)



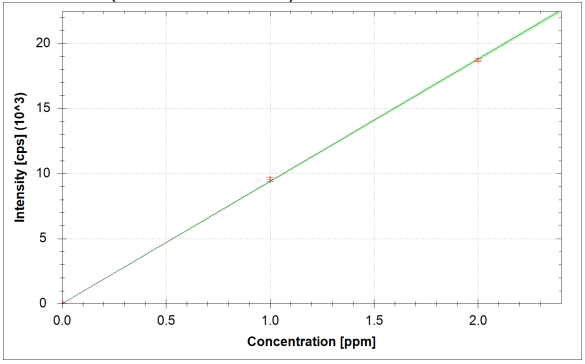
f(x) = 2926.5305*x + -13.9543
R² = 1.0000
BEC = -0.005 ppm
LoD = 0.0004 ppm

Ti 334.904 (ETA AQ-Axial-iFR)



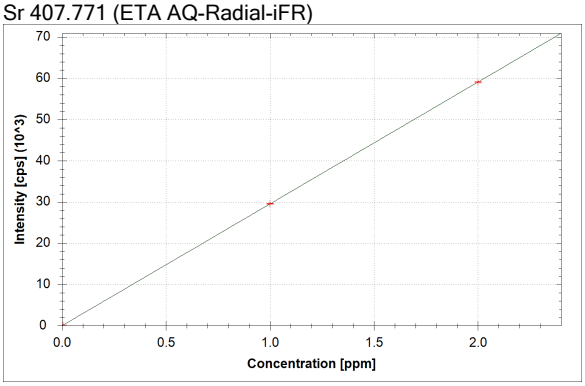
f(x) = 3192.1568*x + -1.4824
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0003 ppm

Ti 334.941 (ETA AQ-Axial-iFR)



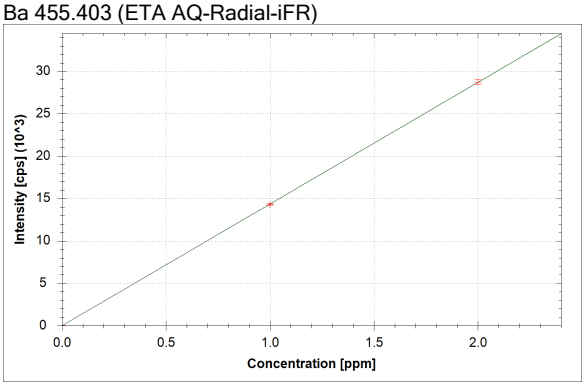
f(x) = 9401.5839*x + -2.5733
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0002 ppm

Sr 407.771 (ETA AQ-Radial-iFR)



f(x) = 29562.7651*x + -7.3628
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0000 ppm

Ba 455.403 (ETA AQ-Radial-iFR)



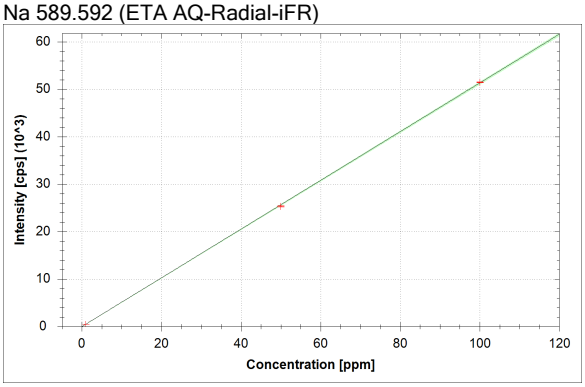
f(x) = 14355.1625*x + -1.1654
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Calibration Summary

8/12/2024 11:44:51 AM

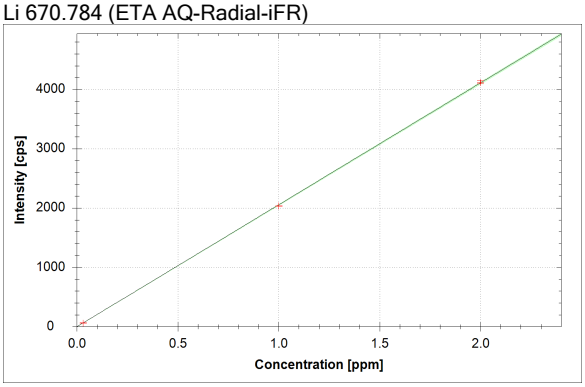
QTEGRA

Na 589.592 (ETA AQ-Radial-iFR)



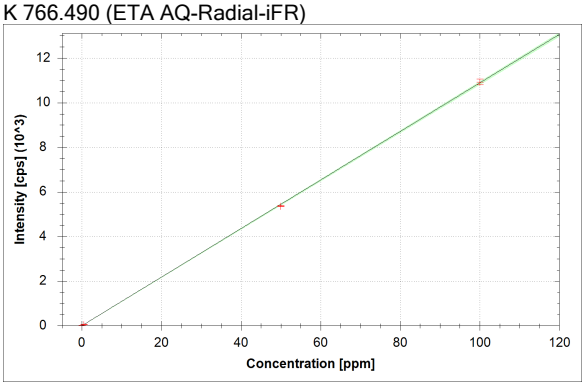
f(x) = 513.6715*x + 2.4424
R² = 0.9999
BEC = 0.005 ppm
LoD = 0.0172 ppm

Li 670.784 (ETA AQ-Radial-iFR)



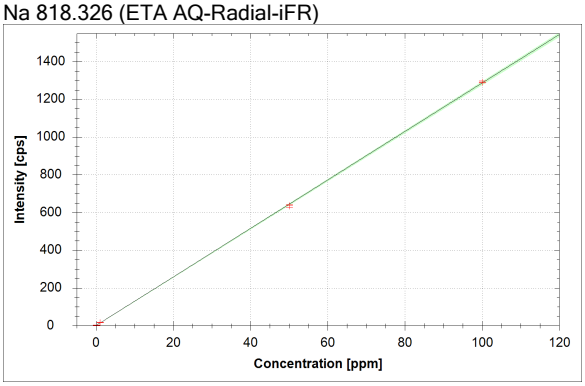
f(x) = 2055.5431*x + -1.4270
R² = 0.9999
BEC = -0.001 ppm
LoD = 0.0014 ppm

K 766.490 (ETA AQ-Radial-iFR)



f(x) = 108.8242*x + 3.5339
R² = 0.9999
BEC = 0.032 ppm
LoD = 0.0501 ppm

Na 818.326 (ETA AQ-Radial-iFR)



f(x) = 12.8481*x + 2.0106
R² = 0.9999
BEC = 0.156 ppm
LoD = 0.2202 ppm

Calibration Summary

8/12/2024 11:44:51 AM

QTEGRA

Standards

Standard: IC-7982556
Analysis started at: 8/12/2024 10:43:44 AM
Standard (Stock): IC-7982556
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	0.189 ppm	3.2 %	0.200 ppm	8 cps	5.567 %
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	12.0 %	0.015 ppm	0 cps	7.891 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	7.9 %	0.010 ppm	1 cps	10.570 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.018 ppm	11.8 %	0.020 ppm	0 cps	9.961 %
Se 196.090 (ETA AQ-Axial-iFR)	0.023 ppm	7.8 %	0.025 ppm	2 cps	6.120 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	10.7 %	0.010 ppm	3 cps	0.127 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	2.0 %	0.010 ppm	6 cps	10.357 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.019 ppm	24.9 %	0.020 ppm	1 cps	4.720 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	2.1 %	0.020 ppm	6 cps	5.850 %
P 213.618 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	-3 cps	N/A
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	26.7 %	0.010 ppm	1 cps	7.854 %
Y 224.306 (ETA AQ-Axial-iFR)	101.009 %	0.4 %		484 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	100.114 %	0.6 %		120 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	3.5 %	0.004 ppm	1 cps	7.549 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	10.6 %	0.002 ppm	3 cps	8.886 %
In 230.606 (ETA AQ-Axial-iFR)	101.017 %	0.2 %		524 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	0.011 ppm	1.6 %	0.010 ppm	4 cps	6.753 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	10.6 %	0.003 ppm	7 cps	8.507 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	1.0 %	0.050 ppm	74 cps	2.458 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	11.1 %	0.004 ppm	6 cps	1.260 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.038 ppm	75.6 %	0.050 ppm	1 cps	24.329 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.195 ppm	4.2 %	0.200 ppm	9 cps	2.402 %
Si 288.158 (ETA AQ-Radial-iFR)	0.472 ppm	0.3 %	0.500 ppm	43 cps	5.539 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	3.9 %	0.005 ppm	9 cps	4.384 %
Al 308.215 (ETA AQ-Radial-iFR)	0.186 ppm	4.8 %	0.200 ppm	11 cps	7.106 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	1.1 %	0.002 ppm	24 cps	4.257 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	0.6 %	0.500 ppm	116 cps	3.728 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	2.1 %	0.010 ppm	22 cps	5.305 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	4.7 %	0.006 ppm	3 cps	5.571 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	6.7 %	0.005 ppm	14 cps	3.927 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	0.6 %	0.005 ppm	43 cps	3.290 %
Y 360.073 (ETA AQ-Axial-iFR)	101.059 %	0.4 %		7,782 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	100.507 %	0.4 %		1,427 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.996 %	0.2 %		11,010 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	100.340 %	0.4 %		1,996 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	0.3 %	0.005 ppm	135 cps	4.258 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	0.1 %	0.002 ppm	27 cps	1.399 %
Na 589.592 (ETA AQ-Radial-iFR)	0.960 ppm	0.4 %	1.000 ppm	497 cps	4.007 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	2.5 %	0.030 ppm	60 cps	0.844 %
K 766.490 (ETA AQ-Radial-iFR)	0.476 ppm	2.3 %	0.500 ppm	55 cps	4.861 %
Na 818.326 (ETA AQ-Radial-iFR)	1.093 ppm	6.7 %	1.000 ppm	16 cps	9.309 %

Standard: IC-8019667
Analysis started at: 8/12/2024 10:47:31 AM
Standard (Stock): IC-8019667
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	50.134 ppm	0.8 %	50.000 ppm	1,329 cps	0.268 %
As 189.042 (ETA AQ-Axial-iFR)	2.003 ppm	0.9 %	2.000 ppm	103 cps	0.134 %
Sn 189.989 (ETA AQ-Axial-iFR)	2.001 ppm	1.3 %	2.000 ppm	254 cps	0.052 %
Tl 190.856 (ETA AQ-Axial-iFR)	1.993 ppm	0.9 %	2.000 ppm	90 cps	0.347 %
Se 196.090 (ETA AQ-Axial-iFR)	2.008 ppm	0.8 %	2.000 ppm	94 cps	0.418 %
Mo 202.030 (ETA AQ-Axial-iFR)	2.006 ppm	0.2 %	2.000 ppm	503 cps	0.309 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.980 ppm	0.9 %	2.000 ppm	1,134 cps	0.991 %
Sb 206.833 (ETA AQ-Axial-iFR)	2.007 ppm	0.2 %	2.000 ppm	86 cps	0.327 %
B 208.959 (ETA AQ-Axial-iFR)	2.009 ppm	0.6 %	2.000 ppm	517 cps	0.466 %
P 213.618 (ETA AQ-Axial-iFR)	50.197 ppm	0.4 %	50.000 ppm	2,919 cps	0.395 %
Pb 220.353 (ETA AQ-Axial-iFR)	2.019 ppm	0.5 %	2.000 ppm	122 cps	0.974 %
Y 224.306 (ETA AQ-Axial-iFR)	98.493 %	0.4 %		472 cps	0.000 %

Calibration Summary

8/12/2024 11:44:51 AM

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 224.306 (ETA AQ-Radial-iFR)	95.531 %	0.9 %		115 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	2.013 ppm	0.6 %	2.000 ppm	1,110 cps	0.626 %
Cd 228.802 (ETA AQ-Axial-iFR)	2.002 ppm	0.5 %	2.000 ppm	1,865 cps	0.110 %
In 230.606 (ETA AQ-Axial-iFR)	91.318 %	0.3 %		474 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.999 ppm	0.7 %	2.000 ppm	783 cps	0.072 %
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	0.1 %	2.000 ppm	4,235 cps	0.008 %
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	119,310 cps	N/A
Cr 267.716 (ETA AQ-Axial-iFR)	1.993 ppm	0.8 %	2.000 ppm	2,406 cps	0.370 %
Fe 271.441 (ETA AQ-Radial-iFR)	100.145 ppm	0.3 %	100.000 ppm	1,694 cps	0.145 %
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	0.4 %	100.000 ppm	4,204 cps	0.650 %
Si 288.158 (ETA AQ-Radial-iFR)	19.985 ppm	0.1 %	20.000 ppm	1,625 cps	0.077 %
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	0.4 %	2.000 ppm	3,765 cps	0.065 %
Al 308.215 (ETA AQ-Radial-iFR)	100.442 ppm	0.3 %	100.000 ppm	5,333 cps	0.442 %
Be 313.042 (ETA AQ-Radial-iFR)	1.996 ppm	0.5 %	2.000 ppm	21,812 cps	0.221 %
Ca 317.933 (ETA AQ-Radial-iFR)	100.139 ppm	0.6 %	100.000 ppm	22,234 cps	0.139 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.996 ppm	0.6 %	2.000 ppm	4,608 cps	0.221 %
Ag 328.068 (ETA AQ-Axial-iFR)	2.000 ppm	0.5 %	2.000 ppm	5,920 cps	0.010 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.998 ppm	0.5 %	2.000 ppm	6,476 cps	0.077 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.992 ppm	0.7 %	2.000 ppm	19,011 cps	0.408 %
Y 360.073 (ETA AQ-Axial-iFR)	101.534 %	0.6 %		7,819 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	95.674 %	0.4 %		1,358 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.370 %	0.8 %		10,942 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	95.806 %	0.3 %		1,906 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.999 ppm	0.3 %	2.000 ppm	56,621 cps	0.031 %
Ba 455.403 (ETA AQ-Radial-iFR)	2.002 ppm	1.0 %	2.000 ppm	27,448 cps	0.083 %
Na 589.592 (ETA AQ-Radial-iFR)	100.292 ppm	0.1 %	100.000 ppm	49,359 cps	0.292 %
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	0.6 %	2.000 ppm	3,948 cps	0.262 %
K 766.490 (ETA AQ-Radial-iFR)	100.344 ppm	1.2 %	100.000 ppm	10,465 cps	0.344 %
Na 818.326 (ETA AQ-Radial-iFR)	100.363 ppm	0.4 %	100.000 ppm	1,237 cps	0.363 %

Standard: IC-8027695
Analysis started at: 8/12/2024 10:45:37 AM
Standard (Stock): IC-8027695
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	24.732 ppm	3.0 %	25.000 ppm	662 cps	1.071 %
As 189.042 (ETA AQ-Axial-iFR)	0.995 ppm	1.5 %	1.000 ppm	51 cps	0.538 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.998 ppm	2.0 %	1.000 ppm	133 cps	0.208 %
Tl 190.856 (ETA AQ-Axial-iFR)	1.014 ppm	2.5 %	1.000 ppm	48 cps	1.392 %
Se 196.090 (ETA AQ-Axial-iFR)	0.983 ppm	1.6 %	1.000 ppm	47 cps	1.669 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.988 ppm	0.5 %	1.000 ppm	250 cps	1.238 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.040 ppm	3.3 %	1.000 ppm	589 cps	3.963 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.987 ppm	0.5 %	1.000 ppm	43 cps	1.305 %
B 208.959 (ETA AQ-Axial-iFR)	0.981 ppm	1.2 %	1.000 ppm	255 cps	1.860 %
P 213.618 (ETA AQ-Axial-iFR)	24.605 ppm	0.9 %	25.000 ppm	1,440 cps	1.579 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.961 ppm	2.5 %	1.000 ppm	61 cps	3.896 %
Y 224.306 (ETA AQ-Axial-iFR)	99.244 %	2.7 %		476 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	97.210 %	1.0 %		117 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.975 ppm	1.1 %	1.000 ppm	566 cps	2.504 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.996 ppm	1.8 %	1.000 ppm	935 cps	0.439 %
In 230.606 (ETA AQ-Axial-iFR)	96.188 %	0.2 %		499 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.003 ppm	0.7 %	1.000 ppm	391 cps	0.286 %
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	0.3 %	1.000 ppm	2,149 cps	0.034 %
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	0.3 %	50.000 ppm	62,391 cps	0.000 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	0.6 %	1.000 ppm	1,213 cps	1.479 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.711 ppm	0.1 %	50.000 ppm	854 cps	0.579 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	0.3 %	50.000 ppm	2,065 cps	2.600 %
Si 288.158 (ETA AQ-Radial-iFR)	10.032 ppm	0.2 %	10.000 ppm	830 cps	0.323 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	0.4 %	1.000 ppm	1,868 cps	0.260 %
Al 308.215 (ETA AQ-Radial-iFR)	49.116 ppm	0.4 %	50.000 ppm	2,648 cps	1.768 %
Be 313.042 (ETA AQ-Radial-iFR)	1.009 ppm	0.1 %	1.000 ppm	11,198 cps	0.883 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.723 ppm	0.7 %	50.000 ppm	11,212 cps	0.555 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.009 ppm	2.8 %	1.000 ppm	2,317 cps	0.883 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.000 ppm	1.6 %	1.000 ppm	2,922 cps	0.038 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	0.3 %	1.000 ppm	3,215 cps	0.307 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.016 ppm	1.7 %	1.000 ppm	9,594 cps	1.631 %

Calibration Summary

8/12/2024 11:44:51 AM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 360.073 (ETA AQ-Axial-iFR)	100.467 %	3.2 %		7,737 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	97.180 %	0.4 %		1,380 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	99.892 %	3.1 %		10,889 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	97.280 %	0.5 %		1,935 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	0.3 %	1.000 ppm	28,787 cps	0.123 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.997 ppm	0.6 %	1.000 ppm	13,907 cps	0.333 %
Na 589.592 (ETA AQ-Radial-iFR)	49.418 ppm	0.6 %	50.000 ppm	24,697 cps	1.165 %
Li 670.784 (ETA AQ-Radial-iFR)	0.990 ppm	0.3 %	1.000 ppm	1,977 cps	1.046 %
K 766.490 (ETA AQ-Radial-iFR)	49.312 ppm	0.4 %	50.000 ppm	5,224 cps	1.376 %
Na 818.326 (ETA AQ-Radial-iFR)	49.271 ppm	1.2 %	50.000 ppm	618 cps	1.458 %

Sample List Summary

8/12/2024 11:44:29 AM

LabBook: I420240812C.imexp

Summary

Index	Label	Sample Type	Amount	Final Quantity	Standard DF	Started at
1	Rinse Blank	UNKNOWN			1	8/12/2024 10:39:49 AM
2	ICIS-7982661	BLK			1	8/12/2024 10:41:50 AM
3	IC-7982556	STD			1	8/12/2024 10:43:44 AM
4	IC-8027695	STD			1	8/12/2024 10:45:37 AM
5	IC-8019667	STD			1	8/12/2024 10:47:31 AM
6	ICV-8027694	QC			1	8/12/2024 10:49:23 AM
7	ICB-7982661	QC			1	8/12/2024 10:51:37 AM
8	ICVL-7982556	QC			1	8/12/2024 10:53:34 AM
9	ICSA-8027688	QC			1	8/12/2024 10:55:42 AM
10	ICSAB-7991309	QC			1	8/12/2024 10:57:39 AM
11	ICEX1	UNKNOWN			1	8/12/2024 10:59:32 AM
12	ICEX2	UNKNOWN			1	8/12/2024 11:01:26 AM
13	ICEX3	UNKNOWN			1	8/12/2024 11:03:19 AM
14	ICEX4	UNKNOWN			1	8/12/2024 11:05:12 AM
15	ICEX5	UNKNOWN			1	8/12/2024 11:07:05 AM
16	CCV-8027695	QC			1	8/12/2024 11:08:59 AM
17	CCB-7982661	QC			1	8/12/2024 11:10:53 AM
18	CCVL-7982556	QC			1	8/12/2024 11:12:47 AM
19	LRC-7995590	QC			1	8/12/2024 11:14:41 AM

Basic Sample Report
8/12/2024 11:44:42 AM

LabBook: I420240812C.imexp

Label: Rinse Blank #: 1
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 10:39:49 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.003 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.006 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.806 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.140 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.970 %	513 cps
Ni 231.604 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.000 ppm	10 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.027 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.003 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.002 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.003 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.003 ppm	4 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.146 %	7,635 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.093 %	1,407 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.814 %	10,772 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.933 %	1,968 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-6 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	-0.005 ppm	0 cps
Li 670.784 (ETA AQ-Radial-iFR)	-0.001 ppm	-3 cps
K 766.490 (ETA AQ-Radial-iFR)	0.005 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.012 ppm	2 cps

Label: ICIS-7982661 #: 2
Analysis Type: BLK Analysis started at: 8/12/2024 10:41:50 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.000 %	479 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.000 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.000 %	519 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.000 ppm	9 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.000 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.000 %	7,701 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.000 %	1,420 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.000 %	10,901 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.000 %	1,989 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.000 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps

Label: IC-7982556 #: 3
Analysis Type: STD Analysis started at: 8/12/2024 10:43:44 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.189 ppm	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.018 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.023 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.019 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	6 cps
P 213.618 (ETA AQ-Axial-iFR)	N/A	-3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	101.009 %	484 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.114 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	101.017 %	524 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.011 ppm	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.038 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.195 ppm	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.472 ppm	43 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.186 ppm	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.059 %	7,782 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.507 %	1,427 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.996 %	11,010 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.340 %	1,996 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	135 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.960 ppm	497 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	60 cps
K 766.490 (ETA AQ-Radial-iFR)	0.476 ppm	55 cps
Na 818.326 (ETA AQ-Radial-iFR)	1.093 ppm	16 cps

Label: IC-8027695 #: 4
Analysis Type: STD Analysis started at: 8/12/2024 10:45:37 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	24.732 ppm	662 cps
As 189.042 (ETA AQ-Axial-iFR)	0.995 ppm	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.998 ppm	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	1.014 ppm	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.983 ppm	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.988 ppm	250 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.040 ppm	589 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.987 ppm	43 cps
B 208.959 (ETA AQ-Axial-iFR)	0.981 ppm	255 cps
P 213.618 (ETA AQ-Axial-iFR)	24.605 ppm	1,440 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.961 ppm	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.244 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.210 %	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.975 ppm	566 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.996 ppm	935 cps
In 230.606 (ETA AQ-Axial-iFR)	96.188 %	499 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.003 ppm	391 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	2,149 cps
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	62,391 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	1,213 cps
Fe 271.441 (ETA AQ-Radial-iFR)	49.711 ppm	854 cps
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	2,065 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.032 ppm	830 cps
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	1,868 cps
Al 308.215 (ETA AQ-Radial-iFR)	49.116 ppm	2,648 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.009 ppm	11,198 cps
Ca 317.933 (ETA AQ-Radial-iFR)	49.723 ppm	11,212 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1.009 ppm	2,317 cps
Ag 328.068 (ETA AQ-Axial-iFR)	1.000 ppm	2,922 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	3,215 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.016 ppm	9,594 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.467 %	7,737 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.180 %	1,380 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.892 %	10,889 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.280 %	1,935 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	28,787 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.997 ppm	13,907 cps
Na 589.592 (ETA AQ-Radial-iFR)	49.418 ppm	24,697 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.990 ppm	1,977 cps
K 766.490 (ETA AQ-Radial-iFR)	49.312 ppm	5,224 cps
Na 818.326 (ETA AQ-Radial-iFR)	49.271 ppm	618 cps

Label: IC-8019667 #: 5
Analysis Type: STD Analysis started at: 8/12/2024 10:47:31 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.134 ppm	1,329 cps
As 189.042 (ETA AQ-Axial-iFR)	2.003 ppm	103 cps
Sn 189.989 (ETA AQ-Axial-iFR)	2.001 ppm	254 cps
Tl 190.856 (ETA AQ-Axial-iFR)	1.993 ppm	90 cps
Se 196.090 (ETA AQ-Axial-iFR)	2.008 ppm	94 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2.006 ppm	503 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.980 ppm	1,134 cps
Sb 206.833 (ETA AQ-Axial-iFR)	2.007 ppm	86 cps
B 208.959 (ETA AQ-Axial-iFR)	2.009 ppm	517 cps
P 213.618 (ETA AQ-Axial-iFR)	50.197 ppm	2,919 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2.019 ppm	122 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.493 %	472 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.531 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	2.013 ppm	1,110 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2.002 ppm	1,865 cps
In 230.606 (ETA AQ-Axial-iFR)	91.318 %	474 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.999 ppm	783 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	4,235 cps
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	119,310 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1.993 ppm	2,406 cps
Fe 271.441 (ETA AQ-Radial-iFR)	100.145 ppm	1,694 cps
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	4,204 cps
Si 288.158 (ETA AQ-Radial-iFR)	19.985 ppm	1,625 cps
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	3,765 cps
Al 308.215 (ETA AQ-Radial-iFR)	100.442 ppm	5,333 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.996 ppm	21,812 cps
Ca 317.933 (ETA AQ-Radial-iFR)	100.139 ppm	22,234 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1.996 ppm	4,608 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	2.000 ppm	5,920 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.998 ppm	6,476 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.992 ppm	19,011 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.534 %	7,819 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.674 %	1,358 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.370 %	10,942 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.806 %	1,906 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.999 ppm	56,621 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2.002 ppm	27,448 cps
Na 589.592 (ETA AQ-Radial-iFR)	100.292 ppm	49,359 cps
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	3,948 cps
K 766.490 (ETA AQ-Radial-iFR)	100.344 ppm	10,465 cps
Na 818.326 (ETA AQ-Radial-iFR)	100.363 ppm	1,237 cps

Label: ICV-8027694 #: 6
Analysis Type: QC Analysis started at: 8/12/2024 10:49:23 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	18.627 ppm	99.345 %
As 189.042 (ETA AQ-Axial-iFR)	0.745 ppm	99.379 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.756 ppm	100.851 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.781 ppm	104.191 %
Se 196.090 (ETA AQ-Axial-iFR)	0.754 ppm	100.531 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.748 ppm	99.783 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.789 ppm	105.170 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.736 ppm	98.101 %
B 208.959 (ETA AQ-Axial-iFR)	0.734 ppm	97.933 %
P 213.618 (ETA AQ-Axial-iFR)	18.445 ppm	98.375 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.717 ppm	95.591 %
Y 224.306 (ETA AQ-Axial-iFR)	98.993 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.094 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.727 ppm	96.946 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.747 ppm	99.663 %
In 230.606 (ETA AQ-Axial-iFR)	97.231 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.753 ppm	100.361 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.741 ppm	98.866 %
Fe 259.940 (ETA AQ-Axial-iFR)	38.148 ppm	101.728 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.758 ppm	101.071 %
Fe 271.441 (ETA AQ-Radial-iFR)	37.494 ppm	99.983 %
Mg 279.079 (ETA AQ-Radial-iFR)	35.852 ppm	95.605 %
Si 288.158 (ETA AQ-Radial-iFR)	7.578 ppm	101.046 %
V 292.402 (ETA AQ-Axial-iFR)	0.755 ppm	100.658 %
Al 308.215 (ETA AQ-Radial-iFR)	36.561 ppm	97.496 %
Be 313.042 (ETA AQ-Radial-iFR)	0.756 ppm	100.818 %
Ca 317.933 (ETA AQ-Radial-iFR)	37.463 ppm	99.902 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.749 ppm	99.882 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.747 ppm	99.551 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.747 ppm	99.560 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.768 ppm	102.450 %
Y 360.073 (ETA AQ-Axial-iFR)	99.990 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.332 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.890 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.288 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.751 ppm	100.069 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.750 ppm	100.013 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Na 589.592 (ETA AQ-Radial-iFR)	37.073 ppm	98.862 %
Li 670.784 (ETA AQ-Radial-iFR)	0.745 ppm	99.267 %
K 766.490 (ETA AQ-Radial-iFR)	37.082 ppm	98.886 %
Na 818.326 (ETA AQ-Radial-iFR)	37.229 ppm	99.277 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	498 cps
As 189.042 (ETA AQ-Axial-iFR)	38 cps
Sn 189.989 (ETA AQ-Axial-iFR)	102 cps
Tl 190.856 (ETA AQ-Axial-iFR)	37 cps
Se 196.090 (ETA AQ-Axial-iFR)	36 cps
Mo 202.030 (ETA AQ-Axial-iFR)	189 cps
Zn 206.200 (ETA AQ-Axial-iFR)	445 cps
Sb 206.833 (ETA AQ-Axial-iFR)	32 cps
B 208.959 (ETA AQ-Axial-iFR)	191 cps
P 213.618 (ETA AQ-Axial-iFR)	1,076 cps
Pb 220.353 (ETA AQ-Axial-iFR)	46 cps
Y 224.306 (ETA AQ-Axial-iFR)	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	426 cps
Cd 228.802 (ETA AQ-Axial-iFR)	701 cps
In 230.606 (ETA AQ-Axial-iFR)	504 cps
Ni 231.604 (ETA AQ-Axial-iFR)	293 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1,610 cps
Fe 259.940 (ETA AQ-Axial-iFR)	47,481 cps
Cr 267.716 (ETA AQ-Axial-iFR)	902 cps
Fe 271.441 (ETA AQ-Radial-iFR)	651 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1,536 cps
Si 288.158 (ETA AQ-Radial-iFR)	634 cps
V 292.402 (ETA AQ-Axial-iFR)	1,400 cps
Al 308.215 (ETA AQ-Radial-iFR)	1,992 cps
Be 313.042 (ETA AQ-Radial-iFR)	8,480 cps
Ca 317.933 (ETA AQ-Radial-iFR)	8,536 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1,722 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,168 cps
Ti 334.904 (ETA AQ-Axial-iFR)	2,382 cps
Ti 334.941 (ETA AQ-Axial-iFR)	7,221 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,700 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,396 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,889 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,955 cps
Sr 407.771 (ETA AQ-Radial-iFR)	21,800 cps
Ba 455.403 (ETA AQ-Radial-iFR)	10,562 cps
Na 589.592 (ETA AQ-Radial-iFR)	18,719 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,503 cps
K 766.490 (ETA AQ-Radial-iFR)	3,970 cps
Na 818.326 (ETA AQ-Radial-iFR)	472 cps

Label: ICB-7982661 #: 7
Analysis Type: QC Analysis started at: 8/12/2024 10:51:37 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.009 ppm	0.887 %
As 189.042 (ETA AQ-Axial-iFR)	0.004 ppm	0.380 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.125 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.200 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	-0.253 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.083 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.020 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0.175 %
B 208.959 (ETA AQ-Axial-iFR)	0.005 ppm	0.461 %
P 213.618 (ETA AQ-Axial-iFR)	0.005 ppm	0.489 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0.222 %
Y 224.306 (ETA AQ-Axial-iFR)	99.481 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.798 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.030 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.002 %
In 230.606 (ETA AQ-Axial-iFR)	98.936 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	-0.007 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.049 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.003 ppm	0.321 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.007 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.010 ppm	-0.992 %
Mg 279.079 (ETA AQ-Radial-iFR)	-0.003 ppm	-0.321 %
Si 288.158 (ETA AQ-Radial-iFR)	0.013 ppm	1.270 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.024 %
Al 308.215 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.081 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	-0.001 %
Ca 317.933 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.068 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.028 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.027 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.015 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.018 %
Y 360.073 (ETA AQ-Axial-iFR)	99.682 %	
Y 360.073 (ETA AQ-Radial-iFR)	100.346 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.366 %	
Y 377.433 (ETA AQ-Radial-iFR)	100.390 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.002 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.006 %
Na 589.592 (ETA AQ-Radial-iFR)	0.014 ppm	1.369 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	0.000 %
K 766.490 (ETA AQ-Radial-iFR)	0.004 ppm	0.433 %
Na 818.326 (ETA AQ-Radial-iFR)	0.007 ppm	0.698 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	121 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	513 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps

Analyte (Measure Mode)	Raw Intensity average
Fe 259.940 (ETA AQ-Axial-iFR)	13 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	4 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	4 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-1 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,676 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,425 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,832 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,997 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	10 cps
Li 670.784 (ETA AQ-Radial-iFR)	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	2 cps

Label: ICVL-7982556 #: 8
Analysis Type: QC Analysis started at: 8/12/2024 10:53:34 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.185 ppm	92.533 %
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	107.912 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	111.136 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.016 ppm	81.642 %
Se 196.090 (ETA AQ-Axial-iFR)	0.018 ppm	71.427 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	105.645 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	110.842 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.020 ppm	97.935 %
B 208.959 (ETA AQ-Axial-iFR)	0.021 ppm	105.374 %
P 213.618 (ETA AQ-Axial-iFR)	0.004 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	87.568 %
Y 224.306 (ETA AQ-Axial-iFR)	102.492 %	
Y 224.306 (ETA AQ-Radial-iFR)	101.479 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	96.411 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	98.804 %
In 230.606 (ETA AQ-Axial-iFR)	101.028 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.011 ppm	105.720 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	103.740 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.052 ppm	103.472 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.005 ppm	114.971 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.004 ppm	8.829 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.186 ppm	93.055 %
Si 288.158 (ETA AQ-Radial-iFR)	0.478 ppm	95.506 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	104.647 %
Al 308.215 (ETA AQ-Radial-iFR)	0.164 ppm	82.235 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	95.866 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.485 ppm	97.075 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	94.792 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	97.379 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	96.420 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	99.336 %
Y 360.073 (ETA AQ-Axial-iFR)	102.668 %	
Y 360.073 (ETA AQ-Radial-iFR)	102.167 %	
Y 377.433 (ETA AQ-Axial-iFR)	102.998 %	
Y 377.433 (ETA AQ-Radial-iFR)	101.990 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	96.094 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	99.420 %
Na 589.592 (ETA AQ-Radial-iFR)	0.972 ppm	97.233 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	99.753 %
K 766.490 (ETA AQ-Radial-iFR)	0.483 ppm	96.538 %
Na 818.326 (ETA AQ-Radial-iFR)	0.928 ppm	92.820 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	491 cps
Y 224.306 (ETA AQ-Radial-iFR)	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	524 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	76 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	44 cps
V 292.402 (ETA AQ-Axial-iFR)	10 cps
Al 308.215 (ETA AQ-Radial-iFR)	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	25 cps
Ca 317.933 (ETA AQ-Radial-iFR)	119 cps
Cu 327.396 (ETA AQ-Axial-iFR)	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	45 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,906 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,450 cps
Y 377.433 (ETA AQ-Axial-iFR)	11,228 cps
Y 377.433 (ETA AQ-Radial-iFR)	2,029 cps
Sr 407.771 (ETA AQ-Radial-iFR)	137 cps
Ba 455.403 (ETA AQ-Radial-iFR)	28 cps
Na 589.592 (ETA AQ-Radial-iFR)	512 cps
Li 670.784 (ETA AQ-Radial-iFR)	61 cps
K 766.490 (ETA AQ-Radial-iFR)	57 cps
Na 818.326 (ETA AQ-Radial-iFR)	14 cps

Label: ICSA-8027688 #: 9
Analysis Type: QC Analysis started at: 8/12/2024 10:55:42 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.041 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.013 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.007 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.008 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.043 ppm	0 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.182 %	452 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.296 %	113 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	83.639 %	434 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.002 ppm	3 cps
Fe 259.940 (ETA AQ-Axial-iFR)	172.052 ppm	203,707 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Fe 271.441 (ETA AQ-Radial-iFR)	192.286 ppm	3,297 cps
Mg 279.079 (ETA AQ-Radial-iFR)	522.038 ppm	22,128 cps
Si 288.158 (ETA AQ-Radial-iFR)	-0.022 ppm	1 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	8 cps
Al 308.215 (ETA AQ-Radial-iFR)	499.229 ppm	26,901 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	474.064 ppm	106,815 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.002 ppm	-9 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.003 ppm	-28 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.113 %	7,555 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.077 %	1,378 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.588 %	10,638 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.238 %	1,934 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.004 ppm	116 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.003 ppm	33 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.190 ppm	97 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.039 ppm	8 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.231 ppm	5 cps

Label: ICSAB-7991309 #: 10
Analysis Type: QC Analysis started at: 8/12/2024 10:57:39 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.061 ppm	4 cps
As 189.042 (ETA AQ-Axial-iFR)	0.483 ppm	23 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sn 189.989 (ETA AQ-Axial-iFR)	0.505 ppm	59 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.500 ppm	20 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.481 ppm	22 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.486 ppm	117 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.445 ppm	248 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.498 ppm	21 cps
B 208.959 (ETA AQ-Axial-iFR)	4.890 ppm	1,183 cps
P 213.618 (ETA AQ-Axial-iFR)	4.779 ppm	265 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.506 ppm	28 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.673 %	454 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.474 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.493 ppm	251 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.493 ppm	442 cps
In 230.606 (ETA AQ-Axial-iFR)	84.420 %	438 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.466 ppm	179 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.457 ppm	993 cps
Fe 259.940 (ETA AQ-Axial-iFR)	168.752 ppm	200,844 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.472 ppm	555 cps
Fe 271.441 (ETA AQ-Radial-iFR)	186.860 ppm	3,241 cps
Mg 279.079 (ETA AQ-Radial-iFR)	504.836 ppm	21,649 cps
Si 288.158 (ETA AQ-Radial-iFR)	4.754 ppm	399 cps
V 292.402 (ETA AQ-Axial-iFR)	0.483 ppm	892 cps
Al 308.215 (ETA AQ-Radial-iFR)	486.179 ppm	26,503 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.248 ppm	2,786 cps
Ca 317.933 (ETA AQ-Radial-iFR)	460.488 ppm	104,968 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.514 ppm	1,166 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.501 ppm	1,432 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.501 ppm	1,577 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.498 ppm	4,627 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.804 %	7,609 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.315 %	1,396 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.589 %	10,747 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.373 %	1,957 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.493 ppm	14,337 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.515 ppm	6,978 cps
Na 589.592 (ETA AQ-Radial-iFR)	5.178 ppm	2,619 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.001 ppm	0 cps
K 766.490 (ETA AQ-Radial-iFR)	5.075 ppm	547 cps
Na 818.326 (ETA AQ-Radial-iFR)	5.094 ppm	66 cps

Label: ICEX1 #: 11
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 10:59:32 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.007 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	>4.986	258 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.005 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.016 ppm	5 cps
P 213.618 (ETA AQ-Axial-iFR)	0.224 ppm	10 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Y 224.306 (ETA AQ-Axial-iFR)	99.172 %	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.805 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	9 cps
In 230.606 (ETA AQ-Axial-iFR)	99.134 %	514 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.035 ppm	53 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.037 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.031 ppm	2 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.008 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	>5.203	9,679 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.090 ppm	6 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.001 ppm	19 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.031 ppm	12 cps
Cu 327.396 (ETA AQ-Axial-iFR)	>24.309	56,093 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.003 ppm	-27 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	4 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.129 %	7,711 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.719 %	1,416 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.295 %	10,933 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.825 %	1,986 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.003 ppm	4 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.012 ppm	5 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.029 ppm	2 cps

Label: ICEX2 #: 12
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 11:01:26 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	>21.064	1,034 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.006 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.008 ppm	3 cps
P 213.618 (ETA AQ-Axial-iFR)	0.014 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.760 %	478 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.246 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	-0.003 ppm	18 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.766 %	512 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.002 ppm	12 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Fe 271.441 (ETA AQ-Radial-iFR)	-0.021 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.085 ppm	-4 cps
Si 288.158 (ETA AQ-Radial-iFR)	>50.321	4,233 cps
V 292.402 (ETA AQ-Axial-iFR)	0.003 ppm	22 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.005 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.008 ppm	6 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.006 ppm	13 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	19.817 ppm	63,051 cps
Ti 334.941 (ETA AQ-Axial-iFR)	19.932 ppm	186,772 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.672 %	7,675 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.008 %	1,406 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.982 %	10,899 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.191 %	1,973 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.025 ppm	15 cps
Li 670.784 (ETA AQ-Radial-iFR)	>10.320	21,040 cps
K 766.490 (ETA AQ-Radial-iFR)	0.005 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.081 ppm	3 cps

Label: ICEX3 #: 13
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 11:03:19 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	>0.579	18 cps
As 189.042 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.009 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.005 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.004 ppm	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-0.020 ppm	-4 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.516 %	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.827 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.674 %	512 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	>50.152	110,369 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.001 ppm	8 cps
Cr 267.716 (ETA AQ-Axial-iFR)	-0.001 ppm	7 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.025 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.030 ppm	5 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.013 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.003 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.004 ppm	-2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	42 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.654 %	7,674 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.435 %	1,412 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.797 %	10,879 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.578 %	1,981 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.008 ppm	6 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.001 ppm	3 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.040 ppm	3 cps

Label: ICEX4 #: 14
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 11:05:12 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.071 ppm	4 cps
As 189.042 (ETA AQ-Axial-iFR)	-0.005 ppm	-1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.011 ppm	1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	-0.005 ppm	-3 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
B 208.959 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.190 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.265 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	>19.894	11,932 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	99.364 %	516 cps
Ni 231.604 (ETA AQ-Axial-iFR)	>10.724	4,161 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.002 ppm	5 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.001 ppm	10 cps
Cr 267.716 (ETA AQ-Axial-iFR)	>10.481	12,386 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.034 ppm	22 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	-0.002 ppm	2 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	-0.011 ppm	0 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.001 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.005 ppm	11 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.003 ppm	7 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.003 ppm	24 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.405 %	7,655 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.635 %	1,400 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.320 %	10,827 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.344 %	1,956 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.020 ppm	1 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.047 ppm	1 cps

Label: ICEX5 #: 15
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 11:07:05 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	-0.015 ppm	2 cps
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.003 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	>5.017	1,260 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.014 ppm	33 cps
P 213.618 (ETA AQ-Axial-iFR)	0.002 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.813 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.305 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	99.099 %	514 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.003 ppm	5 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.003 ppm	4 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.047 ppm	-1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.122 ppm	-5 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.239 ppm	23 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	-19 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.046 ppm	3 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.001 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	-0.002 ppm	-4 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-15 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.004 ppm	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	9 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.276 %	7,645 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.410 %	1,411 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.173 %	10,811 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.079 %	1,971 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.003 ppm	4 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.007 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.073 ppm	3 cps

Label: CCV-8027695 #: 16
Analysis Type: QC Analysis started at: 8/12/2024 11:08:59 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	24.624 ppm	98.496 %
As 189.042 (ETA AQ-Axial-iFR)	0.994 ppm	99.363 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.999 ppm	99.949 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.998 ppm	99.809 %
Se 196.090 (ETA AQ-Axial-iFR)	0.988 ppm	98.777 %
Mo 202.030 (ETA AQ-Axial-iFR)	1.002 ppm	100.223 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.018 ppm	101.825 %
Sb 206.833 (ETA AQ-Axial-iFR)	1.002 ppm	100.177 %
B 208.959 (ETA AQ-Axial-iFR)	0.992 ppm	99.214 %
P 213.618 (ETA AQ-Axial-iFR)	24.840 ppm	99.360 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.989 ppm	98.941 %
Y 224.306 (ETA AQ-Axial-iFR)	99.557 %	
Y 224.306 (ETA AQ-Radial-iFR)	95.759 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.992 ppm	99.210 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.995 ppm	99.481 %
In 230.606 (ETA AQ-Axial-iFR)	94.805 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.009 ppm	100.903 %
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	100.048 %
Fe 259.940 (ETA AQ-Axial-iFR)	50.658 ppm	101.317 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	101.504 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.854 ppm	99.708 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.748 ppm	97.495 %
Si 288.158 (ETA AQ-Radial-iFR)	9.923 ppm	99.233 %
V 292.402 (ETA AQ-Axial-iFR)	1.009 ppm	100.874 %
Al 308.215 (ETA AQ-Radial-iFR)	49.369 ppm	98.738 %
Be 313.042 (ETA AQ-Radial-iFR)	1.019 ppm	101.890 %
Ca 317.933 (ETA AQ-Radial-iFR)	50.119 ppm	100.239 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.998 ppm	99.767 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.996 ppm	99.612 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.008 ppm	100.834 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.012 ppm	101.194 %
Y 360.073 (ETA AQ-Axial-iFR)	101.743 %	
Y 360.073 (ETA AQ-Radial-iFR)	96.691 %	
Y 377.433 (ETA AQ-Axial-iFR)	101.073 %	
Y 377.433 (ETA AQ-Radial-iFR)	96.158 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.005 ppm	100.468 %
Ba 455.403 (ETA AQ-Radial-iFR)	1.014 ppm	101.432 %
Na 589.592 (ETA AQ-Radial-iFR)	49.497 ppm	98.995 %
Li 670.784 (ETA AQ-Radial-iFR)	1.005 ppm	100.469 %
K 766.490 (ETA AQ-Radial-iFR)	49.915 ppm	99.831 %
Na 818.326 (ETA AQ-Radial-iFR)	49.876 ppm	99.752 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	661 cps
As 189.042 (ETA AQ-Axial-iFR)	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	132 cps
Tl 190.856 (ETA AQ-Axial-iFR)	46 cps
Se 196.090 (ETA AQ-Axial-iFR)	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	254 cps
Zn 206.200 (ETA AQ-Axial-iFR)	584 cps
Sb 206.833 (ETA AQ-Axial-iFR)	44 cps
B 208.959 (ETA AQ-Axial-iFR)	259 cps
P 213.618 (ETA AQ-Axial-iFR)	1,458 cps
Pb 220.353 (ETA AQ-Axial-iFR)	62 cps
Y 224.306 (ETA AQ-Axial-iFR)	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	568 cps

Analyte (Measure Mode)	Raw Intensity average
Cd 228.802 (ETA AQ-Axial-iFR)	937 cps
In 230.606 (ETA AQ-Axial-iFR)	492 cps
Ni 231.604 (ETA AQ-Axial-iFR)	398 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,126 cps
Fe 259.940 (ETA AQ-Axial-iFR)	63,414 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,228 cps
Fe 271.441 (ETA AQ-Radial-iFR)	846 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,044 cps
Si 288.158 (ETA AQ-Radial-iFR)	811 cps
V 292.402 (ETA AQ-Axial-iFR)	1,904 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,631 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,179 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,171 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,319 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,946 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,273 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,674 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,835 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,373 cps
Y 377.433 (ETA AQ-Axial-iFR)	11,018 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,913 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,553 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,942 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,451 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,984 cps
K 766.490 (ETA AQ-Radial-iFR)	5,227 cps
Na 818.326 (ETA AQ-Radial-iFR)	618 cps

Label: CCB-7982661 #: 17
Analysis Type: QC Analysis started at: 8/12/2024 11:10:53 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.006 ppm	0.557 %
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0.026 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.127 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.050 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.204 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.104 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.026 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.003 ppm	0.265 %
B 208.959 (ETA AQ-Axial-iFR)	0.003 ppm	0.345 %
P 213.618 (ETA AQ-Axial-iFR)	0.005 ppm	0.549 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0.247 %
Y 224.306 (ETA AQ-Axial-iFR)	99.914 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.745 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.001 ppm	0.054 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.005 %
In 230.606 (ETA AQ-Axial-iFR)	99.308 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0.040 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.045 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.007 ppm	0.667 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.025 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.003 ppm	-0.344 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.001 ppm	0.087 %
Si 288.158 (ETA AQ-Radial-iFR)	0.015 ppm	1.472 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.028 %
Al 308.215 (ETA AQ-Radial-iFR)	0.011 ppm	1.147 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.002 %
Ca 317.933 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.142 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	-0.008 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.014 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.001 ppm	0.051 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.039 %
Y 360.073 (ETA AQ-Axial-iFR)	99.588 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.412 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.385 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.141 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.002 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-0.004 %
Na 589.592 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.066 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.022 %
K 766.490 (ETA AQ-Radial-iFR)	0.001 ppm	0.066 %
Na 818.326 (ETA AQ-Radial-iFR)	0.148 ppm	14.822 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	2 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	479 cps
Y 224.306 (ETA AQ-Radial-iFR)	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	515 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	18 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	4 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	4 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,669 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,411 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,834 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,972 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	2 cps

Analyte (Measure Mode)	Raw Intensity average
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	4 cps

Label: CCVL-7982556 #: 18
Analysis Type: QC Analysis started at: 8/12/2024 11:12:47 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.192 ppm	95.765 %
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	124.543 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.010 ppm	101.817 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.014 ppm	70.383 %
Se 196.090 (ETA AQ-Axial-iFR)	0.019 ppm	75.625 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	105.744 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	110.769 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.021 ppm	103.311 %
B 208.959 (ETA AQ-Axial-iFR)	0.020 ppm	101.102 %
P 213.618 (ETA AQ-Axial-iFR)	-0.001 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.011 ppm	113.553 %
Y 224.306 (ETA AQ-Axial-iFR)	100.077 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.058 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	89.055 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	90.583 %
In 230.606 (ETA AQ-Axial-iFR)	100.378 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	99.004 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	102.840 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.052 ppm	103.972 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	107.101 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.023 ppm	46.258 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.183 ppm	91.428 %
Si 288.158 (ETA AQ-Radial-iFR)	0.477 ppm	95.411 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	99.593 %
Al 308.215 (ETA AQ-Radial-iFR)	0.185 ppm	92.307 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	95.501 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.486 ppm	97.199 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	94.887 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	87.715 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	96.334 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	99.454 %
Y 360.073 (ETA AQ-Axial-iFR)	100.461 %	
Y 360.073 (ETA AQ-Radial-iFR)	100.579 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.233 %	
Y 377.433 (ETA AQ-Radial-iFR)	100.408 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	97.025 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	94.449 %
Na 589.592 (ETA AQ-Radial-iFR)	0.971 ppm	97.140 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	99.644 %
K 766.490 (ETA AQ-Radial-iFR)	0.485 ppm	96.959 %
Na 818.326 (ETA AQ-Radial-iFR)	1.057 ppm	105.681 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps

Analyte (Measure Mode)	Raw Intensity average
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	480 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	521 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	75 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	43 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	118 cps
Cu 327.396 (ETA AQ-Axial-iFR)	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	1 cps
Ti 334.904 (ETA AQ-Axial-iFR)	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,736 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,428 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,927 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,997 cps
Sr 407.771 (ETA AQ-Radial-iFR)	137 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	503 cps
Li 670.784 (ETA AQ-Radial-iFR)	60 cps
K 766.490 (ETA AQ-Radial-iFR)	57 cps
Na 818.326 (ETA AQ-Radial-iFR)	16 cps

Label: LRC-7995590 #: 19
Analysis Type: QC Analysis started at: 8/12/2024 11:14:41 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	102.818 ppm	137.091 %
As 189.042 (ETA AQ-Axial-iFR)	5.206 ppm	104.124 %
Sn 189.989 (ETA AQ-Axial-iFR)	4.374 ppm	109.346 %
Tl 190.856 (ETA AQ-Axial-iFR)	20.401 ppm	102.005 %
Se 196.090 (ETA AQ-Axial-iFR)	41.531 ppm	103.827 %
Mo 202.030 (ETA AQ-Axial-iFR)	10.269 ppm	102.689 %
Zn 206.200 (ETA AQ-Axial-iFR)	18.007 ppm	90.033 %
Sb 206.833 (ETA AQ-Axial-iFR)	5.237 ppm	104.744 %
B 208.959 (ETA AQ-Axial-iFR)	25.765 ppm	103.058 %
P 213.618 (ETA AQ-Axial-iFR)	0.047 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	45.197 ppm	112.993 %
Y 224.306 (ETA AQ-Axial-iFR)	87.205 %	
Y 224.306 (ETA AQ-Radial-iFR)	86.550 %	

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Co 228.616 (ETA AQ-Axial-iFR)	21.904 ppm	109.520 %
Cd 228.802 (ETA AQ-Axial-iFR)	5.472 ppm	109.435 %
In 230.606 (ETA AQ-Axial-iFR)	74.055 %	
Ni 231.604 (ETA AQ-Axial-iFR)	9.388 ppm	93.883 %
Mn 257.610 (ETA AQ-Radial-iFR)	37.490 ppm	93.726 %
Fe 259.940 (ETA AQ-Axial-iFR)	383.231 ppm	63.872 %
Cr 267.716 (ETA AQ-Axial-iFR)	9.667 ppm	96.672 %
Fe 271.441 (ETA AQ-Radial-iFR)	597.589 ppm	99.598 %
Mg 279.079 (ETA AQ-Radial-iFR)	553.898 ppm	110.780 %
Si 288.158 (ETA AQ-Radial-iFR)	52.614 ppm	105.229 %
V 292.402 (ETA AQ-Axial-iFR)	5.150 ppm	103.005 %
Al 308.215 (ETA AQ-Radial-iFR)	627.086 ppm	104.514 %
Be 313.042 (ETA AQ-Radial-iFR)	24.317 ppm	97.268 %
Ca 317.933 (ETA AQ-Radial-iFR)	673.374 ppm	96.196 %
Cu 327.396 (ETA AQ-Axial-iFR)	8.395 ppm	104.934 %
Ag 328.068 (ETA AQ-Axial-iFR)	2.643 ppm	88.116 %
Ti 334.904 (ETA AQ-Axial-iFR)	20.038 ppm	100.189 %
Ti 334.941 (ETA AQ-Axial-iFR)	19.813 ppm	99.065 %
Y 360.073 (ETA AQ-Axial-iFR)	93.524 %	
Y 360.073 (ETA AQ-Radial-iFR)	91.022 %	
Y 377.433 (ETA AQ-Axial-iFR)	92.875 %	
Y 377.433 (ETA AQ-Radial-iFR)	91.170 %	
Sr 407.771 (ETA AQ-Radial-iFR)	10.014 ppm	100.138 %
Ba 455.403 (ETA AQ-Radial-iFR)	21.614 ppm	108.070 %
Na 589.592 (ETA AQ-Radial-iFR)	833.367 ppm	104.171 %
Li 670.784 (ETA AQ-Radial-iFR)	44.118 ppm	110.295 %
K 766.490 (ETA AQ-Radial-iFR)	549.767 ppm	109.953 %
Na 818.326 (ETA AQ-Radial-iFR)	879.593 ppm	109.949 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	2,411 cps
As 189.042 (ETA AQ-Axial-iFR)	237 cps
Sn 189.989 (ETA AQ-Axial-iFR)	451 cps
Tl 190.856 (ETA AQ-Axial-iFR)	753 cps
Se 196.090 (ETA AQ-Axial-iFR)	1,696 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2,275 cps
Zn 206.200 (ETA AQ-Axial-iFR)	9,498 cps
Sb 206.833 (ETA AQ-Axial-iFR)	200 cps
B 208.959 (ETA AQ-Axial-iFR)	5,773 cps
P 213.618 (ETA AQ-Axial-iFR)	0 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2,221 cps
Y 224.306 (ETA AQ-Axial-iFR)	418 cps
Y 224.306 (ETA AQ-Radial-iFR)	104 cps
Co 228.616 (ETA AQ-Axial-iFR)	9,807 cps
Cd 228.802 (ETA AQ-Axial-iFR)	4,512 cps
In 230.606 (ETA AQ-Axial-iFR)	384 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3,406 cps
Mn 257.610 (ETA AQ-Radial-iFR)	75,538 cps
Fe 259.940 (ETA AQ-Axial-iFR)	420,090 cps
Cr 267.716 (ETA AQ-Axial-iFR)	10,754 cps
Fe 271.441 (ETA AQ-Radial-iFR)	9,629 cps
Mg 279.079 (ETA AQ-Radial-iFR)	22,014 cps
Si 288.158 (ETA AQ-Radial-iFR)	4,068 cps
V 292.402 (ETA AQ-Axial-iFR)	8,933 cps
Al 308.215 (ETA AQ-Radial-iFR)	31,680 cps
Be 313.042 (ETA AQ-Radial-iFR)	252,897 cps
Ca 317.933 (ETA AQ-Radial-iFR)	142,243 cps
Cu 327.396 (ETA AQ-Axial-iFR)	17,937 cps

Analyte (Measure Mode)	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	7,202 cps
Ti 334.904 (ETA AQ-Axial-iFR)	59,820 cps
Ti 334.941 (ETA AQ-Axial-iFR)	174,207 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,202 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,292 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,125 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,813 cps
Sr 407.771 (ETA AQ-Radial-iFR)	269,870 cps
Ba 455.403 (ETA AQ-Radial-iFR)	268,535 cps
Na 589.592 (ETA AQ-Radial-iFR)	390,245 cps
Li 670.784 (ETA AQ-Radial-iFR)	82,675 cps
K 766.490 (ETA AQ-Radial-iFR)	54,545 cps
Na 818.326 (ETA AQ-Radial-iFR)	10,304 cps

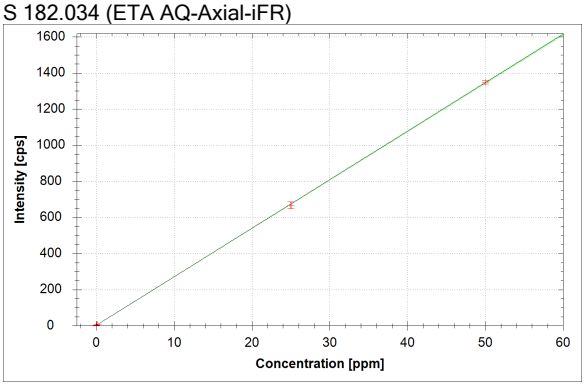
Calibration Summary

8/12/2024 11:44:51 AM

LabBook: I420240812C.imexp

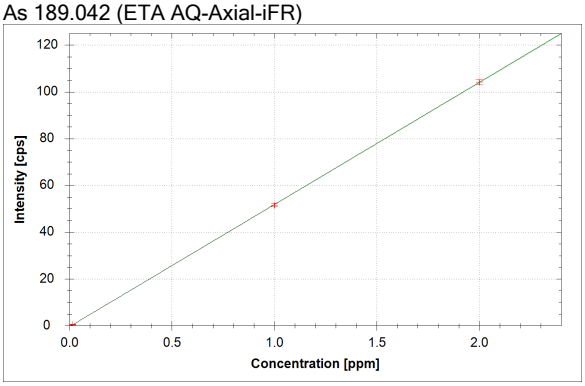
Calibration Graphs

S 182.034 (ETA AQ-Axial-iFR)



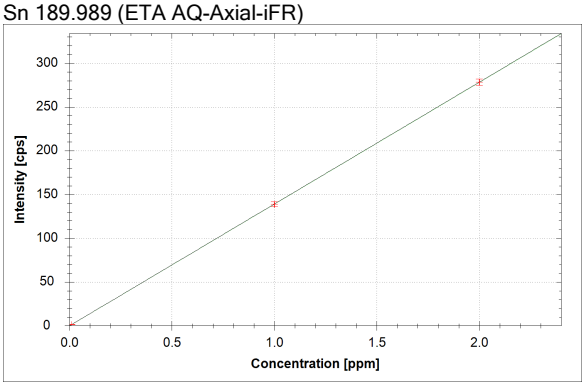
f(x) = 26.8630*x + 2.6137
R² = 0.9999
BEC = 0.097 ppm
LoD = 0.0073 ppm

As 189.042 (ETA AQ-Axial-iFR)



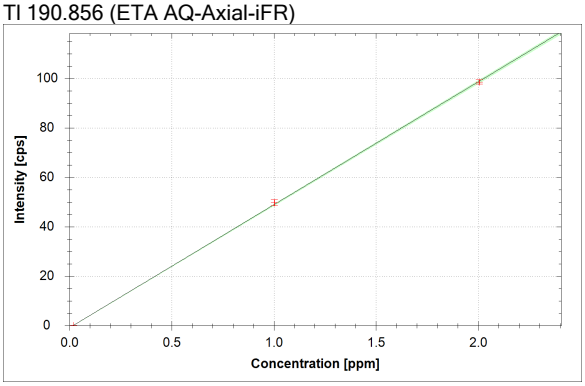
f(x) = 52.2148*x + -0.4102
R² = 1.0000
BEC = -0.008 ppm
LoD = 0.0016 ppm

Sn 189.989 (ETA AQ-Axial-iFR)



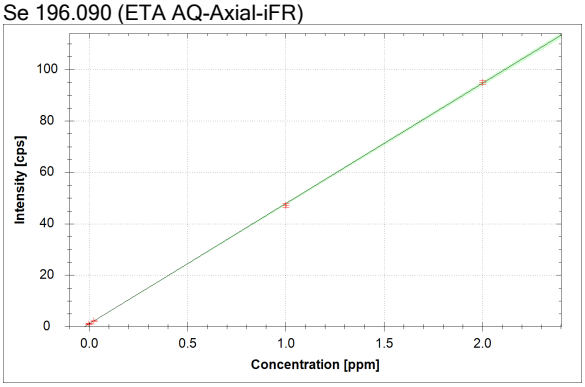
f(x) = 139.1552*x + -0.1267
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0041 ppm

Tl 190.856 (ETA AQ-Axial-iFR)



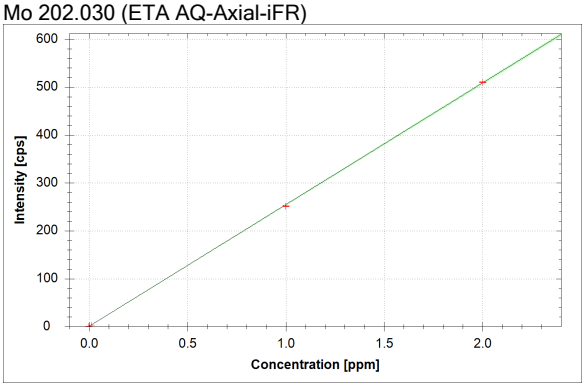
f(x) = 49.7433*x + -0.8179
R² = 0.9999
BEC = -0.016 ppm
LoD = 0.0137 ppm

Se 196.090 (ETA AQ-Axial-iFR)



f(x) = 46.7762*x + 1.0566
R² = 0.9999
BEC = 0.023 ppm
LoD = 0.0142 ppm

Mo 202.030 (ETA AQ-Axial-iFR)



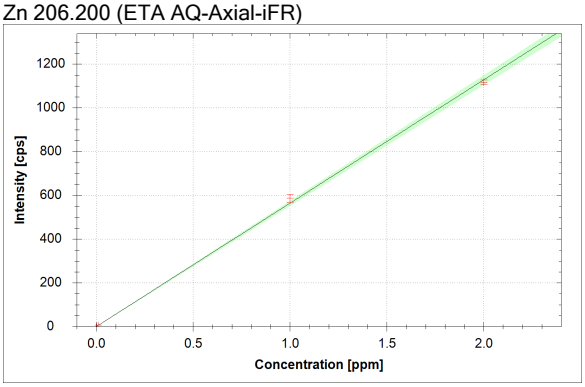
f(x) = 254.0375*x + 0.5758
R² = 0.9999
BEC = 0.002 ppm
LoD = 0.0037 ppm

Calibration Summary

8/12/2024 11:44:51 AM

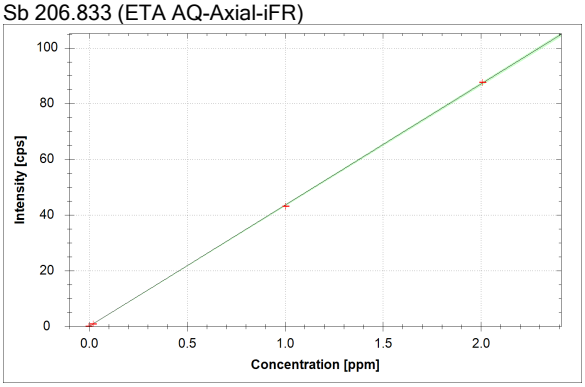
QTEGRA

Zn 206.200 (ETA AQ-Axial-iFR)



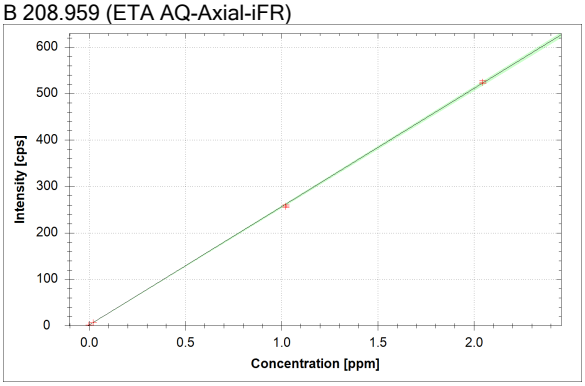
f(x) = 563.9947*x + 0.0407
R² = 0.9993
BEC = 0.000 ppm
LoD = 0.0010 ppm

Sb 206.833 (ETA AQ-Axial-iFR)



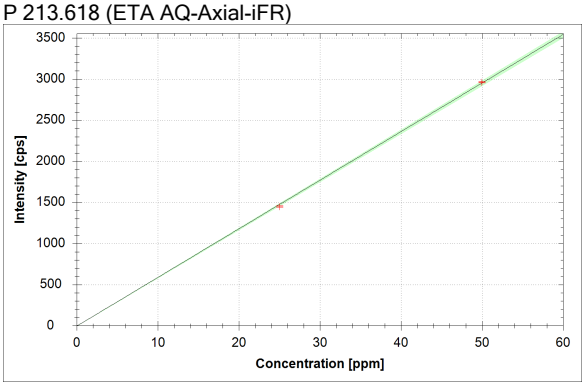
f(x) = 43.4756*x + 0.0851
R² = 0.9999
BEC = 0.002 ppm
LoD = 0.0133 ppm

B 208.959 (ETA AQ-Axial-iFR)



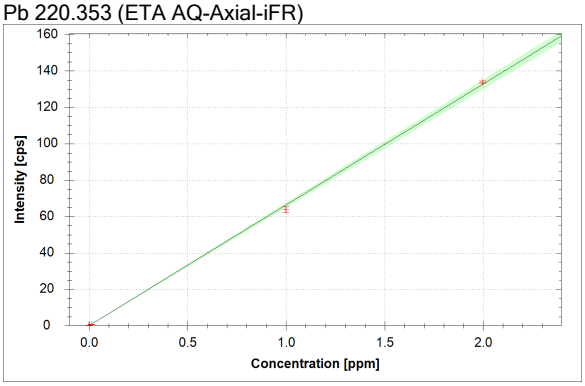
f(x) = 254.6610*x + 1.5637
R² = 0.9998
BEC = 0.006 ppm
LoD = 0.0015 ppm

P 213.618 (ETA AQ-Axial-iFR)



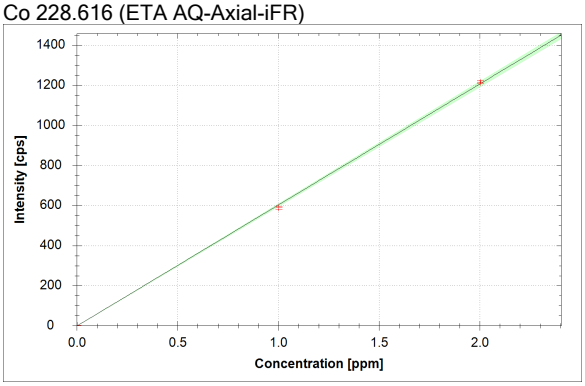
f(x) = 59.0916*x + -2.9126
R² = 0.9998
BEC = -0.049 ppm
LoD = 0.0080 ppm

Pb 220.353 (ETA AQ-Axial-iFR)



f(x) = 66.3733*x + 0.0650
R² = 0.9993
BEC = 0.001 ppm
LoD = 0.0039 ppm

Co 228.616 (ETA AQ-Axial-iFR)



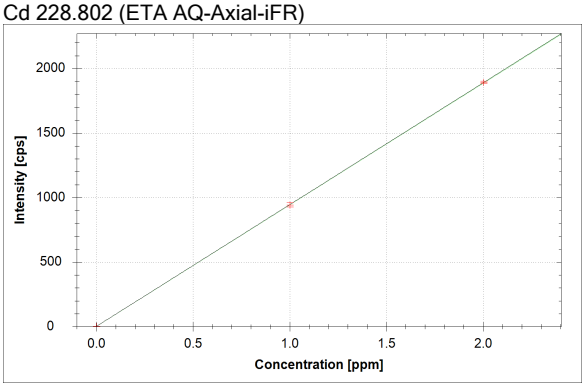
f(x) = 603.6863*x + -1.0810
R² = 0.9997
BEC = -0.002 ppm
LoD = 0.0010 ppm

Calibration Summary

8/12/2024 11:44:51 AM

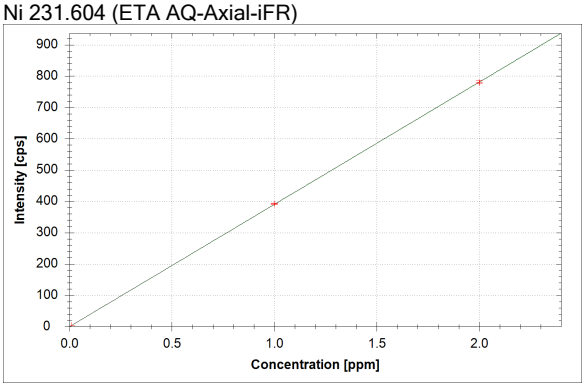
QTEGRA

Cd 228.802 (ETA AQ-Axial-iFR)



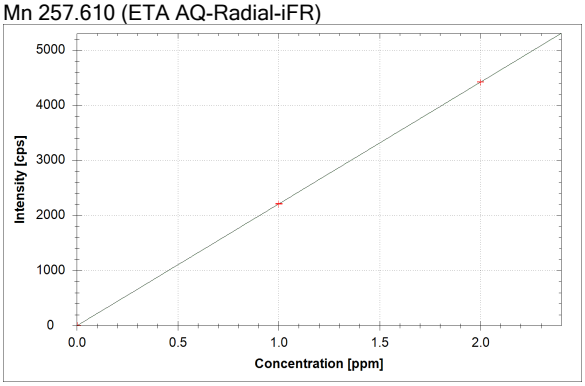
f(x) = 943.8029*x + 1.1167
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0004 ppm

Ni 231.604 (ETA AQ-Axial-iFR)



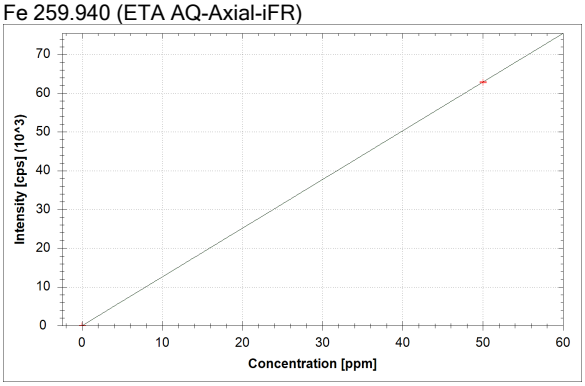
f(x) = 390.6974*x + -0.4013
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0013 ppm

Mn 257.610 (ETA AQ-Radial-iFR)



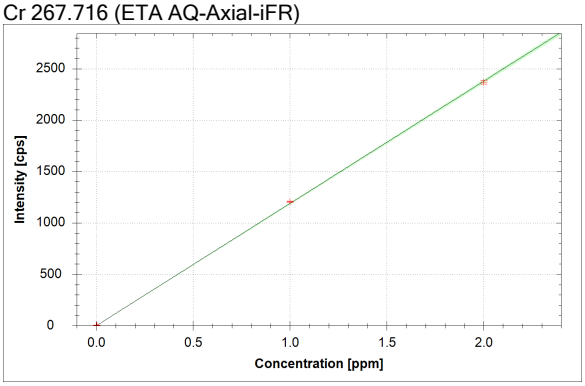
f(x) = 2210.0423*x + -0.1909
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Fe 259.940 (ETA AQ-Axial-iFR)



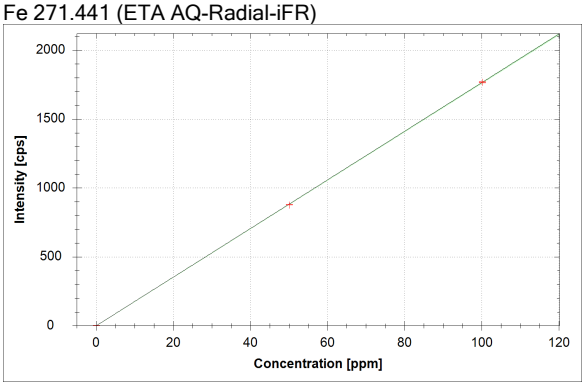
f(x) = 1257.0838*x + 9.3364
R² = 1.0000
BEC = 0.007 ppm
LoD = 0.0006 ppm

Cr 267.716 (ETA AQ-Axial-iFR)



f(x) = 1188.7705*x + 0.6285
R² = 0.9999
BEC = 0.001 ppm
LoD = 0.0009 ppm

Fe 271.441 (ETA AQ-Radial-iFR)



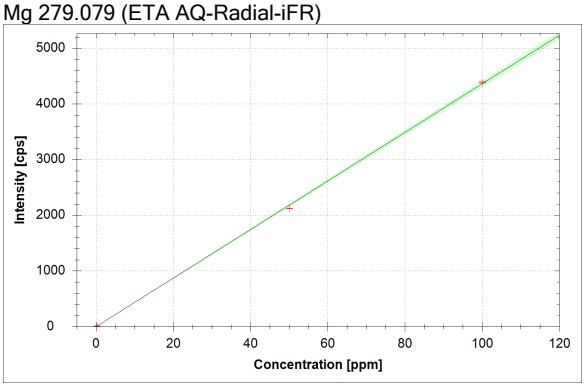
f(x) = 17.6309*x + 0.0099
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0791 ppm

Calibration Summary

8/12/2024 11:44:51 AM

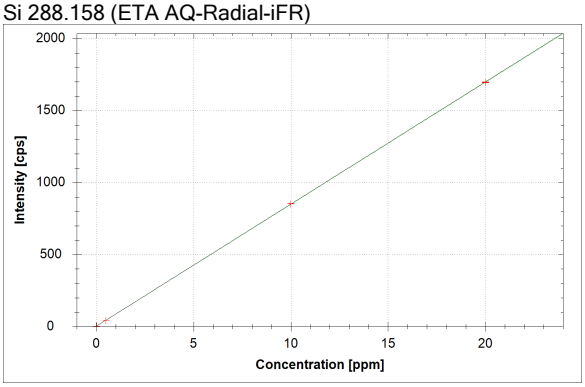
QTEGRA

Mg 279.079 (ETA AQ-Radial-iFR)



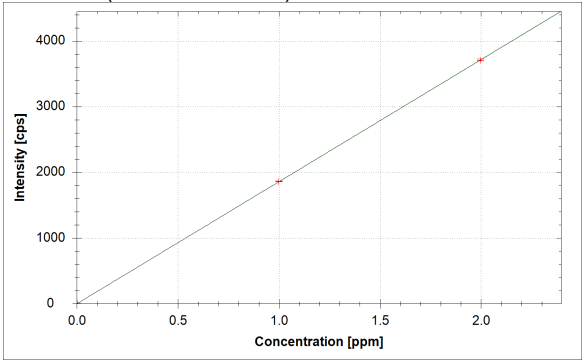
f(x) = 43.5924*x + 0.1724
R² = 0.9997
BEC = 0.004 ppm
LoD = 0.0585 ppm

Si 288.158 (ETA AQ-Radial-iFR)



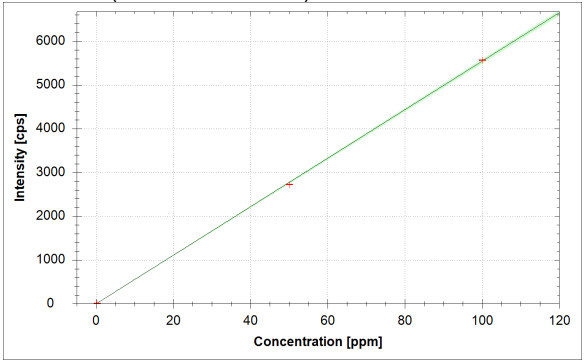
f(x) = 84.7596*x + 2.5749
R² = 1.0000
BEC = 0.030 ppm
LoD = 0.0123 ppm

V 292.402 (ETA AQ-Axial-iFR)



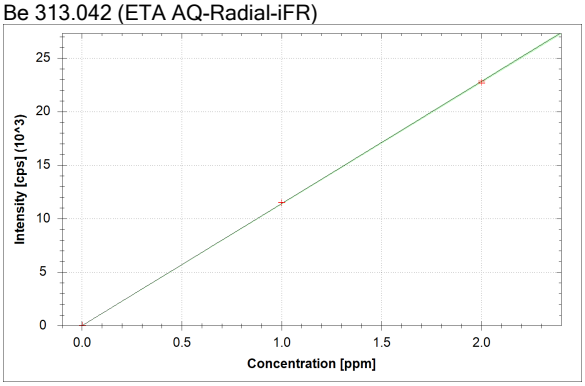
f(x) = 1857.9114*x + -0.1720
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0005 ppm

Al 308.215 (ETA AQ-Radial-iFR)



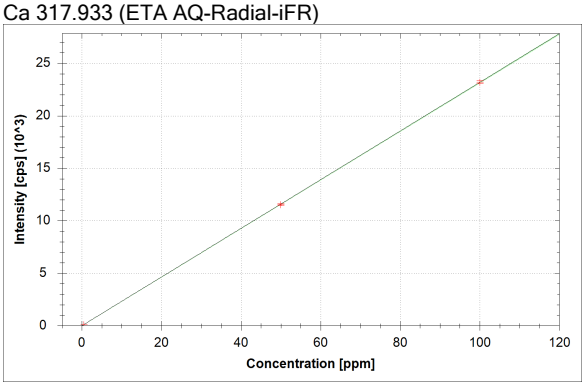
f(x) = 55.4131*x + 0.9069
R² = 0.9999
BEC = 0.016 ppm
LoD = 0.0227 ppm

Be 313.042 (ETA AQ-Radial-iFR)



f(x) = 11407.6081*x + 2.4740
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0001 ppm

Ca 317.933 (ETA AQ-Radial-iFR)



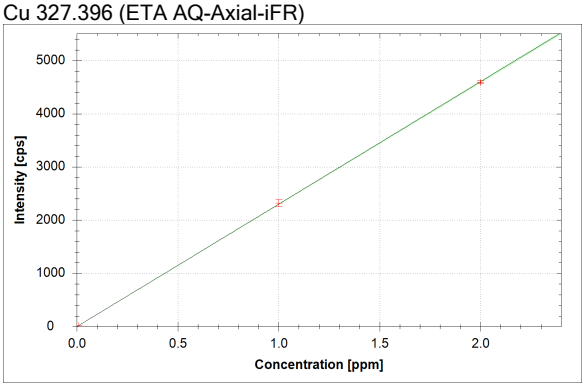
f(x) = 231.7088*x + 4.5381
R² = 1.0000
BEC = 0.020 ppm
LoD = 0.0021 ppm

Calibration Summary

8/12/2024 11:44:51 AM

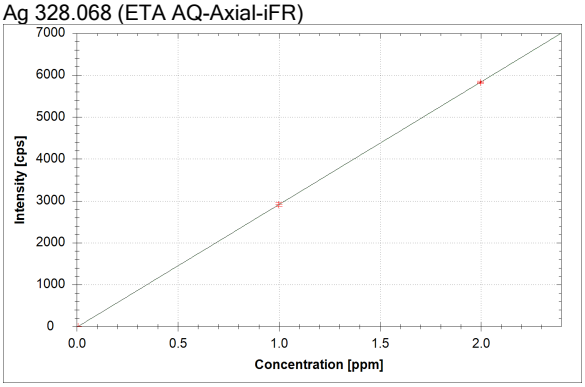
QTEGRA

Cu 327.396 (ETA AQ-Axial-iFR)



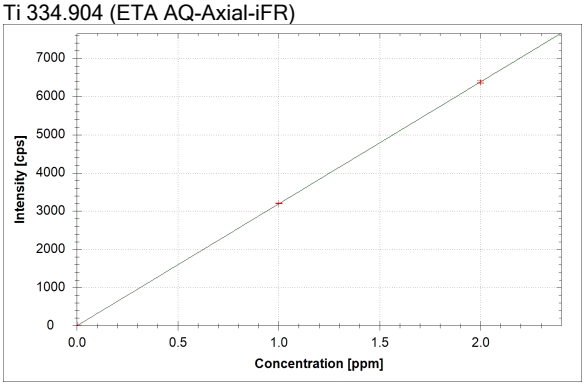
f(x) = 2300.7345*x + -0.0604
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0005 ppm

Ag 328.068 (ETA AQ-Axial-iFR)



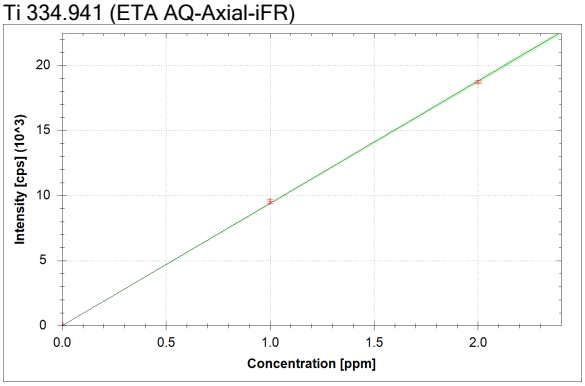
f(x) = 2926.5305*x + -13.9543
R² = 1.0000
BEC = -0.005 ppm
LoD = 0.0004 ppm

Ti 334.904 (ETA AQ-Axial-iFR)



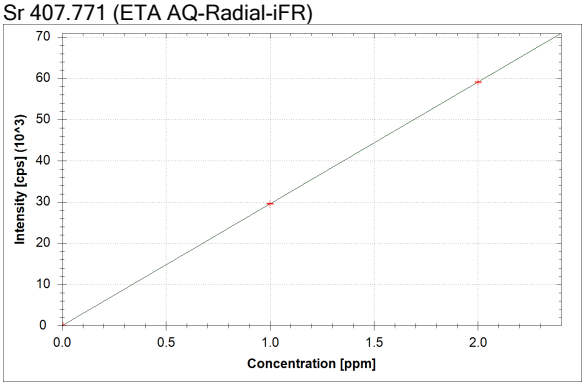
f(x) = 3192.1568*x + -1.4824
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0003 ppm

Ti 334.941 (ETA AQ-Axial-iFR)



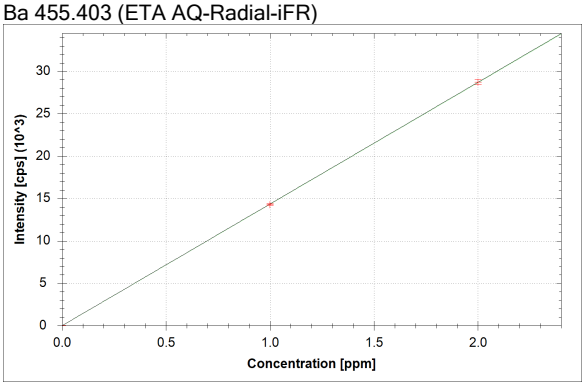
f(x) = 9401.5839*x + -2.5733
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0002 ppm

Sr 407.771 (ETA AQ-Radial-iFR)



f(x) = 29562.7651*x + -7.3628
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0000 ppm

Ba 455.403 (ETA AQ-Radial-iFR)



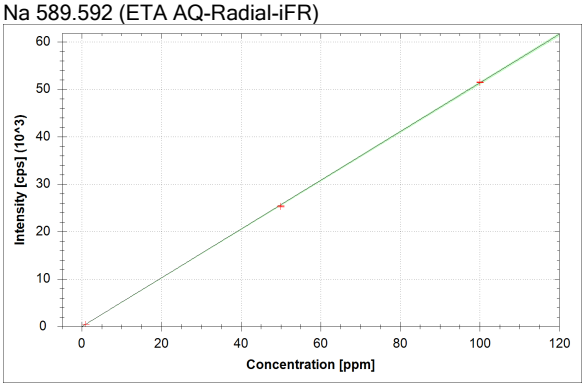
f(x) = 14355.1625*x + -1.1654
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Calibration Summary

8/12/2024 11:44:51 AM

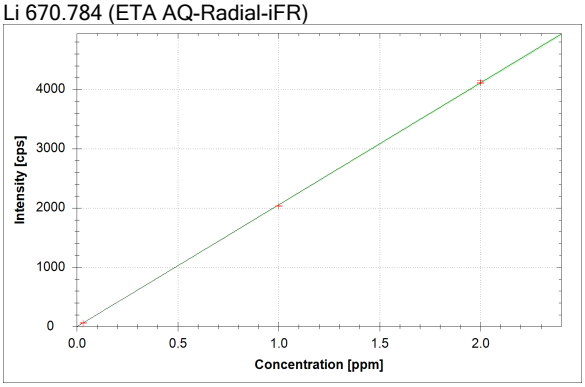
QTEGRA

Na 589.592 (ETA AQ-Radial-iFR)



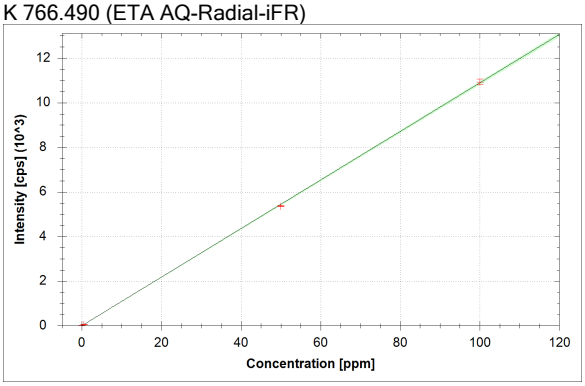
f(x) = 513.6715*x + 2.4424
R² = 0.9999
BEC = 0.005 ppm
LoD = 0.0172 ppm

Li 670.784 (ETA AQ-Radial-iFR)



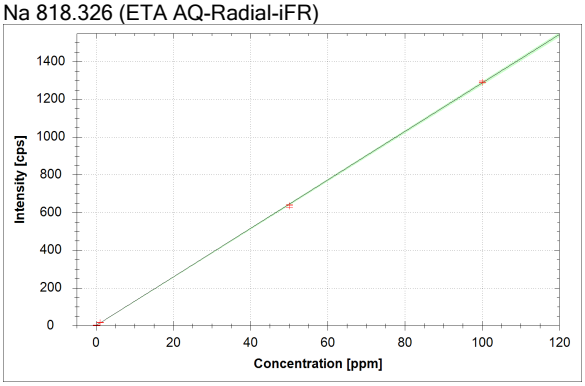
f(x) = 2055.5431*x + -1.4270
R² = 0.9999
BEC = -0.001 ppm
LoD = 0.0014 ppm

K 766.490 (ETA AQ-Radial-iFR)



f(x) = 108.8242*x + 3.5339
R² = 0.9999
BEC = 0.032 ppm
LoD = 0.0501 ppm

Na 818.326 (ETA AQ-Radial-iFR)



f(x) = 12.8481*x + 2.0106
R² = 0.9999
BEC = 0.156 ppm
LoD = 0.2202 ppm

Calibration Summary

8/12/2024 11:44:51 AM

QTEGRA

Standards

Standard: IC-7982556
Analysis started at: 8/12/2024 10:43:44 AM
Standard (Stock): IC-7982556
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	0.189 ppm	3.2 %	0.200 ppm	8 cps	5.567 %
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	12.0 %	0.015 ppm	0 cps	7.891 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	7.9 %	0.010 ppm	1 cps	10.570 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.018 ppm	11.8 %	0.020 ppm	0 cps	9.961 %
Se 196.090 (ETA AQ-Axial-iFR)	0.023 ppm	7.8 %	0.025 ppm	2 cps	6.120 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	10.7 %	0.010 ppm	3 cps	0.127 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	2.0 %	0.010 ppm	6 cps	10.357 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.019 ppm	24.9 %	0.020 ppm	1 cps	4.720 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	2.1 %	0.020 ppm	6 cps	5.850 %
P 213.618 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	-3 cps	N/A
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	26.7 %	0.010 ppm	1 cps	7.854 %
Y 224.306 (ETA AQ-Axial-iFR)	101.009 %	0.4 %		484 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	100.114 %	0.6 %		120 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	3.5 %	0.004 ppm	1 cps	7.549 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	10.6 %	0.002 ppm	3 cps	8.886 %
In 230.606 (ETA AQ-Axial-iFR)	101.017 %	0.2 %		524 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	0.011 ppm	1.6 %	0.010 ppm	4 cps	6.753 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	10.6 %	0.003 ppm	7 cps	8.507 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	1.0 %	0.050 ppm	74 cps	2.458 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	11.1 %	0.004 ppm	6 cps	1.260 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.038 ppm	75.6 %	0.050 ppm	1 cps	24.329 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.195 ppm	4.2 %	0.200 ppm	9 cps	2.402 %
Si 288.158 (ETA AQ-Radial-iFR)	0.472 ppm	0.3 %	0.500 ppm	43 cps	5.539 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	3.9 %	0.005 ppm	9 cps	4.384 %
Al 308.215 (ETA AQ-Radial-iFR)	0.186 ppm	4.8 %	0.200 ppm	11 cps	7.106 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	1.1 %	0.002 ppm	24 cps	4.257 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	0.6 %	0.500 ppm	116 cps	3.728 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	2.1 %	0.010 ppm	22 cps	5.305 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	4.7 %	0.006 ppm	3 cps	5.571 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	6.7 %	0.005 ppm	14 cps	3.927 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	0.6 %	0.005 ppm	43 cps	3.290 %
Y 360.073 (ETA AQ-Axial-iFR)	101.059 %	0.4 %		7,782 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	100.507 %	0.4 %		1,427 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.996 %	0.2 %		11,010 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	100.340 %	0.4 %		1,996 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	0.3 %	0.005 ppm	135 cps	4.258 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	0.1 %	0.002 ppm	27 cps	1.399 %
Na 589.592 (ETA AQ-Radial-iFR)	0.960 ppm	0.4 %	1.000 ppm	497 cps	4.007 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	2.5 %	0.030 ppm	60 cps	0.844 %
K 766.490 (ETA AQ-Radial-iFR)	0.476 ppm	2.3 %	0.500 ppm	55 cps	4.861 %
Na 818.326 (ETA AQ-Radial-iFR)	1.093 ppm	6.7 %	1.000 ppm	16 cps	9.309 %

Standard: IC-8019667
Analysis started at: 8/12/2024 10:47:31 AM
Standard (Stock): IC-8019667
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	50.134 ppm	0.8 %	50.000 ppm	1,329 cps	0.268 %
As 189.042 (ETA AQ-Axial-iFR)	2.003 ppm	0.9 %	2.000 ppm	103 cps	0.134 %
Sn 189.989 (ETA AQ-Axial-iFR)	2.001 ppm	1.3 %	2.000 ppm	254 cps	0.052 %
Tl 190.856 (ETA AQ-Axial-iFR)	1.993 ppm	0.9 %	2.000 ppm	90 cps	0.347 %
Se 196.090 (ETA AQ-Axial-iFR)	2.008 ppm	0.8 %	2.000 ppm	94 cps	0.418 %
Mo 202.030 (ETA AQ-Axial-iFR)	2.006 ppm	0.2 %	2.000 ppm	503 cps	0.309 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.980 ppm	0.9 %	2.000 ppm	1,134 cps	0.991 %
Sb 206.833 (ETA AQ-Axial-iFR)	2.007 ppm	0.2 %	2.000 ppm	86 cps	0.327 %
B 208.959 (ETA AQ-Axial-iFR)	2.009 ppm	0.6 %	2.000 ppm	517 cps	0.466 %
P 213.618 (ETA AQ-Axial-iFR)	50.197 ppm	0.4 %	50.000 ppm	2,919 cps	0.395 %
Pb 220.353 (ETA AQ-Axial-iFR)	2.019 ppm	0.5 %	2.000 ppm	122 cps	0.974 %
Y 224.306 (ETA AQ-Axial-iFR)	98.493 %	0.4 %		472 cps	0.000 %

Calibration Summary

8/12/2024 11:44:51 AM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 224.306 (ETA AQ-Radial-iFR)	95.531 %	0.9 %		115 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	2.013 ppm	0.6 %	2.000 ppm	1,110 cps	0.626 %
Cd 228.802 (ETA AQ-Axial-iFR)	2.002 ppm	0.5 %	2.000 ppm	1,865 cps	0.110 %
In 230.606 (ETA AQ-Axial-iFR)	91.318 %	0.3 %		474 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.999 ppm	0.7 %	2.000 ppm	783 cps	0.072 %
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	0.1 %	2.000 ppm	4,235 cps	0.008 %
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	119,310 cps	N/A
Cr 267.716 (ETA AQ-Axial-iFR)	1.993 ppm	0.8 %	2.000 ppm	2,406 cps	0.370 %
Fe 271.441 (ETA AQ-Radial-iFR)	100.145 ppm	0.3 %	100.000 ppm	1,694 cps	0.145 %
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	0.4 %	100.000 ppm	4,204 cps	0.650 %
Si 288.158 (ETA AQ-Radial-iFR)	19.985 ppm	0.1 %	20.000 ppm	1,625 cps	0.077 %
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	0.4 %	2.000 ppm	3,765 cps	0.065 %
Al 308.215 (ETA AQ-Radial-iFR)	100.442 ppm	0.3 %	100.000 ppm	5,333 cps	0.442 %
Be 313.042 (ETA AQ-Radial-iFR)	1.996 ppm	0.5 %	2.000 ppm	21,812 cps	0.221 %
Ca 317.933 (ETA AQ-Radial-iFR)	100.139 ppm	0.6 %	100.000 ppm	22,234 cps	0.139 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.996 ppm	0.6 %	2.000 ppm	4,608 cps	0.221 %
Ag 328.068 (ETA AQ-Axial-iFR)	2.000 ppm	0.5 %	2.000 ppm	5,920 cps	0.010 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.998 ppm	0.5 %	2.000 ppm	6,476 cps	0.077 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.992 ppm	0.7 %	2.000 ppm	19,011 cps	0.408 %
Y 360.073 (ETA AQ-Axial-iFR)	101.534 %	0.6 %		7,819 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	95.674 %	0.4 %		1,358 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.370 %	0.8 %		10,942 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	95.806 %	0.3 %		1,906 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.999 ppm	0.3 %	2.000 ppm	56,621 cps	0.031 %
Ba 455.403 (ETA AQ-Radial-iFR)	2.002 ppm	1.0 %	2.000 ppm	27,448 cps	0.083 %
Na 589.592 (ETA AQ-Radial-iFR)	100.292 ppm	0.1 %	100.000 ppm	49,359 cps	0.292 %
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	0.6 %	2.000 ppm	3,948 cps	0.262 %
K 766.490 (ETA AQ-Radial-iFR)	100.344 ppm	1.2 %	100.000 ppm	10,465 cps	0.344 %
Na 818.326 (ETA AQ-Radial-iFR)	100.363 ppm	0.4 %	100.000 ppm	1,237 cps	0.363 %

Standard: IC-8027695
Analysis started at: 8/12/2024 10:45:37 AM
Standard (Stock): IC-8027695
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	24.732 ppm	3.0 %	25.000 ppm	662 cps	1.071 %
As 189.042 (ETA AQ-Axial-iFR)	0.995 ppm	1.5 %	1.000 ppm	51 cps	0.538 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.998 ppm	2.0 %	1.000 ppm	133 cps	0.208 %
Tl 190.856 (ETA AQ-Axial-iFR)	1.014 ppm	2.5 %	1.000 ppm	48 cps	1.392 %
Se 196.090 (ETA AQ-Axial-iFR)	0.983 ppm	1.6 %	1.000 ppm	47 cps	1.669 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.988 ppm	0.5 %	1.000 ppm	250 cps	1.238 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.040 ppm	3.3 %	1.000 ppm	589 cps	3.963 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.987 ppm	0.5 %	1.000 ppm	43 cps	1.305 %
B 208.959 (ETA AQ-Axial-iFR)	0.981 ppm	1.2 %	1.000 ppm	255 cps	1.860 %
P 213.618 (ETA AQ-Axial-iFR)	24.605 ppm	0.9 %	25.000 ppm	1,440 cps	1.579 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.961 ppm	2.5 %	1.000 ppm	61 cps	3.896 %
Y 224.306 (ETA AQ-Axial-iFR)	99.244 %	2.7 %		476 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	97.210 %	1.0 %		117 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.975 ppm	1.1 %	1.000 ppm	566 cps	2.504 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.996 ppm	1.8 %	1.000 ppm	935 cps	0.439 %
In 230.606 (ETA AQ-Axial-iFR)	96.188 %	0.2 %		499 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.003 ppm	0.7 %	1.000 ppm	391 cps	0.286 %
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	0.3 %	1.000 ppm	2,149 cps	0.034 %
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	0.3 %	50.000 ppm	62,391 cps	0.000 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	0.6 %	1.000 ppm	1,213 cps	1.479 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.711 ppm	0.1 %	50.000 ppm	854 cps	0.579 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	0.3 %	50.000 ppm	2,065 cps	2.600 %
Si 288.158 (ETA AQ-Radial-iFR)	10.032 ppm	0.2 %	10.000 ppm	830 cps	0.323 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	0.4 %	1.000 ppm	1,868 cps	0.260 %
Al 308.215 (ETA AQ-Radial-iFR)	49.116 ppm	0.4 %	50.000 ppm	2,648 cps	1.768 %
Be 313.042 (ETA AQ-Radial-iFR)	1.009 ppm	0.1 %	1.000 ppm	11,198 cps	0.883 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.723 ppm	0.7 %	50.000 ppm	11,212 cps	0.555 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.009 ppm	2.8 %	1.000 ppm	2,317 cps	0.883 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.000 ppm	1.6 %	1.000 ppm	2,922 cps	0.038 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	0.3 %	1.000 ppm	3,215 cps	0.307 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.016 ppm	1.7 %	1.000 ppm	9,594 cps	1.631 %

Calibration Summary

8/12/2024 11:44:51 AM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 360.073 (ETA AQ-Axial-iFR)	100.467 %	3.2 %		7,737 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	97.180 %	0.4 %		1,380 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	99.892 %	3.1 %		10,889 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	97.280 %	0.5 %		1,935 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	0.3 %	1.000 ppm	28,787 cps	0.123 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.997 ppm	0.6 %	1.000 ppm	13,907 cps	0.333 %
Na 589.592 (ETA AQ-Radial-iFR)	49.418 ppm	0.6 %	50.000 ppm	24,697 cps	1.165 %
Li 670.784 (ETA AQ-Radial-iFR)	0.990 ppm	0.3 %	1.000 ppm	1,977 cps	1.046 %
K 766.490 (ETA AQ-Radial-iFR)	49.312 ppm	0.4 %	50.000 ppm	5,224 cps	1.376 %
Na 818.326 (ETA AQ-Radial-iFR)	49.271 ppm	1.2 %	50.000 ppm	618 cps	1.458 %

Sample List Summary

8/13/2024 8:09:42 AM

LabBook: I420240812C5.imexp

Summary

Index	Label	Sample Type	Amount	Final Quantity	Standard DF	Started at
1	ICIS-7982661	BLK			1	8/12/2024 10:41:50 AM
2	IC-7982556	STD			1	8/12/2024 10:43:44 AM
3	IC-8027695	STD			1	8/12/2024 10:45:37 AM
4	IC-8019667	STD			1	8/12/2024 10:47:31 AM
5	CCV-8027695	QC			1	8/12/2024 3:33:55 PM
6	CCB-7982661	QC			1	8/12/2024 3:35:53 PM
7	CCVL-7982556	QC			1	8/12/2024 3:37:47 PM
8	MB 480-721282/1-A	UNKNOWN			1	8/12/2024 3:39:42 PM
9	LCS 480-721282/2-A	UNKNOWN			1	8/12/2024 3:41:36 PM
10	480-222377-A-1-A	UNKNOWN			1	8/12/2024 3:43:29 PM
11	480-222377-A-2-A	UNKNOWN			1	8/12/2024 3:45:22 PM
12	480-222377-A-3-A	UNKNOWN			1	8/12/2024 3:47:15 PM
13	CCV-8027695	QC			1	8/12/2024 3:49:09 PM
14	CCB-7982661	QC			1	8/12/2024 3:51:03 PM
15	CCVL-7982556	QC			1	8/12/2024 3:52:57 PM
16	480-222377-A-4-A	UNKNOWN			1	8/12/2024 3:54:51 PM
17	480-222377-A-5-A	UNKNOWN			1	8/12/2024 3:56:45 PM
18	480-222377-A-5-ASD@5	UNKNOWN			1	8/12/2024 3:58:38 PM
19	480-222377-A-5-APDS	UNKNOWN			1	8/12/2024 4:00:31 PM
20	480-222377-A-5-B MS	UNKNOWN			1	8/12/2024 4:02:25 PM
21	480-222377-A-5-C MSD	UNKNOWN			1	8/12/2024 4:04:18 PM
22	480-222377-A-6-A	UNKNOWN			1	8/12/2024 4:06:11 PM
23	480-222377-A-7-A	UNKNOWN			1	8/12/2024 4:08:05 PM
24	480-222377-A-9-A	UNKNOWN			1	8/12/2024 4:09:58 PM
25	CCV-8027695	QC			1	8/12/2024 4:11:51 PM
26	CCB-7982661	QC			1	8/12/2024 4:13:46 PM
27	CCVL-7982556	QC			1	8/12/2024 4:15:39 PM
28	MB 480-721219/1-A	UNKNOWN			1	8/12/2024 4:17:34 PM
29	LCS 480-721219/2-A	UNKNOWN			1	8/12/2024 4:19:27 PM
30	480-222382-A-1-A	UNKNOWN			1	8/12/2024 4:21:21 PM
31	480-222382-A-2-A	UNKNOWN			1	8/12/2024 4:23:14 PM
32	480-222382-A-3-A	UNKNOWN			1	8/12/2024 4:25:07 PM
33	480-222382-A-4-A	UNKNOWN			1	8/12/2024 4:27:01 PM
34	480-222382-A-5-A	UNKNOWN			1	8/12/2024 4:28:54 PM
35	480-222379-A-1-A	UNKNOWN			1	8/12/2024 4:30:47 PM
36	480-222379-A-2-A	UNKNOWN			1	8/12/2024 4:32:41 PM
37	CCV-8027695	QC			1	8/12/2024 4:34:34 PM
38	CCB-7982661	QC			1	8/12/2024 4:36:28 PM
39	CCVL-7982556	QC			1	8/12/2024 4:38:22 PM
40	480-222379-A-3-A	UNKNOWN			1	8/12/2024 4:40:16 PM
41	480-222379-A-4-A	UNKNOWN			1	8/12/2024 4:42:09 PM
42	480-222379-A-5-A	UNKNOWN			1	8/12/2024 4:44:03 PM
43	480-222379-A-6-A	UNKNOWN			1	8/12/2024 4:45:56 PM
44	480-222389-A-1-A	UNKNOWN			1	8/12/2024 4:47:49 PM
45	480-222403-E-1-A	UNKNOWN			1	8/12/2024 4:49:43 PM
46	480-222403-E-1-ASD@5	UNKNOWN			1	8/12/2024 4:51:36 PM
47	480-222403-E-1-APDS	UNKNOWN			1	8/12/2024 4:53:30 PM
48	480-222403-E-1-B MS	UNKNOWN			1	8/12/2024 4:55:24 PM
49	CCV-8027695	QC			1	8/12/2024 4:57:17 PM
50	CCB-7982661	QC			1	8/12/2024 4:59:12 PM
51	CCVL-7982556	QC			1	8/12/2024 5:01:06 PM
52	480-222403-E-1-C MSD	UNKNOWN			1	8/12/2024 5:03:01 PM
53	480-222403-A-2-A	UNKNOWN			1	8/12/2024 5:04:55 PM
54	480-222403-A-2-B MS	UNKNOWN			1	8/12/2024 5:06:49 PM
55	480-222403-A-2-C MSD	UNKNOWN			1	8/12/2024 5:08:42 PM
56	480-222403-A-3-A	UNKNOWN			1	8/12/2024 5:10:36 PM
57	480-222403-A-4-A	UNKNOWN			1	8/12/2024 5:12:30 PM
58	480-222403-A-6-A	UNKNOWN			1	8/12/2024 5:14:23 PM
59	480-222403-A-7-A	UNKNOWN			1	8/12/2024 5:16:17 PM
60	rinse	UNKNOWN			1	8/12/2024 5:18:11 PM
61	CCV-8027695	QC			1	8/12/2024 5:20:04 PM
62	CCB-7982661	QC			1	8/12/2024 5:21:59 PM
63	CCVL-7982556	QC			1	8/12/2024 5:23:53 PM
64	480-222363-G-3-B	UNKNOWN			1	8/12/2024 5:25:48 PM
65	480-222363-G-4-B	UNKNOWN			1	8/12/2024 5:27:42 PM
66	rinse	UNKNOWN			1	8/12/2024 5:29:36 PM
67	CCV-8027695	QC			1	8/12/2024 5:31:30 PM

Sample List Summary

8/13/2024 8:09:42 AM

Index	Label	Sample Type	Amount	Final Quantity	Standard DF	Started at
68	CCB-7982661	QC			1	8/12/2024 5:33:24 PM
69	CCVL-7982556	QC			1	8/12/2024 5:35:18 PM

Basic Sample Report
8/13/2024 8:09:51 AM

LabBook: I420240812C5.imexp

Label: ICIS-7982661 #: 1
Analysis Type: BLK Analysis started at: 8/12/2024 10:41:50 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.000 %	479 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.000 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.000 %	519 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.000 ppm	9 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.000 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.000 %	7,701 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.000 %	1,420 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.000 %	10,901 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.000 %	1,989 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.000 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps

Label: IC-7982556 #: 2
Analysis Type: STD Analysis started at: 8/12/2024 10:43:44 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.189 ppm	8 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.023 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.019 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	6 cps
P 213.618 (ETA AQ-Axial-iFR)	N/A	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	101.009 %	484 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.114 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	101.017 %	524 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.011 ppm	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.038 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.195 ppm	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.472 ppm	43 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.186 ppm	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.059 %	7,782 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.507 %	1,427 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.996 %	11,010 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.340 %	1,996 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	135 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.960 ppm	497 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	60 cps
K 766.490 (ETA AQ-Radial-iFR)	0.476 ppm	55 cps
Na 818.326 (ETA AQ-Radial-iFR)	1.093 ppm	16 cps

Label: IC-8027695 #: 3
Analysis Type: STD Analysis started at: 8/12/2024 10:45:37 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	24.732 ppm	662 cps
As 189.042 (ETA AQ-Axial-iFR)	0.995 ppm	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.998 ppm	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.977 ppm	50 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.983 ppm	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.988 ppm	250 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.040 ppm	589 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.987 ppm	43 cps
B 208.959 (ETA AQ-Axial-iFR)	0.981 ppm	255 cps
P 213.618 (ETA AQ-Axial-iFR)	24.605 ppm	1,440 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	0.961 ppm	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.244 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.210 %	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.975 ppm	566 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.996 ppm	935 cps
In 230.606 (ETA AQ-Axial-iFR)	96.188 %	499 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.003 ppm	391 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	2,149 cps
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	62,391 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	1,213 cps
Fe 271.441 (ETA AQ-Radial-iFR)	49.711 ppm	854 cps
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	2,065 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.032 ppm	830 cps
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	1,868 cps
Al 308.215 (ETA AQ-Radial-iFR)	49.116 ppm	2,648 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.009 ppm	11,198 cps
Ca 317.933 (ETA AQ-Radial-iFR)	49.723 ppm	11,212 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1.009 ppm	2,317 cps
Ag 328.068 (ETA AQ-Axial-iFR)	1.000 ppm	2,922 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	3,215 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.016 ppm	9,594 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.467 %	7,737 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.180 %	1,380 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.892 %	10,889 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.280 %	1,935 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	28,787 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.997 ppm	13,907 cps
Na 589.592 (ETA AQ-Radial-iFR)	49.418 ppm	24,697 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.990 ppm	1,977 cps
K 766.490 (ETA AQ-Radial-iFR)	49.312 ppm	5,224 cps
Na 818.326 (ETA AQ-Radial-iFR)	49.271 ppm	618 cps

Label: IC-8019667 #: 4
Analysis Type: STD Analysis started at: 8/12/2024 10:47:31 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.134 ppm	1,329 cps
As 189.042 (ETA AQ-Axial-iFR)	2.003 ppm	103 cps
Sn 189.989 (ETA AQ-Axial-iFR)	2.001 ppm	254 cps
Tl 190.856 (ETA AQ-Axial-iFR)	2.012 ppm	98 cps
Se 196.090 (ETA AQ-Axial-iFR)	2.008 ppm	94 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2.006 ppm	503 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.980 ppm	1,134 cps
Sb 206.833 (ETA AQ-Axial-iFR)	2.007 ppm	86 cps
B 208.959 (ETA AQ-Axial-iFR)	2.009 ppm	517 cps
P 213.618 (ETA AQ-Axial-iFR)	50.197 ppm	2,919 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2.019 ppm	122 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.493 %	472 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.531 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	2.013 ppm	1,110 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2.002 ppm	1,865 cps
In 230.606 (ETA AQ-Axial-iFR)	91.318 %	474 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.999 ppm	783 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	4,235 cps
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	119,310 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cr 267.716 (ETA AQ-Axial-iFR)	1.993 ppm	2,406 cps
Fe 271.441 (ETA AQ-Radial-iFR)	100.145 ppm	1,694 cps
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	4,204 cps
Si 288.158 (ETA AQ-Radial-iFR)	19.985 ppm	1,625 cps
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	3,765 cps
Al 308.215 (ETA AQ-Radial-iFR)	100.442 ppm	5,333 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.996 ppm	21,812 cps
Ca 317.933 (ETA AQ-Radial-iFR)	100.139 ppm	22,234 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1.996 ppm	4,608 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2.000 ppm	5,920 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.998 ppm	6,476 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.992 ppm	19,011 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.534 %	7,819 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.674 %	1,358 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.370 %	10,942 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.806 %	1,906 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.999 ppm	56,621 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2.002 ppm	27,448 cps
Na 589.592 (ETA AQ-Radial-iFR)	100.292 ppm	49,359 cps
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	3,948 cps
K 766.490 (ETA AQ-Radial-iFR)	100.344 ppm	10,465 cps
Na 818.326 (ETA AQ-Radial-iFR)	100.363 ppm	1,237 cps

Label: CCV-8027695 #: 5
Analysis Type: QC Analysis started at: 8/12/2024 3:33:55 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	25.095 ppm	100.379 %
As 189.042 (ETA AQ-Axial-iFR)	0.949 ppm	94.909 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.024 ppm	102.409 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.943 ppm	94.290 %
Se 196.090 (ETA AQ-Axial-iFR)	0.972 ppm	97.212 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.945 ppm	94.545 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.064 ppm	106.443 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.969 ppm	96.913 %
B 208.959 (ETA AQ-Axial-iFR)	0.978 ppm	97.802 %
P 213.618 (ETA AQ-Axial-iFR)	24.776 ppm	99.105 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.955 ppm	95.525 %
Y 224.306 (ETA AQ-Axial-iFR)	99.313 %	
Y 224.306 (ETA AQ-Radial-iFR)	97.879 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.984 ppm	98.408 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.007 ppm	100.700 %
In 230.606 (ETA AQ-Axial-iFR)	95.698 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.002 ppm	100.193 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.973 ppm	97.313 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.344 ppm	98.687 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.021 ppm	102.091 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.770 ppm	99.541 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.821 ppm	97.643 %
Si 288.158 (ETA AQ-Radial-iFR)	9.848 ppm	98.483 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	100.270 %
Al 308.215 (ETA AQ-Radial-iFR)	48.057 ppm	96.114 %
Be 313.042 (ETA AQ-Radial-iFR)	1.001 ppm	100.079 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.386 ppm	98.772 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.016 ppm	101.615 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Ag 328.068 (ETA AQ-Axial-iFR)	1.021 ppm	102.051 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	100.311 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.026 ppm	102.553 %
Y 360.073 (ETA AQ-Axial-iFR)	99.225 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.631 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.392 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.732 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	100.125 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.981 ppm	98.076 %
Na 589.592 (ETA AQ-Radial-iFR)	49.205 ppm	98.411 %
Li 670.784 (ETA AQ-Radial-iFR)	0.997 ppm	99.726 %
K 766.490 (ETA AQ-Radial-iFR)	49.472 ppm	98.944 %
Na 818.326 (ETA AQ-Radial-iFR)	48.948 ppm	97.895 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	672 cps
As 189.042 (ETA AQ-Axial-iFR)	49 cps
Sn 189.989 (ETA AQ-Axial-iFR)	136 cps
Tl 190.856 (ETA AQ-Axial-iFR)	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	239 cps
Zn 206.200 (ETA AQ-Axial-iFR)	596 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	254 cps
P 213.618 (ETA AQ-Axial-iFR)	1,451 cps
Pb 220.353 (ETA AQ-Axial-iFR)	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	569 cps
Cd 228.802 (ETA AQ-Axial-iFR)	946 cps
In 230.606 (ETA AQ-Axial-iFR)	497 cps
Ni 231.604 (ETA AQ-Axial-iFR)	389 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,102 cps
Fe 259.940 (ETA AQ-Axial-iFR)	61,609 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,205 cps
Fe 271.441 (ETA AQ-Radial-iFR)	859 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,080 cps
Si 288.158 (ETA AQ-Radial-iFR)	818 cps
V 292.402 (ETA AQ-Axial-iFR)	1,846 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,603 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,160 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,188 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,324 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,945 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,176 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,564 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,641 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,386 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,835 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,944 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,921 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,779 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,705 cps
Li 670.784 (ETA AQ-Radial-iFR)	2,002 cps
K 766.490 (ETA AQ-Radial-iFR)	5,265 cps
Na 818.326 (ETA AQ-Radial-iFR)	617 cps

Basic Sample Report
8/13/2024 8:09:51 AM

Label: CCB-7982661 #: 6
Analysis Type: QC Analysis started at: 8/12/2024 3:35:53 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.009 ppm	0.886 %
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0.349 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0.026 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.191 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	-0.368 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.137 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.031 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	-0.032 %
B 208.959 (ETA AQ-Axial-iFR)	0.002 ppm	0.224 %
P 213.618 (ETA AQ-Axial-iFR)	0.004 ppm	0.409 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0.056 %
Y 224.306 (ETA AQ-Axial-iFR)	101.533 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.227 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	0.007 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.029 %
In 230.606 (ETA AQ-Axial-iFR)	99.327 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0.029 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.017 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.010 ppm	1.050 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.028 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.023 ppm	-2.323 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.004 ppm	0.426 %
Si 288.158 (ETA AQ-Radial-iFR)	0.007 ppm	0.691 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.039 %
Al 308.215 (ETA AQ-Radial-iFR)	-0.005 ppm	-0.504 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.009 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.003 ppm	0.330 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.008 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.011 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.030 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.037 %
Y 360.073 (ETA AQ-Axial-iFR)	100.248 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.269 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.473 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.441 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.010 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.014 %
Na 589.592 (ETA AQ-Radial-iFR)	0.029 ppm	2.879 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.014 %
K 766.490 (ETA AQ-Radial-iFR)	0.014 ppm	1.419 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.070 ppm	-7.034 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	2 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps

Analyte (Measure Mode)	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	487 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	515 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	23 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	3 cps
V 292.402 (ETA AQ-Axial-iFR)	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,720 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,409 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,953 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,978 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-4 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1 cps
Na 589.592 (ETA AQ-Radial-iFR)	17 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	5 cps
Na 818.326 (ETA AQ-Radial-iFR)	1 cps

Label: CCVL-7982556 #: 7
Analysis Type: QC Analysis started at: 8/12/2024 3:37:47 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.190 ppm	95.177 %
As 189.042 (ETA AQ-Axial-iFR)	0.015 ppm	97.530 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.010 ppm	103.772 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.015 ppm	74.504 %
Se 196.090 (ETA AQ-Axial-iFR)	0.016 ppm	62.064 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	104.109 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	108.155 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.016 ppm	82.483 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	93.937 %
P 213.618 (ETA AQ-Axial-iFR)	-0.002 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	90.846 %
Y 224.306 (ETA AQ-Axial-iFR)	101.964 %	
Y 224.306 (ETA AQ-Radial-iFR)	101.241 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	83.125 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	97.993 %
In 230.606 (ETA AQ-Axial-iFR)	100.516 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	101.805 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	96.696 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	102.985 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	101.411 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.041 ppm	81.996 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.180 ppm	89.907 %
Si 288.158 (ETA AQ-Radial-iFR)	0.474 ppm	94.766 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	100.654 %
Al 308.215 (ETA AQ-Radial-iFR)	0.170 ppm	84.778 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	96.004 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.483 ppm	96.663 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	90.516 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	93.955 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.004 ppm	89.539 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	97.457 %
Y 360.073 (ETA AQ-Axial-iFR)	101.268 %	
Y 360.073 (ETA AQ-Radial-iFR)	100.858 %	
Y 377.433 (ETA AQ-Axial-iFR)	101.507 %	
Y 377.433 (ETA AQ-Radial-iFR)	100.982 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	95.804 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	97.127 %
Na 589.592 (ETA AQ-Radial-iFR)	0.981 ppm	98.067 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	97.566 %
K 766.490 (ETA AQ-Radial-iFR)	0.492 ppm	98.420 %
Na 818.326 (ETA AQ-Radial-iFR)	1.071 ppm	107.087 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	489 cps
Y 224.306 (ETA AQ-Radial-iFR)	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	522 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	76 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	43 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	25 cps
Ca 317.933 (ETA AQ-Radial-iFR)	118 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,798 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,432 cps
Y 377.433 (ETA AQ-Axial-iFR)	11,066 cps

Analyte (Measure Mode)	Raw Intensity average
Y 377.433 (ETA AQ-Radial-iFR)	2,009 cps
Sr 407.771 (ETA AQ-Radial-iFR)	136 cps
Ba 455.403 (ETA AQ-Radial-iFR)	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	511 cps
Li 670.784 (ETA AQ-Radial-iFR)	59 cps
K 766.490 (ETA AQ-Radial-iFR)	58 cps
Na 818.326 (ETA AQ-Radial-iFR)	16 cps

Label: MB 480-721282/1-A #: 8
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:39:42 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.005 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.006 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	101.746 %	488 cps
Y 224.306 (ETA AQ-Radial-iFR)	101.281 %	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	99.716 %	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.008 ppm	19 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.001 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.009 ppm	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.011 ppm	4 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.026 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.019 ppm	9 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.997 %	7,777 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.474 %	1,426 cps
Y 377.433 (ETA AQ-Axial-iFR)	101.349 %	11,048 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.660 %	2,002 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-5 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.121 ppm	65 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.022 ppm	6 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.054 ppm	3 cps

Label: LCS 480-721282/2-A #: 9
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:41:36 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	4.875 ppm	133 cps
As 189.042 (ETA AQ-Axial-iFR)	0.938 ppm	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.994 ppm	135 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.923 ppm	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.938 ppm	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.472 ppm	120 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.551 ppm	310 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.475 ppm	21 cps
B 208.959 (ETA AQ-Axial-iFR)	0.482 ppm	127 cps
P 213.618 (ETA AQ-Axial-iFR)	9.658 ppm	565 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.471 ppm	31 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.574 %	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.832 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.482 ppm	285 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.491 ppm	465 cps
In 230.606 (ETA AQ-Axial-iFR)	98.012 %	509 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.509 ppm	198 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.484 ppm	1,055 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.311 ppm	6,657 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.505 ppm	599 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.014 ppm	88 cps
Mg 279.079 (ETA AQ-Radial-iFR)	23.689 ppm	1,020 cps
Si 288.158 (ETA AQ-Radial-iFR)	1.003 ppm	86 cps
V 292.402 (ETA AQ-Axial-iFR)	0.495 ppm	915 cps
Al 308.215 (ETA AQ-Radial-iFR)	4.789 ppm	263 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.504 ppm	5,682 cps
Ca 317.933 (ETA AQ-Radial-iFR)	24.592 ppm	5,630 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.484 ppm	1,115 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.049 ppm	128 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.504 ppm	1,604 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.516 ppm	4,839 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.750 %	7,681 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.562 %	1,399 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.031 %	10,905 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.723 %	1,964 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.503 ppm	14,668 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.984 ppm	13,964 cps
Na 589.592 (ETA AQ-Radial-iFR)	24.446 ppm	12,399 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.495 ppm	1,002 cps
K 766.490 (ETA AQ-Radial-iFR)	24.358 ppm	2,620 cps
Na 818.326 (ETA AQ-Radial-iFR)	24.251 ppm	310 cps

Label: 480-222377-A-1-A #: 10
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:43:29 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	14.205 ppm	364 cps
As 189.042 (ETA AQ-Axial-iFR)	0.011 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Se 196.090 (ETA AQ-Axial-iFR)	-0.006 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.134 ppm	73 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.098 ppm	25 cps
P 213.618 (ETA AQ-Axial-iFR)	0.726 ppm	38 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.023 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.836 %	455 cps
Y 224.306 (ETA AQ-Radial-iFR)	93.773 %	113 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.009 ppm	4 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	87.336 %	453 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.024 ppm	9 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.634 ppm	1,328 cps
Fe 259.940 (ETA AQ-Axial-iFR)	24.813 ppm	29,590 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.033 ppm	39 cps
Fe 271.441 (ETA AQ-Radial-iFR)	24.076 ppm	402 cps
Mg 279.079 (ETA AQ-Radial-iFR)	201.750 ppm	8,339 cps
Si 288.158 (ETA AQ-Radial-iFR)	42.010 ppm	3,378 cps
V 292.402 (ETA AQ-Axial-iFR)	0.034 ppm	62 cps
Al 308.215 (ETA AQ-Radial-iFR)	21.621 ppm	1,137 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.001 ppm	13 cps
Ca 317.933 (ETA AQ-Radial-iFR)	254.410 ppm	55,894 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.041 ppm	92 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.347 ppm	1,073 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.355 ppm	3,231 cps
Y 360.073 (ETA AQ-Axial-iFR)	96.885 %	7,461 cps
Y 360.073 (ETA AQ-Radial-iFR)	94.496 %	1,342 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.109 %	10,586 cps
Y 377.433 (ETA AQ-Radial-iFR)	94.811 %	1,886 cps
Sr 407.771 (ETA AQ-Radial-iFR)	17.679 ppm	495,517 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.450 ppm	6,052 cps
Na 589.592 (ETA AQ-Radial-iFR)	418.299 ppm	203,720 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.116 ppm	225 cps
K 766.490 (ETA AQ-Radial-iFR)	9.874 ppm	1,022 cps
Na 818.326 (ETA AQ-Radial-iFR)	429.100 ppm	5,229 cps

Label: 480-222377-A-2-A #: 11
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:45:22 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	29.531 ppm	787 cps
As 189.042 (ETA AQ-Axial-iFR)	0.015 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.009 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.150 ppm	85 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.166 ppm	43 cps
P 213.618 (ETA AQ-Axial-iFR)	1.004 ppm	56 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.026 ppm	2 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.871 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.834 %	118 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Co 228.616 (ETA AQ-Axial-iFR)	0.019 ppm	10 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	92.832 %	482 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.048 ppm	19 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.952 ppm	2,084 cps
Fe 259.940 (ETA AQ-Axial-iFR)	48.150 ppm	59,854 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.063 ppm	76 cps
Fe 271.441 (ETA AQ-Radial-iFR)	47.738 ppm	834 cps
Mg 279.079 (ETA AQ-Radial-iFR)	139.638 ppm	6,031 cps
Si 288.158 (ETA AQ-Radial-iFR)	55.796 ppm	4,688 cps
V 292.402 (ETA AQ-Axial-iFR)	0.064 ppm	122 cps
Al 308.215 (ETA AQ-Radial-iFR)	34.169 ppm	1,877 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	20 cps
Ca 317.933 (ETA AQ-Radial-iFR)	151.719 ppm	34,833 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.032 ppm	74 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.684 ppm	2,197 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.703 ppm	6,651 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.613 %	7,748 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.751 %	1,402 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.854 %	10,994 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.074 %	1,971 cps
Sr 407.771 (ETA AQ-Radial-iFR)	13.303 ppm	389,629 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.319 ppm	4,476 cps
Na 589.592 (ETA AQ-Radial-iFR)	41.165 ppm	20,952 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.141 ppm	285 cps
K 766.490 (ETA AQ-Radial-iFR)	14.675 ppm	1,586 cps
Na 818.326 (ETA AQ-Radial-iFR)	40.988 ppm	524 cps

Label: 480-222377-A-3-A #: 12
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:47:15 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	37.641 ppm	994 cps
As 189.042 (ETA AQ-Axial-iFR)	0.008 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.009 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.069 ppm	39 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.202 ppm	52 cps
P 213.618 (ETA AQ-Axial-iFR)	1.749 ppm	98 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.059 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.960 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.009 ppm	4 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	93.940 %	487 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.024 ppm	9 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.486 ppm	1,047 cps
Fe 259.940 (ETA AQ-Axial-iFR)	22.572 ppm	27,830 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.026 ppm	31 cps
Fe 271.441 (ETA AQ-Radial-iFR)	21.760 ppm	374 cps
Mg 279.079 (ETA AQ-Radial-iFR)	142.183 ppm	6,042 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Si 288.158 (ETA AQ-Radial-iFR)	35.367 ppm	2,925 cps
V 292.402 (ETA AQ-Axial-iFR)	0.032 ppm	61 cps
Al 308.215 (ETA AQ-Radial-iFR)	17.376 ppm	940 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.001 ppm	11 cps
Ca 317.933 (ETA AQ-Radial-iFR)	108.041 ppm	24,409 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.017 ppm	38 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.372 ppm	1,184 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.380 ppm	3,566 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.862 %	7,690 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.665 %	1,387 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.998 %	10,901 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.490 %	1,939 cps
Sr 407.771 (ETA AQ-Radial-iFR)	14.129 ppm	407,181 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.180 ppm	2,476 cps
Na 589.592 (ETA AQ-Radial-iFR)	60.460 ppm	30,278 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.137 ppm	273 cps
K 766.490 (ETA AQ-Radial-iFR)	9.908 ppm	1,055 cps
Na 818.326 (ETA AQ-Radial-iFR)	60.579 ppm	761 cps

Label: CCV-8027695 #: 13
Analysis Type: QC Analysis started at: 8/12/2024 3:49:09 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	24.717 ppm	98.868 %
As 189.042 (ETA AQ-Axial-iFR)	0.946 ppm	94.614 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.993 ppm	99.310 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.935 ppm	93.499 %
Se 196.090 (ETA AQ-Axial-iFR)	0.965 ppm	96.469 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.951 ppm	95.106 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.038 ppm	103.788 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.973 ppm	97.297 %
B 208.959 (ETA AQ-Axial-iFR)	0.974 ppm	97.406 %
P 213.618 (ETA AQ-Axial-iFR)	24.633 ppm	98.531 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.949 ppm	94.948 %
Y 224.306 (ETA AQ-Axial-iFR)	98.622 %	
Y 224.306 (ETA AQ-Radial-iFR)	96.242 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.969 ppm	96.941 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.996 ppm	99.551 %
In 230.606 (ETA AQ-Axial-iFR)	95.512 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.003 ppm	100.293 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.973 ppm	97.271 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.390 ppm	98.779 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	101.485 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.561 ppm	99.123 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.535 ppm	97.070 %
Si 288.158 (ETA AQ-Radial-iFR)	9.956 ppm	99.562 %
V 292.402 (ETA AQ-Axial-iFR)	1.000 ppm	99.965 %
Al 308.215 (ETA AQ-Radial-iFR)	48.339 ppm	96.678 %
Be 313.042 (ETA AQ-Radial-iFR)	1.007 ppm	100.721 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.636 ppm	99.273 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.006 ppm	100.559 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.004 ppm	100.352 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.998 ppm	99.831 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.009 ppm	100.881 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Y 360.073 (ETA AQ-Axial-iFR)	99.326 %	
Y 360.073 (ETA AQ-Radial-iFR)	96.254 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.756 %	
Y 377.433 (ETA AQ-Radial-iFR)	95.904 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	100.084 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.989 ppm	98.874 %
Na 589.592 (ETA AQ-Radial-iFR)	49.489 ppm	98.979 %
Li 670.784 (ETA AQ-Radial-iFR)	0.990 ppm	98.983 %
K 766.490 (ETA AQ-Radial-iFR)	49.545 ppm	99.090 %
Na 818.326 (ETA AQ-Radial-iFR)	49.535 ppm	99.070 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	657 cps
As 189.042 (ETA AQ-Axial-iFR)	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	132 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	239 cps
Zn 206.200 (ETA AQ-Axial-iFR)	581 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	251 cps
P 213.618 (ETA AQ-Axial-iFR)	1,433 cps
Pb 220.353 (ETA AQ-Axial-iFR)	60 cps
Y 224.306 (ETA AQ-Axial-iFR)	473 cps
Y 224.306 (ETA AQ-Radial-iFR)	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	559 cps
Cd 228.802 (ETA AQ-Axial-iFR)	929 cps
In 230.606 (ETA AQ-Axial-iFR)	496 cps
Ni 231.604 (ETA AQ-Axial-iFR)	387 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,061 cps
Fe 259.940 (ETA AQ-Axial-iFR)	61,242 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,199 cps
Fe 271.441 (ETA AQ-Radial-iFR)	839 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,029 cps
Si 288.158 (ETA AQ-Radial-iFR)	812 cps
V 292.402 (ETA AQ-Axial-iFR)	1,842 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,570 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,021 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,034 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,284 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,898 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,163 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,414 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,649 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,366 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,766 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,908 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,369 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,658 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,382 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,950 cps
K 766.490 (ETA AQ-Radial-iFR)	5,174 cps
Na 818.326 (ETA AQ-Radial-iFR)	612 cps

Label: CCB-7982661 #: 14
Analysis Type: QC Analysis started at: 8/12/2024 3:51:03 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.004 ppm	0.438 %
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0.221 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.083 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.233 %
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	0.046 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.058 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.024 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0.171 %
B 208.959 (ETA AQ-Axial-iFR)	0.003 ppm	0.289 %
P 213.618 (ETA AQ-Axial-iFR)	0.007 ppm	0.701 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.004 ppm	0.404 %
Y 224.306 (ETA AQ-Axial-iFR)	100.520 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.451 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.027 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.029 %
In 230.606 (ETA AQ-Axial-iFR)	99.619 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0.039 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.018 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.010 ppm	1.026 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.033 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.017 ppm	-1.742 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.011 ppm	1.051 %
Si 288.158 (ETA AQ-Radial-iFR)	0.007 ppm	0.693 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.017 %
Al 308.215 (ETA AQ-Radial-iFR)	0.009 ppm	0.929 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.006 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.004 ppm	0.372 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.017 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.017 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.031 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.032 %
Y 360.073 (ETA AQ-Axial-iFR)	99.551 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.940 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.424 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.685 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.025 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.005 %
Na 589.592 (ETA AQ-Radial-iFR)	0.009 ppm	0.923 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.003 %
K 766.490 (ETA AQ-Radial-iFR)	0.002 ppm	0.191 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.111 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	2 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	482 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps

Analyte (Measure Mode)	Raw Intensity average
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	22 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,666 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,405 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,838 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,963 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	7 cps
Li 670.784 (ETA AQ-Radial-iFR)	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	2 cps

Label: CCVL-7982556 #: 15
Analysis Type: QC Analysis started at: 8/12/2024 3:52:57 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.188 ppm	94.080 %
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	106.037 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.010 ppm	101.438 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.015 ppm	73.046 %
Se 196.090 (ETA AQ-Axial-iFR)	0.020 ppm	78.136 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	100.523 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.010 ppm	104.430 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.016 ppm	78.443 %
B 208.959 (ETA AQ-Axial-iFR)	0.018 ppm	90.868 %
P 213.618 (ETA AQ-Axial-iFR)	0.001 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	68.519 %
Y 224.306 (ETA AQ-Axial-iFR)	100.570 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.428 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	78.525 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	98.428 %
In 230.606 (ETA AQ-Axial-iFR)	100.842 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	102.245 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	98.967 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	101.748 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	106.357 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.008 ppm	15.605 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.179 ppm	89.516 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Si 288.158 (ETA AQ-Radial-iFR)	0.473 ppm	94.548 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	104.464 %
Al 308.215 (ETA AQ-Radial-iFR)	0.166 ppm	83.057 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	95.166 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.479 ppm	95.873 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	93.526 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	91.492 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	92.707 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	95.852 %
Y 360.073 (ETA AQ-Axial-iFR)	100.336 %	
Y 360.073 (ETA AQ-Radial-iFR)	100.399 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.920 %	
Y 377.433 (ETA AQ-Radial-iFR)	100.098 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	94.702 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	93.780 %
Na 589.592 (ETA AQ-Radial-iFR)	0.962 ppm	96.173 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	98.179 %
K 766.490 (ETA AQ-Radial-iFR)	0.488 ppm	97.537 %
Na 818.326 (ETA AQ-Radial-iFR)	0.894 ppm	89.428 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	6 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	482 cps
Y 224.306 (ETA AQ-Radial-iFR)	121 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	523 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	43 cps
V 292.402 (ETA AQ-Axial-iFR)	10 cps
Al 308.215 (ETA AQ-Radial-iFR)	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,726 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,425 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,892 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,991 cps
Sr 407.771 (ETA AQ-Radial-iFR)	133 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps

Analyte (Measure Mode)	Raw Intensity average
Na 589.592 (ETA AQ-Radial-iFR)	497 cps
Li 670.784 (ETA AQ-Radial-iFR)	59 cps
K 766.490 (ETA AQ-Radial-iFR)	57 cps
Na 818.326 (ETA AQ-Radial-iFR)	14 cps

Label: 480-222377-A-4-A #: 16
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:54:51 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	46.219 ppm	1,214 cps
As 189.042 (ETA AQ-Axial-iFR)	0.008 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.008 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.041 ppm	23 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.127 ppm	33 cps
P 213.618 (ETA AQ-Axial-iFR)	0.467 ppm	24 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.008 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	97.587 %	468 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.814 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	95.740 %	497 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.203 ppm	431 cps
Fe 259.940 (ETA AQ-Axial-iFR)	9.285 ppm	11,399 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.014 ppm	17 cps
Fe 271.441 (ETA AQ-Radial-iFR)	8.876 ppm	151 cps
Mg 279.079 (ETA AQ-Radial-iFR)	121.977 ppm	5,114 cps
Si 288.158 (ETA AQ-Radial-iFR)	20.412 ppm	1,666 cps
V 292.402 (ETA AQ-Axial-iFR)	0.014 ppm	26 cps
Al 308.215 (ETA AQ-Radial-iFR)	7.437 ppm	397 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	6 cps
Ca 317.933 (ETA AQ-Radial-iFR)	72.864 ppm	16,241 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.167 ppm	526 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.170 ppm	1,584 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.197 %	7,639 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.407 %	1,369 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.948 %	10,787 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.171 %	1,913 cps
Sr 407.771 (ETA AQ-Radial-iFR)	10.512 ppm	298,835 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.134 ppm	1,846 cps
Na 589.592 (ETA AQ-Radial-iFR)	33.944 ppm	16,770 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.094 ppm	185 cps
K 766.490 (ETA AQ-Radial-iFR)	5.858 ppm	616 cps
Na 818.326 (ETA AQ-Radial-iFR)	34.040 ppm	423 cps

Label: 480-222377-A-5-A #: 17
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:56:45 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	44.594 ppm	1,163 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.023 ppm	13 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.123 ppm	32 cps
P 213.618 (ETA AQ-Axial-iFR)	0.024 ppm	-1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.900 %	465 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.006 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	96.278 %	500 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.017 ppm	36 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.213 ppm	269 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.207 ppm	4 cps
Mg 279.079 (ETA AQ-Radial-iFR)	106.550 ppm	4,504 cps
Si 288.158 (ETA AQ-Radial-iFR)	6.530 ppm	539 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.172 ppm	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	75.136 ppm	16,885 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	3 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.004 ppm	12 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.004 ppm	33 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.434 %	7,580 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.079 %	1,378 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.681 %	10,757 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.960 %	1,929 cps
Sr 407.771 (ETA AQ-Radial-iFR)	12.105 ppm	346,960 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.164 ppm	2,265 cps
Na 589.592 (ETA AQ-Radial-iFR)	34.681 ppm	17,276 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.015 ppm	29 cps
K 766.490 (ETA AQ-Radial-iFR)	4.575 ppm	486 cps
Na 818.326 (ETA AQ-Radial-iFR)	34.597 ppm	433 cps

Label: 480-222377-A-5-ASD@5 #: 18
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 3:58:38 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8.721 ppm	232 cps
As 189.042 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.005 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.025 ppm	8 cps
P 213.618 (ETA AQ-Axial-iFR)	0.007 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	97.985 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.193 %	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.941 %	508 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.004 ppm	8 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.043 ppm	62 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.047 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	20.710 ppm	873 cps
Si 288.158 (ETA AQ-Radial-iFR)	1.305 ppm	109 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.054 ppm	4 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	15.289 ppm	3,429 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	5 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.807 %	7,532 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.935 %	1,376 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.761 %	10,657 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.668 %	1,923 cps
Sr 407.771 (ETA AQ-Radial-iFR)	2.506 ppm	71,614 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.032 ppm	451 cps
Na 589.592 (ETA AQ-Radial-iFR)	6.901 ppm	3,429 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.003 ppm	4 cps
K 766.490 (ETA AQ-Radial-iFR)	0.920 ppm	100 cps
Na 818.326 (ETA AQ-Radial-iFR)	6.838 ppm	87 cps

Label: 480-222377-A-5-APDS #: 19
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:00:31 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	49.181 ppm	1,279 cps
As 189.042 (ETA AQ-Axial-iFR)	0.976 ppm	49 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.029 ppm	135 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.959 ppm	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.984 ppm	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.503 ppm	124 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.543 ppm	301 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.495 ppm	21 cps
B 208.959 (ETA AQ-Axial-iFR)	0.631 ppm	159 cps
P 213.618 (ETA AQ-Axial-iFR)	10.201 ppm	580 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.488 ppm	31 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.618 %	463 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.400 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.489 ppm	278 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.512 ppm	469 cps
In 230.606 (ETA AQ-Axial-iFR)	94.409 %	490 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ni 231.604 (ETA AQ-Axial-iFR)	0.504 ppm	193 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.505 ppm	1,075 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.591 ppm	6,799 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.507 ppm	592 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.298 ppm	91 cps
Mg 279.079 (ETA AQ-Radial-iFR)	130.075 ppm	5,465 cps
Si 288.158 (ETA AQ-Radial-iFR)	7.477 ppm	613 cps
V 292.402 (ETA AQ-Axial-iFR)	0.506 ppm	921 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.151 ppm	276 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.515 ppm	5,670 cps
Ca 317.933 (ETA AQ-Radial-iFR)	98.381 ppm	21,974 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.513 ppm	1,161 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.048 ppm	121 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.518 ppm	1,620 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.531 ppm	4,898 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.177 %	7,560 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.713 %	1,373 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.333 %	10,720 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.376 %	1,917 cps
Sr 407.771 (ETA AQ-Radial-iFR)	12.381 ppm	352,759 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.186 ppm	16,241 cps
Na 589.592 (ETA AQ-Radial-iFR)	59.673 ppm	29,544 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.528 ppm	1,045 cps
K 766.490 (ETA AQ-Radial-iFR)	30.212 ppm	3,172 cps
Na 818.326 (ETA AQ-Radial-iFR)	59.733 ppm	742 cps

Label: 480-222377-A-5-B MS #: 20
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:02:25 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.325 ppm	1,306 cps
As 189.042 (ETA AQ-Axial-iFR)	0.986 ppm	49 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.034 ppm	136 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.972 ppm	49 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.987 ppm	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.502 ppm	124 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.572 ppm	317 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.504 ppm	21 cps
B 208.959 (ETA AQ-Axial-iFR)	0.646 ppm	163 cps
P 213.618 (ETA AQ-Axial-iFR)	10.363 ppm	587 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.490 ppm	31 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.389 %	462 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.902 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.494 ppm	281 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.516 ppm	472 cps
In 230.606 (ETA AQ-Axial-iFR)	94.390 %	490 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.509 ppm	195 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.512 ppm	1,092 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.756 ppm	6,983 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.511 ppm	597 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.429 ppm	93 cps
Mg 279.079 (ETA AQ-Radial-iFR)	135.217 ppm	5,696 cps
Si 288.158 (ETA AQ-Radial-iFR)	7.933 ppm	652 cps
V 292.402 (ETA AQ-Axial-iFR)	0.511 ppm	929 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.379 ppm	289 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Be 313.042 (ETA AQ-Radial-iFR)	0.520 ppm	5,734 cps
Ca 317.933 (ETA AQ-Radial-iFR)	101.208 ppm	22,664 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.519 ppm	1,175 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.052 ppm	134 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.523 ppm	1,639 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.537 ppm	4,956 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.218 %	7,563 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.565 %	1,371 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.355 %	10,722 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.627 %	1,922 cps
Sr 407.771 (ETA AQ-Radial-iFR)	12.948 ppm	369,861 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.195 ppm	16,449 cps
Na 589.592 (ETA AQ-Radial-iFR)	61.566 ppm	30,560 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.534 ppm	1,060 cps
K 766.490 (ETA AQ-Radial-iFR)	30.778 ppm	3,240 cps
Na 818.326 (ETA AQ-Radial-iFR)	61.290 ppm	763 cps

Label: 480-222377-A-5-C MSD #: 21
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:04:18 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.472 ppm	1,314 cps
As 189.042 (ETA AQ-Axial-iFR)	0.970 ppm	49 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.027 ppm	135 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.955 ppm	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.972 ppm	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.494 ppm	122 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.569 ppm	315 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.494 ppm	21 cps
B 208.959 (ETA AQ-Axial-iFR)	0.643 ppm	163 cps
P 213.618 (ETA AQ-Axial-iFR)	10.271 ppm	584 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.484 ppm	30 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.758 %	464 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.590 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.489 ppm	278 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.509 ppm	468 cps
In 230.606 (ETA AQ-Axial-iFR)	94.289 %	489 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.503 ppm	193 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.505 ppm	1,072 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.680 ppm	6,917 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.504 ppm	590 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.392 ppm	92 cps
Mg 279.079 (ETA AQ-Radial-iFR)	135.183 ppm	5,664 cps
Si 288.158 (ETA AQ-Radial-iFR)	7.959 ppm	651 cps
V 292.402 (ETA AQ-Axial-iFR)	0.504 ppm	919 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.334 ppm	285 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.512 ppm	5,619 cps
Ca 317.933 (ETA AQ-Radial-iFR)	101.270 ppm	22,558 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.512 ppm	1,158 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.052 ppm	133 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.517 ppm	1,619 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.530 ppm	4,898 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.302 %	7,570 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.971 %	1,362 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.364 %	10,723 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Y 377.433 (ETA AQ-Radial-iFR)	96.114 %	1,912 cps
Sr 407.771 (ETA AQ-Radial-iFR)	12.905 ppm	366,684 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.175 ppm	16,127 cps
Na 589.592 (ETA AQ-Radial-iFR)	61.110 ppm	30,173 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.526 ppm	1,037 cps
K 766.490 (ETA AQ-Radial-iFR)	30.391 ppm	3,182 cps
Na 818.326 (ETA AQ-Radial-iFR)	60.728 ppm	752 cps

Label: 480-222377-A-6-A #: 22
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:06:11 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	72.895 ppm	2,175 cps
As 189.042 (ETA AQ-Axial-iFR)	0.044 ppm	2 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.013 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.034 ppm	10 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.858 ppm	560 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.291 ppm	84 cps
P 213.618 (ETA AQ-Axial-iFR)	5.015 ppm	326 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.142 ppm	8 cps
Y 224.306 (ETA AQ-Axial-iFR)	110.938 %	532 cps
Y 224.306 (ETA AQ-Radial-iFR)	107.033 %	129 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.105 ppm	54 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.003 ppm	4 cps
In 230.606 (ETA AQ-Axial-iFR)	84.056 %	436 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.221 ppm	99 cps
Mn 257.610 (ETA AQ-Radial-iFR)	4.217 ppm	10,301 cps
Fe 259.940 (ETA AQ-Axial-iFR)	173.302 ppm	241,695 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.350 ppm	484 cps
Fe 271.441 (ETA AQ-Radial-iFR)	206.180 ppm	4,018 cps
Mg 279.079 (ETA AQ-Radial-iFR)	307.581 ppm	14,820 cps
Si 288.158 (ETA AQ-Radial-iFR)	79.380 ppm	7,440 cps
V 292.402 (ETA AQ-Axial-iFR)	0.253 ppm	556 cps
Al 308.215 (ETA AQ-Radial-iFR)	131.537 ppm	8,057 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.006 ppm	82 cps
Ca 317.933 (ETA AQ-Radial-iFR)	498.130 ppm	127,578 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.238 ppm	631 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.004 ppm	-5 cps
Ti 334.904 (ETA AQ-Axial-iFR)	2.044 ppm	7,551 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2.051 ppm	22,323 cps
Y 360.073 (ETA AQ-Axial-iFR)	115.779 %	8,916 cps
Y 360.073 (ETA AQ-Radial-iFR)	110.075 %	1,563 cps
Y 377.433 (ETA AQ-Axial-iFR)	115.222 %	12,561 cps
Y 377.433 (ETA AQ-Radial-iFR)	110.530 %	2,199 cps
Sr 407.771 (ETA AQ-Radial-iFR)	14.520 ppm	474,421 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.811 ppm	12,455 cps
Na 589.592 (ETA AQ-Radial-iFR)	76.201 ppm	43,266 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.312 ppm	708 cps
K 766.490 (ETA AQ-Radial-iFR)	40.346 ppm	4,857 cps
Na 818.326 (ETA AQ-Radial-iFR)	75.314 ppm	1,072 cps

Label: 480-222377-A-7-A #: 23
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:08:05 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	87.328 ppm	2,279 cps
As 189.042 (ETA AQ-Axial-iFR)	0.005 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.013 ppm	4 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.038 ppm	21 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.200 ppm	51 cps
P 213.618 (ETA AQ-Axial-iFR)	0.038 ppm	-1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	97.043 %	465 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.370 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	94.844 %	492 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.012 ppm	26 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.421 ppm	523 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.388 ppm	7 cps
Mg 279.079 (ETA AQ-Radial-iFR)	163.205 ppm	6,850 cps
Si 288.158 (ETA AQ-Radial-iFR)	6.994 ppm	573 cps
V 292.402 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.360 ppm	20 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	63.529 ppm	14,178 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.003 ppm	7 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.010 ppm	30 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.010 ppm	89 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.412 %	7,578 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.243 %	1,366 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.294 %	10,715 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.287 %	1,915 cps
Sr 407.771 (ETA AQ-Radial-iFR)	15.578 ppm	443,412 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.056 ppm	766 cps
Na 589.592 (ETA AQ-Radial-iFR)	65.643 ppm	32,469 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.031 ppm	59 cps
K 766.490 (ETA AQ-Radial-iFR)	5.369 ppm	566 cps
Na 818.326 (ETA AQ-Radial-iFR)	65.675 ppm	814 cps

Label: 480-222377-A-9-A #: 24
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:09:58 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	43.109 ppm	1,691 cps
As 189.042 (ETA AQ-Axial-iFR)	0.096 ppm	7 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.053 ppm	5 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.008 ppm	0 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Se 196.090 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.045 ppm	18 cps
Zn 206.200 (ETA AQ-Axial-iFR)	2.058 ppm	1,799 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.010 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	0.464 ppm	175 cps
P 213.618 (ETA AQ-Axial-iFR)	13.826 ppm	1,186 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.540 ppm	25 cps
Y 224.306 (ETA AQ-Axial-iFR)	145.690 %	698 cps
Y 224.306 (ETA AQ-Radial-iFR)	146.955 %	177 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.417 ppm	182 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.006 ppm	11 cps
In 230.606 (ETA AQ-Axial-iFR)	71.206 %	369 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.544 ppm	329 cps
Mn 257.610 (ETA AQ-Radial-iFR)	11.018 ppm	38,415 cps
Fe 259.940 (ETA AQ-Axial-iFR)	268.031 ppm	490,898 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.918 ppm	1,696 cps
Fe 271.441 (ETA AQ-Radial-iFR)	530.688 ppm	14,762 cps
Mg 279.079 (ETA AQ-Radial-iFR)	484.796 ppm	33,341 cps
Si 288.158 (ETA AQ-Radial-iFR)	35.665 ppm	4,773 cps
V 292.402 (ETA AQ-Axial-iFR)	0.636 ppm	1,868 cps
Al 308.215 (ETA AQ-Radial-iFR)	338.209 ppm	29,568 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.015 ppm	273 cps
Ca 317.933 (ETA AQ-Radial-iFR)	1,105.985 ppm	404,299 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.660 ppm	2,350 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.007 ppm	8 cps
Ti 334.904 (ETA AQ-Axial-iFR)	4.431 ppm	21,925 cps
Ti 334.941 (ETA AQ-Axial-iFR)	4.440 ppm	64,699 cps
Y 360.073 (ETA AQ-Axial-iFR)	155.014 %	11,937 cps
Y 360.073 (ETA AQ-Radial-iFR)	156.876 %	2,227 cps
Y 377.433 (ETA AQ-Axial-iFR)	154.812 %	16,876 cps
Y 377.433 (ETA AQ-Radial-iFR)	157.764 %	3,138 cps
Sr 407.771 (ETA AQ-Radial-iFR)	11.637 ppm	542,726 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2.177 ppm	45,925 cps
Na 589.592 (ETA AQ-Radial-iFR)	43.976 ppm	35,642 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.679 ppm	2,199 cps
K 766.490 (ETA AQ-Radial-iFR)	84.228 ppm	14,466 cps
Na 818.326 (ETA AQ-Radial-iFR)	43.199 ppm	879 cps

Label: CCV-8027695 #: 25
Analysis Type: QC Analysis started at: 8/12/2024 4:11:51 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	25.104 ppm	100.416 %
As 189.042 (ETA AQ-Axial-iFR)	0.938 ppm	93.789 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.013 ppm	101.314 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.935 ppm	93.527 %
Se 196.090 (ETA AQ-Axial-iFR)	0.967 ppm	96.678 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.944 ppm	94.388 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.062 ppm	106.246 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.973 ppm	97.332 %
B 208.959 (ETA AQ-Axial-iFR)	0.981 ppm	98.149 %
P 213.618 (ETA AQ-Axial-iFR)	24.822 ppm	99.287 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.955 ppm	95.512 %
Y 224.306 (ETA AQ-Axial-iFR)	98.602 %	
Y 224.306 (ETA AQ-Radial-iFR)	97.598 %	

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Co 228.616 (ETA AQ-Axial-iFR)	0.983 ppm	98.316 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.008 ppm	100.842 %
In 230.606 (ETA AQ-Axial-iFR)	95.342 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.004 ppm	100.380 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.973 ppm	97.324 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.552 ppm	99.104 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.024 ppm	102.414 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.878 ppm	99.756 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.835 ppm	97.670 %
Si 288.158 (ETA AQ-Radial-iFR)	10.276 ppm	102.759 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	100.321 %
Al 308.215 (ETA AQ-Radial-iFR)	48.158 ppm	96.316 %
Be 313.042 (ETA AQ-Radial-iFR)	1.003 ppm	100.264 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.764 ppm	99.529 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.017 ppm	101.699 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.020 ppm	102.048 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.008 ppm	100.757 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.028 ppm	102.849 %
Y 360.073 (ETA AQ-Axial-iFR)	98.633 %	
Y 360.073 (ETA AQ-Radial-iFR)	96.762 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.782 %	
Y 377.433 (ETA AQ-Radial-iFR)	96.836 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.003 ppm	100.327 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.984 ppm	98.446 %
Na 589.592 (ETA AQ-Radial-iFR)	49.390 ppm	98.781 %
Li 670.784 (ETA AQ-Radial-iFR)	1.001 ppm	100.052 %
K 766.490 (ETA AQ-Radial-iFR)	49.726 ppm	99.451 %
Na 818.326 (ETA AQ-Radial-iFR)	49.307 ppm	98.615 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	668 cps
As 189.042 (ETA AQ-Axial-iFR)	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	134 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	237 cps
Zn 206.200 (ETA AQ-Axial-iFR)	591 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	253 cps
P 213.618 (ETA AQ-Axial-iFR)	1,443 cps
Pb 220.353 (ETA AQ-Axial-iFR)	60 cps
Y 224.306 (ETA AQ-Axial-iFR)	473 cps
Y 224.306 (ETA AQ-Radial-iFR)	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	566 cps
Cd 228.802 (ETA AQ-Axial-iFR)	941 cps
In 230.606 (ETA AQ-Axial-iFR)	495 cps
Ni 231.604 (ETA AQ-Axial-iFR)	387 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,083 cps
Fe 259.940 (ETA AQ-Axial-iFR)	61,428 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,202 cps
Fe 271.441 (ETA AQ-Radial-iFR)	853 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,062 cps
Si 288.158 (ETA AQ-Radial-iFR)	846 cps
V 292.402 (ETA AQ-Axial-iFR)	1,836 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,585 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,078 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,170 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,311 cps

Analyte (Measure Mode)	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	2,928 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,171 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,535 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,595 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,374 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,768 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,926 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,714 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,791 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,570 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,990 cps
K 766.490 (ETA AQ-Radial-iFR)	5,244 cps
Na 818.326 (ETA AQ-Radial-iFR)	615 cps

Label: CCB-7982661 #: 26
Analysis Type: QC Analysis started at: 8/12/2024 4:13:46 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.020 ppm	1.972 %
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0.179 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0.020 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.004 ppm	-0.424 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	-0.265 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	0.174 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.021 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0.361 %
B 208.959 (ETA AQ-Axial-iFR)	0.004 ppm	0.384 %
P 213.618 (ETA AQ-Axial-iFR)	0.004 ppm	0.359 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	-0.029 %
Y 224.306 (ETA AQ-Axial-iFR)	100.149 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.024 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	0.014 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.035 %
In 230.606 (ETA AQ-Axial-iFR)	98.579 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0.058 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.043 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.029 ppm	2.891 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	0.075 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.011 ppm	1.150 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.015 ppm	1.472 %
Si 288.158 (ETA AQ-Radial-iFR)	0.056 ppm	5.633 %
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	0.058 %
Al 308.215 (ETA AQ-Radial-iFR)	0.006 ppm	0.641 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.010 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.018 ppm	1.755 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.026 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.041 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.043 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.049 %
Y 360.073 (ETA AQ-Axial-iFR)	99.209 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.426 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.528 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.466 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.035 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.023 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Na 589.592 (ETA AQ-Radial-iFR)	0.021 ppm	2.051 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.016 %
K 766.490 (ETA AQ-Radial-iFR)	0.014 ppm	1.356 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.070 ppm	-7.022 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	480 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	46 cps
Cr 267.716 (ETA AQ-Axial-iFR)	2 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	7 cps
V 292.402 (ETA AQ-Axial-iFR)	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	9 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,640 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,412 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,850 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,978 cps
Sr 407.771 (ETA AQ-Radial-iFR)	3 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2 cps
Na 589.592 (ETA AQ-Radial-iFR)	13 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	5 cps
Na 818.326 (ETA AQ-Radial-iFR)	1 cps

Label: CCVL-7982556 #: 27
Analysis Type: QC Analysis started at: 8/12/2024 4:15:39 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.183 ppm	91.385 %
As 189.042 (ETA AQ-Axial-iFR)	0.012 ppm	83.003 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.010 ppm	97.639 %

Basic Sample Report
8/13/2024 8:09:51 AM

QTEGRA

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Tl 190.856 (ETA AQ-Axial-iFR)	0.013 ppm	65.188 %
Se 196.090 (ETA AQ-Axial-iFR)	0.017 ppm	68.180 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	97.435 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	106.784 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.017 ppm	87.169 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	96.949 %
P 213.618 (ETA AQ-Axial-iFR)	-0.003 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.011 ppm	112.431 %
Y 224.306 (ETA AQ-Axial-iFR)	101.468 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.747 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	87.300 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	100.581 %
In 230.606 (ETA AQ-Axial-iFR)	99.722 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	102.723 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	102.926 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.055 ppm	109.544 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	106.008 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.016 ppm	31.278 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.173 ppm	86.614 %
Si 288.158 (ETA AQ-Radial-iFR)	0.504 ppm	100.767 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	97.380 %
Al 308.215 (ETA AQ-Radial-iFR)	0.172 ppm	86.165 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	92.012 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	96.278 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	91.718 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	97.168 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	93.471 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	99.339 %
Y 360.073 (ETA AQ-Axial-iFR)	100.622 %	
Y 360.073 (ETA AQ-Radial-iFR)	100.437 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.990 %	
Y 377.433 (ETA AQ-Radial-iFR)	100.617 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	96.386 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	92.897 %
Na 589.592 (ETA AQ-Radial-iFR)	0.976 ppm	97.642 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	100.020 %
K 766.490 (ETA AQ-Radial-iFR)	0.472 ppm	94.430 %
Na 818.326 (ETA AQ-Radial-iFR)	0.896 ppm	89.648 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	486 cps
Y 224.306 (ETA AQ-Radial-iFR)	121 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps

Analyte (Measure Mode)	Raw Intensity average
Fe 259.940 (ETA AQ-Axial-iFR)	79 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	46 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	117 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,749 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,426 cps
Y 377.433 (ETA AQ-Axial-iFR)	11,009 cps
Y 377.433 (ETA AQ-Radial-iFR)	2,001 cps
Sr 407.771 (ETA AQ-Radial-iFR)	136 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	507 cps
Li 670.784 (ETA AQ-Radial-iFR)	61 cps
K 766.490 (ETA AQ-Radial-iFR)	55 cps
Na 818.326 (ETA AQ-Radial-iFR)	14 cps

Label: MB 480-721219/1-A #: 28
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:17:34 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.282 ppm	10 cps
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.005 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.006 ppm	4 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.022 ppm	7 cps
P 213.618 (ETA AQ-Axial-iFR)	0.005 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.254 %	471 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.010 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.220 %	504 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.040 ppm	86 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.721 ppm	899 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.664 ppm	11 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.636 ppm	27 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.087 ppm	10 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.022 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	1.978 ppm	450 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.495 %	7,508 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.192 %	1,380 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.549 %	10,634 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.166 %	1,933 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.009 ppm	239 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	2.067 ppm	1,034 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.608 ppm	68 cps
Na 818.326 (ETA AQ-Radial-iFR)	2.028 ppm	27 cps

Label: LCS 480-721219/2-A #: 29
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:19:27 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	4.857 ppm	132 cps
As 189.042 (ETA AQ-Axial-iFR)	0.891 ppm	46 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.942 ppm	127 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.877 ppm	45 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.895 ppm	42 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.446 ppm	113 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.526 ppm	293 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.452 ppm	20 cps
B 208.959 (ETA AQ-Axial-iFR)	0.473 ppm	123 cps
P 213.618 (ETA AQ-Axial-iFR)	9.262 ppm	538 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.447 ppm	29 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.848 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.972 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.457 ppm	268 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.466 ppm	437 cps
In 230.606 (ETA AQ-Axial-iFR)	97.337 %	505 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.484 ppm	187 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.480 ppm	1,037 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.417 ppm	6,741 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.479 ppm	564 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.159 ppm	89 cps
Mg 279.079 (ETA AQ-Radial-iFR)	22.548 ppm	961 cps
Si 288.158 (ETA AQ-Radial-iFR)	1.002 ppm	86 cps
V 292.402 (ETA AQ-Axial-iFR)	0.470 ppm	862 cps
Al 308.215 (ETA AQ-Radial-iFR)	4.469 ppm	243 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.478 ppm	5,336 cps
Ca 317.933 (ETA AQ-Radial-iFR)	24.213 ppm	5,489 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.461 ppm	1,053 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.047 ppm	122 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.477 ppm	1,504 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.490 ppm	4,548 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.881 %	7,614 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.471 %	1,384 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.207 %	10,815 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.761 %	1,945 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.480 ppm	13,856 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ba 455.403 (ETA AQ-Radial-iFR)	0.929 ppm	13,062 cps
Na 589.592 (ETA AQ-Radial-iFR)	24.173 ppm	12,141 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.468 ppm	940 cps
K 766.490 (ETA AQ-Radial-iFR)	23.139 ppm	2,465 cps
Na 818.326 (ETA AQ-Radial-iFR)	23.841 ppm	301 cps

Label: 480-222382-A-1-A #: 30
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:21:21 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	41.217 ppm	993 cps
As 189.042 (ETA AQ-Axial-iFR)	0.132 ppm	6 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.048 ppm	5 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.253 ppm	127 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	11.540 ppm	2,631 cps
P 213.618 (ETA AQ-Axial-iFR)	9.255 ppm	487 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	89.485 %	429 cps
Y 224.306 (ETA AQ-Radial-iFR)	89.068 %	107 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.033 ppm	15 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	79.969 %	415 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.180 ppm	62 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.131 ppm	254 cps
Fe 259.940 (ETA AQ-Axial-iFR)	3.128 ppm	3,528 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.330 ppm	350 cps
Fe 271.441 (ETA AQ-Radial-iFR)	3.100 ppm	48 cps
Mg 279.079 (ETA AQ-Radial-iFR)	92.728 ppm	3,553 cps
Si 288.158 (ETA AQ-Radial-iFR)	28.427 ppm	2,120 cps
V 292.402 (ETA AQ-Axial-iFR)	0.049 ppm	82 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.527 ppm	26 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	27.320 ppm	5,568 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-11 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.103 ppm	292 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.105 ppm	875 cps
Y 360.073 (ETA AQ-Axial-iFR)	89.083 %	6,860 cps
Y 360.073 (ETA AQ-Radial-iFR)	88.082 %	1,250 cps
Y 377.433 (ETA AQ-Axial-iFR)	89.104 %	9,713 cps
Y 377.433 (ETA AQ-Radial-iFR)	87.894 %	1,748 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.205 ppm	5,309 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.099 ppm	1,269 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,692.869 ppm	764,305 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.328 ppm	591 cps
K 766.490 (ETA AQ-Radial-iFR)	569.300 ppm	54,456 cps
Na 818.326 (ETA AQ-Radial-iFR)	1,906.756 ppm	21,534 cps

Label: 480-222382-A-2-A #: 31
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:23:14 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	515.096 ppm	10,494 cps
As 189.042 (ETA AQ-Axial-iFR)	0.103 ppm	4 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.055 ppm	5 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.041 ppm	-2 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.032 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.004 ppm	0 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.047 ppm	22 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	26.008 ppm	5,023 cps
P 213.618 (ETA AQ-Axial-iFR)	3.279 ppm	145 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.013 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	75.825 %	364 cps
Y 224.306 (ETA AQ-Radial-iFR)	78.599 %	94 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.017 ppm	6 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	68.641 %	356 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.023 ppm	7 cps
Mn 257.610 (ETA AQ-Radial-iFR)	16.697 ppm	31,152 cps
Fe 259.940 (ETA AQ-Axial-iFR)	322.257 ppm	307,174 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.117 ppm	116 cps
Fe 271.441 (ETA AQ-Radial-iFR)	437.903 ppm	6,518 cps
Mg 279.079 (ETA AQ-Radial-iFR)	735.160 ppm	27,055 cps
Si 288.158 (ETA AQ-Radial-iFR)	53.661 ppm	3,842 cps
V 292.402 (ETA AQ-Axial-iFR)	0.017 ppm	40 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.189 ppm	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	1,327.935 ppm	259,763 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.002 ppm	-7 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.017 ppm	43 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.002 ppm	16 cps
Y 360.073 (ETA AQ-Axial-iFR)	81.952 %	6,311 cps
Y 360.073 (ETA AQ-Radial-iFR)	83.310 %	1,183 cps
Y 377.433 (ETA AQ-Axial-iFR)	82.501 %	8,994 cps
Y 377.433 (ETA AQ-Radial-iFR)	84.423 %	1,679 cps
Sr 407.771 (ETA AQ-Radial-iFR)	9.531 ppm	237,856 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.575 ppm	6,484 cps
Na 589.592 (ETA AQ-Radial-iFR)	2,785.650 ppm	1,207,988 cps
Li 670.784 (ETA AQ-Radial-iFR)	1.158 ppm	2,008 cps
K 766.490 (ETA AQ-Radial-iFR)	917.237 ppm	84,271 cps
Na 818.326 (ETA AQ-Radial-iFR)	3,485.487 ppm	37,808 cps

Label: 480-222382-A-3-A #: 32
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:25:07 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	38.815 ppm	957 cps
As 189.042 (ETA AQ-Axial-iFR)	0.194 ppm	9 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.043 ppm	5 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.009 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Zn 206.200 (ETA AQ-Axial-iFR)	0.015 ppm	8 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.013 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	11.339 ppm	2,645 cps
P 213.618 (ETA AQ-Axial-iFR)	5.042 ppm	270 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	91.532 %	439 cps
Y 224.306 (ETA AQ-Radial-iFR)	89.770 %	108 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.025 ppm	11 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	81.040 %	420 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.046 ppm	16 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.012 ppm	24 cps
Fe 259.940 (ETA AQ-Axial-iFR)	1.593 ppm	1,841 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.144 ppm	155 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1.538 ppm	24 cps
Mg 279.079 (ETA AQ-Radial-iFR)	35.817 ppm	1,382 cps
Si 288.158 (ETA AQ-Radial-iFR)	22.407 ppm	1,683 cps
V 292.402 (ETA AQ-Axial-iFR)	0.026 ppm	44 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.159 ppm	9 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	9.049 ppm	1,860 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.098 ppm	283 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.100 ppm	848 cps
Y 360.073 (ETA AQ-Axial-iFR)	90.533 %	6,972 cps
Y 360.073 (ETA AQ-Radial-iFR)	88.546 %	1,257 cps
Y 377.433 (ETA AQ-Axial-iFR)	90.618 %	9,878 cps
Y 377.433 (ETA AQ-Radial-iFR)	88.499 %	1,760 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.357 ppm	9,345 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.381 ppm	4,902 cps
Na 589.592 (ETA AQ-Radial-iFR)	2,064.891 ppm	938,679 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.143 ppm	258 cps
K 766.490 (ETA AQ-Radial-iFR)	399.724 ppm	38,499 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,443.462 ppm	27,784 cps

Label: 480-222382-A-4-A #: 33
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:27:01 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	693.883 ppm	11,451 cps
As 189.042 (ETA AQ-Axial-iFR)	0.583 ppm	18 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.086 ppm	6 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.069 ppm	-2 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.072 ppm	4 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.014 ppm	-2 cps
Zn 206.200 (ETA AQ-Axial-iFR)	8.678 ppm	3,485 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.029 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	53.869 ppm	8,428 cps
P 213.618 (ETA AQ-Axial-iFR)	3.969 ppm	142 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.132 ppm	7 cps
Y 224.306 (ETA AQ-Axial-iFR)	61.426 %	294 cps
Y 224.306 (ETA AQ-Radial-iFR)	67.049 %	81 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.023 ppm	7 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.005 ppm	4 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
In 230.606 (ETA AQ-Axial-iFR)	54.230 %	281 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.066 ppm	18 cps
Mn 257.610 (ETA AQ-Radial-iFR)	64.798 ppm	108,090 cps
Fe 259.940 (ETA AQ-Axial-iFR)	599.961 ppm	463,281 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.280 ppm	245 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1,661.865 ppm	22,115 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1,294.192 ppm	42,583 cps
Si 288.158 (ETA AQ-Radial-iFR)	75.771 ppm	4,849 cps
V 292.402 (ETA AQ-Axial-iFR)	0.052 ppm	115 cps
Al 308.215 (ETA AQ-Radial-iFR)	1.546 ppm	65 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.001 ppm	9 cps
Ca 317.933 (ETA AQ-Radial-iFR)	3,355.053 ppm	586,759 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.004 ppm	7 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.008 ppm	7 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.055 ppm	125 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.007 ppm	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	71.203 %	5,483 cps
Y 360.073 (ETA AQ-Radial-iFR)	74.405 %	1,056 cps
Y 377.433 (ETA AQ-Axial-iFR)	72.408 %	7,893 cps
Y 377.433 (ETA AQ-Radial-iFR)	75.478 %	1,501 cps
Sr 407.771 (ETA AQ-Radial-iFR)	19.540 ppm	435,989 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.910 ppm	8,759 cps
Na 589.592 (ETA AQ-Radial-iFR)	4,128.545 ppm	1,600,660 cps
Li 670.784 (ETA AQ-Radial-iFR)	1.230 ppm	1,907 cps
K 766.490 (ETA AQ-Radial-iFR)	1,779.744 ppm	146,185 cps
Na 818.326 (ETA AQ-Radial-iFR)	6,441.627 ppm	62,466 cps

Label: 480-222382-A-5-A #: 34
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:28:54 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	281.251 ppm	5,958 cps
As 189.042 (ETA AQ-Axial-iFR)	0.123 ppm	5 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.037 ppm	4 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.019 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.013 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
Zn 206.200 (ETA AQ-Axial-iFR)	3.445 ppm	1,641 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	12.818 ppm	2,574 cps
P 213.618 (ETA AQ-Axial-iFR)	0.895 ppm	39 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.060 ppm	4 cps
Y 224.306 (ETA AQ-Axial-iFR)	78.828 %	378 cps
Y 224.306 (ETA AQ-Radial-iFR)	79.208 %	95 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	71.343 %	370 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.035 ppm	11 cps
Mn 257.610 (ETA AQ-Radial-iFR)	35.827 ppm	66,153 cps
Fe 259.940 (ETA AQ-Axial-iFR)	371.328 ppm	367,953 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.112 ppm	117 cps
Fe 271.441 (ETA AQ-Radial-iFR)	560.188 ppm	8,252 cps
Mg 279.079 (ETA AQ-Radial-iFR)	605.012 ppm	22,035 cps
Si 288.158 (ETA AQ-Radial-iFR)	26.792 ppm	1,899 cps
V 292.402 (ETA AQ-Axial-iFR)	0.018 ppm	46 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Al 308.215 (ETA AQ-Radial-iFR)	0.353 ppm	17 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	5 cps
Ca 317.933 (ETA AQ-Radial-iFR)	1,662.672 ppm	321,879 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	0 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.015 ppm	38 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.004 ppm	-34 cps
Y 360.073 (ETA AQ-Axial-iFR)	84.463 %	6,504 cps
Y 360.073 (ETA AQ-Radial-iFR)	83.113 %	1,180 cps
Y 377.433 (ETA AQ-Axial-iFR)	85.078 %	9,275 cps
Y 377.433 (ETA AQ-Radial-iFR)	83.549 %	1,662 cps
Sr 407.771 (ETA AQ-Radial-iFR)	7.828 ppm	193,329 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.270 ppm	3,068 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,794.658 ppm	770,198 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.477 ppm	818 cps
K 766.490 (ETA AQ-Radial-iFR)	593.155 ppm	53,933 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,045.773 ppm	21,962 cps

Label: 480-222379-A-1-A #: 35
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:30:47 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	300.888 ppm	6,223 cps
As 189.042 (ETA AQ-Axial-iFR)	0.200 ppm	8 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.032 ppm	3 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.023 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.014 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.005 ppm	-1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	3.902 ppm	1,818 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.013 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	20.549 ppm	4,029 cps
P 213.618 (ETA AQ-Axial-iFR)	1.453 ppm	64 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.041 ppm	3 cps
Y 224.306 (ETA AQ-Axial-iFR)	76.974 %	369 cps
Y 224.306 (ETA AQ-Radial-iFR)	78.254 %	94 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.008 ppm	3 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	70.033 %	363 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.030 ppm	9 cps
Mn 257.610 (ETA AQ-Radial-iFR)	26.350 ppm	48,290 cps
Fe 259.940 (ETA AQ-Axial-iFR)	411.859 ppm	398,524 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.118 ppm	119 cps
Fe 271.441 (ETA AQ-Radial-iFR)	675.118 ppm	9,869 cps
Mg 279.079 (ETA AQ-Radial-iFR)	522.254 ppm	18,878 cps
Si 288.158 (ETA AQ-Radial-iFR)	28.664 ppm	2,017 cps
V 292.402 (ETA AQ-Axial-iFR)	0.018 ppm	49 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.545 ppm	26 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	5 cps
Ca 317.933 (ETA AQ-Radial-iFR)	1,536.300 ppm	295,180 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.003 ppm	-4 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.021 ppm	53 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.004 ppm	30 cps
Y 360.073 (ETA AQ-Axial-iFR)	82.639 %	6,364 cps
Y 360.073 (ETA AQ-Radial-iFR)	82.765 %	1,175 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Y 377.433 (ETA AQ-Axial-iFR)	83.148 %	9,064 cps
Y 377.433 (ETA AQ-Radial-iFR)	82.927 %	1,650 cps
Sr 407.771 (ETA AQ-Radial-iFR)	7.667 ppm	187,948 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.322 ppm	3,619 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,979.829 ppm	843,314 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.423 ppm	721 cps
K 766.490 (ETA AQ-Radial-iFR)	636.638 ppm	57,455 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,282.396 ppm	24,318 cps

Label: 480-222379-A-2-A #: 36
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:32:41 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	373.689 ppm	7,326 cps
As 189.042 (ETA AQ-Axial-iFR)	0.173 ppm	6 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.048 ppm	4 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.021 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.014 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.004 ppm	0 cps
Zn 206.200 (ETA AQ-Axial-iFR)	4.480 ppm	2,009 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.010 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	17.271 ppm	3,210 cps
P 213.618 (ETA AQ-Axial-iFR)	1.209 ppm	50 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.087 ppm	5 cps
Y 224.306 (ETA AQ-Axial-iFR)	72.958 %	350 cps
Y 224.306 (ETA AQ-Radial-iFR)	74.466 %	90 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.008 ppm	3 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	65.613 %	340 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.046 ppm	14 cps
Mn 257.610 (ETA AQ-Radial-iFR)	48.011 ppm	85,093 cps
Fe 259.940 (ETA AQ-Axial-iFR)	442.079 ppm	405,451 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.148 ppm	146 cps
Fe 271.441 (ETA AQ-Radial-iFR)	757.100 ppm	10,705 cps
Mg 279.079 (ETA AQ-Radial-iFR)	815.499 ppm	28,510 cps
Si 288.158 (ETA AQ-Radial-iFR)	32.948 ppm	2,242 cps
V 292.402 (ETA AQ-Axial-iFR)	0.025 ppm	60 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.468 ppm	22 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	6 cps
Ca 317.933 (ETA AQ-Radial-iFR)	2,181.443 ppm	405,363 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.020 ppm	50 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.006 ppm	-47 cps
Y 360.073 (ETA AQ-Axial-iFR)	79.505 %	6,122 cps
Y 360.073 (ETA AQ-Radial-iFR)	79.490 %	1,128 cps
Y 377.433 (ETA AQ-Axial-iFR)	79.990 %	8,720 cps
Y 377.433 (ETA AQ-Radial-iFR)	80.197 %	1,595 cps
Sr 407.771 (ETA AQ-Radial-iFR)	10.656 ppm	252,618 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.376 ppm	4,018 cps
Na 589.592 (ETA AQ-Radial-iFR)	2,370.959 ppm	976,694 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.660 ppm	1,086 cps
K 766.490 (ETA AQ-Radial-iFR)	813.178 ppm	70,971 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,827.662 ppm	29,137 cps

Basic Sample Report
8/13/2024 8:09:51 AM

QTEGRA

Label: CCV-8027695 #: 37
Analysis Type: QC Analysis started at: 8/12/2024 4:34:34 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	25.333 ppm	101.333 %
As 189.042 (ETA AQ-Axial-iFR)	0.943 ppm	94.274 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.002 ppm	100.152 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.925 ppm	92.476 %
Se 196.090 (ETA AQ-Axial-iFR)	0.980 ppm	97.953 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.943 ppm	94.276 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.053 ppm	105.321 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.968 ppm	96.789 %
B 208.959 (ETA AQ-Axial-iFR)	1.115 ppm	111.489 %
P 213.618 (ETA AQ-Axial-iFR)	24.808 ppm	99.230 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.930 ppm	93.022 %
Y 224.306 (ETA AQ-Axial-iFR)	96.924 %	
Y 224.306 (ETA AQ-Radial-iFR)	96.884 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.969 ppm	96.946 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.006 ppm	100.554 %
In 230.606 (ETA AQ-Axial-iFR)	95.174 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.000 ppm	100.029 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.972 ppm	97.150 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.509 ppm	99.018 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.017 ppm	101.698 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.186 ppm	98.372 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.143 ppm	96.286 %
Si 288.158 (ETA AQ-Radial-iFR)	13.355 ppm	133.554 %
V 292.402 (ETA AQ-Axial-iFR)	0.999 ppm	99.941 %
Al 308.215 (ETA AQ-Radial-iFR)	48.291 ppm	96.581 %
Be 313.042 (ETA AQ-Radial-iFR)	1.001 ppm	100.104 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.468 ppm	98.937 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.021 ppm	102.149 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.014 ppm	101.372 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.997 ppm	99.683 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.019 ppm	101.854 %
Y 360.073 (ETA AQ-Axial-iFR)	97.447 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.478 %	
Y 377.433 (ETA AQ-Axial-iFR)	97.333 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.461 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	100.126 %
Ba 455.403 (ETA AQ-Radial-iFR)	1.004 ppm	100.390 %
Na 589.592 (ETA AQ-Radial-iFR)	49.568 ppm	99.135 %
Li 670.784 (ETA AQ-Radial-iFR)	0.996 ppm	99.559 %
K 766.490 (ETA AQ-Radial-iFR)	49.896 ppm	99.792 %
Na 818.326 (ETA AQ-Radial-iFR)	49.880 ppm	99.760 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	662 cps
As 189.042 (ETA AQ-Axial-iFR)	47 cps
Sn 189.989 (ETA AQ-Axial-iFR)	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	233 cps
Zn 206.200 (ETA AQ-Axial-iFR)	579 cps
Sb 206.833 (ETA AQ-Axial-iFR)	41 cps

Analyte (Measure Mode)	Raw Intensity average
B 208.959 (ETA AQ-Axial-iFR)	282 cps
P 213.618 (ETA AQ-Axial-iFR)	1,418 cps
Pb 220.353 (ETA AQ-Axial-iFR)	59 cps
Y 224.306 (ETA AQ-Axial-iFR)	465 cps
Y 224.306 (ETA AQ-Radial-iFR)	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	557 cps
Cd 228.802 (ETA AQ-Axial-iFR)	922 cps
In 230.606 (ETA AQ-Axial-iFR)	494 cps
Ni 231.604 (ETA AQ-Axial-iFR)	380 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,092 cps
Fe 259.940 (ETA AQ-Axial-iFR)	60,332 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,179 cps
Fe 271.441 (ETA AQ-Radial-iFR)	846 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,046 cps
Si 288.158 (ETA AQ-Radial-iFR)	1,106 cps
V 292.402 (ETA AQ-Axial-iFR)	1,807 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,609 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,132 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,176 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,287 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,873 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,099 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,329 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,504 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,384 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,611 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,939 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,841 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,961 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,817 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,993 cps
K 766.490 (ETA AQ-Radial-iFR)	5,295 cps
Na 818.326 (ETA AQ-Radial-iFR)	627 cps

Label: CCB-7982661 #: 38
Analysis Type: QC Analysis started at: 8/12/2024 4:36:28 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.056 ppm	5.642 %
As 189.042 (ETA AQ-Axial-iFR)	0.005 ppm	0.484 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.062 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.245 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	-0.274 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.128 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.045 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	-0.018 %
B 208.959 (ETA AQ-Axial-iFR)	0.073 ppm	7.341 %
P 213.618 (ETA AQ-Axial-iFR)	0.005 ppm	0.467 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	-0.045 %
Y 224.306 (ETA AQ-Axial-iFR)	99.579 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.584 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.040 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.032 %
In 230.606 (ETA AQ-Axial-iFR)	98.617 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0.059 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	0.071 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.030 ppm	3.031 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	0.051 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.012 ppm	-1.247 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.020 ppm	2.003 %
Si 288.158 (ETA AQ-Radial-iFR)	0.265 ppm	26.474 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.010 %
Al 308.215 (ETA AQ-Radial-iFR)	0.012 ppm	1.184 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.014 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.028 ppm	2.762 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.037 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-0.013 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.036 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.046 %
Y 360.073 (ETA AQ-Axial-iFR)	98.556 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.918 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.164 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.033 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.032 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.018 %
Na 589.592 (ETA AQ-Radial-iFR)	0.110 ppm	10.982 %
Li 670.784 (ETA AQ-Radial-iFR)	-0.001 ppm	-0.065 %
K 766.490 (ETA AQ-Radial-iFR)	0.261 ppm	26.126 %
Na 818.326 (ETA AQ-Radial-iFR)	0.049 ppm	4.864 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	4 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	20 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	512 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	47 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	25 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,589 cps

Basic Sample Report
8/13/2024 8:09:51 AM

QTEGRA

Analyte (Measure Mode)	Raw Intensity average
Y 360.073 (ETA AQ-Radial-iFR)	1,390 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,701 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,950 cps
Sr 407.771 (ETA AQ-Radial-iFR)	2 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1 cps
Na 589.592 (ETA AQ-Radial-iFR)	58 cps
Li 670.784 (ETA AQ-Radial-iFR)	-3 cps
K 766.490 (ETA AQ-Radial-iFR)	31 cps
Na 818.326 (ETA AQ-Radial-iFR)	3 cps

Label: CCVL-7982556 #: 39
Analysis Type: QC Analysis started at: 8/12/2024 4:38:22 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.221 ppm	110.469 %
As 189.042 (ETA AQ-Axial-iFR)	0.014 ppm	93.972 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.010 ppm	101.400 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.010 ppm	52.214 %
Se 196.090 (ETA AQ-Axial-iFR)	0.018 ppm	71.025 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	99.957 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	107.533 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.022 ppm	109.867 %
B 208.959 (ETA AQ-Axial-iFR)	0.070 ppm	348.458 %
P 213.618 (ETA AQ-Axial-iFR)	-0.007 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.010 ppm	97.968 %
Y 224.306 (ETA AQ-Axial-iFR)	100.115 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.483 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	90.058 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	97.223 %
In 230.606 (ETA AQ-Axial-iFR)	99.561 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	99.640 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	102.366 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.055 ppm	110.420 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	107.594 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.026 ppm	52.410 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.199 ppm	99.470 %
Si 288.158 (ETA AQ-Radial-iFR)	0.649 ppm	129.842 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	102.404 %
Al 308.215 (ETA AQ-Radial-iFR)	0.176 ppm	87.854 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	93.430 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.489 ppm	97.816 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	93.559 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	87.753 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	91.535 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	95.988 %
Y 360.073 (ETA AQ-Axial-iFR)	99.362 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.924 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.051 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.295 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	95.616 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	100.134 %
Na 589.592 (ETA AQ-Radial-iFR)	1.033 ppm	103.334 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	98.965 %
K 766.490 (ETA AQ-Radial-iFR)	0.666 ppm	133.186 %
Na 818.326 (ETA AQ-Radial-iFR)	0.931 ppm	93.055 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	9 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	19 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	480 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	79 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	57 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	117 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	1 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	42 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,651 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,419 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,798 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,975 cps
Sr 407.771 (ETA AQ-Radial-iFR)	133 cps
Ba 455.403 (ETA AQ-Radial-iFR)	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	529 cps
Li 670.784 (ETA AQ-Radial-iFR)	59 cps
K 766.490 (ETA AQ-Radial-iFR)	75 cps
Na 818.326 (ETA AQ-Radial-iFR)	14 cps

Label: 480-222379-A-3-A #: 40
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:40:16 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	40.163 ppm	981 cps
As 189.042 (ETA AQ-Axial-iFR)	0.123 ppm	5 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.078 ppm	9 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.017 ppm	4 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.261 ppm	132 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
B 208.959 (ETA AQ-Axial-iFR)	10.522 ppm	2,433 cps
P 213.618 (ETA AQ-Axial-iFR)	8.662 ppm	462 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	90.735 %	435 cps
Y 224.306 (ETA AQ-Radial-iFR)	88.493 %	106 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.032 ppm	15 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	81.216 %	421 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.170 ppm	59 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.113 ppm	219 cps
Fe 259.940 (ETA AQ-Axial-iFR)	2.809 ppm	3,212 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.382 ppm	408 cps
Fe 271.441 (ETA AQ-Radial-iFR)	2.767 ppm	43 cps
Mg 279.079 (ETA AQ-Radial-iFR)	84.517 ppm	3,229 cps
Si 288.158 (ETA AQ-Radial-iFR)	25.419 ppm	1,890 cps
V 292.402 (ETA AQ-Axial-iFR)	0.047 ppm	79 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.488 ppm	25 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	24.802 ppm	5,040 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.003 ppm	7 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.180 ppm	515 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.183 ppm	1,546 cps
Y 360.073 (ETA AQ-Axial-iFR)	89.797 %	6,915 cps
Y 360.073 (ETA AQ-Radial-iFR)	87.572 %	1,243 cps
Y 377.433 (ETA AQ-Axial-iFR)	89.866 %	9,796 cps
Y 377.433 (ETA AQ-Radial-iFR)	87.628 %	1,743 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.185 ppm	4,786 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.090 ppm	1,146 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,553.626 ppm	699,320 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.301 ppm	540 cps
K 766.490 (ETA AQ-Radial-iFR)	518.450 ppm	49,442 cps
Na 818.326 (ETA AQ-Radial-iFR)	1,731.153 ppm	19,492 cps

Label: 480-222379-A-4-A #: 41
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:42:09 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	37.524 ppm	908 cps
As 189.042 (ETA AQ-Axial-iFR)	0.206 ppm	9 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.027 ppm	3 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.032 ppm	16 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.017 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	12.014 ppm	2,749 cps
P 213.618 (ETA AQ-Axial-iFR)	5.152 ppm	271 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	89.811 %	431 cps
Y 224.306 (ETA AQ-Radial-iFR)	90.219 %	108 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.023 ppm	10 cps
Cd 228.802 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	79.520 %	413 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.047 ppm	16 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Mn 257.610 (ETA AQ-Radial-iFR)	0.012 ppm	23 cps
Fe 259.940 (ETA AQ-Axial-iFR)	1.668 ppm	1,892 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.124 ppm	131 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1.637 ppm	25 cps
Mg 279.079 (ETA AQ-Radial-iFR)	38.033 ppm	1,458 cps
Si 288.158 (ETA AQ-Radial-iFR)	24.173 ppm	1,803 cps
V 292.402 (ETA AQ-Axial-iFR)	0.027 ppm	45 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.194 ppm	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	9.638 ppm	1,967 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.060 ppm	168 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.060 ppm	501 cps
Y 360.073 (ETA AQ-Axial-iFR)	88.868 %	6,843 cps
Y 360.073 (ETA AQ-Radial-iFR)	87.808 %	1,247 cps
Y 377.433 (ETA AQ-Axial-iFR)	88.630 %	9,662 cps
Y 377.433 (ETA AQ-Radial-iFR)	87.913 %	1,749 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.378 ppm	9,821 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.397 ppm	5,136 cps
Na 589.592 (ETA AQ-Radial-iFR)	2,177.325 ppm	983,245 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.148 ppm	267 cps
K 766.490 (ETA AQ-Radial-iFR)	421.923 ppm	40,369 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,562.137 ppm	28,941 cps

Label: 480-222379-A-5-A #: 42
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:44:03 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	699.427 ppm	13,041 cps
As 189.042 (ETA AQ-Axial-iFR)	0.145 ppm	5 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.074 ppm	6 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.064 ppm	-2 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.053 ppm	3 cps
Mo 202.030 (ETA AQ-Axial-iFR)	-0.004 ppm	0 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.061 ppm	26 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	37.747 ppm	6,672 cps
P 213.618 (ETA AQ-Axial-iFR)	4.828 ppm	196 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.023 ppm	2 cps
Y 224.306 (ETA AQ-Axial-iFR)	69.402 %	333 cps
Y 224.306 (ETA AQ-Radial-iFR)	74.133 %	89 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.024 ppm	8 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	62.592 %	325 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.033 ppm	10 cps
Mn 257.610 (ETA AQ-Radial-iFR)	23.616 ppm	42,023 cps
Fe 259.940 (ETA AQ-Axial-iFR)	407.215 ppm	355,272 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.166 ppm	154 cps
Fe 271.441 (ETA AQ-Radial-iFR)	620.399 ppm	8,807 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1,033.364 ppm	36,270 cps
Si 288.158 (ETA AQ-Radial-iFR)	82.847 ppm	5,656 cps
V 292.402 (ETA AQ-Axial-iFR)	0.027 ppm	56 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.295 ppm	14 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ca 317.933 (ETA AQ-Radial-iFR)	1,829.407 ppm	341,300 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.003 ppm	-5 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.025 ppm	59 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.004 ppm	25 cps
Y 360.073 (ETA AQ-Axial-iFR)	76.493 %	5,890 cps
Y 360.073 (ETA AQ-Radial-iFR)	79.412 %	1,127 cps
Y 377.433 (ETA AQ-Axial-iFR)	77.476 %	8,446 cps
Y 377.433 (ETA AQ-Radial-iFR)	80.517 %	1,602 cps
Sr 407.771 (ETA AQ-Radial-iFR)	13.648 ppm	324,851 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.845 ppm	8,995 cps
Na 589.592 (ETA AQ-Radial-iFR)	3,619.485 ppm	1,496,969 cps
Li 670.784 (ETA AQ-Radial-iFR)	1.734 ppm	2,868 cps
K 766.490 (ETA AQ-Radial-iFR)	1,312.337 ppm	114,990 cps
Na 818.326 (ETA AQ-Radial-iFR)	5,206.585 ppm	53,862 cps

Label: 480-222379-A-6-A #: 43
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:45:56 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	49.146 ppm	1,187 cps
As 189.042 (ETA AQ-Axial-iFR)	0.101 ppm	4 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.038 ppm	4 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.012 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.053 ppm	27 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	9.052 ppm	2,070 cps
P 213.618 (ETA AQ-Axial-iFR)	8.948 ppm	472 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	89.717 %	430 cps
Y 224.306 (ETA AQ-Radial-iFR)	88.586 %	106 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.035 ppm	16 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	79.538 %	413 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.186 ppm	64 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.231 ppm	443 cps
Fe 259.940 (ETA AQ-Axial-iFR)	4.672 ppm	5,277 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.338 ppm	358 cps
Fe 271.441 (ETA AQ-Radial-iFR)	4.610 ppm	71 cps
Mg 279.079 (ETA AQ-Radial-iFR)	114.694 ppm	4,342 cps
Si 288.158 (ETA AQ-Radial-iFR)	21.395 ppm	1,577 cps
V 292.402 (ETA AQ-Axial-iFR)	0.067 ppm	112 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.445 ppm	22 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	33.651 ppm	6,776 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.004 ppm	7 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-11 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.251 ppm	713 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.256 ppm	2,145 cps
Y 360.073 (ETA AQ-Axial-iFR)	89.052 %	6,858 cps
Y 360.073 (ETA AQ-Radial-iFR)	87.140 %	1,237 cps
Y 377.433 (ETA AQ-Axial-iFR)	89.010 %	9,703 cps
Y 377.433 (ETA AQ-Radial-iFR)	86.851 %	1,728 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sr 407.771 (ETA AQ-Radial-iFR)	0.326 ppm	8,358 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.159 ppm	2,020 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,895.453 ppm	845,607 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.358 ppm	637 cps
K 766.490 (ETA AQ-Radial-iFR)	682.282 ppm	64,488 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,202.705 ppm	24,581 cps

Label: 480-222389-A-1-A #: 44
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:47:49 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	49.974 ppm	1,208 cps
As 189.042 (ETA AQ-Axial-iFR)	0.103 ppm	4 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.036 ppm	4 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.003 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.058 ppm	29 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	8.738 ppm	2,000 cps
P 213.618 (ETA AQ-Axial-iFR)	8.852 ppm	467 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	89.798 %	431 cps
Y 224.306 (ETA AQ-Radial-iFR)	88.409 %	106 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.034 ppm	16 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	79.373 %	412 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.179 ppm	62 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.255 ppm	493 cps
Fe 259.940 (ETA AQ-Axial-iFR)	4.817 ppm	5,446 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.323 ppm	343 cps
Fe 271.441 (ETA AQ-Radial-iFR)	4.777 ppm	74 cps
Mg 279.079 (ETA AQ-Radial-iFR)	110.616 ppm	4,225 cps
Si 288.158 (ETA AQ-Radial-iFR)	20.752 ppm	1,543 cps
V 292.402 (ETA AQ-Axial-iFR)	0.065 ppm	108 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.443 ppm	22 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	35.056 ppm	7,121 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	5 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-10 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.230 ppm	653 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.235 ppm	1,971 cps
Y 360.073 (ETA AQ-Axial-iFR)	89.203 %	6,869 cps
Y 360.073 (ETA AQ-Radial-iFR)	87.771 %	1,246 cps
Y 377.433 (ETA AQ-Axial-iFR)	89.330 %	9,738 cps
Y 377.433 (ETA AQ-Radial-iFR)	87.614 %	1,743 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.329 ppm	8,511 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.153 ppm	1,940 cps
Na 589.592 (ETA AQ-Radial-iFR)	1,851.477 ppm	833,254 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.352 ppm	633 cps
K 766.490 (ETA AQ-Radial-iFR)	663.126 ppm	63,228 cps
Na 818.326 (ETA AQ-Radial-iFR)	2,131.676 ppm	23,998 cps

Label: 480-222403-E-1-A #: 45

Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:49:43 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	14.975 ppm	391 cps
As 189.042 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.230 ppm	58 cps
P 213.618 (ETA AQ-Axial-iFR)	0.400 ppm	20 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.495 %	463 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.265 %	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	92.752 %	481 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.002 ppm	5 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.059 ppm	80 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.005 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.062 ppm	3 cps
Si 288.158 (ETA AQ-Radial-iFR)	27.451 ppm	2,234 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	-0.001 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.523 ppm	120 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.092 ppm	281 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.094 ppm	847 cps
Y 360.073 (ETA AQ-Axial-iFR)	95.729 %	7,372 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.754 %	1,359 cps
Y 377.433 (ETA AQ-Axial-iFR)	95.982 %	10,463 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.907 %	1,908 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.001 ppm	30 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	359.634 ppm	177,173 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.811 ppm	88 cps
Na 818.326 (ETA AQ-Radial-iFR)	374.043 ppm	4,611 cps

Label: 480-222403-E-1-ASD@5 #: 46
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:51:36 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3.258 ppm	89 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.087 ppm	23 cps
P 213.618 (ETA AQ-Axial-iFR)	0.096 ppm	3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.883 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.975 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.430 %	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.025 ppm	40 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.012 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.001 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	6.100 ppm	509 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.017 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.126 ppm	33 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.020 ppm	63 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.021 ppm	190 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.806 %	7,609 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.961 %	1,391 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.877 %	10,779 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.050 %	1,950 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	4 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	80.878 ppm	40,737 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.373 ppm	43 cps
Na 818.326 (ETA AQ-Radial-iFR)	81.678 ppm	1,031 cps

Label: 480-222403-E-1-APDS #: 47
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:53:30 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	25.719 ppm	683 cps
As 189.042 (ETA AQ-Axial-iFR)	1.056 ppm	54 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.148 ppm	149 cps
Tl 190.856 (ETA AQ-Axial-iFR)	1.052 ppm	52 cps
Se 196.090 (ETA AQ-Axial-iFR)	1.048 ppm	49 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.534 ppm	134 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.582 ppm	327 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.524 ppm	23 cps
B 208.959 (ETA AQ-Axial-iFR)	0.789 ppm	202 cps
P 213.618 (ETA AQ-Axial-iFR)	11.616 ppm	673 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.536 ppm	33 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.488 %	472 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.998 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.556 ppm	314 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cd 228.802 (ETA AQ-Axial-iFR)	0.561 ppm	525 cps
In 230.606 (ETA AQ-Axial-iFR)	93.505 %	485 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.556 ppm	217 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.546 ppm	1,188 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.910 ppm	7,327 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.556 ppm	660 cps
Fe 271.441 (ETA AQ-Radial-iFR)	5.683 ppm	99 cps
Mg 279.079 (ETA AQ-Radial-iFR)	26.804 ppm	1,150 cps
Si 288.158 (ETA AQ-Radial-iFR)	53.244 ppm	4,443 cps
V 292.402 (ETA AQ-Axial-iFR)	0.556 ppm	1,027 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.457 ppm	298 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.576 ppm	6,472 cps
Ca 317.933 (ETA AQ-Radial-iFR)	28.389 ppm	6,477 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.578 ppm	1,330 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.055 ppm	145 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.689 ppm	2,192 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.708 ppm	6,639 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.730 %	7,680 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.114 %	1,393 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.053 %	10,907 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.400 %	1,957 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.571 ppm	16,590 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.116 ppm	15,696 cps
Na 589.592 (ETA AQ-Radial-iFR)	519.914 ppm	262,783 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.563 ppm	1,137 cps
K 766.490 (ETA AQ-Radial-iFR)	28.405 ppm	3,045 cps
Na 818.326 (ETA AQ-Radial-iFR)	541.773 ppm	6,851 cps

Label: 480-222403-E-1-B MS #: 48
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 4:55:24 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	19.822 ppm	526 cps
As 189.042 (ETA AQ-Axial-iFR)	0.856 ppm	44 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.919 ppm	120 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.858 ppm	43 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.863 ppm	41 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.422 ppm	106 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.494 ppm	276 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.417 ppm	18 cps
B 208.959 (ETA AQ-Axial-iFR)	0.623 ppm	160 cps
P 213.618 (ETA AQ-Axial-iFR)	9.355 ppm	540 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.433 ppm	27 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.256 %	471 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.922 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.443 ppm	251 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.450 ppm	420 cps
In 230.606 (ETA AQ-Axial-iFR)	94.104 %	488 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.450 ppm	174 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.433 ppm	918 cps
Fe 259.940 (ETA AQ-Axial-iFR)	4.721 ppm	5,840 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.447 ppm	526 cps
Fe 271.441 (ETA AQ-Radial-iFR)	4.548 ppm	77 cps
Mg 279.079 (ETA AQ-Radial-iFR)	21.269 ppm	889 cps
Si 288.158 (ETA AQ-Radial-iFR)	27.792 ppm	2,262 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
V 292.402 (ETA AQ-Axial-iFR)	0.445 ppm	817 cps
Al 308.215 (ETA AQ-Radial-iFR)	4.364 ppm	233 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.460 ppm	5,039 cps
Ca 317.933 (ETA AQ-Radial-iFR)	22.773 ppm	5,065 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.456 ppm	1,042 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.046 ppm	117 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.548 ppm	1,730 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.562 ppm	5,233 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.001 %	7,624 cps
Y 360.073 (ETA AQ-Radial-iFR)	96.112 %	1,364 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.374 %	10,833 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.911 %	1,908 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.452 ppm	12,805 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.890 ppm	12,246 cps
Na 589.592 (ETA AQ-Radial-iFR)	395.897 ppm	195,049 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.449 ppm	885 cps
K 766.490 (ETA AQ-Radial-iFR)	22.765 ppm	2,379 cps
Na 818.326 (ETA AQ-Radial-iFR)	415.403 ppm	5,121 cps

Label: CCV-8027695 #: 49
Analysis Type: QC Analysis started at: 8/12/2024 4:57:17 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	25.094 ppm	100.375 %
As 189.042 (ETA AQ-Axial-iFR)	0.939 ppm	93.860 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.015 ppm	101.536 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.932 ppm	93.210 %
Se 196.090 (ETA AQ-Axial-iFR)	0.970 ppm	96.971 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.935 ppm	93.496 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.064 ppm	106.428 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.972 ppm	97.153 %
B 208.959 (ETA AQ-Axial-iFR)	1.011 ppm	101.085 %
P 213.618 (ETA AQ-Axial-iFR)	24.846 ppm	99.385 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.948 ppm	94.808 %
Y 224.306 (ETA AQ-Axial-iFR)	98.123 %	
Y 224.306 (ETA AQ-Radial-iFR)	96.192 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.981 ppm	98.088 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.007 ppm	100.703 %
In 230.606 (ETA AQ-Axial-iFR)	95.007 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.004 ppm	100.415 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.969 ppm	96.932 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.281 ppm	98.563 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.023 ppm	102.265 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.567 ppm	99.135 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.427 ppm	96.854 %
Si 288.158 (ETA AQ-Radial-iFR)	11.282 ppm	112.824 %
V 292.402 (ETA AQ-Axial-iFR)	1.004 ppm	100.410 %
Al 308.215 (ETA AQ-Radial-iFR)	48.197 ppm	96.395 %
Be 313.042 (ETA AQ-Radial-iFR)	1.001 ppm	100.105 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.973 ppm	99.945 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.019 ppm	101.909 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.021 ppm	102.141 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.003 ppm	100.265 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.022 ppm	102.202 %
Y 360.073 (ETA AQ-Axial-iFR)	97.916 %	

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Y 360.073 (ETA AQ-Radial-iFR)	96.000 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.177 %	
Y 377.433 (ETA AQ-Radial-iFR)	95.817 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.002 ppm	100.156 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.993 ppm	99.319 %
Na 589.592 (ETA AQ-Radial-iFR)	49.515 ppm	99.030 %
Li 670.784 (ETA AQ-Radial-iFR)	1.000 ppm	100.002 %
K 766.490 (ETA AQ-Radial-iFR)	49.887 ppm	99.775 %
Na 818.326 (ETA AQ-Radial-iFR)	49.788 ppm	99.577 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	664 cps
As 189.042 (ETA AQ-Axial-iFR)	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	134 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	234 cps
Zn 206.200 (ETA AQ-Axial-iFR)	588 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	259 cps
P 213.618 (ETA AQ-Axial-iFR)	1,438 cps
Pb 220.353 (ETA AQ-Axial-iFR)	60 cps
Y 224.306 (ETA AQ-Axial-iFR)	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	563 cps
Cd 228.802 (ETA AQ-Axial-iFR)	935 cps
In 230.606 (ETA AQ-Axial-iFR)	493 cps
Ni 231.604 (ETA AQ-Axial-iFR)	385 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,052 cps
Fe 259.940 (ETA AQ-Axial-iFR)	60,796 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,191 cps
Fe 271.441 (ETA AQ-Radial-iFR)	838 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,023 cps
Si 288.158 (ETA AQ-Radial-iFR)	919 cps
V 292.402 (ETA AQ-Axial-iFR)	1,824 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,560 cps
Be 313.042 (ETA AQ-Radial-iFR)	10,944 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,098 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,302 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,909 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,132 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,406 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,540 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,363 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,703 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,906 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,362 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,711 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,372 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,968 cps
K 766.490 (ETA AQ-Radial-iFR)	5,205 cps
Na 818.326 (ETA AQ-Radial-iFR)	615 cps

Label: CCB-7982661 #: 50
Analysis Type: QC Analysis started at: 8/12/2024 4:59:12 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.029 ppm	2.866 %
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0.202 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.052 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.005 ppm	-0.528 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	-0.301 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	0.152 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.011 %
Sb 206.833 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.182 %
B 208.959 (ETA AQ-Axial-iFR)	0.029 ppm	2.916 %
P 213.618 (ETA AQ-Axial-iFR)	0.003 ppm	0.283 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0.241 %
Y 224.306 (ETA AQ-Axial-iFR)	100.215 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.624 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	0.010 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.024 %
In 230.606 (ETA AQ-Axial-iFR)	98.486 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	-0.007 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.020 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.016 ppm	1.611 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	0.068 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.017 ppm	1.708 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.011 ppm	1.105 %
Si 288.158 (ETA AQ-Radial-iFR)	0.158 ppm	15.755 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.050 %
Al 308.215 (ETA AQ-Radial-iFR)	0.010 ppm	0.974 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.017 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.009 ppm	0.937 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.018 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.045 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.039 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.047 %
Y 360.073 (ETA AQ-Axial-iFR)	99.125 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.982 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.000 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.991 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.023 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.025 %
Na 589.592 (ETA AQ-Radial-iFR)	0.084 ppm	8.370 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	0.041 %
K 766.490 (ETA AQ-Radial-iFR)	0.166 ppm	16.609 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.067 ppm	-6.685 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	9 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	480 cps
Y 224.306 (ETA AQ-Radial-iFR)	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps

Analyte (Measure Mode)	Raw Intensity average
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	30 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	16 cps
V 292.402 (ETA AQ-Axial-iFR)	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	7 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,633 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,391 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,792 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,949 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-1 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2 cps
Na 589.592 (ETA AQ-Radial-iFR)	45 cps
Li 670.784 (ETA AQ-Radial-iFR)	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	21 cps
Na 818.326 (ETA AQ-Radial-iFR)	1 cps

Label: CCVL-7982556 #: 51
Analysis Type: QC Analysis started at: 8/12/2024 5:01:06 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.202 ppm	100.895 %
As 189.042 (ETA AQ-Axial-iFR)	0.016 ppm	103.958 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	89.941 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.014 ppm	69.125 %
Se 196.090 (ETA AQ-Axial-iFR)	0.018 ppm	72.150 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	96.488 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	106.596 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.017 ppm	82.838 %
B 208.959 (ETA AQ-Axial-iFR)	0.042 ppm	210.337 %
P 213.618 (ETA AQ-Axial-iFR)	-0.003 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.012 ppm	116.562 %
Y 224.306 (ETA AQ-Axial-iFR)	100.452 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.127 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	94.784 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	104.997 %
In 230.606 (ETA AQ-Axial-iFR)	99.681 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	98.475 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	99.800 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	102.052 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	108.481 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.014 ppm	28.315 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.186 ppm	93.233 %
Si 288.158 (ETA AQ-Radial-iFR)	0.589 ppm	117.726 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	91.763 %
Al 308.215 (ETA AQ-Radial-iFR)	0.181 ppm	90.591 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	92.008 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.479 ppm	95.888 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	93.095 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	91.127 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	90.669 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	97.440 %
Y 360.073 (ETA AQ-Axial-iFR)	99.624 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.374 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.596 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.489 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	95.581 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	92.868 %
Na 589.592 (ETA AQ-Radial-iFR)	1.014 ppm	101.363 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	97.099 %
K 766.490 (ETA AQ-Radial-iFR)	0.614 ppm	122.745 %
Na 818.326 (ETA AQ-Radial-iFR)	0.985 ppm	98.510 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	12 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	482 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	52 cps
V 292.402 (ETA AQ-Axial-iFR)	8 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	23 cps
Ca 317.933 (ETA AQ-Radial-iFR)	115 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,672 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,411 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,857 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,979 cps
Sr 407.771 (ETA AQ-Radial-iFR)	133 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	520 cps

Analyte (Measure Mode)	Raw Intensity average
Li 670.784 (ETA AQ-Radial-iFR)	58 cps
K 766.490 (ETA AQ-Radial-iFR)	70 cps
Na 818.326 (ETA AQ-Radial-iFR)	15 cps

Label: 480-222403-E-1-C MSD #: 52
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:03:01 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	21.610 ppm	568 cps
As 189.042 (ETA AQ-Axial-iFR)	0.917 ppm	46 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.983 ppm	128 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.912 ppm	45 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.928 ppm	43 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.455 ppm	113 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.537 ppm	296 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.454 ppm	19 cps
B 208.959 (ETA AQ-Axial-iFR)	0.656 ppm	167 cps
P 213.618 (ETA AQ-Axial-iFR)	10.151 ppm	581 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.464 ppm	29 cps
Y 224.306 (ETA AQ-Axial-iFR)	97.382 %	467 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.526 %	115 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.475 ppm	268 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.486 ppm	449 cps
In 230.606 (ETA AQ-Axial-iFR)	93.487 %	485 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.486 ppm	186 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.468 ppm	983 cps
Fe 259.940 (ETA AQ-Axial-iFR)	5.059 ppm	6,202 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.483 ppm	561 cps
Fe 271.441 (ETA AQ-Radial-iFR)	4.866 ppm	82 cps
Mg 279.079 (ETA AQ-Radial-iFR)	23.095 ppm	957 cps
Si 288.158 (ETA AQ-Radial-iFR)	30.050 ppm	2,423 cps
V 292.402 (ETA AQ-Axial-iFR)	0.480 ppm	869 cps
Al 308.215 (ETA AQ-Radial-iFR)	4.677 ppm	247 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.496 ppm	5,382 cps
Ca 317.933 (ETA AQ-Radial-iFR)	24.741 ppm	5,452 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.495 ppm	1,114 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.050 ppm	126 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.592 ppm	1,843 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.606 ppm	5,563 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.660 %	7,520 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.104 %	1,350 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.946 %	10,677 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.033 %	1,890 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.489 ppm	13,740 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.949 ppm	13,006 cps
Na 589.592 (ETA AQ-Radial-iFR)	432.570 ppm	211,162 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.479 ppm	934 cps
K 766.490 (ETA AQ-Radial-iFR)	24.332 ppm	2,520 cps
Na 818.326 (ETA AQ-Radial-iFR)	450.570 ppm	5,503 cps

Label: 480-222403-A-2-A #: 53
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:04:55 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	13.992 ppm	361 cps
As 189.042 (ETA AQ-Axial-iFR)	0.005 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.015 ppm	8 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.098 ppm	25 cps
P 213.618 (ETA AQ-Axial-iFR)	0.013 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.395 %	457 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.652 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	95.200 %	494 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.009 ppm	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.284 ppm	4,791 cps
Fe 259.940 (ETA AQ-Axial-iFR)	1.494 ppm	1,801 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1.395 ppm	23 cps
Mg 279.079 (ETA AQ-Radial-iFR)	39.640 ppm	1,641 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.448 ppm	843 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.007 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	133.357 ppm	29,339 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.001 ppm	-7 cps
Y 360.073 (ETA AQ-Axial-iFR)	96.556 %	7,435 cps
Y 360.073 (ETA AQ-Radial-iFR)	94.926 %	1,348 cps
Y 377.433 (ETA AQ-Axial-iFR)	96.551 %	10,525 cps
Y 377.433 (ETA AQ-Radial-iFR)	94.936 %	1,888 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.654 ppm	18,359 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.178 ppm	2,416 cps
Na 589.592 (ETA AQ-Radial-iFR)	35.941 ppm	17,529 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.018 ppm	34 cps
K 766.490 (ETA AQ-Radial-iFR)	3.593 ppm	375 cps
Na 818.326 (ETA AQ-Radial-iFR)	35.941 ppm	440 cps

Label: 480-222403-A-2-B MS #: 54
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:06:49 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	21.180 ppm	546 cps
As 189.042 (ETA AQ-Axial-iFR)	0.977 ppm	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.024 ppm	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.960 ppm	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.982 ppm	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.483 ppm	118 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.554 ppm	303 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.492 ppm	21 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
B 208.959 (ETA AQ-Axial-iFR)	0.612 ppm	153 cps
P 213.618 (ETA AQ-Axial-iFR)	10.311 ppm	580 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.488 ppm	30 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.606 %	458 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.104 %	113 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.493 ppm	278 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.512 ppm	465 cps
In 230.606 (ETA AQ-Axial-iFR)	93.573 %	485 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.515 ppm	195 cps
Mn 257.610 (ETA AQ-Radial-iFR)	3.068 ppm	6,434 cps
Fe 259.940 (ETA AQ-Axial-iFR)	7.139 ppm	8,588 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.506 ppm	585 cps
Fe 271.441 (ETA AQ-Radial-iFR)	6.808 ppm	114 cps
Mg 279.079 (ETA AQ-Radial-iFR)	70.551 ppm	2,919 cps
Si 288.158 (ETA AQ-Radial-iFR)	11.055 ppm	892 cps
V 292.402 (ETA AQ-Axial-iFR)	0.506 ppm	911 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.031 ppm	265 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.518 ppm	5,612 cps
Ca 317.933 (ETA AQ-Radial-iFR)	176.152 ppm	38,740 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.519 ppm	1,162 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.052 ppm	132 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.514 ppm	1,592 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.527 ppm	4,806 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.102 %	7,477 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.019 %	1,349 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.270 %	10,604 cps
Y 377.433 (ETA AQ-Radial-iFR)	94.903 %	1,888 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.251 ppm	35,089 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.226 ppm	16,557 cps
Na 589.592 (ETA AQ-Radial-iFR)	66.613 ppm	32,475 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.537 ppm	1,046 cps
K 766.490 (ETA AQ-Radial-iFR)	29.917 ppm	3,093 cps
Na 818.326 (ETA AQ-Radial-iFR)	66.634 ppm	814 cps

Label: 480-222403-A-2-C MSD #: 55
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:08:42 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	21.203 ppm	548 cps
As 189.042 (ETA AQ-Axial-iFR)	0.974 ppm	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1.027 ppm	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.954 ppm	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.985 ppm	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.484 ppm	118 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.552 ppm	303 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.486 ppm	20 cps
B 208.959 (ETA AQ-Axial-iFR)	0.608 ppm	152 cps
P 213.618 (ETA AQ-Axial-iFR)	10.420 ppm	587 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.490 ppm	30 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.738 %	459 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.122 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.495 ppm	279 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.513 ppm	466 cps
In 230.606 (ETA AQ-Axial-iFR)	93.502 %	485 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.516 ppm	196 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Mn 257.610 (ETA AQ-Radial-iFR)	3.066 ppm	6,491 cps
Fe 259.940 (ETA AQ-Axial-iFR)	7.244 ppm	8,727 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.508 ppm	588 cps
Fe 271.441 (ETA AQ-Radial-iFR)	6.930 ppm	118 cps
Mg 279.079 (ETA AQ-Radial-iFR)	70.871 ppm	2,959 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.952 ppm	892 cps
V 292.402 (ETA AQ-Axial-iFR)	0.506 ppm	912 cps
Al 308.215 (ETA AQ-Radial-iFR)	5.071 ppm	270 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.517 ppm	5,648 cps
Ca 317.933 (ETA AQ-Radial-iFR)	175.955 ppm	39,057 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.520 ppm	1,164 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.052 ppm	133 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.514 ppm	1,594 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.527 ppm	4,811 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.232 %	7,487 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.620 %	1,357 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.284 %	10,605 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.787 %	1,905 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.252 ppm	35,436 cps
Ba 455.403 (ETA AQ-Radial-iFR)	1.215 ppm	16,587 cps
Na 589.592 (ETA AQ-Radial-iFR)	66.559 ppm	32,751 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.537 ppm	1,055 cps
K 766.490 (ETA AQ-Radial-iFR)	29.913 ppm	3,121 cps
Na 818.326 (ETA AQ-Radial-iFR)	66.594 ppm	821 cps

Label: 480-222403-A-3-A #: 56
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:10:36 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	14.412 ppm	381 cps
As 189.042 (ETA AQ-Axial-iFR)	0.005 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.109 ppm	29 cps
P 213.618 (ETA AQ-Axial-iFR)	0.067 ppm	1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	97.753 %	469 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.763 %	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	95.471 %	495 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.096 ppm	127 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.073 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1.175 ppm	49 cps
Si 288.158 (ETA AQ-Radial-iFR)	67.105 ppm	5,442 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.011 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ca 317.933 (ETA AQ-Radial-iFR)	0.408 ppm	95 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	3 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.025 ppm	77 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.026 ppm	232 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.544 %	7,511 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.553 %	1,357 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.302 %	10,607 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.636 %	1,902 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.002 ppm	59 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.001 ppm	8 cps
Na 589.592 (ETA AQ-Radial-iFR)	337.327 ppm	165,715 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.385 ppm	43 cps
Na 818.326 (ETA AQ-Radial-iFR)	349.100 ppm	4,291 cps

Label: 480-222403-A-4-A #: 57
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:12:30 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	16.836 ppm	435 cps
As 189.042 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.016 ppm	9 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.114 ppm	29 cps
P 213.618 (ETA AQ-Axial-iFR)	0.032 ppm	-1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.667 %	459 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.057 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	94.956 %	493 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.012 ppm	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.632 ppm	5,546 cps
Fe 259.940 (ETA AQ-Axial-iFR)	4.853 ppm	5,845 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	4.594 ppm	77 cps
Mg 279.079 (ETA AQ-Radial-iFR)	45.744 ppm	1,901 cps
Si 288.158 (ETA AQ-Radial-iFR)	11.672 ppm	946 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.029 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	153.832 ppm	33,988 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.004 ppm	9 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.001 ppm	-8 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.111 %	7,478 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.182 %	1,351 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.285 %	10,605 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.344 %	1,896 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sr 407.771 (ETA AQ-Radial-iFR)	0.755 ppm	21,261 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.209 ppm	2,856 cps
Na 589.592 (ETA AQ-Radial-iFR)	40.968 ppm	20,066 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.024 ppm	46 cps
K 766.490 (ETA AQ-Radial-iFR)	4.064 ppm	425 cps
Na 818.326 (ETA AQ-Radial-iFR)	40.932 ppm	503 cps

Label: 480-222403-A-6-A #: 58
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:14:23 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	10.224 ppm	265 cps
As 189.042 (ETA AQ-Axial-iFR)	0.007 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.015 ppm	2 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.150 ppm	82 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.054 ppm	15 cps
P 213.618 (ETA AQ-Axial-iFR)	0.027 ppm	-1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.021 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.692 %	459 cps
Y 224.306 (ETA AQ-Radial-iFR)	95.253 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.009 ppm	4 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	95.192 %	494 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.036 ppm	13 cps
Mn 257.610 (ETA AQ-Radial-iFR)	5.771 ppm	12,237 cps
Fe 259.940 (ETA AQ-Axial-iFR)	33.914 ppm	40,806 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
Fe 271.441 (ETA AQ-Radial-iFR)	32.892 ppm	556 cps
Mg 279.079 (ETA AQ-Radial-iFR)	38.601 ppm	1,615 cps
Si 288.158 (ETA AQ-Radial-iFR)	18.554 ppm	1,511 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.021 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Ca 317.933 (ETA AQ-Radial-iFR)	141.603 ppm	31,482 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.235 ppm	526 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.055 ppm	170 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.055 ppm	502 cps
Y 360.073 (ETA AQ-Axial-iFR)	97.042 %	7,473 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.739 %	1,359 cps
Y 377.433 (ETA AQ-Axial-iFR)	97.197 %	10,596 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.939 %	1,908 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.645 ppm	18,287 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.321 ppm	4,393 cps
Na 589.592 (ETA AQ-Radial-iFR)	28.635 ppm	14,114 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.008 ppm	14 cps
K 766.490 (ETA AQ-Radial-iFR)	3.878 ppm	408 cps
Na 818.326 (ETA AQ-Radial-iFR)	28.367 ppm	352 cps

Label: 480-222403-A-7-A #: 59

Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:16:17 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8.319 ppm	217 cps
As 189.042 (ETA AQ-Axial-iFR)	0.008 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.149 ppm	82 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.053 ppm	14 cps
P 213.618 (ETA AQ-Axial-iFR)	0.019 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	95.890 %	460 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.691 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.009 ppm	4 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	94.672 %	491 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.035 ppm	13 cps
Mn 257.610 (ETA AQ-Radial-iFR)	5.929 ppm	12,482 cps
Fe 259.940 (ETA AQ-Axial-iFR)	35.783 ppm	43,141 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	34.890 ppm	586 cps
Mg 279.079 (ETA AQ-Radial-iFR)	39.485 ppm	1,640 cps
Si 288.158 (ETA AQ-Radial-iFR)	19.021 ppm	1,538 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.013 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	145.677 ppm	32,157 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.074 ppm	165 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.026 ppm	78 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.025 ppm	224 cps
Y 360.073 (ETA AQ-Axial-iFR)	96.947 %	7,466 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.400 %	1,354 cps
Y 377.433 (ETA AQ-Axial-iFR)	96.998 %	10,574 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.255 %	1,895 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.664 ppm	18,692 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.334 ppm	4,533 cps
Na 589.592 (ETA AQ-Radial-iFR)	24.864 ppm	12,168 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.009 ppm	15 cps
K 766.490 (ETA AQ-Radial-iFR)	3.990 ppm	417 cps
Na 818.326 (ETA AQ-Radial-iFR)	24.769 ppm	305 cps

Label: rinse #: 60
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:18:11 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.013 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.009 ppm	4 cps
P 213.618 (ETA AQ-Axial-iFR)	-0.001 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.347 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.877 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.605 %	506 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.006 ppm	16 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.024 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.002 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.158 ppm	16 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	-0.006 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.007 ppm	6 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.019 ppm	42 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.004 %	7,547 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.941 %	1,390 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.109 %	10,695 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.827 %	1,946 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-6 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.049 ppm	27 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.090 ppm	13 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.049 ppm	3 cps

Label: CCV-8027695 #: 61
Analysis Type: QC Analysis started at: 8/12/2024 5:20:04 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	25.290 ppm	101.161 %
As 189.042 (ETA AQ-Axial-iFR)	0.937 ppm	93.718 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.019 ppm	101.901 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.926 ppm	92.585 %
Se 196.090 (ETA AQ-Axial-iFR)	0.969 ppm	96.929 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.947 ppm	94.678 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.075 ppm	107.456 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.968 ppm	96.801 %
B 208.959 (ETA AQ-Axial-iFR)	0.993 ppm	99.270 %
P 213.618 (ETA AQ-Axial-iFR)	25.023 ppm	100.090 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.954 ppm	95.418 %
Y 224.306 (ETA AQ-Axial-iFR)	97.764 %	
Y 224.306 (ETA AQ-Radial-iFR)	96.766 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.987 ppm	98.745 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Cd 228.802 (ETA AQ-Axial-iFR)	1.019 ppm	101.949 %
In 230.606 (ETA AQ-Axial-iFR)	94.859 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.018 ppm	101.788 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.977 ppm	97.679 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.772 ppm	99.543 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.033 ppm	103.258 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.866 ppm	99.732 %
Mg 279.079 (ETA AQ-Radial-iFR)	49.176 ppm	98.353 %
Si 288.158 (ETA AQ-Radial-iFR)	10.911 ppm	109.111 %
V 292.402 (ETA AQ-Axial-iFR)	1.013 ppm	101.252 %
Al 308.215 (ETA AQ-Radial-iFR)	48.419 ppm	96.838 %
Be 313.042 (ETA AQ-Radial-iFR)	1.005 ppm	100.527 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.952 ppm	99.904 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.029 ppm	102.883 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.030 ppm	103.034 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.012 ppm	101.194 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.034 ppm	103.366 %
Y 360.073 (ETA AQ-Axial-iFR)	97.514 %	
Y 360.073 (ETA AQ-Radial-iFR)	96.000 %	
Y 377.433 (ETA AQ-Axial-iFR)	97.395 %	
Y 377.433 (ETA AQ-Radial-iFR)	96.077 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.005 ppm	100.497 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.984 ppm	98.414 %
Na 589.592 (ETA AQ-Radial-iFR)	49.551 ppm	99.101 %
Li 670.784 (ETA AQ-Radial-iFR)	1.010 ppm	100.979 %
K 766.490 (ETA AQ-Radial-iFR)	50.065 ppm	100.131 %
Na 818.326 (ETA AQ-Radial-iFR)	49.174 ppm	98.348 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	667 cps
As 189.042 (ETA AQ-Axial-iFR)	47 cps
Sn 189.989 (ETA AQ-Axial-iFR)	134 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	45 cps
Mo 202.030 (ETA AQ-Axial-iFR)	236 cps
Zn 206.200 (ETA AQ-Axial-iFR)	591 cps
Sb 206.833 (ETA AQ-Axial-iFR)	41 cps
B 208.959 (ETA AQ-Axial-iFR)	254 cps
P 213.618 (ETA AQ-Axial-iFR)	1,443 cps
Pb 220.353 (ETA AQ-Axial-iFR)	60 cps
Y 224.306 (ETA AQ-Axial-iFR)	469 cps
Y 224.306 (ETA AQ-Radial-iFR)	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	565 cps
Cd 228.802 (ETA AQ-Axial-iFR)	943 cps
In 230.606 (ETA AQ-Axial-iFR)	492 cps
Ni 231.604 (ETA AQ-Axial-iFR)	387 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,074 cps
Fe 259.940 (ETA AQ-Axial-iFR)	61,177 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,198 cps
Fe 271.441 (ETA AQ-Radial-iFR)	846 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,060 cps
Si 288.158 (ETA AQ-Radial-iFR)	891 cps
V 292.402 (ETA AQ-Axial-iFR)	1,832 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,579 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,020 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,125 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,305 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,923 cps

Basic Sample Report
8/13/2024 8:09:51 AM

QTEGRA

Analyte (Measure Mode)	Raw Intensity average
Ti 334.904 (ETA AQ-Axial-iFR)	3,149 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,474 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,509 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,363 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,617 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,911 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,537 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,669 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,456 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,993 cps
K 766.490 (ETA AQ-Radial-iFR)	5,238 cps
Na 818.326 (ETA AQ-Radial-iFR)	609 cps

Label: CCB-7982661 #: 62
Analysis Type: QC Analysis started at: 8/12/2024 5:21:59 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.019 ppm	1.901 %
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0.299 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.001 ppm	0.086 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.107 %
Se 196.090 (ETA AQ-Axial-iFR)	0.001 ppm	0.061 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.121 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	0.068 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0.116 %
B 208.959 (ETA AQ-Axial-iFR)	0.010 ppm	1.047 %
P 213.618 (ETA AQ-Axial-iFR)	0.008 ppm	0.768 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0.059 %
Y 224.306 (ETA AQ-Axial-iFR)	99.503 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.543 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	0.013 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.047 %
In 230.606 (ETA AQ-Axial-iFR)	97.691 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	-0.008 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.033 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.016 ppm	1.597 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.015 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.025 ppm	-2.473 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.005 ppm	0.523 %
Si 288.158 (ETA AQ-Radial-iFR)	0.088 ppm	8.827 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.032 %
Al 308.215 (ETA AQ-Radial-iFR)	0.006 ppm	0.596 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.014 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.010 ppm	0.964 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.007 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.011 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.006 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	0.051 %
Y 360.073 (ETA AQ-Axial-iFR)	98.240 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.190 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.248 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.048 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.024 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.030 %
Na 589.592 (ETA AQ-Radial-iFR)	0.063 ppm	6.283 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.040 %
K 766.490 (ETA AQ-Radial-iFR)	0.087 ppm	8.650 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.073 ppm	-7.315 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	4 cps
P 213.618 (ETA AQ-Axial-iFR)	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2 cps
In 230.606 (ETA AQ-Axial-iFR)	507 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	29 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	10 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	7 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,565 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,394 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,710 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,950 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0 cps
Ba 455.403 (ETA AQ-Radial-iFR)	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	34 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	13 cps
Na 818.326 (ETA AQ-Radial-iFR)	1 cps

Label: CCVL-7982556 #: 63
Analysis Type: QC Analysis started at: 8/12/2024 5:23:53 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.192 ppm	95.871 %
As 189.042 (ETA AQ-Axial-iFR)	0.014 ppm	94.698 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	94.454 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.013 ppm	65.575 %

Basic Sample Report
8/13/2024 8:09:51 AM

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Se 196.090 (ETA AQ-Axial-iFR)	0.020 ppm	80.866 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	108.066 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	109.429 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.021 ppm	103.963 %
B 208.959 (ETA AQ-Axial-iFR)	0.026 ppm	132.254 %
P 213.618 (ETA AQ-Axial-iFR)	-0.002 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.012 ppm	122.269 %
Y 224.306 (ETA AQ-Axial-iFR)	100.665 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.054 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	73.188 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	98.143 %
In 230.606 (ETA AQ-Axial-iFR)	98.988 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	97.194 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	98.745 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.051 ppm	102.495 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	111.225 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.011 ppm	21.416 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.189 ppm	94.667 %
Si 288.158 (ETA AQ-Radial-iFR)	0.550 ppm	110.069 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	99.205 %
Al 308.215 (ETA AQ-Radial-iFR)	0.176 ppm	87.798 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	92.672 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.481 ppm	96.242 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	89.343 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	92.086 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	91.424 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	97.239 %
Y 360.073 (ETA AQ-Axial-iFR)	99.555 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.382 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.702 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.563 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	95.911 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	93.498 %
Na 589.592 (ETA AQ-Radial-iFR)	1.006 ppm	100.567 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	100.064 %
K 766.490 (ETA AQ-Radial-iFR)	0.553 ppm	110.610 %
Na 818.326 (ETA AQ-Radial-iFR)	0.798 ppm	79.819 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	8 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	483 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	514 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74 cps

Analyte (Measure Mode)	Raw Intensity average
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	49 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	20 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,666 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,411 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,869 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,980 cps
Sr 407.771 (ETA AQ-Radial-iFR)	134 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	517 cps
Li 670.784 (ETA AQ-Radial-iFR)	60 cps
K 766.490 (ETA AQ-Radial-iFR)	63 cps
Na 818.326 (ETA AQ-Radial-iFR)	12 cps

Label: 480-222363-G-3-B #: 64
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:25:48 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	199.983 ppm	5,086 cps
As 189.042 (ETA AQ-Axial-iFR)	0.141 ppm	7 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.651 ppm	74 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.019 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.139 ppm	7 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.169 ppm	41 cps
Zn 206.200 (ETA AQ-Axial-iFR)	20.092 ppm	11,624 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.044 ppm	3 cps
B 208.959 (ETA AQ-Axial-iFR)	0.295 ppm	74 cps
P 213.618 (ETA AQ-Axial-iFR)	601.808 ppm	33,649 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.503 ppm	30 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.630 %	454 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.299 %	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.083 ppm	41 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.029 ppm	27 cps
In 230.606 (ETA AQ-Axial-iFR)	82.203 %	426 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.311 ppm	125 cps
Mn 257.610 (ETA AQ-Radial-iFR)	3.193 ppm	7,317 cps
Fe 259.940 (ETA AQ-Axial-iFR)	481.100 ppm	572,318 cps
Cr 267.716 (ETA AQ-Axial-iFR)	2.563 ppm	3,126 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1,330.941 ppm	24,332 cps
Mg 279.079 (ETA AQ-Radial-iFR)	134.551 ppm	6,082 cps
Si 288.158 (ETA AQ-Radial-iFR)	41.655 ppm	3,664 cps
V 292.402 (ETA AQ-Axial-iFR)	0.331 ppm	683 cps
Al 308.215 (ETA AQ-Radial-iFR)	144.275 ppm	8,291 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.005 ppm	67 cps
Ca 317.933 (ETA AQ-Radial-iFR)	396.104 ppm	95,173 cps
Cu 327.396 (ETA AQ-Axial-iFR)	11.109 ppm	26,454 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	0.033 ppm	82 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.623 ppm	2,040 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.644 ppm	6,209 cps
Y 360.073 (ETA AQ-Axial-iFR)	102.579 %	7,899 cps
Y 360.073 (ETA AQ-Radial-iFR)	102.895 %	1,461 cps
Y 377.433 (ETA AQ-Axial-iFR)	103.499 %	11,283 cps
Y 377.433 (ETA AQ-Radial-iFR)	103.691 %	2,063 cps
Sr 407.771 (ETA AQ-Radial-iFR)	5.905 ppm	180,991 cps
Ba 455.403 (ETA AQ-Radial-iFR)	5.321 ppm	73,540 cps
Na 589.592 (ETA AQ-Radial-iFR)	73.934 ppm	39,382 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.172 ppm	366 cps
K 766.490 (ETA AQ-Radial-iFR)	122.415 ppm	13,817 cps
Na 818.326 (ETA AQ-Radial-iFR)	73.430 ppm	980 cps

Label: 480-222363-G-4-B #: 65
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:27:42 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	12.478 ppm	325 cps
As 189.042 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.024 ppm	3 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.007 ppm	2 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.589 ppm	321 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.172 ppm	44 cps
P 213.618 (ETA AQ-Axial-iFR)	38.585 ppm	2,188 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.021 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	96.069 %	461 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.483 %	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	93.624 %	486 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.015 ppm	5 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.880 ppm	6,118 cps
Fe 259.940 (ETA AQ-Axial-iFR)	11.947 ppm	14,437 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.012 ppm	15 cps
Fe 271.441 (ETA AQ-Radial-iFR)	11.293 ppm	191 cps
Mg 279.079 (ETA AQ-Radial-iFR)	17.792 ppm	746 cps
Si 288.158 (ETA AQ-Radial-iFR)	11.843 ppm	967 cps
V 292.402 (ETA AQ-Axial-iFR)	0.004 ppm	7 cps
Al 308.215 (ETA AQ-Radial-iFR)	2.117 ppm	114 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	61.857 ppm	13,778 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.364 ppm	809 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-10 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.035 ppm	108 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.036 ppm	322 cps
Y 360.073 (ETA AQ-Axial-iFR)	96.688 %	7,446 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.939 %	1,362 cps
Y 377.433 (ETA AQ-Axial-iFR)	96.690 %	10,540 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.102 %	1,912 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.214 ppm	6,068 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.742 ppm	10,273 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Na 589.592 (ETA AQ-Radial-iFR)	139.851 ppm	69,040 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.011 ppm	20 cps
K 766.490 (ETA AQ-Radial-iFR)	31.793 ppm	3,328 cps
Na 818.326 (ETA AQ-Radial-iFR)	140.846 ppm	1,741 cps

Label: rinse #: 66
Analysis Type: UNKNOWN Analysis started at: 8/12/2024 5:29:36 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.025 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.007 ppm	3 cps
P 213.618 (ETA AQ-Axial-iFR)	0.017 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.064 %	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.897 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.600 %	506 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.027 ppm	43 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.015 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.012 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.076 ppm	9 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.001 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.005 ppm	6 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-15 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.018 %	7,548 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.809 %	1,403 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.180 %	10,703 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.812 %	1,965 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-5 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.060 ppm	33 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.051 ppm	9 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.039 ppm	1 cps

Label: CCV-8027695 #: 67
Analysis Type: QC Analysis started at: 8/12/2024 5:31:30 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	24.704 ppm	98.816 %
As 189.042 (ETA AQ-Axial-iFR)	0.925 ppm	92.485 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.002 ppm	100.236 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.924 ppm	92.350 %
Se 196.090 (ETA AQ-Axial-iFR)	0.954 ppm	95.411 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.945 ppm	94.519 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.035 ppm	103.545 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.969 ppm	96.871 %
B 208.959 (ETA AQ-Axial-iFR)	0.980 ppm	97.984 %
P 213.618 (ETA AQ-Axial-iFR)	24.648 ppm	98.593 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.966 ppm	96.566 %
Y 224.306 (ETA AQ-Axial-iFR)	99.772 %	
Y 224.306 (ETA AQ-Radial-iFR)	97.308 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.985 ppm	98.464 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.001 ppm	100.073 %
In 230.606 (ETA AQ-Axial-iFR)	95.550 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.002 ppm	100.227 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.966 ppm	96.602 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.541 ppm	99.081 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	101.535 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.350 ppm	98.700 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.600 ppm	97.200 %
Si 288.158 (ETA AQ-Radial-iFR)	10.246 ppm	102.464 %
V 292.402 (ETA AQ-Axial-iFR)	1.004 ppm	100.353 %
Al 308.215 (ETA AQ-Radial-iFR)	47.848 ppm	95.696 %
Be 313.042 (ETA AQ-Radial-iFR)	0.996 ppm	99.559 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.406 ppm	98.812 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.000 ppm	100.022 %
Ag 328.068 (ETA AQ-Axial-iFR)	1.013 ppm	101.311 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.998 ppm	99.761 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.013 ppm	101.253 %
Y 360.073 (ETA AQ-Axial-iFR)	100.507 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.392 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.296 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.722 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.001 ppm	100.077 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.991 ppm	99.114 %
Na 589.592 (ETA AQ-Radial-iFR)	49.260 ppm	98.519 %
Li 670.784 (ETA AQ-Radial-iFR)	1.010 ppm	101.024 %
K 766.490 (ETA AQ-Radial-iFR)	49.931 ppm	99.862 %
Na 818.326 (ETA AQ-Radial-iFR)	49.150 ppm	98.301 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	665 cps
As 189.042 (ETA AQ-Axial-iFR)	48 cps
Sn 189.989 (ETA AQ-Axial-iFR)	133 cps
Tl 190.856 (ETA AQ-Axial-iFR)	47 cps
Se 196.090 (ETA AQ-Axial-iFR)	46 cps
Mo 202.030 (ETA AQ-Axial-iFR)	240 cps
Zn 206.200 (ETA AQ-Axial-iFR)	587 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	256 cps
P 213.618 (ETA AQ-Axial-iFR)	1,450 cps
Pb 220.353 (ETA AQ-Axial-iFR)	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	478 cps
Y 224.306 (ETA AQ-Radial-iFR)	117 cps

Analyte (Measure Mode)	Raw Intensity average
Co 228.616 (ETA AQ-Axial-iFR)	568 cps
Cd 228.802 (ETA AQ-Axial-iFR)	945 cps
In 230.606 (ETA AQ-Axial-iFR)	496 cps
Ni 231.604 (ETA AQ-Axial-iFR)	392 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,086 cps
Fe 259.940 (ETA AQ-Axial-iFR)	62,149 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,214 cps
Fe 271.441 (ETA AQ-Radial-iFR)	851 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,070 cps
Si 288.158 (ETA AQ-Radial-iFR)	851 cps
V 292.402 (ETA AQ-Axial-iFR)	1,871 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,592 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,101 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,191 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,307 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,961 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,199 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,563 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,740 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,383 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,934 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,944 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,903 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,844 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,729 cps
Li 670.784 (ETA AQ-Radial-iFR)	2,028 cps
K 766.490 (ETA AQ-Radial-iFR)	5,313 cps
Na 818.326 (ETA AQ-Radial-iFR)	619 cps

Label: CCB-7982661 #: 68
Analysis Type: QC Analysis started at: 8/12/2024 5:33:24 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.022 ppm	2.152 %
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0.040 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0.037 %
Tl 190.856 (ETA AQ-Axial-iFR)	-0.003 ppm	-0.296 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	-0.406 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	0.192 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.046 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.006 ppm	0.577 %
B 208.959 (ETA AQ-Axial-iFR)	0.009 ppm	0.862 %
P 213.618 (ETA AQ-Axial-iFR)	0.002 ppm	0.155 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0.205 %
Y 224.306 (ETA AQ-Axial-iFR)	99.088 %	
Y 224.306 (ETA AQ-Radial-iFR)	97.747 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.028 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.044 %
In 230.606 (ETA AQ-Axial-iFR)	97.145 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0.028 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.019 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.018 ppm	1.757 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	0.068 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.007 ppm	-0.743 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.014 ppm	1.419 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Si 288.158 (ETA AQ-Radial-iFR)	0.073 ppm	7.274 %
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	0.051 %
Al 308.215 (ETA AQ-Radial-iFR)	0.008 ppm	0.779 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.018 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.011 ppm	1.064 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	-0.014 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	0.007 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.031 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.047 %
Y 360.073 (ETA AQ-Axial-iFR)	97.567 %	
Y 360.073 (ETA AQ-Radial-iFR)	97.892 %	
Y 377.433 (ETA AQ-Axial-iFR)	97.704 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.653 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.027 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.021 %
Na 589.592 (ETA AQ-Radial-iFR)	0.060 ppm	5.955 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.036 %
K 766.490 (ETA AQ-Radial-iFR)	0.081 ppm	8.144 %
Na 818.326 (ETA AQ-Radial-iFR)	0.013 ppm	1.287 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	4 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2 cps
In 230.606 (ETA AQ-Axial-iFR)	504 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	31 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	9 cps
V 292.402 (ETA AQ-Axial-iFR)	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	7 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,513 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,390 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,651 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,942 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2 cps

Analyte (Measure Mode)	Raw Intensity average
Na 589.592 (ETA AQ-Radial-iFR)	32 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	12 cps
Na 818.326 (ETA AQ-Radial-iFR)	2 cps

Label: CCVL-7982556 #: 69
Analysis Type: QC Analysis started at: 8/12/2024 5:35:18 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.194 ppm	96.790 %
As 189.042 (ETA AQ-Axial-iFR)	0.014 ppm	90.065 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.011 ppm	114.021 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.016 ppm	78.219 %
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	82.713 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	107.503 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	107.695 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.017 ppm	85.437 %
B 208.959 (ETA AQ-Axial-iFR)	0.024 ppm	121.719 %
P 213.618 (ETA AQ-Axial-iFR)	-0.005 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.013 ppm	131.398 %
Y 224.306 (ETA AQ-Axial-iFR)	100.027 %	
Y 224.306 (ETA AQ-Radial-iFR)	100.027 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	82.671 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	96.938 %
In 230.606 (ETA AQ-Axial-iFR)	98.788 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	101.776 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	93.409 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.052 ppm	103.925 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	106.824 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.028 ppm	56.977 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.194 ppm	96.846 %
Si 288.158 (ETA AQ-Radial-iFR)	0.525 ppm	104.970 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	98.713 %
Al 308.215 (ETA AQ-Radial-iFR)	0.174 ppm	86.903 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	96.380 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.483 ppm	96.604 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	89.149 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	94.203 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	91.147 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	98.992 %
Y 360.073 (ETA AQ-Axial-iFR)	99.082 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.693 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.066 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.500 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	96.732 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	95.847 %
Na 589.592 (ETA AQ-Radial-iFR)	1.006 ppm	100.583 %
Li 670.784 (ETA AQ-Radial-iFR)	0.030 ppm	100.647 %
K 766.490 (ETA AQ-Radial-iFR)	0.546 ppm	109.117 %
Na 818.326 (ETA AQ-Radial-iFR)	0.951 ppm	95.107 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps

Analyte (Measure Mode)	Raw Intensity average
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	8 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	480 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	513 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	75 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	47 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	10 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	20 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,630 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,415 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,799 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,979 cps
Sr 407.771 (ETA AQ-Radial-iFR)	135 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	517 cps
Li 670.784 (ETA AQ-Radial-iFR)	60 cps
K 766.490 (ETA AQ-Radial-iFR)	63 cps
Na 818.326 (ETA AQ-Radial-iFR)	14 cps

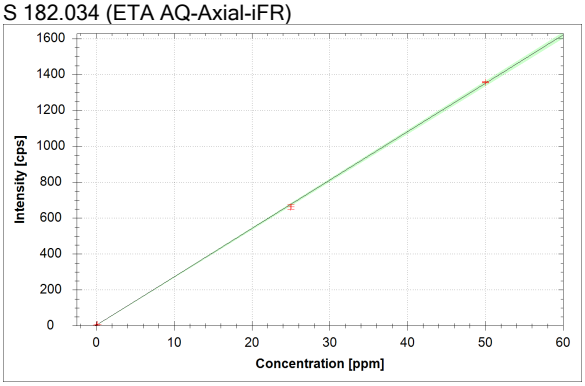
Calibration Summary

8/13/2024 3:29:46 PM

LabBook: I420240813B.imexp

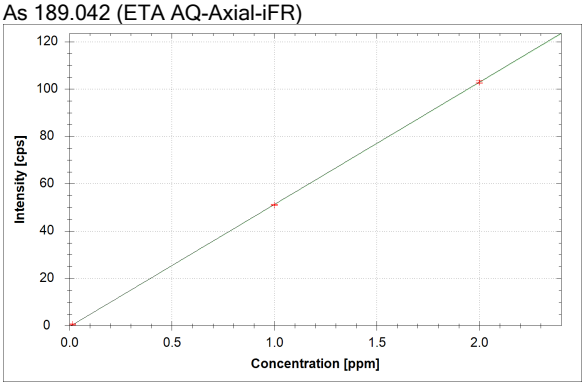
Calibration Graphs

S 182.034 (ETA AQ-Axial-iFR)



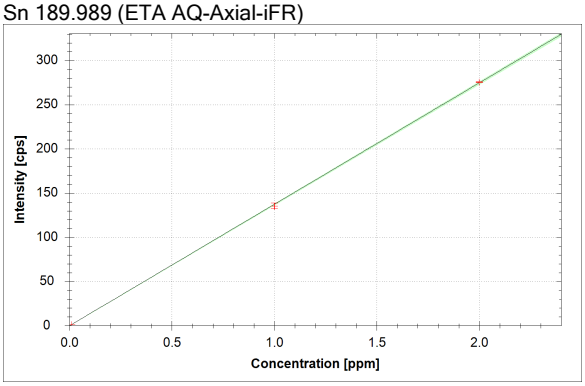
f(x) = 26.9606*x + 2.8901
R² = 0.9998
BEC = 0.107 ppm
LoD = 0.0262 ppm

As 189.042 (ETA AQ-Axial-iFR)



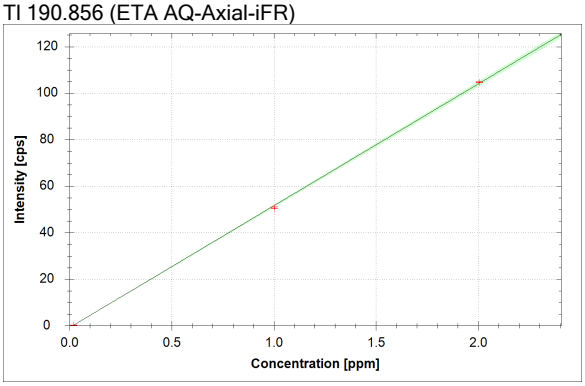
f(x) = 51.6308*x + -0.4009
R² = 1.0000
BEC = -0.008 ppm
LoD = 0.0029 ppm

Sn 189.989 (ETA AQ-Axial-iFR)



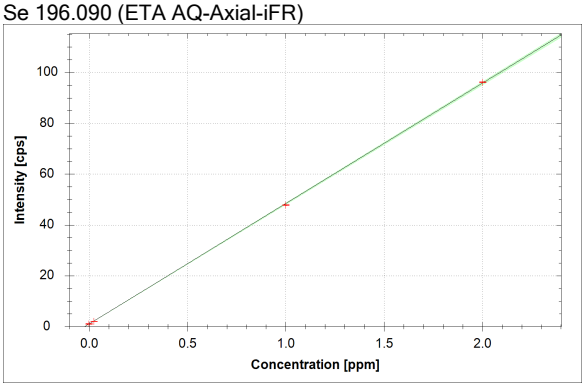
f(x) = 137.3223*x + -0.0203
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0001 ppm

Tl 190.856 (ETA AQ-Axial-iFR)



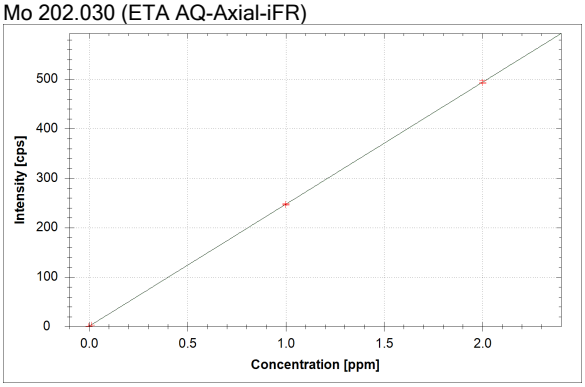
f(x) = 52.3961*x + -0.8224
R² = 0.9998
BEC = -0.016 ppm
LoD = 0.0080 ppm

Se 196.090 (ETA AQ-Axial-iFR)



f(x) = 47.3388*x + 1.0523
R² = 0.9999
BEC = 0.022 ppm
LoD = 0.0099 ppm

Mo 202.030 (ETA AQ-Axial-iFR)



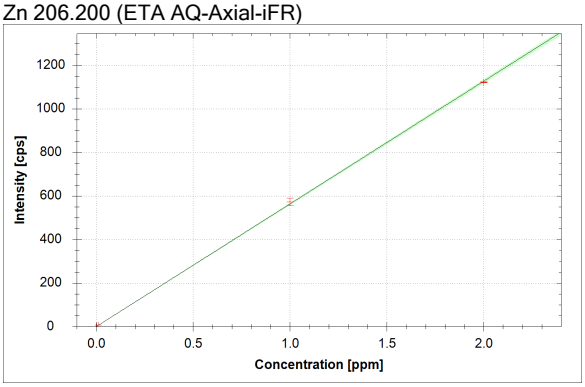
f(x) = 246.7285*x + 0.6657
R² = 1.0000
BEC = 0.003 ppm
LoD = 0.0029 ppm

Calibration Summary

8/13/2024 3:29:46 PM

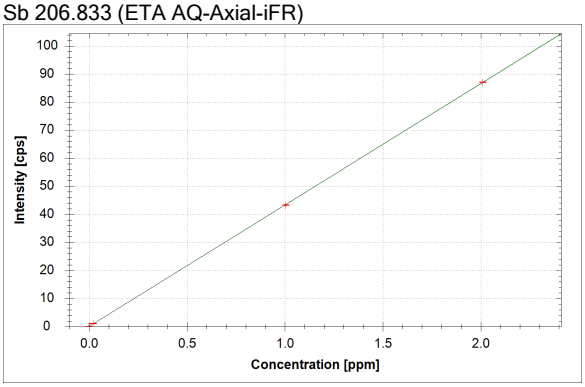
QTEGRA

Zn 206.200 (ETA AQ-Axial-iFR)



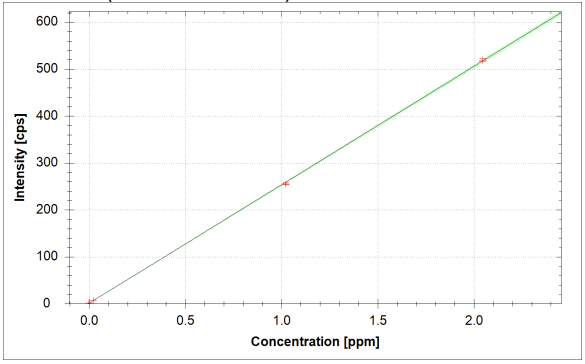
f(x) = 563.3701*x + 0.0197
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0007 ppm

Sb 206.833 (ETA AQ-Axial-iFR)



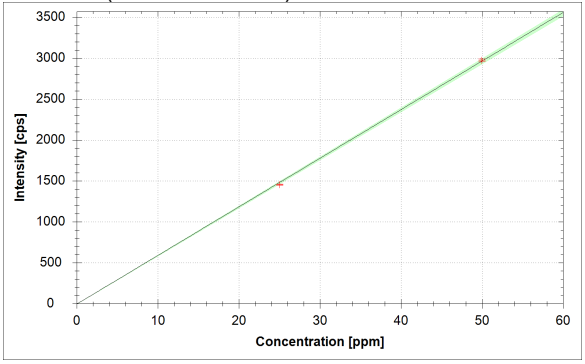
f(x) = 43.2659*x + 0.0559
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0013 ppm

B 208.959 (ETA AQ-Axial-iFR)



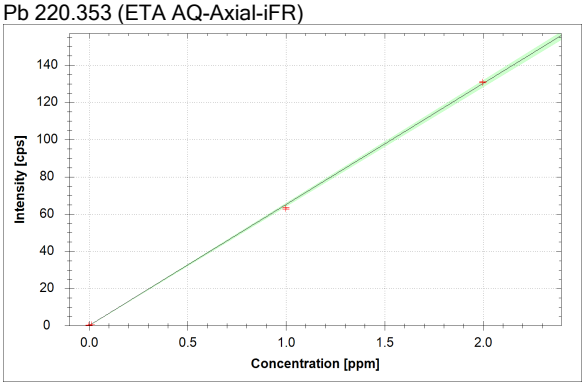
f(x) = 252.3657*x + 1.1360
R² = 0.9999
BEC = 0.005 ppm
LoD = 0.0007 ppm

P 213.618 (ETA AQ-Axial-iFR)



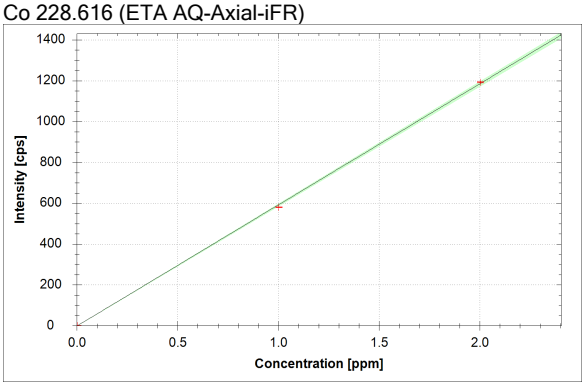
f(x) = 59.3755*x + -2.9725
R² = 0.9998
BEC = -0.050 ppm
LoD = 0.0106 ppm

Pb 220.353 (ETA AQ-Axial-iFR)



f(x) = 65.0173*x + 0.1140
R² = 0.9996
BEC = 0.002 ppm
LoD = 0.0066 ppm

Co 228.616 (ETA AQ-Axial-iFR)



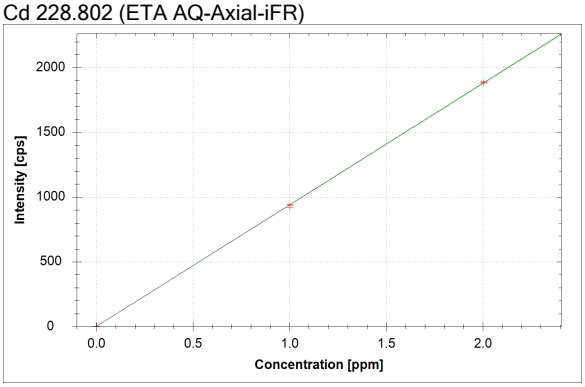
f(x) = 592.9666*x + -1.1777
R² = 0.9998
BEC = -0.002 ppm
LoD = 0.0015 ppm

Calibration Summary

8/13/2024 3:29:46 PM

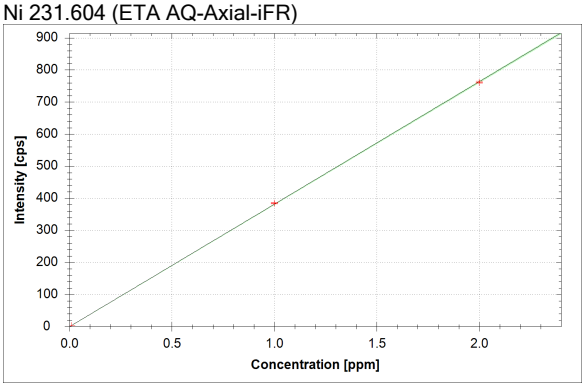
QTEGRA

Cd 228.802 (ETA AQ-Axial-iFR)



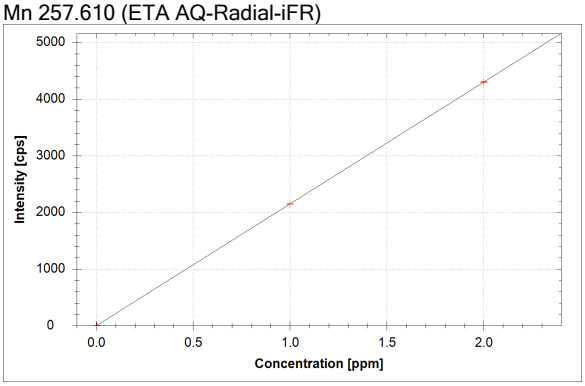
f(x) = 938.5810*x + 1.1325
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0000 ppm

Ni 231.604 (ETA AQ-Axial-iFR)



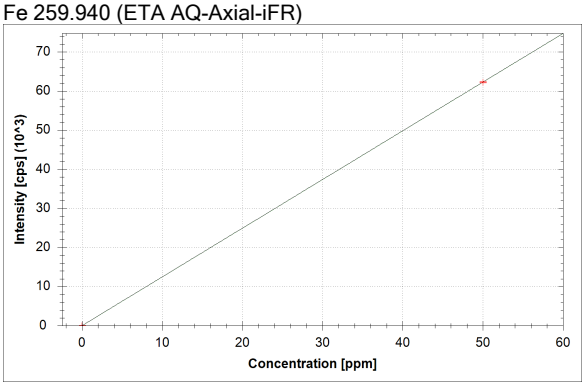
f(x) = 381.7884*x + -0.4390
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0014 ppm

Mn 257.610 (ETA AQ-Radial-iFR)



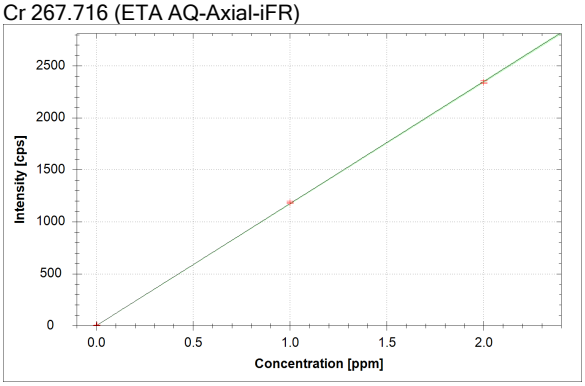
f(x) = 2150.9111*x + 0.2565
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0008 ppm

Fe 259.940 (ETA AQ-Axial-iFR)



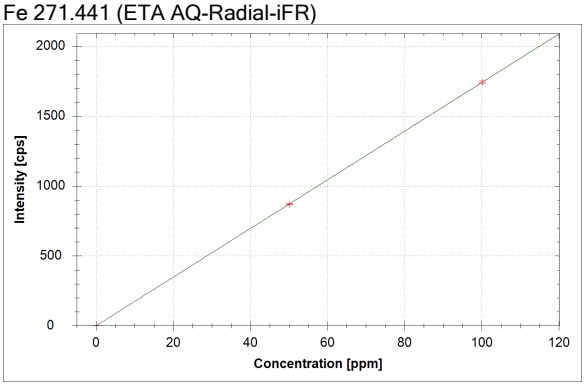
f(x) = 1245.4139*x + 20.4170
R² = 1.0000
BEC = 0.016 ppm
LoD = 0.0013 ppm

Cr 267.716 (ETA AQ-Axial-iFR)



f(x) = 1174.1138*x + 0.6746
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0007 ppm

Fe 271.441 (ETA AQ-Radial-iFR)



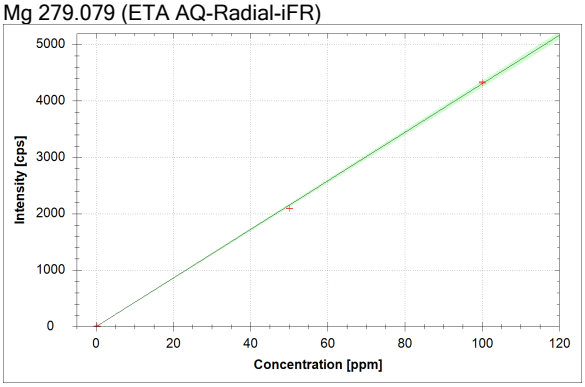
f(x) = 17.4036*x + 0.1960
R² = 1.0000
BEC = 0.011 ppm
LoD = 0.0390 ppm

Calibration Summary

8/13/2024 3:29:46 PM

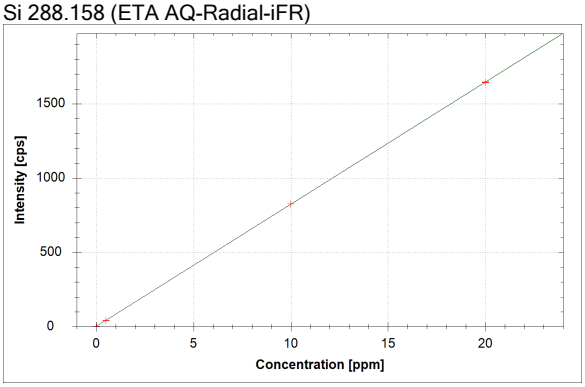
QTEGRA

Mg 279.079 (ETA AQ-Radial-iFR)



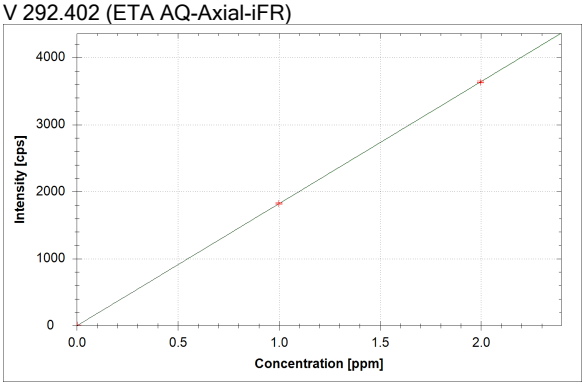
f(x) = 43.0194*x + 0.8274
R² = 0.9997
BEC = 0.019 ppm
LoD = 0.0301 ppm

Si 288.158 (ETA AQ-Radial-iFR)



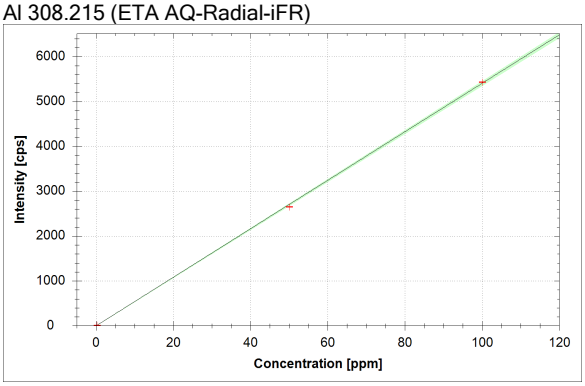
f(x) = 82.2091*x + 1.9281
R² = 1.0000
BEC = 0.023 ppm
LoD = 0.0247 ppm

V 292.402 (ETA AQ-Axial-iFR)



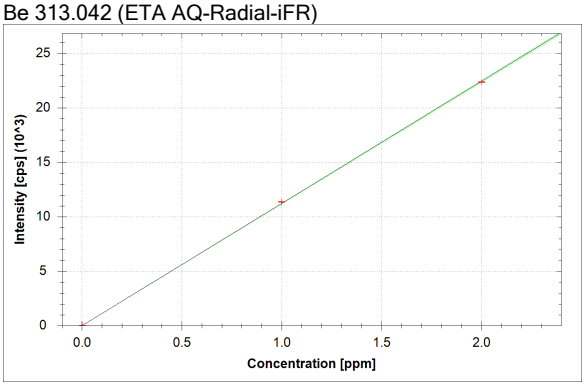
f(x) = 1821.7565*x + -0.1784
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0004 ppm

Al 308.215 (ETA AQ-Radial-iFR)



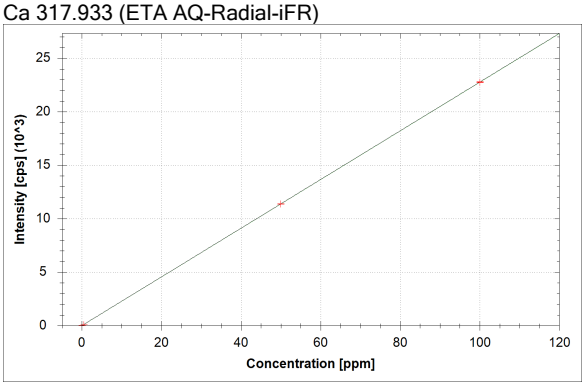
f(x) = 54.0440*x + 0.8136
R² = 0.9998
BEC = 0.015 ppm
LoD = 0.0191 ppm

Be 313.042 (ETA AQ-Radial-iFR)



f(x) = 11219.7151*x + 1.7046
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0003 ppm

Ca 317.933 (ETA AQ-Radial-iFR)



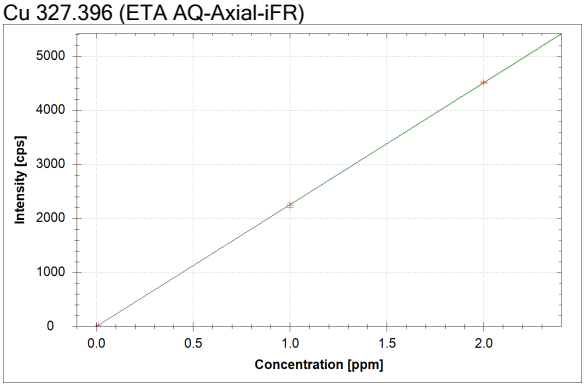
f(x) = 227.6433*x + 11.7948
R² = 1.0000
BEC = 0.052 ppm
LoD = 0.0132 ppm

Calibration Summary

8/13/2024 3:29:46 PM

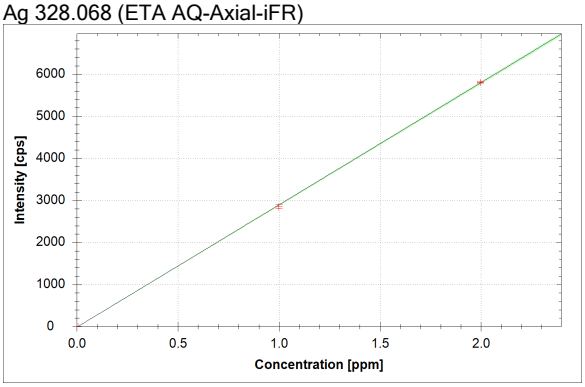
QTEGRA

Cu 327.396 (ETA AQ-Axial-iFR)



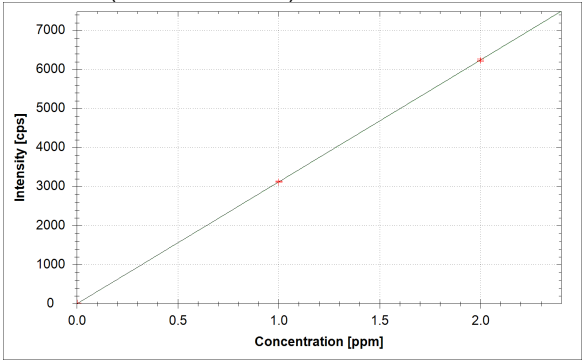
f(x) = 2255.6052*x + 0.4538
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0009 ppm

Ag 328.068 (ETA AQ-Axial-iFR)



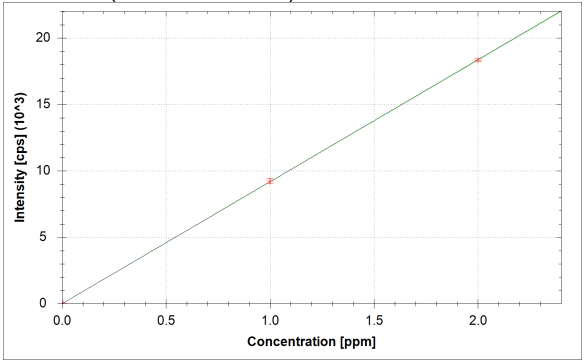
f(x) = 2906.6354*x + -13.3639
R² = 0.9999
BEC = -0.005 ppm
LoD = 0.0004 ppm

Ti 334.904 (ETA AQ-Axial-iFR)



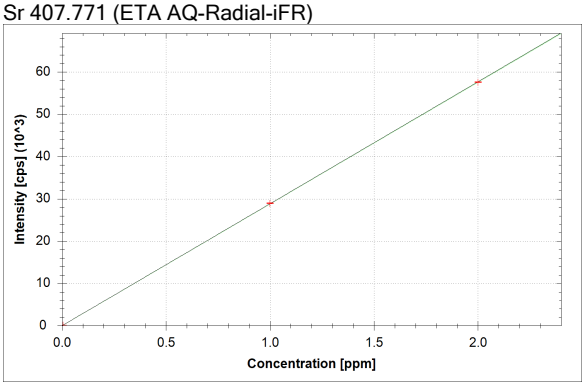
f(x) = 3123.5818*x + -1.6913
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0006 ppm

Ti 334.941 (ETA AQ-Axial-iFR)



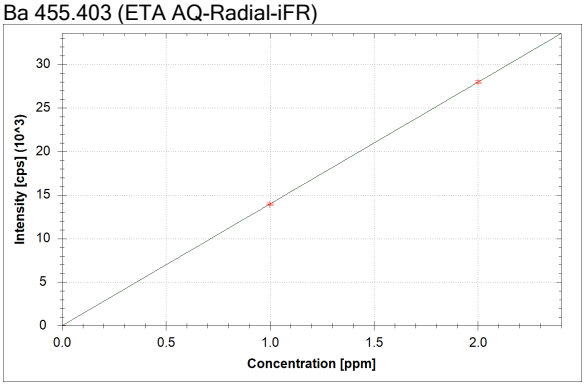
f(x) = 9187.5926*x + -1.9238
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0000 ppm

Sr 407.771 (ETA AQ-Radial-iFR)



f(x) = 28843.6899*x + -4.0980
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0001 ppm

Ba 455.403 (ETA AQ-Radial-iFR)



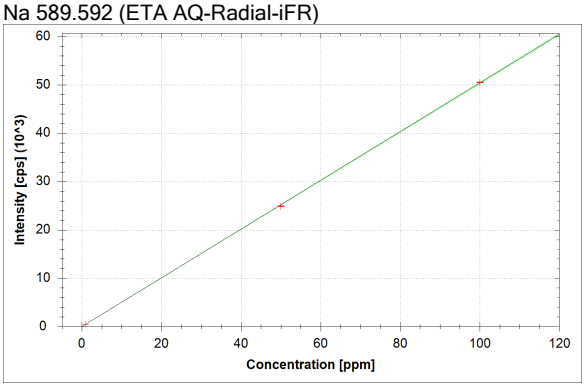
f(x) = 13981.5473*x + -1.2341
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Calibration Summary

8/13/2024 3:29:46 PM

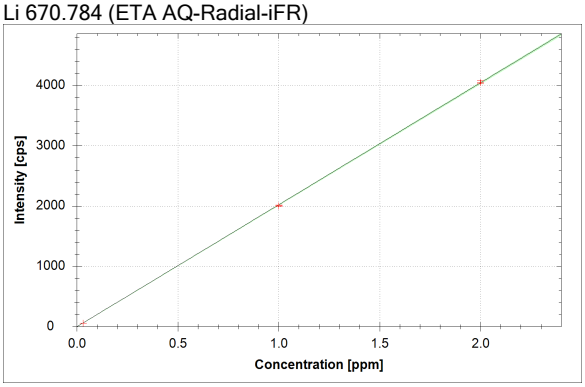
QTEGRA

Na 589.592 (ETA AQ-Radial-iFR)



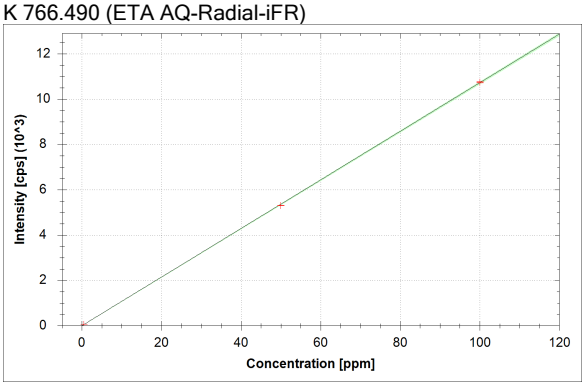
f(x) = 503.9067*x + 0.3109
R² = 0.9999
BEC = 0.001 ppm
LoD = 0.0081 ppm

Li 670.784 (ETA AQ-Radial-iFR)



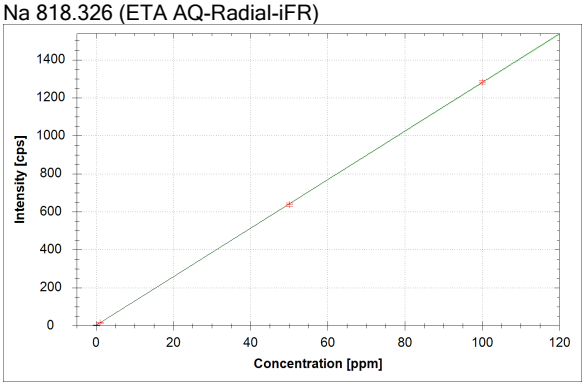
f(x) = 2022.9293*x + -1.3585
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0012 ppm

K 766.490 (ETA AQ-Radial-iFR)



f(x) = 107.2440*x + 2.5584
R² = 0.9999
BEC = 0.024 ppm
LoD = 0.0054 ppm

Na 818.326 (ETA AQ-Radial-iFR)



f(x) = 12.7777*x + 2.5981
R² = 1.0000
BEC = 0.203 ppm
LoD = 0.1652 ppm

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Standards

Standard: IC-7982556
Analysis started at: 8/13/2024 11:10:59 AM
Standard (Stock): IC-7982556
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	0.179 ppm	2.2 %	0.200 ppm	8 cps	10.297 %
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	21.9 %	0.015 ppm	1 cps	23.621 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	5.1 %	0.010 ppm	1 cps	5.839 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	24.6 %	0.020 ppm	0 cps	13.151 %
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	12.3 %	0.025 ppm	2 cps	16.390 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	5.6 %	0.010 ppm	3 cps	4.385 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	0.9 %	0.010 ppm	6 cps	6.063 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.023 ppm	16.4 %	0.020 ppm	1 cps	13.003 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	2.4 %	0.020 ppm	6 cps	3.122 %
P 213.618 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	-3 cps	N/A
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	12.0 %	0.010 ppm	1 cps	26.532 %
Y 224.306 (ETA AQ-Axial-iFR)	100.871 %	0.3 %		482 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	101.125 %	1.1 %		122 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	8.9 %	0.004 ppm	1 cps	18.094 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	8.5 %	0.002 ppm	3 cps	2.668 %
In 230.606 (ETA AQ-Axial-iFR)	101.339 %	0.4 %		518 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	9.6 %	0.010 ppm	3 cps	1.230 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	4.7 %	0.003 ppm	7 cps	4.113 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.043 ppm	0.8 %	0.050 ppm	75 cps	13.601 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	5.9 %	0.004 ppm	5 cps	1.862 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.026 ppm	42.4 %	0.050 ppm	1 cps	47.389 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.171 ppm	7.9 %	0.200 ppm	8 cps	14.455 %
Si 288.158 (ETA AQ-Radial-iFR)	0.474 ppm	3.3 %	0.500 ppm	42 cps	5.297 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	2.9 %	0.005 ppm	8 cps	6.731 %
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	14.8 %	0.200 ppm	11 cps	7.757 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	1.8 %	0.002 ppm	24 cps	1.382 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.454 ppm	0.6 %	0.500 ppm	118 cps	9.101 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	4.6 %	0.010 ppm	22 cps	6.501 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	3.7 %	0.006 ppm	2 cps	12.016 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	0.9 %	0.005 ppm	14 cps	3.200 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	1.5 %	0.005 ppm	43 cps	4.466 %
Y 360.073 (ETA AQ-Axial-iFR)	101.334 %	0.1 %		7,645 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	101.975 %	0.5 %		1,422 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	101.780 %	0.2 %		10,914 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	102.154 %	0.4 %		2,015 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	0.6 %	0.005 ppm	134 cps	6.516 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	3.5 %	0.002 ppm	27 cps	0.657 %
Na 589.592 (ETA AQ-Radial-iFR)	0.967 ppm	0.9 %	1.000 ppm	498 cps	3.265 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	1.7 %	0.030 ppm	59 cps	2.797 %
K 766.490 (ETA AQ-Radial-iFR)	0.506 ppm	2.3 %	0.500 ppm	58 cps	1.256 %
Na 818.326 (ETA AQ-Radial-iFR)	0.963 ppm	3.8 %	1.000 ppm	15 cps	3.718 %

Standard: IC-8019667
Analysis started at: 8/13/2024 11:14:45 AM
Standard (Stock): IC-8019667
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	50.266 ppm	0.3 %	50.000 ppm	1,336 cps	0.532 %
As 189.042 (ETA AQ-Axial-iFR)	2.001 ppm	0.6 %	2.000 ppm	101 cps	0.068 %
Sn 189.989 (ETA AQ-Axial-iFR)	2.007 ppm	0.1 %	2.000 ppm	254 cps	0.333 %
Tl 190.856 (ETA AQ-Axial-iFR)	2.010 ppm	0.2 %	2.000 ppm	97 cps	0.505 %
Se 196.090 (ETA AQ-Axial-iFR)	2.007 ppm	0.3 %	2.000 ppm	95 cps	0.363 %
Mo 202.030 (ETA AQ-Axial-iFR)	2.000 ppm	0.6 %	2.000 ppm	486 cps	0.002 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.991 ppm	0.2 %	2.000 ppm	1,135 cps	0.426 %
Sb 206.833 (ETA AQ-Axial-iFR)	2.002 ppm	0.1 %	2.000 ppm	86 cps	0.105 %
B 208.959 (ETA AQ-Axial-iFR)	2.008 ppm	0.6 %	2.000 ppm	511 cps	0.403 %
P 213.618 (ETA AQ-Axial-iFR)	50.209 ppm	0.5 %	50.000 ppm	2,931 cps	0.417 %
Pb 220.353 (ETA AQ-Axial-iFR)	2.015 ppm	0.3 %	2.000 ppm	121 cps	0.732 %
Y 224.306 (ETA AQ-Axial-iFR)	98.405 %	0.4 %		470 cps	0.000 %

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 224.306 (ETA AQ-Radial-iFR)	94.882 %	0.6 %		114 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	2.011 ppm	0.3 %	2.000 ppm	1,102 cps	0.542 %
Cd 228.802 (ETA AQ-Axial-iFR)	2.005 ppm	0.4 %	2.000 ppm	1,857 cps	0.230 %
In 230.606 (ETA AQ-Axial-iFR)	92.348 %	0.2 %		472 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.996 ppm	0.4 %	2.000 ppm	768 cps	0.209 %
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	0.3 %	2.000 ppm	4,127 cps	0.002 %
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	116,919 cps	N/A
Cr 267.716 (ETA AQ-Axial-iFR)	1.995 ppm	0.6 %	2.000 ppm	2,371 cps	0.229 %
Fe 271.441 (ETA AQ-Radial-iFR)	100.082 ppm	0.5 %	100.000 ppm	1,673 cps	0.082 %
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	0.4 %	100.000 ppm	4,154 cps	0.650 %
Si 288.158 (ETA AQ-Radial-iFR)	19.990 ppm	0.2 %	20.000 ppm	1,578 cps	0.051 %
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	0.4 %	2.000 ppm	3,677 cps	0.073 %
Al 308.215 (ETA AQ-Radial-iFR)	100.498 ppm	0.2 %	100.000 ppm	5,210 cps	0.498 %
Be 313.042 (ETA AQ-Radial-iFR)	1.994 ppm	0.1 %	2.000 ppm	21,458 cps	0.309 %
Ca 317.933 (ETA AQ-Radial-iFR)	100.019 ppm	0.2 %	100.000 ppm	21,850 cps	0.019 %
Cu 327.396 (ETA AQ-Axial-iFR)	2.004 ppm	0.5 %	2.000 ppm	4,560 cps	0.180 %
Ag 328.068 (ETA AQ-Axial-iFR)	2.006 ppm	0.3 %	2.000 ppm	5,875 cps	0.289 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.999 ppm	0.5 %	2.000 ppm	6,314 cps	0.045 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.997 ppm	0.6 %	2.000 ppm	18,556 cps	0.147 %
Y 360.073 (ETA AQ-Axial-iFR)	101.144 %	0.2 %		7,630 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	95.709 %	0.6 %		1,334 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.884 %	0.2 %		10,818 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	95.917 %	0.4 %		1,892 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.998 ppm	0.1 %	2.000 ppm	55,267 cps	0.111 %
Ba 455.403 (ETA AQ-Radial-iFR)	2.001 ppm	0.7 %	2.000 ppm	26,539 cps	0.031 %
Na 589.592 (ETA AQ-Radial-iFR)	100.300 ppm	0.2 %	100.000 ppm	48,478 cps	0.300 %
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	0.6 %	2.000 ppm	3,888 cps	0.228 %
K 766.490 (ETA AQ-Radial-iFR)	100.274 ppm	0.3 %	100.000 ppm	10,317 cps	0.274 %
Na 818.326 (ETA AQ-Radial-iFR)	100.177 ppm	0.8 %	100.000 ppm	1,230 cps	0.177 %

Standard: IC-8027695
Analysis started at: 8/13/2024 11:12:52 AM
Standard (Stock): IC-8027695
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	24.468 ppm	2.0 %	25.000 ppm	659 cps	2.128 %
As 189.042 (ETA AQ-Axial-iFR)	0.997 ppm	0.6 %	1.000 ppm	51 cps	0.277 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.987 ppm	2.5 %	1.000 ppm	130 cps	1.332 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.980 ppm	0.9 %	1.000 ppm	49 cps	2.013 %
Se 196.090 (ETA AQ-Axial-iFR)	0.986 ppm	0.3 %	1.000 ppm	47 cps	1.443 %
Mo 202.030 (ETA AQ-Axial-iFR)	1.000 ppm	0.6 %	1.000 ppm	246 cps	0.008 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.017 ppm	3.0 %	1.000 ppm	582 cps	1.702 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.996 ppm	0.7 %	1.000 ppm	43 cps	0.427 %
B 208.959 (ETA AQ-Axial-iFR)	0.984 ppm	0.8 %	1.000 ppm	254 cps	1.609 %
P 213.618 (ETA AQ-Axial-iFR)	24.583 ppm	0.5 %	25.000 ppm	1,448 cps	1.669 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.971 ppm	0.8 %	1.000 ppm	61 cps	2.924 %
Y 224.306 (ETA AQ-Axial-iFR)	99.424 %	0.9 %		475 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	97.639 %	0.3 %		118 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.978 ppm	0.2 %	1.000 ppm	559 cps	2.167 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.991 ppm	1.2 %	1.000 ppm	928 cps	0.919 %
In 230.606 (ETA AQ-Axial-iFR)	96.303 %	0.5 %		492 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.008 ppm	0.5 %	1.000 ppm	389 cps	0.836 %
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	0.1 %	1.000 ppm	2,104 cps	0.008 %
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	0.3 %	50.000 ppm	61,933 cps	0.000 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.009 ppm	1.0 %	1.000 ppm	1,204 cps	0.917 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.835 ppm	0.5 %	50.000 ppm	850 cps	0.329 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	0.1 %	50.000 ppm	2,050 cps	2.599 %
Si 288.158 (ETA AQ-Radial-iFR)	10.022 ppm	0.1 %	10.000 ppm	808 cps	0.217 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	0.5 %	1.000 ppm	1,853 cps	0.292 %
Al 308.215 (ETA AQ-Radial-iFR)	49.005 ppm	0.2 %	50.000 ppm	2,591 cps	1.990 %
Be 313.042 (ETA AQ-Radial-iFR)	1.012 ppm	0.3 %	1.000 ppm	11,111 cps	1.238 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.962 ppm	0.3 %	50.000 ppm	11,136 cps	0.075 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.993 ppm	2.0 %	1.000 ppm	2,268 cps	0.719 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.988 ppm	1.6 %	1.000 ppm	2,900 cps	1.157 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.002 ppm	0.5 %	1.000 ppm	3,176 cps	0.181 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.006 ppm	1.8 %	1.000 ppm	9,383 cps	0.589 %

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 360.073 (ETA AQ-Axial-iFR)	101.571 %	1.9 %		7,662 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	97.871 %	0.4 %		1,364 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	101.276 %	1.5 %		10,860 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	97.809 %	0.5 %		1,929 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.004 ppm	0.5 %	1.000 ppm	28,333 cps	0.445 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.999 ppm	0.9 %	1.000 ppm	13,634 cps	0.123 %
Na 589.592 (ETA AQ-Radial-iFR)	49.401 ppm	0.3 %	50.000 ppm	24,348 cps	1.198 %
Li 670.784 (ETA AQ-Radial-iFR)	0.991 ppm	0.5 %	1.000 ppm	1,959 cps	0.911 %
K 766.490 (ETA AQ-Radial-iFR)	49.452 ppm	0.2 %	50.000 ppm	5,190 cps	1.096 %
Na 818.326 (ETA AQ-Radial-iFR)	49.646 ppm	1.4 %	50.000 ppm	623 cps	0.708 %

Sample List Summary

8/13/2024 1:06:02 PM

LabBook: I420240813B1.imexp

Summary

Index	Label	Sample Type	Amount	Final Quantity	Standard DF	Started at
1	ICIS-7982661	BLK			1	8/13/2024 11:09:05 AM
2	IC-7982556	STD			1	8/13/2024 11:10:59 AM
3	IC-8027695	STD			1	8/13/2024 11:12:52 AM
4	IC-8019667	STD			1	8/13/2024 11:14:45 AM
5	MB 480-721219/1-A	UNKNOWN			1	8/13/2024 12:21:11 PM
6	480-222382-A-2-A@10	UNKNOWN			1	8/13/2024 12:23:06 PM
7	480-222382-A-3-A@10	UNKNOWN			1	8/13/2024 12:24:59 PM
8	480-222382-A-4-A@10	UNKNOWN			1	8/13/2024 12:26:52 PM
9	480-222382-A-5-A@10	UNKNOWN			1	8/13/2024 12:28:45 PM
10	480-222389-A-1-A@10	UNKNOWN			1	8/13/2024 12:30:38 PM
11	480-222363-G-3-B@20	UNKNOWN			1	8/13/2024 12:32:32 PM
12	480-222377-A-9-A@10	UNKNOWN			1	8/13/2024 12:34:25 PM
13	rinse	UNKNOWN			1	8/13/2024 12:36:18 PM
14	CCV-8027695	QC			1	8/13/2024 12:38:11 PM
15	CCB-7982661	QC			1	8/13/2024 12:40:06 PM
16	CCVL-7982556	QC			1	8/13/2024 12:41:59 PM

Basic Sample Report
8/13/2024 1:06:23 PM

LabBook: I420240813B1.imexp

Label: ICIS-7982661 #: 1
Analysis Type: BLK Analysis started at: 8/13/2024 11:09:05 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.000 %	478 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.000 %	121 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.000 %	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.000 ppm	20 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.000 ppm	12 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.000 %	7,544 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.000 %	1,394 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.000 %	10,723 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.000 %	1,972 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-4 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps

Label: IC-7982556 #: 2
Analysis Type: STD Analysis started at: 8/13/2024 11:10:59 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.179 ppm	8 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.023 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	6 cps
P 213.618 (ETA AQ-Axial-iFR)	N/A	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.871 %	482 cps
Y 224.306 (ETA AQ-Radial-iFR)	101.125 %	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	101.339 %	518 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.043 ppm	75 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	5 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.026 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.171 ppm	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.474 ppm	42 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	8 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.454 ppm	118 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.334 %	7,645 cps
Y 360.073 (ETA AQ-Radial-iFR)	101.975 %	1,422 cps
Y 377.433 (ETA AQ-Axial-iFR)	101.780 %	10,914 cps
Y 377.433 (ETA AQ-Radial-iFR)	102.154 %	2,015 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	134 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.967 ppm	498 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	59 cps
K 766.490 (ETA AQ-Radial-iFR)	0.506 ppm	58 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.963 ppm	15 cps

Label: IC-8027695 #: 3
Analysis Type: STD Analysis started at: 8/13/2024 11:12:52 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	24.468 ppm	659 cps
As 189.042 (ETA AQ-Axial-iFR)	0.997 ppm	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.987 ppm	130 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.980 ppm	49 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.986 ppm	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1.000 ppm	246 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.017 ppm	582 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.996 ppm	43 cps
B 208.959 (ETA AQ-Axial-iFR)	0.984 ppm	254 cps
P 213.618 (ETA AQ-Axial-iFR)	24.583 ppm	1,448 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	0.973 ppm	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.424 %	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.639 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.978 ppm	559 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.991 ppm	928 cps
In 230.606 (ETA AQ-Axial-iFR)	96.303 %	492 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.008 ppm	389 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	2,104 cps
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	61,933 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1.009 ppm	1,204 cps
Fe 271.441 (ETA AQ-Radial-iFR)	49.835 ppm	850 cps
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	2,050 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.022 ppm	808 cps
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	1,853 cps
Al 308.215 (ETA AQ-Radial-iFR)	49.005 ppm	2,591 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.012 ppm	11,111 cps
Ca 317.933 (ETA AQ-Radial-iFR)	49.962 ppm	11,136 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.993 ppm	2,268 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.988 ppm	2,900 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.002 ppm	3,176 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.006 ppm	9,383 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.571 %	7,662 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.871 %	1,364 cps
Y 377.433 (ETA AQ-Axial-iFR)	101.276 %	10,860 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.809 %	1,929 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.004 ppm	28,333 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.999 ppm	13,634 cps
Na 589.592 (ETA AQ-Radial-iFR)	49.401 ppm	24,348 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.991 ppm	1,959 cps
K 766.490 (ETA AQ-Radial-iFR)	49.452 ppm	5,190 cps
Na 818.326 (ETA AQ-Radial-iFR)	49.646 ppm	623 cps

Label: IC-8019667 #: 4
Analysis Type: STD Analysis started at: 8/13/2024 11:14:45 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.266 ppm	1,336 cps
As 189.042 (ETA AQ-Axial-iFR)	2.001 ppm	101 cps
Sn 189.989 (ETA AQ-Axial-iFR)	2.007 ppm	254 cps
Tl 190.856 (ETA AQ-Axial-iFR)	2.010 ppm	97 cps
Se 196.090 (ETA AQ-Axial-iFR)	2.007 ppm	95 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2.000 ppm	486 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.991 ppm	1,135 cps
Sb 206.833 (ETA AQ-Axial-iFR)	2.002 ppm	86 cps
B 208.959 (ETA AQ-Axial-iFR)	2.008 ppm	511 cps
P 213.618 (ETA AQ-Axial-iFR)	50.209 ppm	2,931 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2.014 ppm	121 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.405 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.882 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	2.011 ppm	1,102 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2.005 ppm	1,857 cps
In 230.606 (ETA AQ-Axial-iFR)	92.348 %	472 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.996 ppm	768 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	4,127 cps
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	116,919 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cr 267.716 (ETA AQ-Axial-iFR)	1.995 ppm	2,371 cps
Fe 271.441 (ETA AQ-Radial-iFR)	100.082 ppm	1,673 cps
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	4,154 cps
Si 288.158 (ETA AQ-Radial-iFR)	19.990 ppm	1,578 cps
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	3,677 cps
Al 308.215 (ETA AQ-Radial-iFR)	100.498 ppm	5,210 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.994 ppm	21,458 cps
Ca 317.933 (ETA AQ-Radial-iFR)	100.019 ppm	21,850 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2.004 ppm	4,560 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2.006 ppm	5,875 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.999 ppm	6,314 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.997 ppm	18,556 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.144 %	7,630 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.709 %	1,334 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.884 %	10,818 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.917 %	1,892 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.998 ppm	55,267 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2.001 ppm	26,539 cps
Na 589.592 (ETA AQ-Radial-iFR)	100.300 ppm	48,478 cps
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	3,888 cps
K 766.490 (ETA AQ-Radial-iFR)	100.274 ppm	10,317 cps
Na 818.326 (ETA AQ-Radial-iFR)	100.177 ppm	1,230 cps

Label: MB 480-721219/1-A #: 5
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:21:11 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.316 ppm	11 cps
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.007 ppm	4 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.030 ppm	9 cps
P 213.618 (ETA AQ-Axial-iFR)	0.004 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.622 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.942 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.777 %	515 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.051 ppm	111 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.885 ppm	1,118 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.793 ppm	14 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.729 ppm	32 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.099 ppm	10 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.004 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	2.443 ppm	569 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.751 %	7,601 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.782 %	1,405 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.410 %	10,767 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.175 %	1,976 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.011 ppm	302 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	2.571 ppm	1,298 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.001 ppm	0 cps
K 766.490 (ETA AQ-Radial-iFR)	0.771 ppm	85 cps
Na 818.326 (ETA AQ-Radial-iFR)	2.554 ppm	35 cps

Label: 480-222382-A-2-A@10 #: 6
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:23:06 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	51.681 ppm	1,314 cps
As 189.042 (ETA AQ-Axial-iFR)	0.010 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.007 ppm	4 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	2.666 ppm	634 cps
P 213.618 (ETA AQ-Axial-iFR)	0.303 ppm	14 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.136 %	450 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.009 %	113 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	93.352 %	477 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1.778 ppm	3,706 cps
Fe 259.940 (ETA AQ-Axial-iFR)	46.033 ppm	53,985 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.020 ppm	24 cps
Fe 271.441 (ETA AQ-Radial-iFR)	45.107 ppm	761 cps
Mg 279.079 (ETA AQ-Radial-iFR)	70.018 ppm	2,918 cps
Si 288.158 (ETA AQ-Radial-iFR)	5.095 ppm	408 cps
V 292.402 (ETA AQ-Axial-iFR)	0.002 ppm	5 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.012 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	145.522 ppm	32,099 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.002 ppm	5 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	6 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.247 %	7,412 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.238 %	1,356 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.222 %	10,532 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.863 %	1,911 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.968 ppm	27,043 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.054 ppm	708 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Na 589.592 (ETA AQ-Radial-iFR)	317.811 ppm	155,123 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.107 ppm	208 cps
K 766.490 (ETA AQ-Radial-iFR)	85.159 ppm	8,849 cps
Na 818.326 (ETA AQ-Radial-iFR)	322.782 ppm	3,998 cps

Label: 480-222382-A-3-A@10 #: 7
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:24:59 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3.484 ppm	95 cps
As 189.042 (ETA AQ-Axial-iFR)	0.021 ppm	1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.004 ppm	2 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	1.119 ppm	279 cps
P 213.618 (ETA AQ-Axial-iFR)	0.466 ppm	24 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.389 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.247 %	117 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.901 %	500 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	3 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.155 ppm	210 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.022 ppm	27 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.122 ppm	2 cps
Mg 279.079 (ETA AQ-Radial-iFR)	3.394 ppm	143 cps
Si 288.158 (ETA AQ-Radial-iFR)	2.113 ppm	172 cps
V 292.402 (ETA AQ-Axial-iFR)	0.003 ppm	5 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.012 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.845 ppm	199 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.010 ppm	31 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.010 ppm	92 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.409 %	7,575 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.456 %	1,373 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.876 %	10,710 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.647 %	1,926 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.035 ppm	977 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.038 ppm	512 cps
Na 589.592 (ETA AQ-Radial-iFR)	226.466 ppm	111,433 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.014 ppm	26 cps
K 766.490 (ETA AQ-Radial-iFR)	37.839 ppm	3,965 cps
Na 818.326 (ETA AQ-Radial-iFR)	230.543 ppm	2,879 cps

Label: 480-222382-A-4-A@10 #: 8
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:26:52 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	74.611 ppm	1,818 cps
As 189.042 (ETA AQ-Axial-iFR)	0.051 ppm	2 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.008 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.103 ppm	596 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	5.656 ppm	1,289 cps
P 213.618 (ETA AQ-Axial-iFR)	0.368 ppm	17 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	90.270 %	431 cps
Y 224.306 (ETA AQ-Radial-iFR)	89.366 %	108 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	86.961 %	444 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7.653 ppm	15,376 cps
Fe 259.940 (ETA AQ-Axial-iFR)	164.090 ppm	184,490 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.039 ppm	45 cps
Fe 271.441 (ETA AQ-Radial-iFR)	189.346 ppm	3,078 cps
Mg 279.079 (ETA AQ-Radial-iFR)	141.218 ppm	5,675 cps
Si 288.158 (ETA AQ-Radial-iFR)	7.405 ppm	570 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	15 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.150 ppm	8 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	449.344 ppm	95,558 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	3 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-9 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.006 ppm	17 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.002 ppm	15 cps
Y 360.073 (ETA AQ-Axial-iFR)	95.876 %	7,233 cps
Y 360.073 (ETA AQ-Radial-iFR)	93.857 %	1,308 cps
Y 377.433 (ETA AQ-Axial-iFR)	95.835 %	10,276 cps
Y 377.433 (ETA AQ-Radial-iFR)	93.407 %	1,842 cps
Sr 407.771 (ETA AQ-Radial-iFR)	2.130 ppm	57,379 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.086 ppm	1,079 cps
Na 589.592 (ETA AQ-Radial-iFR)	577.539 ppm	271,839 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.112 ppm	211 cps
K 766.490 (ETA AQ-Radial-iFR)	169.157 ppm	16,948 cps
Na 818.326 (ETA AQ-Radial-iFR)	592.304 ppm	7,072 cps

Label: 480-222382-A-5-A@10 #: 9
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:28:45 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	25.831 ppm	664 cps
As 189.042 (ETA AQ-Axial-iFR)	0.013 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.374 ppm	208 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	1.256 ppm	302 cps
P 213.618 (ETA AQ-Axial-iFR)	0.092 ppm	2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.990 %	454 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.505 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	94.398 %	482 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Mn 257.610 (ETA AQ-Radial-iFR)	3.766 ppm	7,868 cps
Fe 259.940 (ETA AQ-Axial-iFR)	57.063 ppm	67,525 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.019 ppm	24 cps
Fe 271.441 (ETA AQ-Radial-iFR)	56.801 ppm	960 cps
Mg 279.079 (ETA AQ-Radial-iFR)	55.583 ppm	2,323 cps
Si 288.158 (ETA AQ-Radial-iFR)	2.494 ppm	201 cps
V 292.402 (ETA AQ-Axial-iFR)	0.002 ppm	6 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.027 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	179.457 ppm	39,692 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-11 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.610 %	7,439 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.704 %	1,362 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.473 %	10,559 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.131 %	1,916 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.780 ppm	21,847 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.025 ppm	329 cps
Na 589.592 (ETA AQ-Radial-iFR)	181.945 ppm	89,053 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.043 ppm	84 cps
K 766.490 (ETA AQ-Radial-iFR)	53.641 ppm	5,590 cps
Na 818.326 (ETA AQ-Radial-iFR)	182.117 ppm	2,263 cps

Label: 480-222389-A-1-A@10 #: 10
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:30:38 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	4.154 ppm	113 cps
As 189.042 (ETA AQ-Axial-iFR)	0.014 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.003 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.008 ppm	4 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.793 ppm	198 cps
P 213.618 (ETA AQ-Axial-iFR)	0.750 ppm	41 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.435 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	96.260 %	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	97.484 %	498 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ni 231.604 (ETA AQ-Axial-iFR)	0.018 ppm	6 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.024 ppm	50 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.452 ppm	574 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.037 ppm	44 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.392 ppm	7 cps
Mg 279.079 (ETA AQ-Radial-iFR)	9.396 ppm	390 cps
Si 288.158 (ETA AQ-Radial-iFR)	1.817 ppm	146 cps
V 292.402 (ETA AQ-Axial-iFR)	0.006 ppm	11 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.043 ppm	3 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	3.119 ppm	695 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.021 ppm	64 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.021 ppm	191 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.633 %	7,516 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.387 %	1,358 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.083 %	10,625 cps
Y 377.433 (ETA AQ-Radial-iFR)	96.271 %	1,899 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.030 ppm	816 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.014 ppm	186 cps
Na 589.592 (ETA AQ-Radial-iFR)	182.990 ppm	88,772 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.032 ppm	61 cps
K 766.490 (ETA AQ-Radial-iFR)	58.140 ppm	6,005 cps
Na 818.326 (ETA AQ-Radial-iFR)	185.046 ppm	2,279 cps

Label: 480-222363-G-3-B@20 #: 11
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:32:32 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	11.133 ppm	301 cps
As 189.042 (ETA AQ-Axial-iFR)	0.010 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.031 ppm	4 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.012 ppm	4 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.276 ppm	722 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.006 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.028 ppm	8 cps
P 213.618 (ETA AQ-Axial-iFR)	32.362 ppm	1,905 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.023 ppm	2 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.320 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.857 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	98.880 %	505 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.020 ppm	7 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.187 ppm	400 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74.090 ppm	91,664 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.154 ppm	182 cps
Fe 271.441 (ETA AQ-Radial-iFR)	76.650 ppm	1,322 cps
Mg 279.079 (ETA AQ-Radial-iFR)	7.261 ppm	310 cps
Si 288.158 (ETA AQ-Radial-iFR)	2.316 ppm	191 cps
V 292.402 (ETA AQ-Axial-iFR)	0.018 ppm	36 cps
Al 308.215 (ETA AQ-Radial-iFR)	7.782 ppm	418 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	6 cps
Ca 317.933 (ETA AQ-Radial-iFR)	23.209 ppm	5,247 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.553 ppm	1,250 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.002 ppm	-8 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.035 ppm	107 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.035 ppm	321 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.491 %	7,581 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.176 %	1,397 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.211 %	10,746 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.090 %	1,955 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.327 ppm	9,340 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.271 ppm	3,749 cps
Na 589.592 (ETA AQ-Radial-iFR)	3.891 ppm	1,943 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.009 ppm	16 cps
K 766.490 (ETA AQ-Radial-iFR)	6.319 ppm	674 cps
Na 818.326 (ETA AQ-Radial-iFR)	3.778 ppm	50 cps

Label: 480-222377-A-9-A@10 #: 12
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:34:25 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	7.038 ppm	206 cps
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.416 ppm	261 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.087 ppm	25 cps
P 213.618 (ETA AQ-Axial-iFR)	2.342 ppm	146 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.055 ppm	3 cps
Y 224.306 (ETA AQ-Axial-iFR)	107.132 %	512 cps
Y 224.306 (ETA AQ-Radial-iFR)	101.614 %	123 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.044 ppm	24 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	93.327 %	477 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.110 ppm	46 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.174 ppm	4,845 cps
Fe 259.940 (ETA AQ-Axial-iFR)	94.896 ppm	126,638 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.175 ppm	230 cps
Fe 271.441 (ETA AQ-Radial-iFR)	100.928 ppm	1,820 cps
Mg 279.079 (ETA AQ-Radial-iFR)	84.409 ppm	3,763 cps
Si 288.158 (ETA AQ-Radial-iFR)	4.521 ppm	387 cps
V 292.402 (ETA AQ-Axial-iFR)	0.111 ppm	229 cps
Al 308.215 (ETA AQ-Radial-iFR)	59.051 ppm	3,307 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.003 ppm	35 cps
Ca 317.933 (ETA AQ-Radial-iFR)	231.630 ppm	54,637 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.103 ppm	256 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.002 ppm	-8 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.758 ppm	2,633 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.759 ppm	7,752 cps
Y 360.073 (ETA AQ-Axial-iFR)	111.227 %	8,391 cps
Y 360.073 (ETA AQ-Radial-iFR)	104.219 %	1,453 cps
Y 377.433 (ETA AQ-Axial-iFR)	110.109 %	11,807 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Y 377.433 (ETA AQ-Radial-iFR)	103.599 %	2,043 cps
Sr 407.771 (ETA AQ-Radial-iFR)	2.201 ppm	65,769 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.372 ppm	5,277 cps
Na 589.592 (ETA AQ-Radial-iFR)	7.374 ppm	3,850 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.112 ppm	234 cps
K 766.490 (ETA AQ-Radial-iFR)	13.550 ppm	1,508 cps
Na 818.326 (ETA AQ-Radial-iFR)	7.187 ppm	98 cps

Label: rinse #: 13
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 12:36:18 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	-0.004 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	0.003 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.668 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.059 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.927 %	505 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.008 ppm	30 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.032 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.005 ppm	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.014 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	-0.007 ppm	0 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.022 ppm	7 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.189 %	7,483 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.356 %	1,385 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.632 %	10,576 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.551 %	1,944 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-4 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.008 ppm	4 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.013 ppm	4 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.031 ppm	2 cps

Basic Sample Report
8/13/2024 1:06:23 PM

Label: CCV-8027695 #: 14
Analysis Type: QC Analysis started at: 8/13/2024 12:38:11 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	24.596 ppm	98.383 %
As 189.042 (ETA AQ-Axial-iFR)	0.972 ppm	97.204 %
Sn 189.989 (ETA AQ-Axial-iFR)	1.001 ppm	100.136 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.965 ppm	96.534 %
Se 196.090 (ETA AQ-Axial-iFR)	0.972 ppm	97.215 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.978 ppm	97.847 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.043 ppm	104.289 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.975 ppm	97.539 %
B 208.959 (ETA AQ-Axial-iFR)	0.984 ppm	98.424 %
P 213.618 (ETA AQ-Axial-iFR)	24.571 ppm	98.283 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.963 ppm	96.254 %
Y 224.306 (ETA AQ-Axial-iFR)	99.424 %	
Y 224.306 (ETA AQ-Radial-iFR)	95.773 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.985 ppm	98.511 %
Cd 228.802 (ETA AQ-Axial-iFR)	1.000 ppm	99.992 %
In 230.606 (ETA AQ-Axial-iFR)	95.973 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.019 ppm	101.916 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.999 ppm	99.908 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.442 ppm	98.884 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.015 ppm	101.545 %
Fe 271.441 (ETA AQ-Radial-iFR)	50.064 ppm	100.128 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.805 ppm	97.610 %
Si 288.158 (ETA AQ-Radial-iFR)	10.178 ppm	101.784 %
V 292.402 (ETA AQ-Axial-iFR)	1.002 ppm	100.203 %
Al 308.215 (ETA AQ-Radial-iFR)	49.201 ppm	98.401 %
Be 313.042 (ETA AQ-Radial-iFR)	1.005 ppm	100.528 %
Ca 317.933 (ETA AQ-Radial-iFR)	50.228 ppm	100.455 %
Cu 327.396 (ETA AQ-Axial-iFR)	1.001 ppm	100.113 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.997 ppm	99.735 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.001 ppm	100.111 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.013 ppm	101.322 %
Y 360.073 (ETA AQ-Axial-iFR)	100.419 %	
Y 360.073 (ETA AQ-Radial-iFR)	96.903 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.890 %	
Y 377.433 (ETA AQ-Radial-iFR)	95.640 %	
Sr 407.771 (ETA AQ-Radial-iFR)	1.004 ppm	100.359 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.992 ppm	99.190 %
Na 589.592 (ETA AQ-Radial-iFR)	49.356 ppm	98.712 %
Li 670.784 (ETA AQ-Radial-iFR)	0.985 ppm	98.534 %
K 766.490 (ETA AQ-Radial-iFR)	49.510 ppm	99.019 %
Na 818.326 (ETA AQ-Radial-iFR)	49.045 ppm	98.090 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	662 cps
As 189.042 (ETA AQ-Axial-iFR)	49 cps
Sn 189.989 (ETA AQ-Axial-iFR)	132 cps
Tl 190.856 (ETA AQ-Axial-iFR)	48 cps
Se 196.090 (ETA AQ-Axial-iFR)	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	241 cps
Zn 206.200 (ETA AQ-Axial-iFR)	590 cps
Sb 206.833 (ETA AQ-Axial-iFR)	42 cps
B 208.959 (ETA AQ-Axial-iFR)	254 cps
P 213.618 (ETA AQ-Axial-iFR)	1,447 cps

Analyte (Measure Mode)	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	60 cps
Y 224.306 (ETA AQ-Axial-iFR)	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	116 cps
Co 228.616 (ETA AQ-Axial-iFR)	560 cps
Cd 228.802 (ETA AQ-Axial-iFR)	936 cps
In 230.606 (ETA AQ-Axial-iFR)	490 cps
Ni 231.604 (ETA AQ-Axial-iFR)	388 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,055 cps
Fe 259.940 (ETA AQ-Axial-iFR)	61,248 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,198 cps
Fe 271.441 (ETA AQ-Radial-iFR)	835 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,009 cps
Si 288.158 (ETA AQ-Radial-iFR)	802 cps
V 292.402 (ETA AQ-Axial-iFR)	1,830 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,544 cps
Be 313.042 (ETA AQ-Radial-iFR)	10,789 cps
Ca 317.933 (ETA AQ-Radial-iFR)	10,947 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,255 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,893 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,138 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,344 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,576 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,351 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,711 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,886 cps
Sr 407.771 (ETA AQ-Radial-iFR)	27,681 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,281 cps
Na 589.592 (ETA AQ-Radial-iFR)	23,787 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,905 cps
K 766.490 (ETA AQ-Radial-iFR)	5,080 cps
Na 818.326 (ETA AQ-Radial-iFR)	602 cps

Label: CCB-7982661 #: 15
Analysis Type: QC Analysis started at: 8/13/2024 12:40:06 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.005 ppm	0.527 %
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0.282 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0.035 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	0.046 %
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	0.041 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.117 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	0.082 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.001 ppm	0.127 %
B 208.959 (ETA AQ-Axial-iFR)	0.007 ppm	0.678 %
P 213.618 (ETA AQ-Axial-iFR)	0.013 ppm	1.286 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0.101 %
Y 224.306 (ETA AQ-Axial-iFR)	99.487 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.010 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	0.028 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	0.058 %
In 230.606 (ETA AQ-Axial-iFR)	98.733 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	-0.015 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0.026 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.014 ppm	1.350 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	0.083 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.023 ppm	-2.303 %
Mg 279.079 (ETA AQ-Radial-iFR)	-0.006 ppm	-0.646 %
Si 288.158 (ETA AQ-Radial-iFR)	0.016 ppm	1.589 %
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	0.052 %
Al 308.215 (ETA AQ-Radial-iFR)	0.024 ppm	2.402 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.041 %
Ca 317.933 (ETA AQ-Radial-iFR)	-0.016 ppm	-1.595 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.027 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	0.080 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.044 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	0.053 %
Y 360.073 (ETA AQ-Axial-iFR)	98.988 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.749 %	
Y 377.433 (ETA AQ-Axial-iFR)	98.660 %	
Y 377.433 (ETA AQ-Radial-iFR)	97.836 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.021 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.029 %
Na 589.592 (ETA AQ-Radial-iFR)	0.023 ppm	2.328 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.023 %
K 766.490 (ETA AQ-Radial-iFR)	0.049 ppm	4.880 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.002 ppm	-0.157 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2 cps
In 230.606 (ETA AQ-Axial-iFR)	504 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	37 cps
Cr 267.716 (ETA AQ-Axial-iFR)	2 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	3 cps
V 292.402 (ETA AQ-Axial-iFR)	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	6 cps
Ca 317.933 (ETA AQ-Radial-iFR)	8 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-11 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	3 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,468 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,377 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,579 cps

Basic Sample Report
8/13/2024 1:06:23 PM

Analyte (Measure Mode)	Raw Intensity average
Y 377.433 (ETA AQ-Radial-iFR)	1,930 cps
Sr 407.771 (ETA AQ-Radial-iFR)	2 cps
Ba 455.403 (ETA AQ-Radial-iFR)	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	12 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	8 cps
Na 818.326 (ETA AQ-Radial-iFR)	3 cps

Label: CCVL-7982556 #: 16
Analysis Type: QC Analysis started at: 8/13/2024 12:41:59 PM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.173 ppm	86.351 %
As 189.042 (ETA AQ-Axial-iFR)	0.015 ppm	98.459 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	87.668 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.013 ppm	64.997 %
Se 196.090 (ETA AQ-Axial-iFR)	0.020 ppm	81.290 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.011 ppm	105.858 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	106.542 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.019 ppm	96.853 %
B 208.959 (ETA AQ-Axial-iFR)	0.022 ppm	111.227 %
P 213.618 (ETA AQ-Axial-iFR)	-0.003 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	71.728 %
Y 224.306 (ETA AQ-Axial-iFR)	101.145 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.741 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	89.774 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	100.821 %
In 230.606 (ETA AQ-Axial-iFR)	101.100 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	103.295 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	94.288 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.042 ppm	83.249 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	98.880 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.013 ppm	25.944 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.180 ppm	89.995 %
Si 288.158 (ETA AQ-Radial-iFR)	0.493 ppm	98.593 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	96.147 %
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	91.755 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	98.686 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.452 ppm	90.498 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	91.533 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	85.767 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	95.382 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	95.440 %
Y 360.073 (ETA AQ-Axial-iFR)	101.122 %	
Y 360.073 (ETA AQ-Radial-iFR)	101.091 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.699 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.799 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	93.093 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	97.172 %
Na 589.592 (ETA AQ-Radial-iFR)	0.960 ppm	96.029 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	96.208 %
K 766.490 (ETA AQ-Radial-iFR)	0.502 ppm	100.447 %
Na 818.326 (ETA AQ-Radial-iFR)	1.022 ppm	102.189 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	483 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	517 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	73 cps
Cr 267.716 (ETA AQ-Axial-iFR)	5 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	42 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	115 cps
Cu 327.396 (ETA AQ-Axial-iFR)	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	42 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,629 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,409 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,798 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,968 cps
Sr 407.771 (ETA AQ-Radial-iFR)	130 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	483 cps
Li 670.784 (ETA AQ-Radial-iFR)	57 cps
K 766.490 (ETA AQ-Radial-iFR)	56 cps
Na 818.326 (ETA AQ-Radial-iFR)	16 cps

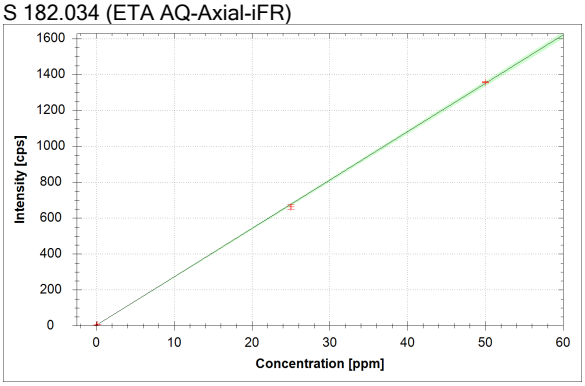
Calibration Summary

8/13/2024 3:29:46 PM

LabBook: I420240813B.imexp

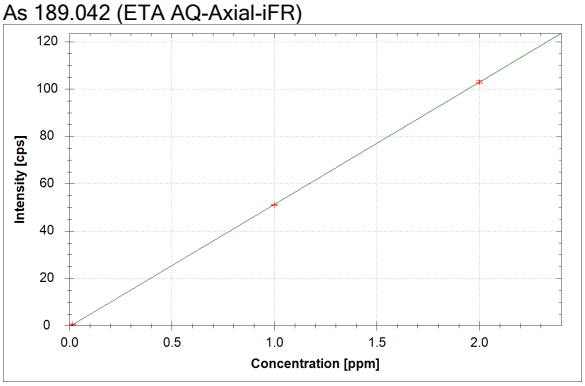
Calibration Graphs

S 182.034 (ETA AQ-Axial-iFR)



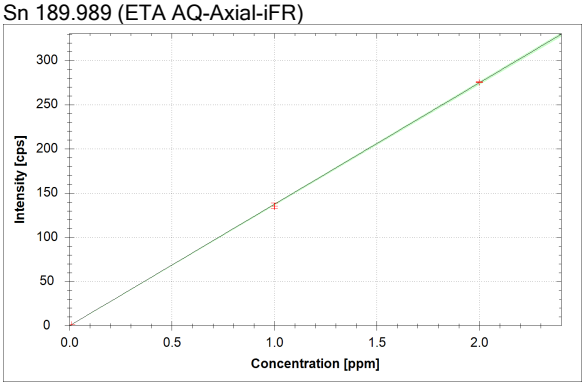
f(x) = 26.9606*x + 2.8901
R² = 0.9998
BEC = 0.107 ppm
LoD = 0.0262 ppm

As 189.042 (ETA AQ-Axial-iFR)



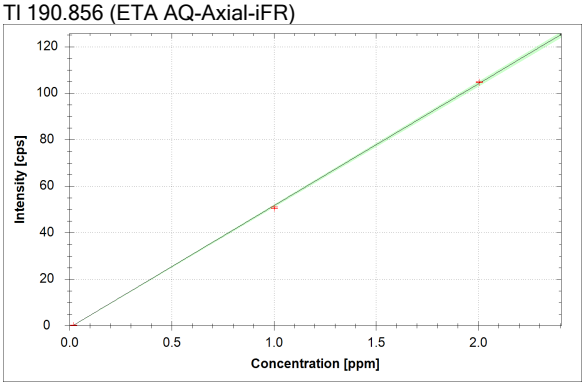
f(x) = 51.6308*x + -0.4009
R² = 1.0000
BEC = -0.008 ppm
LoD = 0.0029 ppm

Sn 189.989 (ETA AQ-Axial-iFR)



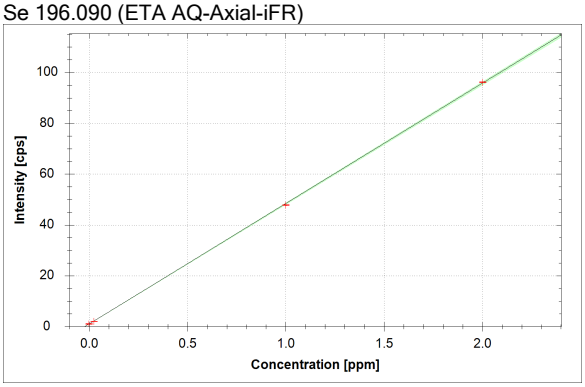
f(x) = 137.3223*x + -0.0203
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0001 ppm

Tl 190.856 (ETA AQ-Axial-iFR)



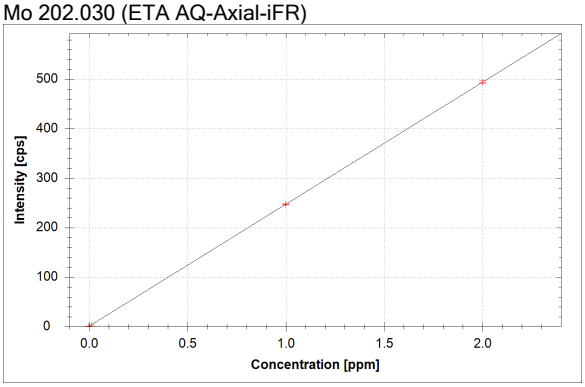
f(x) = 52.3961*x + -0.8224
R² = 0.9998
BEC = -0.016 ppm
LoD = 0.0080 ppm

Se 196.090 (ETA AQ-Axial-iFR)



f(x) = 47.3388*x + 1.0523
R² = 0.9999
BEC = 0.022 ppm
LoD = 0.0099 ppm

Mo 202.030 (ETA AQ-Axial-iFR)



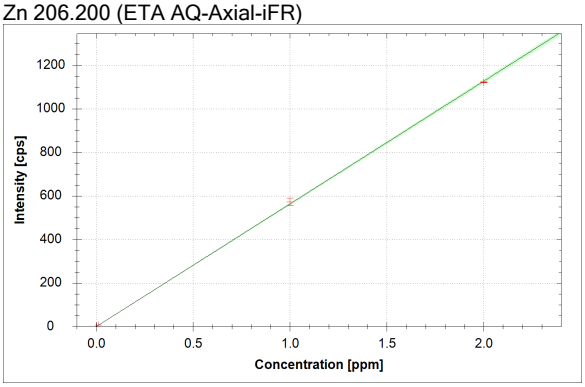
f(x) = 246.7285*x + 0.6657
R² = 1.0000
BEC = 0.003 ppm
LoD = 0.0029 ppm

Calibration Summary

8/13/2024 3:29:46 PM

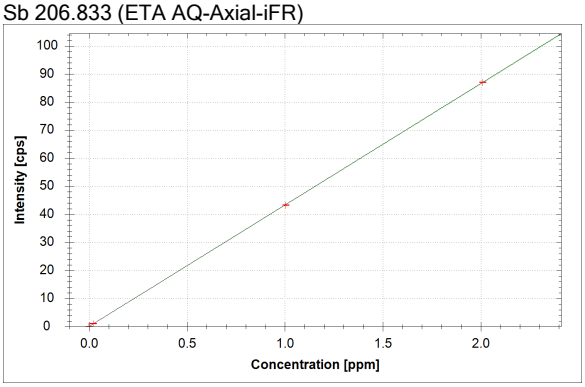
QTEGRA

Zn 206.200 (ETA AQ-Axial-iFR)



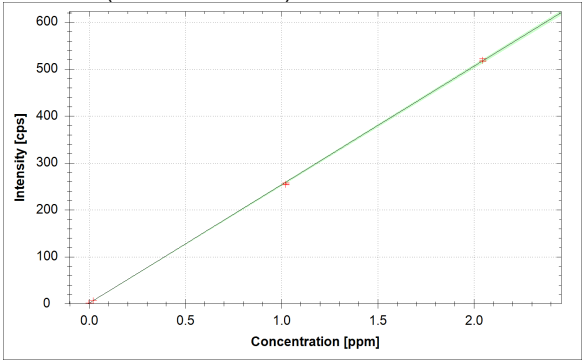
f(x) = 563.3701*x + 0.0197
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0007 ppm

Sb 206.833 (ETA AQ-Axial-iFR)



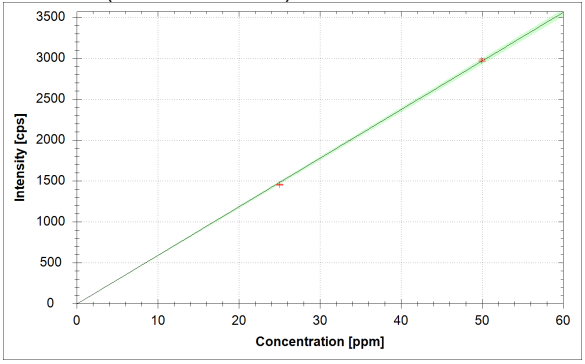
f(x) = 43.2659*x + 0.0559
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0013 ppm

B 208.959 (ETA AQ-Axial-iFR)



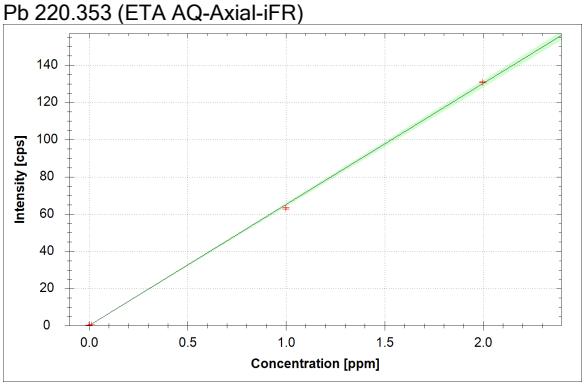
f(x) = 252.3657*x + 1.1360
R² = 0.9999
BEC = 0.005 ppm
LoD = 0.0007 ppm

P 213.618 (ETA AQ-Axial-iFR)



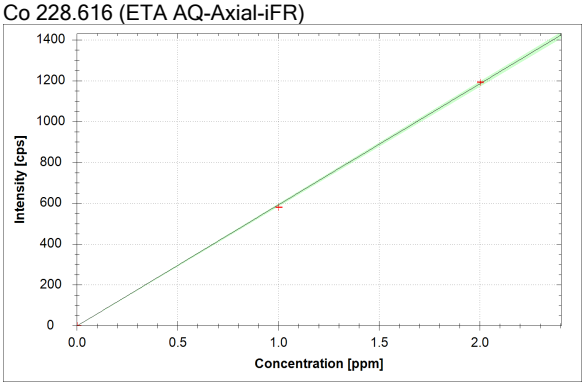
f(x) = 59.3755*x + -2.9725
R² = 0.9998
BEC = -0.050 ppm
LoD = 0.0106 ppm

Pb 220.353 (ETA AQ-Axial-iFR)



f(x) = 65.0173*x + 0.1140
R² = 0.9996
BEC = 0.002 ppm
LoD = 0.0066 ppm

Co 228.616 (ETA AQ-Axial-iFR)

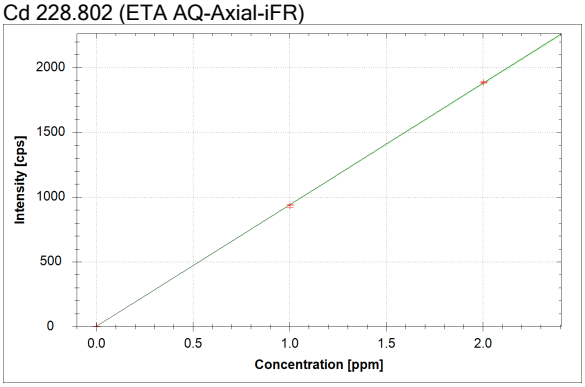


f(x) = 592.9666*x + -1.1777
R² = 0.9998
BEC = -0.002 ppm
LoD = 0.0015 ppm

Calibration Summary

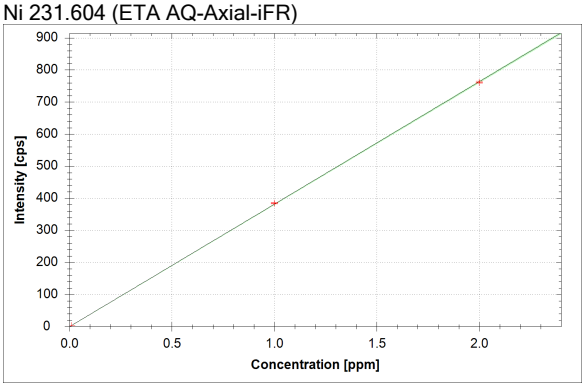
8/13/2024 3:29:46 PM

Cd 228.802 (ETA AQ-Axial-iFR)



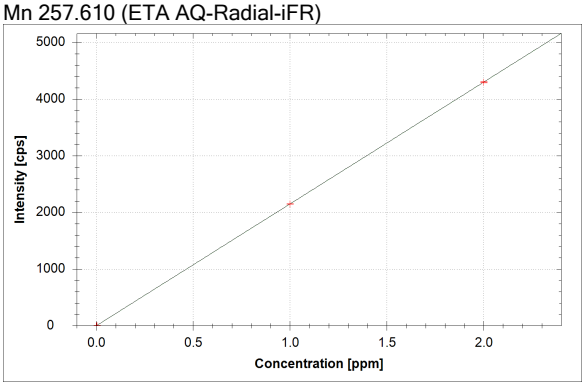
f(x) = 938.5810*x + 1.1325
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0000 ppm

Ni 231.604 (ETA AQ-Axial-iFR)



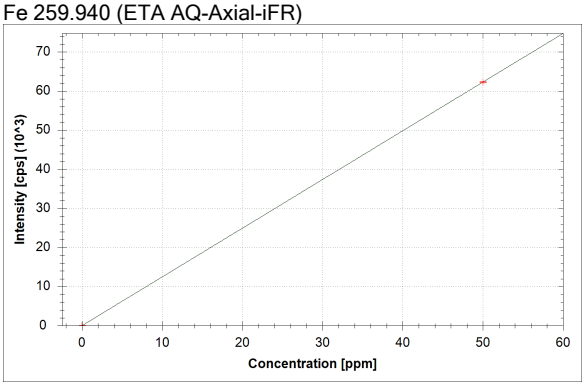
f(x) = 381.7884*x + -0.4390
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0014 ppm

Mn 257.610 (ETA AQ-Radial-iFR)



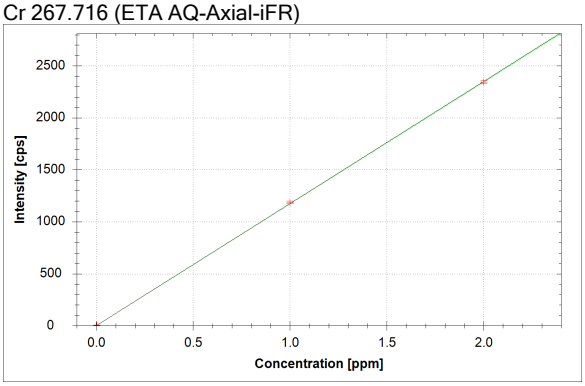
f(x) = 2150.9111*x + 0.2565
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0008 ppm

Fe 259.940 (ETA AQ-Axial-iFR)



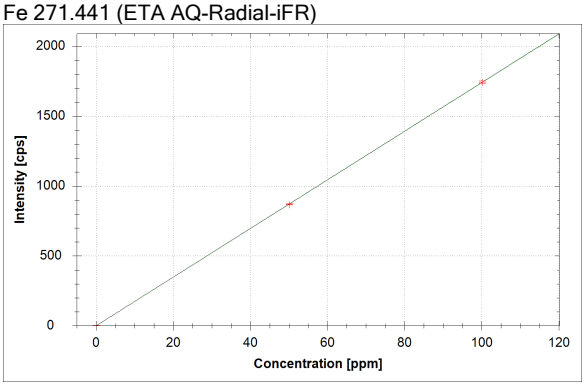
f(x) = 1245.4139*x + 20.4170
R² = 1.0000
BEC = 0.016 ppm
LoD = 0.0013 ppm

Cr 267.716 (ETA AQ-Axial-iFR)



f(x) = 1174.1138*x + 0.6746
R² = 1.0000
BEC = 0.001 ppm
LoD = 0.0007 ppm

Fe 271.441 (ETA AQ-Radial-iFR)



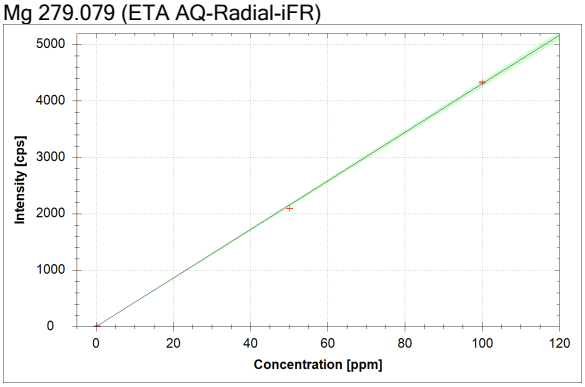
f(x) = 17.4036*x + 0.1960
R² = 1.0000
BEC = 0.011 ppm
LoD = 0.0390 ppm

Calibration Summary

8/13/2024 3:29:46 PM

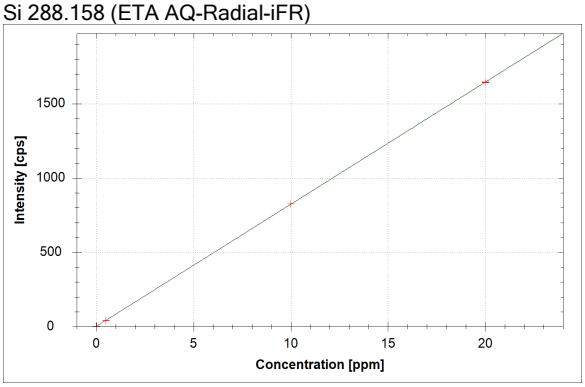
QTEGRA

Mg 279.079 (ETA AQ-Radial-iFR)



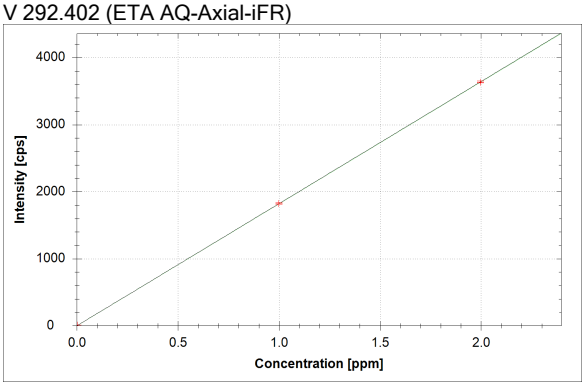
f(x) = 43.0194*x + 0.8274
R² = 0.9997
BEC = 0.019 ppm
LoD = 0.0301 ppm

Si 288.158 (ETA AQ-Radial-iFR)



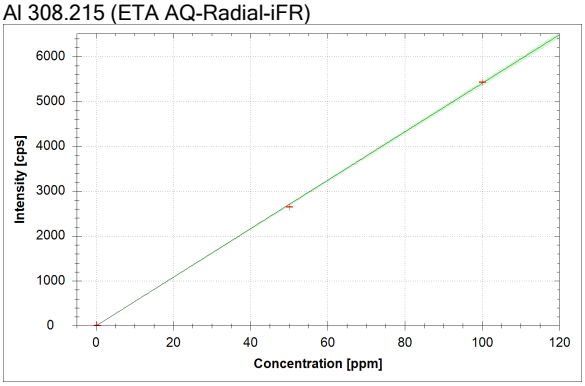
f(x) = 82.2091*x + 1.9281
R² = 1.0000
BEC = 0.023 ppm
LoD = 0.0247 ppm

V 292.402 (ETA AQ-Axial-iFR)



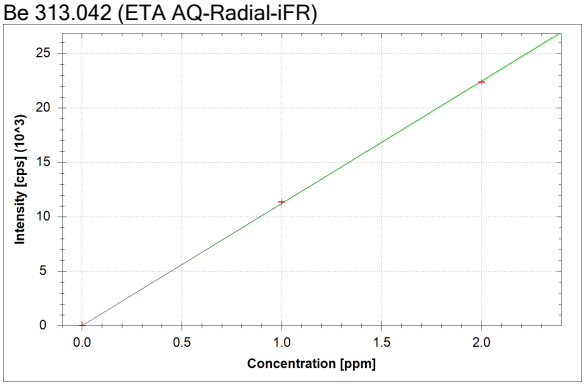
f(x) = 1821.7565*x + -0.1784
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0004 ppm

Al 308.215 (ETA AQ-Radial-iFR)



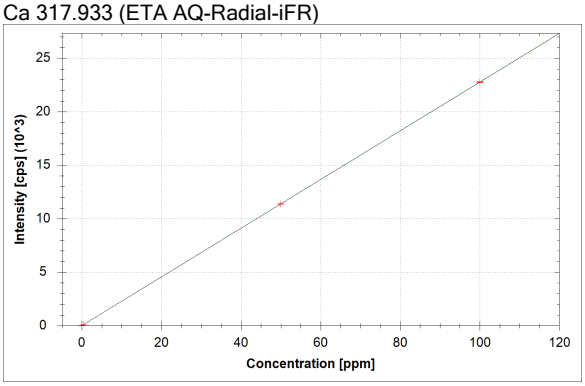
f(x) = 54.0440*x + 0.8136
R² = 0.9998
BEC = 0.015 ppm
LoD = 0.0191 ppm

Be 313.042 (ETA AQ-Radial-iFR)



f(x) = 11219.7151*x + 1.7046
R² = 0.9999
BEC = 0.000 ppm
LoD = 0.0003 ppm

Ca 317.933 (ETA AQ-Radial-iFR)



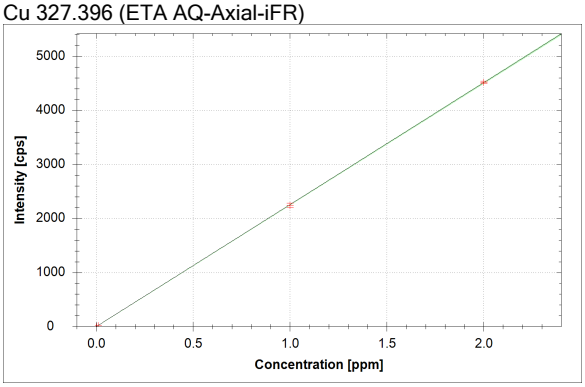
f(x) = 227.6433*x + 11.7948
R² = 1.0000
BEC = 0.052 ppm
LoD = 0.0132 ppm

Calibration Summary

8/13/2024 3:29:46 PM

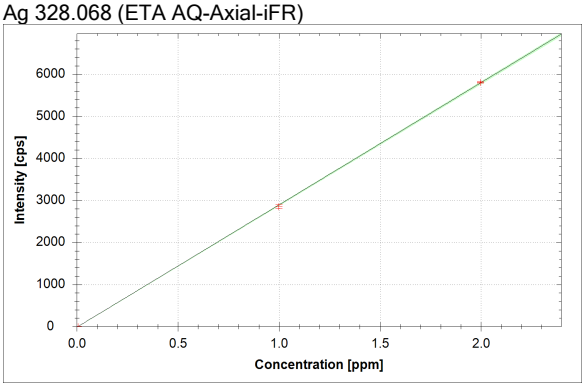
QTEGRA

Cu 327.396 (ETA AQ-Axial-iFR)



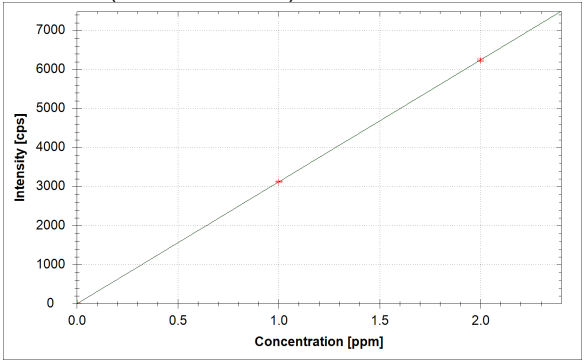
f(x) = 2255.6052*x + 0.4538
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0009 ppm

Ag 328.068 (ETA AQ-Axial-iFR)



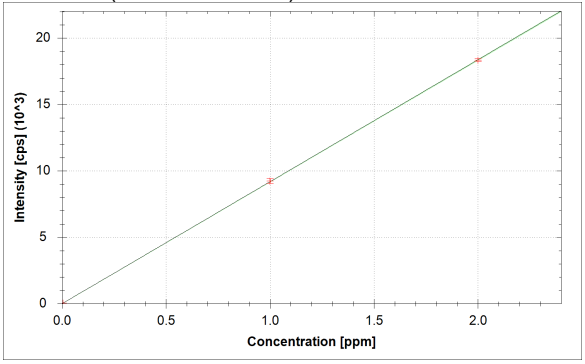
f(x) = 2906.6354*x + -13.3639
R² = 0.9999
BEC = -0.005 ppm
LoD = 0.0004 ppm

Ti 334.904 (ETA AQ-Axial-iFR)



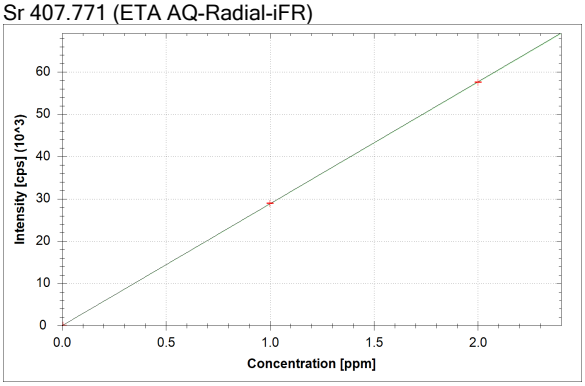
f(x) = 3123.5818*x + -1.6913
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0006 ppm

Ti 334.941 (ETA AQ-Axial-iFR)



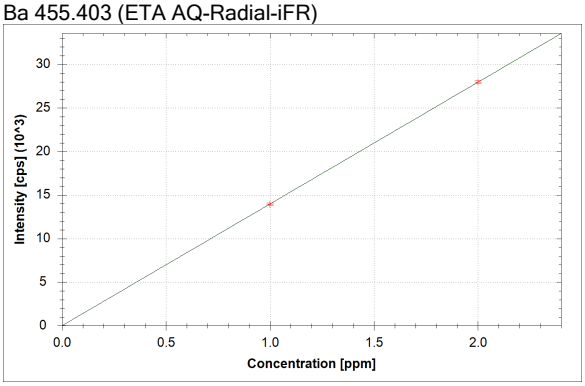
f(x) = 9187.5926*x + -1.9238
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0000 ppm

Sr 407.771 (ETA AQ-Radial-iFR)



f(x) = 28843.6899*x + -4.0980
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0001 ppm

Ba 455.403 (ETA AQ-Radial-iFR)



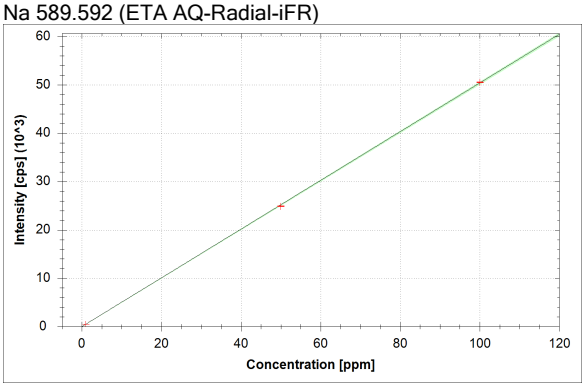
f(x) = 13981.5473*x + -1.2341
R² = 1.0000
BEC = 0.000 ppm
LoD = 0.0002 ppm

Calibration Summary

8/13/2024 3:29:46 PM

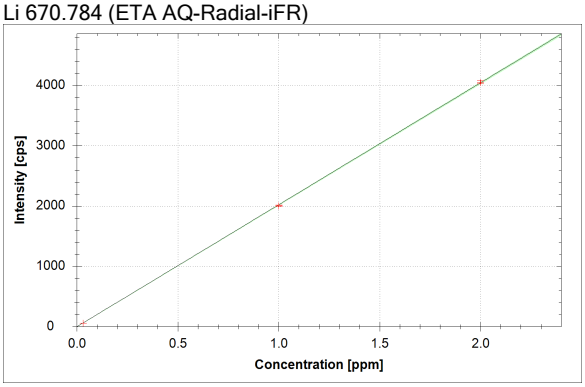
QTEGRA

Na 589.592 (ETA AQ-Radial-iFR)



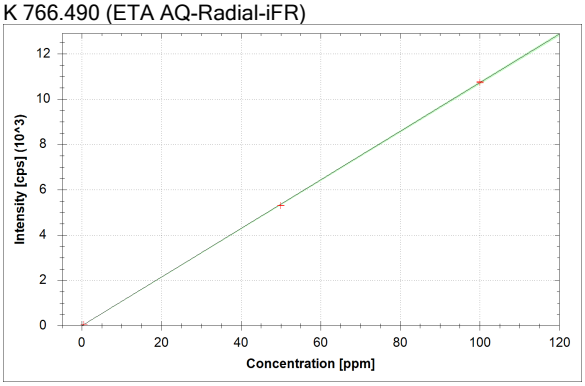
f(x) = 503.9067*x + 0.3109
R² = 0.9999
BEC = 0.001 ppm
LoD = 0.0081 ppm

Li 670.784 (ETA AQ-Radial-iFR)



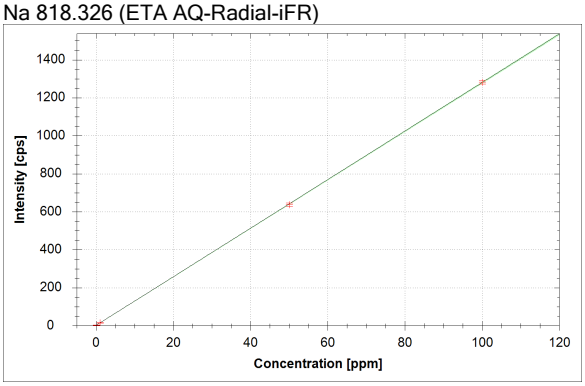
f(x) = 2022.9293*x + -1.3585
R² = 1.0000
BEC = -0.001 ppm
LoD = 0.0012 ppm

K 766.490 (ETA AQ-Radial-iFR)



f(x) = 107.2440*x + 2.5584
R² = 0.9999
BEC = 0.024 ppm
LoD = 0.0054 ppm

Na 818.326 (ETA AQ-Radial-iFR)



f(x) = 12.7777*x + 2.5981
R² = 1.0000
BEC = 0.203 ppm
LoD = 0.1652 ppm

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Standards

Standard: IC-7982556
Analysis started at: 8/13/2024 11:10:59 AM
Standard (Stock): IC-7982556
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	0.179 ppm	2.2 %	0.200 ppm	8 cps	10.297 %
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	21.9 %	0.015 ppm	1 cps	23.621 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	5.1 %	0.010 ppm	1 cps	5.839 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	24.6 %	0.020 ppm	0 cps	13.151 %
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	12.3 %	0.025 ppm	2 cps	16.390 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	5.6 %	0.010 ppm	3 cps	4.385 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	0.9 %	0.010 ppm	6 cps	6.063 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.023 ppm	16.4 %	0.020 ppm	1 cps	13.003 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	2.4 %	0.020 ppm	6 cps	3.122 %
P 213.618 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	-3 cps	N/A
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	12.0 %	0.010 ppm	1 cps	26.532 %
Y 224.306 (ETA AQ-Axial-iFR)	100.871 %	0.3 %		482 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	101.125 %	1.1 %		122 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	8.9 %	0.004 ppm	1 cps	18.094 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	8.5 %	0.002 ppm	3 cps	2.668 %
In 230.606 (ETA AQ-Axial-iFR)	101.339 %	0.4 %		518 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	9.6 %	0.010 ppm	3 cps	1.230 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	4.7 %	0.003 ppm	7 cps	4.113 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.043 ppm	0.8 %	0.050 ppm	75 cps	13.601 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	5.9 %	0.004 ppm	5 cps	1.862 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.026 ppm	42.4 %	0.050 ppm	1 cps	47.389 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.171 ppm	7.9 %	0.200 ppm	8 cps	14.455 %
Si 288.158 (ETA AQ-Radial-iFR)	0.474 ppm	3.3 %	0.500 ppm	42 cps	5.297 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	2.9 %	0.005 ppm	8 cps	6.731 %
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	14.8 %	0.200 ppm	11 cps	7.757 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	1.8 %	0.002 ppm	24 cps	1.382 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.454 ppm	0.6 %	0.500 ppm	118 cps	9.101 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	4.6 %	0.010 ppm	22 cps	6.501 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	3.7 %	0.006 ppm	2 cps	12.016 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	0.9 %	0.005 ppm	14 cps	3.200 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	1.5 %	0.005 ppm	43 cps	4.466 %
Y 360.073 (ETA AQ-Axial-iFR)	101.334 %	0.1 %		7,645 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	101.975 %	0.5 %		1,422 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	101.780 %	0.2 %		10,914 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	102.154 %	0.4 %		2,015 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	0.6 %	0.005 ppm	134 cps	6.516 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	3.5 %	0.002 ppm	27 cps	0.657 %
Na 589.592 (ETA AQ-Radial-iFR)	0.967 ppm	0.9 %	1.000 ppm	498 cps	3.265 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	1.7 %	0.030 ppm	59 cps	2.797 %
K 766.490 (ETA AQ-Radial-iFR)	0.506 ppm	2.3 %	0.500 ppm	58 cps	1.256 %
Na 818.326 (ETA AQ-Radial-iFR)	0.963 ppm	3.8 %	1.000 ppm	15 cps	3.718 %

Standard: IC-8019667
Analysis started at: 8/13/2024 11:14:45 AM
Standard (Stock): IC-8019667
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	50.266 ppm	0.3 %	50.000 ppm	1,336 cps	0.532 %
As 189.042 (ETA AQ-Axial-iFR)	2.001 ppm	0.6 %	2.000 ppm	101 cps	0.068 %
Sn 189.989 (ETA AQ-Axial-iFR)	2.007 ppm	0.1 %	2.000 ppm	254 cps	0.333 %
Tl 190.856 (ETA AQ-Axial-iFR)	2.010 ppm	0.2 %	2.000 ppm	97 cps	0.505 %
Se 196.090 (ETA AQ-Axial-iFR)	2.007 ppm	0.3 %	2.000 ppm	95 cps	0.363 %
Mo 202.030 (ETA AQ-Axial-iFR)	2.000 ppm	0.6 %	2.000 ppm	486 cps	0.002 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.991 ppm	0.2 %	2.000 ppm	1,135 cps	0.426 %
Sb 206.833 (ETA AQ-Axial-iFR)	2.002 ppm	0.1 %	2.000 ppm	86 cps	0.105 %
B 208.959 (ETA AQ-Axial-iFR)	2.008 ppm	0.6 %	2.000 ppm	511 cps	0.403 %
P 213.618 (ETA AQ-Axial-iFR)	50.209 ppm	0.5 %	50.000 ppm	2,931 cps	0.417 %
Pb 220.353 (ETA AQ-Axial-iFR)	2.015 ppm	0.3 %	2.000 ppm	121 cps	0.732 %
Y 224.306 (ETA AQ-Axial-iFR)	98.405 %	0.4 %		470 cps	0.000 %

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 224.306 (ETA AQ-Radial-iFR)	94.882 %	0.6 %		114 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	2.011 ppm	0.3 %	2.000 ppm	1,102 cps	0.542 %
Cd 228.802 (ETA AQ-Axial-iFR)	2.005 ppm	0.4 %	2.000 ppm	1,857 cps	0.230 %
In 230.606 (ETA AQ-Axial-iFR)	92.348 %	0.2 %		472 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.996 ppm	0.4 %	2.000 ppm	768 cps	0.209 %
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	0.3 %	2.000 ppm	4,127 cps	0.002 %
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	N/A	N/A	116,919 cps	N/A
Cr 267.716 (ETA AQ-Axial-iFR)	1.995 ppm	0.6 %	2.000 ppm	2,371 cps	0.229 %
Fe 271.441 (ETA AQ-Radial-iFR)	100.082 ppm	0.5 %	100.000 ppm	1,673 cps	0.082 %
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	0.4 %	100.000 ppm	4,154 cps	0.650 %
Si 288.158 (ETA AQ-Radial-iFR)	19.990 ppm	0.2 %	20.000 ppm	1,578 cps	0.051 %
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	0.4 %	2.000 ppm	3,677 cps	0.073 %
Al 308.215 (ETA AQ-Radial-iFR)	100.498 ppm	0.2 %	100.000 ppm	5,210 cps	0.498 %
Be 313.042 (ETA AQ-Radial-iFR)	1.994 ppm	0.1 %	2.000 ppm	21,458 cps	0.309 %
Ca 317.933 (ETA AQ-Radial-iFR)	100.019 ppm	0.2 %	100.000 ppm	21,850 cps	0.019 %
Cu 327.396 (ETA AQ-Axial-iFR)	2.004 ppm	0.5 %	2.000 ppm	4,560 cps	0.180 %
Ag 328.068 (ETA AQ-Axial-iFR)	2.006 ppm	0.3 %	2.000 ppm	5,875 cps	0.289 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.999 ppm	0.5 %	2.000 ppm	6,314 cps	0.045 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.997 ppm	0.6 %	2.000 ppm	18,556 cps	0.147 %
Y 360.073 (ETA AQ-Axial-iFR)	101.144 %	0.2 %		7,630 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	95.709 %	0.6 %		1,334 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	100.884 %	0.2 %		10,818 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	95.917 %	0.4 %		1,892 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.998 ppm	0.1 %	2.000 ppm	55,267 cps	0.111 %
Ba 455.403 (ETA AQ-Radial-iFR)	2.001 ppm	0.7 %	2.000 ppm	26,539 cps	0.031 %
Na 589.592 (ETA AQ-Radial-iFR)	100.300 ppm	0.2 %	100.000 ppm	48,478 cps	0.300 %
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	0.6 %	2.000 ppm	3,888 cps	0.228 %
K 766.490 (ETA AQ-Radial-iFR)	100.274 ppm	0.3 %	100.000 ppm	10,317 cps	0.274 %
Na 818.326 (ETA AQ-Radial-iFR)	100.177 ppm	0.8 %	100.000 ppm	1,230 cps	0.177 %

Standard: IC-8027695
Analysis started at: 8/13/2024 11:12:52 AM
Standard (Stock): IC-8027695
Standard DF: 1

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
S 182.034 (ETA AQ-Axial-iFR)	24.468 ppm	2.0 %	25.000 ppm	659 cps	2.128 %
As 189.042 (ETA AQ-Axial-iFR)	0.997 ppm	0.6 %	1.000 ppm	51 cps	0.277 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.987 ppm	2.5 %	1.000 ppm	130 cps	1.332 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.980 ppm	0.9 %	1.000 ppm	49 cps	2.013 %
Se 196.090 (ETA AQ-Axial-iFR)	0.986 ppm	0.3 %	1.000 ppm	47 cps	1.443 %
Mo 202.030 (ETA AQ-Axial-iFR)	1.000 ppm	0.6 %	1.000 ppm	246 cps	0.008 %
Zn 206.200 (ETA AQ-Axial-iFR)	1.017 ppm	3.0 %	1.000 ppm	582 cps	1.702 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.996 ppm	0.7 %	1.000 ppm	43 cps	0.427 %
B 208.959 (ETA AQ-Axial-iFR)	0.984 ppm	0.8 %	1.000 ppm	254 cps	1.609 %
P 213.618 (ETA AQ-Axial-iFR)	24.583 ppm	0.5 %	25.000 ppm	1,448 cps	1.669 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.971 ppm	0.8 %	1.000 ppm	61 cps	2.924 %
Y 224.306 (ETA AQ-Axial-iFR)	99.424 %	0.9 %		475 cps	0.000 %
Y 224.306 (ETA AQ-Radial-iFR)	97.639 %	0.3 %		118 cps	0.000 %
Co 228.616 (ETA AQ-Axial-iFR)	0.978 ppm	0.2 %	1.000 ppm	559 cps	2.167 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.991 ppm	1.2 %	1.000 ppm	928 cps	0.919 %
In 230.606 (ETA AQ-Axial-iFR)	96.303 %	0.5 %		492 cps	0.000 %
Ni 231.604 (ETA AQ-Axial-iFR)	1.008 ppm	0.5 %	1.000 ppm	389 cps	0.836 %
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	0.1 %	1.000 ppm	2,104 cps	0.008 %
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	0.3 %	50.000 ppm	61,933 cps	0.000 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.009 ppm	1.0 %	1.000 ppm	1,204 cps	0.917 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.835 ppm	0.5 %	50.000 ppm	850 cps	0.329 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	0.1 %	50.000 ppm	2,050 cps	2.599 %
Si 288.158 (ETA AQ-Radial-iFR)	10.022 ppm	0.1 %	10.000 ppm	808 cps	0.217 %
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	0.5 %	1.000 ppm	1,853 cps	0.292 %
Al 308.215 (ETA AQ-Radial-iFR)	49.005 ppm	0.2 %	50.000 ppm	2,591 cps	1.990 %
Be 313.042 (ETA AQ-Radial-iFR)	1.012 ppm	0.3 %	1.000 ppm	11,111 cps	1.238 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.962 ppm	0.3 %	50.000 ppm	11,136 cps	0.075 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.993 ppm	2.0 %	1.000 ppm	2,268 cps	0.719 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.988 ppm	1.6 %	1.000 ppm	2,900 cps	1.157 %
Ti 334.904 (ETA AQ-Axial-iFR)	1.002 ppm	0.5 %	1.000 ppm	3,176 cps	0.181 %
Ti 334.941 (ETA AQ-Axial-iFR)	1.006 ppm	1.8 %	1.000 ppm	9,383 cps	0.589 %

Calibration Summary

8/13/2024 3:29:46 PM

QTEGRA

Analyte (Measure Mode)	Concentration average	Concentration RSD	Standard Concentration	Intensity average	Standard Relative Difference
Y 360.073 (ETA AQ-Axial-iFR)	101.571 %	1.9 %		7,662 cps	0.000 %
Y 360.073 (ETA AQ-Radial-iFR)	97.871 %	0.4 %		1,364 cps	0.000 %
Y 377.433 (ETA AQ-Axial-iFR)	101.276 %	1.5 %		10,860 cps	0.000 %
Y 377.433 (ETA AQ-Radial-iFR)	97.809 %	0.5 %		1,929 cps	0.000 %
Sr 407.771 (ETA AQ-Radial-iFR)	1.004 ppm	0.5 %	1.000 ppm	28,333 cps	0.445 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.999 ppm	0.9 %	1.000 ppm	13,634 cps	0.123 %
Na 589.592 (ETA AQ-Radial-iFR)	49.401 ppm	0.3 %	50.000 ppm	24,348 cps	1.198 %
Li 670.784 (ETA AQ-Radial-iFR)	0.991 ppm	0.5 %	1.000 ppm	1,959 cps	0.911 %
K 766.490 (ETA AQ-Radial-iFR)	49.452 ppm	0.2 %	50.000 ppm	5,190 cps	1.096 %
Na 818.326 (ETA AQ-Radial-iFR)	49.646 ppm	1.4 %	50.000 ppm	623 cps	0.708 %

Sample List Summary

8/13/2024 3:29:12 PM

LabBook: I420240813B.imexp

Summary

Index	Label	Sample Type	Amount	Final Quantity	Standard DF	Started at
1	Rinse Blank	UNKNOWN			1	8/13/2024 11:07:07 AM
2	ICIS-7982661	BLK			1	8/13/2024 11:09:05 AM
3	IC-7982556	STD			1	8/13/2024 11:10:59 AM
4	IC-8027695	STD			1	8/13/2024 11:12:52 AM
5	IC-8019667	STD			1	8/13/2024 11:14:45 AM
6	ICV-8027694	QC			1	8/13/2024 11:16:38 AM
7	ICB-7982661	QC			1	8/13/2024 11:20:39 AM
8	ICVL-7982556	QC			1	8/13/2024 11:22:36 AM
9	ICSA-8027688	QC			1	8/13/2024 11:25:34 AM
10	ICSAB-7991309	QC			1	8/13/2024 11:27:31 AM
11	ICEX1	UNKNOWN			1	8/13/2024 11:29:24 AM
12	ICEX2	UNKNOWN			1	8/13/2024 11:31:17 AM
13	ICEX3	UNKNOWN			1	8/13/2024 11:33:11 AM
14	ICEX4	UNKNOWN			1	8/13/2024 11:35:04 AM
15	ICEX5	UNKNOWN			1	8/13/2024 11:36:57 AM
16	CCV-8027695	QC			1	8/13/2024 11:38:51 AM
17	CCB-7982661	QC			1	8/13/2024 11:40:45 AM
18	CCVL-7982556	QC			1	8/13/2024 11:42:38 AM
19	CCVL-7982556	QC			1	8/13/2024 11:53:59 AM
20	LRC-7995590	QC			1	8/13/2024 11:55:56 AM

Basic Sample Report
8/13/2024 3:29:28 PM

LabBook: I420240813B.imexp

Label: Rinse Blank #: 1
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:07:07 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
P 213.618 (ETA AQ-Axial-iFR)	-0.001 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.488 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.217 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	98.461 %	503 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.001 ppm	21 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.041 ppm	-1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.006 ppm	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.011 ppm	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.008 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.016 ppm	8 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Y 360.073 (ETA AQ-Axial-iFR)	98.415 %	7,424 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.706 %	1,376 cps
Y 377.433 (ETA AQ-Axial-iFR)	98.457 %	10,558 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.840 %	1,950 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Na 589.592 (ETA AQ-Radial-iFR)	-0.001 ppm	0 cps
Li 670.784 (ETA AQ-Radial-iFR)	-0.001 ppm	-3 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.007 ppm	2 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.036 ppm	3 cps

Label: ICIS-7982661 #: 2
Analysis Type: BLK Analysis started at: 8/13/2024 11:09:05 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
As 189.042 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
P 213.618 (ETA AQ-Axial-iFR)	0.000 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.000 %	478 cps
Y 224.306 (ETA AQ-Radial-iFR)	100.000 %	121 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.000 %	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.000 ppm	20 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.000 ppm	12 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.000 %	7,544 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.000 %	1,394 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.000 %	10,723 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.000 %	1,972 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-4 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps

Label: IC-7982556 #: 3
Analysis Type: STD Analysis started at: 8/13/2024 11:10:59 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.179 ppm	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0.019 ppm	1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.009 ppm	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.023 ppm	1 cps
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	6 cps
P 213.618 (ETA AQ-Axial-iFR)	N/A	-3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Pb 220.353 (ETA AQ-Axial-iFR)	0.007 ppm	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	100.871 %	482 cps
Y 224.306 (ETA AQ-Radial-iFR)	101.125 %	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
In 230.606 (ETA AQ-Axial-iFR)	101.339 %	518 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.043 ppm	75 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	5 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.026 ppm	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.171 ppm	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.474 ppm	42 cps
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	8 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.454 ppm	118 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.334 %	7,645 cps
Y 360.073 (ETA AQ-Radial-iFR)	101.975 %	1,422 cps
Y 377.433 (ETA AQ-Axial-iFR)	101.780 %	10,914 cps
Y 377.433 (ETA AQ-Radial-iFR)	102.154 %	2,015 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	134 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	27 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.967 ppm	498 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	59 cps
K 766.490 (ETA AQ-Radial-iFR)	0.506 ppm	58 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.963 ppm	15 cps

Label: IC-8027695 #: 4
Analysis Type: STD Analysis started at: 8/13/2024 11:12:52 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	24.468 ppm	659 cps
As 189.042 (ETA AQ-Axial-iFR)	0.997 ppm	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.987 ppm	130 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.980 ppm	49 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.986 ppm	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1.000 ppm	246 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.017 ppm	582 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.996 ppm	43 cps
B 208.959 (ETA AQ-Axial-iFR)	0.984 ppm	254 cps
P 213.618 (ETA AQ-Axial-iFR)	24.583 ppm	1,448 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.971 ppm	61 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.424 %	475 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.639 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.978 ppm	559 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.991 ppm	928 cps
In 230.606 (ETA AQ-Axial-iFR)	96.303 %	492 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.008 ppm	389 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1.000 ppm	2,104 cps
Fe 259.940 (ETA AQ-Axial-iFR)	50.000 ppm	61,933 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Cr 267.716 (ETA AQ-Axial-iFR)	1.009 ppm	1,204 cps
Fe 271.441 (ETA AQ-Radial-iFR)	49.835 ppm	850 cps
Mg 279.079 (ETA AQ-Radial-iFR)	48.700 ppm	2,050 cps
Si 288.158 (ETA AQ-Radial-iFR)	10.022 ppm	808 cps
V 292.402 (ETA AQ-Axial-iFR)	1.003 ppm	1,853 cps
Al 308.215 (ETA AQ-Radial-iFR)	49.005 ppm	2,591 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.012 ppm	11,111 cps
Ca 317.933 (ETA AQ-Radial-iFR)	49.962 ppm	11,136 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.993 ppm	2,268 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.988 ppm	2,900 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.002 ppm	3,176 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.006 ppm	9,383 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.571 %	7,662 cps
Y 360.073 (ETA AQ-Radial-iFR)	97.871 %	1,364 cps
Y 377.433 (ETA AQ-Axial-iFR)	101.276 %	10,860 cps
Y 377.433 (ETA AQ-Radial-iFR)	97.809 %	1,929 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.004 ppm	28,333 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.999 ppm	13,634 cps
Na 589.592 (ETA AQ-Radial-iFR)	49.401 ppm	24,348 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.991 ppm	1,959 cps
K 766.490 (ETA AQ-Radial-iFR)	49.452 ppm	5,190 cps
Na 818.326 (ETA AQ-Radial-iFR)	49.646 ppm	623 cps

Label: IC-8019667 #: 5
Analysis Type: STD Analysis started at: 8/13/2024 11:14:45 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	50.266 ppm	1,336 cps
As 189.042 (ETA AQ-Axial-iFR)	2.001 ppm	101 cps
Sn 189.989 (ETA AQ-Axial-iFR)	2.007 ppm	254 cps
Tl 190.856 (ETA AQ-Axial-iFR)	2.010 ppm	97 cps
Se 196.090 (ETA AQ-Axial-iFR)	2.007 ppm	95 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2.000 ppm	486 cps
Zn 206.200 (ETA AQ-Axial-iFR)	1.991 ppm	1,135 cps
Sb 206.833 (ETA AQ-Axial-iFR)	2.002 ppm	86 cps
B 208.959 (ETA AQ-Axial-iFR)	2.008 ppm	511 cps
P 213.618 (ETA AQ-Axial-iFR)	50.209 ppm	2,931 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2.015 ppm	121 cps
Y 224.306 (ETA AQ-Axial-iFR)	98.405 %	470 cps
Y 224.306 (ETA AQ-Radial-iFR)	94.882 %	114 cps
Co 228.616 (ETA AQ-Axial-iFR)	2.011 ppm	1,102 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2.005 ppm	1,857 cps
In 230.606 (ETA AQ-Axial-iFR)	92.348 %	472 cps
Ni 231.604 (ETA AQ-Axial-iFR)	1.996 ppm	768 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2.000 ppm	4,127 cps
Fe 259.940 (ETA AQ-Axial-iFR)	N/A	116,919 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1.995 ppm	2,371 cps
Fe 271.441 (ETA AQ-Radial-iFR)	100.082 ppm	1,673 cps
Mg 279.079 (ETA AQ-Radial-iFR)	100.650 ppm	4,154 cps
Si 288.158 (ETA AQ-Radial-iFR)	19.990 ppm	1,578 cps
V 292.402 (ETA AQ-Axial-iFR)	1.999 ppm	3,677 cps
Al 308.215 (ETA AQ-Radial-iFR)	100.498 ppm	5,210 cps
Be 313.042 (ETA AQ-Radial-iFR)	1.994 ppm	21,458 cps
Ca 317.933 (ETA AQ-Radial-iFR)	100.019 ppm	21,850 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2.004 ppm	4,560 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	2.006 ppm	5,875 cps
Ti 334.904 (ETA AQ-Axial-iFR)	1.999 ppm	6,314 cps
Ti 334.941 (ETA AQ-Axial-iFR)	1.997 ppm	18,556 cps
Y 360.073 (ETA AQ-Axial-iFR)	101.144 %	7,630 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.709 %	1,334 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.884 %	10,818 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.917 %	1,892 cps
Sr 407.771 (ETA AQ-Radial-iFR)	1.998 ppm	55,267 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2.001 ppm	26,539 cps
Na 589.592 (ETA AQ-Radial-iFR)	100.300 ppm	48,478 cps
Li 670.784 (ETA AQ-Radial-iFR)	2.005 ppm	3,888 cps
K 766.490 (ETA AQ-Radial-iFR)	100.274 ppm	10,317 cps
Na 818.326 (ETA AQ-Radial-iFR)	100.177 ppm	1,230 cps

Label: ICV-8027694 #: 6
Analysis Type: QC Analysis started at: 8/13/2024 11:16:38 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	18.369 ppm	97.970 %
As 189.042 (ETA AQ-Axial-iFR)	0.746 ppm	99.436 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.736 ppm	98.167 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.743 ppm	99.109 %
Se 196.090 (ETA AQ-Axial-iFR)	0.744 ppm	99.146 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.751 ppm	100.093 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.770 ppm	102.704 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.735 ppm	97.985 %
B 208.959 (ETA AQ-Axial-iFR)	0.735 ppm	97.966 %
P 213.618 (ETA AQ-Axial-iFR)	18.268 ppm	97.429 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.715 ppm	95.386 %
Y 224.306 (ETA AQ-Axial-iFR)	98.889 %	
Y 224.306 (ETA AQ-Radial-iFR)	98.091 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.723 ppm	96.353 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.738 ppm	98.464 %
In 230.606 (ETA AQ-Axial-iFR)	97.265 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.757 ppm	100.916 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.736 ppm	98.134 %
Fe 259.940 (ETA AQ-Axial-iFR)	37.931 ppm	101.148 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.755 ppm	100.612 %
Fe 271.441 (ETA AQ-Radial-iFR)	37.160 ppm	99.094 %
Mg 279.079 (ETA AQ-Radial-iFR)	35.713 ppm	95.234 %
Si 288.158 (ETA AQ-Radial-iFR)	7.574 ppm	100.988 %
V 292.402 (ETA AQ-Axial-iFR)	0.749 ppm	99.899 %
Al 308.215 (ETA AQ-Radial-iFR)	36.174 ppm	96.465 %
Be 313.042 (ETA AQ-Radial-iFR)	0.747 ppm	99.631 %
Ca 317.933 (ETA AQ-Radial-iFR)	37.255 ppm	99.345 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.735 ppm	98.062 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.735 ppm	97.938 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.743 ppm	99.126 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.758 ppm	101.065 %
Y 360.073 (ETA AQ-Axial-iFR)	100.217 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.562 %	
Y 377.433 (ETA AQ-Axial-iFR)	100.381 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.763 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.746 ppm	99.498 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.738 ppm	98.375 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Na 589.592 (ETA AQ-Radial-iFR)	36.838 ppm	98.235 %
Li 670.784 (ETA AQ-Radial-iFR)	0.730 ppm	97.323 %
K 766.490 (ETA AQ-Radial-iFR)	36.645 ppm	97.720 %
Na 818.326 (ETA AQ-Radial-iFR)	36.852 ppm	98.272 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	493 cps
As 189.042 (ETA AQ-Axial-iFR)	38 cps
Sn 189.989 (ETA AQ-Axial-iFR)	98 cps
Tl 190.856 (ETA AQ-Axial-iFR)	37 cps
Se 196.090 (ETA AQ-Axial-iFR)	36 cps
Mo 202.030 (ETA AQ-Axial-iFR)	184 cps
Zn 206.200 (ETA AQ-Axial-iFR)	435 cps
Sb 206.833 (ETA AQ-Axial-iFR)	32 cps
B 208.959 (ETA AQ-Axial-iFR)	189 cps
P 213.618 (ETA AQ-Axial-iFR)	1,070 cps
Pb 220.353 (ETA AQ-Axial-iFR)	45 cps
Y 224.306 (ETA AQ-Axial-iFR)	472 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	416 cps
Cd 228.802 (ETA AQ-Axial-iFR)	688 cps
In 230.606 (ETA AQ-Axial-iFR)	497 cps
Ni 231.604 (ETA AQ-Axial-iFR)	290 cps
Mn 257.610 (ETA AQ-Radial-iFR)	1,564 cps
Fe 259.940 (ETA AQ-Axial-iFR)	46,736 cps
Cr 267.716 (ETA AQ-Axial-iFR)	889 cps
Fe 271.441 (ETA AQ-Radial-iFR)	640 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1,518 cps
Si 288.158 (ETA AQ-Radial-iFR)	617 cps
V 292.402 (ETA AQ-Axial-iFR)	1,366 cps
Al 308.215 (ETA AQ-Radial-iFR)	1,932 cps
Be 313.042 (ETA AQ-Radial-iFR)	8,281 cps
Ca 317.933 (ETA AQ-Radial-iFR)	8,387 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1,665 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,123 cps
Ti 334.904 (ETA AQ-Axial-iFR)	2,326 cps
Ti 334.941 (ETA AQ-Axial-iFR)	6,976 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,560 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,374 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,764 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,948 cps
Sr 407.771 (ETA AQ-Radial-iFR)	21,254 cps
Ba 455.403 (ETA AQ-Radial-iFR)	10,116 cps
Na 589.592 (ETA AQ-Radial-iFR)	18,333 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,457 cps
K 766.490 (ETA AQ-Radial-iFR)	3,884 cps
Na 818.326 (ETA AQ-Radial-iFR)	468 cps

Label: ICB-7982661 #: 7
Analysis Type: QC Analysis started at: 8/13/2024 11:20:39 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	-0.005 ppm	-0.489 %
As 189.042 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.070 %
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.099 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.050 %
Se 196.090 (ETA AQ-Axial-iFR)	-0.007 ppm	-0.699 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	-0.040 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	0.064 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	-0.033 %
B 208.959 (ETA AQ-Axial-iFR)	0.003 ppm	0.308 %
P 213.618 (ETA AQ-Axial-iFR)	0.001 ppm	0.139 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.001 ppm	0.098 %
Y 224.306 (ETA AQ-Axial-iFR)	99.633 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.359 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.043 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.023 %
In 230.606 (ETA AQ-Axial-iFR)	99.301 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0.025 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	-0.014 %
Fe 259.940 (ETA AQ-Axial-iFR)	-0.009 ppm	-0.872 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.005 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.032 ppm	-3.217 %
Mg 279.079 (ETA AQ-Radial-iFR)	-0.022 ppm	-2.168 %
Si 288.158 (ETA AQ-Radial-iFR)	0.004 ppm	0.392 %
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.001 %
Al 308.215 (ETA AQ-Radial-iFR)	-0.009 ppm	-0.946 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.003 %
Ca 317.933 (ETA AQ-Radial-iFR)	-0.027 ppm	-2.720 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.016 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-0.024 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	-0.001 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	-0.002 %
Y 360.073 (ETA AQ-Axial-iFR)	98.942 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.373 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.558 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.702 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-0.008 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-0.005 %
Na 589.592 (ETA AQ-Radial-iFR)	0.005 ppm	0.534 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.038 %
K 766.490 (ETA AQ-Radial-iFR)	-0.004 ppm	-0.357 %
Na 818.326 (ETA AQ-Radial-iFR)	-0.032 ppm	-3.181 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	2 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	1 cps
In 230.606 (ETA AQ-Axial-iFR)	507 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps

Analyte (Measure Mode)	Raw Intensity average
Fe 259.940 (ETA AQ-Axial-iFR)	10 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	2 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0 cps
Be 313.042 (ETA AQ-Radial-iFR)	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	6 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	-2 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,464 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,385 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,676 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,967 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-6 cps
Ba 455.403 (ETA AQ-Radial-iFR)	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	3 cps
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	2 cps
Na 818.326 (ETA AQ-Radial-iFR)	2 cps

Label: ICVL-7982556 #: 8
Analysis Type: QC Analysis started at: 8/13/2024 11:22:36 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.178 ppm	88.887 %
As 189.042 (ETA AQ-Axial-iFR)	0.013 ppm	89.450 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.008 ppm	80.078 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.016 ppm	78.897 %
Se 196.090 (ETA AQ-Axial-iFR)	0.020 ppm	80.672 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	97.862 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	106.615 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.020 ppm	100.821 %
B 208.959 (ETA AQ-Axial-iFR)	0.021 ppm	104.507 %
P 213.618 (ETA AQ-Axial-iFR)	-0.002 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.010 ppm	96.060 %
Y 224.306 (ETA AQ-Axial-iFR)	101.041 %	
Y 224.306 (ETA AQ-Radial-iFR)	101.454 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.004 ppm	88.671 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	100.196 %
In 230.606 (ETA AQ-Axial-iFR)	101.861 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	101.511 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	97.561 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.042 ppm	84.261 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	106.150 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.042 ppm	83.085 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.171 ppm	85.329 %
Si 288.158 (ETA AQ-Radial-iFR)	0.481 ppm	96.178 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	97.562 %
Al 308.215 (ETA AQ-Radial-iFR)	0.176 ppm	88.172 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	96.356 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.448 ppm	89.656 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	94.993 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.005 ppm	91.097 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	93.987 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	94.089 %
Y 360.073 (ETA AQ-Axial-iFR)	101.494 %	
Y 360.073 (ETA AQ-Radial-iFR)	101.858 %	
Y 377.433 (ETA AQ-Axial-iFR)	101.818 %	
Y 377.433 (ETA AQ-Radial-iFR)	101.934 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	91.720 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	96.294 %
Na 589.592 (ETA AQ-Radial-iFR)	0.962 ppm	96.171 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	95.935 %
K 766.490 (ETA AQ-Radial-iFR)	0.489 ppm	97.768 %
Na 818.326 (ETA AQ-Radial-iFR)	1.062 ppm	106.153 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	483 cps
Y 224.306 (ETA AQ-Radial-iFR)	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	520 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	42 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	42 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,657 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,420 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,918 cps
Y 377.433 (ETA AQ-Radial-iFR)	2,011 cps
Sr 407.771 (ETA AQ-Radial-iFR)	131 cps
Ba 455.403 (ETA AQ-Radial-iFR)	26 cps
Na 589.592 (ETA AQ-Radial-iFR)	494 cps
Li 670.784 (ETA AQ-Radial-iFR)	58 cps
K 766.490 (ETA AQ-Radial-iFR)	56 cps
Na 818.326 (ETA AQ-Radial-iFR)	16 cps

Label: ICSA-8027688 #: 9
Analysis Type: QC Analysis started at: 8/13/2024 11:25:34 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.032 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0.004 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.010 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.005 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
P 213.618 (ETA AQ-Axial-iFR)	0.048 ppm	0 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.010 ppm	-1 cps
Y 224.306 (ETA AQ-Axial-iFR)	92.834 %	443 cps
Y 224.306 (ETA AQ-Radial-iFR)	91.555 %	110 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
In 230.606 (ETA AQ-Axial-iFR)	85.271 %	436 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.001 ppm	3 cps
Fe 259.940 (ETA AQ-Axial-iFR)	169.309 ppm	195,767 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Fe 271.441 (ETA AQ-Radial-iFR)	189.167 ppm	3,153 cps
Mg 279.079 (ETA AQ-Radial-iFR)	512.145 ppm	21,103 cps
Si 288.158 (ETA AQ-Radial-iFR)	-0.023 ppm	0 cps
V 292.402 (ETA AQ-Axial-iFR)	0.001 ppm	8 cps
Al 308.215 (ETA AQ-Radial-iFR)	496.665 ppm	25,710 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	470.347 ppm	102,563 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	-9 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.002 ppm	4 cps
Ti 334.941 (ETA AQ-Axial-iFR)	-0.003 ppm	-28 cps
Y 360.073 (ETA AQ-Axial-iFR)	96.710 %	7,296 cps
Y 360.073 (ETA AQ-Radial-iFR)	95.560 %	1,332 cps
Y 377.433 (ETA AQ-Axial-iFR)	96.579 %	10,356 cps
Y 377.433 (ETA AQ-Radial-iFR)	95.779 %	1,889 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.004 ppm	109 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.003 ppm	32 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.177 ppm	86 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.027 ppm	5 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.081 ppm	3 cps

Label: ICSAB-7991309 #: 10
Analysis Type: QC Analysis started at: 8/13/2024 11:27:31 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.042 ppm	4 cps
As 189.042 (ETA AQ-Axial-iFR)	0.469 ppm	23 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Sn 189.989 (ETA AQ-Axial-iFR)	0.482 ppm	58 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.485 ppm	21 cps
Se 196.090 (ETA AQ-Axial-iFR)	0.470 ppm	22 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.478 ppm	112 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.433 ppm	242 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.483 ppm	20 cps
B 208.959 (ETA AQ-Axial-iFR)	4.790 ppm	1,147 cps
P 213.618 (ETA AQ-Axial-iFR)	4.656 ppm	259 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.491 ppm	26 cps
Y 224.306 (ETA AQ-Axial-iFR)	94.560 %	452 cps
Y 224.306 (ETA AQ-Radial-iFR)	93.462 %	113 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.472 ppm	243 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.483 ppm	431 cps
In 230.606 (ETA AQ-Axial-iFR)	87.084 %	445 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.453 ppm	172 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.448 ppm	949 cps
Fe 259.940 (ETA AQ-Axial-iFR)	164.346 ppm	193,564 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.458 ppm	535 cps
Fe 271.441 (ETA AQ-Radial-iFR)	181.318 ppm	3,109 cps
Mg 279.079 (ETA AQ-Radial-iFR)	492.539 ppm	20,873 cps
Si 288.158 (ETA AQ-Radial-iFR)	4.691 ppm	382 cps
V 292.402 (ETA AQ-Axial-iFR)	0.471 ppm	857 cps
Al 308.215 (ETA AQ-Radial-iFR)	479.098 ppm	25,506 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.241 ppm	2,662 cps
Ca 317.933 (ETA AQ-Radial-iFR)	451.753 ppm	101,313 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.507 ppm	1,136 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.487 ppm	1,391 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.485 ppm	1,503 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.485 ppm	4,421 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.314 %	7,492 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.029 %	1,367 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.391 %	10,658 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.506 %	1,943 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.480 ppm	13,628 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.503 ppm	6,574 cps
Na 589.592 (ETA AQ-Radial-iFR)	5.076 ppm	2,520 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	4.913 ppm	522 cps
Na 818.326 (ETA AQ-Radial-iFR)	4.844 ppm	64 cps

Label: ICEX1 #: 11
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:29:24 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	-0.006 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	>4.924	253 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.002 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.004 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.017 ppm	5 cps
P 213.618 (ETA AQ-Axial-iFR)	0.220 ppm	10 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.003 ppm	0 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Y 224.306 (ETA AQ-Axial-iFR)	99.582 %	476 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.439 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	-0.002 ppm	9 cps
In 230.606 (ETA AQ-Axial-iFR)	100.067 %	511 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	0.030 ppm	58 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.002 ppm	3 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0.002 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	0.019 ppm	2 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.002 ppm	2 cps
V 292.402 (ETA AQ-Axial-iFR)	>5.152	9,403 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.104 ppm	6 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.001 ppm	18 cps
Ca 317.933 (ETA AQ-Radial-iFR)	0.003 ppm	12 cps
Cu 327.396 (ETA AQ-Axial-iFR)	>23.933	54,377 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.003 ppm	-26 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	4 cps
Y 360.073 (ETA AQ-Axial-iFR)	100.184 %	7,558 cps
Y 360.073 (ETA AQ-Radial-iFR)	100.286 %	1,398 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.729 %	10,801 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.491 %	1,982 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.007 ppm	4 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	0.005 ppm	3 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.077 ppm	2 cps

Label: ICEX2 #: 12
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:31:17 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.000 ppm	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	>19.453	1,020 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.002 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.003 ppm	2 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.006 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.008 ppm	3 cps
P 213.618 (ETA AQ-Axial-iFR)	0.012 ppm	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.007 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.753 %	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	97.968 %	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	-0.003 ppm	17 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.128 %	512 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.005 ppm	2 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.005 ppm	15 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Fe 271.441 (ETA AQ-Radial-iFR)	-0.023 ppm	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.088 ppm	-3 cps
Si 288.158 (ETA AQ-Radial-iFR)	>49.711	4,043 cps
V 292.402 (ETA AQ-Axial-iFR)	0.003 ppm	21 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.019 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.021 ppm	7 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	21 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	19.541 ppm	60,745 cps
Ti 334.941 (ETA AQ-Axial-iFR)	19.667 ppm	179,829 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.526 %	7,508 cps
Y 360.073 (ETA AQ-Radial-iFR)	98.663 %	1,375 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.000 %	10,723 cps
Y 377.433 (ETA AQ-Radial-iFR)	98.887 %	1,950 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.014 ppm	7 cps
Li 670.784 (ETA AQ-Radial-iFR)	>10.016	20,034 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.001 ppm	2 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.028 ppm	2 cps

Label: ICEX3 #: 13
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:33:11 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	>0.564	18 cps
As 189.042 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.005 ppm	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.012 ppm	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.002 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.006 ppm	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-0.030 ppm	-5 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.982 %	478 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.478 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	99.725 %	509 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	>49.838	106,923 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.010 ppm	9 cps
Cr 267.716 (ETA AQ-Axial-iFR)	-0.001 ppm	7 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.045 ppm	-1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.009 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.025 ppm	4 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.017 ppm	2 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.028 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.001 ppm	2 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.004 ppm	-2 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.705 %	7,522 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.344 %	1,385 cps
Y 377.433 (ETA AQ-Axial-iFR)	100.078 %	10,731 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.743 %	1,967 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.008 ppm	4 cps
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.011 ppm	1 cps
Na 818.326 (ETA AQ-Radial-iFR)	0.011 ppm	3 cps

Label: ICEX4 #: 14
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:35:04 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	0.061 ppm	4 cps
As 189.042 (ETA AQ-Axial-iFR)	-0.010 ppm	-1 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0.006 ppm	2 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	-0.005 ppm	-3 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0.000 ppm	2 cps
B 208.959 (ETA AQ-Axial-iFR)	0.003 ppm	2 cps
P 213.618 (ETA AQ-Axial-iFR)	-0.004 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.065 %	473 cps
Y 224.306 (ETA AQ-Radial-iFR)	99.277 %	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	>19.766	11,737 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	100.150 %	512 cps
Ni 231.604 (ETA AQ-Axial-iFR)	>10.713	4,085 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	6 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.007 ppm	11 cps
Cr 267.716 (ETA AQ-Axial-iFR)	>10.417	12,160 cps
Fe 271.441 (ETA AQ-Radial-iFR)	-0.031 ppm	22 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.020 ppm	0 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.002 ppm	2 cps
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
Al 308.215 (ETA AQ-Radial-iFR)	-0.004 ppm	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	2 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.031 ppm	5 cps
Cu 327.396 (ETA AQ-Axial-iFR)	0.005 ppm	12 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-13 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.003 ppm	7 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.003 ppm	24 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.419 %	7,500 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.489 %	1,387 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.871 %	10,709 cps
Y 377.433 (ETA AQ-Radial-iFR)	99.643 %	1,965 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	3 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.006 ppm	3 cps

Analyte (Measure Mode)	Concentration average	Raw Intensity average
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.003 ppm	2 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.065 ppm	2 cps

Label: ICEX5 #: 15
Analysis Type: UNKNOWN Analysis started at: 8/13/2024 11:36:57 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	-0.024 ppm	2 cps
As 189.042 (ETA AQ-Axial-iFR)	0.001 ppm	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	-0.002 ppm	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-0.001 ppm	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	-0.001 ppm	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	>5.010	1,226 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0.001 ppm	1 cps
Sb 206.833 (ETA AQ-Axial-iFR)	-0.001 ppm	0 cps
B 208.959 (ETA AQ-Axial-iFR)	0.012 ppm	32 cps
P 213.618 (ETA AQ-Axial-iFR)	0.002 ppm	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	-0.006 ppm	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	99.126 %	474 cps
Y 224.306 (ETA AQ-Radial-iFR)	98.854 %	119 cps
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	0 cps
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	1 cps
In 230.606 (ETA AQ-Axial-iFR)	99.654 %	509 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0.002 ppm	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	1 cps
Fe 259.940 (ETA AQ-Axial-iFR)	-0.012 ppm	6 cps
Cr 267.716 (ETA AQ-Axial-iFR)	0.003 ppm	4 cps
Fe 271.441 (ETA AQ-Radial-iFR)	<-0.050	-1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	-0.114 ppm	-4 cps
Si 288.158 (ETA AQ-Radial-iFR)	0.237 ppm	21 cps
V 292.402 (ETA AQ-Axial-iFR)	0.004 ppm	-20 cps
Al 308.215 (ETA AQ-Radial-iFR)	0.049 ppm	3 cps
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	-1 cps
Ca 317.933 (ETA AQ-Radial-iFR)	-0.033 ppm	4 cps
Cu 327.396 (ETA AQ-Axial-iFR)	-0.002 ppm	-4 cps
Ag 328.068 (ETA AQ-Axial-iFR)	0.000 ppm	-14 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0.004 ppm	12 cps
Ti 334.941 (ETA AQ-Axial-iFR)	0.001 ppm	9 cps
Y 360.073 (ETA AQ-Axial-iFR)	99.605 %	7,514 cps
Y 360.073 (ETA AQ-Radial-iFR)	99.975 %	1,394 cps
Y 377.433 (ETA AQ-Axial-iFR)	99.943 %	10,717 cps
Y 377.433 (ETA AQ-Radial-iFR)	100.016 %	1,973 cps
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	-7 cps
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	-3 cps
Na 589.592 (ETA AQ-Radial-iFR)	0.016 ppm	8 cps
Li 670.784 (ETA AQ-Radial-iFR)	-0.001 ppm	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	-0.016 ppm	1 cps
Na 818.326 (ETA AQ-Radial-iFR)	-0.057 ppm	2 cps

Label: CCV-8027695 #: 16
Analysis Type: QC Analysis started at: 8/13/2024 11:38:51 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	24.043 ppm	96.171 %
As 189.042 (ETA AQ-Axial-iFR)	0.983 ppm	98.267 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.972 ppm	97.218 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.986 ppm	98.564 %
Se 196.090 (ETA AQ-Axial-iFR)	0.971 ppm	97.141 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.998 ppm	99.777 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.996 ppm	99.604 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.986 ppm	98.567 %
B 208.959 (ETA AQ-Axial-iFR)	0.975 ppm	97.484 %
P 213.618 (ETA AQ-Axial-iFR)	24.416 ppm	97.662 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.986 ppm	98.554 %
Y 224.306 (ETA AQ-Axial-iFR)	100.697 %	
Y 224.306 (ETA AQ-Radial-iFR)	97.633 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.983 ppm	98.290 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.979 ppm	97.859 %
In 230.606 (ETA AQ-Axial-iFR)	96.076 %	
Ni 231.604 (ETA AQ-Axial-iFR)	1.007 ppm	100.745 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.995 ppm	99.486 %
Fe 259.940 (ETA AQ-Axial-iFR)	49.814 ppm	99.628 %
Cr 267.716 (ETA AQ-Axial-iFR)	1.005 ppm	100.504 %
Fe 271.441 (ETA AQ-Radial-iFR)	49.352 ppm	98.705 %
Mg 279.079 (ETA AQ-Radial-iFR)	48.501 ppm	97.002 %
Si 288.158 (ETA AQ-Radial-iFR)	9.946 ppm	99.465 %
V 292.402 (ETA AQ-Axial-iFR)	0.998 ppm	99.781 %
Al 308.215 (ETA AQ-Radial-iFR)	48.698 ppm	97.397 %
Be 313.042 (ETA AQ-Radial-iFR)	1.005 ppm	100.525 %
Ca 317.933 (ETA AQ-Radial-iFR)	49.383 ppm	98.765 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.975 ppm	97.500 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.976 ppm	97.635 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.998 ppm	99.810 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.996 ppm	99.552 %
Y 360.073 (ETA AQ-Axial-iFR)	103.049 %	
Y 360.073 (ETA AQ-Radial-iFR)	98.361 %	
Y 377.433 (ETA AQ-Axial-iFR)	102.602 %	
Y 377.433 (ETA AQ-Radial-iFR)	98.540 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.993 ppm	99.290 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.995 ppm	99.546 %
Na 589.592 (ETA AQ-Radial-iFR)	48.893 ppm	97.786 %
Li 670.784 (ETA AQ-Radial-iFR)	0.987 ppm	98.724 %
K 766.490 (ETA AQ-Radial-iFR)	49.158 ppm	98.316 %
Na 818.326 (ETA AQ-Radial-iFR)	48.792 ppm	97.584 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	656 cps
As 189.042 (ETA AQ-Axial-iFR)	51 cps
Sn 189.989 (ETA AQ-Axial-iFR)	128 cps
Tl 190.856 (ETA AQ-Axial-iFR)	49 cps
Se 196.090 (ETA AQ-Axial-iFR)	47 cps
Mo 202.030 (ETA AQ-Axial-iFR)	249 cps
Zn 206.200 (ETA AQ-Axial-iFR)	578 cps
Sb 206.833 (ETA AQ-Axial-iFR)	43 cps
B 208.959 (ETA AQ-Axial-iFR)	255 cps
P 213.618 (ETA AQ-Axial-iFR)	1,457 cps
Pb 220.353 (ETA AQ-Axial-iFR)	62 cps
Y 224.306 (ETA AQ-Axial-iFR)	481 cps
Y 224.306 (ETA AQ-Radial-iFR)	118 cps
Co 228.616 (ETA AQ-Axial-iFR)	560 cps

Analyte (Measure Mode)	Raw Intensity average
Cd 228.802 (ETA AQ-Axial-iFR)	928 cps
In 230.606 (ETA AQ-Axial-iFR)	491 cps
Ni 231.604 (ETA AQ-Axial-iFR)	394 cps
Mn 257.610 (ETA AQ-Radial-iFR)	2,109 cps
Fe 259.940 (ETA AQ-Axial-iFR)	62,492 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1,217 cps
Fe 271.441 (ETA AQ-Radial-iFR)	848 cps
Mg 279.079 (ETA AQ-Radial-iFR)	2,057 cps
Si 288.158 (ETA AQ-Radial-iFR)	808 cps
V 292.402 (ETA AQ-Axial-iFR)	1,870 cps
Al 308.215 (ETA AQ-Radial-iFR)	2,594 cps
Be 313.042 (ETA AQ-Radial-iFR)	11,116 cps
Ca 317.933 (ETA AQ-Radial-iFR)	11,089 cps
Cu 327.396 (ETA AQ-Axial-iFR)	2,257 cps
Ag 328.068 (ETA AQ-Axial-iFR)	2,906 cps
Ti 334.904 (ETA AQ-Axial-iFR)	3,211 cps
Ti 334.941 (ETA AQ-Axial-iFR)	9,423 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,774 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,371 cps
Y 377.433 (ETA AQ-Axial-iFR)	11,002 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,944 cps
Sr 407.771 (ETA AQ-Radial-iFR)	28,217 cps
Ba 455.403 (ETA AQ-Radial-iFR)	13,587 cps
Na 589.592 (ETA AQ-Radial-iFR)	24,278 cps
Li 670.784 (ETA AQ-Radial-iFR)	1,967 cps
K 766.490 (ETA AQ-Radial-iFR)	5,197 cps
Na 818.326 (ETA AQ-Radial-iFR)	617 cps

Label: CCB-7982661 #: 17
Analysis Type: QC Analysis started at: 8/13/2024 11:40:45 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.002 ppm	0.237 %
As 189.042 (ETA AQ-Axial-iFR)	0.002 ppm	0.175 %
Sn 189.989 (ETA AQ-Axial-iFR)	-0.001 ppm	-0.070 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.001 ppm	0.092 %
Se 196.090 (ETA AQ-Axial-iFR)	0.000 ppm	0.005 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.001 ppm	0.069 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.000 ppm	0.034 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.004 ppm	0.361 %
B 208.959 (ETA AQ-Axial-iFR)	0.006 ppm	0.603 %
P 213.618 (ETA AQ-Axial-iFR)	0.010 ppm	0.953 %
Pb 220.353 (ETA AQ-Axial-iFR)	-0.002 ppm	-0.157 %
Y 224.306 (ETA AQ-Axial-iFR)	99.840 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.329 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.000 ppm	-0.001 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.000 ppm	0.050 %
In 230.606 (ETA AQ-Axial-iFR)	99.564 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.001 ppm	0.084 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.000 ppm	-0.007 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.006 ppm	0.586 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.000 ppm	0.048 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.008 ppm	0.785 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.002 ppm	0.172 %
Si 288.158 (ETA AQ-Radial-iFR)	0.013 ppm	1.267 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
V 292.402 (ETA AQ-Axial-iFR)	0.000 ppm	0.022 %
Al 308.215 (ETA AQ-Radial-iFR)	0.009 ppm	0.884 %
Be 313.042 (ETA AQ-Radial-iFR)	0.000 ppm	0.020 %
Ca 317.933 (ETA AQ-Radial-iFR)	-0.026 ppm	-2.610 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.000 ppm	0.042 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.001 ppm	0.051 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.000 ppm	0.040 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.000 ppm	0.045 %
Y 360.073 (ETA AQ-Axial-iFR)	99.199 %	
Y 360.073 (ETA AQ-Radial-iFR)	99.553 %	
Y 377.433 (ETA AQ-Axial-iFR)	99.744 %	
Y 377.433 (ETA AQ-Radial-iFR)	99.861 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.000 ppm	0.009 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.000 ppm	0.025 %
Na 589.592 (ETA AQ-Radial-iFR)	0.013 ppm	1.292 %
Li 670.784 (ETA AQ-Radial-iFR)	0.000 ppm	-0.029 %
K 766.490 (ETA AQ-Radial-iFR)	0.005 ppm	0.518 %
Na 818.326 (ETA AQ-Radial-iFR)	0.041 ppm	4.135 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	3 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	0 cps
Tl 190.856 (ETA AQ-Axial-iFR)	-1 cps
Se 196.090 (ETA AQ-Axial-iFR)	1 cps
Mo 202.030 (ETA AQ-Axial-iFR)	1 cps
Zn 206.200 (ETA AQ-Axial-iFR)	0 cps
Sb 206.833 (ETA AQ-Axial-iFR)	0 cps
B 208.959 (ETA AQ-Axial-iFR)	3 cps
P 213.618 (ETA AQ-Axial-iFR)	-2 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	477 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	-1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	2 cps
In 230.606 (ETA AQ-Axial-iFR)	509 cps
Ni 231.604 (ETA AQ-Axial-iFR)	0 cps
Mn 257.610 (ETA AQ-Radial-iFR)	0 cps
Fe 259.940 (ETA AQ-Axial-iFR)	28 cps
Cr 267.716 (ETA AQ-Axial-iFR)	1 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	1 cps
Si 288.158 (ETA AQ-Radial-iFR)	3 cps
V 292.402 (ETA AQ-Axial-iFR)	0 cps
Al 308.215 (ETA AQ-Radial-iFR)	1 cps
Be 313.042 (ETA AQ-Radial-iFR)	4 cps
Ca 317.933 (ETA AQ-Radial-iFR)	6 cps
Cu 327.396 (ETA AQ-Axial-iFR)	1 cps
Ag 328.068 (ETA AQ-Axial-iFR)	-12 cps
Ti 334.904 (ETA AQ-Axial-iFR)	0 cps
Ti 334.941 (ETA AQ-Axial-iFR)	2 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,484 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,388 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,696 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,970 cps
Sr 407.771 (ETA AQ-Radial-iFR)	-2 cps
Ba 455.403 (ETA AQ-Radial-iFR)	2 cps
Na 589.592 (ETA AQ-Radial-iFR)	7 cps

Basic Sample Report
8/13/2024 3:29:28 PM

Analyte (Measure Mode)	Raw Intensity average
Li 670.784 (ETA AQ-Radial-iFR)	-2 cps
K 766.490 (ETA AQ-Radial-iFR)	3 cps
Na 818.326 (ETA AQ-Radial-iFR)	3 cps

Label: CCVL-7982556 #: 18
Analysis Type: QC Analysis started at: 8/13/2024 11:42:38 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.174 ppm	86.872 %
As 189.042 (ETA AQ-Axial-iFR)	0.015 ppm	99.722 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.008 ppm	81.917 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.017 ppm	82.929 %
Se 196.090 (ETA AQ-Axial-iFR)	0.021 ppm	85.037 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.009 ppm	93.071 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.011 ppm	107.092 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.021 ppm	106.402 %
B 208.959 (ETA AQ-Axial-iFR)	0.021 ppm	105.619 %
P 213.618 (ETA AQ-Axial-iFR)	-0.001 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.006 ppm	58.155 %
Y 224.306 (ETA AQ-Axial-iFR)	101.698 %	
Y 224.306 (ETA AQ-Radial-iFR)	101.301 %	
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	77.969 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	99.624 %
In 230.606 (ETA AQ-Axial-iFR)	101.407 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	97.344 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	97.943 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.042 ppm	84.510 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	106.883 %
Fe 271.441 (ETA AQ-Radial-iFR)	0.020 ppm	39.464 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.180 ppm	89.909 %
Si 288.158 (ETA AQ-Radial-iFR)	0.479 ppm	95.853 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	95.831 %
Al 308.215 (ETA AQ-Radial-iFR)	0.180 ppm	90.029 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	96.797 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.448 ppm	89.685 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.010 ppm	95.437 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	92.609 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	95.426 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	98.784 %
Y 360.073 (ETA AQ-Axial-iFR)	101.626 %	
Y 360.073 (ETA AQ-Radial-iFR)	101.623 %	
Y 377.433 (ETA AQ-Axial-iFR)	102.119 %	
Y 377.433 (ETA AQ-Radial-iFR)	102.035 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	92.414 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	94.314 %
Na 589.592 (ETA AQ-Radial-iFR)	0.963 ppm	96.301 %
Li 670.784 (ETA AQ-Radial-iFR)	0.029 ppm	97.966 %
K 766.490 (ETA AQ-Radial-iFR)	0.484 ppm	96.724 %
Na 818.326 (ETA AQ-Radial-iFR)	0.932 ppm	93.189 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps

Analyte (Measure Mode)	Raw Intensity average
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	7 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	0 cps
Y 224.306 (ETA AQ-Axial-iFR)	486 cps
Y 224.306 (ETA AQ-Radial-iFR)	122 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	518 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	74 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	1 cps
Mg 279.079 (ETA AQ-Radial-iFR)	9 cps
Si 288.158 (ETA AQ-Radial-iFR)	42 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	116 cps
Cu 327.396 (ETA AQ-Axial-iFR)	22 cps
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	13 cps
Ti 334.941 (ETA AQ-Axial-iFR)	44 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,667 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,417 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,950 cps
Y 377.433 (ETA AQ-Radial-iFR)	2,013 cps
Sr 407.771 (ETA AQ-Radial-iFR)	132 cps
Ba 455.403 (ETA AQ-Radial-iFR)	25 cps
Na 589.592 (ETA AQ-Radial-iFR)	495 cps
Li 670.784 (ETA AQ-Radial-iFR)	59 cps
K 766.490 (ETA AQ-Radial-iFR)	56 cps
Na 818.326 (ETA AQ-Radial-iFR)	15 cps

Label: CCVL-7982556 #: 19
Analysis Type: QC Analysis started at: 8/13/2024 11:53:59 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	0.175 ppm	87.685 %
As 189.042 (ETA AQ-Axial-iFR)	0.012 ppm	82.360 %
Sn 189.989 (ETA AQ-Axial-iFR)	0.008 ppm	80.819 %
Tl 190.856 (ETA AQ-Axial-iFR)	0.014 ppm	70.581 %
Se 196.090 (ETA AQ-Axial-iFR)	0.022 ppm	86.787 %
Mo 202.030 (ETA AQ-Axial-iFR)	0.010 ppm	100.723 %
Zn 206.200 (ETA AQ-Axial-iFR)	0.010 ppm	103.273 %
Sb 206.833 (ETA AQ-Axial-iFR)	0.021 ppm	103.336 %
B 208.959 (ETA AQ-Axial-iFR)	0.019 ppm	94.665 %
P 213.618 (ETA AQ-Axial-iFR)	-0.002 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	0.009 ppm	89.539 %
Y 224.306 (ETA AQ-Axial-iFR)	100.791 %	
Y 224.306 (ETA AQ-Radial-iFR)	99.800 %	

Basic Sample Report
8/13/2024 3:29:28 PM

QTEGRA

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Co 228.616 (ETA AQ-Axial-iFR)	0.003 ppm	79.211 %
Cd 228.802 (ETA AQ-Axial-iFR)	0.002 ppm	89.902 %
In 230.606 (ETA AQ-Axial-iFR)	101.787 %	
Ni 231.604 (ETA AQ-Axial-iFR)	0.010 ppm	104.971 %
Mn 257.610 (ETA AQ-Radial-iFR)	0.003 ppm	98.179 %
Fe 259.940 (ETA AQ-Axial-iFR)	0.041 ppm	82.023 %
Cr 267.716 (ETA AQ-Axial-iFR)	0.004 ppm	102.790 %
Fe 271.441 (ETA AQ-Radial-iFR)	-0.007 ppm	-13.829 %
Mg 279.079 (ETA AQ-Radial-iFR)	0.174 ppm	86.799 %
Si 288.158 (ETA AQ-Radial-iFR)	0.485 ppm	96.964 %
V 292.402 (ETA AQ-Axial-iFR)	0.005 ppm	98.582 %
Al 308.215 (ETA AQ-Radial-iFR)	0.184 ppm	91.762 %
Be 313.042 (ETA AQ-Radial-iFR)	0.002 ppm	97.365 %
Ca 317.933 (ETA AQ-Radial-iFR)	0.448 ppm	89.665 %
Cu 327.396 (ETA AQ-Axial-iFR)	0.009 ppm	94.541 %
Ag 328.068 (ETA AQ-Axial-iFR)	0.006 ppm	92.907 %
Ti 334.904 (ETA AQ-Axial-iFR)	0.005 ppm	96.414 %
Ti 334.941 (ETA AQ-Axial-iFR)	0.005 ppm	97.554 %
Y 360.073 (ETA AQ-Axial-iFR)	101.349 %	
Y 360.073 (ETA AQ-Radial-iFR)	101.638 %	
Y 377.433 (ETA AQ-Axial-iFR)	101.632 %	
Y 377.433 (ETA AQ-Radial-iFR)	101.293 %	
Sr 407.771 (ETA AQ-Radial-iFR)	0.005 ppm	91.966 %
Ba 455.403 (ETA AQ-Radial-iFR)	0.002 ppm	95.254 %
Na 589.592 (ETA AQ-Radial-iFR)	0.946 ppm	94.614 %
Li 670.784 (ETA AQ-Radial-iFR)	0.028 ppm	94.887 %
K 766.490 (ETA AQ-Radial-iFR)	0.475 ppm	94.952 %
Na 818.326 (ETA AQ-Radial-iFR)	0.989 ppm	98.949 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	8 cps
As 189.042 (ETA AQ-Axial-iFR)	0 cps
Sn 189.989 (ETA AQ-Axial-iFR)	1 cps
Tl 190.856 (ETA AQ-Axial-iFR)	0 cps
Se 196.090 (ETA AQ-Axial-iFR)	2 cps
Mo 202.030 (ETA AQ-Axial-iFR)	3 cps
Zn 206.200 (ETA AQ-Axial-iFR)	6 cps
Sb 206.833 (ETA AQ-Axial-iFR)	1 cps
B 208.959 (ETA AQ-Axial-iFR)	6 cps
P 213.618 (ETA AQ-Axial-iFR)	-3 cps
Pb 220.353 (ETA AQ-Axial-iFR)	1 cps
Y 224.306 (ETA AQ-Axial-iFR)	481 cps
Y 224.306 (ETA AQ-Radial-iFR)	120 cps
Co 228.616 (ETA AQ-Axial-iFR)	1 cps
Cd 228.802 (ETA AQ-Axial-iFR)	3 cps
In 230.606 (ETA AQ-Axial-iFR)	520 cps
Ni 231.604 (ETA AQ-Axial-iFR)	4 cps
Mn 257.610 (ETA AQ-Radial-iFR)	7 cps
Fe 259.940 (ETA AQ-Axial-iFR)	72 cps
Cr 267.716 (ETA AQ-Axial-iFR)	6 cps
Fe 271.441 (ETA AQ-Radial-iFR)	0 cps
Mg 279.079 (ETA AQ-Radial-iFR)	8 cps
Si 288.158 (ETA AQ-Radial-iFR)	42 cps
V 292.402 (ETA AQ-Axial-iFR)	9 cps
Al 308.215 (ETA AQ-Radial-iFR)	11 cps
Be 313.042 (ETA AQ-Radial-iFR)	24 cps
Ca 317.933 (ETA AQ-Radial-iFR)	115 cps
Cu 327.396 (ETA AQ-Axial-iFR)	22 cps

Basic Sample Report
8/13/2024 3:29:28 PM

QTEGRA

Analyte (Measure Mode)	Raw Intensity average
Ag 328.068 (ETA AQ-Axial-iFR)	3 cps
Ti 334.904 (ETA AQ-Axial-iFR)	14 cps
Ti 334.941 (ETA AQ-Axial-iFR)	43 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,646 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,417 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,898 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,998 cps
Sr 407.771 (ETA AQ-Radial-iFR)	130 cps
Ba 455.403 (ETA AQ-Radial-iFR)	25 cps
Na 589.592 (ETA AQ-Radial-iFR)	483 cps
Li 670.784 (ETA AQ-Radial-iFR)	57 cps
K 766.490 (ETA AQ-Radial-iFR)	54 cps
Na 818.326 (ETA AQ-Radial-iFR)	15 cps

Label: LRC-7995590 #: 20
Analysis Type: QC Analysis started at: 8/13/2024 11:55:56 AM

Amount: Final Quantity: Standard DF: 1

Analyte (Measure Mode)	Concentration average	Recovery Percentage
S 182.034 (ETA AQ-Axial-iFR)	98.474 ppm	131.299 %
As 189.042 (ETA AQ-Axial-iFR)	5.130 ppm	102.609 %
Sn 189.989 (ETA AQ-Axial-iFR)	4.141 ppm	103.519 %
Tl 190.856 (ETA AQ-Axial-iFR)	19.757 ppm	98.786 %
Se 196.090 (ETA AQ-Axial-iFR)	39.265 ppm	98.163 %
Mo 202.030 (ETA AQ-Axial-iFR)	9.928 ppm	99.284 %
Zn 206.200 (ETA AQ-Axial-iFR)	17.264 ppm	86.320 %
Sb 206.833 (ETA AQ-Axial-iFR)	4.983 ppm	99.661 %
B 208.959 (ETA AQ-Axial-iFR)	24.685 ppm	98.742 %
P 213.618 (ETA AQ-Axial-iFR)	0.039 ppm	0.000 %
Pb 220.353 (ETA AQ-Axial-iFR)	42.594 ppm	106.485 %
Y 224.306 (ETA AQ-Axial-iFR)	87.234 %	
Y 224.306 (ETA AQ-Radial-iFR)	84.651 %	
Co 228.616 (ETA AQ-Axial-iFR)	20.669 ppm	103.346 %
Cd 228.802 (ETA AQ-Axial-iFR)	5.272 ppm	105.445 %
In 230.606 (ETA AQ-Axial-iFR)	76.468 %	
Ni 231.604 (ETA AQ-Axial-iFR)	9.076 ppm	90.763 %
Mn 257.610 (ETA AQ-Radial-iFR)	36.361 ppm	90.902 %
Fe 259.940 (ETA AQ-Axial-iFR)	370.933 ppm	61.822 %
Cr 267.716 (ETA AQ-Axial-iFR)	9.280 ppm	92.801 %
Fe 271.441 (ETA AQ-Radial-iFR)	571.936 ppm	95.323 %
Mg 279.079 (ETA AQ-Radial-iFR)	534.316 ppm	106.863 %
Si 288.158 (ETA AQ-Radial-iFR)	49.828 ppm	99.656 %
V 292.402 (ETA AQ-Axial-iFR)	4.918 ppm	98.363 %
Al 308.215 (ETA AQ-Radial-iFR)	608.498 ppm	101.416 %
Be 313.042 (ETA AQ-Radial-iFR)	23.633 ppm	94.533 %
Ca 317.933 (ETA AQ-Radial-iFR)	655.809 ppm	93.687 %
Cu 327.396 (ETA AQ-Axial-iFR)	8.465 ppm	105.811 %
Ag 328.068 (ETA AQ-Axial-iFR)	3.013 ppm	100.441 %
Ti 334.904 (ETA AQ-Axial-iFR)	19.125 ppm	95.626 %
Ti 334.941 (ETA AQ-Axial-iFR)	18.906 ppm	94.529 %
Y 360.073 (ETA AQ-Axial-iFR)	93.981 %	
Y 360.073 (ETA AQ-Radial-iFR)	90.747 %	
Y 377.433 (ETA AQ-Axial-iFR)	93.573 %	
Y 377.433 (ETA AQ-Radial-iFR)	90.981 %	
Sr 407.771 (ETA AQ-Radial-iFR)	9.693 ppm	96.931 %
Ba 455.403 (ETA AQ-Radial-iFR)	21.172 ppm	105.862 %

Analyte (Measure Mode)	Concentration average	Recovery Percentage
Na 589.592 (ETA AQ-Radial-iFR)	804.880 ppm	100.610 %
Li 670.784 (ETA AQ-Radial-iFR)	41.717 ppm	104.292 %
K 766.490 (ETA AQ-Radial-iFR)	526.814 ppm	105.363 %
Na 818.326 (ETA AQ-Radial-iFR)	842.064 ppm	105.258 %

Analyte (Measure Mode)	Raw Intensity average
S 182.034 (ETA AQ-Axial-iFR)	2,318 cps
As 189.042 (ETA AQ-Axial-iFR)	231 cps
Sn 189.989 (ETA AQ-Axial-iFR)	435 cps
Tl 190.856 (ETA AQ-Axial-iFR)	793 cps
Se 196.090 (ETA AQ-Axial-iFR)	1,623 cps
Mo 202.030 (ETA AQ-Axial-iFR)	2,137 cps
Zn 206.200 (ETA AQ-Axial-iFR)	9,141 cps
Sb 206.833 (ETA AQ-Axial-iFR)	190 cps
B 208.959 (ETA AQ-Axial-iFR)	5,484 cps
P 213.618 (ETA AQ-Axial-iFR)	-1 cps
Pb 220.353 (ETA AQ-Axial-iFR)	2,117 cps
Y 224.306 (ETA AQ-Axial-iFR)	417 cps
Y 224.306 (ETA AQ-Radial-iFR)	102 cps
Co 228.616 (ETA AQ-Axial-iFR)	9,386 cps
Cd 228.802 (ETA AQ-Axial-iFR)	4,327 cps
In 230.606 (ETA AQ-Axial-iFR)	391 cps
Ni 231.604 (ETA AQ-Axial-iFR)	3,242 cps
Mn 257.610 (ETA AQ-Radial-iFR)	71,155 cps
Fe 259.940 (ETA AQ-Axial-iFR)	403,004 cps
Cr 267.716 (ETA AQ-Axial-iFR)	10,246 cps
Fe 271.441 (ETA AQ-Radial-iFR)	9,078 cps
Mg 279.079 (ETA AQ-Radial-iFR)	20,914 cps
Si 288.158 (ETA AQ-Radial-iFR)	3,729 cps
V 292.402 (ETA AQ-Axial-iFR)	8,405 cps
Al 308.215 (ETA AQ-Radial-iFR)	29,921 cps
Be 313.042 (ETA AQ-Radial-iFR)	241,243 cps
Ca 317.933 (ETA AQ-Radial-iFR)	135,835 cps
Cu 327.396 (ETA AQ-Axial-iFR)	17,867 cps
Ag 328.068 (ETA AQ-Axial-iFR)	8,199 cps
Ti 334.904 (ETA AQ-Axial-iFR)	56,141 cps
Ti 334.941 (ETA AQ-Axial-iFR)	163,241 cps
Y 360.073 (ETA AQ-Axial-iFR)	7,090 cps
Y 360.073 (ETA AQ-Radial-iFR)	1,265 cps
Y 377.433 (ETA AQ-Axial-iFR)	10,034 cps
Y 377.433 (ETA AQ-Radial-iFR)	1,795 cps
Sr 407.771 (ETA AQ-Radial-iFR)	254,364 cps
Ba 455.403 (ETA AQ-Radial-iFR)	250,589 cps
Na 589.592 (ETA AQ-Radial-iFR)	369,004 cps
Li 670.784 (ETA AQ-Radial-iFR)	76,776 cps
K 766.490 (ETA AQ-Radial-iFR)	51,404 cps
Na 818.326 (ETA AQ-Radial-iFR)	9,791 cps

Report Generated By Teledyne Leeman QuickTrace

Analyst: BufHG5

Worksheet file: C:\Users\Public\Documents\Teledyne CETAC\QuickTrace\Worksheets\L20240812B.wszf

Creation Date: 8/12/2024 2:12:04 PM

Comment:

Results

Sample Name		Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
Calibration Blank		STD	08/12/24 02:14:05 pm	0.000	-174	8.31	-5.49		1.0000	N/A
Replicates	-191.6	-158.9	-179.9	-166.4						
Standard #1 (0.1 ug/L)		STD	08/12/24 02:15:24 pm	0.100	692	5.25	4.08		1.0000	N/A
Replicates	702.9	736.6	675.6	652.3						
Standard #2 (0.5 ug/L)		STD	08/12/24 02:16:42 pm	0.500	4035	5.55	27.02		1.0000	N/A
Replicates	4189.3	4226.0	3985.6	3738.5						
Standard #3 (2.0 ug/L)		STD	08/12/24 02:18:01 pm	2.000	16569	4.75	112.73		1.0000	N/A
Replicates	17059.3	17277.8	16413.0	15524.5						
Standard #4 (10. ug/L)		STD	08/12/24 02:19:20 pm	10.000	80126	4.62	153.69		1.0000	N/A
Replicates	82453.8	83485.9	79307.4	75257.1						
Standard #5 (20. ug/L)		STD	08/12/24 02:20:39 pm	20.000	155859	4.40	-265.03		1.0000	N/A
Replicates	160189.9	162034.5	154402.5	146807.2						

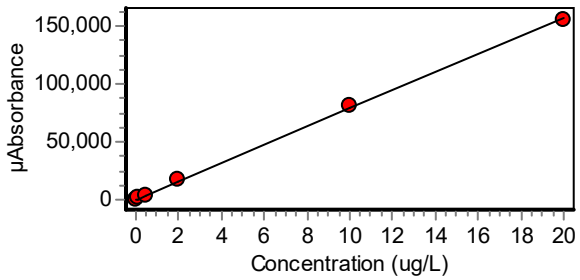
Calibration

Equation: Abs = 7904.209x + -130.831

R2: 0.99966

SEE: 1294.8540

Flags:



ICV		ICV	08/12/24 02:21:59 pm	3.082	24230	4.78			1.0000	102.73
Replicates	24984.2	25262.8	23979.3	22692.6						
ICB		ICB	08/12/24 02:23:17 pm	0.000	-127	613.76			1.0000	N/A
Replicates	-147.8	-138.6	-97.5	-125.1						
ICVL		CRDL	08/12/24 02:24:37 pm	0.214	1564	4.22			1.0000	107.23
Replicates	1599.9	1636.9	1548.7	1471.9						
CCV		CCV	08/12/24 02:25:57 pm	2.095	16432	4.84			1.0000	104.77
Replicates	16941.8	17158.1	16250.1	15378.8						
CCB		CCB	08/12/24 02:27:15 pm	0.000	-130	040.44			1.0000	N/A
Replicates	-114.8	-134.4	-147.4	-123.9						
MB 480-721391/1-A		UNK	08/12/24 02:33:37 pm	0.006	-129	35.25			1.0000	N/A
Replicates	-137.3	-126.7	-107.3	-144.0						
LCS 480-721391/2-A		UNK	08/12/24 02:34:54 pm	4.266	33322	4.85			1.0000	N/A
Replicates	34385.0	34744.2	32994.3	31165.2						

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-222429-G-5-A				UNK	08/12/24 02:36:12 pm	0.046	189	5.20			1.0000	N/A
Replicates	207.0	196.8	190.3	162.8								
480-222366-E-6-B				UNK	08/12/24 02:37:30 pm	0.005	-137	28.43			1.0000	N/A
Replicates	-151.3	-138.9	-132.1	-127.1								
480-222394-D-1-B				UNK	08/12/24 02:38:47 pm	2.936	22875	2.75			1.0000	N/A
Replicates	23203.7	23509.4	22734.7	22051.7								
480-222379-D-1-A				UNK	08/12/24 02:40:06 pm	0.057	272	3.80			1.0000	N/A
Replicates	289.1	285.1	257.6	258.1								
480-222379-D-2-A				UNK	08/12/24 02:41:24 pm	0.015	-57	4.60			1.0000	N/A
Replicates	-55.9	-53.8	-53.1	-64.8								
480-222379-D-3-A				UNK	08/12/24 02:42:42 pm	0.012	-80	6.97			1.0000	N/A
Replicates	-85.9	-81.6	-70.6	-81.9								
480-222379-D-4-A				UNK	08/12/24 02:44:01 pm	0.013	-73	8.78			1.0000	N/A
Replicates	-83.2	-69.4	-62.3	-75.6								
480-222379-D-5-A				UNK	08/12/24 02:45:19 pm	0.014	-67	15.37			1.0000	N/A
Replicates	-55.3	-83.2	-50.3	-78.8								
CCV				CCV	08/12/24 02:46:39 pm	2.105	16354	4.79			1.0000	105.25
Replicates	16862.5	17066.9	16171.7	15314.7								
CCB				CCB	08/12/24 02:47:57 pm	0.010	-95	32.83			1.0000	N/A
Replicates	-92.9	-106.9	-60.4	-120.9								
480-222379-D-6-A				UNK	08/12/24 02:49:16 pm	0.006	-126	13.78			1.0000	N/A
Replicates	-121.9	-135.7	-122.0	-123.2								
480-222377-A-1-B				UNK	08/12/24 02:50:34 pm	0.022	-5	6.05			1.0000	N/A
Replicates	-2.8	3.8	-19.7	-1.1								
480-222377-A-2-B				UNK	08/12/24 02:51:52 pm	0.018	-32	4.61			1.0000	N/A
Replicates	-25.5	-28.5	-33.9	-40.4								
480-222377-A-3-B				UNK	08/12/24 02:53:10 pm	0.014	-63	7.45			1.0000	N/A
Replicates	-68.3	-67.1	-50.3	-64.5								
480-222377-A-4-B				UNK	08/12/24 02:54:27 pm	0.014	-61	12.67			1.0000	N/A
Replicates	-72.2	-52.2	-45.4	-74.1								
480-222377-A-5-D				UNK	08/12/24 02:55:45 pm	0.011	-84	17.15			1.0000	N/A
Replicates	-84.7	-74.0	-71.5	-105.5								
480-222377-A-5-Dsd@5				UNK	08/12/24 02:57:03 pm	0.020	-14	10.42			1.0000	N/A
Replicates	-12.8	8.6	-31.0	-19.9								
480-222377-A-5-E MS				UNK	08/12/24 02:58:21 pm	4.254	33227	4.53			1.0000	N/A
Replicates	34105.7	34573.8	33067.0	31161.7								
480-222377-A-5-F MSD				UNK	08/12/24 02:59:39 pm	4.255	33232	4.93			1.0000	N/A
Replicates	34237.8	34689.4	32997.2	31005.6								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-222377-A-6-B				UNK	08/12/24 03:00:57 pm	0.075	413	5.94			1.0000	N/A
Replicates	429.8	450.5	401.0	370.3								
CCV				CCV	08/12/24 03:02:17 pm	2.137	16604	5.08			1.0000	106.84
Replicates	17174.1	17356.9	16398.6	15486.2								
CCB				CCB	08/12/24 03:03:35 pm	0.003	-148	40.63			1.0000	N/A
Replicates	-148.0	-161.8	-135.8	-145.7								
480-222377-A-7-B				UNK	08/12/24 03:04:53 pm	0.014	-61	12.45			1.0000	N/A
Replicates	-44.2	-59.7	-62.4	-78.6								
480-222377-A-9-B				UNK	08/12/24 03:06:12 pm	0.289	2098	5.02			1.0000	N/A
Replicates	2156.1	2184.5	2118.4	1931.4								
480-222380-F-1-B				UNK	08/12/24 03:07:31 pm	0.011	-90	14.32			1.0000	N/A
Replicates	-73.5	-102.3	-88.9	-93.9								
480-222380-F-2-B				UNK	08/12/24 03:08:50 pm	0.011	-84	20.81			1.0000	N/A
Replicates	-106.8	-86.1	-61.1	-83.8								
480-222380-F-3-B				UNK	08/12/24 03:10:07 pm	0.010	-92	4.02			1.0000	N/A
Replicates	-95.4	-90.1	-94.9	-88.9								
MB 480-721394/1-A				UNK	08/12/24 03:11:25 pm	0.011	-87	22.15			1.0000	N/A
Replicates	-108.9	-97.3	-70.5	-70.7								
LCS 480-721394/2-A				UNK	08/12/24 03:12:43 pm	3.937	30740	4.28			1.0000	N/A
Replicates	31521.0	31900.5	30606.5	28931.8								
480-222380-F-4-B				UNK	08/12/24 03:14:00 pm	0.010	-92	15.36			1.0000	N/A
Replicates	-106.6	-90.9	-76.4	-95.9								
480-222380-F-5-B				UNK	08/12/24 03:15:18 pm	0.012	-79	23.78			1.0000	N/A
Replicates	-101.6	-81.3	-48.1	-86.4								
480-222380-F-6-B				UNK	08/12/24 03:16:36 pm	0.013	-70	13.33			1.0000	N/A
Replicates	-71.6	-84.5	-73.2	-51.2								
CCV				CCV	08/12/24 03:17:56 pm	2.096	16281	5.12			1.0000	104.79
Replicates	16846.2	17026.1	16074.3	15178.6								
CCB				CCB	08/12/24 03:19:14 pm	0.010	-97	28.44			1.0000	N/A
Replicates	-125.8	-80.0	-80.0	-102.7								
CCVL				CRDL	08/12/24 03:20:34 pm	0.218	1535	4.93			1.0000	108.86
Replicates	1592.0	1594.9	1539.9	1414.7								
480-222380-F-7-B				UNK	08/12/24 03:21:52 pm	0.014	-64	10.96			1.0000	N/A
Replicates	-54.4	-52.8	-76.5	-72.1								
480-222380-F-8-B				UNK	08/12/24 03:23:11 pm	0.011	-85	12.88			1.0000	N/A
Replicates	-97.0	-69.9	-89.5	-85.0								
480-222380-F-9-B				UNK	08/12/24 03:24:29 pm	0.014	-63	10.38			1.0000	N/A
Replicates	-78.5	-63.3	-57.1	-51.8								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-222380-F-10-B				UNK	08/12/24 03:25:48 pm	0.013	-69	17.39			1.0000	N/A
Replicates	-78.6	-76.4	-41.6	-79.3								
480-222380-F-11-B				UNK	08/12/24 03:27:06 pm	0.012	-78	21.37			1.0000	N/A
Replicates	-90.6	-75.4	-95.5	-49.7								
480-222380-F-12-B				UNK	08/12/24 03:28:25 pm	0.011	-85	32.39			1.0000	N/A
Replicates	-110.3	-84.8	-45.1	-100.9								
480-222393-C-1-E				UNK	08/12/24 03:29:43 pm	0.018	-32	19.48			1.0000	N/A
Replicates	-32.1	-2.3	-68.9	-24.6								
480-222393-C-2-E				UNK	08/12/24 03:31:01 pm	0.063	322	8.02			1.0000	N/A
Replicates	316.1	334.4	367.5	272.0								
480-222393-C-3-C				UNK	08/12/24 03:32:19 pm	0.014	-62	11.72			1.0000	N/A
Replicates	-70.3	-44.6	-59.2	-73.7								
480-222393-C-3-Csd@5				UNK	08/12/24 03:33:36 pm	0.029	57	4.93			1.0000	N/A
Replicates	43.7	65.5	67.2	51.0								
CCV				CCV	08/12/24 03:34:56 pm	2.132	16565	4.79			1.0000	106.60
Replicates	17075.4	17283.3	16399.0	15503.5								
CCB				CCB	08/12/24 03:36:14 pm	0.015	-54	13.13			1.0000	N/A
Replicates	-61.0	-57.4	-67.4	-31.6								
480-222393-C-3-D MS				UNK	08/12/24 03:37:32 pm	2.825	22004	3.23			1.0000	N/A
Replicates	22407.6	22661.2	21910.0	21037.3								
480-222393-C-3-E MSD				UNK	08/12/24 03:38:50 pm	2.684	20899	3.17			1.0000	N/A
Replicates	21254.6	21503.5	20859.0	19980.3								
480-222393-C-4-C				UNK	08/12/24 03:40:08 pm	0.030	61	3.41			1.0000	N/A
Replicates	68.1	50.4	66.2	59.5								
480-222393-C-5-C				UNK	08/12/24 03:41:27 pm	0.062	314	1.37			1.0000	N/A
Replicates	321.7	309.6	307.6	317.9								
480-222393-C-6-C				UNK	08/12/24 03:42:45 pm	0.010	-98	17.95			1.0000	N/A
Replicates	-82.1	-115.4	-96.9	-98.6								
480-222393-C-7-C				UNK	08/12/24 03:44:04 pm	0.023	10	13.33			1.0000	N/A
Replicates	45.4	6.4	-4.1	-8.6								
480-222393-C-8-C				UNK	08/12/24 03:45:23 pm	0.016	-52	11.32			1.0000	N/A
Replicates	-60.4	-45.6	-66.8	-36.5								
480-222393-C-9-C				UNK	08/12/24 03:46:41 pm	0.008	-110	7.98			1.0000	N/A
Replicates	-115.3	-103.2	-109.7	-112.0								
480-222393-C-10-C				UNK	08/12/24 03:48:00 pm	0.450	3358	4.38			1.0000	N/A
Replicates	3432.9	3506.2	3343.3	3148.3								
480-222393-C-11-C				UNK	08/12/24 03:49:18 pm	0.102	627	4.71			1.0000	N/A
Replicates	639.5	664.0	629.2	574.7								

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
CCV				CCV	08/12/24 03:50:37 pm	2.174	16897	4.89			1.0000	108.71
	Replicates	17436.6	17636.7	16723.4	15791.2							
CCB				CCB	08/12/24 03:51:55 pm	0.003	-151	34.00			1.0000	N/A
	Replicates	-156.9	-139.5	-156.0	-150.4							
CCVL				CRDL	08/12/24 03:53:15 pm	0.217	1531	4.94			1.0000	108.56
	Replicates	1581.2	1595.5	1535.2	1410.2							
MB 480-721402/1-A				UNK	08/12/24 03:54:33 pm	0.002	-157	80.14			1.0000	N/A
	Replicates	-153.4	-159.6	-142.1	-174.4							
LCS 480-721402/2-A				UNK	08/12/24 03:55:51 pm	4.180	32646	4.87			1.0000	N/A
	Replicates	33605.8	33985.9	32572.2	30419.9							
480-222393-C-12-C				UNK	08/12/24 03:57:09 pm	0.028	48	7.91			1.0000	N/A
	Replicates	65.3	57.0	46.0	24.7							
480-222393-C-13-C				UNK	08/12/24 03:58:27 pm	0.030	59	12.88			1.0000	N/A
	Replicates	39.6	92.1	76.1	28.2							
480-222393-C-14-C				UNK	08/12/24 03:59:45 pm	0.020	-14	7.49			1.0000	N/A
	Replicates	-25.0	-2.2	-5.0	-23.5							
480-222393-C-15-C				UNK	08/12/24 04:01:04 pm	0.003	-152	134.11			1.0000	N/A
	Replicates	-174.9	-180.3	-129.9	-123.4							
480-222393-C-16-C				UNK	08/12/24 04:02:22 pm	0.012	-79	12.44			1.0000	N/A
	Replicates	-64.4	-93.4	-77.0	-79.9							
480-222393-C-17-C				UNK	08/12/24 04:03:41 pm	0.032	79	5.62			1.0000	N/A
	Replicates	86.5	88.8	81.0	57.8							
480-222393-C-18-C				UNK	08/12/24 04:04:59 pm	0.114	720	4.13			1.0000	N/A
	Replicates	727.4	738.8	748.5	666.3							
480-222393-C-19-C				UNK	08/12/24 04:06:18 pm	0.128	834	4.99			1.0000	N/A
	Replicates	885.9	854.5	830.1	767.1							
CCV				CCV	08/12/24 04:07:38 pm	2.173	16890	5.02			1.0000	108.66
	Replicates	17469.9	17622.8	16713.3	15752.3							
CCB				CCB	08/12/24 04:08:56 pm	0.001	-165	158.71			1.0000	N/A
	Replicates	-157.1	-172.0	-151.2	-181.5							
480-222393-C-20-C				UNK	08/12/24 04:10:14 pm	0.020	-17	11.44			1.0000	N/A
	Replicates	-41.2	-14.3	2.2	-13.6							
480-222393-C-21-E				UNK	08/12/24 04:11:32 pm	0.004	-142	40.71			1.0000	N/A
	Replicates	-130.7	-160.8	-135.7	-138.8							
480-222393-C-22-C				UNK	08/12/24 04:12:50 pm	0.061	304	4.82			1.0000	N/A
	Replicates	333.0	286.5	311.2	284.2							
480-222393-C-23-C				UNK	08/12/24 04:14:09 pm	0.034	94	10.63			1.0000	N/A
	Replicates	99.1	116.3	109.0	52.8							

Sample Name					Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
480-222393-C-24-C					UNK	08/12/24 04:15:27 pm	0.006	-131	22.65			1.0000	N/A
Replicates	-129.2	-122.8	-126.0	-145.0									
480-222393-C-25-C					UNK	08/12/24 04:16:45 pm	0.075	412	4.40			1.0000	N/A
Replicates	410.0	445.0	411.1	382.0									
480-222393-C-26-C					UNK	08/12/24 04:18:03 pm	0.065	333	4.46			1.0000	N/A
Replicates	329.6	354.4	343.9	302.2									
480-222395-L-1-D					UNK	08/12/24 04:19:22 pm	0.002	-161	78.92			1.0000	N/A
Replicates	-157.3	-166.9	-172.1	-149.4									
480-222395-L-1-Dsd@5					UNK	08/12/24 04:20:40 pm	0.014	-66	15.13			1.0000	N/A
Replicates	-74.2	-48.4	-56.9	-84.5									
480-222395-L-1-E MS					UNK	08/12/24 04:21:59 pm	4.194	32757	4.25			1.0000	N/A
Replicates	33605.1	33919.8	32693.1	30809.1									
CCV					CCV	08/12/24 04:23:19 pm	2.168	16848	4.91			1.0000	108.40
Replicates	17396.8	17589.9	16657.9	15749.4									
CCB					CCB	08/12/24 04:24:37 pm	0.001	-166	136.45			1.0000	N/A
Replicates	-155.7	-180.2	-169.0	-160.5									
480-222395-L-1-F MSD					UNK	08/12/24 04:25:56 pm	4.205	32845	4.34			1.0000	N/A
Replicates	33732.5	34041.4	32745.2	30859.4									
480-222395-L-3-B					UNK	08/12/24 04:27:14 pm	0.005	-132	44.78			1.0000	N/A
Replicates	-128.1	-110.0	-156.0	-133.5									
480-222395-L-4-B					UNK	08/12/24 04:28:33 pm	0.006	-127	38.42			1.0000	N/A
Replicates	-141.1	-102.5	-122.3	-140.5									
480-222395-L-5-B					UNK	08/12/24 04:29:52 pm	0.005	-133	48.33			1.0000	N/A
Replicates	-142.2	-107.8	-127.3	-154.1									
480-222386-C-1-B					UNK	08/12/24 04:31:10 pm	0.008	-114	50.64			1.0000	N/A
Replicates	-128.7	-110.1	-144.1	-73.4									
MB 480-721413/1-A					UNK	08/12/24 04:32:29 pm	0.002	-159	132.37			1.0000	N/A
Replicates	-188.9	-151.2	-151.7	-143.5									
LCS 480-721413/2-A					UNK	08/12/24 04:33:47 pm	4.296	33560	4.98			1.0000	N/A
Replicates	34475.6	34997.9	33562.2	31203.9									
480-222393-D-1-E					UNK	08/12/24 04:35:06 pm	-0.001	-178	426.85			1.0000	N/A
Replicates	-176.2	-157.2	-181.2	-198.0									
480-222393-D-2-E					UNK	08/12/24 04:36:24 pm	0.029	55	8.36			1.0000	N/A
Replicates	62.8	62.9	68.1	26.6									
480-222393-D-3-C					UNK	08/12/24 04:37:43 pm	0.003	-154	113.98			1.0000	N/A
Replicates	-133.7	-135.0	-181.5	-164.6									
CCV					CCV	08/12/24 04:39:03 pm	2.166	16830	5.01			1.0000	108.28
Replicates	17353.6	17589.2	16690.4	15687.4									

Sample Name	Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual Flags	DF	% Recovery
CCB	CCB	08/12/24 04:40:20 pm	-0.005	-211	39.09		1.0000	N/A
Replicates	-229.6	-213.6	-195.3	-206.0				
480-222393-D-4-C	UNK	08/12/24 04:41:39 pm	0.004	-140	72.17		1.0000	N/A
Replicates	-165.4	-126.6	-155.1	-111.5				
480-222393-Dsd@5	UNK	08/12/24 04:42:57 pm	0.016	-46	12.66		1.0000	N/A
Replicates	-42.3	-41.9	-29.7	-68.4				
480-222393-D-4-D MS	UNK	08/12/24 04:44:16 pm	4.040	31546	3.96		1.0000	N/A
Replicates	32224.0	32647.4	31517.2	29794.9				
480-222393-D-4-E MSD	UNK	08/12/24 04:45:35 pm	4.127	32231	3.94		1.0000	N/A
Replicates	32906.7	33357.0	32209.2	30449.2				
480-222393-D-5-C	UNK	08/12/24 04:46:54 pm	0.054	248	6.93		1.0000	N/A
Replicates	274.3	272.8	224.0	221.8				
480-222393-D-6-C	UNK	08/12/24 04:48:13 pm	0.003	-152	65.89		1.0000	N/A
Replicates	-146.3	-158.6	-136.1	-168.9				
480-222393-D-7-C	UNK	08/12/24 04:49:31 pm	0.030	65	10.78		1.0000	N/A
Replicates	60.9	77.7	90.5	30.9				
480-222393-D-8-C	UNK	08/12/24 04:50:50 pm	0.014	-63	9.93		1.0000	N/A
Replicates	-76.4	-55.1	-53.4	-68.6				
480-222393-D-9-C	UNK	08/12/24 04:52:08 pm	0.000	-171	445.55		1.0000	N/A
Replicates	-176.9	-166.5	-187.5	-152.4				
480-222393-D-10-C	UNK	08/12/24 04:53:27 pm	0.415	3087	4.42		1.0000	N/A
Replicates	3189.9	3190.0	3083.7	2884.2				
CCV	CCV	08/12/24 04:54:47 pm	2.169	16856	5.09		1.0000	108.45
Replicates	17406.9	17630.1	16680.6	15706.7				
CCB	CCB	08/12/24 04:56:04 pm	-0.001	-183	425.54		1.0000	N/A
Replicates	-165.5	-237.0	-173.4	-155.5				
480-222393-D-11-C	UNK	08/12/24 04:57:23 pm	0.095	575	5.06		1.0000	N/A
Replicates	597.0	600.3	582.6	519.1				
480-222393-D-12-C	UNK	08/12/24 04:58:41 pm	0.017	-42	22.83		1.0000	N/A
Replicates	-43.5	-70.1	-0.4	-55.9				
480-222393-D-13-C	UNK	08/12/24 05:00:00 pm	0.015	-56	10.36		1.0000	N/A
Replicates	-40.1	-67.8	-54.0	-63.3				
480-222393-D-14-C	UNK	08/12/24 05:01:19 pm	0.011	-85	14.34		1.0000	N/A
Replicates	-96.0	-80.5	-69.1	-94.8				
CCV	CCV	08/12/24 05:02:39 pm	2.197	17079	4.30		1.0000	109.87
Replicates	17421.2	17720.3	17154.6	16021.3				
CCB	CCB	08/12/24 05:03:56 pm	0.000	-175	991.80		1.0000	N/A
Replicates	-182.3	-163.7	-176.0	-178.0				

Sample Name				Type	Date/Time	Conc (ug/L)	µAbs	%RSD	Residual	Flags	DF	% Recovery
CCVL				CRDL	08/12/24 05:05:16 pm	0.215	1517	4.55			1.0000	107.70
	Replicates	1592.1	1559.0	1501.0	1416.4							

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721282 Batch Start Date: 08/12/24 09:09 Batch Analyst: O'Brien, Emily M

Batch Method: 200.7 Batch End Date: 08/12/24 12:42

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Initial pH	InitialAmount	FinalAmount	MED_03_Ag 00210	MEP_Mix4 00009	Spike Mx 1 00005
MB 480-721282/1		200.7, 200.7 Rev 4.4				50 mL	50 mL			
LCS 480-721282/2		200.7, 200.7 Rev 4.4				50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL
480-222377-A-1	MW-01	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-2	MW-02	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-3	MW-03	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-4	MW-04	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-5	MW-05R	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-5 MS	MW-05R	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL
480-222377-A-5 MSD	MW-05R	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL	0.25 mL	0.25 mL	0.25 mL
480-222377-A-6	MW-06	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-7	MW-07	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			
480-222377-A-9	DUP	200.7, 200.7 Rev 4.4	Water	T	<2	50 mL	50 mL			

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Spike Mx 2 00003	Spike Mx 3 00003				
MB 480-721282/1		200.7, 200.7 Rev 4.4								
LCS 480-721282/2		200.7, 200.7 Rev 4.4			0.25 mL	0.25 mL				
480-222377-A-1	MW-01	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-2	MW-02	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-3	MW-03	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-4	MW-04	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-5	MW-05R	200.7, 200.7 Rev 4.4	Water	T						

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721282 Batch Start Date: 08/12/24 09:09 Batch Analyst: O'Brien, Emily M

Batch Method: 200.7 Batch End Date: 08/12/24 12:42

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	Spike Mx 2 00003	Spike Mx 3 00003				
480-222377-A-5 MS	MW-05R	200.7, 200.7 Rev 4.4	Water	T	0.25 mL	0.25 mL				
480-222377-A-5 MSD	MW-05R	200.7, 200.7 Rev 4.4	Water	T	0.25 mL	0.25 mL				
480-222377-A-6	MW-06	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-7	MW-07	200.7, 200.7 Rev 4.4	Water	T						
480-222377-A-9	DUP	200.7, 200.7 Rev 4.4	Water	T						

Batch Notes	
First Start time	0909
First End time	1242
Lot # of hydrochloric acid	8001999
Lot # of Nitric Acid	8023877
Uncorrected Temperature	95.1 Celsius
Oven, Bath or Block Temperature 1	95.1
Uncorrected Temperature 2	94.2 Celsius
Oven, Bath or Block Temperature 2	94.2
Hot Block ID	A
Digestion Tube/Cup ID	L223102601
Thermometer Location ID	E1
Thermometer ID	230350865
Pipette ID	MDL-8

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721448 Batch Start Date: 08/12/24 10:39 Batch Analyst: Gaud, Nohely Z

Batch Method: 200.7 Rev 4.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MEI_10_CCVL 00524	MEI_BLANK_WKG 00582	MEI_MSS_ICSA 00066	MEI_MSS_ICSAB 00066	MEI_MSS_ICV 00166	MEI_MSS_STD2 00343
ICIS 480-721448/2		200.7 Rev 4.4				# mL				
ICV 480-721448/6		200.7 Rev 4.4							# mL	
ICB 480-721448/7		200.7 Rev 4.4				# mL				
ICVL 480-721448/8		200.7 Rev 4.4			# mL					
ICSA 480-721448/9		200.7 Rev 4.4					# mL			
ICSAB 480-721448/10		200.7 Rev 4.4						# mL		
CCV 480-721448/16		200.7 Rev 4.4								# mL
CCB 480-721448/17		200.7 Rev 4.4				# mL				
CCVL 480-721448/18		200.7 Rev 4.4			# mL					

Batch Notes	

Basis	Basis Description

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721648 Batch Start Date: 08/13/24 11:07 Batch Analyst: Gaud, Nohely Z

Batch Method: 200.7 Rev 4.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	MEI_10_CCVL 00524	MEI_BLANK_WKG 00582	MEI_MSS_ICSA 00066	MEI_MSS_ICSAB 00066	MEI_MSS_ICV 00166	MEI_MSS_STD2 00343
ICIS 480-721648/2		200.7 Rev 4.4				# mL				
ICV 480-721648/6		200.7 Rev 4.4							# mL	
ICB 480-721648/7		200.7 Rev 4.4				# mL				
ICVL 480-721648/8		200.7 Rev 4.4			# mL					
ICSA 480-721648/9		200.7 Rev 4.4					# mL			
ICSAB 480-721648/10		200.7 Rev 4.4						# mL		
CCV 480-721648/16		200.7 Rev 4.4								# mL
CCB 480-721648/17		200.7 Rev 4.4				# mL				
CCVL 480-721648/19		200.7 Rev 4.4			# mL					

Batch Notes	

Basis	Basis Description

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721391 Batch Start Date: 08/12/24 11:18 Batch Analyst: Boytar, Emily S

Batch Method: 245.1 Batch End Date: 08/12/24 13:18

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	MEH_HG1_WKG 03422			
MB 480-721391/1		245.1, 245.1			30 mL	50 mL				
LCS 480-721391/2		245.1, 245.1			30 mL	50 mL	2 mL			
480-222377-A-1	MW-01	245.1, 245.1	Water	T	15 mL	50 mL				
480-222377-A-2	MW-02	245.1, 245.1	Water	T	10 mL	50 mL				
480-222377-A-3	MW-03	245.1, 245.1	Water	T	15 mL	50 mL				
480-222377-A-4	MW-04	245.1, 245.1	Water	T	30 mL	50 mL				
480-222377-A-5	MW-05R	245.1, 245.1	Water	T	30 mL	50 mL				
480-222377-A-5 MS	MW-05R	245.1, 245.1	Water	T	30 mL	50 mL	2 mL			
480-222377-A-5 MSD	MW-05R	245.1, 245.1	Water	T	30 mL	50 mL	2 mL			
480-222377-A-6	MW-06	245.1, 245.1	Water	T	10 mL	50 mL				
480-222377-A-7	MW-07	245.1, 245.1	Water	T	30 mL	50 mL				
480-222377-A-9	DUP	245.1, 245.1	Water	T	10 mL	50 mL				

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.

METALS BATCH WORKSHEET

Lab Name: Eurofins Buffalo Job No.: 480-222377-1

SDG No.:

Batch Number: 721391 Batch Start Date: 08/12/24 11:18 Batch Analyst: Boytar, Emily S

Batch Method: 245.1 Batch End Date: 08/12/24 13:18

Batch Notes	
Digestion Tube/Cup ID	L223102601
Analyst ID - Spike Analyst	EB
Nitric Acid ID	7967734
Sulfuric Acid ID	7904311
Potassium Permanganate ID	8019552
Potassium Persulfate ID	7972491
Digestion Unit ID	Hg-B
Thermometer ID	210702965
Temperature - Uncorrected - Start	96.6 Degrees C
Temperature - Corrected - Start	96.5 Degrees C
Digestion Start Time	1118
Digestion End Time	1318
Temperature - Uncorrected - End	94.9 Degrees C
Temperature - Corrected - End	94.8 Degrees C
Hydroxylamine ID	8006036
Batch Comment	spike 1 @ 0916

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

CHAIN OF CUSTODY

Client: New York State Dept. of Environm

PAGE OF

FED-EX Tracking # | Bottle Order Control #

Lab Quote # | Lab Job #

CLIENT/REPORTING INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
Groundwater & Environmental Services, Inc. 6010 North Bailey Avenue, Amherst, NY 14226 **Project Manager:** Thomas Palmer TPalmer@gesonline.com GESInbox@gesonline.com **Phone #:** 800-287-7857 fax **866-902-2187**	**Project Name:** NYSDEC Tonawanda Highland Pkwy215 **Project Address:** 215 Highland Parkway, Tonawanda, NY **Project PSID #:** 1038449	Groundwater & Environmental Services, Inc. ges-invoices@gesonline.com ATTN: Accounts Payable **Invoice Instructions (Project #/ Phase / Task / Altorg)** 0924016///1109

Sampler(s) Name: **Jessica Paterson**

Sampler(s) Name:

Lab Sample #	Field ID / Point of Collection (Sys_loc_code)	Depth Interval (ft)	Date Sampled	Time Sampled	Sampler	Matrix	Total # Bottles	number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Amber	REQUESTED ANALYSIS (see Test Code sheet): 8260C - TCL VOC	200.7 - TAL Metals ICP	245.1 - Mercury	LAB USE ON
	MW-01		8/6/24	0903	JP	WG	4	3		1							X	X	X	
	MW-02		8/7/24	0730	JP	WG	4	3		1							X	X	X	
	MW-03		8/7	0840	JP	WG	4	3		1							X	X	X	
	MW-04		8/7	1235	JP	WG	4	3		1							X	X	X	
	MW-05R		8/7	1130	JP	WG	4	3		1							X	X	X	
	MW-06		8/7	1000	JP	WG	4	3		1							X	X	X	
	MW-07		8/7	1335	JP	WG	4	3		1							X	X	X	
	Drum		8/7	1400	JP	water	3	3									X			
	DUP		8/7	1000	JP	WG	4	3		D							X			

Turnaround Time (Business Days)

- (●) Standard 14 days
- ( ) 1 day RUSH
- ( ) Other _____ days

Lab PM Approval / Date

_____ /

_____ /

_____ /

Laboratory Information

Lab: Eurofins Environment Testing US - Buffalo
Address: 10 Hazelwood Drive Amherst, New York 14228
Phone: 716-504-9874 - John Beninati
Lab PM: John Beninati
Lab PM Email: John.Beninati@et.eurofinsus.com

Data Deliverable Information

- [ ] Commercial 'A' (Level 1) = Results Only
- [ ] Commercial 'B" (Level 2) = Results + QC Sur
- [ ] FULLT1 (Level 3 & 4)
- [ ] NJ Reduced = Results + QC Summary + Par
- [ ] Commercial 'C'
- [ ] *NJ Data of Known Quality Protocol Repor*
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [ ] EDD Format _____
- [ ] Other _____

480-222377 Chain of Custody

Please Email the EQ EDD Package to ges@equisonline.com

EQEDD Name: NYSDEC Tonawanda Highland Pkwy215_LabReport#.28739.EQEDD.zip

Sample Custody must be documented below each time samples change possession, including courier.

Relinquished By Sampler:	Date / Time:	Received By:
1 Jess Paterson - GES	1 8/7/24 1613	1
Relinquished By : 2	Date / Time: 2	Received By: 2
Relinquished By : 3	Date / Time: 3	Received By: 3 8/7/24 1613

Custody Seal Number: [ ] Intact [ ] Not Intact [ ] Preserved where applicable [ ] On Ice [x] Cooler Temp 3.7

\\Svr74\DW07\Buffalo\Dashboard\Planning\1038449.xlsm

Login Sample Receipt Checklist

Client: Groundwater & Environmental Services Inc

Job Number: 480-222377-1

Login Number: 222377
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	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	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers 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	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Appendix E – Field Notes and Photos

05/21/24 Highland Plaza - Well Development

0545 - 0615 Prep at office

0615 - 0630 Travel to, arrival

Coned off wells in ~~for~~ storefront parking area. (MW-1, 2, 3) moved to back. Weather: 69°F Cloudy but sun already starting to peak out. SPSA for working in the heat. Set breaks every hour. Reviewed MW development JLA before start.

~~MW-6~~

~~Construction log says 1"~~

Opened up all wells on-site and gauged initial depth to water + DTB. Ed from law office checked in, concerned. Assured him we were doing routine work and nothing was wrong

MW-6 (1")

Δ = 3.79 DTB = 21.96 (construction log says 24 ft)

one well vol = 0.74 gallons

three well vol = 2.22 gallons

Difficulty pulling water up column, think the sand fitting is allowing water to bypass the tubing. Taped down the gap and it started working. Pumped arms up and down vigorously to purge.

Scale: 1 square = _____

Rite in the Rain

05/22/24 Highland Plaza NYSDEC
0924018/06/206 0545-0615 Travel to
Weather: 70°F - gonna be hot
Set up on MW-1, took initial water level then started purging w/ peri pump.
Peri Pump (PINE) 050021
IP (Pine) Heron 1354
Had some issues pulling water up and reavved the pump on the truck bed made the set up too high. Lowered it onto the ground and resumed pumping.
Pumped MW-1 dry.
Actually surged/agitated for 15-20 min's before purging began.
Did best to clean parking lot area of splattered muddy water. Moved to next.
Set up on MW-2, agitated/surged, then purged while surging, then pumped well dry. Some recharge observed.
Moved to MW-3, same technique
Pumped dry, cleaned up area, moved on.
MW-4: same technique. Agitate/surge, then pump & surge, then pump dry. Completed.
Gauged the 3 wells from yesterday to record recharge.
Completed notes, checked in w/ PM, packed up.

Scale: 1 square = _____

Rite in the Rain.

Got water level down low, used a bailer to purge remaining water. Well dry.
Spoke to TP and agreed that a peri pump would be better considering the level of effort. Called Pine and ordered more bailers, peri pump, IP and silicone tube.
Closed MW-6 and went to front of plaza to remove cones and close up MW-1, MW-2, MW-3. Set up @ MW-7 to try to develop the 2" wells today.
MW-7 - needed another extender rod so ran up to HD to acquire.
Agitated w/ surge block, bailed pretty low, agitated again, bailed remaining.
Closed well, moved to next.
MW-5R same process, agitate - bail - agitate - bail. Almost dry (bailer not pulling up anymore) closed well.
Closed last well & back to
Purge water @ MW-7 and 5R was like watered down chocolate milk. Well mixed & turbid. Purge water dispensed to grassy area through carbon bucket.
Departed site.

Scale: 1 square = _____

Location 215 Highland Pkwy, Tonawanda Date 8/6/24

Project / Client NYSDEC - Highland Plaza off site

JP arrived @ 0730. Checked in w/ PM and reviewed SPSA + JLA, signed safety. ~~Began set up~~ Weather is light rain w/ more forecasted ~10 am, 69° F cloudy. Began set up on MW-1. Bot ice for cooler. Upon removal of MW-1 white cap, some rain water went down casing.

IP SN 5061AL / Peri SN 333810 / Horiba SN 047387

MW-01 Δ = 2.29 DTB = 23.42

Samples collected @ 0915 (Metals + VOCs)

MW-02 Δ = 3.93 DTB = 23.50 hard.

Stopped purge after 10-15 minutes because could not stabilize flow rate and then the pump died. Called Pine for assistance troubleshooting - need new pump. Wrapped up for today since the forecast had rain for rest of today - will resume tomorrow when sunny w/ new pump (peri). Departed site @ 1145.

8/6/24

JP

Rite in the Rain

Location 215 Highland Pkwy Tonawanda Date 8/7/24

Project / Client NYSDEC - Highland Plaza Offsite

JP on-site @ 0630 for gws. Reviewed SPSA & JLA, signed paperwork. Set up.

MW-02 ≙ = 8.98

sampled @ 0730 for VOCs + Metals

MW-03 ≙ = 5.82 DTB = 23.50

sampled @ 0840 for VOCs + Metals

New pump from Pine | SN 210302

MW-06 ≙ = 3.49 DTB = 21.97

Steve (Plaza owner) stopped by @ 930.

sampled @ 1000 for VOCs + Metals

Started collecting DUP but water ran out.

Will return @ eod to attempt to finish.

Moving forward, I will be sure to keep a little extra water in wells to sample.

MW-05R ≙ = 4.65 DTB = 23.75

Sampled @ 1130 for VOCs + Metals

Collected MS/MSD

MW-04 ≙ = 4.91 DTB = 20.55

well not as deep, only 1" and water column was dropping quickly - sampled before stabilization reached - sampled @ 1235 VOCs Metals

MW-07 ≙ = 4.19 DTB = 23.80

Sample collected @ 1335 (VOCs + Metals)

Drum sample collected @ 1400 (VOCs)

Location 215 Highland Pkwy Tonawanda Date 8/7/24

Project / Client NYSDEC - HP off-site

A bailer was used to sample the drum. Moved back to MW-06 to finish collecting DUP (duplicate sample). Pump didn't pull any water up, switched to bailer and realized tubing was clogged by sediment. Completed sample w/ bailer. Packed up gear, took photos, added ~~non~~ non-haz waste label to drum. Departed to get yesterdays sample from the office & drop samples @ lab.

Rite in the Rain

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

85 North Pointe Pkwy,
Buffalo, NY 14228, USA

Pine Environmental Services, Inc.

Instrument ID 47387
Description Horiba U-52 Sonde
Calibrated 8/1/2024 4:55:30PM

Manufacturer Horiba
Model Number U-52
Serial Number/ Lot Number TIRYLFJS
Location Buffalo
Department

State Certified
Status Pass
Temp °C 20
Humidity % 30

Calibration Specifications

Group # 1
Group Name PH
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
7.00 / 7.00	PH	7.00	PH	7.01	7.00	0.00%	Pass
4.00 / 4.00	PH	4.00	PH	4.39	4.00	0.00%	Pass

Group # 2
Group Name NTU
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	NTU	0.00	NTU	20.20	0.00	0.00%	Pass
800.00 / 800.00	NTU	800.00	NTU	792.00	800.00	0.00%	Pass

Group # 3
Group Name ORP
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
240.00 / 240.00	mv	240.00	mv	233.00	240.00	0.00%	Pass

Group # 4
Group Name Conductivity
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.000 / 0.000	ms/cm	0.000	ms/cm	0.000	0.000	0.00%	Pass
0.718 / 0.718	ms/cm	0.718	ms/cm	0.770	0.718	0.00%	Pass
5.000 / 5.000	ms/cm	5.000	ms/cm	1.780	5.000	0.00%	Pass
80.000 / 80.000	ms/cm	80.000	ms/cm	78.000	80.000	0.00%	Pass

Group # 5
Group Name Dissolved Oxygen Zero
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

85 North Pointe Pkwy,
Buffalo, NY 14228, USA

Pine Environmental Services, Inc.

Instrument ID 47387
Description Horiba U-52 Sonde
Calibrated 8/1/2024 4:55:30PM

Group # 5
Group Name Dissolved Oxygen Zero
Stated Accy Pct of Reading
Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
0.00 / 0.00	mg/L	0.00	mg/L	0.00	0.00	0.00%	Pass

Group # 6
Group Name Temperature DO Span
Stated Accy Plus / Minus
Range Acc % 0.0000
Reading Acc % 0.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
20.00 / 20.00	degrees C	8.84	mg/L	2.40	8.84	0.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
BUF .718 CON LOT 4GF0989	BUF .718 CON LOT 4GF0989	AquaPhoenix Scientific	32088	4GF0989		6/30/2025
BUF 240MV ORP LOT 3GL0404	BUF 240MV ORP LOT 3GL0404	AquaPhoenix Scientific	32001	3GL0404		9/30/2024
BUF 5000 CON LOT 4GB0647	BUF 5000 CON LOT 4GB0647	AquaPhoenix Scientific	31997	4GB0647		2/28/2025
BUF AUTOCAL/0NTU LOT 3GL1050	BUF AUTOCAL/0NTU LOT 3GL1050	AquaPhoenix Scientific	41188	3GL1050		12/31/2024
BUF PH4 LOT 2GI592	BUF PH4 LOT 2GI592	AquaPhoenix Scientific	32017	2GI592		9/30/2024
BUF PH7 LOT 3GA508	BUF PH7 LOT 3GA508	AquaPhoenix Scientific	32025	3GA508		1/31/2025
BUFF 800 NTU TURBID LOT A3212	BUF 800 NTU TURBID LOT A3212	AMCOCLEAR	2660501	A3212		11/30/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Joseph Catuzza

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services LLC

85 North Pointe Pkwy,
Buffalo, NY 14228, USA

Pine Environmental Services, Inc.

Instrument ID 47387
Description Horiba U-52 Sonde
Calibrated 8/1/2024 4:55:30PM

All instruments are calibrated by Pine Environmental Services LLC according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services LLC of any defect within 24 hours of receipt of equipment
Please call 800-301-9663 for Technical Assistance


National Hearing
Kenneth
Knaszak
B.C./H.I.S.
14 CIRCUIT TRAINING
WWW.STUDIO14CT.COM
215
GMC



GES
Highland Plaza
Back Alleyway
09.05.2024 03:10 PM
42.97399, -78.85651
257 Highland Pkwy, Buffalo, NY 14223

GES
Highland Plaza
MW-1
09.05.2024 02:39 PM
42.97421, -78.85747
223 Highland Pkwy, Buffalo, NY 14223



GES
Highland Plaza
MW-2
09.05.2024 02:44 PM
42.97423, -78.85706
237 Highland Pkwy, Buffalo, NY 14223



GES
Highland Plaza
MW-3
09.05.2024 02:47 PM
42.97423, -78.85678
235 Highland Pkwy, Tonawanda, NY 14223

GES
Highland Plaza
MW-4
09.05.2024 03:04 PM
42.97399, -78.85685
235 Highland Pkwy, Tonawanda, NY 14223

OBSERVATION MONITORING
5R
BUFFALO WELL PRODUCTS
AKRON NEW YORK
1-800-875-3745
WELL
DO NOT FILL

GES
Highland Plaza
MW-5R
09.05.2024 02:58 PM
42.97398, -78.85714
229 Grimsby Rd, Buffalo, NY 14223

GES
Highland Plaza
MW-6
09.05.2024 02:53 PM
42.97397, -78.85776
223 Highland Pkwy, Buffalo, NY 14223


GES
Highland Plaza
MW-6
05.21.2024 09:35 AM
42.97399, -78.8576
223 Highland Pkwy, Buffalo, NY 14223

GES
Highland Plaza
05.21.2024 10:22 AM
42.97398, -78.85761
223 Highland Pkwy, Buffalo, NY 14223



GES
Highland
08.07.2024 02:28 PM
42.97403, -78.85683
235 Highland Pkwy, Tonawanda, NY 14223



GES
Highland
08.07.2024 02:28 PM
42.97402, -78.8568
235 Highland Pkwy, Tonawanda, NY 14223