

Ms. Rebekah Reams
Alaska Department of Environmental Conservation (ADEC)
Spill Prevention and Response, Contaminated Sites Program
610 University Avenue
Fairbanks, Alaska 99709

Subject:
2021 First Semi-Annual Groundwater Monitoring Report

Dear Ms. Reams,

On behalf of Chevron Environmental Management Company (CEMC), Arcadis US, Inc. (Arcadis) has prepared the attached *2021 First Semi-Annual Groundwater Monitoring Report* for the first semi-annual groundwater sampling event of 2021 for the following facility:

<u>Chevron Facility No.</u>	<u>ADEC File No.</u>	<u>Hazard ID</u>	<u>Location</u>
97324	2100.26.008	23885	4417 Lake Otis Parkway Anchorage, Alaska

If you have any questions, please do not hesitate to contact me.

Sincerely,

Arcadis U.S., Inc.



Nicole Monroe, P.E
Project Manager
EV-149409

ENVIRONMENT

Date:
June 4, 2021

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Chevron Environmental Management Company

2021 FIRST SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Former Chevron-Branded
Service Station No. 97324
4417 Lake Otis Parkway
Anchorage, Alaska
ADEC File No. 2100.26.008

June 04, 2021



2021 FIRST SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Former Chevron-Branded Service Station No. 97324

4417 Lake Otis Parkway
Anchorage, Alaska

ADEC File No: 2100.26.008
HAZARD ID No: 23885



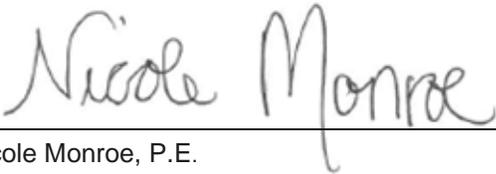
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Our Ref.:

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June 4, 2021

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CONTENT

1	Introduction	2
2	Groundwater Monitoring	2
2.1	Groundwater Gauging Methods.....	2
2.2	Groundwater Elevation and Flow Direction	2
2.3	Groundwater Sampling Methods	3
2.4	Groundwater Analytical Results.....	4
3	Laboratory Data Quality Assurance Summary	4
3.1	Precision	4
3.2	Accuracy	4
3.3	Representativeness	4
3.4	Comparability	5
3.5	Completeness	5
3.6	Sensitivity.....	5
4	Conclusions and Recommendations	5
5	References.....	6

TABLES

Table 1	Current Groundwater Gauging and Analytical Results
Table 2	Current Groundwater Analytical Results – Additional VOCs
Table 3	Current and Historical Groundwater Analytical Results - PAHs
Table 4	Historical Groundwater Gauging and Analytical Results
Table 5	Historical Groundwater Analytical Results – Additional VOCs

FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map - April 7, 2021
Figure 4	Groundwater Analytical Results Map - April 7, 2021
Figure 5	Groundwater Analytical Results Map - Solvents - April 7, 2021

APPENDICES

Appendix A	Site Background and History
Appendix B	Field Data Sheets
Appendix C	Laboratory Analytical Reports
Appendix D	ADEC Data Review Checklist

**SEMI-ANNUAL GROUNDWATER MONITORING REPORT
FIRST HALF 2021
June 4, 2021**

Facility No:	<u>Former Chevron-Branded Station No. 97324</u>	Address:	<u>4417 Lake Otis Parkway Anchorage, Alaska</u>
Arcadis Contact Person / Phone No.:	<u>Nicole Monroe / (503) 7859414</u>		
Arcadis Project No.:	<u>30063667</u>		
Primary Agency/Regulatory ID No.:	<u>Alaska Department of Conservation (ADEC) / Rebekah Reams /ADEC File ID: 2100.26.008</u>		

WORK CONDUCTED THIS PERIOD [First Half 2021]:

1. Submitted the addendum to the *Revised System Removal and Soil Assessment Work Plan* on January 13, 2021 to address action items identified following the ADEC meeting on November 9, 2020.
2. Conducted semi-annual groundwater monitoring activities on April 7, 2021.
3. Prepared the *2021 First Semi-Annual Groundwater Monitoring Report*.

WORK PROPOSED NEXT PERIOD [First Half 2021]:

1. Conduct semi-annual groundwater monitoring activities in the Second half of 2021.
2. Prepare the *2021 Second Semi-Annual Groundwater Monitoring Report*.

Current Phase of Project:	<u>Monitoring</u>	
Frequency of Monitoring / Sampling:	<u>Semi-annual</u>	
Are Light Non-Aqueous Phase Liquid (LNAPL) Present On-site:	<u>No</u>	
Cumulative LNAPL Recovered to Date:	<u>0.00</u>	(gallons)
Approximate Depth to Groundwater:	<u>15.88 to 24.94</u>	(feet below top of casing)
Approximate Groundwater Elevation:	<u>143.31 to 143.36</u>	(feet relative to NAVD88)

Groundwater Flow Direction	Not Determined	
Groundwater Gradient	Not Calculated	(feet per foot)
Current Remediation Techniques:	None	
Permits for Discharge:	None	
Summary of Unusual Activity:	None	
Agency Directive Requirements:	None	

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis US, Inc. (Arcadis), has prepared this report to document the first semi-annual groundwater sampling event of 2021 for Chevron facility 97324, located at 4417 Lake Otis Parkway in Anchorage, Alaska (site). The site location map and site plan are presented on Figure 1 and Figure 2, respectively.

This work was conducted under the direction of a “Qualified Environmental Professional” (QEP) and “Qualified Sampler” (18 Alaska Administrative Code [AAC] 75.333). Site background and history summaries are attached as Appendix A.

2 GROUNDWATER MONITORING

2.1 Groundwater Gauging Methods

The 2021 first semi-annual groundwater gauging event was conducted on April 7, 2021. Monitoring wells MW-1R, MW-2R, MW-8RR, and MW-9 were scheduled to be gauged with an oil/water interface probe to determine depth-to-water and to ascertain if LNAPL was present.

In order to prevent the possibility of cross-contamination, wells were gauged in the order of lowest to highest historical petroleum hydrocarbon concentrations in groundwater. In addition, non-disposable groundwater gauging equipment was decontaminated prior to and after each use with a detergent solution and rinsed in potable water.

2.2 Groundwater Elevation and Flow Direction

During the 2021 first semi-annual event, monitoring wells MW-1R, MW-2R, and MW-9 were gauged for groundwater elevations and the presence of LNAPL. Monitoring well MW-8RR was unable to be gauged or located due to ice. The groundwater monitoring event field notes are presented in Appendix B.

The inferred groundwater flow direction for the first semi-annual 2021 monitoring event was unable to be determined based accessible groundwater monitoring wells. Current and historical groundwater gauging

and analytical results are included in Table 1 and Table 4, respectively. A groundwater elevation map with a rose diagram of historical flow directions is presented as Figure 3.

2.3 Groundwater Sampling Methods

The first semi-annual groundwater monitoring event was conducted on April 7, 2021. Groundwater samples were collected from monitoring wells MW-1R, MW-2R, and MW-9 using a low flow purge sampling method.

Sampling procedures were conducted in accordance with ADEC *Field Sampling Guidance* (ADEC, 2019). Monitoring well caps were removed to allow groundwater levels to stabilize and equilibrate before using an electronic interface probe (EIP) meter capable of 0.01-foot accuracy to measure the depth to groundwater and total well depth. A bladder pump with compressor & control unit with clean/disposable Teflon lined tubing and bladders was used to purge groundwater from the wells and collect samples to minimize the risk of volatile contaminant absorption by the sampling equipment. Water table drawdown was continuously monitored during purging with a water level meter and the flow rate of the pump was adjusted to limit drawdown to 0.1 meter. The intake of the pump was set as close as possible to the soil groundwater interface. Water quality parameters were monitored during purging with a multi-parameter water quality meter equipped with a flow through cell and Turbidity meter. Parameters were recorded every 3 to 5 minutes until a minimum of three (minimum of four if using temperature as an indicator) of the parameters listed below stabilized. The flow rate was reduced to 100-150 ml/minute and samples were collected from the discharge line into laboratory sample bottles. Water quality parameters were considered stable when three successive readings were within the following ADEC limits:

- $\pm 3\%$ for temperature (minimum of $\pm 0.2\text{ C}^\circ$),
- ± 0.1 for pH,
- $\pm 3\%$ for conductivity,
- $\pm 10\text{ mv}$ for redox potential,
- $\pm 10\%$ for dissolved oxygen, and
- $\pm 10\%$ for turbidity.

Sample bottles were labeled, stored in a cooler packed with ice, and submitted to Pace Analytical Laboratory in Mount Juliet, Tennessee, under proper chain-of-custody procedures.

Groundwater samples collected from monitoring wells MW-1R, MW-2R, and MW-9 were submitted to the analytical laboratory for the following analyses:

- Full-scan volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, total xylenes (collectively BTEX), methyl-t-butyl ether (MTBE), and naphthalene by United States Environmental Protection Agency (USEPA) method 8260D.
- Total petroleum hydrocarbons as gasoline range organics (TPH-g) by Alaska method AK101
- Total petroleum hydrocarbons as diesel range organics (TPH-d) by Alaska method AK102

Additionally, groundwater samples were collected from MW-2R are analyzed for polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270E-SIM.

A groundwater duplicate sample was collected from monitoring well MW-2R. The duplicate sample was analyzed for full-scan VOCs, TPH-g, TPH-d, and PAHs. The duplicate sample was submitted blind with the sample set to Pace Analytical.

2.4 Groundwater Analytical Results

Routine analytical results for BTEX, MTBE, naphthalene, TPH-g, and TPH-d and from the first semi-annual 2021 groundwater monitoring event are summarized in Table 1. Additional VOCs analyzed by USEPA method 8260D are summarized in Table 2. Current and historic analytical data for PAHs is summarized in Table 3. Historical groundwater analytical data is summarized in Table 4. Historical Additional VOCs analyzed by USEPA method 8260D are summarized in Tables 5a, 5b, 5c and 5d.

Current analytical results for BTEX, MTBE, naphthalene, TPH-g, and TPH-d are summarized in Figure 4. Current analytical results for the solvents 1,2-dichloroethane, trichloroethene, tetrachloroethylene, cis-1,2-dichloroethene, and methylene chloride are summarized in Figure 5.

3 LABORATORY DATA QUALITY ASSURANCE SUMMARY

As required by ADEC (Technical Memorandum, October 2019), Arcadis completed a laboratory data review checklist for each of the laboratory report generated for the 2021 semi-annual event. The laboratory report is included as Appendix C and data review checklist is included as Appendix D. The following quality assurance (QA) summary describes six parameters, related to the quality and usability of the data presented in this report.

3.1 Precision

The relative percent difference (RPD) for field duplicate (FD) was within the control limits.

The RPD between laboratory control sample / laboratory control sample duplicate (LCS/LCSD) exceeded the control limit for compound tetrachloroethene for the sample location MW-9 and MW-2R. These results were qualified as estimated.

The RPD between matrix spike and matrix spike duplicate (MS/MSD) exceeded the control limits for acetone for the sample location MW-9. These results were qualified as estimated.

The precision of the data, as measured by laboratory quality control (QC) indicators, suggest that the Data Quality Objectives (DQOs) were met.

3.2 Accuracy

The MS/MSD and surrogate recoveries were within the control limits.

The low LCS recovery was greater than the control limit for compound tetrachloroethene in sample locations MW-2R and MW-9. The associated results were qualified as estimated.

The accuracy of the data, as measured by laboratory quality control (QC) indicators, suggest that the DQOs were met.

3.3 Representativeness

The data appear to be representative of site conditions and are generally consistent with historical groundwater monitoring results and expected impacts to groundwater.

3.4 Comparability

The laboratory results are presented in the same units as previous reports to allow comparison. The target compounds were not detected in the equipment and trip blank excluding the below exceptions:

The compound TPH-g was detected below the reporting limit in method blank, equipment blank, and trip blank. Based on blank evaluation, the compound in sample locations MW-9 and MW-1R were qualified as non-detect.

3.5 Completeness

The results appear to be valid and usable, and thus, the laboratory results have 100% completeness.

3.6 Sensitivity

Benzene, ethylbenzene, naphthalene, and TPH-d concentrations exceeded the ADEC groundwater cleanup levels (GCLs) in sample location MW-2R.

The 1,2-dichloroethane concentration exceeded ADEC GCLs in sample locations MW-1R and MW-2R.

Trichloroethene, tetrachloroethylene, and cis-1,2-dichloroethene concentrations exceeded ADEC GCLs in the sample location MW-9.

1,2,4-Trimethylbenzene exceeded ADEC GCLs in the sample locations MW-1R and MW-2R.

The sensitivity of the analyses was adequate for the samples as the detection limits were less than the ADEC GCLs for compounds with above exceptions.

4 CONCLUSIONS AND RECOMMENDATIONS

The groundwater data collected during the first semi-annual 2021 event do not indicate a groundwater flow direction due to limited wells being accessible during gauging. During the first semi-annual 2021 groundwater monitoring event, groundwater samples were collected for analysis from monitoring wells MW-1R, MW-2R, and MW-9. Analytical results from the monitoring wells are generally consistent with historical data.

Groundwater monitoring will continue in accordance with the current semi-annual schedule. The next groundwater sampling event will be conducted in the fall of 2021.

5 REFERENCES

ADEC. *Field Sampling Guidance*. Division of Spill Prevention and Response Contaminated Sites Program. 2019.

ADEC Technical Memorandum, October 2019. *Minimum Quality Assurance Requirements for Sample Handling*, Reports and Laboratory Data. ADEC, Division of Spill Prevention and Response Contaminated Sites Program.

TABLES



Table 1. Current Groundwater Gauging and Analytical Results 1SA21

Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft)	Datum	DTW (ft bTOC)	LNAPL		TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
					Thickness (ft)	GW Elev (ft)									
ADEC Groundwater Cleanup Levels							1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-1R	4/7/2021	167.56	NAVD88	24.21	0.00	143.35	<0.800	<0.100 B	<0.00100	<0.00100	0.000226 J	<0.00300	<0.00100	0.00166 J	
MW-2R	4/7/2021	168.25	NAVD88	24.94	0.00	143.31	1.31 [1.17]	1.61 [1.61]	0.00507 [0.00561]	0.0014 [0.00131]	0.0669 [0.0643]	0.0636 [0.0633]	<0.00100 [<0.00100]	0.0278 [0.0298]	
MW-8RR	4/7/2021	166.43	NAVD88	--	--	--	--	--	--	--	--	--	--	--	Unable to be located due to ice
MW-9	4/7/2021	159.24	NAVD88	15.88	0.00	143.36	<0.888	<0.100 B	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Trip Blank	4/7/2021	--	--	--	--	--	--	0.0112 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	4/7/2021	--	--	--	--	--	<0.888	0.0104 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	

Notes:

ID = Identification
 MW = Groundwater monitoring well
 TOC = Top of casing
 DTW = Depth to groundwater
 ft bTOC = Feet below top of casing
 ft = Feet relative to NAVD88
 mg/L = Milligrams per liter
 GW Elev = Groundwater elevation
 <0.00100 = Not detected at or above the reported detection limit (RDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold = Detected above laboratory method detection limit (MDL)
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup
 J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 B = Compound considered non-detect at the listed value due to associated blank contamination.

TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
 TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to State of Alaska Method AK102.
 Samples analytes by USEPA Method 8260D:
 Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
 MTBE = Methyl-tert-butyl ether
 Naphthalene
 LUFT = Leaking Underground Fuel Tank
 GC/MS = Gas chromatography/Mass Spectrometry
 ADEC = Alaska Department of Environmental Conservation
 NAVD88 = North American Vertical Datum of 1988
 LNAPL = Light Non-Aqueous Phase Liquid
 -- = Not Measured/Not analyzed
 [] = Blind Duplicate Sample Result

Table 2. Current Groundwater

Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Constituents	ADEC Groundwater Cleanup Levels (mg/L)	Location ID	MW-1R	MW-2R	MW-9	Trip Blank	Equipment Blank
		Sample Date	4/7/2021	4/7/2021	4/7/2021	4/7/2021	4/7/2021
1,2-Dichloroethane	0.0017	µg/L	0.00276	0.00565 [0.00682]	<0.00100	<0.00100	<0.00100
Trichloroethene (Trichloroethylene)	0.0028	µg/L	<0.00100	0.000555 J [<0.00100]	0.0202	<0.00100	<0.00100
Tetrachloroethylene	0.041	µg/L	<0.00100	0.000422 J [<0.00100]	0.0922 J	<0.00100	<0.00100
cis-1,2-Dichloroethene	0.036	µg/L	<0.00100	<0.00100 [<0.00100]	0.049	<0.00100	<0.00100
Methylene chloride (Dichloromethane)	0.1	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
1,1,1-Trichloroethane	8	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2,2-Tetrachloroethane	0.00076	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2-Trichloroethane	0.00041	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1-Dichloroethane	0.028	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1-Dichloroethene (Dichloroethylene)	0.28	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,3-Trichlorobenzene	0.007	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,4-Trichlorobenzene	0.004	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,4-Trimethylbenzene	0.056	µg/L	0.000943 J	0.0563 [0.0567]	<0.00100	<0.00000500	<0.00100
1,2-Dibromoethane	0.000075	µg/L	<0.00000500	<0.000250 [<0.000250]	<0.000250	<0.00100	<0.00000500
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.3	µg/L	<0.00100	<0.00100 [<0.00100]	0.000114 J	<0.00100	<0.00100
1,2-Dichloropropane	0.0082	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,3-Dichlorobenzene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,4-Dichlorobenzene	0.0048	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
2-Butanone (Methyl ethyl ketone)	--	µg/L	<0.0100	<0.0100 [<0.0100]	<0.0100	<0.0100	<0.0100
4-Methyl-2-pentanone	6.3	µg/L	<0.0100	<0.0100 [<0.0100]	<0.0100	<0.0100	<0.0100
Acetone	14	µg/L	<0.0500	<0.0500 [<0.0500]	<0.0500	<0.0500	<0.0500
Bromochloromethane	--	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromodichloromethane	0.0013	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromoform	0.033	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromomethane (Methyl bromide)	0.0075	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Carbon Disulfide	0.81	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Carbon Tetrachloride	0.0046	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Chlorobenzene	0.078	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Chloroethane	--	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Chloroform	0.0022	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Chloromethane (Methyl chloride)	0.19	µg/L	<0.00250	<0.00250 [<0.00250]	<0.00250	<0.00250	<0.00250
cis-1,3-Dichloropropene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Dibromochloromethane	0.0087	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Dichlorodifluoromethane (Freon 12)	0.2	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Isopropylbenzene	--	µg/L	0.000426 J	0.0393 [0.0346]	<0.00100	<0.00100	<0.00100
Styrene	1.2	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
trans-1,2-Dichloroethene	0.36	µg/L	<0.00100	<0.00100 [<0.00100]	0.000319 J	<0.00100	<0.00100
trans-1,3-Dichloropropene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Trichlorofluoromethane (Freon 11)	5.2	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Vinyl chloride (Chloroethene)	0.00019	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100

Notes:

ID = Identification

MW = Groundwater monitoring well

mg/L = Milligrams per liter

<0.00500 = Not detected at or above the Reported Detection Limit

Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

Bold = Value exceeds Method Detection Limit (MDL)

Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level

[] = Blind Duplicate Result

J = Results are greater than the method detection limit and less than the reporting limit and considered estimated value

Constituents analyzed by United States Environmental Protection Agency Method 8260D
 Page 2 of 28

Table 3. Current and Historical Groundwater Analytical Results - PAHs
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	1-Methynaphthalene µg/L	2-Methnaphthalene µg/L	Acenaphthene µg/L	Acenaphthylene µg/L	Anthracene µg/L	Benzo(a)anthracene µg/L	Benzo(a)pyrene µg/L	Benzo(b)fluoranthene µg/L	Benzo(g,h,i)perylene µg/L	Benzo(k)fluoranthene µg/L	Chrysene µg/L	Dibenz(a,h) anthracene µg/L	Fluoranthene µg/L	Fluorene µg/L	Indeno(1,2,3- cd)pyrene µg/L	Naphthalene µg/L	Phenanthrene µg/L	Pyrene µg/L
ADEC Groundwater Cleanup Levels		11	36	530	260	43	0.3	0.25	2.5	0.26	0.8	2	0.25	260	290	0.19	1.7	170	120
MW-2R	9/11/2019	0.17	0.058 J	<0.11	<0.0503	<0.11	<0.053	<0.11	<0.053	<0.053	<0.053	<0.11	<0.11	<0.21	<0.11	<0.053	1.8	<0.11	<0.11
MW-2R	4/22/2020	0.360 J	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.255	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	0.256 J	<0.0510	<0.0510
MW-2R	10/9/2020	12.0 [11.4]	0.922 [0.893]	0.0792 [0.0753]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [0.0260 J]	<0.0500 [0.0413 J]	<0.0500 [0.0245 J]	<0.250 [<0.250]	<0.0500 [0.0305 J]	<0.0500 [<0.0500]	<0.0500 [0.0909]	<0.0500 [0.0190 J]	<0.0500 [0.0184 J]	0.0273 [0.0261]	<0.0500 [0.0839]	<0.0500 [0.0668]
MW-2R	4/7/2021	7.90 [9.39]	3.79 [4.58]	0.0457 J [0.0535 J]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	7.90 [32.4]	<0.0500 [<0.0555]	<0.0500 [<0.0555]
Equipment Blank	10/9/2020	0.0208 J	<0.500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.500	<0.0500	<0.0500

Notes:
 PAHs = Polycyclic Aromatic Hydrocarbons by United States Environmental Protection Agency Method EPA 8270E-SIM.
 ADEC = Alaska Department of Environmental Conservation
 µg/L = micrograms per liter
 <0.000500 = Not detected at or above the reported detection limit (RDL)
Bold = Value exceeds Laboratory Method Detection Limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 The laboratory for this site was changed from Eurofins Calscience to Pace Analytical prior to the second quarter 2020 groundwater monitoring event.

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-15	3/1/1994	87.01	11.52	--	75.49	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	6/1/1994	87.01	11.77	--	75.24	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	8/1/1994	87.01	12.02	--	74.99	--	--	ND	ND	ND	ND	--	--	
MW-15	12/22/1994	87.01	11.68	--	75.33	--	--	ND	ND	ND	ND	--	--	
MW-15	3/31/1995	87.01	11.53	--	75.48	--	--	ND	ND	ND	ND	--	--	
MW-15	6/20/1995	87.01	11.23	--	75.78	--	--	ND	ND	ND	ND	--	--	Trace NAPL
MW-15	8/23/1995	87.01	11.55	--	75.46	--	--	ND	ND	ND	ND	--	--	
MW-15	11/16/1995	87.01	11.55	--	75.46	--	--	ND	ND	ND	ND	--	--	
MW-15	1/30/1996	87.01	11.78	--	75.23	--	--	ND	ND	ND	ND	--	--	
MW-15	6/2/1996	87.01	11.48	--	75.53	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	Insufficient recharge
MW-15	8/26/1996	87.01	12.03	--	74.98	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	10/16/1996	87.01	12.5	--	74.51	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	4/28/1997	87.01	12.04	--	74.97	--	--	<0.0005	0.000527	<0.0005	<0.001	--	--	
MW-15	9/10/1997	87.01	11.29	--	75.72	--	--	<0.002	<0.002	<0.002	<0.002	--	--	
MW-15	4/19/1998	87.01	11.9	--	75.11	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	9/23/1998	87.01	11.06	--	75.95	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	4/28/1999	87.01	11.52	--	75.49	--	--	<0.0005	0.00059	<0.0005	<0.0005	<0.01	--	
MW-15	10/13/1999	87.01	11.57	--	75.44	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-15	5/19/2000	87.01	11.95	--	75.06	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-15	9/27/2000	87.01	11.8	--	75.21	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-15	5/5/2001	87.01	--	--	--	--	--	--	--	--	--	--	--	
MW-15	10/20/2001	87.01	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/1/2002	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/20/2002	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/20/2003	148.9	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-15	10/2/2003	148.9	8.58	--	140.32	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-15	6/1/2004	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/21/2004	148.9	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-15	5/12/2005	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/19/2005	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/8/2006	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-16	8/2/2001	--	13.92	--	--	<0.0001	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/2/2001	--	14.33	--	--	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	Car parked over well
MW-16	5/1/2002	151.08	14.12	--	136.96	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	Car parked over well
MW-16	9/20/2002	151.08	14.04	--	137.04	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-16	5/20/2003	151.08	14.51	--	136.57	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-16	10/2/2003	151.08	14.3	--	136.78	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-16	6/1/2004	151.08	13.86	--	137.22	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	
MW-16	9/21/2004	151.08	14.32	--	136.76	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-16	5/12/2005	151.08	14.04	--	137.04	--	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	
MW-16	9/19/2005	151.08	13.53	--	137.55	--	--	<0.0005	<0.0005	<0.0005	<0.001	0.0025	--	
MW-16	5/8/2006	151.08	14.53	--	136.55	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-16	9/24/2006	152.13	13.69	--	138.44	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-16	5/14/2007	152.13	14.13	--	138.00	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.0005	--	
MW-16	9/12/2007	152.13	14.01	--	138.12	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-16	5/1/2008	152.13	14.18	--	137.95	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	
MW-16	5/14/2009	152.13	--	--	--	--	--	--	--	--	--	--	--	Unable to Access - behind fenced area
MW-17	8/2/2001	--	11.7	--	--	0.000118	--	<0.0001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2001	--	12.12	--	--	--	<0.05	<0.0005	<0.005	<0.005	<0.001	<0.001	--	
MW-17	5/1/2002	148.89	11.91	--	136.98	--	--	<0.0005	<0.005	<0.005	<0.001	<0.001	--	
MW-17	9/20/2002	148.89	11.86	--	137.03	--	--	<0.0005	<0.005	<0.005	<0.001	<0.001 / 0.002	--	
MW-17	5/20/2003	148.89	12.3	--	136.59	--	--	<0.0005	<0.005	<0.005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2003	148.89	12.07	--	136.82	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-17	6/1/2004	148.89	11.65	--	137.24	--	--	<0.0005 / <0.0005	<0.0005 / <0.0007	<0.0005 / <0.0008	<0.001 / <0.0008	<0.002 / <0.002	--	
MW-17	9/21/2004	148.89	12.13	--	136.76	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-17	5/12/2005	148.89	11.81	--	137.08	--	--	--	--	--	--	--	--	
MW-17	9/19/2005	148.89	11.45	--	137.44	--	--	--	--	--	--	--	--	
MW-17	5/8/2006	148.89	13.56	--	135.33	--	--	--	--	--	--	--	--	
MW-17	9/24/2006	148.91	12.69	--	136.22	--	--	--	--	--	--	--	--	
MW-17	5/14/2007	148.91	13.27	--	135.64	--	--	--	--	--	--	--	--	
MW-17	9/21/2007	148.91	11.77	--	137.14	--	--	--	--	--	--	--	--	
MW-17	5/1/2008	148.91	11.9	--	137.01	--	--	--	--	--	--	--	--	
MW-17	5/14/2009	148.91	--	--	--	--	--	--	--	--	--	--	--	Unable to Access - behind fenced area

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	9/11/2019	--	--	--	--	<0.076	<0.100	0.000013 J	0.0011 J	<0.00050	<0.00114	<0.00044	0.000030 J*B	
Equipment Blank	4/22/2020	--	--	--	--	<0.800	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	10/9/2020	--	--	--	--	<0.800	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	4/7/2021	--	--	--	--	<0.888	0.0104 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	

Notes:

ID = Identification
MW = Groundwater monitoring well
TOC = Top of casing
DTW = Depth to groundwater
ft bTOC = Feet below top of casing
ft = Feet relative to NAVD88
mg/L = Milligrams per liter
GW Elev = Groundwater elevation
<0.00100 = Not detected at or above the reported detection limit (RDL)
Bold = Detected above laboratory method detection limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
[] = Blind Duplicate Sample Result
* = LCS or LCSD is outside acceptance limits.
ND = Constituent considered non detect at the MDL

TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to State of Alaska Method AK102.
Samples analytes by USEPA Method 8260D:
Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
MTBE = Methyl-tert-butyl ether
Naphthalene
LUFT = Leaking Underground Fuel Tank
GC/MS = Gas chromatography/Mass Spectrometry
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
B = Compound considered non-detect at the listed value due to associated blank contamination.
ADEC = Alaska Department of Environmental Conservation
NAVD 88 = North American Vertical Datum of 1988
LNAPL = Light Non-Aqueous Phase Liquid
-- = Not Measured/Not analysed
The laboratory for this site was changed from Eurofins Calscience to Pace Analytical prior to the second quarter 2020 groundwater monitoring event. Prior to this date, Eurofins Calscience was using the carbon ranges as follows: TPH-g as C6-C10; TPH-d as C13-C22. Pace Analytical reports the following carbon ranges: TPH-g as C5-C12; TPH-d as C12-C22.

Table 5a. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1,2-Trichlorotrifluoroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels		0.0017	0.0028	0.041	0.036	0.11	--	0.3	0.36	8	0.00076	0.00041	10	
MW-9	5/24/2011	<0.0005	0.011	0.055	0.032	<0.002	--	--	--	--	--	--	--	
MW-9	11/10/2011	<0.0005	0.005	0.034	0.013	<0.002	--	--	--	--	--	--	--	
MW-9	6/20/2012	<0.0005	0.006	0.013	0.014	<0.002	--	--	--	--	--	--	--	
MW-9	4/30/2013	<0.00037	0.0492	0.293	0.114	<0.002	--	--	--	--	--	--	--	
MW-9	4/30/2013	<0.00037	0.0441	0.216	0.112	<0.002	--	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/8/2013	<0.00022	0.0055	0.024	0.013	<0.0020	--	--	--	--	--	--	--	
MW-9	4/28/2014	<0.00013	0.033	0.18	0.064	<0.0020	--	--	--	--	--	--	--	
MW-9	4/28/2014	<0.00013	<0.0041	0.018	0.0067	<0.0020	--	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/7/2014	<0.00013	0.023	0.12	0.040	<0.0020	--	--	--	--	--	--	--	
MW-9	4/29/2015	<0.0005	0.003	0.008	0.005	<0.002	--	--	--	--	--	--	--	
MW-9	11/6/2015	<0.001	0.025	0.12	0.078	<0.004	--	--	--	--	--	--	--	
MW-9	4/21/2016	<0.0005	0.003	0.012	0.007	<0.002	--	--	--	--	--	--	--	
MW-9	11/1/2016	<0.0005	0.003	0.012	0.007	<0.002	--	--	--	--	--	--	--	
MW-9	5/1/2017	<0.003	0.008	0.026	0.030	<0.010	--	--	--	--	--	--	--	
MW-9	10/17/2017	<0.0005	0.003	0.012	0.01	<0.0005	--	--	--	--	--	--	--	
MW-9	4/27/2018	<0.0005	0.014	0.054	0.039	<0.0005	--	--	--	--	--	--	--	
MW-9	10/18/2018	<0.002	0.022	0.082	0.064	<0.0002	--	--	--	--	--	--	--	
MW-9	4/9/2019	<0.0003	0.023	0.085	0.067	<0.0003	--	--	--	--	--	--	--	
MW-9	9/11/2019	< 0.000024	0.022	0.068	0.058	< 0.0014	--	--	--	--	--	--	--	
MW-9	4/22/2020	<0.00100 [<0.00100]	0.0219 [0.0216]	0.0828 [0.0805]	0.058	<0.00500	<0.00100 [<0.00100]	0.000195 J [0.000177 J]	0.000393 J [0.000389 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	
MW-9	10/9/2020	<0.00100	0.0185 J	0.0719	0.0413	<0.00500	<0.00100	<0.00100	0.000209 J	<0.00100	<0.00100	<0.00100	<0.00100	
MW-9	4/7/2021	<0.00100	0.0202	0.0922 J	0.049	<0.00500	<0.00100	0.000114 J	0.000319 J	<0.00100	<0.00100	<0.00100	<0.00100	
MW-16	8/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/02/2001	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/02/2003	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/12/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/1/2008	<0.005	0.0346	0.197	0.102	<0.005	--	--	--	--	--	--	--	
MW-16	5/14/2009					FENCED, CANNOT BE ACCESSED	--	--	--	--	--	--	--	
MW-17	8/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2003	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
MW-17	5/14/2009					FENCED, CANNOT BE ACCESSED	--	--	--	--	--	--	--	
Trip Blank	1/30/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/2/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/26/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/16/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/1997	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/10/1997	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/19/1998	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	09/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/1999	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/13/1999	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/27/2000	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/5/2001	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	10/2/2003	--	--	--	--	--	--	--	--	--	--	--	--	

Table 5a. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1,2-Trichlorotrifluoroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels		0.0017	0.0028	0.041	0.036	0.11	--	0.3	0.36	8	0.00076	0.00041	10	
Trip Blank	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	<0.00037	<0.00083	<0.0013	<0.00085	<0.002	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	<0.00022	<0.00012	<0.00029	<0.00023	<0.0020	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	<0.00013	<0.000091	<0.00016	<0.00013	<0.0020	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	<0.00013	<0.000091	<0.00016	<0.00013	<0.0020	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	<0.0003	<0.0002	<0.0002	<0.0002	<0.0003	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	< 0.000024	< 0.000090	0.000020 J	< 0.00069	< 0.0014	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Tudor Motel	9/21/2007	<0.005	<0.0001	<0.0001	<0.0001	<0.0005	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.0005	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	

Notes:

- ID = Identification
- MW = Groundwater monitoring well
- mg/L = Milligrams per liter
- <0.00500 = Not detected at or above the Reported Detection Limit
- Bold** = Detected above laboratory method detection limit (MDL)
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- [] = Blind Duplicate Sample Result
- ADEC = Alaska Department of Environmental Conservation
- Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5b. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	1,1-Dichloroethane mg/L	1,1-Dichloroethene (Dichloroethylene) mg/L	1,2,3-Trichlorobenzene mg/L	1,2,4-Trichlorobenzene mg/L	1,2,4-Trimethylbenzene mg/L	1,2-Dibromoethane mg/L	1,2-Dichloropropane mg/L	1,3-Dichlorobenzene mg/L	1,4-Dichlorobenzene mg/L	2-Butanone (Methyl ethyl ketone) mg/L	4-Methyl-2-pentanone mg/L	Acetone mg/L	Comments
ADEC Groundwater Cleanup Levels		0.028	0.28	0.007	0.004	0.056	0.000075	0.0082	0.0047	0.0048	--	6.3	14	
Trip Blank	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	

Notes:

ID = Identification
MW = Groundwater monitoring well
mg/L = Milligrams per liter
<0.00500 = Not detected at or above the Reported Detection Limit
Bold = Detected above laboratory method detection limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
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Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5c. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Bromochloromethane mg/L	Bromodichloromethane mg/L	Bromoform mg/L	Bromomethane (Methyl bromide) mg/L	Carbon Disulfide mg/L	Carbon Tetrachloride mg/L	Chlorobenzene mg/L	Chloroethane mg/L	Chloroform mg/L	Chloromethane (Methyl chloride) mg/L	cis-1,3-Dichloropropene mg/L	Dibromochloromethane mg/L	Comments
ADEC Groundwater Cleanup Levels		--	0.0013	0.033	0.0075	0.81	0.0046	0.078	--	0.0022	0.19	0.0047	0.0087	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	

Notes:

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- mg/L = Milligrams per liter
- <0.00500 = Not detected at or above the Reported Detection Limit
- Bold** = Detected above laboratory method detection limit (MDL)
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- [] = Blind Duplicate Sample Result
- ADEC = Alaska Department of Environmental Conservation
- Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.00019	
MW-1R	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
MW-1R	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
MW-2R	9/24/2006	--	--	--	--	--	
MW-2R	5/14/2007	--	--	--	--	--	
MW-2R	9/21/2007	--	--	--	--	--	
MW-2R	5/1/2008	--	--	--	--	--	
MW-2R	7/15/2008	--	--	--	--	--	
MW-2R	5/14/2009	--	--	--	--	--	
MW-2R	8/26/2009	--	--	--	--	--	
MW-2R	6/15/2010	--	--	--	--	--	
MW-2R	9/5/2010	--	--	--	--	--	
MW-2R	5/24/2011	--	--	--	--	--	
MW-2R	11/10/2011	--	--	--	--	--	
MW-2R	6/20/2012	--	--	--	--	--	
MW-2R	11/8/2012	--	--	--	--	--	
MW-2R	4/30/2013	--	--	--	--	--	
MW-2R	4/30/2013	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/8/2013	--	--	--	--	--	
MW-2R	4/28/2014	--	--	--	--	--	
MW-2R	4/28/2014	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/7/2014	--	--	--	--	--	
MW-2R	4/29/2015	--	--	--	--	--	
MW-2R	11/6/2015	--	--	--	--	--	
MW-2R	4/21/2016	--	--	--	--	--	
MW-2R	11/1/2016	--	--	--	--	--	
MW-2R	5/1/2017	--	--	--	--	--	
MW-2R	10/17/2017	--	--	--	--	--	
MW-2R	4/27/2018	--	--	--	--	--	
MW-2R	10/18/2018	--	--	--	--	--	
MW-2R	4/9/2019	--	--	--	--	--	
MW-2R	9/11/2019	--	--	--	--	--	
MW-2R	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
MW-2R	10/9/2020	<0.00500 [<0.00500] J	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	
MW-2R	4/7/2021	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	
MW-8RR	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.00019	
MW-8RR	4/7/2021	--	--	--	--	--	Unable to be located due to ice
MW-9	2/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	9/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	3/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	6/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	12/22/1994	--	--	--	--	--	
MW-9	3/31/1995	--	--	--	--	--	
MW-9	6/20/1995	--	--	--	--	--	
MW-9	8/23/1995	--	--	--	--	--	
MW-9	11/16/1995	--	--	--	--	--	
MW-9	1/30/1996	--	--	--	--	--	
MW-9	6/2/1996	--	--	--	--	--	
MW-9	8/26/1996	--	--	--	--	--	
MW-9	10/16/1996	--	--	--	--	--	
MW-9	4/28/1997	--	--	--	--	--	
MW-9	9/10/1997	--	--	--	--	--	
MW-9	4/19/1998	--	--	--	--	--	
MW-9	9/23/1998	--	--	--	--	--	
MW-9	4/28/1999	--	--	--	--	--	
MW-9	10/13/1999	--	--	--	--	--	
MW-9	5/19/2000	--	--	--	--	--	
MW-9	9/27/2000	--	--	--	--	--	
MW-9	5/5/2001	--	--	--	--	--	
MW-9	8/2/2001	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2001	--	--	--	--	--	
MW-9	5/1/2002	--	--	--	--	--	
MW-9	9/20/2002	--	--	--	--	--	
MW-9	5/20/2003	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2003	--	--	--	--	--	
MW-9	6/1/2004	--	--	--	--	--	
MW-9	9/21/2004	--	--	--	--	--	Sample date defaulted to first date listed in historical data table

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.00019	
MW-9	5/12/2005	--	--	--	--	--	
MW-9	9/19/2005	--	--	--	--	--	
MW-9	5/8/2006	--	--	--	--	--	
MW-9	9/24/2006	--	--	--	--	--	
MW-9	5/14/2007	--	--	--	--	--	
MW-9	9/21/2007	--	--	--	--	--	
MW-9	5/1/2008	--	--	--	--	--	
MW-9	7/15/2008	--	--	--	--	--	
MW-9	5/14/2009	--	--	--	--	--	
MW-9	8/26/2009	--	--	--	--	--	
MW-9	4/20/2010	--	--	--	--	--	
MW-9	9/5/2010	--	--	--	--	--	
MW-9	5/24/2011	--	--	--	--	--	
MW-9	11/10/2011	--	--	--	--	--	
MW-9	6/20/2012	--	--	--	--	--	
MW-9	4/30/2013	--	--	--	--	--	
MW-9	4/30/2013	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/8/2013	--	--	--	--	--	
MW-9	4/28/2014	--	--	--	--	--	
MW-9	4/28/2014	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/7/2014	--	--	--	--	--	
MW-9	4/29/2015	--	--	--	--	--	
MW-9	11/6/2015	--	--	--	--	--	
MW-9	4/21/2016	--	--	--	--	--	
MW-9	11/1/2016	--	--	--	--	--	
MW-9	5/1/2017	--	--	--	--	--	
MW-9	10/17/2017	--	--	--	--	--	
MW-9	4/27/2018	--	--	--	--	--	
MW-9	10/18/2018	--	--	--	--	--	
MW-9	4/9/2019	--	--	--	--	--	
MW-9	9/11/2019	--	--	--	--	--	
MW-9	4/22/2020	<0.00500 [<i><0.00500</i>]	<0.00100 [<i><0.00100</i>]	<0.00100 [<i><0.00100</i>]	<0.00500 [<i><0.00500</i>]	<0.00100 [<i><0.00100</i>]	
MW-9	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
MW-9	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
Trip Blank	1/30/1996	--	--	--	--	--	
Trip Blank	6/2/1996	--	--	--	--	--	
Trip Blank	8/26/1996	--	--	--	--	--	

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.00019	
Trip Blank	10/16/1996	--	--	--	--	--	
Trip Blank	4/28/1997	--	--	--	--	--	
Trip Blank	9/10/1997	--	--	--	--	--	
Trip Blank	4/19/1998	--	--	--	--	--	
Trip Blank	09/23/1998	--	--	--	--	--	
Trip Blank	4/28/1999	--	--	--	--	--	
Trip Blank	10/13/1999	--	--	--	--	--	
Trip Blank	9/27/2000	--	--	--	--	--	
Trip Blank	5/5/2001	--	--	--	--	--	
Trip Blank	10/2/2001	--	--	--	--	--	
Trip Blank	5/1/2002	--	--	--	--	--	
Trip Blank	9/20/2002	--	--	--	--	--	
Trip Blank	5/20/2003	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	10/2/2003	--	--	--	--	--	
Trip Blank	6/1/2004	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	
Trip Blank	8/19/2009	--	--	--	--	--	
Trip Blank	4/20/2010	--	--	--	--	--	
Trip Blank	6/10/2010	--	--	--	--	--	
Trip Blank	8/27/2010	--	--	--	--	--	
Trip Blank	5/24/2011	--	--	--	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	
Trip Blank	11/8/2013	--	--	--	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	
Trip Blank	11/7/2014	--	--	--	--	--	

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.0019	
Trip Blank	4/21/2016	--	--	--	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	
Trip Blank	5/1/2017	--	--	--	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	
Trip Blank	10/18/2018	--	--	--	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	
Trip Blank	9/11/2019	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
Trip Blank	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
Trip Blank	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
Tudor Motel	9/21/2007	--	--	--	--	--	
Tudor Motel	5/1/2008	--	--	--	--	--	
Tudor Motel	7/15/2008	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
Equipment Blank	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
Equipment Blank	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	

Notes:

ID = Identification

MW = Groundwater monitoring well

mg/L = Milligrams per liter

<0.00500 = Not detected at or above the Reported Detection Limit

Bold = Detected above laboratory method detection limit (MDL)

Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

Bold and *Italicized* : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level

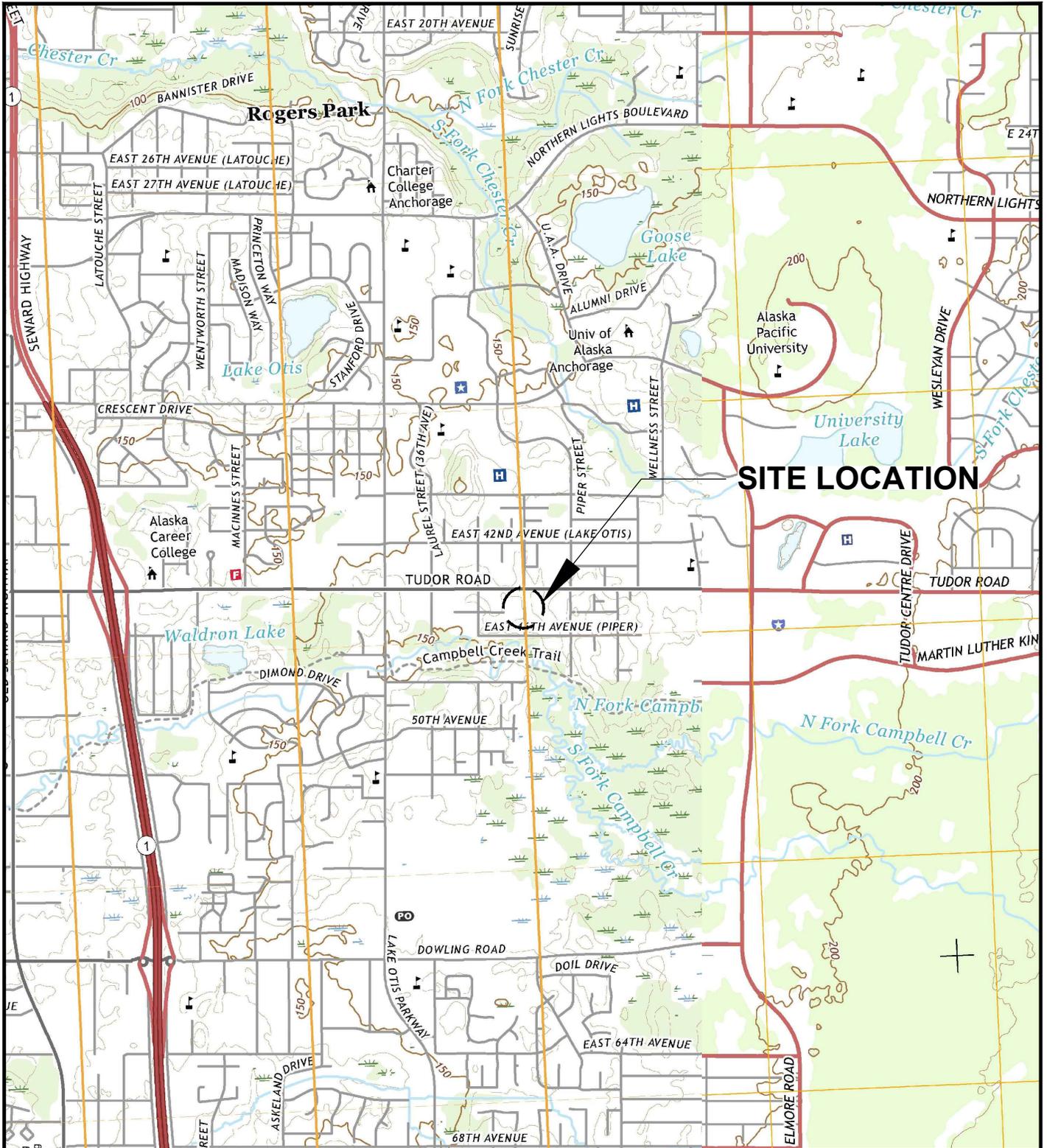
[] = Blind Duplicate Sample Result

ADEC = Alaska Department of Environmental Conservation

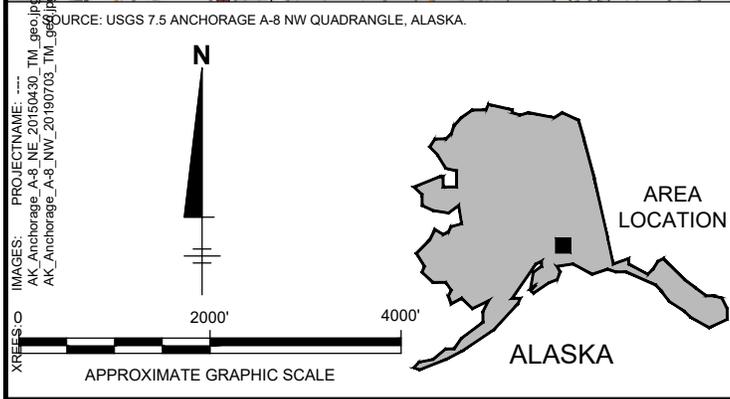
Constituents analyzed by United States Environmental Protection Agency Method 8260D

FIGURES





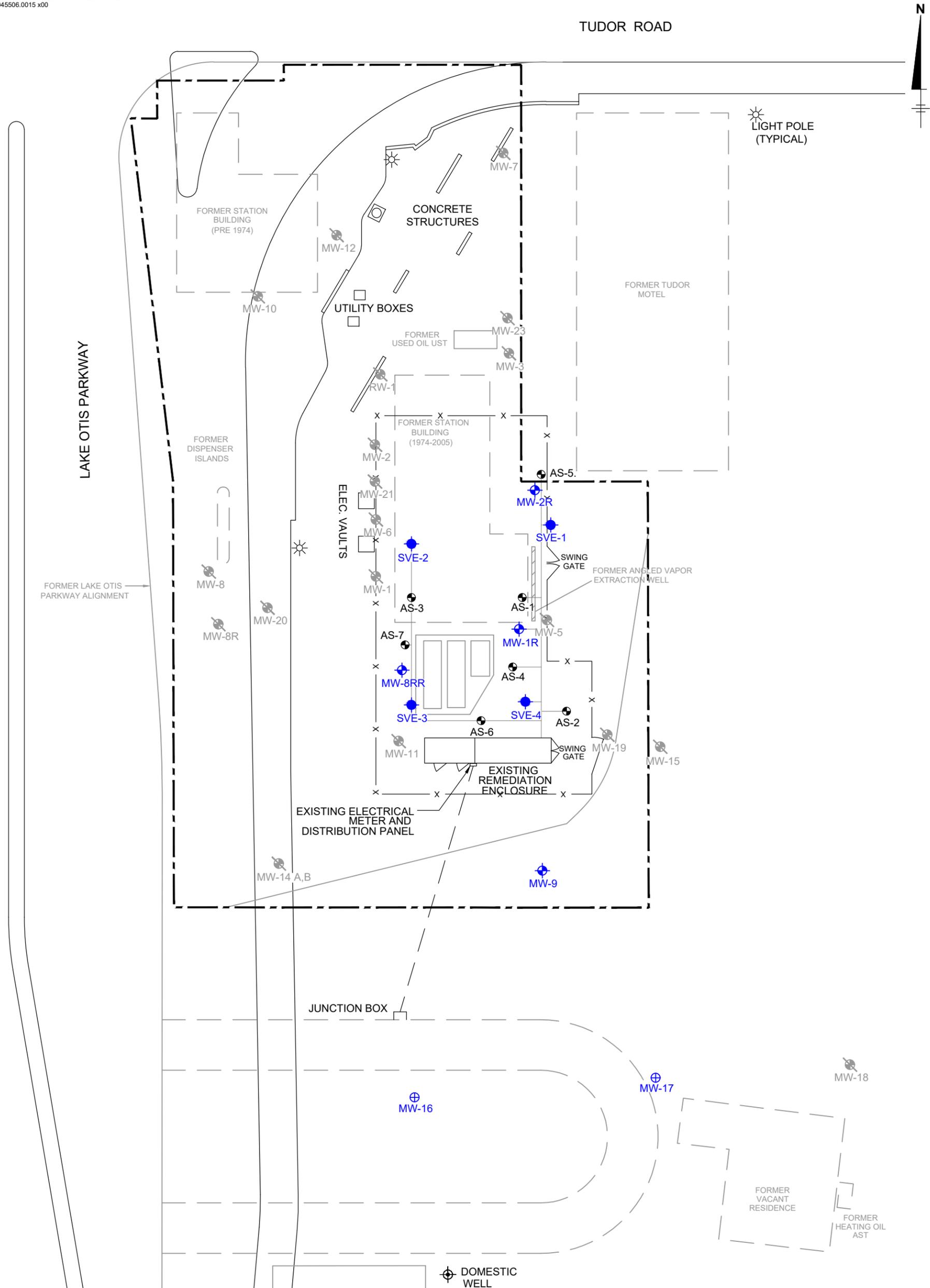
SOURCE: USGS 7.5 ANCHORAGE A-8 NW QUADRANGLE, ALASKA.



FORMER CHEVRON-BRANDED SERVICE STATION 97324
 4417 LAKE OTIS PARKWAY
 ANCHORAGE, ALASKA

SITE LOCATION MAP

XREFS: IMAGES: PROJECTNAME: ---
b0045506.0015 x00



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ☒ DESTROYED WELL
- ⊕ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK

NOTES:

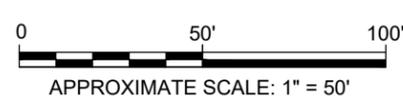
1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1"=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

FORMER CHEVRON-BRANDED SERVICE STATION 97324
4417 LAKE OTIS PARKWAY
ANCHORAGE, ALASKA

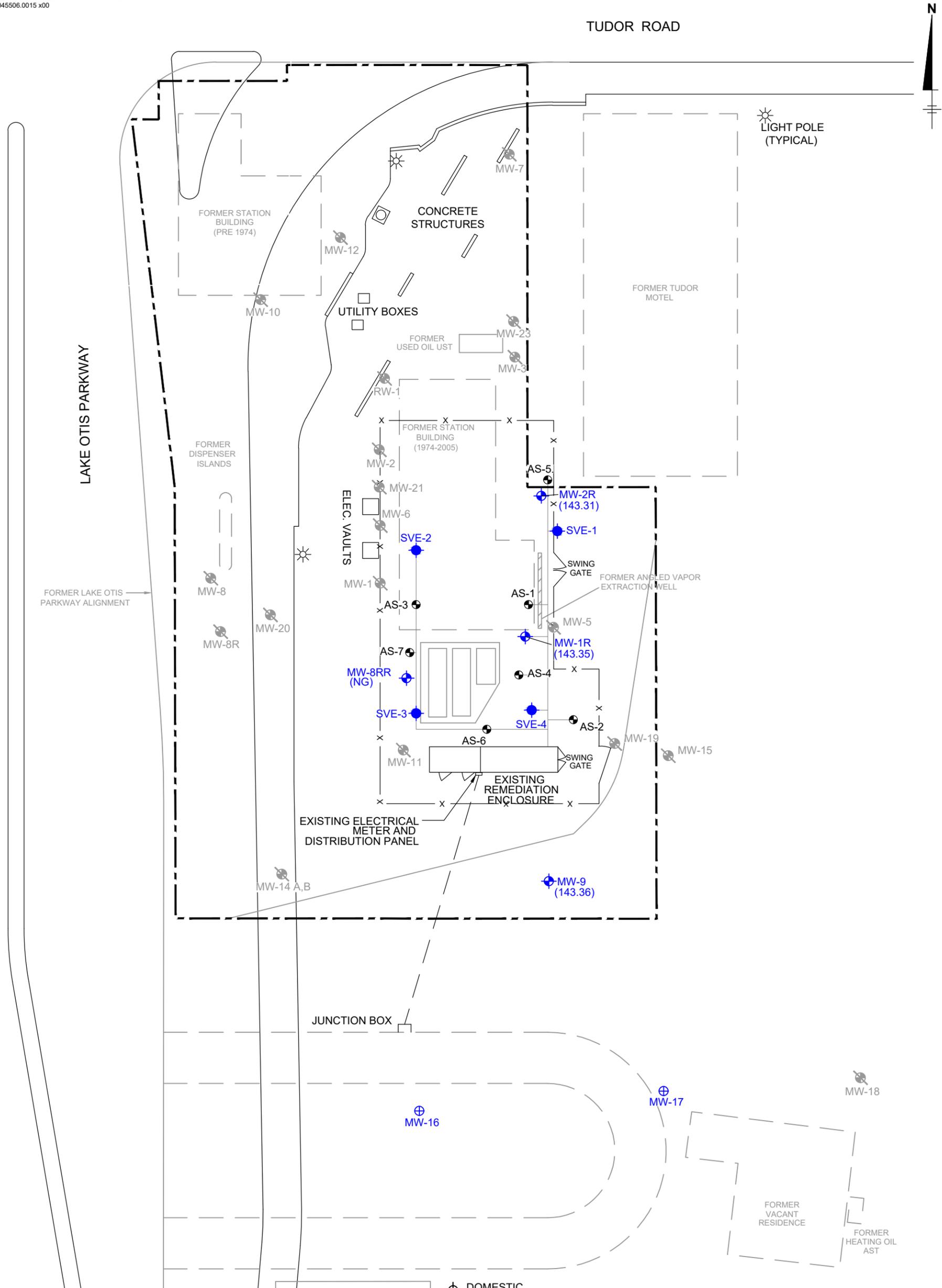
SITE PLAN



FIGURE
2



XREFS: IMAGES: PROJECTNAME: ---
b0045506.0015 x00



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊕ DESTROYED WELL
- ⊕ DOMESTIC WELL
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

(143.36) GROUNDWATER ELEVATION IN FEET RELATIVE TO NAVD88
UST UNDERGROUND STORAGE TANK

NOTES:

1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

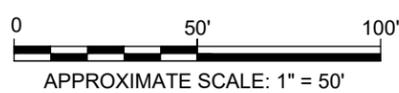
FORMER CHEVRON-BRANDED SERVICE STATION 97324
4417 LAKE OTIS PARKWAY
ANCHORAGE, ALASKA

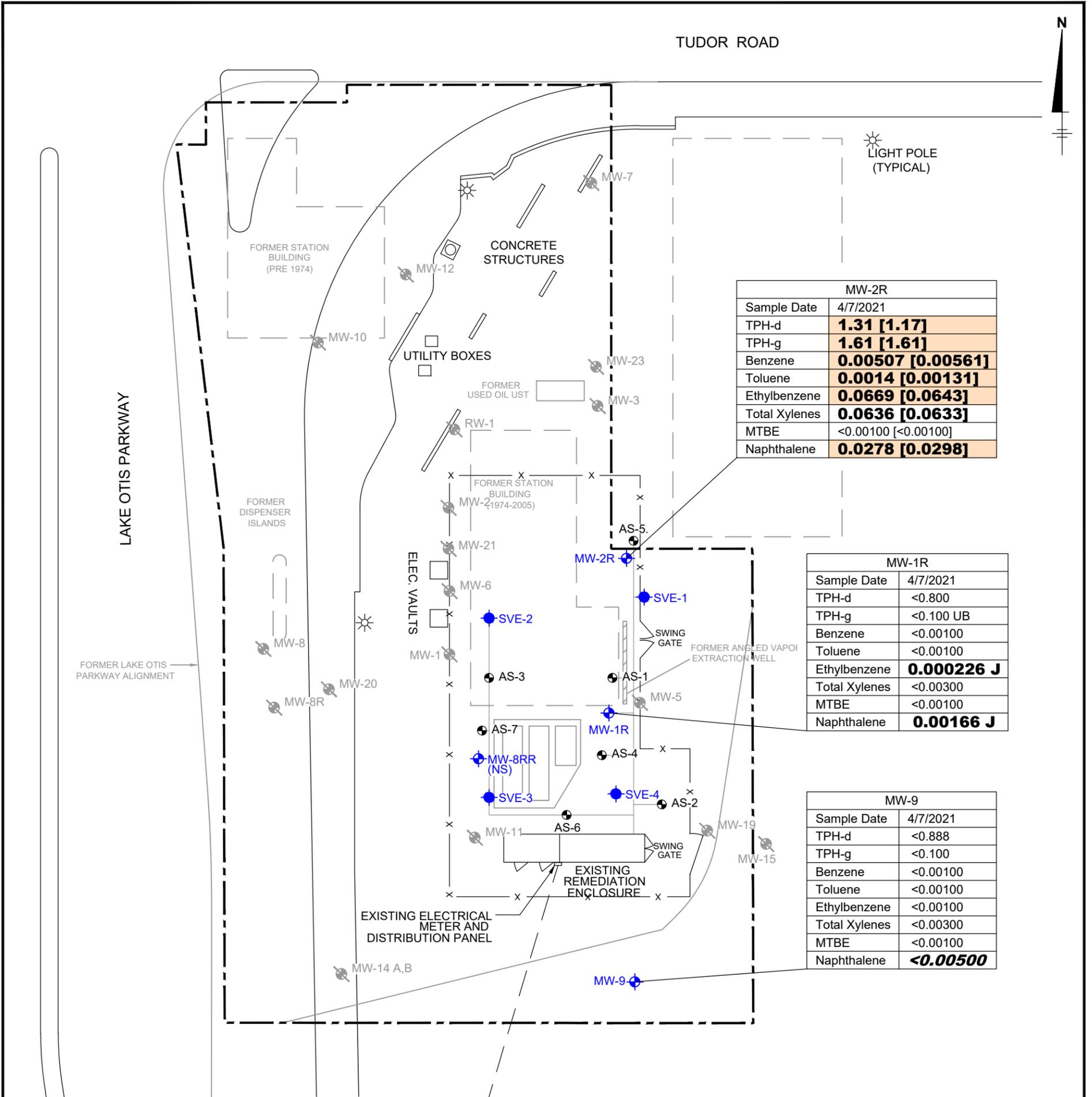
**GROUNDWATER ELEVATION MAP
APRIL 7, 2021**



FIGURE

3





MW-2R	
Sample Date	4/7/2021
TPH-d	1.31 [1.17]
TPH-g	1.61 [1.61]
Benzene	0.00507 [0.00561]
Toluene	0.0014 [0.00131]
Ethylbenzene	0.0669 [0.0643]
Total Xylenes	0.0636 [0.0633]
MTBE	<0.00100 [<0.00100]
Naphthalene	0.0278 [0.0298]

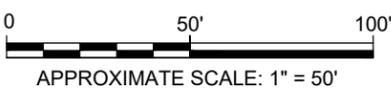
MW-1R	
Sample Date	4/7/2021
TPH-d	<0.800
TPH-g	<0.100 UB
Benzene	<0.00100
Toluene	<0.00100
Ethylbenzene	0.000226 J
Total Xylenes	<0.00300
MTBE	<0.00100
Naphthalene	0.00166 J

MW-9	
Sample Date	4/7/2021
TPH-d	<0.888
TPH-g	<0.100
Benzene	<0.00100
Toluene	<0.00100
Ethylbenzene	<0.00100
Total Xylenes	<0.00300
MTBE	<0.00100
Naphthalene	<0.00500

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊕ DESTROYED WELL
- ⊕ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK
- TPH-d TOTAL PETROLEUM HYDROCARBONS DIESEL RANGE ORGANICS
- TPH-g TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE ORGANICS
- MTBE METHYL-TERT-BUTYL ETHER
- mg/L MILLIGRAMS PER LITER
- <0.00100 NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT (RDL)
- J THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY
- [] BLIND DUPLICATE SAMPLE RESULT
- BOLD** DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
- BOLD** CONSTITUENT CONSIDERED NON-DETECT, HOWEVER LABORATORY RDL IS GREATER THAN THE ADEC GROUNDWATER CLEANUP LEVEL
- BOLD** VALUE EXCEEDS ADEC GROUNDWATER CLEANUP LEVEL
- (NS) NOT SAMPLED

Analyte	ADEC Groundwater Cleanup Levels
TPH-d	1.5
TPH-g	2.2
Benzene	0.0046
Toluene	1.1
Ethylbenzene	0.015
Total Xylenes	0.19
MTBE	0.14
Naphthalene	0.0017



NOTES:

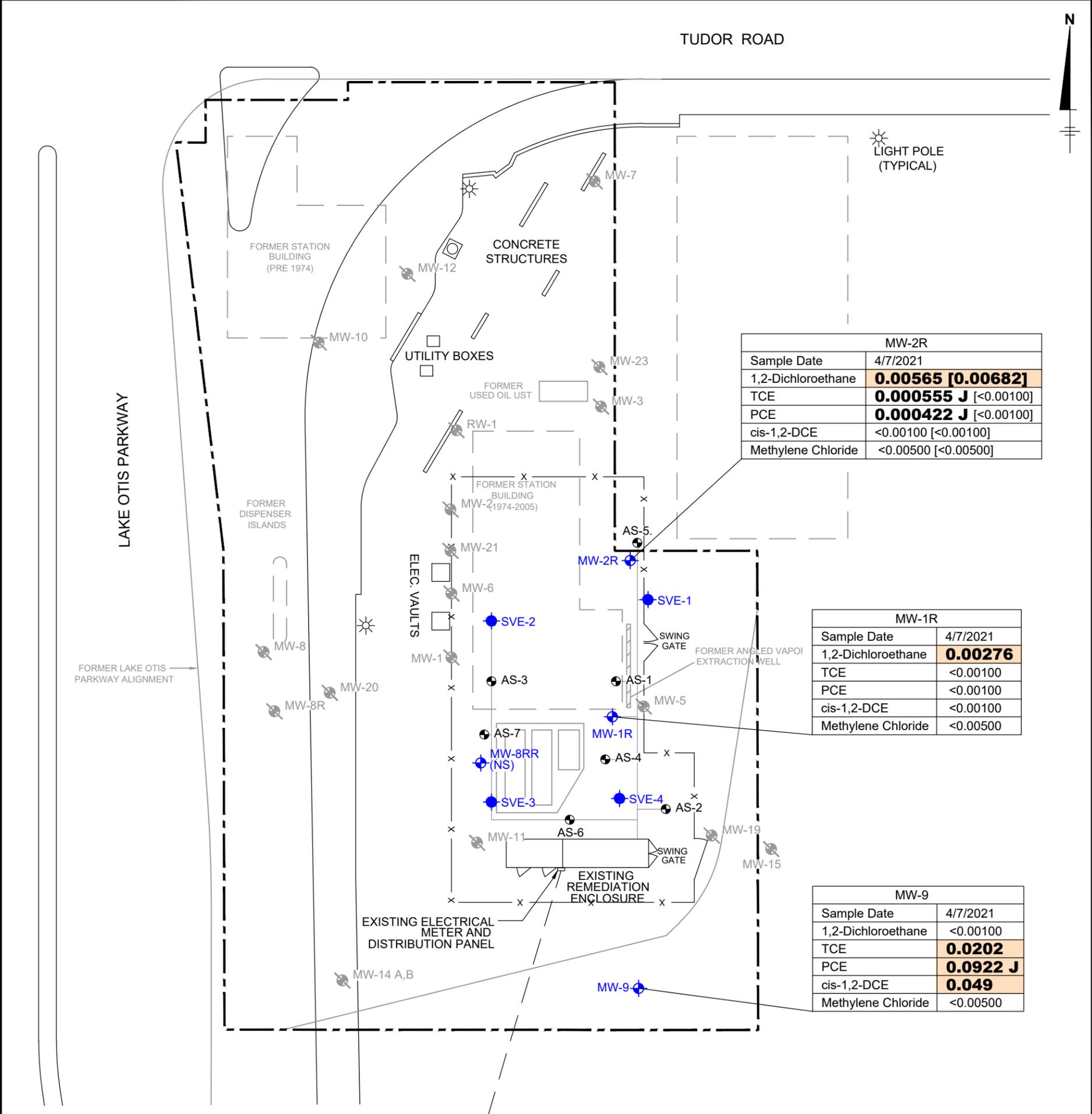
1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

CHEVRON-BRANDED SERVICE STATION 97324
 4417 LAKE OTIS PARKWAY
 ANCHORAGE, ALASKA

GROUNDWATER ANALYTICAL RESULTS MAP
 APRIL 7, 2021

ARCADIS Design & Consultancy for natural and built assets

FIGURE
4



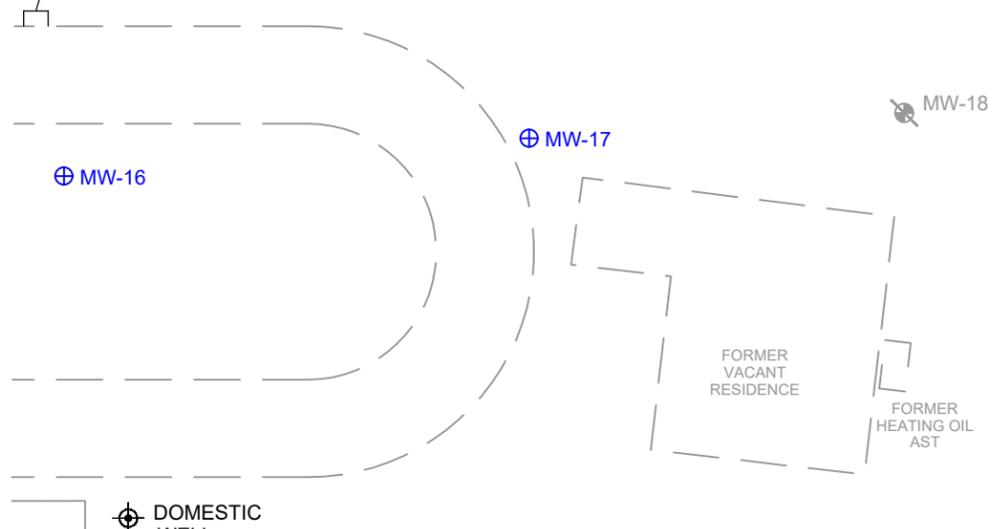
MW-2R	
Sample Date	4/7/2021
1,2-Dichloroethane	0.00565 [0.00682]
TCE	0.000555 J [<0.00100]
PCE	0.000422 J [<0.00100]
cis-1,2-DCE	<0.00100 [<0.00100]
Methylene Chloride	<0.00500 [<0.00500]

MW-1R	
Sample Date	4/7/2021
1,2-Dichloroethane	0.00276
TCE	<0.00100
PCE	<0.00100
cis-1,2-DCE	<0.00100
Methylene Chloride	<0.00500

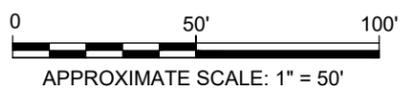
MW-9	
Sample Date	4/7/2021
1,2-Dichloroethane	<0.00100
TCE	0.0202
PCE	0.0922 J
cis-1,2-DCE	0.049
Methylene Chloride	<0.00500

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊕ DESTROYED WELL
- ⊕ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK
- TCE TRICHLOROETHYLENE
- PCE TETRACHLOROETHYLENE
- cis-1,2-DCE cis-1,2-DICHLOROETHENE
- mg/L MILLIGRAMS PER LITER
- <0.00100 NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT (RDL)
- J THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY
- [] BLIND DUPLICATE SAMPLE RESULT
- BOLD** DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
- BOLD** VALUE EXCEEDS ADEC GROUNDWATER CLEANUP LEVEL
- (NS) NOT SAMPLED



Analyte	ADEC Groundwater Cleanup Levels
1,2-Dichloroethane	0.0017
TCE	0.0028
PCE	0.041
cis-1,2-DCE	0.036
Methyl Chloride	0.1



NOTES:

1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

CHEVRON-BRANDED SERVICE STATION 97324
 4417 LAKE OTIS PARKWAY
 ANCHORAGE, ALASKA

GROUNDWATER ANALYTICAL RESULTS MAP- SOLVENTS
 APRIL 7, 2021



APPENDIX A



Chevron Environmental Management Company

Appendix A:

Site History and Background

Former Chevron Facility 97324

4417 Lake Otis Parkway

Anchorage, Alaska

ADEC File No: 2100.26.008

HAZARD ID No: 23885

June 19, 2020

Appendix A: 97324 Site Description and Background

1 97324 SITE BACKGROUND AND HISTORY

1.1 Site Description and Vicinity

Former Chevron Facility 97324 is located at 4417 Lake Otis Parkway in Anchorage, Alaska. The site was formerly operated as a Chevron-branded service station with three underground storage tanks (UST), two dispenser islands, and a station building with an auto service bay. The surrounding properties are mixed commercial and industrial; the site is bordered to the north, west, and south by former or current ADEC contaminated sites.

1.2 Site History

In 2004, the facility building, three petroleum underground storage tanks (USTs) equipped with dispenser pumps, and product lines were removed from the property. A remediation system consisting of seven air sparge (AS) wells and four soil vapor extraction (SVE) wells was operated seasonally until 2017, when it was shut down.

2 SITE CHARACTERIZATIONS

A soil and groundwater remediation system which included seven air sparge (AS) wells and four soil vapor extraction (SVE) wells was shut down in 2017. Currently, six groundwater monitoring wells remain in place, four of which are sampled and monitored semiannually.

3 CURRENT SITE MONITORING ACTIVITIES

The site currently has a network of six monitoring wells; four wells are monitored and sampled semiannually (MW-1R, MW-2R, MW-8RR, and MW-9). Historically, concentrations of volatile organic compounds (VOCs), gasoline range organics (GRO), and diesel range organics (DRO) have exceeded their respective ADEC Method 2 groundwater cleanup levels in several monitoring wells.

4 GEOLOGY AND HYDROGEOLOGY

4.1 Site Hydrogeology

The site is in south central Alaska, south of the Knik Arm and north of the Turnagain Arm of Cook Inlet. From 1992 until present, static groundwater depths at the site have ranged between 8.58 to 24.53 feet below top of casing (ft btoc). Historic ground water flow is to the northwest.

5 REFERENCES

GHD Inc. 2018. Second Semiannual 2018 Groundwater Monitoring Report Former Chevron-Branded Service Station 97324, 4417 Lake Otis Parkway , Anchorage, AK. December 5

APPENDIX B



Daily Log

Project Name : 97324 **Weather(°F) :** Clear
Project Number : 30063667 **Prepared By:** Evan Wujcik
Purpose : Gw sampling
PPE : Level D
Equipment: Water Quality Meter (i.e. YSI), Water Level Meter (WLM), Bladder Pump, Photoionization Detector (PID)

Date	Time	Description of Activities
04/07/2021	10:00	Arrive on site Open permit to work Locate Wells
04/07/2021	11:00	MW-8RR Unable to be located, Well located under roughly 2 feet of ice magnetic locator unable to locate well because of close proximity to metal fence
04/07/2021	12:00	Sample MW-9 Decon equipment MS/MSD Samples collected at this location See chain of custody for analytes
04/07/2021	14:00	Sample MW-2R Decon equipment Blind duplicate Samples collected at this location See chain of custody for analytes
04/07/2021	15:00	Sample MW-1R Decon equipment See chain of custody for analytes
04/07/2021	16:00	Load vehicle Close permit to work Mobilize offsite

Signature:



Waste Management:										
Drums On Site										
Date	Are there any waste drums on site?	Number of Drums upon Arrival	Size of Drums	Type of Drums	Condition of Drums	Waste Drummed Today?	Number of drums Created	Size of drums	Condition of Drums	General Waste Comments
04/07/2021	no					no				

Other Photos



Approximate MW8RR location buried in roughly 2ft of ice, could not detect using magnetic locator because of close proximity to metal fencing

Equipment and Calibration Information:

Supplier: Pine

Model:

Rental Number:

Calibrated:

**Bump
Checked:**

**Calibration
Passed:**

Water Quality Meter SN:

Date	Time	Calibrated Fulid and Value	Lot #	Expiration Date	Initial Reading	Final Reading
04/07/2021						

Equipment and Calibration Information:

Supplier: Pine

Model:

Rental Number:

Calibrated:

**Bump
Checked:**

**Calibration
Passed:**

PIDSN:

Date	Time	Calibrated Fulid and Value	Lot #	Expiration Date	Initial Reading	Final Reading
04/07/2021	--					

Groundwater Gauging Log

Client:		Chevron					
Site ID:		97324					
Site Location:		Anchorage, Alaska					
Measuring Point:		Top of Casing					
Date(s):		04/07/2021					
Sampler(s):		Evan Wujcik					
Gauging Equipment:		Water Level Meter					
Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft bmp)	Total Depth (ft bmp)	PID Reading (ppm)	Comments
MW-1R	04/07/2021	11:09	24.21	ND	31.00	0	--
MW-2R	04/07/2021	11:07	24.94	ND	31.30	0	--
MW-9	04/07/2021	11:14	15.88	ND	19.30	0	--

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

Project Number	30063667	Well ID	MW-1R	Date	4/7/2021	
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material PVC
Static Water Level (ft-bmp)	24.21	Total Depth (ft-bmp)	31	Water Column (ft)	6.79	Gallons in Well 1.1
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab	
Sample Time	15:00	Well Volumes Purged	0.58	Sample ID	MW-1R-W-20210407	Evacuation Equipment Bladder
Purge Start	14:30	Gallons Purged	0.63	Duplicate ID	--	
Purge End	14:50	Total Purge Time (h:m)	0:20			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
14:33	200	24.21	7.68	0.582	145	2.87	4.75	120	--	--
14:36	200	24.21	7.54	0.575	145	2.24	4.73	123	--	--
14:39	200	24.21	7.49	0.571	145	1.94	4.76	125	--	--
14:42	200	24.21	7.45	0.564	139	1.67	4.77	126	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-1R-W-20210407 Sample Time: 15:00 Sample Depth (ft-bmp): 25

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Project Number	30063667	Well ID	MW-2R	Date	4/7/2021		
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by	Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	24.94	Total Depth (ft-bmp)	31.3	Water Column (ft)	6.36	Gallons in Well	1.03
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab		
Sample Time	14:00	Well Volumes Purged	0.77	Sample ID	MW-2R-W-20210407	Evacuation Equipment	Bladder
Purge Start	13:30	Gallons Purged	0.79	Duplicate ID	BD-1-W-20210407		
Purge End	13:50	Total Purge Time (h:m)	0:20				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
13:33	200	24.94	7.25	1.04	53.1	2.32	4.31	180	--	--
13:36	200	24.94	7.28	1.04	47.9	2.14	4.36	173	--	--
13:39	200	24.94	7.30	1.04	41.3	1.96	4.36	166	--	--
13:42	200	24.94	7.31	1.04	39.9	1.84	4.36	160	--	--
13:45	200	24.94	7.33	1.03	36.5	1.77	4.33	157	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2R-W-20210407 Sample Time: 14:00 Sample Depth (ft-bmp): 25.5

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Project Number	30063667	Well ID	MW-9	Date	4/7/2021		
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by	Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	15.88	Total Depth (ft-bmp)	19.3	Water Column (ft)	3.42	Gallons in Well	0.56
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab		
Sample Time	12:00	Well Volumes Purged	1.13	Sample ID	MW-9-W-20210407	Evacuation Equipment	Bladder
Purge Start	11:30	Gallons Purged	0.63	Duplicate ID	MS/MSD		
Purge End	11:50	Total Purge Time (h:m)	0:20				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
11:33	200	15.88	6.97	0.345	68.9	3.67	4.45	234	--	--
11:36	200	15.88	6.93	0.346	71.0	3.60	4.50	235	--	--
11:39	200	15.88	6.90	0.345	62.0	3.52	4.46	240	--	--
11:42	200	15.88	6.85	0.346	59.3	3.48	4.40	245	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-W-20210407 Sample Time: 12:00 Sample Depth (ft-bmp): 16.5
 Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

APPENDIX D



Arcadis - Chevron - AK

Sample Delivery Group: L1336848
Samples Received: 04/09/2021
Project Number: 30063667.19.21
Description: 97324
Site: 4417 LAKE OTIS PKWY, ANCHORAGE
Report To: Sydney Clark
880 H St.
Anchorage, AK 99501

Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	6
MW-9-W-20210407 L1336848-01	6
MW-2R-W-20210407 L1336848-02	8
MW-1R-W-20210407 L1336848-03	11
BD-1-W-20210407 L1336848-04	13
EQB-1-W-20210407 L1336848-05	16
TRIP BLANK-20210407 L1336848-06	19
Qc: Quality Control Summary	21
Volatile Organic Compounds (GC) by Method AK101	21
Volatile Organic Compounds (GC/MS) by Method 8260D	22
Semi-Volatile Organic Compounds (GC) by Method AK102	35
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	36
Gl: Glossary of Terms	38
Al: Accreditations & Locations	39
Sc: Sample Chain of Custody	40



SAMPLE SUMMARY

MW-9-W-20210407 L1336848-01 GW

Collected by E. Wujcik Collected date/time 04/07/21 12:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 00:56	04/14/21 00:56	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 14:50	04/11/21 14:50	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 20:49	04/13/21 20:49	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 20:14	TJD	Mt. Juliet, TN



MW-2R-W-20210407 L1336848-02 GW

Collected by E. Wujcik Collected date/time 04/07/21 14:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 01:17	04/14/21 01:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 15:14	04/11/21 15:14	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 21:08	04/13/21 21:08	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 21:15	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1	04/12/21 07:51	04/12/21 15:53	ADF	Mt. Juliet, TN

MW-1R-W-20210407 L1336848-03 GW

Collected by E. Wujcik Collected date/time 04/07/21 15:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 01:39	04/14/21 01:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 14:27	04/11/21 14:27	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 21:28	04/13/21 21:28	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1	04/16/21 07:19	04/16/21 21:35	TJD	Mt. Juliet, TN

BD-1-W-20210407 L1336848-04 GW

Collected by E. Wujcik Collected date/time 04/07/21 00:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 02:01	04/14/21 02:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 15:38	04/11/21 15:38	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1653830	1	04/18/21 18:19	04/18/21 18:19	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 21:55	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1.11	04/12/21 07:51	04/12/21 16:12	ADF	Mt. Juliet, TN

EQB-1-W-20210407 L1336848-05 GW

Collected by E. Wujcik Collected date/time 04/07/21 16:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/13/21 23:29	04/13/21 23:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 14:03	04/11/21 14:03	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 17:19	04/13/21 17:19	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 22:16	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1	04/12/21 07:51	04/12/21 16:32	LEA	Mt. Juliet, TN

TRIP BLANK-20210407 L1336848-06 GW

Collected by E. Wujcik Collected date/time 04/07/21 00:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/13/21 22:46	04/13/21 22:46	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 13:40	04/11/21 13:40	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 17:38	04/13/21 17:38	ADM	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager



Volatile Organic Compounds (GC) by Method AK101

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG1650388	TPHGAK C6 to C10	L1336848-01, 03, 05, 06

Volatile Organic Compounds (GC/MS) by Method 8260D

The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	Naphthalene
WG1650373	L1336848-02	Naphthalene
WG1650373	L1336848-03	Naphthalene
WG1650373	L1336848-05	Naphthalene
WG1650373	L1336848-06	Naphthalene
WG1653830	L1336848-04	1,1,2,2-Tetrachloroethane, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-Chloropropane and Acrolein

The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	1,2,3-Trichlorobenzene
WG1650373	L1336848-02	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-03	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-05	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-06	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1653830	L1336848-04	1,2,3-Trichlorobenzene

The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	Tetrachloroethene

The associated batch QC was above the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG1650373	(LCS) R3643092-1, L1336848-01, 02, 03, 05, 06	Tetrachloroethene
WG1653830	(LCS) R3643512-1, L1336848-04	Chloroethane

CASE NARRATIVE

Volatile Organic Compounds (GC/MS) by Method 8260D

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG1650373	(MS) R3643092-5, (MSD) R3643092-6, L1336848-01	Tetrachloroethene

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG1650373	(MSD) R3643092-4, (MSD) R3643092-6, L1336848-01	Acetone

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	13.0	<u>B J</u>	10.0	100	1	04/14/2021 00:56	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.6			50.0-150		04/14/2021 00:56	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 14:50	WG1649541
Acetone	U	<u>J3</u>	11.3	50.0	1	04/13/2021 20:49	WG1650373
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 14:50	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 20:49	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 20:49	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 20:49	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 20:49	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 20:49	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 20:49	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 20:49	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 20:49	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 20:49	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 20:49	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 20:49	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 20:49	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 20:49	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 20:49	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 20:49	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 20:49	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 20:49	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 20:49	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 20:49	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichlorobenzene	0.114	<u>J</u>	0.107	1.00	1	04/13/2021 20:49	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 20:49	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 20:49	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 20:49	WG1650373
cis-1,2-Dichloroethene	49.0		0.126	1.00	1	04/13/2021 20:49	WG1650373
trans-1,2-Dichloroethene	0.319	<u>J</u>	0.149	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 20:49	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 20:49	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 20:49	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 20:49	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 20:49	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 20:49	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 20:49	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 20:49	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 20:49	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 20:49	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 20:49	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 20:49	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 20:49	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	C3	1.00	5.00	1	04/13/2021 20:49	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 20:49	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 20:49	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 20:49	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 20:49	WG1650373
Tetrachloroethene	92.2	C5 J4 V	0.300	1.00	1	04/13/2021 20:49	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 20:49	WG1650373
1,2,3-Trichlorobenzene	U	C4	0.230	1.00	1	04/13/2021 20:49	WG1650373
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/13/2021 20:49	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 20:49	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 20:49	WG1650373
Trichloroethene	20.2		0.190	1.00	1	04/13/2021 20:49	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 20:49	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 20:49	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 20:49	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 20:49	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 20:49	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 20:49	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 20:49	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 20:49	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 20:49	WG1650373
(S) 4-Bromofluorobenzene	101			77.0-126		04/13/2021 20:49	WG1650373
(S) 1,2-Dichloroethane-d4	103			70.0-130		04/13/2021 20:49	WG1650373

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		254	888	1.11	04/16/2021 20:14	WG1651579
(S) o-Terphenyl	66.7			50.0-150		04/16/2021 20:14	WG1651579

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	1610		10.0	100	1	04/14/2021 01:17	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	92.8			50.0-150		04/14/2021 01:17	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 15:14	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 21:08	WG1650373
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 15:14	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 21:08	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 21:08	WG1650373
Benzene	5.07		0.0941	1.00	1	04/13/2021 21:08	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 21:08	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 21:08	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 21:08	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 21:08	WG1650373
n-Butylbenzene	3.55		0.157	1.00	1	04/13/2021 21:08	WG1650373
sec-Butylbenzene	8.27		0.125	1.00	1	04/13/2021 21:08	WG1650373
tert-Butylbenzene	11.5		0.127	1.00	1	04/13/2021 21:08	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 21:08	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 21:08	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 21:08	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 21:08	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 21:08	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 21:08	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 21:08	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 21:08	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 21:08	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 21:08	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 21:08	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 21:08	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichloroethane	5.65		0.0819	1.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 21:08	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 21:08	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 21:08	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 21:08	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 21:08	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 21:08	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 21:08	WG1650373
Ethylbenzene	66.9		0.137	1.00	1	04/13/2021 21:08	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 21:08	WG1650373
Isopropylbenzene	39.3		0.105	1.00	1	04/13/2021 21:08	WG1650373
p-Isopropyltoluene	2.21		0.120	1.00	1	04/13/2021 21:08	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 21:08	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 21:08	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 21:08	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 21:08	WG1650373

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	27.8	<u>C3</u>	1.00	5.00	1	04/13/2021 21:08	WG1650373
n-Propylbenzene	57.9		0.0993	1.00	1	04/13/2021 21:08	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 21:08	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 21:08	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 21:08	WG1650373
Tetrachloroethene	0.422	<u>JJ4</u>	0.300	1.00	1	04/13/2021 21:08	WG1650373
Toluene	1.40		0.278	1.00	1	04/13/2021 21:08	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 21:08	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 21:08	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 21:08	WG1650373
Trichloroethene	0.555	<u>J</u>	0.190	1.00	1	04/13/2021 21:08	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 21:08	WG1650373
1,2,4-Trimethylbenzene	56.3		0.322	1.00	1	04/13/2021 21:08	WG1650373
1,2,3-Trimethylbenzene	3.98		0.104	1.00	1	04/13/2021 21:08	WG1650373
1,3,5-Trimethylbenzene	13.8		0.104	1.00	1	04/13/2021 21:08	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 21:08	WG1650373
Xylenes, Total	63.6		0.174	3.00	1	04/13/2021 21:08	WG1650373
o-Xylene	3.52		0.174	1.00	1	04/13/2021 21:08	WG1650373
m&p-Xylene	60.1		0.430	2.00	1	04/13/2021 21:08	WG1650373
(S) Toluene-d8	107			80.0-120		04/13/2021 21:08	WG1650373
(S) 4-Bromofluorobenzene	98.6			77.0-126		04/13/2021 21:08	WG1650373
(S) 1,2-Dichloroethane-d4	100			70.0-130		04/13/2021 21:08	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1310		254	888	1.11	04/16/2021 21:15	WG1651579
(S) o-Terphenyl	84.0			50.0-150		04/16/2021 21:15	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	04/12/2021 15:53	WG1648369
Acenaphthene	0.0457	<u>J</u>	0.0190	0.0500	1	04/12/2021 15:53	WG1648369
Acenaphthylene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(a)anthracene	U		0.0200	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(a)pyrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(b)fluoranthene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(k)fluoranthene	U		0.0200	0.250	1	04/12/2021 15:53	WG1648369
Chrysene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Fluoranthene	U		0.0110	0.0500	1	04/12/2021 15:53	WG1648369
Fluorene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Naphthalene	26.9		0.128	0.500	1	04/12/2021 15:53	WG1648369
Phenanthrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Pyrene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
1-Methylnaphthalene	7.90		0.0200	0.500	1	04/12/2021 15:53	WG1648369
2-Methylnaphthalene	3.79		0.0280	0.500	1	04/12/2021 15:53	WG1648369
2-Chloronaphthalene	U		0.0120	0.500	1	04/12/2021 15:53	WG1648369
(S) Nitrobenzene-d5	80.0			11.0-135		04/12/2021 15:53	WG1648369
(S) 2-Fluorobiphenyl	80.5			32.0-120		04/12/2021 15:53	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	97.5		ug/l	23.0-122		04/12/2021 15:53	WG1648369

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	19.1	<u>B</u> <u>J</u>	10.0	100	1	04/14/2021 01:39	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.1			50.0-150		04/14/2021 01:39	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 14:27	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 21:28	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 14:27	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 21:28	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 21:28	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 21:28	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 21:28	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 21:28	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 21:28	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 21:28	WG1650373
n-Butylbenzene	0.222	<u>I</u> <u>J</u> <u>K</u>	0.157	1.00	1	04/13/2021 21:28	WG1650373
sec-Butylbenzene	0.282	<u>I</u> <u>J</u> <u>K</u>	0.125	1.00	1	04/13/2021 21:28	WG1650373
tert-Butylbenzene	0.304	<u>I</u> <u>J</u> <u>K</u>	0.127	1.00	1	04/13/2021 21:28	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 21:28	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 21:28	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 21:28	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 21:28	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 21:28	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 21:28	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 21:28	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 21:28	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 21:28	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 21:28	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 21:28	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 21:28	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichloroethane	2.76		0.0819	1.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 21:28	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 21:28	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 21:28	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 21:28	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 21:28	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 21:28	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 21:28	WG1650373
Ethylbenzene	0.226	<u>I</u> <u>J</u>	0.137	1.00	1	04/13/2021 21:28	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 21:28	WG1650373
Isopropylbenzene	0.426	<u>I</u> <u>J</u>	0.105	1.00	1	04/13/2021 21:28	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 21:28	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 21:28	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 21:28	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 21:28	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 21:28	WG1650373

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	1.66	<u>C3 J</u>	1.00	5.00	1	04/13/2021 21:28	WG1650373
n-Propylbenzene	1.01		0.0993	1.00	1	04/13/2021 21:28	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 21:28	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 21:28	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 21:28	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 21:28	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 21:28	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 21:28	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 21:28	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 21:28	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 21:28	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 21:28	WG1650373
1,2,4-Trimethylbenzene	0.943	<u>J</u>	0.322	1.00	1	04/13/2021 21:28	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 21:28	WG1650373
1,3,5-Trimethylbenzene	0.258	<u>J</u>	0.104	1.00	1	04/13/2021 21:28	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 21:28	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 21:28	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 21:28	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 21:28	WG1650373
(S) Toluene-d8	108			80.0-120		04/13/2021 21:28	WG1650373
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/13/2021 21:28	WG1650373
(S) 1,2-Dichloroethane-d4	101			70.0-130		04/13/2021 21:28	WG1650373

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		229	800	1	04/16/2021 21:35	WG1651579
(S) o-Terphenyl	76.8			50.0-150		04/16/2021 21:35	WG1651579

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	1610		10.0	100	1	04/14/2021 02:01	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.0			50.0-150		04/14/2021 02:01	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 15:38	WG1649541
Acetone	U		11.3	50.0	1	04/18/2021 18:19	WG1653830
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 15:38	WG1649541
Acrolein	U	C3	2.54	50.0	1	04/18/2021 18:19	WG1653830
Acrylonitrile	U		0.671	10.0	1	04/18/2021 18:19	WG1653830
Benzene	5.61		0.0941	1.00	1	04/18/2021 18:19	WG1653830
Bromobenzene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
Bromochloromethane	U		0.128	1.00	1	04/18/2021 18:19	WG1653830
Bromodichloromethane	U		0.136	1.00	1	04/18/2021 18:19	WG1653830
Bromoform	U		0.129	1.00	1	04/18/2021 18:19	WG1653830
Bromomethane	U		0.605	5.00	1	04/18/2021 18:19	WG1653830
n-Butylbenzene	5.28		0.157	1.00	1	04/18/2021 18:19	WG1653830
sec-Butylbenzene	7.54		0.125	1.00	1	04/18/2021 18:19	WG1653830
tert-Butylbenzene	10.0		0.127	1.00	1	04/18/2021 18:19	WG1653830
Carbon disulfide	U		0.0962	1.00	1	04/18/2021 18:19	WG1653830
Carbon tetrachloride	U		0.128	1.00	1	04/18/2021 18:19	WG1653830
Chlorobenzene	U		0.116	1.00	1	04/18/2021 18:19	WG1653830
Chlorodibromomethane	U		0.140	1.00	1	04/18/2021 18:19	WG1653830
Chloroethane	U	J4	0.192	5.00	1	04/18/2021 18:19	WG1653830
Chloroform	U		0.111	5.00	1	04/18/2021 18:19	WG1653830
Chloromethane	U		0.960	2.50	1	04/18/2021 18:19	WG1653830
2-Chlorotoluene	U		0.106	1.00	1	04/18/2021 18:19	WG1653830
4-Chlorotoluene	U		0.114	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dibromo-3-Chloropropane	U	C3	0.276	5.00	1	04/18/2021 18:19	WG1653830
Dibromomethane	U		0.122	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichlorobenzene	U		0.107	1.00	1	04/18/2021 18:19	WG1653830
1,3-Dichlorobenzene	U		0.110	1.00	1	04/18/2021 18:19	WG1653830
1,4-Dichlorobenzene	U		0.120	1.00	1	04/18/2021 18:19	WG1653830
Dichlorodifluoromethane	U		0.374	5.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloroethane	U		0.100	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichloroethane	6.82		0.0819	1.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloroethene	U		0.188	1.00	1	04/18/2021 18:19	WG1653830
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/18/2021 18:19	WG1653830
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichloropropane	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloropropene	U		0.142	1.00	1	04/18/2021 18:19	WG1653830
1,3-Dichloropropane	U		0.110	1.00	1	04/18/2021 18:19	WG1653830
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/18/2021 18:19	WG1653830
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
2,2-Dichloropropane	U		0.161	1.00	1	04/18/2021 18:19	WG1653830
Di-isopropyl ether	U		0.105	1.00	1	04/18/2021 18:19	WG1653830
Ethylbenzene	64.3		0.137	1.00	1	04/18/2021 18:19	WG1653830
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/18/2021 18:19	WG1653830
Isopropylbenzene	34.6		0.105	1.00	1	04/18/2021 18:19	WG1653830
p-Isopropyltoluene	U		0.120	1.00	1	04/18/2021 18:19	WG1653830
2-Butanone (MEK)	U		1.19	10.0	1	04/18/2021 18:19	WG1653830
Methylene Chloride	U		0.430	5.00	1	04/18/2021 18:19	WG1653830
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/18/2021 18:19	WG1653830
Methyl tert-butyl ether	U		0.101	1.00	1	04/18/2021 18:19	WG1653830

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	29.8		1.00	5.00	1	04/18/2021 18:19	WG1653830
n-Propylbenzene	58.9		0.0993	1.00	1	04/18/2021 18:19	WG1653830
Styrene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/18/2021 18:19	WG1653830
1,1,2,2-Tetrachloroethane	U	C3	0.133	1.00	1	04/18/2021 18:19	WG1653830
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/18/2021 18:19	WG1653830
Tetrachloroethene	U		0.300	1.00	1	04/18/2021 18:19	WG1653830
Toluene	1.31		0.278	1.00	1	04/18/2021 18:19	WG1653830
1,2,3-Trichlorobenzene	U	C4	0.230	1.00	1	04/18/2021 18:19	WG1653830
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	04/18/2021 18:19	WG1653830
1,1,1-Trichloroethane	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,1,2-Trichloroethane	U		0.158	1.00	1	04/18/2021 18:19	WG1653830
Trichloroethene	U		0.190	1.00	1	04/18/2021 18:19	WG1653830
Trichlorofluoromethane	U		0.160	5.00	1	04/18/2021 18:19	WG1653830
1,2,4-Trimethylbenzene	56.7		0.322	1.00	1	04/18/2021 18:19	WG1653830
1,2,3-Trimethylbenzene	3.99		0.104	1.00	1	04/18/2021 18:19	WG1653830
1,3,5-Trimethylbenzene	13.2		0.104	1.00	1	04/18/2021 18:19	WG1653830
Vinyl chloride	U		0.234	1.00	1	04/18/2021 18:19	WG1653830
Xylenes, Total	63.3		0.174	3.00	1	04/18/2021 18:19	WG1653830
o-Xylene	3.29		0.174	1.00	1	04/18/2021 18:19	WG1653830
m&p-Xylene	60.0		0.430	2.00	1	04/18/2021 18:19	WG1653830
(S) Toluene-d8	93.1			80.0-120		04/18/2021 18:19	WG1653830
(S) 4-Bromofluorobenzene	94.7			77.0-126		04/18/2021 18:19	WG1653830
(S) 1,2-Dichloroethane-d4	123			70.0-130		04/18/2021 18:19	WG1653830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1170		254	888	1.11	04/16/2021 21:55	WG1651579
(S) o-Terphenyl	81.8			50.0-150		04/16/2021 21:55	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0211	0.0555	1.11	04/12/2021 16:12	WG1648369
Acenaphthene	0.0535	J	0.0211	0.0555	1.11	04/12/2021 16:12	WG1648369
Acenaphthylene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(a)anthracene	U		0.0222	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(a)pyrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(b)fluoranthene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(g,h,i)perylene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(k)fluoranthene	U		0.0222	0.278	1.11	04/12/2021 16:12	WG1648369
Chrysene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Dibenz(a,h)anthracene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Fluoranthene	U		0.0122	0.0555	1.11	04/12/2021 16:12	WG1648369
Fluorene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Naphthalene	32.4		0.142	0.555	1.11	04/12/2021 16:12	WG1648369
Phenanthrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Pyrene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
1-Methylnaphthalene	9.39		0.0222	0.555	1.11	04/12/2021 16:12	WG1648369
2-Methylnaphthalene	4.58		0.0311	0.555	1.11	04/12/2021 16:12	WG1648369
2-Chloronaphthalene	U		0.0133	0.555	1.11	04/12/2021 16:12	WG1648369
(S) Nitrobenzene-d5	80.6			11.0-135		04/12/2021 16:12	WG1648369
(S) 2-Fluorobiphenyl	77.0			32.0-120		04/12/2021 16:12	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
(S) p-Terphenyl-d14	89.2		ug/l	ug/l		date / time	WG1648369

Sample Narrative:

L1336848-04 WG1648369: Dilution due to sample volume.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	10.4	<u>B</u> <u>J</u>	10.0	100	1	04/13/2021 23:29	WG1650388
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.7			50.0-150		04/13/2021 23:29	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 14:03	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 17:19	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 14:03	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 17:19	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 17:19	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 17:19	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 17:19	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 17:19	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 17:19	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 17:19	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 17:19	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 17:19	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 17:19	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 17:19	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 17:19	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 17:19	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 17:19	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 17:19	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 17:19	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 17:19	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 17:19	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 17:19	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 17:19	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 17:19	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 17:19	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 17:19	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 17:19	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 17:19	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 17:19	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 17:19	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 17:19	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 17:19	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 17:19	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 17:19	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 17:19	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 17:19	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 17:19	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 17:19	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 17:19	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 17:19	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	<u>C3</u>	1.00	5.00	1	04/13/2021 17:19	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 17:19	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 17:19	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 17:19	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 17:19	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 17:19	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 17:19	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 17:19	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 17:19	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 17:19	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 17:19	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 17:19	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 17:19	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:19	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:19	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 17:19	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 17:19	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 17:19	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 17:19	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 17:19	WG1650373
(S) 4-Bromofluorobenzene	102			77.0-126		04/13/2021 17:19	WG1650373
(S) 1,2-Dichloroethane-d4	100			70.0-130		04/13/2021 17:19	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		254	888	1.11	04/16/2021 22:16	WG1651579
(S) o-Terphenyl	72.1			50.0-150		04/16/2021 22:16	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	04/12/2021 16:32	WG1648369
Acenaphthene	U		0.0190	0.0500	1	04/12/2021 16:32	WG1648369
Acenaphthylene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(a)anthracene	U		0.0200	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(a)pyrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(b)fluoranthene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(k)fluoranthene	U		0.0200	0.250	1	04/12/2021 16:32	WG1648369
Chrysene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Fluoranthene	U		0.0110	0.0500	1	04/12/2021 16:32	WG1648369
Fluorene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Naphthalene	U		0.128	0.500	1	04/12/2021 16:32	WG1648369
Phenanthrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Pyrene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
1-Methylnaphthalene	U		0.0200	0.500	1	04/12/2021 16:32	WG1648369
2-Methylnaphthalene	U		0.0280	0.500	1	04/12/2021 16:32	WG1648369
2-Chloronaphthalene	U		0.0120	0.500	1	04/12/2021 16:32	WG1648369
(S) Nitrobenzene-d5	69.5			11.0-135		04/12/2021 16:32	WG1648369
(S) 2-Fluorobiphenyl	78.5			32.0-120		04/12/2021 16:32	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
(S) p-Terphenyl-d14	99.5			23.0-122		04/12/2021 16:32	WG1648369

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	11.2	<u>B J</u>	10.0	100	1	04/13/2021 22:46	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.6			50.0-150		04/13/2021 22:46	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 13:40	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 17:38	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 13:40	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 17:38	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 17:38	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 17:38	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 17:38	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 17:38	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 17:38	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 17:38	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 17:38	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 17:38	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 17:38	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 17:38	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 17:38	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 17:38	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 17:38	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 17:38	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 17:38	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 17:38	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 17:38	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 17:38	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 17:38	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 17:38	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 17:38	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 17:38	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 17:38	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 17:38	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 17:38	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 17:38	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 17:38	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 17:38	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 17:38	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 17:38	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 17:38	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 17:38	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 17:38	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 17:38	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 17:38	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 17:38	WG1650373



Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	<u>C3</u>	1.00	5.00	1	04/13/2021 17:38	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 17:38	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 17:38	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 17:38	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 17:38	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 17:38	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 17:38	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 17:38	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 17:38	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 17:38	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 17:38	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 17:38	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 17:38	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:38	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:38	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 17:38	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 17:38	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 17:38	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 17:38	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 17:38	WG1650373
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/13/2021 17:38	WG1650373
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		04/13/2021 17:38	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3642026-3 04/13/21 18:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHGAK C6 to C10	15.3	↓	10.0	100
(S) a,a,a-Trifluorotoluene(FID)	91.7			60.0-120

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3642026-1 04/13/21 17:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TPHGAK C6 to C10	5000	3860	77.2	60.0-120	
(S) a,a,a-Trifluorotoluene(FID)			104	60.0-120	

L1336137-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336137-01 04/13/21 23:51 • (MS) R3642026-4 04/14/21 02:22 • (MSD) R3642026-5 04/14/21 02:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHGAK C6 to C10	5000	10.3	3680	3700	73.4	73.8	1	70.0-130			0.542	20
(S) a,a,a-Trifluorotoluene(FID)					100	101		50.0-150				

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/14/21 00:56 • (MS) R3642026-6 04/14/21 03:10 • (MSD) R3642026-7 04/14/21 03:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHGAK C6 to C10	5000	13.0	3640	3690	72.5	73.5	1	70.0-130			1.36	20
(S) a,a,a-Trifluorotoluene(FID)					102	103		50.0-150				

Method Blank (MB)

(MB) R3643373-2 04/11/21 12:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,2,3-Trichloropropane	U		0.00200	0.00500
1,2-Dibromoethane	U		0.00410	0.00500

Laboratory Control Sample (LCS)

(LCS) R3643373-1 04/11/21 12:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
1,2,3-Trichloropropane	0.0500	0.0500	100	70.0-130	
1,2-Dibromoethane	0.0500	0.0470	94.0	70.0-130	

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/11/21 14:50 • (MS) R3643373-3 04/11/21 16:01 • (MSD) R3643373-4 04/11/21 16:24

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
1,2,3-Trichloropropane	2.50	U	2.95	2.80	118	112	50	70.0-130			5.22	20
1,2-Dibromoethane	2.50	U	2.45	2.60	98.0	104	50	70.0-130			5.94	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643092-2 04/13/21 16:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromochloromethane	U		0.128	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3643092-2 04/13/21 16:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
o-Xylene	U		0.174	1.00
m&p-Xylenes	U		0.430	2.00
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	99.6			77.0-126
(S) 1,2-Dichloroethane-d4	100			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	29.5	118	19.0-160	
Acrolein	25.0	25.3	101	10.0-160	

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acrylonitrile	25.0	28.6	114	55.0-149	
Benzene	5.00	4.63	92.6	70.0-123	
Bromobenzene	5.00	5.42	108	73.0-121	
Bromodichloromethane	5.00	4.64	92.8	75.0-120	
Bromochloromethane	5.00	5.80	116	76.0-122	
Bromoform	5.00	6.05	121	68.0-132	
Bromomethane	5.00	3.90	78.0	10.0-160	
n-Butylbenzene	5.00	4.91	98.2	73.0-125	
sec-Butylbenzene	5.00	5.13	103	75.0-125	
tert-Butylbenzene	5.00	5.33	107	76.0-124	
Carbon disulfide	5.00	4.49	89.8	61.0-128	
Carbon tetrachloride	5.00	5.20	104	68.0-126	
Chlorobenzene	5.00	5.45	109	80.0-121	
Chlorodibromomethane	5.00	5.84	117	77.0-125	
Chloroethane	5.00	4.11	82.2	47.0-150	
Chloroform	5.00	4.75	95.0	73.0-120	
Chloromethane	5.00	5.85	117	41.0-142	
2-Chlorotoluene	5.00	5.08	102	76.0-123	
4-Chlorotoluene	5.00	4.41	88.2	75.0-122	
1,2-Dibromo-3-Chloropropane	5.00	4.68	93.6	58.0-134	
Dibromomethane	5.00	4.87	97.4	80.0-120	
1,2-Dichlorobenzene	5.00	5.23	105	79.0-121	
1,3-Dichlorobenzene	5.00	5.42	108	79.0-120	
1,4-Dichlorobenzene	5.00	5.08	102	79.0-120	
Dichlorodifluoromethane	5.00	4.25	85.0	51.0-149	
1,1-Dichloroethane	5.00	4.67	93.4	70.0-126	
1,2-Dichloroethane	5.00	4.89	97.8	70.0-128	
1,1-Dichloroethene	5.00	5.04	101	71.0-124	
cis-1,2-Dichloroethene	5.00	5.12	102	73.0-120	
trans-1,2-Dichloroethene	5.00	4.98	99.6	73.0-120	
1,2-Dichloropropane	5.00	6.03	121	77.0-125	
1,1-Dichloropropene	5.00	4.87	97.4	74.0-126	
1,3-Dichloropropane	5.00	5.14	103	80.0-120	
cis-1,3-Dichloropropene	5.00	4.56	91.2	80.0-123	
trans-1,3-Dichloropropene	5.00	4.73	94.6	78.0-124	
2,2-Dichloropropane	5.00	4.54	90.8	58.0-130	
Di-isopropyl ether	5.00	5.33	107	58.0-138	
Ethylbenzene	5.00	5.23	105	79.0-123	
Hexachloro-1,3-butadiene	5.00	4.89	97.8	54.0-138	
Isopropylbenzene	5.00	5.87	117	76.0-127	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	5.00	5.13	103	76.0-125	
2-Butanone (MEK)	25.0	30.1	120	44.0-160	
Methylene Chloride	5.00	4.81	96.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	25.0	28.0	112	68.0-142	
Methyl tert-butyl ether	5.00	4.68	93.6	68.0-125	
Naphthalene	5.00	3.82	76.4	54.0-135	
n-Propylbenzene	5.00	4.80	96.0	77.0-124	
Styrene	5.00	5.05	101	73.0-130	
1,1,1,2-Tetrachloroethane	5.00	5.63	113	75.0-125	
1,1,2,2-Tetrachloroethane	5.00	4.37	87.4	65.0-130	
Tetrachloroethene	5.00	6.80	136	72.0-132	J4
Toluene	5.00	5.05	101	79.0-120	
1,1,2-Trichlorotrifluoroethane	5.00	4.78	95.6	69.0-132	
1,2,3-Trichlorobenzene	5.00	4.18	83.6	50.0-138	
1,2,4-Trichlorobenzene	5.00	4.90	98.0	57.0-137	
1,1,1-Trichloroethane	5.00	5.01	100	73.0-124	
1,1,2-Trichloroethane	5.00	5.58	112	80.0-120	
Trichloroethene	5.00	5.43	109	78.0-124	
Trichlorofluoromethane	5.00	4.61	92.2	59.0-147	
1,2,3-Trimethylbenzene	5.00	4.75	95.0	77.0-120	
1,2,4-Trimethylbenzene	5.00	4.79	95.8	76.0-121	
1,3,5-Trimethylbenzene	5.00	4.84	96.8	76.0-122	
Vinyl chloride	5.00	4.42	88.4	67.0-131	
Xylenes, Total	15.0	15.7	105	79.0-123	
o-Xylene	5.00	5.16	103	80.0-122	
m&p-Xylenes	10.0	10.5	105	80.0-122	
(S) Toluene-d8			108	80.0-120	
(S) 4-Bromofluorobenzene			98.0	77.0-126	
(S) 1,2-Dichloroethane-d4			102	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	24.4	16.8	97.6	67.2	1	10.0-160		J3	36.9	35
Acrolein	25.0	U	23.0	26.5	92.0	106	1	10.0-160			14.1	39
Acrylonitrile	25.0	U	27.0	30.8	108	123	1	21.0-160			13.1	32
Benzene	5.00	U	3.59	4.35	71.8	87.0	1	17.0-158			19.1	27

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	U	4.43	5.54	88.6	111	1	30.0-149			22.3	28
Bromodichloromethane	5.00	U	3.79	4.59	75.8	91.8	1	31.0-150			19.1	27
Bromochloromethane	5.00	U	4.61	5.50	92.2	110	1	38.0-142			17.6	26
Bromoform	5.00	U	5.44	6.00	109	120	1	29.0-150			9.79	29
Bromomethane	5.00	U	3.11	3.70	62.2	74.0	1	10.0-160			17.3	38
n-Butylbenzene	5.00	U	3.84	5.03	76.8	101	1	31.0-150			26.8	30
sec-Butylbenzene	5.00	U	4.14	5.28	82.8	106	1	33.0-155			24.2	29
tert-Butylbenzene	5.00	U	4.21	5.36	84.2	107	1	34.0-153			24.0	28
Carbon disulfide	5.00	U	2.86	3.52	57.2	70.4	1	10.0-156			20.7	28
Carbon tetrachloride	5.00	U	4.16	5.01	83.2	100	1	23.0-159			18.5	28
Chlorobenzene	5.00	U	4.29	5.14	85.8	103	1	33.0-152			18.0	27
Chlorodibromomethane	5.00	U	4.95	5.72	99.0	114	1	37.0-149			14.4	27
Chloroethane	5.00	U	3.43	4.00	68.6	80.0	1	10.0-160			15.3	30
Chloroform	5.00	U	3.85	4.39	77.0	87.8	1	29.0-154			13.1	28
Chloromethane	5.00	U	4.27	5.18	85.4	104	1	10.0-160			19.3	29
2-Chlorotoluene	5.00	U	4.01	4.87	80.2	97.4	1	32.0-153			19.4	28
4-Chlorotoluene	5.00	U	3.71	4.57	74.2	91.4	1	32.0-150			20.8	28
1,2-Dibromo-3-Chloropropane	5.00	U	4.46	5.37	89.2	107	1	22.0-151			18.5	34
Dibromomethane	5.00	U	4.06	5.04	81.2	101	1	30.0-151			21.5	27
1,2-Dichlorobenzene	5.00	U	4.34	5.31	86.8	106	1	34.0-149			20.1	28
1,3-Dichlorobenzene	5.00	U	4.27	5.34	85.4	107	1	36.0-146			22.3	27
1,4-Dichlorobenzene	5.00	U	4.43	5.28	88.6	106	1	35.0-142			17.5	27
Dichlorodifluoromethane	5.00	U	3.41	4.30	68.2	86.0	1	10.0-160			23.1	29
1,1-Dichloroethane	5.00	U	3.73	4.37	74.6	87.4	1	25.0-158			15.8	27
1,2-Dichloroethane	5.00	U	3.82	4.86	76.4	97.2	1	29.0-151			24.0	27
1,1-Dichloroethene	5.00	U	3.85	4.60	77.0	92.0	1	11.0-160			17.8	29
cis-1,2-Dichloroethene	5.00	U	4.25	4.80	85.0	96.0	1	10.0-160			12.2	27
trans-1,2-Dichloroethene	5.00	U	3.72	4.63	74.4	92.6	1	17.0-153			21.8	27
1,2-Dichloropropane	5.00	U	3.96	4.73	79.2	94.6	1	30.0-156			17.7	27
1,1-Dichloropropene	5.00	U	3.71	4.46	74.2	89.2	1	25.0-158			18.4	27
1,3-Dichloropropane	5.00	U	4.33	5.23	86.6	105	1	38.0-147			18.8	27
cis-1,3-Dichloropropene	5.00	U	3.60	4.14	72.0	82.8	1	34.0-149			14.0	28
trans-1,3-Dichloropropene	5.00	U	3.93	4.48	78.6	89.6	1	32.0-149			13.1	28
2,2-Dichloropropane	5.00	U	3.52	4.39	70.4	87.8	1	24.0-152			22.0	29
Di-isopropyl ether	5.00	U	4.45	5.33	89.0	107	1	21.0-160			18.0	28
Ethylbenzene	5.00	U	4.26	5.04	85.2	101	1	30.0-155			16.8	27
Hexachloro-1,3-butadiene	5.00	U	4.22	5.23	84.4	105	1	20.0-154			21.4	34
Isopropylbenzene	5.00	U	4.78	5.80	95.6	116	1	28.0-157			19.3	27
p-Isopropyltoluene	5.00	U	4.11	5.23	82.2	105	1	30.0-154			24.0	29
2-Butanone (MEK)	25.0	U	25.6	31.2	102	125	1	10.0-160			19.7	32

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methylene Chloride	5.00	U	3.69	4.60	73.8	92.0	1	23.0-144			22.0	28
4-Methyl-2-pentanone (MIBK)	25.0	U	26.4	31.5	106	126	1	29.0-160			17.6	29
Methyl tert-butyl ether	5.00	U	4.11	4.98	82.2	99.6	1	28.0-150			19.1	29
Naphthalene	5.00	U	3.39	4.12	67.8	82.4	1	12.0-156			19.4	35
n-Propylbenzene	5.00	U	3.89	4.79	77.8	95.8	1	31.0-154			20.7	28
Styrene	5.00	U	4.04	4.86	80.8	97.2	1	33.0-155			18.4	28
1,1,1,2-Tetrachloroethane	5.00	U	4.81	5.72	96.2	114	1	36.0-151			17.3	29
1,1,2,2-Tetrachloroethane	5.00	U	4.07	5.09	81.4	102	1	33.0-150			22.3	28
Tetrachloroethene	5.00	U	5.16	6.50	103	130	1	10.0-160			23.0	27
Toluene	5.00	U	4.10	4.83	82.0	96.6	1	26.0-154			16.3	28
1,1,2-Trichlorotrifluoroethane	5.00	U	4.07	4.85	81.4	97.0	1	23.0-160			17.5	30
1,2,3-Trichlorobenzene	5.00	U	3.08	4.11	61.6	82.2	1	17.0-150			28.7	36
1,2,4-Trichlorobenzene	5.00	U	3.84	5.06	76.8	101	1	24.0-150			27.4	33
1,1,1-Trichloroethane	5.00	U	4.07	4.80	81.4	96.0	1	23.0-160			16.5	28
1,1,2-Trichloroethane	5.00	U	4.82	5.67	96.4	113	1	35.0-147			16.2	27
Trichloroethene	5.00	U	4.20	5.14	84.0	103	1	10.0-160			20.1	25
Trichlorofluoromethane	5.00	U	3.86	4.74	77.2	94.8	1	17.0-160			20.5	31
1,2,3-Trimethylbenzene	5.00	U	3.88	4.68	77.6	93.6	1	32.0-149			18.7	28
1,2,4-Trimethylbenzene	5.00	U	4.30	4.77	86.0	95.4	1	26.0-154			10.4	27
1,3,5-Trimethylbenzene	5.00	U	4.03	4.75	80.6	95.0	1	28.0-153			16.4	27
Vinyl chloride	5.00	U	3.24	4.02	64.8	80.4	1	10.0-160			21.5	27
Xylenes, Total	15.0	U	13.3	15.3	88.7	102	1	29.0-154			14.0	28
o-Xylene	5.00	U	4.43	5.13	88.6	103	1	45.0-144			14.6	26
m&p-Xylenes	10.0	U	8.83	10.2	88.3	102	1	43.0-146			14.4	26
(S) Toluene-d8					109	110		80.0-120				
(S) 4-Bromofluorobenzene					100	102		77.0-126				
(S) 1,2-Dichloroethane-d4					101	101		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	5.00	U	6.36	6.32	127	126	1	38.0-142			0.631	26
Carbon disulfide	5.00	U	4.27	4.26	85.4	85.2	1	10.0-156			0.234	28
Acetone	25.0	U	29.1	19.0	116	76.0	1	10.0-160		J3	42.0	35
Acrolein	25.0	U	28.1	29.4	112	118	1	10.0-160			4.52	39
Acrylonitrile	25.0	U	33.0	33.9	132	136	1	21.0-160			2.69	32
Benzene	5.00	U	5.30	5.43	106	109	1	17.0-158			2.42	27

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	U	6.42	6.38	128	128	1	30.0-149			0.625	28
Bromodichloromethane	5.00	U	5.23	5.44	105	109	1	31.0-150			3.94	27
Bromoform	5.00	U	6.46	6.80	129	136	1	29.0-150			5.13	29
Bromomethane	5.00	U	4.46	4.30	89.2	86.0	1	10.0-160			3.65	38
n-Butylbenzene	5.00	U	5.94	6.03	119	121	1	31.0-150			1.50	30
sec-Butylbenzene	5.00	U	6.48	6.63	130	133	1	33.0-155			2.29	29
tert-Butylbenzene	5.00	U	6.25	6.64	125	133	1	34.0-153			6.05	28
Carbon tetrachloride	5.00	U	6.31	6.31	126	126	1	23.0-159			0.000	28
Chlorobenzene	5.00	U	6.21	6.41	124	128	1	33.0-152			3.17	27
Chlorodibromomethane	5.00	U	6.47	6.68	129	134	1	37.0-149			3.19	27
Chloroethane	5.00	U	5.13	5.11	103	102	1	10.0-160			0.391	30
Chloroform	5.00	U	5.44	5.72	109	114	1	29.0-154			5.02	28
Chloromethane	5.00	U	6.51	6.52	130	130	1	10.0-160			0.153	29
2-Chlorotoluene	5.00	U	6.00	6.22	120	124	1	32.0-153			3.60	28
4-Chlorotoluene	5.00	U	5.40	5.70	108	114	1	32.0-150			5.41	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.72	6.14	114	123	1	22.0-151			7.08	34
Dibromomethane	5.00	U	5.37	5.66	107	113	1	30.0-151			5.26	27
1,2-Dichlorobenzene	5.00	0.114	6.27	6.61	123	130	1	34.0-149			5.28	28
1,3-Dichlorobenzene	5.00	U	6.27	6.58	125	132	1	36.0-146			4.82	27
1,4-Dichlorobenzene	5.00	U	6.20	6.41	124	128	1	35.0-142			3.33	27
Dichlorodifluoromethane	5.00	U	5.13	5.06	103	101	1	10.0-160			1.37	29
1,1-Dichloroethane	5.00	U	5.38	5.53	108	111	1	25.0-158			2.75	27
1,2-Dichloroethane	5.00	U	4.99	5.48	99.8	110	1	29.0-151			9.36	27
1,1-Dichloroethene	5.00	U	5.92	5.64	118	113	1	11.0-160			4.84	29
cis-1,2-Dichloroethene	5.00	49.0	54.7	56.6	114	152	1	10.0-160			3.41	27
trans-1,2-Dichloroethene	5.00	0.319	5.85	5.68	111	107	1	17.0-153			2.95	27
1,2-Dichloropropane	5.00	U	5.61	6.02	112	120	1	30.0-156			7.05	27
1,1-Dichloropropene	5.00	U	5.73	5.65	115	113	1	25.0-158			1.41	27
1,3-Dichloropropane	5.00	U	5.60	5.97	112	119	1	38.0-147			6.40	27
cis-1,3-Dichloropropene	5.00	U	4.74	5.03	94.8	101	1	34.0-149			5.94	28
trans-1,3-Dichloropropene	5.00	U	5.02	5.24	100	105	1	32.0-149			4.29	28
2,2-Dichloropropane	5.00	U	4.92	5.28	98.4	106	1	24.0-152			7.06	29
Di-isopropyl ether	5.00	U	5.90	6.11	118	122	1	21.0-160			3.50	28
Ethylbenzene	5.00	U	6.36	6.41	127	128	1	30.0-155			0.783	27
Hexachloro-1,3-butadiene	5.00	U	6.50	6.76	130	135	1	20.0-154			3.92	34
Isopropylbenzene	5.00	U	7.10	7.07	142	141	1	28.0-157			0.423	27
p-Isopropyltoluene	5.00	U	6.40	6.44	128	129	1	30.0-154			0.623	29
2-Butanone (MEK)	25.0	U	32.0	35.0	128	140	1	10.0-160			8.96	32
Methylene Chloride	5.00	U	5.16	5.28	103	106	1	23.0-144			2.30	28
4-Methyl-2-pentanone (MIBK)	25.0	U	32.1	34.3	128	137	1	29.0-160			6.63	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	5.00	U	5.27	5.51	105	110	1	28.0-150			4.45	29
o-Xylene	5.00	U	6.21	6.07	124	121	1	45.0-144			2.28	26
m&p-Xylenes	10.0	U	11.4	12.4	114	124	1	43.0-146			8.40	26
Naphthalene	5.00	U	4.40	4.84	88.0	96.8	1	12.0-156			9.52	35
n-Propylbenzene	5.00	U	5.90	5.92	118	118	1	31.0-154			0.338	28
Styrene	5.00	U	5.82	5.86	116	117	1	33.0-155			0.685	28
1,1,1,2-Tetrachloroethane	5.00	U	6.60	6.78	132	136	1	36.0-151			2.69	29
1,1,2,2-Tetrachloroethane	5.00	U	5.28	5.72	106	114	1	33.0-150			8.00	28
Tetrachloroethene	5.00	92.2	107	102	296	196	1	10.0-160	EV	EV	4.78	27
Toluene	5.00	U	5.86	5.99	117	120	1	26.0-154			2.19	28
1,1,2-Trichlorotrifluoroethane	5.00	U	6.19	5.97	124	119	1	23.0-160			3.62	30
1,2,3-Trichlorobenzene	5.00	U	4.61	5.02	92.2	100	1	17.0-150			8.52	36
1,2,4-Trichlorobenzene	5.00	U	5.83	5.67	117	113	1	24.0-150			2.78	33
1,1,1-Trichloroethane	5.00	U	6.08	5.96	122	119	1	23.0-160			1.99	28
1,1,2-Trichloroethane	5.00	U	6.54	6.66	131	133	1	35.0-147			1.82	27
Trichloroethene	5.00	20.2	27.6	27.5	148	146	1	10.0-160			0.363	25
Trichlorofluoromethane	5.00	U	5.79	5.71	116	114	1	17.0-160			1.39	31
1,2,3-Trimethylbenzene	5.00	U	5.48	5.68	110	114	1	32.0-149			3.58	28
1,2,4-Trimethylbenzene	5.00	U	5.68	5.74	114	115	1	26.0-154			1.05	27
1,3,5-Trimethylbenzene	5.00	U	5.71	5.84	114	117	1	28.0-153			2.25	27
Vinyl chloride	5.00	U	5.07	5.13	101	103	1	10.0-160			1.18	27
Xylenes, Total	15.0	U	17.6	18.5	117	123	1	29.0-154			4.99	28
(S) Toluene-d8					109	109		80.0-120				
(S) 4-Bromofluorobenzene					99.3	100		77.0-126				
(S) 1,2-Dichloroethane-d4					101	99.6		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643512-3 04/18/21 14:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromochloromethane	U		0.128	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3643512-3 04/18/21 14:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
o-Xylene	U		0.174	1.00
m&p-Xylenes	U		0.430	2.00
(S) Toluene-d8	99.1			80.0-120
(S) 4-Bromofluorobenzene	96.1			77.0-126
(S) 1,2-Dichloroethane-d4	117			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	23.8	24.6	95.2	98.4	19.0-160			3.31	27
Acrolein	25.0	11.5	12.0	46.0	48.0	10.0-160			4.26	26

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acrylonitrile	25.0	24.0	23.5	96.0	94.0	55.0-149			2.11	20
Benzene	5.00	5.06	4.86	101	97.2	70.0-123			4.03	20
Bromobenzene	5.00	4.53	4.37	90.6	87.4	73.0-121			3.60	20
Bromodichloromethane	5.00	5.63	5.63	113	113	75.0-120			0.000	20
Bromochloromethane	5.00	5.17	5.22	103	104	76.0-122			0.962	20
Bromoform	5.00	4.66	4.45	93.2	89.0	68.0-132			4.61	20
Bromomethane	5.00	7.01	6.31	140	126	10.0-160			10.5	25
n-Butylbenzene	5.00	4.95	4.77	99.0	95.4	73.0-125			3.70	20
sec-Butylbenzene	5.00	4.42	4.20	88.4	84.0	75.0-125			5.10	20
tert-Butylbenzene	5.00	4.28	4.13	85.6	82.6	76.0-124			3.57	20
Carbon disulfide	5.00	4.93	4.75	98.6	95.0	61.0-128			3.72	20
Carbon tetrachloride	5.00	4.91	4.77	98.2	95.4	68.0-126			2.89	20
Chlorobenzene	5.00	4.70	4.62	94.0	92.4	80.0-121			1.72	20
Chlorodibromomethane	5.00	4.89	4.93	97.8	98.6	77.0-125			0.815	20
Chloroethane	5.00	7.70	7.50	154	150	47.0-150	J4		2.63	20
Chloroform	5.00	5.69	5.57	114	111	73.0-120			2.13	20
Chloromethane	5.00	5.88	5.93	118	119	41.0-142			0.847	20
2-Chlorotoluene	5.00	4.44	4.24	88.8	84.8	76.0-123			4.61	20
4-Chlorotoluene	5.00	4.40	4.30	88.0	86.0	75.0-122			2.30	20
1,2-Dibromo-3-Chloropropane	5.00	3.42	3.74	68.4	74.8	58.0-134			8.94	20
Dibromomethane	5.00	5.37	5.45	107	109	80.0-120			1.48	20
1,2-Dichlorobenzene	5.00	4.61	4.57	92.2	91.4	79.0-121			0.871	20
1,3-Dichlorobenzene	5.00	4.83	4.81	96.6	96.2	79.0-120			0.415	20
1,4-Dichlorobenzene	5.00	5.21	4.91	104	98.2	79.0-120			5.93	20
Dichlorodifluoromethane	5.00	5.88	5.65	118	113	51.0-149			3.99	20
1,1-Dichloroethane	5.00	5.71	5.46	114	109	70.0-126			4.48	20
1,2-Dichloroethane	5.00	5.61	5.60	112	112	70.0-128			0.178	20
1,1-Dichloroethene	5.00	5.20	5.07	104	101	71.0-124			2.53	20
cis-1,2-Dichloroethene	5.00	5.03	5.03	101	101	73.0-120			0.000	20
trans-1,2-Dichloroethene	5.00	5.35	5.20	107	104	73.0-120			2.84	20
1,2-Dichloropropane	5.00	5.18	5.28	104	106	77.0-125			1.91	20
1,1-Dichloropropene	5.00	5.40	5.21	108	104	74.0-126			3.58	20
1,3-Dichloropropane	5.00	5.06	4.93	101	98.6	80.0-120			2.60	20
cis-1,3-Dichloropropene	5.00	5.21	5.11	104	102	80.0-123			1.94	20
trans-1,3-Dichloropropene	5.00	4.83	4.94	96.6	98.8	78.0-124			2.25	20
2,2-Dichloropropane	5.00	4.68	4.59	93.6	91.8	58.0-130			1.94	20
Di-isopropyl ether	5.00	5.30	5.20	106	104	58.0-138			1.90	20
Ethylbenzene	5.00	4.89	4.87	97.8	97.4	79.0-123			0.410	20
Hexachloro-1,3-butadiene	5.00	4.38	4.27	87.6	85.4	54.0-138			2.54	20
Isopropylbenzene	5.00	5.01	4.91	100	98.2	76.0-127			2.02	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	5.00	4.62	4.42	92.4	88.4	76.0-125			4.42	20
2-Butanone (MEK)	25.0	24.1	24.1	96.4	96.4	44.0-160			0.000	20
Methylene Chloride	5.00	5.17	5.08	103	102	67.0-120			1.76	20
4-Methyl-2-pentanone (MIBK)	25.0	24.5	24.8	98.0	99.2	68.0-142			1.22	20
Methyl tert-butyl ether	5.00	5.31	5.34	106	107	68.0-125			0.563	20
Naphthalene	5.00	5.05	4.44	101	88.8	54.0-135			12.9	20
n-Propylbenzene	5.00	4.43	4.20	88.6	84.0	77.0-124			5.33	20
Styrene	5.00	4.68	4.66	93.6	93.2	73.0-130			0.428	20
1,1,1,2-Tetrachloroethane	5.00	4.59	4.63	91.8	92.6	75.0-125			0.868	20
1,1,2,2-Tetrachloroethane	5.00	3.91	4.01	78.2	80.2	65.0-130			2.53	20
Tetrachloroethene	5.00	4.99	4.66	99.8	93.2	72.0-132			6.84	20
Toluene	5.00	4.66	4.54	93.2	90.8	79.0-120			2.61	20
1,1,2-Trichlorotrifluoroethane	5.00	4.83	4.70	96.6	94.0	69.0-132			2.73	20
1,2,3-Trichlorobenzene	5.00	3.68	3.85	73.6	77.0	50.0-138			4.52	20
1,2,4-Trichlorobenzene	5.00	3.81	3.84	76.2	76.8	57.0-137			0.784	20
1,1,1-Trichloroethane	5.00	5.65	5.30	113	106	73.0-124			6.39	20
1,1,2-Trichloroethane	5.00	4.88	4.89	97.6	97.8	80.0-120			0.205	20
Trichloroethene	5.00	5.30	5.04	106	101	78.0-124			5.03	20
Trichlorofluoromethane	5.00	5.65	5.57	113	111	59.0-147			1.43	20
1,2,3-Trimethylbenzene	5.00	4.66	4.49	93.2	89.8	77.0-120			3.72	20
1,2,4-Trimethylbenzene	5.00	4.37	4.17	87.4	83.4	76.0-121			4.68	20
1,3,5-Trimethylbenzene	5.00	4.41	4.29	88.2	85.8	76.0-122			2.76	20
Vinyl chloride	5.00	5.92	5.76	118	115	67.0-131			2.74	20
Xylenes, Total	15.0	14.2	13.9	94.7	92.7	79.0-123			2.14	20
o-Xylene	5.00	4.71	4.58	94.2	91.6	80.0-122			2.80	20
m&p-Xylenes	10.0	9.51	9.36	95.1	93.6	80.0-122			1.59	20
(S) Toluene-d8				98.1	98.7	80.0-120				
(S) 4-Bromofluorobenzene				97.6	101	77.0-126				
(S) 1,2-Dichloroethane-d4				116	119	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643315-1 04/16/21 19:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
AK102 DRO C10-C25	U		229	800
(S) o-Terphenyl	65.5			60.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643315-2 04/16/21 19:34 • (LCSD) R3643315-3 04/16/21 19:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
AK102 DRO C10-C25	3000	2490	2820	83.0	94.0	75.0-125			12.4	20
(S) o-Terphenyl				98.8	100	60.0-120				

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/16/21 20:14 • (MS) R3643315-4 04/16/21 20:34 • (MSD) R3643315-5 04/16/21 20:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3160	U	2560	2620	81.0	82.9	1.05	75.0-125			2.32	20
(S) o-Terphenyl					98.8	98.6		50.0-150				

L1337040-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337040-01 04/16/21 22:36 • (MS) R3643315-6 04/16/21 22:56 • (MSD) R3643315-7 04/16/21 23:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3340	U	2710	2730	81.1	91.0	1.11	75.0-125			0.735	20
(S) o-Terphenyl					89.4	101		50.0-150				

L1338736-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1338736-02 04/17/21 01:18 • (MS) R3643315-8 04/17/21 01:38 • (MSD) R3643315-9 04/17/21 01:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3340	U	2770	2270	82.9	75.7	1.11	75.0-125			19.8	20
(S) o-Terphenyl					95.7	87.5		50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3641000-3 04/12/21 14:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0170	0.0500
Benzo(a)anthracene	U		0.0200	0.0500
Benzo(a)pyrene	U		0.0180	0.0500
Benzo(b)fluoranthene	U		0.0170	0.0500
Benzo(g,h,i)perylene	U		0.0180	0.0500
Benzo(k)fluoranthene	U		0.0200	0.250
Chrysene	U		0.0180	0.0500
Dibenz(a,h)anthracene	U		0.0180	0.0500
Fluoranthene	U		0.0110	0.0500
Fluorene	U		0.0170	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500
Naphthalene	U		0.128	0.500
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0170	0.0500
1-Methylnaphthalene	U		0.0200	0.500
2-Methylnaphthalene	U		0.0280	0.500
2-Chloronaphthalene	U		0.0120	0.500
(S) Nitrobenzene-d5	82.0			11.0-135
(S) 2-Fluorobiphenyl	87.0			32.0-120
(S) p-Terphenyl-d14	115			23.0-122

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3641000-1 04/12/21 12:55 • (LCSD) R3641000-2 04/12/21 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.64	1.60	82.0	80.0	43.0-127			2.47	20
Acenaphthene	2.00	1.86	1.75	93.0	87.5	42.0-120			6.09	20
Acenaphthylene	2.00	1.81	1.72	90.5	86.0	43.0-120			5.10	20
Benzo(a)anthracene	2.00	1.70	1.59	85.0	79.5	46.0-120			6.69	20
Benzo(a)pyrene	2.00	1.67	1.58	83.5	79.0	44.0-122			5.54	20
Benzo(b)fluoranthene	2.00	1.94	1.80	97.0	90.0	43.0-122			7.49	20
Benzo(g,h,i)perylene	2.00	1.96	1.77	98.0	88.5	25.0-137			10.2	23
Benzo(k)fluoranthene	2.00	1.87	1.75	93.5	87.5	39.0-128			6.63	22
Chrysene	2.00	1.94	1.83	97.0	91.5	42.0-129			5.84	20
Dibenz(a,h)anthracene	2.00	1.82	1.62	91.0	81.0	25.0-139			11.6	22
Fluoranthene	2.00	1.82	1.74	91.0	87.0	48.0-131			4.49	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3641000-1 04/12/21 12:55 • (LCSD) R3641000-2 04/12/21 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	1.90	1.80	95.0	90.0	42.0-120			5.41	20
Indeno(1,2,3-cd)pyrene	2.00	1.76	1.64	88.0	82.0	37.0-133			7.06	20
Naphthalene	2.00	1.91	1.79	95.5	89.5	30.0-120			6.49	22
Phenanthrene	2.00	1.89	1.79	94.5	89.5	42.0-120			5.43	20
Pyrene	2.00	1.97	1.91	98.5	95.5	38.0-124			3.09	20
1-Methylnaphthalene	2.00	1.95	1.84	97.5	92.0	43.0-120			5.80	20
2-Methylnaphthalene	2.00	1.84	1.73	92.0	86.5	40.0-120			6.16	20
2-Chloronaphthalene	2.00	1.79	1.68	89.5	84.0	39.0-120			6.34	20
<i>(S) Nitrobenzene-d5</i>				90.5	85.5	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				93.5	87.5	32.0-120				
<i>(S) p-Terphenyl-d14</i>				118	113	23.0-122				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address:

Arcadis - Chevron - AK

880 H St.
Anchorage, AK 99501

Billing Information:

Attn: Accounts Payable
630 Plaza Dr Ste 600
Highlands Ranch, CO 80129

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Report to:
Sydney Clark

Email To:
Sydney.Clark@arcadis.com; Nicole.Monroe@arc

Project Description:
97324

City/State
Collected: Anchorage, AK

Please Circle:
PT MT CT ET

Phone: 907-276-8095

Client Project #
30063667.19.21

Lab Project #
CHEVARCAK-97324

Collected by (print):
E. Wojcik

Site/Facility ID #
4417 LAKE OTIS PKWY,

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately
packed on Ice N Y

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day Standard

Date Results Needed

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	123TCP/EDB V524LL 40mlAmb-HCl	AK101 40mlAmb HCl	AK102 100ml Amb HCl	PAHs 8270ESIM 100ml Amb-NoPres	VOCs 8260D 40mlAmb-HCl								
MW-9-W-20210407	Grab	GW	-	4.7.21	1200	33	X	X	X	X	X								
MW-2R-W-20210407	Grab	GW	-	4.7.21	1400	13	X	X	X	X	X								
MW-1R-W-20210407	Grab	GW	-	4.7.21	1500	7	X	X	X	X	X								
BD-1-W-20210407	Grab	GW	-	4.7.21	-	13	X	X	X	X	X								
EQB-1-W-20210407	Grab	GW	-	4.7.21	1600	13	X	X	X	X	X								
Trip Blank	-	GW	-	4.7.21	-	3	X	X			X								
		GW																	
		GW																	
		GW																	



12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # 1336848
E086
Acctnum: CHEVARCAK
Template: T184177
Prelogin: P836293
PM: 110 - Brian Ford
PB: TN 3-31-21
Shipped Via:
Remarks Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headpace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Samples returned via:
 UPS FedEx Courier

Tracking # 98830083 8154

Relinquished by: (Signature) <i>E. Wojcik</i>	Date: 4.8.21	Time: 0800	Received by: (Signature)	Trip Blank Received: Yes/No 3 HCl / MeOH TBR	Temp: 4.2.6 °C Bottles Received: 76	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 4/9/21	Time: 1500	Hold:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>OC</i>	Date:	Time:	Condition: NCF / OK

L1336848 CHEVARCAK NCF

R5

Time estimate: oh Time spent: oh

Members

● Matthew Shacklock (responsible)

- Parameter(s) past holding time
- Temperature not in range
- Improper container type
- pH not in range
- Insufficient sample volume
- Sample is biphasic
- Vials received with headspace
- Broken container
- Sufficient sample remains
- If broken container: Insufficient packing material around container
- If broken container: Insufficient packing material inside cooler
- If broken container: Improper handling by carrier: _____
- If broken container: Sample was frozen
- If broken container: Container lid not intact
- Client informed by Call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: _____
- PM initials: _____
- Client Contact: _____

Comments

Matthew Shacklock 10 April 2021 9:33 AM

Received broken vials for following IDs"
 MW9 (2 vials), MW-12 (4 vials), BD-1 (1 vial)

APPENDIX C



Laboratory Data Review Checklist

Completed By:

Bhagyashree A Fulzele

Title:

Project Chemist

Date:

May 07, 2021

Consultant Firm:

ARCADIS U.S., Inc

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1336848

Laboratory Report Date:

05/22/2021

CS Site Name:

First Semi Annual 2021 Groundwater Monitoring Report

ADEC File Number:

2100.26.008

Hazard Identification Number:

23885

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes No N/A Comments:

Yes.

b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes No N/A Comments:

Not applicable.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

Yes No N/A Comments:

Yes.

b. Correct analyses requested?

Yes No N/A Comments:

Yes.

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

Yes No N/A Comments:

Yes.

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No N/A Comments:

Yes.

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No N/A Comments:

Yes, sample received broken vials for sample IDs out of 31 vials 02 vials were broken for sample ID MW-9-W-20210407 and out of 12 vials 1 vial was broken for sample ID BD-1-W-20210407.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes No N/A Comments:

Yes.

e. Data quality or usability affected?

Comments:

Data quality/usability was not affected.

4. Case Narrative

a. Present and understandable?

Yes No N/A Comments:

Yes.

b. Discrepancies, errors, or QC failures identified by the lab?

Yes No N/A Comments:

Yes.

c. Were all corrective actions documented?

Yes No N/A Comments:

Yes.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes No N/A Comments:

Yes.

b. All applicable holding times met?

Yes No N/A Comments:

Yes.

c. All soils reported on a dry weight basis?

Yes No N/A Comments:

Not applicable.

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes No N/A Comments:

Yes.

e. Data quality or usability affected?

Data quality/usability was not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Yes.

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes No N/A Comments:

No.

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

Method AK101: Compound TPHGAK C6 to C10 (15.3 J ug/L) was detected below the reporting limit in method blank batch WG1650388. A blank action level was established at five times of the reported blank concentration. Compound result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

v. Data quality or usability affected?

Comments:

Method blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes No N/A Comments:

Yes.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Not applicable.

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Method SW846 8260D: LCS/LCSD recovery was greater than the control limit for compound chloroethane in preparation batch WG1653830. The compound was non-detected in any of the associated samples; therefore, no other qualification was required.

LCS recovery was greater than the control limit for compound tetrachloroethene in preparation batch WG1650373. Compound detected in the associated samples was qualified as estimated (J).

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from LCS/LCSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Yes.

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Accuracy: Compound tetrachloroethene result in samples MW-9-W-20210407 and MW-2R-W-20210407 was qualified as estimated (J).

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

- vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The LCS/LCSD recovery exceedances are considered minor and would result in the estimation of the associated data. The reported data should still consider as usable.

- c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Note: Leave blank if not required for project

- i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

The MS/MSD analysis was performed on sample MW-9-W-20210407 for Method AK101, AK102 and SW846 8260D.

- ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Not applicable.

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Yes.

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Method SW846 8260D: MS/MSD RPD for compound acetone was exceeded the control limit in sample MW-9-W-20210407. The compound result in associated sample was qualified as estimated (UJ).

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

The MS/MSD RPD exceedance was observed for compound acetone in sample ID MW-9-W-20210407 and qualified as estimated (UJ).

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

- vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

MS/MSD RPD exceedance is considered minor and would result in the estimation of associated data. The reported data should still consider as usable.

- d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

- i. Are surrogate/IDA recoveries reported for organic analyses – field, QC and laboratory samples?

Yes No N/A Comments:

Yes.

- ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes No N/A Comments:

Yes.

- iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Not applicable.

iv. Data quality or usability affected?

Comments:

Data quality or usability was not affected.

e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?
(If not, enter explanation below.)

Yes No N/A Comments:

Trip blank sample was collected as TRIP BLANK-20210407.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

Yes No N/A Comments:

Yes.

iii. All results less than LOQ and project specified objectives?

Yes No N/A Comments:

Method AK101: Compound TPHGAK C6 to C10 (11.2 J ug/L) was detected below the reporting limit in TRIP BLANK-20210407. A blank action level was established at five times of the reported blank concentration. Compound result in associated samples was qualified as non-detect (UB) at reporting limit.

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

Compound TPHGAK C6 to C10 result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

v. Data quality or usability affected?

Comments:

Trip blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No N/A Comments:

Yes.

ii. Submitted blind to lab?

Yes No N/A Comments:

Field duplicate BD-1-W-20210407 was collected from sample MW-2R-W-20210407.

- iii. Precision – All relative percent differences (RPD) less than specified project objectives?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No N/A Comments:

Yes.

- iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality/usability was not affected.

- g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes No N/A Comments:

Equipment blank sample was collected as EQB-1-W-20210407.

- i. All results less than LOQ and project specified objectives?

Yes No N/A Comments:

Method AK101: Compound TPHGAK C6 to C10 (10.4 J ug/L) was detected below the reporting limit in EQB-1-W-20210407. A blank action level was established at five times of the reported blank concentration. Compound result in associated samples was qualified as non-detect (UB) at reporting limit.

- ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

Compound TPHGAK C6 to C10 result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

- iii. Data quality or usability affected?

Comments:

Equipment blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

- a. Defined and appropriate?

Yes No N/A Comments:

Yes.

Ms. Rebekah Reams
Alaska Department of Environmental Conservation (ADEC)
Spill Prevention and Response, Contaminated Sites Program
610 University Avenue
Fairbanks, Alaska 99709

Subject:
2021 First Semi-Annual Groundwater Monitoring Report

Dear Ms. Reams,

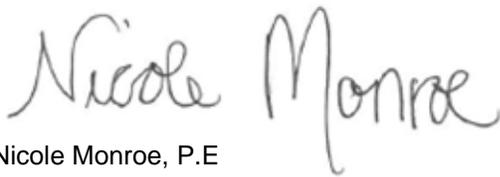
On behalf of Chevron Environmental Management Company (CEMC), Arcadis US, Inc. (Arcadis) has prepared the attached *2021 First Semi-Annual Groundwater Monitoring Report* for the first semi-annual groundwater sampling event of 2021 for the following facility:

<u>Chevron Facility No.</u>	<u>ADEC File No.</u>	<u>Hazard ID</u>	<u>Location</u>
97324	2100.26.008	23885	4417 Lake Otis Parkway Anchorage, Alaska

If you have any questions, please do not hesitate to contact me.

Sincerely,

Arcadis U.S., Inc.



Nicole Monroe, P.E
Project Manager
EV-149409

ENVIRONMENT

Date:
June 4, 2021

Contact:
Nicole Monroe

Phone:
503.785.9414

Email:
Nicole.Monroe @arcadis.com

Our ref:
30063667

Copies:
Susan Erickson (*electronic copy*)
Nicole Jones-Vogel (*electronic copy*)

Table 1. Current Groundwater Gauging and Analytical Results 1SA21

Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft)	Datum	DTW (ft bTOC)	LNAPL		TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
					Thickness (ft)	GW Elev (ft)									
ADEC Groundwater Cleanup Levels							1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-1R	4/7/2021	167.56	NAVD88	24.21	0.00	143.35	<0.800	<0.100 B	<0.00100	<0.00100	0.000226 J	<0.00300	<0.00100	0.00166 J	
MW-2R	4/7/2021	168.25	NAVD88	24.94	0.00	143.31	1.31 [1.17]	1.61 [1.61]	0.00507 [0.00561]	0.0014 [0.00131]	0.0669 [0.0643]	0.0636 [0.0633]	<0.00100 [<0.00100]	0.0278 [0.0298]	
MW-8RR	4/7/2021	166.43	NAVD88	--	--	--	--	--	--	--	--	--	--	--	Unable to be located due to ice
MW-9	4/7/2021	159.24	NAVD88	15.88	0.00	143.36	<0.888	<0.100 B	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Trip Blank	4/7/2021	--	--	--	--	--	--	0.0112 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	4/7/2021	--	--	--	--	--	<0.888	0.0104 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	

Notes:

ID = Identification
 MW = Groundwater monitoring well
 TOC = Top of casing
 DTW = Depth to groundwater
 ft bTOC = Feet below top of casing
 ft = Feet relative to NAVD88
 mg/L = Milligrams per liter
 GW Elev = Groundwater elevation
 <0.00100 = Not detected at or above the reported detection limit (RDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold = Detected above laboratory method detection limit (MDL)
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup
 J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 B = Compound considered non-detect at the listed value due to associated blank contamination.

TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
 TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to State of Alaska Method AK102.
 Samples analytes by USEPA Method 8260D:
 Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
 MTBE = Methyl-tert-butyl ether
 Naphthalene
 LUFT = Leaking Underground Fuel Tank
 GC/MS = Gas chromatography/Mass Spectrometry
 ADEC = Alaska Department of Environmental Conservation
 NAVD88 = North American Vertical Datum of 1988
 LNAPL = Light Non-Aqueous Phase Liquid
 -- = Not Measured/Not analyzed
 [] = Blind Duplicate Sample Result

Table 2. Current Groundwater

Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Constituents	ADEC Groundwater Cleanup Levels (mg/L)	Location ID	MW-1R	MW-2R	MW-9	Trip Blank	Equipment Blank
		Sample Date	4/7/2021	4/7/2021	4/7/2021	4/7/2021	4/7/2021
1,2-Dichloroethane	0.0017	µg/L	0.00276	0.00565 [0.00682]	<0.00100	<0.00100	<0.00100
Trichloroethene (Trichloroethylene)	0.0028	µg/L	<0.00100	0.000555 J [<0.00100]	0.0202	<0.00100	<0.00100
Tetrachloroethylene	0.041	µg/L	<0.00100	0.000422 J [<0.00100]	0.0922 J	<0.00100	<0.00100
cis-1,2-Dichloroethene	0.036	µg/L	<0.00100	<0.00100 [<0.00100]	0.049	<0.00100	<0.00100
Methylene chloride (Dichloromethane)	0.1	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
1,1,1-Trichloroethane	8	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2,2-Tetrachloroethane	0.00076	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2-Trichloroethane	0.00041	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1,2-Trichlorotrifluoroethane (Freon 113)	10	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1-Dichloroethane	0.028	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,1-Dichloroethene (Dichloroethylene)	0.28	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,3-Trichlorobenzene	0.007	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,4-Trichlorobenzene	0.004	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,2,4-Trimethylbenzene	0.056	µg/L	0.000943 J	0.0563 [0.0567]	<0.00100	<0.00000500	<0.00100
1,2-Dibromoethane	0.000075	µg/L	<0.00000500	<0.000250 [<0.000250]	<0.000250	<0.00100	<0.00000500
1,2-Dichlorobenzene (o-Dichlorobenzene)	0.3	µg/L	<0.00100	<0.00100 [<0.00100]	0.000114 J	<0.00100	<0.00100
1,2-Dichloropropane	0.0082	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,3-Dichlorobenzene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
1,4-Dichlorobenzene	0.0048	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
2-Butanone (Methyl ethyl ketone)	--	µg/L	<0.0100	<0.0100 [<0.0100]	<0.0100	<0.0100	<0.0100
4-Methyl-2-pentanone	6.3	µg/L	<0.0100	<0.0100 [<0.0100]	<0.0100	<0.0100	<0.0100
Acetone	14	µg/L	<0.0500	<0.0500 [<0.0500]	<0.0500	<0.0500	<0.0500
Bromochloromethane	--	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromodichloromethane	0.0013	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromoform	0.033	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Bromomethane (Methyl bromide)	0.0075	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Carbon Disulfide	0.81	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Carbon Tetrachloride	0.0046	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Chlorobenzene	0.078	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Chloroethane	--	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Chloroform	0.0022	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Chloromethane (Methyl chloride)	0.19	µg/L	<0.00250	<0.00250 [<0.00250]	<0.00250	<0.00250	<0.00250
cis-1,3-Dichloropropene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Dibromochloromethane	0.0087	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Dichlorodifluoromethane (Freon 12)	0.2	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Isopropylbenzene	--	µg/L	0.000426 J	0.0393 [0.0346]	<0.00100	<0.00100	<0.00100
Styrene	1.2	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
trans-1,2-Dichloroethene	0.36	µg/L	<0.00100	<0.00100 [<0.00100]	0.000319 J	<0.00100	<0.00100
trans-1,3-Dichloropropene	0.0047	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100
Trichlorofluoromethane (Freon 11)	5.2	µg/L	<0.00500	<0.00500 [<0.00500]	<0.00500	<0.00500	<0.00500
Vinyl chloride (Chloroethene)	0.00019	µg/L	<0.00100	<0.00100 [<0.00100]	<0.00100	<0.00100	<0.00100

Notes:

ID = Identification

MW = Groundwater monitoring well

mg/L = Milligrams per liter

<0.00500 = Not detected at or above the Reported Detection Limit

Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

Bold = Value exceeds Method Detection Limit (MDL)

Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level

[] = Blind Duplicate Result

J = Results are greater than the method detection limit and less than the reporting limit and considered estimated value

Constituents analyzed by United States Environmental Protection Agency Method 8260D
 Page 2 of 28

Table 3. Current and Historical Groundwater Analytical Results - PAHs
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	1-Methynaphthalene µg/L	2-Methnaphthalene µg/L	Acenaphthene µg/L	Acenaphthylene µg/L	Anthracene µg/L	Benzo(a)anthracene µg/L	Benzo(a)pyrene µg/L	Benzo(b)fluoranthene µg/L	Benzo(g,h,i)perylene µg/L	Benzo(k)fluoranthene µg/L	Chrysene µg/L	Dibenz(a,h) anthracene µg/L	Fluoranthene µg/L	Fluorene µg/L	Indeno(1,2,3- cd)pyrene µg/L	Naphthalene µg/L	Phenanthrene µg/L	Pyrene µg/L
ADEC Groundwater Cleanup Levels		11	36	530	260	43	0.3	0.25	2.5	0.26	0.8	2	0.25	260	290	0.19	1.7	170	120
MW-2R	9/11/2019	0.17	0.058 J	<0.11	<0.0503	<0.11	<0.053	<0.11	<0.053	<0.053	<0.053	<0.11	<0.11	<0.21	<0.11	<0.053	1.8	<0.11	<0.11
MW-2R	4/22/2020	0.360 J	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	<0.255	<0.0510	<0.0510	<0.0510	<0.0510	<0.0510	0.256 J	<0.0510	<0.0510
MW-2R	10/9/2020	12.0 [11.4]	0.922 [0.893]	0.0792 [0.0753]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [0.0260 J]	<0.0500 [0.0413 J]	<0.0500 [0.0245 J]	<0.250 [<0.250]	<0.0500 [0.0305 J]	<0.0500 [<0.0500]	<0.0500 [0.0909]	<0.0500 [0.0190 J]	<0.0500 [0.0184 J]	0.0273 [0.0261]	<0.0500 [0.0839]	<0.0500 [0.0668]
MW-2R	4/7/2021	7.90 [9.39]	3.79 [4.58]	0.0457 J [0.0535 J]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	<0.0500 [<0.0555]	7.90 [32.4]	<0.0500 [<0.0555]	<0.0500 [<0.0555]
Equipment Blank	10/9/2020	0.0208 J	<0.500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.500	<0.0500	<0.0500

Notes:
 PAHs = Polycyclic Aromatic Hydrocarbons by United States Environmental Protection Agency Method EPA 8270E-SIM.
 ADEC = Alaska Department of Environmental Conservation
 µg/L = micrograms per liter
 <0.000500 = Not detected at or above the reported detection limit (RDL)
Bold = Value exceeds Laboratory Method Detection Limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 The laboratory for this site was changed from Eurofins Calscience to Pace Analytical prior to the second quarter 2020 groundwater monitoring event.

**Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current**
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-1	2/1/1992	--	--	--	--	--	--	0.25	0.2	5.1	0.14	--	--	Sample date accurate to month and year only
MW-1	5/1/1992	99.13	23.38	--	75.75	--	--	0.19	0.18	0.4	0.13	--	--	Sample date accurate to month and year only
MW-1	9/1/1992	99.13	23.56	--	75.57	--	--	0.23	0.2	3.3	0.1	--	--	Sample date accurate to month and year only
MW-1	11/1/1992	99.13	23.55	--	75.58	--	--	0.23	0.27	0.3	0.11	--	--	Sample date accurate to month and year only
MW-1	5/1/1993	99.13	23.87	--	75.26	--	--	2.0	33.0	4.4	15.0	--	--	Sample date accurate to month and year only
MW-1	8/1/1993	99.13	23.84	--	75.29	--	--	17.0	40.0	4.5	16.0	--	--	Sample date accurate to month and year only
MW-1	11/1/1993	99.13	23.83	--	75.30	--	--	2.4	6.6	8.4	31.0	--	--	Sample date accurate to month and year only
MW-1	3/1/1994	99.13	23.68	--	75.45	--	--	10.0	35.0	4.2	14.0	--	--	Sample date accurate to month and year only
MW-1	6/1/1994	99.13	23.6	--	75.53	--	--	11.0	47.0	4.8	17.0	--	--	Sample date accurate to month and year only
MW-1	8/1/1994	99.13	24.09	--	75.04	--	--	11.0	34.0	4.7	18.0	--	--	Sample date accurate to month and year only
MW-1	12/22/1994	99.13	23.83	--	75.30	--	--	13.0	31.0	3.6	11.0	--	--	
MW-1	3/31/1995	99.13	23.72	--	75.41	--	--	11.0	22.0	4.2	12.0	--	--	
MW-1	6/20/1995	99.13	23.39	--	75.74	--	--	7.9	20.0	3.1	9.4	--	--	
MW-1	8/23/1995	99.13	23.67	--	75.46	--	--	8.4	22.0	3.2	11.0	--	--	
MW-1	11/16/1995	99.13	23.68	--	75.45	--	--	7.2	17.0	3.0	9.3	--	--	
MW-1	1/30/1996	99.13	23.92	--	75.21	--	--	10.0 / 11.0	26.0 / 26.0	3.9 / 3.8	12.0 / 11.0	--	--	
MW-1	6/2/1996	99.13	23.62	--	75.51	--	--	8.91	24.4	3.59	12.8	--	--	
MW-1	8/26/1996	99.13	24.06	--	75.07	--	--	8.75	29.3	3.49	14.0	--	--	
MW-1	10/16/1996	99.13	24.59	--	74.54	--	--	9.34	30.2	4.02	15.1	--	--	
MW-1	4/28/1997	99.13	23.96	--	75.17	--	--	8.2	21.9	3.98	16.9	--	--	
MW-1	9/10/1997	99.13	23.31	--	75.82	--	--	4.43 / 4.38	18.7 / 17.6	2.84 / 2.82	11.2 / 10.8	--	--	
MW-1	4/19/1998	99.13	22.9	--	76.23	--	--	3.86	17.3	3.44	12.9	--	--	
MW-1	9/23/1998	99.13	23.19	--	75.94	--	--	2.92 / 3.06	9.96 / 10.5	2.29 / 2.46	7.0 / 7.49	--	--	
MW-1	4/28/1999	99.13	23.68	--	75.45	--	--	1.22 / 1.24	4.86 / 4.86	1.96 / 1.96	5.96 / 5.89	<0.5 / <0.5	--	
MW-1	5/5/2001	99.13	24.38	--	74.75	--	--	0.576	4.92	1.83	7.1	<0.5 / 0.005	--	
MW-1	8/2/2001	99.13	23.81	--	75.32	0.123	71.3	3.41	8.37	3.32	8.79	--	--	Sample date defaulted to first date listed in historical data table
MW-1	10/2/2001	99.13	24.12	--	75.01	--	--	0.19	17.6 / 18.5	3.92	17.3 / 17.5	51.9 / <0.005	--	
MW-1	5/1/2002	161.02	24.14	--	136.88	--	--	0.355	5.66	4.24	20.4	42.8 / <0.005	--	
MW-1	9/20/2002	161.02	24	--	137.02	--	--	0.231	2.28	1.4	5.09	<0.05 / <0.002	--	
MW-1	5/20/2003	161.02	24.47	--	136.55	--	--	0.91	4.3	2.6	8.4	0.003	--	
MW-1	10/2/2003	161.02	24.25	--	136.77	--	--	0.56	4.7	2.3	8.2	<0.005	--	
MW-1	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-1R	9/24/2006	160.69	23.2	--	137.49	8.3	49.0	0.14	0.46	2.1	13.1	--	--	
MW-1R	5/14/2007	160.69	23.68	--	137.01	4.0	42.0	0.5	1.4	2.3	8.6	<0.001	--	
MW-1R	9/21/2007	160.69	23.61	--	137.08	4.9	30.0	0.2	0.94	1.5	6.4	--	--	
MW-1R	5/1/2008	160.69	23.77	--	136.92	3.92	53.2	0.43	3.88	3.46	14.4	--	--	
MW-1R	7/15/2008	160.69	23.59	--	137.10	5.50	65.0	0.32	5.20	2.40	11.90	--	--	
MW-1R	5/14/2009	160.69	23.69	--	137.00	3.8 / 3.9	50 / 47	0.14 / 0.13	1.7 / 1.9	2.5 / 2.6	12.5 / 11.3	--	--	
MW-1R	8/26/2009	160.69	23.93	--	136.76	4.9 J / 4.4 J	53 / 51	0.23 / 0.23	3.9 / 3.8	2.7 / 2.7	11.7/11.7	--	--	
MW-1R	6/15/2010	160.69	23.66	--	137.03	4.6 J / 4.5 J	43 / 38	0.13 J / 0.083 J	1.9 J / 1.2 J	2.2 / 2.4	9.7 / 11.8	--	--	
MW-1R	9/5/2010	160.69	23.66	--	137.03	5.6 / 5.4	48 / 47	0.070 / 0.068	1.2 / 1.1	2.7 / 2.1	12.3 / 10.3	--	--	
MW-1R	5/24/2011	160.69	24.08	--	136.61	2.2	6.1	0.066	0.005	0.49	0.71	--	--	
MW-1R	11/10/2011	160.69	23.92	--	136.77	2.4 / 2.6	0.83 J / 0.80 J	<0.0005 / <0.0005	<0.0005 / <0.0005	0.004 J / 0.0005 J	0.012 J / 0.001 J	--	--	Car parked over well
MW-1R	6/20/2012	160.69	23.35	--	137.34	2.3 / 1.7	0.070 J / 0.055 J	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	0.0006 J / <0.0005	--	--	
MW-1R	11/5/2012	160.69	22.7	--	137.99	0.31 J / 0.47 J	0.012 J / 0.019 J	<0.0005 / <0.0005	<0.0005 / 0.0005 J	<0.0005 / <0.0005	0.0018 J / 0.0016 J	--	--	
MW-1R	4/30/2013	160.69	23.76	--	136.93	1.2 / 1.1	5.1 / 3.7	0.0131 / 0.0115	0.0022 / 0.0021	0.686 / 0.668	0.361 / 0.336	--	--	
MW-1R	4/30/2013	160.69	23.76	--	136.93	0.93 / 1.4	5.6 / 3.4	0.0112 / 0.0116	0.0028 / 0.0018	0.779 J / 0.36 J	0.459 / 0.281	--	--	Collected via hydrasleeve
MW-1R	11/7/2013	160.69	23.02	--	137.67	--	--	--	--	--	--	--	--	
MW-1R	11/8/2013	--	--	--	--	2.6 / 2.6	7.9 / 8.7	0.021 / 0.018	0.0043 J / 0.0065	0.57 / 0.76	0.85 J / 1.5 J	--	--	
MW-1R	4/28/2014	160.69	23.47	--	137.22	1.9 / 1.7	8.7 / 9.8	0.017 / 0.017	0.0043 / 0.0039	0.86 / 0.85	1.5 / 1.4	--	--	
MW-1R	4/28/2014	160.69	23.47	--	137.22	1.7 / 1.9	5.2 J / 8.8 J	0.014 / 0.017	0.0042 J / 0.0033	0.72 / 0.98	1.3 / 2.0	--	--	Collected via hydrasleeve
MW-1R	11/7/2014	160.69	23.88	--	136.81	1.8/2.0	5.8/5.5	0.0076/0.0070	0.0040 J/0.0043 J	0.38/0.36	0.65/0.60	--	--	
MW-1R	4/29/2015	160.69	24.26	--	136.43	0.31	0.025 J	<0.0005	<0.0005	0.002	0.001	--	--	
MW-1R	11/6/2015	160.69	23.42	--	137.27	0.42	<0.010	<0.001	<0.001	<0.001	<0.001	--	--	
MW-1R	4/21/2016	160.69	24.11	--	136.58	0.66	0.039 J	0.003	<0.0005	<0.0005	<0.0005	--	--	
MW-1R	11/1/2016	160.69	23.72	--	136.97	0.27 J	0.015 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-1R	5/1/2017	160.69	23.59	--	137.10	0.085 J	0.013 J	0.0006 J	<0.0005	<0.0005	<0.0005	--	--	
MW-1R	10/17/2017	160.69	23.49	--	137.20	0.069 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-1R	4/27/2018	160.69	23.84	--	136.85	0.24 J	0.017 J	0.0007 J	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-1R	10/18/2018	160.69	23.80	--	136.89	0.069 J	<0.014	<0.0002	<0.0002	<0.0002	<0.0005	--	--	
MW-1R	4/9/2019	167.56	23.63 ²	0.00	143.93	<0.28 B [\leq 0.25 B]	<0.014 [\leq 0.014]	0.001 [0.001]	<0.0002 [\leq 0.0002]	<0.0004 [\leq 0.0004]	<0.001 [\leq 0.001]	<0.0002 [\leq 0.0002]	<0.001 [\leq 0.001]	TPH-d Non detect reported to LOQ
MW-1R	9/11/2019	167.56	24.21	0.00	143.35	0.16	<0.100	0.0022	<0.00039	<0.00050	<0.00114	<0.00044	0.000026 J*B	TPH-d Non detect reported to LOQ
MW-1R	4/22/2020	167.56	23.73	0.00	143.83	--	--	--	--	--	--	--	--	Well obstructed by ice, could not sample
MW-1R	10/9/2020	167.56	23.86	0.00	143.70	<0.832	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	Well obstructed by ice, could not sample

**Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current**
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments	
						ADEC Groundwater Cleanup Levels	1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-1R	4/7/2021	167.56	24.21	0.00	143.35	<0.8	<0.1 UB	<0.00100	<0.00100	0.000226 J	<0.00300	<0.00100	0.00166 J		
MW-2R	9/24/2006	161.29	23.76	--	137.53	4.2	47.0	0.36	4.3	2.1	10.7	--	--	Car parked over well	
MW-2R	5/14/2007	161.29	24.24	--	137.05	2.8 / 4.90	28.0 / 28.0	0.19 / 0.18	0.39 / 0.35	1.5 / 1.5	6.8 / 6.5	<0.001 / <0.001	--		
MW-2R	9/21/2007	161.29	24.28	--	137.01	4.0	24.0	0.08	0.14	0.88	5.7	--	--		
MW-2R	5/1/2008	161.29	24.38	--	136.91	5.25 / 7.51	25.2 / 23.7	0.121 / 0.109	<0.05 / 0.051	1.99 / 1.92	6.2 / 6.6	--	--		
MW-2R	7/15/2008	161.29	24.23	--	137.06	6.40 / 6.40	18.0 / 10.0	0.095 / 0.095	0.069 / 0.079	1.3 / 1.3	5.70 / 5.20	--	--		
MW-2R	5/14/2009	161.29	24.34	--	136.95	5.0	26	0.059	0.031	1.3	4.7	--	--		
MW-2R	8/26/2009	161.29	24.61	--	136.68	4.1 J	21	0.077	0.049	1.1	4.0	--	--		
MW-2R	6/15/2010	161.29	24.29	--	137.00	5.4	8.8	0.026	0.011	0.32	1.46	--	--		
MW-2R	9/5/2010	161.29	24.32	--	136.97	6.0	7.9	0.017	0.008	0.67	3.06	--	--		
MW-2R	5/24/2011	161.29	24.78	--	136.51	4.8 / 4.8	13 / 13	0.031 / 0.029	0.015 / 0.014	0.76 / 0.76	2.6 / 2.6	--	--		
MW-2R	11/10/2011	161.29	24.63	--	136.66	0.85	0.071 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-2R	6/20/2012	161.29	24.06	--	137.23	1.2	0.030 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-2R	11/5/2012	161.29	23.38	--	137.91	--	--	--	--	--	--	--	--		
MW-2R	11/8/2012	--	--	--	--	0.37	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-2R	4/30/2013	161.29	24.48	--	136.81	1.2	2.3	0.0105	0.0016	0.0406	0.469	--	--		
MW-2R	4/30/2013	161.29	24.48	--	136.81	1.3	1.5	0.0057	0.00096 J	0.0015	0.283	--	--	Collected via hydrasleeve	
MW-2R	11/7/2013	161.29	23.67	--	137.62	--	--	--	--	--	--	--	--		
MW-2R	11/8/2013	--	--	--	--	1.7	0.49	0.00084 J	<0.00023	<0.00024	0.0047	--	--		
MW-2R	4/28/2014	161.29	24.11	--	137.18	1.7	4.5	0.012	0.0021	0.37	0.64	--	--		
MW-2R	4/28/2014	161.29	24.11	--	137.18	0.88	0.39	0.0018	0.00020 J	0.030	0.037	--	--	Collected via hydrasleeve	
MW-2R	11/7/2014	161.29	24.55	--	136.74	1.7	5.1	0.0068	<0.0017 J	0.25	0.37	--	--		
MW-2R	4/29/2015	161.29	24.85	--	136.44	0.34 / 0.40	0.011 J / 0.013 J	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--		
MW-2R	11/6/2015	161.29	24.12	--	137.17	0.99 J / 0.63 J	<0.010 / <0.010	<0.001 / <0.003	<0.001 / <0.003	<0.001 / <0.003	<0.001 / <0.003	--	--		
MW-2R	4/21/2016	161.29	24.79	--	136.50	2.7 / 2.6	2.2 / 2.2	0.01 / 0.009 J	0.0009 J / <0.005	0.15 / 0.12	0.231 / 0.18	--	--		
MW-2R	11/1/2016	161.29	24.45	--	136.84	2.5 J / 2.3 J	2.8 J / 2.9 J	0.010 / 0.010	0.001 J / 0.001 J	0.14 / 0.14	0.272 / 0.272	--	--		
MW-2R	5/1/2017	161.29	24.3	--	136.99	0.87 / 0.84	0.82 / 0.82	0.006 / 0.006	<0.0005 / <0.0005	0.078 / 0.084	0.046 / 0.054	--	--		
MW-2R	10/17/2017	161.29	24.18	--	137.11	1.5 J / 1.5 J	2.0 / 2.1	0.009 / 0.01	<0.0005 / <0.0005	0.16 / 0.16	0.153 / 0.153	--	--		
MW-2R	4/27/2018	161.29	24.55	--	136.74	1.4 / 1.3	1.4 / 1.4	0.007 / 0.006	0.0006 J / 0.0005 J	0.14 / 0.13	0.12 / 0.11	<0.0005 / <0.0005	--		
MW-2R	10/18/2018	161.29	24.53	--	136.76	0.38 / 0.35	<0.014 / <0.014	<0.0002 / <0.0002	<0.0002 / <0.0002	<0.0002 / <0.0002	<0.0005 / <0.0005	--	--		
MW-2R	4/9/2019	168.25	24.35 ²	0.00	143.90	1.2	0.025 J	0.004	<0.0002	0.0005 J	<0.001	<0.0002	<0.001		
MW-2R	9/11/2019	168.25	24.93	0.00	143.32	0.67	0.25	0.005	<0.00039	0.016	0.0020 J	<0.00044	0.0062 *B		
MW-2R	4/22/2020	168.25	24.46	0.00	143.79	0.938	0.207	0.00324	<0.00100	0.00921	<0.00300	<0.00100	<0.00500		
MW-2R	10/9/2020	168.25	24.55	0.00	143.70	1.90 [1.89]	0.924 [0.867]	0.00905 [0.00881]	0.00236 [0.00232]	0.113 [0.107]	0.0793 [0.0767]	<0.00100 [<0.00100]	0.0222 J [0.0248 J]		
MW-2R	4/7/2021	168.25	24.94	0.00	143.31	1.31 [1.17]	1.61[1.61]	0.00507 [0.00561]	0.0014[0.00131]	0.0669 [0.0643]	0.0636[0.0633]	<0.00100 [<0.00100]	0.0278 [0.0298]		
MW-3	2/1/1992	--	--	--	--	--	--	0.006	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	5/1/1992	98.64	22.87	--	75.77	--	--	0.006	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	9/1/1992	98.64	23.12	--	75.52	--	--	0.21	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	11/1/1992	98.64	23.1	--	75.54	--	--	0.012	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	5/1/1993	98.64	23.45	--	75.19	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	8/1/1993	98.64	23.35	--	75.29	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	11/1/1993	98.64	23.21	--	75.43	--	--	ND	0.042	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	3/1/1994	98.64	23.16	--	75.48	--	--	ND	ND	ND	0.005	--	--	Sample date accurate to month and year only	
MW-3	6/1/1994	98.64	23.49	--	75.15	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	8/1/1994	98.64	23.65	--	74.99	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	12/22/1994	98.64	23.42	--	75.22	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-3	4/10/1995	98.64	--	--	--	--	--	ND	ND	ND	ND	--	--		
MW-3	6/20/1995	98.64	22.95	--	75.69	--	--	ND	ND	ND	ND	--	--		
MW-3	6/21/1995	98.64	--	--	--	--	--	--	--	--	--	--	--		
MW-3	8/23/1995	98.64	23.19	--	75.45	--	--	ND	ND	ND	ND	--	--		
MW-3	11/16/1995	98.64	23.23	--	75.41	--	--	ND	ND	ND	ND	--	--		
MW-3	1/30/1996	98.64	23.48	--	75.16	--	--	ND	ND	ND	ND	--	--		
MW-3	6/2/1996	98.64	23.22	--	75.42	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--		
MW-3	8/26/1996	98.64	23.56	--	75.08	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--		
MW-3	10/16/1996	98.64	24.05	--	74.59	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--		
MW-3	4/28/1997	98.64	23.73	--	74.91	--	--	<0.0005	0.00111	<0.0005	0.00169	--	--		
MW-3	9/10/1997	98.64	22.96	--	75.68	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--		
MW-3	4/19/1998	98.64	23.55	--	75.09	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--		
MW-3	9/23/1998	98.64	22.9	--	75.74	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--		
MW-3	4/28/1999	98.64	23.24	--	75.40	--	--	0.00089	<0.0005	<0.0005	<0.0005	<0.01	--		
MW-3	10/13/1999	98.64	23.22	--	75.42	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--		
MW-3	5/19/2000	98.64	23.6	--	75.04	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--		
MW-3	9/27/2000	98.64	23.52	--	75.12	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--		
MW-3	5/5/2001	98.64	23.88	--	74.76	--	--	0.000656	<0.0005	<0.0005	<0.001	<0.005	--		

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-3	8/2/2001	98.64	23.36	--	75.28	0.00136	<0.05	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-3	10/2/2001	98.64	23.72	--	74.92	--	--	0.0011 / 0.000854	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	<0.001 / <0.001	--	
MW-3	5/1/2002	160.51	23.72	--	136.79	--	--	0.099 / 0.286	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	<0.001 / <0.001	--	
MW-3	9/20/2003	160.51	23.55	--	136.96	--	--	0.000709	<0.0005	<0.0005	<0.001	<0.001	--	
MW-3	5/20/2003	160.51	24.02	--	136.49	--	--	0.0006 / 0.0006	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.002 / <0.002	--	Sample date defaulted to first date listed in historical data table
MW-3	10/2/2003	160.51	23.84	--	136.67	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	
MW-3	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-4	2/1/1992	--	--	--	--	--	--	0.032	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	5/1/1992	98.45	21.72	--	76.73	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-4	9/1/1992	98.45	22.89	--	75.56	--	--	0.005	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	11/1/1992	98.45	22.85	--	75.60	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-4	5/1/1993	98.45	23.18	--	75.27	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	8/1/1993	98.45	23.17	--	75.28	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	11/1/1993	98.45	23.02	--	75.43	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	3/1/1994	98.45	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	6/1/1994	98.45	23.24	--	75.21	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	8/1/1994	98.45	23.43	--	75.02	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-4	12/22/1994	98.45	--	--	--	--	--	--	--	--	--	--	--	
MW-4	3/31/1995	98.45	--	--	--	--	--	--	--	--	--	--	--	
MW-4	6/20/1995	98.45	22.7	--	75.75	--	--	ND	ND	ND	ND	--	--	
MW-4	8/23/1995	98.45	22.99	--	75.46	--	--	ND	ND	ND	ND	--	--	
MW-4	11/16/1995	98.45	23.02	--	75.43	--	--	ND	ND	ND	ND	--	--	
MW-4	1/30/1996	98.45	23.25	--	75.20	--	--	ND	ND	ND	ND	--	--	
MW-4	6/2/1996	98.45	22.97	--	75.48	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-4	8/26/1996	98.45	23.37	--	75.08	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-4	4/28/1997	98.45	23.52	--	74.93	--	--	<0.0005	0.00166	<0.0005	0.00159	--	--	
MW-4	9/10/1997	98.45	22.74	--	75.71	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-4	4/19/1998	98.45	23.3	--	75.15	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-4	9/23/1998	98.45	22.68	--	75.77	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-4	5/2/1999	98.45	23.1	--	75.35	--	--	<0.0005	<0.0005	<0.0005	<0.0005	0.626 / <0.005	--	
MW-4	10/13/1999	98.45	23.02	--	75.43	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-4	5/19/2000	98.45	23.39	--	75.06	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-4	9/27/2000	98.45	23.32	--	75.13	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-4	5/5/2001	98.45	23.71	--	74.74	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-4	8/2/2001	98.45	23.14	--	75.31	0.00106	<0.05	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-4	10/2/2001	98.45	23.54	--	74.91	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-4	5/1/2002	160.3	--	--	--	--	--	--	--	--	--	--	--	
MW-4	9/20/2002	160.3	23.39	--	136.91	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-4	5/20/2003	160.3	23.8	--	136.50	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-4	10/2/2003	160.3	23.59	--	136.71	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	
MW-4	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-5	2/1/1992	--	--	--	--	--	--	7.2	4.8	2.0	2.9	--	--	Sample date accurate to month and year only
MW-5	5/1/1992	99.13	22.5	--	76.63	--	--	2.5	0.14	0.05	1.8	--	--	Sample date accurate to month and year only
MW-5	9/1/1992	99.13	23.57	--	75.56	--	--	5.9	6.5	2.4	5.3	--	--	Sample date accurate to month and year only
MW-5	11/1/1992	99.13	22.53	--	76.60	--	--	1.3	0.59	0.48	1.7	--	--	Sample date accurate to month and year only
MW-5	5/1/1993	99.13	23.86	--	75.27	--	--	0.066	ND	0.032	0.005	--	--	Sample date accurate to month and year only
MW-5	8/1/1993	99.13	23.85	--	75.28	--	--	0.058	ND	0.005	ND	--	--	Sample date accurate to month and year only
MW-5	11/1/1993	99.13	23.7	--	75.43	--	--	0.006	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-5	3/1/1994	99.13	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-5	6/1/1994	99.13	23.89	--	75.24	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-5	8/1/1994	99.13	24.14	--	74.99	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-5	12/22/1994	99.13	--	--	--	--	--	--	--	--	--	--	--	
MW-5	3/31/1995	99.13	--	--	--	--	--	--	--	--	--	--	--	
MW-5	6/20/1995	99.13	23.4	--	75.73	--	--	ND	ND	ND	ND	--	--	
MW-5	8/23/1995	99.13	23.7	--	75.43	--	--	ND	ND	ND	ND	--	--	
MW-5	11/16/1995	99.13	23.71	--	75.42	--	--	ND	ND	ND	ND	--	--	
MW-5	1/30/1996	99.13	23.95	--	75.18	--	--	ND	ND	ND	ND	--	--	
MW-5	6/2/1996	99.13	23.63	--	75.50	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-5	8/26/1996	99.13	24.19	--	74.94	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-5	10/16/1996	99.13	24.66	--	74.47	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-5	4/28/1997	99.13	24.24	--	74.89	--	--	0.000617	0.000756	<0.0005	<0.001	--	--	
MW-5	9/10/1997	99.13	23.43	--	75.70	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-5	4/19/1998	99.13	24	--	75.13	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-5	9/23/1998	99.13	23.2	--	75.93	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-5	4/28/1999	99.13	23.67	--	75.46	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	--	
MW-5	10/13/1999	99.13	23.72	--	75.41	--	--	<0.0005	0.00139	<0.0005	<0.0005	<0.005	--	
MW-5	5/19/2000	99.13	24.08	--	75.05	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-5	9/27/2000	99.13	23.95	--	75.18	--	--	--	--	--	--	--	--	
MW-5	5/5/2001	99.13	--	--	--	--	--	--	--	--	--	--	--	
MW-5	8/2/2001	99.13	23.84	--	75.29	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-5	10/2/2001	99.13	--	--	--	--	--	--	--	--	--	--	--	
MW-5	5/1/2002	161.01	24.1	--	136.91	--	--	--	--	--	--	--	--	
MW-5	9/20/2002	161.01	24.09	--	136.92	--	--	--	--	--	--	--	--	
MW-5	5/20/2003	161.01	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-5	10/2/2003	161.01	24.23	--	136.78	--	--	--	--	--	--	--	--	
MW-5	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-6	2/1/1992	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-6	5/1/1992	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-6	9/1/1992	--	--	--	75.22	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-6	8/1/1993	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-6	11/1/1993	--	--	--	75.29	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-6	8/2/2001	--	23.98	--	--	0.00025	<0.05	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-6	09/21/2001	161.14	--	--	--	--	--	--	--	--	--	--	--	
MW-6	05/01/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-7	2/1/1992	97.82	--	--	--	--	--	0.047	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	5/1/1992	97.82	22.06	--	75.76	--	--	ND	ND	ND	0.006	--	--	Sample date accurate to month and year only
MW-7	9/1/1992	97.82	22.36	--	75.46	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	11/1/1992	97.82	22.41	--	75.41	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	5/1/1993	97.82	22.75	--	75.07	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	8/1/1993	97.82	22.64	--	75.18	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	11/1/1993	97.82	22.49	--	75.33	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	3/1/1994	97.82	22.43	--	75.39	--	--	ND	0.011	ND	0.093	--	--	Sample date accurate to month and year only
MW-7	6/1/1994	97.82	22.79	--	75.03	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	8/1/1994	97.82	22.88	--	74.94	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-7	12/22/1994	97.82	22.72	--	75.10	--	--	ND	ND	ND	0.0026	--	--	
MW-7	3/31/1995	97.82	--	--	--	--	--	--	--	--	--	--	--	
MW-7	6/20/1995	97.82	22.27	--	75.55	--	--	ND	ND	ND	ND	--	--	
MW-7	8/23/1995	97.82	22.46	--	75.36	--	--	0.00073	ND	ND	0.00073	--	--	
MW-7	11/16/1995	97.82	22.6	--	75.22	--	--	0.00051	ND	ND	0.0024	--	--	
MW-7	1/30/1996	97.82	22.75	--	75.07	--	--	ND	ND	ND	0.0017	--	--	
MW-7	6/2/1996	97.82	--	--	--	--	--	--	--	--	--	--	--	
MW-7	8/26/1996	97.82	22.78	--	75.04	--	--	<0.0005	<0.0005	0.00059	0.0083	--	--	
MW-7	10/16/1996	97.82	23.44	--	74.38	--	--	<0.0005	<0.0005	0.001	0.0063	--	--	
MW-7	4/28/1997	97.82	23.08	--	74.74	--	--	--	--	--	--	--	--	
MW-7	9/10/1997	97.82	22.36	--	75.46	--	--	0.0017	<0.0005	<0.0005	0.00294	--	--	
MW-7	4/19/1998	97.82	22.9	--	74.92	--	--	<0.0005	<0.0005	<0.005	<0.002	--	--	
MW-7	9/23/1998	97.82	22.12	--	75.70	--	--	0.000731	<0.0005	0.00568	<0.0015	--	--	
MW-7	4/28/1999	97.82	22.71	--	75.11	--	--	0.00091	0.00078	0.00197	0.00104	<0.01	--	
MW-7	10/13/1999	97.82	22.64	--	75.18	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-7	5/19/2000	97.82	22.99	--	74.83	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-7	9/27/2000	97.82	22.98	--	74.84	--	--	<0.0005	<0.0005	0.00619	<0.002	<0.005	--	
MW-7	5/5/2001	97.82	23.29	--	74.53	--	--	<0.0005	<0.0005	0.0006	<0.001	<0.005	--	
MW-7	8/2/2001	97.82	22.75	--	75.07	0.00211	0.0654	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-7	10/2/2001	97.82	23.14	--	74.68	--	--	<0.0005	<0.0005	0.00109	<0.001	<0.001	--	
MW-7	5/1/2002	159.86	23.09	--	136.77	--	--	<0.0005	<0.0005	<0.0005	0.00127	<0.001	--	
MW-7	9/20/2002	159.86	22.95	--	136.91	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-7	5/20/2003	159.86	23.44	--	136.42	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-7	10/2/2003	159.86	23.3	--	136.56	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-7	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-8	2/1/1992	--	--	--	--	--	--	0.16	0.28	3.4	0.12	--	--	Sample date accurate to month and year only
MW-8	5/1/1992	98.09	22.24	--	75.85	--	--	0.11	0.2	2.3	9.9	--	--	Sample date accurate to month and year only
MW-8	9/1/1992	98.09	22.43	--	75.66	--	--	0.13	0.26	2.6	0.11	--	--	Sample date accurate to month and year only
MW-8	11/1/1992	98.09	22.5	--	75.59	--	--	0.9	0.17	1.3	7.5	--	--	Sample date accurate to month and year only
MW-8	5/1/1993	98.09	22.84	--	75.25	--	--	9.3	23.0	1.8	8.5	--	--	Sample date accurate to month and year only
MW-8	8/1/1993	98.09	22.8	--	75.25	--	--	11.0	25.0	1.7	12.0	--	--	Sample date accurate to month and year only
MW-8	11/1/1993	98.09	22.54	--	75.55	--	--	9.7	26.0	2.0	14.0	--	--	Sample date accurate to month and year only
MW-8	3/1/1994	98.09	22.43	--	75.66	--	--	6.4	25.0	1.8	13.0	--	--	Sample date accurate to month and year only

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 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments	
		ADEC Groundwater Cleanup Levels					1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-8	6/1/1994	98.09	22.43	--	75.66	--	--	10.0	33.0	2.9	22.0	--	--	Sample date accurate to month and year only	
MW-8	8/1/1994	98.09	22.92	--	75.17	--	--	8.4	39.0	2.7	19.0	--	--	Sample date accurate to month and year only	
MW-8	12/22/1994	98.09	22.74	--	75.35	--	--	3.9	13.0	0.8	12.0	--	--		
MW-8	3/31/1995	98.09	22.76	--	75.33	--	--	4.8	13.0	1.4	9.6	--	--		
MW-8	6/20/1995	98.09	22.32	--	75.77	--	--	4.1	20.0	1.3	15.0	--	--		
MW-8	8/23/1995	98.09	22.51	--	75.58	--	--	3.6	21.0	1.9	20.0	--	--		
MW-8	11/16/1995	98.09	22.59	--	75.50	--	--	3.2	18.0	1.7	16.0	--	--		
MW-8	1/30/1996	98.09	22.71	--	75.38	--	--	3.4	23.0	2.0	20.0	--	--		
MW-8	6/2/1996	98.09	22.57	--	75.52	--	--	3.4	15.9	1.47	12.7	--	--		
MW-8	8/26/1996	98.09	22.75	--	75.34	--	--	2.43 / 2.86	16.8 / 18.8	1.44 / 1.63	18.4 / 20.5	--	--		
MW-8	10/16/1996	98.09	23.42	--	74.67	--	--	6.79	24.3	2.04	15.1	--	--		
MW-8	4/28/1997	98.09	23.14	--	74.95	--	--	4.27 / 4.54	9.78 / 13.9	1.29 / 1.37	8.56 / 9.29	--	--		
MW-8	9/10/1997	98.09	22.43	--	75.66	--	--	2.35	6.52	0.814	7.48	--	--		
MW-8	4/19/1998	98.09	22.93	--	75.16	--	--	1.14	6.79	0.571	12.9	--	--		
MW-8	9/23/1998	98.09	22.36	--	75.73	--	--	0.683	4.2	0.539	9.23	--	--		
MW-8	9/21/2001	159.68	--	--	--	--	--	--	--	--	--	--	--		
MW-8R	9/24/2006	159.71	22.06	--	137.65	2.3	22.0	0.075	1.8	0.72	4.1	--	--		
MW-8R	5/14/2007	159.71	22.57	--	137.14	4.1	49.0	0.16	4.5	2.1	10.0	<0.001	--		
MW-8R	9/21/2007	159.71	22.6	--	137.11	4.9	57.0	0.12	7.4	1.8	11.0	--	--		
MW-8R	5/1/2008	159.71	22.79	--	136.92	3.67	55.6	0.128	3.59	3.0	14.9	--	--		
MW-8R	7/15/2008	159.71	22.49	--	137.22	5.30	18.0	0.060	4.6	2.1	12.50	--	--		
MW-8R	5/14/2009	159.71	22.71	--	137.00	4.1	51	0.079	3.9	2.4	12.0	--	--		
MW-8R	8/26/2009	159.71	22.9	--	136.81	3.3 J	49	0.072	2.9	2.0	11.4	--	--		
MW-8R	4/20/2010	159.71	22.89	--	136.82	6.7 / 6.4	40 J / 18 J	0.017 J / 0.017 J	0.50 / 0.51	1.1 / 1.2	6.3 / 6.7	--	--		
MW-8RR	7/26/2011	159.55	22.84	--	136.71	6.7	17	0.15	2.1	0.49	3.4	--	--		
MW-8RR	11/10/2011	159.55	22.8	--	136.75	0.78	0.030 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	6/20/2012	159.55	22.21	--	137.34	0.56	0.019 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	11/5/2012	159.55	21.57	--	137.98	--	--	--	--	--	--	--	--		
MW-8RR	11/8/2012	159.55	--	--	--	0.22 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	4/30/2013	159.55	22.61	--	136.94	<0.56	0.048 J	0.0017	0.0029	0.0016	0.0117	--	--		
MW-8RR	4/30/2013	159.55	22.61	--	136.94	0.66	<0.10	0.000078 J	0.000084 J	<0.000081	<0.00022	--	--	Collected via hydrasleeve	
MW-8RR	11/7/2013	159.55	21.9	--	137.65	--	--	--	--	--	--	--	--		
MW-8RR	11/8/2013	159.55	--	--	--	0.75	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	--	--		
MW-8RR	4/28/2014	159.55	22.32	--	137.23	0.12 J	<0.050	<0.00015	<0.00011	0.00035 J	<0.00040	--	--		
MW-8RR	4/28/2014	159.55	22.32	--	137.23	0.37	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	Collected via hydrasleeve	
MW-8RR	11/7/2014	159.55	22.73	--	136.82	0.33 J	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--		
MW-8RR	4/29/2015	159.55	23.03	--	136.52	0.22 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	11/6/2015	159.55	22.32	--	137.23	0.13 J	<0.010	<0.001	<0.001	<0.001	<0.001	--	--		
MW-8RR	4/21/2016	159.55	22.96	--	136.59	0.31	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	11/1/2016	159.55	22.6	--	136.95	0.37 J	0.013 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	5/1/2017	159.55	22.46	--	137.09	0.60	0.014 J	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	10/17/2017	159.55	23.35	--	136.20	0.24 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--		
MW-8RR	4/27/2018	159.55	22.72	--	136.83	0.12 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--		
MW-8RR	10/18/2018	159.55	22.67	--	136.88	0.11 J	<0.014	<0.0002	<0.0002	0.0002 J	0.0009	--	--		
MW-8RR	4/9/2019	166.43	22.51 ²	0.00	143.92	<0.25 B	<0.014	<0.0002	<0.0002	<0.0004	<0.001	<0.0002	<0.001	TPH-d Non detect reported to LOQ	
MW-8RR	9/11/2019	166.43	23.03	0.00	143.40	<0.1/ <0.1	0.16/0.16	<0.00050B / <0.00050B	<0.00039 / <0.00039	<0.00050 / <0.00050	<0.00114 / <0.00114	<0.00044 / <0.00044	0.000023 J*B / 0.00010 J*B	TPH-d Non detect reported to LOQ	
MW-8RR	4/22/2020	166.43	22.61	0.00	143.82	<0.824 J	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500		
MW-8RR	10/9/2020	166.43	22.72	0.00	143.71	<0.808	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500		
MW-8RR	4/7/2021	166.43	--	--	--	--	--	--	--	--	--	--	--	Unable to be located due to ice	
MW-9	2/1/1992	--	--	--	--	--	--	0.03	0.059	0.074	0.027	--	--	Sample date accurate to month and year only	
MW-9	5/1/1992	90.3	14.57	--	75.73	--	--	ND	0.003	0.013	0.002	--	--	Sample date accurate to month and year only	
MW-9	9/1/1992	90.3	14.74	--	75.56	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	11/1/1992	90.3	14.66	--	75.64	--	--	0.003	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	5/1/1993	90.3	15.11	--	75.19	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	8/1/1993	90.3	15.12	--	75.18	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	11/1/1993	90.3	14.96	--	75.34	--	--	ND	0.011	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	3/1/1994	90.3	14.99	--	75.31	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	6/1/1994	90.3	15.23	--	75.07	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	8/1/1994	90.3	15.48	--	74.82	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only	
MW-9	12/22/1994	90.3	15.13	--	75.17	--	--	ND	ND	ND	ND	--	--		
MW-9	3/31/1995	90.3	14.98	--	75.32	--	--	ND	ND	ND	ND	--	--		
MW-9	6/20/1995	90.3	14.68	--	75.62	--	--	ND	ND	ND	ND	--	--		
MW-9	8/23/1995	90.3	15.02	--	75.28	--	--	ND	0.00067	ND	0.0022	--	--		

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
		ADEC Groundwater Cleanup Levels				1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-9	11/16/1995	90.3	15	--	75.30	--	--	ND	ND	ND	ND	--	--	
MW-9	1/30/1996	90.3	15.22	--	75.08	--	--	ND	ND	ND	ND	--	--	
MW-9	6/2/1996	90.3	14.93	--	75.37	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	8/26/1996	90.3	15.5	--	74.80	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	10/16/1996	90.3	15.81	--	74.49	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	4/28/1997	90.3	15.5	--	74.80	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	9/10/1997	90.3	14.76	--	75.54	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-9	4/19/1998	90.3	15.35	--	74.95	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	9/23/1998	90.3	14.39	--	75.91	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	4/28/1999	90.3	14.98	--	75.32	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	--	
MW-9	10/13/1999	90.3	15.02	--	75.28	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-9	5/19/2000	90.3	15.4	--	74.90	--	--	<0.001 / <0.001	<0.001 / <0.001	<0.001 / <0.001	<0.002 / <0.002	<0.002 / <0.002	--	
MW-9	9/27/2000	90.3	15.24	--	75.06	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-9	5/5/2001	90.3	15.69	--	74.61	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-9	8/2/2001	90.3	15.16	--	75.14	<0.001	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2001	90.3	--	--	--	--	<0.05	--	--	--	--	--	--	
MW-9	5/1/2002	152.33	15.38	--	136.95	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-9	9/20/2002	152.33	15.32	--	137.01	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-9	5/20/2003	152.33	15.77	--	136.56	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2003	152.33	15.54	--	136.79	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-9	6/1/2004	152.33	15.11	--	137.22	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	
MW-9	9/21/2004	152.33	15.58	--	136.75	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	<0.002 / <0.002	--	Sample date defaulted to first date listed in historical data table
MW-9	5/12/2005	152.33	15.26	--	137.07	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0015 / <0.0015	<0.0025 / <0.0025	--	
MW-9	9/19/2005	152.33	14.8	--	137.53	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	<0.0025 / <0.0025	--	
MW-9	5/8/2006	152.33	15.74	--	136.59	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	9/24/2006	152.34	14.88	--	137.46	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-9	5/14/2007	152.34	15.31	--	137.03	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.0005	--	
MW-9	9/21/2007	152.34	15.23	--	137.11	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-9	5/1/2008	152.34	15.37	--	136.97	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	
MW-9	7/15/2008	152.34	15.27	--	137.07	--	--	<0.0005	<0.0005	<0.0005	<0.0001	--	--	
MW-9	5/14/2009	152.34	16.37	--	135.97	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	8/26/2009	152.34	15.61	--	136.73	--	0.12	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-9	4/20/2010	152.34	15.6	--	136.74	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	9/5/2010	152.34	15.35	--	136.99	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	
MW-9	5/24/2011	152.34	15.74	--	136.60	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	11/10/2011	152.34	15.6	--	136.74	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	6/20/2012	152.34	15.02	--	137.32	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	11/5/2012	152.34	14.41	--	137.93	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	4/30/2013	152.34	15.37	--	136.97	--	--	<0.000062	<0.000077	<0.000081	<0.00022	--	--	
MW-9	4/30/2013	152.34	15.37	--	136.97	--	--	<0.000062	<0.000077	<0.000081	<0.00022	--	--	Collected via hydrasleeve
MW-9	11/7/2013	152.34	14.75	--	137.59	--	--	--	--	--	--	--	--	
MW-9	11/8/2013	--	--	--	--	--	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	
MW-9	4/28/2014	152.34	15.17	--	137.17	--	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	
MW-9	4/28/2014	152.34	15.17	--	137.17	--	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	Collected via hydrasleeve
MW-9	11/7/2014	152.34	15.56	--	136.78	--	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	
MW-9	4/29/2015	152.34	15.84	--	136.50	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	11/6/2015	152.34	15.16	--	137.18	--	--	<0.001	<0.001	<0.001	<0.001	--	--	
MW-9	4/21/2016	152.34	15.79	--	136.55	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	11/1/2016	152.34	15.43	--	136.91	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	5/1/2017	152.34	15.27	--	137.07	--	--	<0.003	<0.003	<0.003	<0.003	--	--	
MW-9	10/17/2017	152.34	15.15	--	137.19	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
MW-9	4/27/2018	152.34	15.52	--	136.82	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-9	10/18/2018	152.34	15.44	--	136.90	--	--	<0.0002	<0.0002	<0.0002	<0.0005	--	--	
MW-9	4/9/2019	159.24	15.36 ²	0.00	143.88	<0.25 B	--	<0.0002	<0.0002	<0.0004	<0.001	<0.0002	<0.001	TPH-d Non detect reported to LOQ
MW-9	9/11/2019	159.24	15.87	0.00	143.37	<0.1	<0.076	<0.00050B	<0.00039	<0.00050	<0.00114	<0.00044	0.00032 J*B	TPH-d Non detect reported to LOQ
MW-9	4/22/2020	159.24	15.39	0.00	143.85	<0.800 [<0.800]	0.0456 J [0.0465 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	
MW-9	10/9/2020	159.24	15.54	0.00	143.70	<0.800	0.0168 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
MW-9	4/7/2021	159.24	15.88	0.00	143.36	<0.888	<0.1	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
MW-10	2/1/1992	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-10	9/1/1992	--	--	--	79.79	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-10	8/1/1993	--	--	--	79.29	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-10	8/2/2001	--	20.64	--	--	0.00282	--	0.00116	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-10	9/21/2001	160.9	--	--	--	--	<0.05	--	--	--	--	--	--	
MW-10	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-11	2/1/1992	98.38	--	--	--	--	--	0.08	ND	0.02	0.01	--	--	Sample date accurate to month and year only
MW-11	5/1/1992	98.38	22.65	--	75.73	--	--	1.6	8.7	1.2	0.20	--	--	Sample date accurate to month and year only
MW-11	9/1/1992	98.38	22.76	--	75.62	--	--	0.36	--	0.03	0.061	--	--	Sample date accurate to month and year only
MW-11	11/1/1992	98.38	22.73	--	75.65	--	--	1.2	0.074	0.02	0.004	--	--	Sample date accurate to month and year only
MW-11	5/1/1993	98.38	23.06	--	75.32	--	--	0.03	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-11	8/1/1993	98.38	23.05	--	75.33	--	--	0.042	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-11	11/1/1993	98.38	22.87	--	75.51	--	--	0.11	ND	0.11	0.1	--	--	Sample date accurate to month and year only
MW-11	3/1/1994	98.38	22.82	--	75.56	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-11	6/1/1994	98.38	23.09	--	75.29	--	--	0.012	ND	0.011	0.019	--	--	Sample date accurate to month and year only
MW-11	8/1/1994	98.38	23.32	--	75.06	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-11	12/22/1994	98.38	23.02	--	75.36	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-11	3/31/1995	98.38	22.91	--	75.47	--	--	ND	ND	ND	ND	--	--	
MW-11	6/20/1995	98.38	22.57	--	75.81	--	--	0.00072	ND	ND	ND	--	--	
MW-11	8/23/1995	98.38	22.89	--	75.49	--	--	0.0013	ND	ND	ND	--	--	
MW-11	11/16/1995	98.38	22.88	--	75.50	--	--	0.0016	ND	ND	ND	--	--	
MW-11	1/30/1996	98.38	23.14	--	75.24	--	--	0.00068	ND	ND	ND	--	--	
MW-11	6/2/1996	98.38	22.82	--	75.56	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / 0.00063	<0.001 / <0.001	--	--	
MW-11	8/26/1996	98.38	23.31	--	75.07	--	--	0.0016	<0.0005	<0.0005	<0.001	--	--	
MW-11	10/16/1996	98.38	23.69	--	74.69	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-11	4/28/1997	98.38	23.38	--	75.00	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-11	9/10/1997	98.38	22.62	--	75.76	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-11	4/19/1998	98.38	23.22	--	75.16	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-11	9/23/1998	98.38	22.41	--	75.97	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-11	4/28/1999	98.38	22.86	--	75.52	--	--	<0.0005	0.00063	<0.0005	<0.0005	<0.01	--	
MW-11	10/13/1999	98.38	22.93	--	75.45	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-11	5/19/2000	98.38	23.27	--	75.11	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-11	9/27/2000	98.38	23.14	--	75.24	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-11	5/5/2001	98.38	23.59	--	74.79	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-11	8/0/2001	98.38	23.05	--	75.33	<0.001	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-11	10/2/2001	98.38	23.46	--	74.92	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-11	5/1/2002	160.22	23.32	--	136.90	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-11	9/20/2002	160.22	23.21	--	137.01	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-11	5/20/2003	160.22	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-11	10/02/2003	160.22	--	--	--	--	--	--	--	--	--	--	--	
MW-11	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-12	2/1/1992	--	--	--	--	--	--	0.0033	ND	ND	0.0038	--	--	Sample date accurate to month and year only
MW-12	9/1/1992	--	--	--	77.00	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-12	8/1/1993	--	--	--	76.58	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-12	8/2/2001	--	22.51	--	--	0.000252	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-12	9/21/2001	160.78	--	--	--	--	<0.05	--	--	--	--	--	--	
MW-12	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-14A	5/1/1992	--	--	--	75.72	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	9/1/1992	--	--	--	75.59	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	11/1/1992	--	--	--	75.64	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	5/1/1993	--	--	--	75.29	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	8/1/1993	--	--	--	75.29	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	11/1/1993	--	--	--	75.43	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	6/1/1994	--	--	--	75.23	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	8/1/1994	--	--	--	74.95	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14A	8/2/2001	--	23.03	--	--	0.000321	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-14A	9/21/2001	160.21	--	--	--	--	<0.05	--	--	--	--	--	--	
MW-14A	5/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-14B	9/1/1992	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14B	8/1/1993	--	--	--	75.32	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-14B	8/2/2001	--	23.11	--	--	<0.001	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-14B	09/21/2001	160.2	--	--	--	--	<0.05	--	--	--	--	--	--	
MW-14B	05/01/2004	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed May 2004
MW-15	9/1/1992	--	--	--	--	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	11/1/1992	87.01	11.37	--	75.64	--	--	0.002	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	5/1/1993	87.01	11.71	--	75.30	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	8/1/1993	87.01	11.71	--	75.30	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	11/1/1993	87.01	11.54	--	75.47	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only

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 Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
		ADEC Groundwater Cleanup Levels				1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-15	3/1/1994	87.01	11.52	--	75.49	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	6/1/1994	87.01	11.77	--	75.24	--	--	ND	ND	ND	ND	--	--	Sample date accurate to month and year only
MW-15	8/1/1994	87.01	12.02	--	74.99	--	--	ND	ND	ND	ND	--	--	
MW-15	12/22/1994	87.01	11.68	--	75.33	--	--	ND	ND	ND	ND	--	--	
MW-15	3/31/1995	87.01	11.53	--	75.48	--	--	ND	ND	ND	ND	--	--	
MW-15	6/20/1995	87.01	11.23	--	75.78	--	--	ND	ND	ND	ND	--	--	Trace NAPL
MW-15	8/23/1995	87.01	11.55	--	75.46	--	--	ND	ND	ND	ND	--	--	
MW-15	11/16/1995	87.01	11.55	--	75.46	--	--	ND	ND	ND	ND	--	--	
MW-15	1/30/1996	87.01	11.78	--	75.23	--	--	ND	ND	ND	ND	--	--	
MW-15	6/2/1996	87.01	11.48	--	75.53	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	Insufficient recharge
MW-15	8/26/1996	87.01	12.03	--	74.98	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	10/16/1996	87.01	12.5	--	74.51	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	4/28/1997	87.01	12.04	--	74.97	--	--	<0.0005	0.000527	<0.0005	<0.001	--	--	
MW-15	9/10/1997	87.01	11.29	--	75.72	--	--	<0.002	<0.002	<0.002	<0.002	--	--	
MW-15	4/19/1998	87.01	11.9	--	75.11	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	9/23/1998	87.01	11.06	--	75.95	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-15	4/28/1999	87.01	11.52	--	75.49	--	--	<0.0005	0.00059	<0.0005	<0.0005	<0.01	--	
MW-15	10/13/1999	87.01	11.57	--	75.44	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
MW-15	5/19/2000	87.01	11.95	--	75.06	--	--	<0.001	<0.001	<0.001	<0.002	<0.002	--	
MW-15	9/27/2000	87.01	11.8	--	75.21	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
MW-15	5/5/2001	87.01	--	--	--	--	--	--	--	--	--	--	--	
MW-15	10/20/2001	87.01	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/1/2002	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/20/2002	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/20/2003	148.9	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-15	10/2/2003	148.9	8.58	--	140.32	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-15	6/1/2004	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/21/2004	148.9	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-15	5/12/2005	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	9/19/2005	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-15	5/8/2006	148.9	--	--	--	--	--	--	--	--	--	--	--	
MW-16	8/2/2001	--	13.92	--	--	<0.0001	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/2/2001	--	14.33	--	--	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	Car parked over well
MW-16	5/1/2002	151.08	14.12	--	136.96	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	Car parked over well
MW-16	9/20/2002	151.08	14.04	--	137.04	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-16	5/20/2003	151.08	14.51	--	136.57	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-16	10/2/2003	151.08	14.3	--	136.78	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-16	6/1/2004	151.08	13.86	--	137.22	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	
MW-16	9/21/2004	151.08	14.32	--	136.76	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-16	5/12/2005	151.08	14.04	--	137.04	--	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	
MW-16	9/19/2005	151.08	13.53	--	137.55	--	--	<0.0005	<0.0005	<0.0005	<0.001	0.0025	--	
MW-16	5/8/2006	151.08	14.53	--	136.55	--	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	--	--	
MW-16	9/24/2006	152.13	13.69	--	138.44	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-16	5/14/2007	152.13	14.13	--	138.00	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.0005	--	
MW-16	9/12/2007	152.13	14.01	--	138.12	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
MW-16	5/1/2008	152.13	14.18	--	137.95	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	
MW-16	5/14/2009	152.13	--	--	--	--	--	--	--	--	--	--	--	Unable to Access - behind fenced area
MW-17	8/2/2001	--	11.7	--	--	0.000118	--	<0.0001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2001	--	12.12	--	--	--	<0.05	<0.0005	<0.005	<0.005	<0.001	<0.001	--	
MW-17	5/1/2002	148.89	11.91	--	136.98	--	--	<0.0005	<0.005	<0.005	<0.001	<0.001	--	
MW-17	9/20/2002	148.89	11.86	--	137.03	--	--	<0.0005	<0.005	<0.005	<0.001	<0.001 / 0.002	--	
MW-17	5/20/2003	148.89	12.3	--	136.59	--	--	<0.0005	<0.005	<0.005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2003	148.89	12.07	--	136.82	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-17	6/1/2004	148.89	11.65	--	137.24	--	--	<0.0005 / <0.0005	<0.0005 / <0.0007	<0.0005 / <0.0008	<0.001 / <0.0008	<0.002 / <0.002	--	
MW-17	9/21/2004	148.89	12.13	--	136.76	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-17	5/12/2005	148.89	11.81	--	137.08	--	--	--	--	--	--	--	--	
MW-17	9/19/2005	148.89	11.45	--	137.44	--	--	--	--	--	--	--	--	
MW-17	5/8/2006	148.89	13.56	--	135.33	--	--	--	--	--	--	--	--	
MW-17	9/24/2006	148.91	12.69	--	136.22	--	--	--	--	--	--	--	--	
MW-17	5/14/2007	148.91	13.27	--	135.64	--	--	--	--	--	--	--	--	
MW-17	9/21/2007	148.91	11.77	--	137.14	--	--	--	--	--	--	--	--	
MW-17	5/1/2008	148.91	11.9	--	137.01	--	--	--	--	--	--	--	--	
MW-17	5/14/2009	148.91	--	--	--	--	--	--	--	--	--	--	--	Unable to Access - behind fenced area

Table 4. Historical Groundwater Gauging and Analytical Results

First Quarter 1992 to Current

Former Chevron-Branded Service Station 97324

4417 Lake Otis Parkway

Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
MW-18	8/2/2001	--	13.3	--	--	0.0132	--	<0.001	<0.001	<0.001	<0.003	--	--	Sample date defaulted to first date listed in historical data table
MW-18	10/2/2001	--	13.46	--	--	--	0.162	<0.0005	<0.0005	0.00139	0.0112	<0.001	--	
MW-18	5/1/2002	150.5	12.88	--	137.62	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
MW-18	9/20/2002	150.5	13.17	--	137.33	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001 / 0.002	--	
MW-18	5/20/2003	150.5	13.6	--	136.90	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	Sample date defaulted to first date listed in historical data table
MW-18	10/2/2003	150.5	14.23	--	136.27	--	--	<0.0005	<0.0007	<0.0008	<0.0016	<0.002	--	
MW-18	6/1/2004	150.5	12.96	--	137.54	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	
MW-18	9/21/2004	150.5	14.01	--	136.49	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.002	--	Sample date defaulted to first date listed in historical data table
MW-18	5/12/2005	150.5	13.06	--	137.44	--	--	--	--	--	--	--	--	
MW-18	9/19/2005	150.5	12.74	--	137.76	--	--	--	--	--	--	--	--	
MW-18	05/08/2006	150.78	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	1/30/1996	--	--	--	--	--	--	ND	ND	ND	ND	--	--	
Trip Blank	6/2/1996	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	8/26/1996	--	--	--	--	--	--	<0.0005	0.00061	<0.0005	<0.001	--	--	
Trip Blank	10/16/1996	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	4/28/1997	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	9/10/1997	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	4/19/1998	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	9/23/1998	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	4/28/1999	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	--	
Trip Blank	10/13/1999	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	
Trip Blank	9/27/2000	--	--	--	--	--	--	<0.0005	0.000572	<0.0005	<0.001	<0.005	--	
Trip Blank	5/5/2001	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	
Trip Blank	10/2/2001	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
Trip Blank	5/1/2002	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	
Trip Blank	9/20/2002	--	--	--	--	--	--	<0.0005	0.000518	<0.0005	<0.001	<0.001	--	
Trip Blank	5/20/2003	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	Sample date defaulted to first date listed in historical data table
Trip Blank	10/2/2003	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	
Trip Blank	6/1/2004	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	
Trip Blank	9/21/2004	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.001	--	
Trip Blank	8/19/2009	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.001	--	
Trip Blank	4/20/2010	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.001	--	
Trip Blank	6/10/2010	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.001	--	
Trip Blank	8/27/2010	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	
Trip Blank	5/24/2011	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	--	<0.010	<0.00062	<0.00077	<0.00022	--	--	
Trip Blank	11/08/2013	--	--	--	--	--	--	<0.10	<0.00024	<0.00023	<0.00072	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00040	--	--	Car parked over well
Trip Blank	11/7/2014	--	--	--	--	--	--	<0.050	<0.00015	0.00012 J	<0.00040	--	--	
Trip Blank	4/29/2015	--	--	--	--	--	--	<0.050	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	11/6/2015	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	4/21/2016	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	10/17/2017	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	
Trip Blank	10/18/2018	--	--	--	--	--	--	<0.010	<0.0002	<0.0002	<0.0005	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	--	<0.014	<0.0002	<0.0004	<0.001	<0.0002	<0.001	
Trip Blank	9/11/2019	--	--	--	--	--	<0.014	<0.100	<0.000090	<0.00039	<0.00114	<0.00044	0.000095 J*B	
Trip Blank	4/22/2020	--	--	--	--	--	--	<0.100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Trip Blank	10/9/2020	--	--	--	--	--	--	<0.100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Trip Blank	4/7/2021	--	--	--	--	--	--	--	0.0112 J	<0.00100	<0.00100	<0.00100	<0.00500	

Table 4. Historical Groundwater Gauging and Analytical Results
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft amsl)	TPH-d (mg/L)	TPH-g (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels						1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.0017	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	--
Equipment Blank	9/11/2019	--	--	--	--	<0.076	<0.100	0.000013 J	0.0011 J	<0.00050	<0.00114	<0.00044	0.000030 J*B	
Equipment Blank	4/22/2020	--	--	--	--	<0.800	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	10/9/2020	--	--	--	--	<0.800	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	
Equipment Blank	4/7/2021	--	--	--	--	<0.888	0.0104 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00500	

Notes:

ID = Identification
MW = Groundwater monitoring well
TOC = Top of casing
DTW = Depth to groundwater
ft bTOC = Feet below top of casing
ft = Feet relative to NAVD88
mg/L = Milligrams per liter
GW Elev = Groundwater elevation
<0.00100 = Not detected at or above the reported detection limit (RDL)
Bold = Detected above laboratory method detection limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
[] = Blind Duplicate Sample Result
* = LCS or LCSD is outside acceptance limits.
ND = Constituent considered non detect at the MDL

TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to State of Alaska Method AK102.
Samples analytes by USEPA Method 8260D:
Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
MTBE = Methyl-tert-butyl ether
Naphthalene
LUFT = Leaking Underground Fuel Tank
GC/MS = Gas chromatography/Mass Spectrometry
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
B = Compound considered non-detect at the listed value due to associated blank contamination.
ADEC = Alaska Department of Environmental Conservation
NAVD 88 = North American Vertical Datum of 1988
LNAPL = Light Non-Aqueous Phase Liquid
-- = Not Measured/Not analysed
The laboratory for this site was changed from Eurofins Calscience to Pace Analytical prior to the second quarter 2020 groundwater monitoring event. Prior to this date, Eurofins Calscience was using the carbon ranges as follows: TPH-g as C6-C10; TPH-d as C13-C22. Pace Analytical reports the following carbon ranges: TPH-g as C5-C12; TPH-d as C12-C22.

Table 5a. Historical Groundwater Analytical Results - Additional VOCs
 First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels													
		0.0017	0.0028	0.041	0.036	0.11		0.3	0.36	8	0.00076	0.00041	10
MW-1R	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--
MW-1R	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-1R	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-1R	5/1/2008	0.0182	0.004	<0.005	<0.07	<0.005	--	--	--	--	--	--	--
MW-1R	7/15/2008	0.021	<0.01	<0.008	<0.008	0.021	--	--	--	--	--	--	--
MW-1R	5/14/2009	<0.005 / <0.005	<0.010 / <0.010	<0.008 / <0.008	<0.008 / <0.008	<0.020 / <0.020	--	--	--	--	--	--	--
MW-1R	8/26/2009	<0.005 J / 0.021 J	<0.010 / <0.010	<0.008 / <0.008	<0.008 / <0.008	<0.020 / <0.020	--	--	--	--	--	--	--
MW-1R	6/15/2010	0.014 J / 0.010 J	<0.010 / <0.010	<0.008 / <0.008	<0.008 / <0.008	<0.020 / <0.020	--	--	--	--	--	--	--
MW-1R	9/5/2010	<0.003 / <0.003	<0.005 / <0.005	<0.004 / <0.004	<0.004 / <0.004	<0.010 / <0.010	--	--	--	--	--	--	--
MW-1R	5/24/2011	0.012	0.001 J	<0.008	<0.008	<0.002	--	--	--	--	--	--	--
MW-1R	5/24/2011	0.012	0.001 J	<0.008	<0.008	<0.002	--	--	--	--	--	--	--
MW-1R	11/10/2011	0.004 J / 0.007 J	<0.001 / <0.001	<0.0008 / <0.0008	<0.0008 / <0.0008	<0.002 / <0.002	--	--	--	--	--	--	--
MW-1R	6/20/2012	0.004 J / 0.004 J	<0.001 / <0.001	0.0009 J / <0.0008	<0.0008 / <0.0008	<0.002 / <0.002	--	--	--	--	--	--	--
MW-1R	11/5/2012	0.0008 J / 0.0008 J	<0.001 / <0.001	<0.0008 / <0.0008	<0.0008 / <0.0008	<0.002 / <0.002	--	--	--	--	--	--	--
MW-1R	4/30/2013	0.003 / 0.0033	0.00013 J / 0.00015 J	0.0013 / 0.0012	<0.000085 / <0.000085	<0.002 / <0.002	--	--	--	--	--	--	--
MW-1R	4/30/2013	0.0028 / 0.0034	0.00011 J / 0.00012 J	0.0012 / 0.001	<0.000085 / <0.000085	<0.002 / <0.002	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-1R	11/8/2013	0.0042 J / 0.0030 J	<0.00060 / <0.00060	0.0021 J / 0.0020 J	<0.00011 / <0.00011	<0.010 / <0.010	--	--	--	--	--	--	--
MW-1R	4/28/2014	0.0037 / 0.0037	0.00065 / 0.00061	0.0024 / 0.0022	<0.00013 / <0.00013	<0.0020 / <0.0020	--	--	--	--	--	--	--
MW-1R	4/28/2014	<0.00066 UJ / 0.0038 J	<0.00046 / 0.00066	<0.00078 UJ / 0.0017 J	<0.00066 / <0.00013	<0.010 / <0.0020	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-1R	11/7/2014	<0.00066 / 0.0021 J	<0.00046 / <0.00046	0.0019 J / 0.0016 J	<0.00066 / <0.00066	<0.010 / <0.010	--	--	--	--	--	--	--
MW-1R	4/29/2015	0.003	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--
MW-1R	11/6/2015	<0.001	<0.001	<0.001	<0.001	<0.004	--	--	--	--	--	--	--
MW-1R	4/21/2016	0.001	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--
MW-1R	11/1/2016	0.002	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--
MW-1R	5/1/2017	0.001	<0.0005	0.0007 J	<0.0005	<0.002	--	--	--	--	--	--	--
MW-1R	10/17/2017	0.001	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--
MW-1R	4/27/2018	0.002	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--
MW-1R	10/18/2018	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--
MW-1R	4/9/2019	0.001 [0.001]	<0.0002 [<0.0002]	<0.0002 [0.0004 J]	<0.0002 [<0.0002]	<0.0003 [<0.0003]	--	--	--	--	--	--	--
MW-1R	9/11/2019	0.0014	< 0.000090	< 0.00050B	< 0.00069	< 0.0014	--	--	--	--	--	--	--
MW-1R	10/9/2020	0.00222	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-1R	4/7/2021	0.00276	<0.00100	<0.00100	<0.00100	<0.00500	0.000426 J	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2R	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--
MW-2R	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-2R	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-2R	5/1/2008	0.0568 / 0.0505	<0.005 / <0.005	<0.005 / 0.00079	<0.07 / <0.07	<0.005 / <0.005	--	--	--	--	--	--	--
MW-2R	7/15/2008	0.035 / 0.037	<0.005 / <0.005	<0.005 / <0.005	<0.004 / <0.004	<0.010 / <0.005	--	--	--	--	--	--	--
MW-2R	5/14/2009	0.027	<0.002	<0.002	<0.002	<0.004	--	--	--	--	--	--	--
MW-2R	8/26/2009	0.056	<0.005	<0.004	<0.004	<0.010	--	--	--	--	--	--	--
MW-2R	6/15/2010	0.017	<0.001	<0.008	<0.008	<0.002	--	--	--	--	--	--	--
MW-2R	9/5/2010	0.008	<0.001	0.001 J	<0.0008	<0.002	--	--	--	--	--	--	--
MW-2R	5/24/2011	0.016 / 0.015	<0.001 / <0.001	<0.0008 / <0.0008	<0.0008 / <0.0008	<0.002 / <0.002	--	--	--	--	--	--	--
MW-2R	11/10/2011	0.012	<0.001	<0.0008	<0.0008	<0.002	--	--	--	--	--	--	--
MW-2R	6/20/2012	0.011	<0.001	<0.0008	<0.0008	<0.002	--	--	--	--	--	--	--
MW-2R	11/8/2012	0.002 J	<0.001	<0.0008	<0.0008	<0.002	--	--	--	--	--	--	--
MW-2R	4/30/2013	0.0091	<0.00083	0.00089 J	0.00022 J	<0.002	--	--	--	--	--	--	--
MW-2R	4/30/2013	0.0049	<0.00083	0.00045 J	<0.00085	<0.002	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/8/2013	0.0053	<0.00012	0.00047 J	<0.00023	<0.0020	--	--	--	--	--	--	--
MW-2R	4/28/2014	0.011	<0.00091	0.00077 J	<0.00013	<0.0020	--	--	--	--	--	--	--
MW-2R	4/28/2014	0.0021	<0.00091	0.00027 J	<0.00013	<0.0020	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/7/2014	<0.00066	<0.00046	<0.00078	<0.00066	<0.010	--	--	--	--	--	--	--
MW-2R	4/29/2015	0.003 / 0.003	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.002 / <0.002	--	--	--	--	--	--	--
MW-2R	11/6/2015	0.002 / <0.003	<0.001 / <0.003	<0.001 / <0.003	<0.001 / <0.003	<0.004 / <0.010	--	--	--	--	--	--	--
MW-2R	4/21/2016	0.008 / 0.009 J	<0.0005 / <0.005	0.0006 J / <0.005	<0.0005 / <0.005	<0.002 / <0.02	--	--	--	--	--	--	--
MW-2R	11/1/2016	0.011 / 0.011	<0.0005 / <0.0005	0.0008 J / 0.0008 J	<0.0005 / <0.0005	<0.002 / <0.002	--	--	--	--	--	--	--
MW-2R	5/1/2017	0.007 / 0.008	<0.0005 / <0.0005	0.0006 J / 0.0006 J	<0.0005 / <0.0005	<0.002 / <0.002	--	--	--	--	--	--	--
MW-2R	10/17/2017	0.009 / 0.009	<0.0005 / <0.0005	0.0009 J / 0.0008 J	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--	--	--	--	--	--
MW-2R	4/27/2018	0.007 / 0.007	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--	--	--	--	--	--
MW-2R	10/18/2018	0.003 J / 0.003 J	<0.0002 / <0.0002	<0.0002 / <0.0002	<0.0002 / <0.0002	<0.0002 / <0.0002	--	--	--	--	--	--	--
MW-2R	4/9/2019	0.005	<0.0002	0.0004 J	<0.0002	<0.0003	--	--	--	--	--	--	--
MW-2R	9/11/2019	0.006	0.00011 J	< 0.00050B	< 0.00069	< 0.0014	--	--	--	--	--	--	--
MW-2R	4/22/2020	0.00473	<0.00100	<0.00100	<0.00100	<0.00500	0.0162	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2R	10/9/2020	0.00640 [0.00617]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	0.0425 [0.0417]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-2R	4/7/2021	0.00565 [0.00682]	0.000555 J [<0.00100]	0.000422 J [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	0.0393 [0.0346]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-8R	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--
MW-8R	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-8R	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--
MW-8R	5/1/2008	0.0174	<0.005	0.00695	<0.07	<0.005	--	--	--	--	--	--	--
MW-8R	7/15/2008	0.011	<0.010	<0.008	<0.008	<0.020	--	--	--	--	--	--	--
MW-8R	5/14/2009	<0.003	<0.005	0.005	<0.004	<0.010	--	--	--	--	--	--	--
MW-8R	8/26/2009	<0.005	<0.010	<0.008	<0.008	0.023 J	--	--	--	--	--	--	--

Table 5a. Historical Groundwater Analytical Results - Additional VOCs

First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels		0.0017	0.0028	0.041	0.036	0.11	--	0.3	0.36	8	0.00076	0.00041	10
MW-8R	4/20/2010	0.004 J / 0.004 J	<0.005 / <0.005	0.005 J / <0.004	<0.004 / <0.004	<0.010 / <0.010	--	--	--	--	--	--	
MW-8RR	7/26/2011	0.024	<0.002	0.011	<0.002	<0.004	--	--	--	--	--	--	
MW-8RR	11/10/2011	0.005	<0.001	<0.0008	<0.0008	<0.002	--	--	--	--	--	--	
MW-8RR	6/20/2012	0.002 J	<0.001	0.0008 J	<0.0008	<0.002	--	--	--	--	--	--	
MW-8RR	11/8/2012	0.0006 J	<0.001	0.002 J	<0.0008	<0.002	--	--	--	--	--	--	
MW-8RR	4/30/2013	0.0033	<0.000083	0.0019	<0.000085	<0.002	--	--	--	--	--	--	
MW-8RR	4/30/2013	0.0025	<0.000083	0.002	0.00023 J	<0.002	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-8RR	11/8/2013	0.00055 J	<0.00012	0.0032	<0.00023	<0.0020	--	--	--	--	--	--	
MW-8RR	4/28/2014	0.00065 J	<0.000091	0.0042	<0.00013	<0.0020	--	--	--	--	--	--	
MW-8RR	4/28/2014	0.00061 J	<0.000091	0.0042	<0.00013	<0.0020	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-8RR	11/7/2014	0.0013	<0.000091	0.0024	<0.00013	<0.0020	--	--	--	--	--	--	
MW-8RR	4/29/2015	0.001	<0.0005	0.001	<0.0005	<0.002	--	--	--	--	--	--	
MW-8RR	11/6/2015	<0.001	<0.001	<0.001	<0.001	<0.004	--	--	--	--	--	--	
MW-8RR	4/21/2016	<0.001	<0.0005	0.002	<0.0005	<0.002	--	--	--	--	--	--	
MW-8RR	11/1/2016	0.001	<0.0005	0.004	<0.0005	<0.002	--	--	--	--	--	--	
MW-8RR	5/1/2017	0.002	<0.0005	0.004	<0.0005	<0.002	--	--	--	--	--	--	
MW-8RR	10/17/2017	0.001	<0.0005	0.003	<0.0005	<0.0005	--	--	--	--	--	--	
MW-8RR	4/27/2018	0.001	<0.0005	0.002	<0.0005	<0.0005	--	--	--	--	--	--	
MW-8RR	10/18/2018	0.003 J	<0.0002	0.003	<0.0002	<0.0002	--	--	--	--	--	--	
MW-8RR	4/9/2019	0.001	<0.0002	0.003 J	<0.0002	<0.0003	--	--	--	--	--	--	
MW-8RR	9/11/2019	0.00079 / 0.00077	0.000057 J / 0.000070 J	0.0018 / 0.0017	< 0.00069 / < 0.00069	< 0.0014 / < 0.0014	--	--	--	--	--	--	
MW-8RR	4/22/2020	0.000636 J	<0.00100	0.00208 J	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-8RR	10/9/2020	<0.00100	<0.00100	0.00287 J	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-8RR	4/7/2021	--	--	--	--	--	--	--	--	--	--	--	Unable to be located due to ice
MW-9	2/1/1992	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1992	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	9/1/1992	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1992	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1993	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1993	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1993	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	3/1/1994	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	6/1/1994	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1994	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	12/22/1994	--	--	--	--	--	--	--	--	--	--	--	Sample date accurate to month and year only
MW-9	3/31/1995	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/20/1995	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/23/1995	--	--	--	--	--	--	--	--	--	--	--	
MW-9	11/16/1995	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/30/1996	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/2/1996	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/26/1996	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/16/1996	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/28/1997	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/10/1997	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/19/1998	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/23/1998	--	--	--	--	--	--	--	--	--	--	--	
MW-9	4/28/1999	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/13/1999	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/19/2000	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/27/2000	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/5/2001	--	--	--	--	--	--	--	--	--	--	--	
MW-9	8/2/2001	--	--	--	--	--	--	--	--	--	--	--	
MW-9	10/2/2001	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2003	--	--	--	--	--	--	--	--	--	--	--	
MW-9	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	
MW-9	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	
MW-9	5/1/2008	<0.005	0.05	0.27	0.119	<0.005	--	--	--	--	--	--	
MW-9	7/15/2008	<0.0005	0.043	0.21	0.097	<0.002	--	--	--	--	--	--	
MW-9	5/14/2009	<0.0005	0.025	0.097	0.064	<0.002	--	--	--	--	--	--	
MW-9	8/26/2009	<0.0005	0.036	0.20	<0.0008	<0.002	--	--	--	--	--	--	
MW-9	4/20/2010	<0.0005	0.044	0.28 J	0.13	<0.002	--	--	--	--	--	--	
MW-9	9/5/2010	--	--	--	--	--	--	--	--	--	--	--	

Table 5a. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
 Former Chevron-Branded Service Station 97324
 4417 Lake Otis Parkway
 Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1,2-Trichlorotrifluoroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels														
		0.0017	0.0028	0.041	0.036	0.11	--	0.3	0.36	8	0.00076	0.00041	10	
MW-9	5/24/2011	<0.0005	0.011	0.055	0.032	<0.002	--	--	--	--	--	--	--	
MW-9	11/10/2011	<0.0005	0.005	0.034	0.013	<0.002	--	--	--	--	--	--	--	
MW-9	6/20/2012	<0.0005	0.006	0.013	0.014	<0.002	--	--	--	--	--	--	--	
MW-9	4/30/2013	<0.00037	0.0492	0.293	0.114	<0.002	--	--	--	--	--	--	--	
MW-9	4/30/2013	<0.00037	0.0441	0.216	0.112	<0.002	--	--	--	--	--	--	--	
MW-9	11/8/2013	<0.00022	0.0055	0.024	0.013	<0.0020	--	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	4/28/2014	<0.00013	0.033	0.18	0.064	<0.0020	--	--	--	--	--	--	--	
MW-9	4/28/2014	<0.00013	<0.0041	0.018	0.067	<0.0020	--	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/7/2014	<0.00013	0.023	0.12	0.040	<0.0020	--	--	--	--	--	--	--	
MW-9	4/29/2015	<0.0005	0.003	0.008	0.005	<0.002	--	--	--	--	--	--	--	
MW-9	11/6/2015	<0.001	0.025	0.12	0.078	<0.004	--	--	--	--	--	--	--	
MW-9	4/21/2016	<0.0005	0.003	0.012	0.007	<0.002	--	--	--	--	--	--	--	
MW-9	11/1/2016	<0.0005	0.003	0.012	0.007	<0.002	--	--	--	--	--	--	--	
MW-9	5/1/2017	<0.003	0.008	0.026	0.030	<0.010	--	--	--	--	--	--	--	
MW-9	10/17/2017	<0.0005	0.003	0.012	0.01	<0.0005	--	--	--	--	--	--	--	
MW-9	4/27/2018	<0.0005	0.014	0.054	0.039	<0.0005	--	--	--	--	--	--	--	
MW-9	10/18/2018	<0.002	0.022	0.082	0.064	<0.0002	--	--	--	--	--	--	--	
MW-9	4/9/2019	<0.0003	0.023	0.085	0.067	<0.0003	--	--	--	--	--	--	--	
MW-9	9/11/2019	< 0.000024	0.022	0.068	0.058	< 0.0014	--	--	--	--	--	--	--	
MW-9	4/22/2020	<0.00100 [<0.00100]	0.0219 [0.0216]	0.0828 [0.0805]	0.058	<0.00500	<0.00100 [<0.00100]	0.000195 J [0.000177 J]	0.000393 J [0.000389 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	
MW-9	10/9/2020	<0.00100	0.0185 J	0.0719	0.0413	<0.00500	<0.00100	<0.00100	0.000209 J	<0.00100	<0.00100	<0.00100	<0.00100	
MW-9	4/7/2021	<0.00100	0.0202	0.0922 J	0.049	<0.00500	<0.00100	0.000114 J	0.000319 J	<0.00100	<0.00100	<0.00100	<0.00100	
MW-16	8/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/02/2001	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	10/02/2003	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-16	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	9/12/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	5/1/2008	<0.005	0.0346	0.197	0.102	<0.005	--	--	--	--	--	--	--	
MW-16	5/14/2009	FENCED, CANNOT BE ACCESSED												
MW-17	8/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	10/2/2003	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-17	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
MW-17	5/14/2009	FENCED, CANNOT BE ACCESSED												
Trip Blank	1/30/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/2/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/26/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/16/1996	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/1997	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/10/1997	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/19/1998	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	09/23/1998	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/1999	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/13/1999	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/27/2000	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/5/2001	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/2/2001	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2002	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/20/2002	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/20/2003	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	10/2/2003	--	--	--	--	--	--	--	--	--	--	--	--	

Table 5a. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	EDC (mg/L)	TCE (mg/L)	PCE (mg/L)	cis-1,2-DCE (mg/L)	Methylene chloride (mg/L)	Isopropylbenzene (mg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (mg/L)	trans-1,2-Dichloroethene (mg/L)	1,1,1-Trichloroethane (mg/L)	1,1,2,2-Tetrachloroethane (mg/L)	1,1,2-Trichloroethane (mg/L)	1,1,2-Trichlorotrifluoroethane (Freon 113) (mg/L)	Comments
ADEC Groundwater Cleanup Levels		0.0017	0.0028	0.041	0.036	0.11	--	0.3	0.36	8	0.00076	0.00041	10	
Trip Blank	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	<0.005	<0.005	<0.005	<0.07	<0.005	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	<0.0005	<0.001	<0.0008	<0.0008	<0.0008	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	<0.00037	<0.00083	<0.0013	<0.00085	<0.002	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	<0.00022	<0.00012	<0.00029	<0.00023	<0.0020	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	<0.00013	<0.000091	<0.00016	<0.00013	<0.0020	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	<0.00013	<0.000091	<0.00016	<0.00013	<0.0020	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	<0.0003	<0.0002	<0.0002	<0.0002	<0.0003	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	< 0.000024	< 0.0000090	0.000020 J	< 0.00069	< 0.0014	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Tudor Motel	9/21/2007	<0.005	<0.0001	<0.0001	<0.0001	<0.0005	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	<0.005	<0.005	<0.005	<0.07	<0.0005	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	<0.0001	<0.0001	<0.0001	<0.0001	<0.0005	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	

Notes:

- ID = Identification
- MW = Groundwater monitoring well
- mg/L = Milligrams per liter
- <0.00500 = Not detected at or above the Reported Detection Limit
- Bold** = Detected above laboratory method detection limit (MDL)
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- [] = Blind Duplicate Sample Result
- ADEC = Alaska Department of Environmental Conservation
- Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5b. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	1,1-Dichloroethane mg/L	1,1-Dichloroethene (Dichloroethylene) mg/L	1,2,3-Trichlorobenzene mg/L	1,2,4-Trichlorobenzene mg/L	1,2,4-Trimethylbenzene mg/L	1,2-Dibromoethane mg/L	1,2-Dichloropropane mg/L	1,3-Dichlorobenzene mg/L	1,4-Dichlorobenzene mg/L	2-Butanone (Methyl ethyl ketone) mg/L	4-Methyl-2-pentanone mg/L	Acetone mg/L	Comments
ADEC Groundwater Cleanup Levels		0.028	0.28	0.007	0.004	0.056	0.000075	0.0082	0.0047	0.0048	--	6.3	14	
Trip Blank	6/1/2004	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00000500	<0.00100	<0.00100	<0.00100	<0.0100	<0.0100	<0.0500	

Notes:

ID = Identification
MW = Groundwater monitoring well
mg/L = Milligrams per liter
<0.00500 = Not detected at or above the Reported Detection Limit
Bold = Detected above laboratory method detection limit (MDL)
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
[] = Blind Duplicate Sample Result
ADEC = Alaska Department of Environmental Conservation
Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5c. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Bromochloromethane mg/L	Bromodichloromethane mg/L	Bromoform mg/L	Bromomethane (Methyl bromide) mg/L	Carbon Disulfide mg/L	Carbon Tetrachloride mg/L	Chlorobenzene mg/L	Chloroethane mg/L	Chloroform mg/L	Chloromethane (Methyl chloride) mg/L	cis-1,3-Dichloropropene mg/L	Dibromochloromethane mg/L	Comments
ADEC Groundwater Cleanup Levels		--	0.0013	0.033	0.0075	0.81	0.0046	0.078	--	0.0022	0.19	0.0047	0.0087	
Trip Blank	9/21/2004	--	--	--	--	--	--	--	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/14/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/19/2009	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/10/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	8/27/2010	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/24/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	7/26/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/10/2011	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	6/20/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/5/2012	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/30/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/8/2013	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/28/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/7/2014	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/21/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	11/1/2016	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	5/1/2017	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/27/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	10/18/2018	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/3/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	9/11/2019	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Trip Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Trip Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Tudor Motel	9/21/2007	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	5/1/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Tudor Motel	7/15/2008	--	--	--	--	--	--	--	--	--	--	--	--	
Equipment Blank	4/22/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Equipment Blank	10/9/2020	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	
Equipment Blank	4/7/2021	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00500	<0.00500	<0.00250	<0.00100	<0.00100	

Notes:

- ID = Identification
- MW = Groundwater monitoring well
- mg/L = Milligrams per liter
- <0.00500 = Not detected at or above the Reported Detection Limit
- Bold** = Detected above laboratory method detection limit (MDL)
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- [] = Blind Duplicate Sample Result
- ADEC = Alaska Department of Environmental Conservation
- Constituents analyzed by United States Environmental Protection Agency Method 8260D

Table 5d. Historical Groundwater Analytical Results - Additional VOCs
First Quarter 1992 to Current
Former Chevron-Branded Service Station 97324
4417 Lake Otis Parkway
Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) mg/L	Styrene mg/L	trans-1,3-Dichloropropene mg/L	Trichlorofluoromethane (Freon 11) mg/L	Vinyl chloride (Chloroethene) mg/L	Comments
ADEC Groundwater Cleanup Levels		0.2	1.2	0.0047	5.2	0.00019	
MW-1R	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
MW-1R	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
MW-2R	9/24/2006	--	--	--	--	--	
MW-2R	5/14/2007	--	--	--	--	--	
MW-2R	9/21/2007	--	--	--	--	--	
MW-2R	5/1/2008	--	--	--	--	--	
MW-2R	7/15/2008	--	--	--	--	--	
MW-2R	5/14/2009	--	--	--	--	--	
MW-2R	8/26/2009	--	--	--	--	--	
MW-2R	6/15/2010	--	--	--	--	--	
MW-2R	9/5/2010	--	--	--	--	--	
MW-2R	5/24/2011	--	--	--	--	--	
MW-2R	11/10/2011	--	--	--	--	--	
MW-2R	6/20/2012	--	--	--	--	--	
MW-2R	11/8/2012	--	--	--	--	--	
MW-2R	4/30/2013	--	--	--	--	--	
MW-2R	4/30/2013	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/8/2013	--	--	--	--	--	
MW-2R	4/28/2014	--	--	--	--	--	
MW-2R	4/28/2014	--	--	--	--	--	Sample collected via hydrasleeve
MW-2R	11/7/2014	--	--	--	--	--	
MW-2R	4/29/2015	--	--	--	--	--	
MW-2R	11/6/2015	--	--	--	--	--	
MW-2R	4/21/2016	--	--	--	--	--	
MW-2R	11/1/2016	--	--	--	--	--	
MW-2R	5/1/2017	--	--	--	--	--	
MW-2R	10/17/2017	--	--	--	--	--	
MW-2R	4/27/2018	--	--	--	--	--	
MW-2R	10/18/2018	--	--	--	--	--	
MW-2R	4/9/2019	--	--	--	--	--	
MW-2R	9/11/2019	--	--	--	--	--	
MW-2R	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
MW-2R	10/9/2020	<0.00500 [<0.00500] J	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	
MW-2R	4/7/2021	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	
MW-8RR	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	

MW-8RR	4/7/2021	--	--	--	--	--	Unable to be located due to ice
MW-9	2/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	9/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1992	--	--	--	--	--	Sample date accurate to month and year only
MW-9	5/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	11/1/1993	--	--	--	--	--	Sample date accurate to month and year only
MW-9	3/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	6/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	8/1/1994	--	--	--	--	--	Sample date accurate to month and year only
MW-9	12/22/1994	--	--	--	--	--	
MW-9	3/31/1995	--	--	--	--	--	
MW-9	6/20/1995	--	--	--	--	--	
MW-9	8/23/1995	--	--	--	--	--	
MW-9	11/16/1995	--	--	--	--	--	
MW-9	1/30/1996	--	--	--	--	--	
MW-9	6/2/1996	--	--	--	--	--	
MW-9	8/26/1996	--	--	--	--	--	
MW-9	10/16/1996	--	--	--	--	--	
MW-9	4/28/1997	--	--	--	--	--	
MW-9	9/10/1997	--	--	--	--	--	
MW-9	4/19/1998	--	--	--	--	--	
MW-9	9/23/1998	--	--	--	--	--	
MW-9	4/28/1999	--	--	--	--	--	
MW-9	10/13/1999	--	--	--	--	--	
MW-9	5/19/2000	--	--	--	--	--	
MW-9	9/27/2000	--	--	--	--	--	
MW-9	5/5/2001	--	--	--	--	--	
MW-9	8/2/2001	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2001	--	--	--	--	--	
MW-9	5/1/2002	--	--	--	--	--	
MW-9	9/20/2002	--	--	--	--	--	
MW-9	5/20/2003	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	10/2/2003	--	--	--	--	--	
MW-9	6/1/2004	--	--	--	--	--	
MW-9	9/21/2004	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
MW-9	5/12/2005	--	--	--	--	--	
MW-9	9/19/2005	--	--	--	--	--	
MW-9	5/8/2006	--	--	--	--	--	
MW-9	9/24/2006	--	--	--	--	--	
MW-9	5/14/2007	--	--	--	--	--	
MW-9	9/21/2007	--	--	--	--	--	
MW-9	5/1/2008	--	--	--	--	--	
MW-9	7/15/2008	--	--	--	--	--	
MW-9	5/14/2009	--	--	--	--	--	
MW-9	8/26/2009	--	--	--	--	--	

MW-9	4/20/2010	--	--	--	--	--	
MW-9	9/5/2010	--	--	--	--	--	
MW-9	5/24/2011	--	--	--	--	--	
MW-9	11/10/2011	--	--	--	--	--	
MW-9	6/20/2012	--	--	--	--	--	
MW-9	4/30/2013	--	--	--	--	--	
MW-9	4/30/2013	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/8/2013	--	--	--	--	--	
MW-9	4/28/2014	--	--	--	--	--	
MW-9	4/28/2014	--	--	--	--	--	Sample collected via hydrasleeve
MW-9	11/7/2014	--	--	--	--	--	
MW-9	4/29/2015	--	--	--	--	--	
MW-9	11/6/2015	--	--	--	--	--	
MW-9	4/21/2016	--	--	--	--	--	
MW-9	11/1/2016	--	--	--	--	--	
MW-9	5/1/2017	--	--	--	--	--	
MW-9	10/17/2017	--	--	--	--	--	
MW-9	4/27/2018	--	--	--	--	--	
MW-9	10/18/2018	--	--	--	--	--	
MW-9	4/9/2019	--	--	--	--	--	
MW-9	9/11/2019	--	--	--	--	--	
MW-9	4/22/2020	<0.00500 [<i><0.00500</i>]	<0.00100 [<i><0.00100</i>]	<0.00100 [<i><0.00100</i>]	<0.00500 [<i><0.00500</i>]	<0.00100 [<i><0.00100</i>]	
MW-9	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100	
MW-9	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100	
Trip Blank	1/30/1996	--	--	--	--	--	
Trip Blank	6/2/1996	--	--	--	--	--	
Trip Blank	8/26/1996	--	--	--	--	--	
Trip Blank	10/16/1996	--	--	--	--	--	
Trip Blank	4/28/1997	--	--	--	--	--	
Trip Blank	9/10/1997	--	--	--	--	--	
Trip Blank	4/19/1998	--	--	--	--	--	
Trip Blank	09/23/1998	--	--	--	--	--	
Trip Blank	4/28/1999	--	--	--	--	--	
Trip Blank	10/13/1999	--	--	--	--	--	
Trip Blank	9/27/2000	--	--	--	--	--	
Trip Blank	5/5/2001	--	--	--	--	--	
Trip Blank	10/2/2001	--	--	--	--	--	
Trip Blank	5/1/2002	--	--	--	--	--	
Trip Blank	9/20/2002	--	--	--	--	--	
Trip Blank	5/20/2003	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	10/2/2003	--	--	--	--	--	
Trip Blank	6/1/2004	--	--	--	--	--	
Trip Blank	9/21/2004	--	--	--	--	--	Sample date defaulted to first date listed in historical data table
Trip Blank	5/12/2005	--	--	--	--	--	
Trip Blank	9/19/2005	--	--	--	--	--	
Trip Blank	5/8/2006	--	--	--	--	--	
Trip Blank	9/24/2006	--	--	--	--	--	

Trip Blank	5/14/2007	--	--	--	--	--
Trip Blank	9/21/2007	--	--	--	--	--
Trip Blank	5/1/2008	--	--	--	--	--
Trip Blank	7/15/2008	--	--	--	--	--
Trip Blank	4/30/2009	--	--	--	--	--
Trip Blank	8/19/2009	--	--	--	--	--
Trip Blank	4/20/2010	--	--	--	--	--
Trip Blank	6/10/2010	--	--	--	--	--
Trip Blank	8/27/2010	--	--	--	--	--
Trip Blank	5/24/2011	--	--	--	--	--
Trip Blank	7/26/2011	--	--	--	--	--
Trip Blank	11/10/2011	--	--	--	--	--
Trip Blank	6/20/2012	--	--	--	--	--
Trip Blank	11/5/2012	--	--	--	--	--
Trip Blank	4/30/2013	--	--	--	--	--
Trip Blank	11/8/2013	--	--	--	--	--
Trip Blank	4/28/2014	--	--	--	--	--
Trip Blank	11/7/2014	--	--	--	--	--
Trip Blank	4/21/2016	--	--	--	--	--
Trip Blank	11/1/2016	--	--	--	--	--
Trip Blank	5/1/2017	--	--	--	--	--
Trip Blank	4/27/2018	--	--	--	--	--
Trip Blank	10/18/2018	--	--	--	--	--
Trip Blank	4/3/2019	--	--	--	--	--
Trip Blank	9/11/2019	--	--	--	--	--
Trip Blank	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100
Trip Blank	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100
Trip Blank	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100
Tudor Motel	9/21/2007	--	--	--	--	--
Tudor Motel	5/1/2008	--	--	--	--	--
Tudor Motel	7/15/2008	--	--	--	--	--
Equipment Blank	4/22/2020	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100
Equipment Blank	10/9/2020	<0.00500 J	<0.00100	<0.00100	<0.00500	<0.00100
Equipment Blank	4/7/2021	<0.00500	<0.00100	<0.00100	<0.00500	<0.00100

Notes:

ID = Identification

MW = Groundwater monitoring well

mg/L = Milligrams per liter

<0.00500 = Not detected at or above the Reported Detection Limit

Bold = Detected above laboratory method detection limit (MDL)

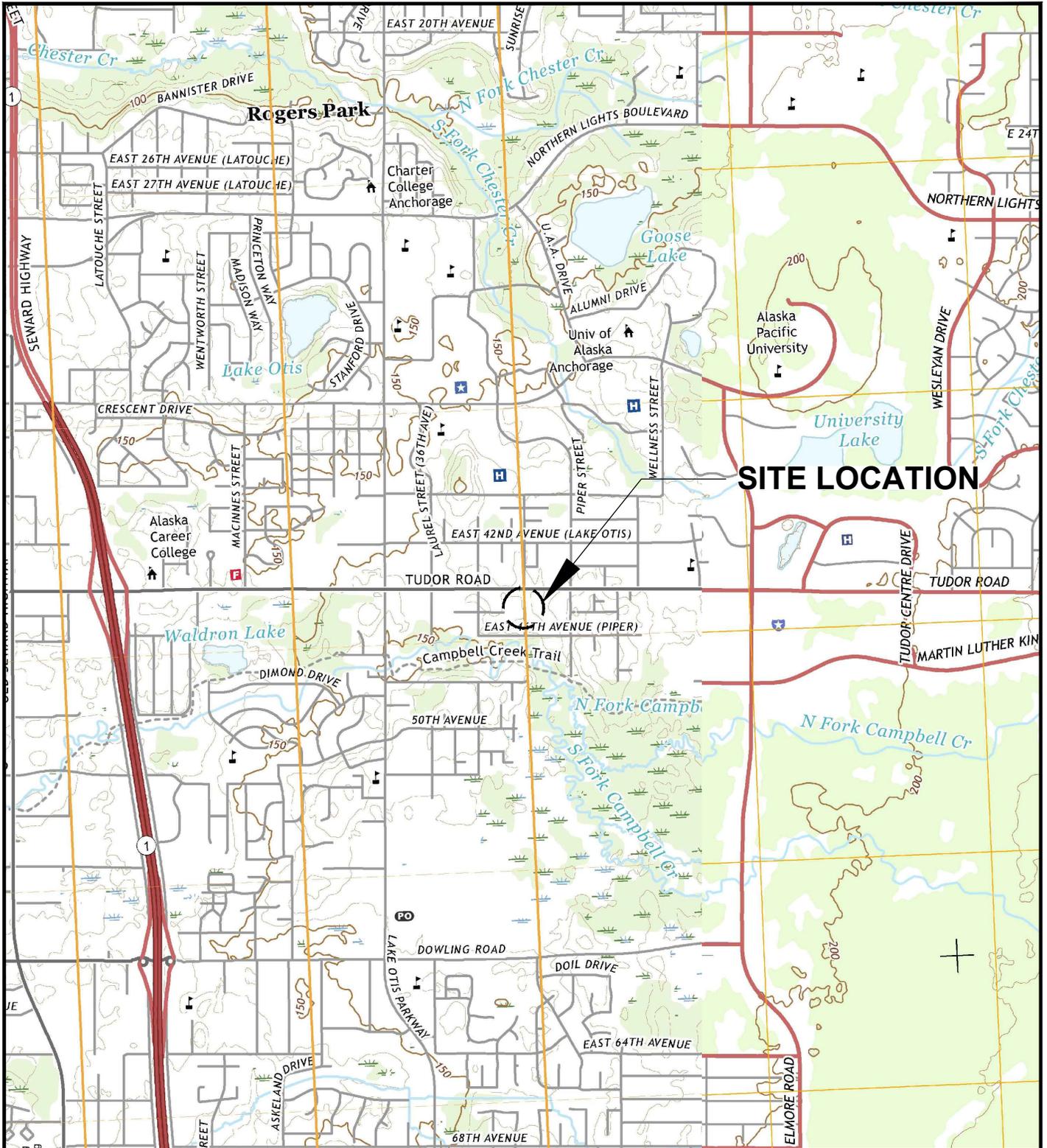
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level

Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level

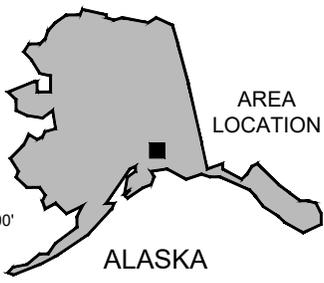
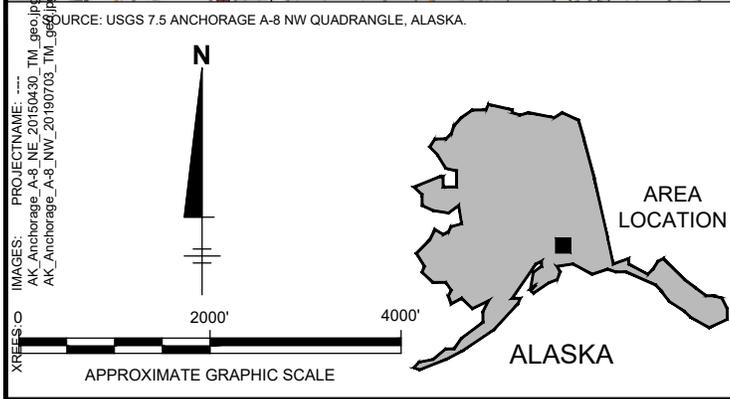
[] = Blind Duplicate Sample Result

ADEC = Alaska Department of Environmental Conservation

Constituents analyzed by United States Environmental Protection Agency Method 8260D

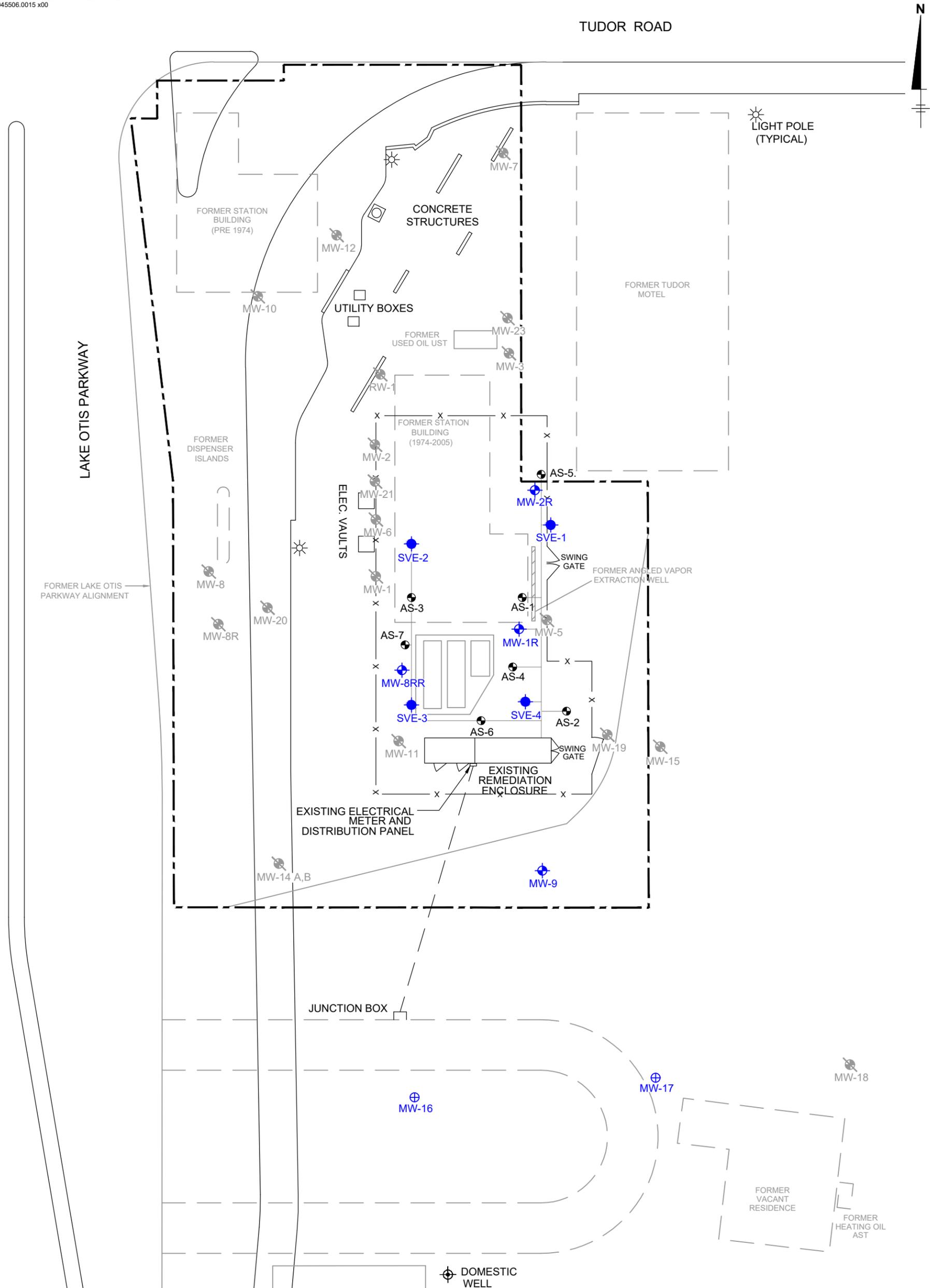


SOURCE: USGS 7.5 ANCHORAGE A-8 NW QUADRANGLE, ALASKA.



FORMER CHEVRON-BRANDED SERVICE STATION 97324 4417 LAKE OTIS PARKWAY ANCHORAGE, ALASKA	
SITE LOCATION MAP	
	FIGURE 1

XREFS: IMAGES: PROJECTNAME: ---
b0045506.0015 x00



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ☒ DESTROYED WELL
- ⊕ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK

NOTES:

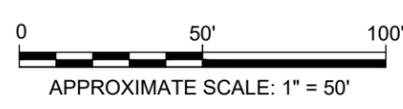
1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1"=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

FORMER CHEVRON-BRANDED SERVICE STATION 97324
4417 LAKE OTIS PARKWAY
ANCHORAGE, ALASKA

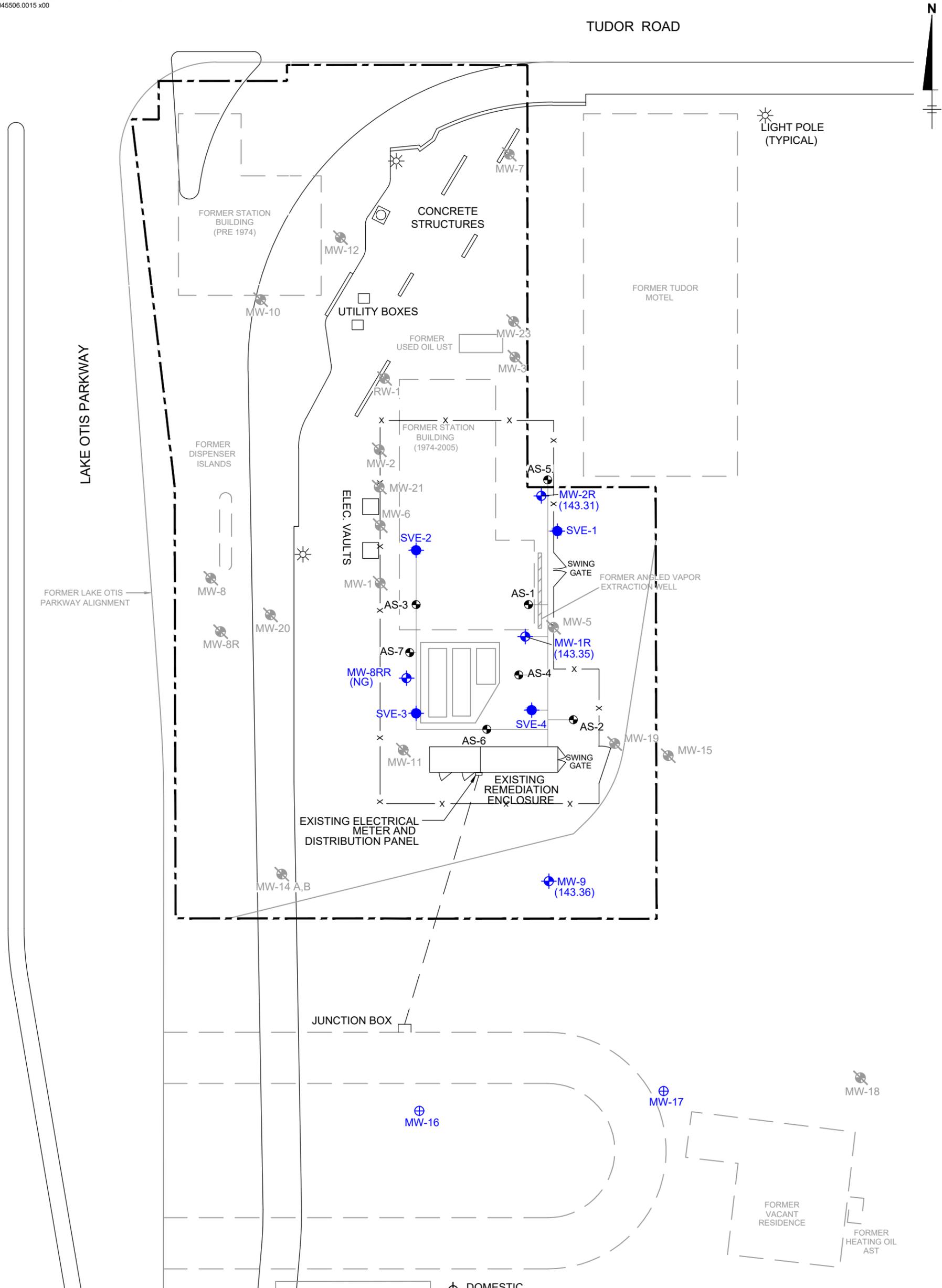
SITE PLAN



FIGURE
2



XREFS: IMAGES: PROJECTNAME: ---
b0045506.0015 x00



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION WELL
- ⊙ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊙ DESTROYED WELL
- ⊕ DOMESTIC WELL
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

(143.36) GROUNDWATER ELEVATION IN FEET RELATIVE TO NAVD88
UST UNDERGROUND STORAGE TANK

NOTES:

1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

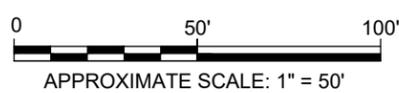
FORMER CHEVRON-BRANDED SERVICE STATION 97324
4417 LAKE OTIS PARKWAY
ANCHORAGE, ALASKA

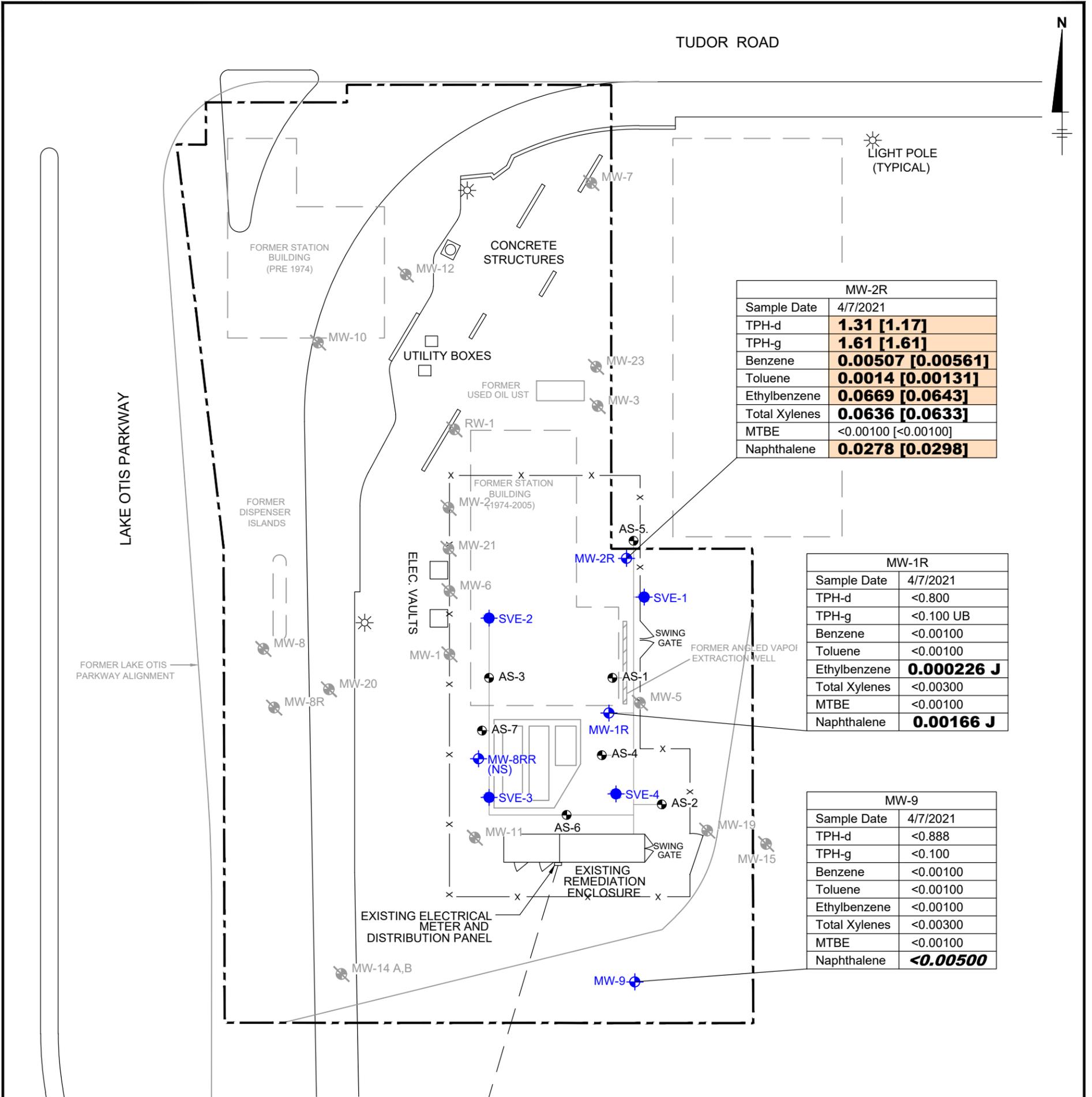
**GROUNDWATER ELEVATION MAP
APRIL 7, 2021**



FIGURE

3





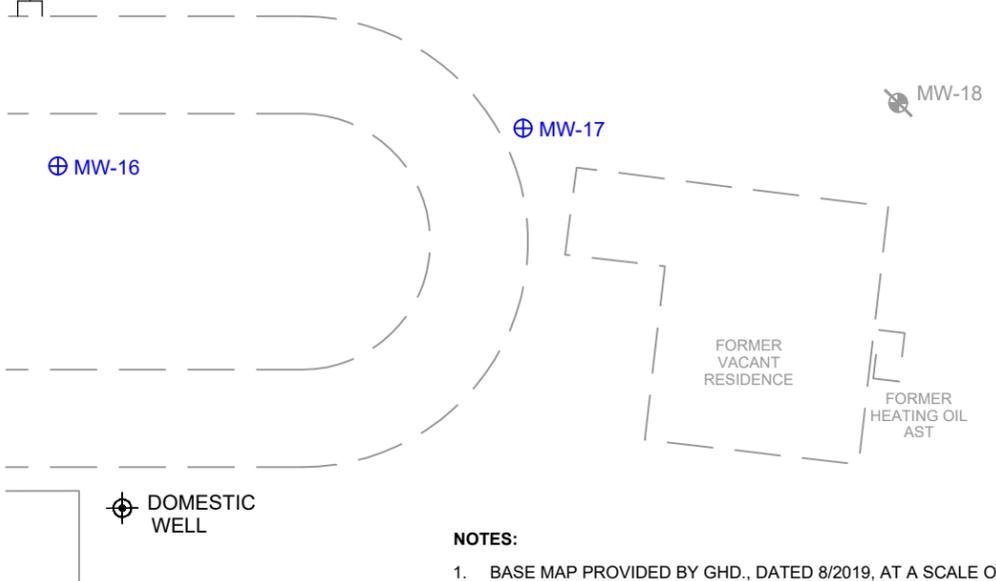
MW-2R	
Sample Date	4/7/2021
TPH-d	1.31 [1.17]
TPH-g	1.61 [1.61]
Benzene	0.00507 [0.00561]
Toluene	0.0014 [0.00131]
Ethylbenzene	0.0669 [0.0643]
Total Xylenes	0.0636 [0.0633]
MTBE	<0.00100 [<0.00100]
Naphthalene	0.0278 [0.0298]

MW-1R	
Sample Date	4/7/2021
TPH-d	<0.800
TPH-g	<0.100 UB
Benzene	<0.00100
Toluene	<0.00100
Ethylbenzene	0.000226 J
Total Xylenes	<0.00300
MTBE	<0.00100
Naphthalene	0.00166 J

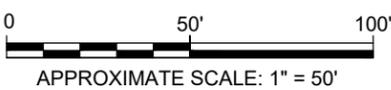
MW-9	
Sample Date	4/7/2021
TPH-d	<0.888
TPH-g	<0.100
Benzene	<0.00100
Toluene	<0.00100
Ethylbenzene	<0.00100
Total Xylenes	<0.00300
MTBE	<0.00100
Naphthalene	<0.00500

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- ⊕ VAPOR EXTRACTION WELL
- ⊕ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊕ DESTROYED WELL
- ⊕ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK
- TPH-d TOTAL PETROLEUM HYDROCARBONS DIESEL RANGE ORGANICS
- TPH-g TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE ORGANICS
- MTBE METHYL-TERT-BUTYL ETHER
- mg/L MILLIGRAMS PER LITER
- <0.00100 NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT (RDL)
- J THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY
- [] BLIND DUPLICATE SAMPLE RESULT
- BOLD** DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
- BOLD** CONSTITUENT CONSIDERED NON-DETECT, HOWEVER LABORATORY RDL IS GREATER THAN THE ADEC GROUNDWATER CLEANUP LEVEL
- BOLD** VALUE EXCEEDS ADEC GROUNDWATER CLEANUP LEVEL
- (NS) NOT SAMPLED



Analyte	ADEC Groundwater Cleanup Levels
TPH-d	1.5
TPH-g	2.2
Benzene	0.0046
Toluene	1.1
Ethylbenzene	0.015
Total Xylenes	0.19
MTBE	0.14
Naphthalene	0.0017



NOTES:

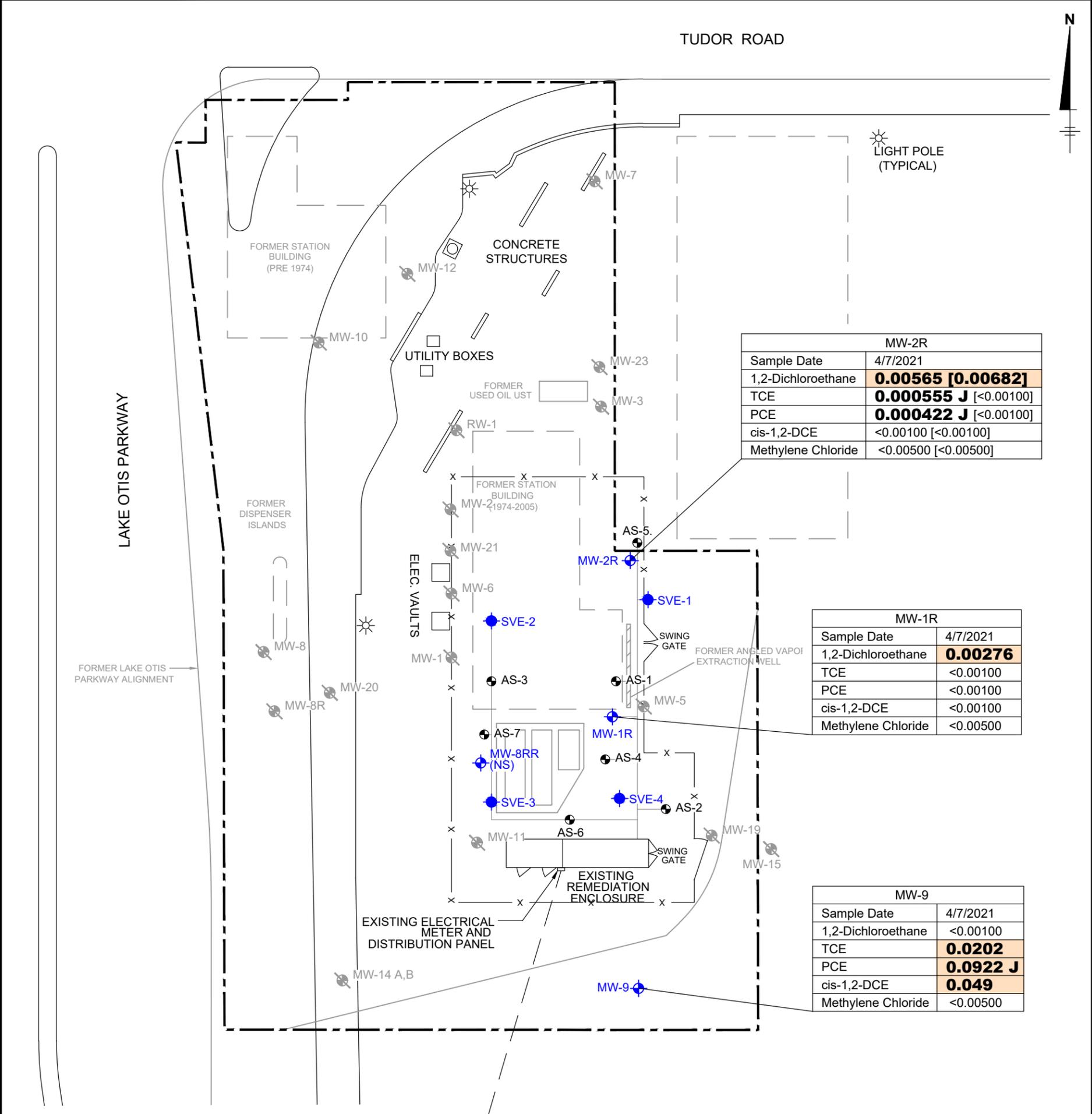
1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

CHEVRON-BRANDED SERVICE STATION 97324
 4417 LAKE OTIS PARKWAY
 ANCHORAGE, ALASKA

GROUNDWATER ANALYTICAL RESULTS MAP
 APRIL 7, 2021

ARCADIS Design & Consultancy for natural and built assets

FIGURE
4



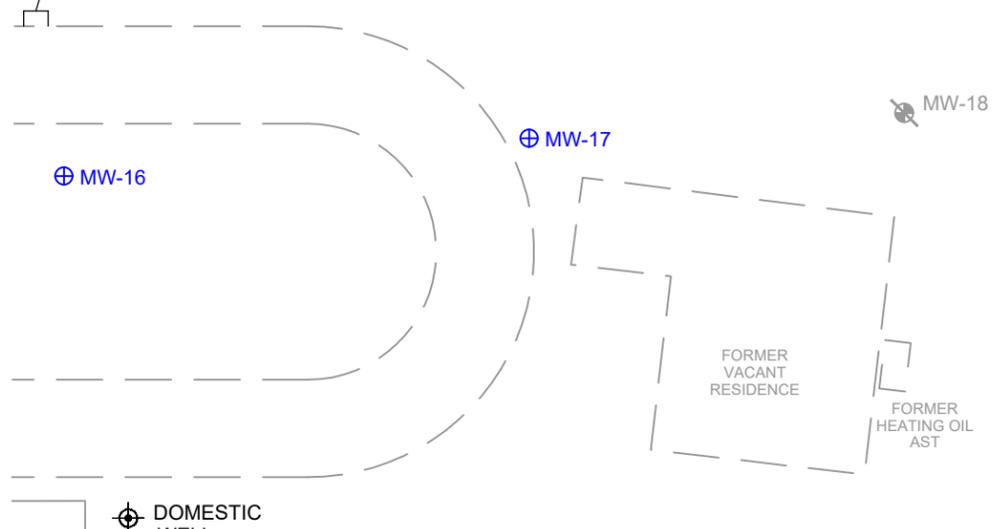
MW-2R	
Sample Date	4/7/2021
1,2-Dichloroethane	0.00565 [0.00682]
TCE	0.000555 J [<0.00100]
PCE	0.000422 J [<0.00100]
cis-1,2-DCE	<0.00100 [<0.00100]
Methylene Chloride	<0.00500 [<0.00500]

MW-1R	
Sample Date	4/7/2021
1,2-Dichloroethane	0.00276
TCE	<0.00100
PCE	<0.00100
cis-1,2-DCE	<0.00100
Methylene Chloride	<0.00500

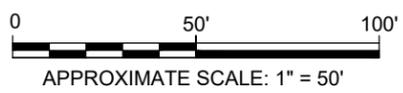
MW-9	
Sample Date	4/7/2021
1,2-Dichloroethane	<0.00100
TCE	0.0202
PCE	0.0922 J
cis-1,2-DCE	0.049
Methylene Chloride	<0.00500

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ GROUNDWATER MONITORING WELL
- ⊙ VAPOR EXTRACTION WELL
- ⊙ AIR SPARGE WELL
- ⊕ OFFSITE WELL LOCATION
- ⊙ DESTROYED WELL
- ⊙ DOMESTIC WELL
- UST UNDERGROUND STORAGE TANK
- TCE TRICHLOROETHYLENE
- PCE TETRACHLOROETHYLENE
- cis-1,2-DCE cis-1,2-DICHLOROETHENE
- mg/L MILLIGRAMS PER LITER
- <0.00100 NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT (RDL)
- J THE COMPOUND WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY
- [] BLIND DUPLICATE SAMPLE RESULT
- BOLD** DETECTED ABOVE LABORATORY METHOD DETECTION LIMIT (MDL)
- BOLD** VALUE EXCEEDS ADEC GROUNDWATER CLEANUP LEVEL
- (NS) NOT SAMPLED



Analyte	ADEC Groundwater Cleanup Levels
1,2-Dichloroethane	0.0017
TCE	0.0028
PCE	0.041
cis-1,2-DCE	0.036
Methyl Chloride	0.1



NOTES:

1. BASE MAP PROVIDED BY GHD., DATED 8/2019, AT A SCALE OF 1=15'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

CHEVRON-BRANDED SERVICE STATION 97324
 4417 LAKE OTIS PARKWAY
 ANCHORAGE, ALASKA

GROUNDWATER ANALYTICAL RESULTS MAP- SOLVENTS
 APRIL 7, 2021



**Chevron Environmental
Management Company**

Appendix A:

Site History and Background

Former Chevron Facility 97324

4417 Lake Otis Parkway

Anchorage, Alaska

ADEC File No: 2100.26.008

HAZARD ID No: 23885

June 19, 2020

Appendix A: 97324 Site Description and Background

1 97324 SITE BACKGROUND AND HISTORY

1.1 Site Description and Vicinity

Former Chevron Facility 97324 is located at 4417 Lake Otis Parkway in Anchorage, Alaska. The site was formerly operated as a Chevron-branded service station with three underground storage tanks (UST), two dispenser islands, and a station building with an auto service bay. The surrounding properties are mixed commercial and industrial; the site is bordered to the north, west, and south by former or current ADEC contaminated sites.

1.2 Site History

In 2004, the facility building, three petroleum underground storage tanks (USTs) equipped with dispenser pumps, and product lines were removed from the property. A remediation system consisting of seven air sparge (AS) wells and four soil vapor extraction (SVE) wells was operated seasonally until 2017, when it was shut down.

2 SITE CHARACTERIZATIONS

A soil and groundwater remediation system which included seven air sparge (AS) wells and four soil vapor extraction (SVE) wells was shut down in 2017. Currently, six groundwater monitoring wells remain in place, four of which are sampled and monitored semiannually.

3 CURRENT SITE MONITORING ACTIVITIES

The site currently has a network of six monitoring wells; four wells are monitored and sampled semiannually (MW-1R, MW-2R, MW-8RR, and MW-9). Historically, concentrations of volatile organic compounds (VOCs), gasoline range organics (GRO), and diesel range organics (DRO) have exceeded their respective ADEC Method 2 groundwater cleanup levels in several monitoring wells.

4 GEOLOGY AND HYDROGEOLOGY

4.1 Site Hydrogeology

The site is in south central Alaska, south of the Knik Arm and north of the Turnagain Arm of Cook Inlet. From 1992 until present, static groundwater depths at the site have ranged between 8.58 to 24.53 feet below top of casing (ft btoc). Historic ground water flow is to the northwest.

5 REFERENCES

GHD Inc. 2018. Second Semiannual 2018 Groundwater Monitoring Report Former Chevron-Branded Service Station 97324, 4417 Lake Otis Parkway , Anchorage, AK. December 5

Daily Log

Project Name : 97324 **Weather(°F) :** Clear
Project Number : 30063667 **Prepared By:** Evan Wujcik
Purpose : Gw sampling
PPE : Level D
Equipment: Water Quality Meter (i.e. YSI), Water Level Meter (WLM), Bladder Pump, Photoionization Detector (PID)

Date	Time	Description of Activities
04/07/2021	10:00	Arrive on site Open permit to work Locate Wells
04/07/2021	11:00	MW-8RR Unable to be located, Well located under roughly 2 feet of ice magnetic locator unable to locate well because of close proximity to metal fence
04/07/2021	12:00	Sample MW-9 Decon equipment MS/MSD Samples collected at this location See chain of custody for analytes
04/07/2021	14:00	Sample MW-2R Decon equipment Blind duplicate Samples collected at this location See chain of custody for analytes
04/07/2021	15:00	Sample MW-1R Decon equipment See chain of custody for analytes
04/07/2021	16:00	Load vehicle Close permit to work Mobilize offsite

Signature:



Waste Management:										
Drums On Site										
Date	Are there any waste drums on site?	Number of Drums upon Arrival	Size of Drums	Type of Drums	Condition of Drums	Waste Drummed Today?	Number of drums Created	Size of drums	Condition of Drums	General Waste Comments
04/07/2021	no					no				

Other Photos



Approximate MW8RR location buried in roughly 2ft of ice, could not detect using magnetic locator because of close proximity to metal fencing

Equipment and Calibration Information:

Supplier: Pine Model:
 Rental Number: Calibrated:
 Bump Calibration
 Checked: Passed:

Water Quality Meter SN:

Date	Time	Calibrated Fulid and Value	Lot #	Expiration Date	Initial Reading	Final Reading
04/07/2021						

Equipment and Calibration Information:

Supplier: Pine Model:
 Rental Number: Calibrated:
 Bump Calibration
 Checked: Passed:

PIDSN:

Date	Time	Calibrated Fulid and Value	Lot #	Expiration Date	Initial Reading	Final Reading
04/07/2021	--					

Groundwater Gauging Log

Client:		Chevron					
Site ID:		97324					
Site Location:		Anchorage, Alaska					
Measuring Point:		Top of Casing					
Date(s):		04/07/2021					
Sampler(s):		Evan Wujcik					
Gauging Equipment:		Water Level Meter					
Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft bmp)	Total Depth (ft bmp)	PID Reading (ppm)	Comments
MW-1R	04/07/2021	11:09	24.21	ND	31.00	0	--
MW-2R	04/07/2021	11:07	24.94	ND	31.30	0	--
MW-9	04/07/2021	11:14	15.88	ND	19.30	0	--

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

Project Number	30063667	Well ID	MW-1R	Date	4/7/2021		
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by	Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	24.21	Total Depth (ft-bmp)	31	Water Column (ft)	6.79	Gallons in Well	1.1
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab		
Sample Time	15:00	Well Volumes Purged	0.58	Sample ID	MW-1R-W-20210407	Evacuation Equipment	Bladder
Purge Start	14:30	Gallons Purged	0.63	Duplicate ID	--		
Purge End	14:50	Total Purge Time (h:m)	0:20				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
14:33	200	24.21	7.68	0.582	145	2.87	4.75	120	--	--
14:36	200	24.21	7.54	0.575	145	2.24	4.73	123	--	--
14:39	200	24.21	7.49	0.571	145	1.94	4.76	125	--	--
14:42	200	24.21	7.45	0.564	139	1.67	4.77	126	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-1R-W-20210407 Sample Time: 15:00 Sample Depth (ft-bmp): 25

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Project Number	30063667	Well ID	MW-2R	Date	4/7/2021		
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by	Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	24.94	Total Depth (ft-bmp)	31.3	Water Column (ft)	6.36	Gallons in Well	1.03
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab		
Sample Time	14:00	Well Volumes Purged	0.77	Sample ID	MW-2R-W-20210407	Evacuation Equipment	Bladder
Purge Start	13:30	Gallons Purged	0.79	Duplicate ID	BD-1-W-20210407		
Purge End	13:50	Total Purge Time (h:m)	0:20				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
13:33	200	24.94	7.25	1.04	53.1	2.32	4.31	180	--	--
13:36	200	24.94	7.28	1.04	47.9	2.14	4.36	173	--	--
13:39	200	24.94	7.30	1.04	41.3	1.96	4.36	166	--	--
13:42	200	24.94	7.31	1.04	39.9	1.84	4.36	160	--	--
13:45	200	24.94	7.33	1.03	36.5	1.77	4.33	157	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2R-W-20210407 Sample Time: 14:00 Sample Depth (ft-bmp): 25.5

Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Project Number	30063667	Well ID	MW-9	Date	4/7/2021		
Site Location	Anchorage, Alaska	Site ID	97324	Weather (°F)	Clear	Sampled by	Evan Wujcik
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	15.88	Total Depth (ft-bmp)	19.3	Water Column (ft)	3.42	Gallons in Well	0.56
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Sample Method	Grab		
Sample Time	12:00	Well Volumes Purged	1.13	Sample ID	MW-9-W-20210407	Evacuation Equipment	Bladder
Purge Start	11:30	Gallons Purged	0.63	Duplicate ID	MS/MSD		
Purge End	11:50	Total Purge Time (h:m)	0:20				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
11:33	200	15.88	6.97	0.345	68.9	3.67	4.45	234	--	--
11:36	200	15.88	6.93	0.346	71.0	3.60	4.50	235	--	--
11:39	200	15.88	6.90	0.345	62.0	3.52	4.46	240	--	--
11:42	200	15.88	6.85	0.346	59.3	3.48	4.40	245	--	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-W-20210407 Sample Time: 12:00 Sample Depth (ft-bmp): 16.5
Analytes and Methods: See Chain-of-Custody.

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

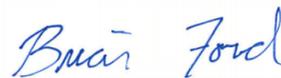
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Arcadis - Chevron - AK

Sample Delivery Group: L1336848
Samples Received: 04/09/2021
Project Number: 30063667.19.21
Description: 97324
Site: 4417 LAKE OTIS PKWY, ANCHORAGE
Report To: Sydney Clark
880 H St.
Anchorage, AK 99501

Entire Report Reviewed By:

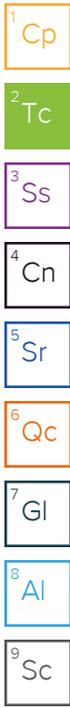


Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	6
MW-9-W-20210407 L1336848-01	6
MW-2R-W-20210407 L1336848-02	8
MW-1R-W-20210407 L1336848-03	11
BD-1-W-20210407 L1336848-04	13
EQB-1-W-20210407 L1336848-05	16
TRIP BLANK-20210407 L1336848-06	19
Qc: Quality Control Summary	21
Volatile Organic Compounds (GC) by Method AK101	21
Volatile Organic Compounds (GC/MS) by Method 8260D	22
Semi-Volatile Organic Compounds (GC) by Method AK102	35
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	36
Gl: Glossary of Terms	38
Al: Accreditations & Locations	39
Sc: Sample Chain of Custody	40



SAMPLE SUMMARY

MW-9-W-20210407 L1336848-01 GW

Collected by E. Wujcik Collected date/time 04/07/21 12:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 00:56	04/14/21 00:56	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 14:50	04/11/21 14:50	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 20:49	04/13/21 20:49	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 20:14	TJD	Mt. Juliet, TN



MW-2R-W-20210407 L1336848-02 GW

Collected by E. Wujcik Collected date/time 04/07/21 14:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 01:17	04/14/21 01:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 15:14	04/11/21 15:14	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 21:08	04/13/21 21:08	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 21:15	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1	04/12/21 07:51	04/12/21 15:53	ADF	Mt. Juliet, TN

MW-1R-W-20210407 L1336848-03 GW

Collected by E. Wujcik Collected date/time 04/07/21 15:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 01:39	04/14/21 01:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 14:27	04/11/21 14:27	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 21:28	04/13/21 21:28	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1	04/16/21 07:19	04/16/21 21:35	TJD	Mt. Juliet, TN

BD-1-W-20210407 L1336848-04 GW

Collected by E. Wujcik Collected date/time 04/07/21 00:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/14/21 02:01	04/14/21 02:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	50	04/11/21 15:38	04/11/21 15:38	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1653830	1	04/18/21 18:19	04/18/21 18:19	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 21:55	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1.11	04/12/21 07:51	04/12/21 16:12	ADF	Mt. Juliet, TN

EQB-1-W-20210407 L1336848-05 GW

Collected by E. Wujcik Collected date/time 04/07/21 16:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/13/21 23:29	04/13/21 23:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 14:03	04/11/21 14:03	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 17:19	04/13/21 17:19	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG1651579	1.11	04/16/21 07:19	04/16/21 22:16	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1648369	1	04/12/21 07:51	04/12/21 16:32	LEA	Mt. Juliet, TN

TRIP BLANK-20210407 L1336848-06 GW

Collected by E. Wujcik Collected date/time 04/07/21 00:00 Received date/time 04/09/21 15:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG1650388	1	04/13/21 22:46	04/13/21 22:46	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1649541	1	04/11/21 13:40	04/11/21 13:40	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1650373	1	04/13/21 17:38	04/13/21 17:38	ADM	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Brian Ford
Project Manager



Volatile Organic Compounds (GC) by Method AK101

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG1650388	TPHGAK C6 to C10	L1336848-01, 03, 05, 06

Volatile Organic Compounds (GC/MS) by Method 8260D

The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	Naphthalene
WG1650373	L1336848-02	Naphthalene
WG1650373	L1336848-03	Naphthalene
WG1650373	L1336848-05	Naphthalene
WG1650373	L1336848-06	Naphthalene
WG1653830	L1336848-04	1,1,2,2-Tetrachloroethane, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-Chloropropane and Acrolein

The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	1,2,3-Trichlorobenzene
WG1650373	L1336848-02	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-03	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-05	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1650373	L1336848-06	1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene
WG1653830	L1336848-04	1,2,3-Trichlorobenzene

The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.

Batch	Lab Sample ID	Analytes
WG1650373	L1336848-01	Tetrachloroethene

The associated batch QC was above the established quality control range for accuracy.

Batch	Lab Sample ID	Analytes
WG1650373	(LCS) R3643092-1, L1336848-01, 02, 03, 05, 06	Tetrachloroethene
WG1653830	(LCS) R3643512-1, L1336848-04	Chloroethane

CASE NARRATIVE

Volatile Organic Compounds (GC/MS) by Method 8260D

The sample concentration is too high to evaluate accurate spike recoveries.

Batch	Lab Sample ID	Analytes
WG1650373	(MS) R3643092-5, (MSD) R3643092-6, L1336848-01	Tetrachloroethene

The associated batch QC was outside the established quality control range for precision.

Batch	Lab Sample ID	Analytes
WG1650373	(MSD) R3643092-4, (MSD) R3643092-6, L1336848-01	Acetone

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	13.0	<u>B</u> <u>J</u>	10.0	100	1	04/14/2021 00:56	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.6			50.0-150		04/14/2021 00:56	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 14:50	WG1649541
Acetone	U	<u>J</u> <u>3</u>	11.3	50.0	1	04/13/2021 20:49	WG1650373
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 14:50	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 20:49	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 20:49	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 20:49	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 20:49	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 20:49	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 20:49	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 20:49	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 20:49	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 20:49	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 20:49	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 20:49	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 20:49	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 20:49	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 20:49	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 20:49	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 20:49	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 20:49	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 20:49	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 20:49	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichlorobenzene	0.114	<u>J</u>	0.107	1.00	1	04/13/2021 20:49	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 20:49	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 20:49	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 20:49	WG1650373
cis-1,2-Dichloroethene	49.0		0.126	1.00	1	04/13/2021 20:49	WG1650373
trans-1,2-Dichloroethene	0.319	<u>J</u>	0.149	1.00	1	04/13/2021 20:49	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 20:49	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 20:49	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 20:49	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 20:49	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 20:49	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 20:49	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 20:49	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 20:49	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 20:49	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 20:49	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 20:49	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 20:49	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 20:49	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 20:49	WG1650373

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	C3	1.00	5.00	1	04/13/2021 20:49	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 20:49	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 20:49	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 20:49	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 20:49	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 20:49	WG1650373
Tetrachloroethene	92.2	C5 J4 V	0.300	1.00	1	04/13/2021 20:49	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 20:49	WG1650373
1,2,3-Trichlorobenzene	U	C4	0.230	1.00	1	04/13/2021 20:49	WG1650373
1,2,4-Trichlorobenzene	U		0.481	1.00	1	04/13/2021 20:49	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 20:49	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 20:49	WG1650373
Trichloroethene	20.2		0.190	1.00	1	04/13/2021 20:49	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 20:49	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 20:49	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 20:49	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 20:49	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 20:49	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 20:49	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 20:49	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 20:49	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 20:49	WG1650373
(S) 4-Bromofluorobenzene	101			77.0-126		04/13/2021 20:49	WG1650373
(S) 1,2-Dichloroethane-d4	103			70.0-130		04/13/2021 20:49	WG1650373

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		254	888	1.11	04/16/2021 20:14	WG1651579
(S) o-Terphenyl	66.7			50.0-150		04/16/2021 20:14	WG1651579

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	1610		10.0	100	1	04/14/2021 01:17	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	92.8			50.0-150		04/14/2021 01:17	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 15:14	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 21:08	WG1650373
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 15:14	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 21:08	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 21:08	WG1650373
Benzene	5.07		0.0941	1.00	1	04/13/2021 21:08	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 21:08	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 21:08	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 21:08	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 21:08	WG1650373
n-Butylbenzene	3.55		0.157	1.00	1	04/13/2021 21:08	WG1650373
sec-Butylbenzene	8.27		0.125	1.00	1	04/13/2021 21:08	WG1650373
tert-Butylbenzene	11.5		0.127	1.00	1	04/13/2021 21:08	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 21:08	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 21:08	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 21:08	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 21:08	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 21:08	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 21:08	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 21:08	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 21:08	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 21:08	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 21:08	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 21:08	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 21:08	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichloroethane	5.65		0.0819	1.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 21:08	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 21:08	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 21:08	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 21:08	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 21:08	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 21:08	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 21:08	WG1650373
Ethylbenzene	66.9		0.137	1.00	1	04/13/2021 21:08	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 21:08	WG1650373
Isopropylbenzene	39.3		0.105	1.00	1	04/13/2021 21:08	WG1650373
p-Isopropyltoluene	2.21		0.120	1.00	1	04/13/2021 21:08	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 21:08	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 21:08	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 21:08	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 21:08	WG1650373



Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	27.8	<u>C3</u>	1.00	5.00	1	04/13/2021 21:08	WG1650373
n-Propylbenzene	57.9		0.0993	1.00	1	04/13/2021 21:08	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 21:08	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 21:08	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 21:08	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 21:08	WG1650373
Tetrachloroethene	0.422	<u>JJ4</u>	0.300	1.00	1	04/13/2021 21:08	WG1650373
Toluene	1.40		0.278	1.00	1	04/13/2021 21:08	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 21:08	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 21:08	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 21:08	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 21:08	WG1650373
Trichloroethene	0.555	<u>J</u>	0.190	1.00	1	04/13/2021 21:08	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 21:08	WG1650373
1,2,4-Trimethylbenzene	56.3		0.322	1.00	1	04/13/2021 21:08	WG1650373
1,2,3-Trimethylbenzene	3.98		0.104	1.00	1	04/13/2021 21:08	WG1650373
1,3,5-Trimethylbenzene	13.8		0.104	1.00	1	04/13/2021 21:08	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 21:08	WG1650373
Xylenes, Total	63.6		0.174	3.00	1	04/13/2021 21:08	WG1650373
o-Xylene	3.52		0.174	1.00	1	04/13/2021 21:08	WG1650373
m&p-Xylene	60.1		0.430	2.00	1	04/13/2021 21:08	WG1650373
(S) Toluene-d8	107			80.0-120		04/13/2021 21:08	WG1650373
(S) 4-Bromofluorobenzene	98.6			77.0-126		04/13/2021 21:08	WG1650373
(S) 1,2-Dichloroethane-d4	100			70.0-130		04/13/2021 21:08	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1310		254	888	1.11	04/16/2021 21:15	WG1651579
(S) o-Terphenyl	84.0			50.0-150		04/16/2021 21:15	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	04/12/2021 15:53	WG1648369
Acenaphthene	0.0457	<u>J</u>	0.0190	0.0500	1	04/12/2021 15:53	WG1648369
Acenaphthylene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(a)anthracene	U		0.0200	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(a)pyrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(b)fluoranthene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Benzo(k)fluoranthene	U		0.0200	0.250	1	04/12/2021 15:53	WG1648369
Chrysene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Fluoranthene	U		0.0110	0.0500	1	04/12/2021 15:53	WG1648369
Fluorene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Naphthalene	26.9		0.128	0.500	1	04/12/2021 15:53	WG1648369
Phenanthrene	U		0.0180	0.0500	1	04/12/2021 15:53	WG1648369
Pyrene	U		0.0170	0.0500	1	04/12/2021 15:53	WG1648369
1-Methylnaphthalene	7.90		0.0200	0.500	1	04/12/2021 15:53	WG1648369
2-Methylnaphthalene	3.79		0.0280	0.500	1	04/12/2021 15:53	WG1648369
2-Chloronaphthalene	U		0.0120	0.500	1	04/12/2021 15:53	WG1648369
(S) Nitrobenzene-d5	80.0			11.0-135		04/12/2021 15:53	WG1648369
(S) 2-Fluorobiphenyl	80.5			32.0-120		04/12/2021 15:53	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	97.5		ug/l	23.0-122		04/12/2021 15:53	WG1648369

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	19.1	<u>B</u> <u>J</u>	10.0	100	1	04/14/2021 01:39	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.1			50.0-150		04/14/2021 01:39	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 14:27	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 21:28	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 14:27	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 21:28	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 21:28	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 21:28	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 21:28	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 21:28	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 21:28	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 21:28	WG1650373
n-Butylbenzene	0.222	<u>I</u> <u>J</u> <u>K</u>	0.157	1.00	1	04/13/2021 21:28	WG1650373
sec-Butylbenzene	0.282	<u>I</u> <u>J</u> <u>K</u>	0.125	1.00	1	04/13/2021 21:28	WG1650373
tert-Butylbenzene	0.304	<u>I</u> <u>J</u> <u>K</u>	0.127	1.00	1	04/13/2021 21:28	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 21:28	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 21:28	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 21:28	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 21:28	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 21:28	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 21:28	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 21:28	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 21:28	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 21:28	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 21:28	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 21:28	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 21:28	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichloroethane	2.76		0.0819	1.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 21:28	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 21:28	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 21:28	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 21:28	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 21:28	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 21:28	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 21:28	WG1650373
Ethylbenzene	0.226	<u>I</u> <u>J</u>	0.137	1.00	1	04/13/2021 21:28	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 21:28	WG1650373
Isopropylbenzene	0.426	<u>I</u> <u>J</u>	0.105	1.00	1	04/13/2021 21:28	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 21:28	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 21:28	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 21:28	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 21:28	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 21:28	WG1650373



Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	1.66	<u>C3 J</u>	1.00	5.00	1	04/13/2021 21:28	WG1650373
n-Propylbenzene	1.01		0.0993	1.00	1	04/13/2021 21:28	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 21:28	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 21:28	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 21:28	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 21:28	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 21:28	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 21:28	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 21:28	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 21:28	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 21:28	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 21:28	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 21:28	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 21:28	WG1650373
1,2,4-Trimethylbenzene	0.943	<u>J</u>	0.322	1.00	1	04/13/2021 21:28	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 21:28	WG1650373
1,3,5-Trimethylbenzene	0.258	<u>J</u>	0.104	1.00	1	04/13/2021 21:28	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 21:28	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 21:28	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 21:28	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 21:28	WG1650373
(S) Toluene-d8	108			80.0-120		04/13/2021 21:28	WG1650373
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/13/2021 21:28	WG1650373
(S) 1,2-Dichloroethane-d4	101			70.0-130		04/13/2021 21:28	WG1650373

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		229	800	1	04/16/2021 21:35	WG1651579
(S) o-Terphenyl	76.8			50.0-150		04/16/2021 21:35	WG1651579

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	1610		10.0	100	1	04/14/2021 02:01	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.0			50.0-150		04/14/2021 02:01	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.100	0.250	50	04/11/2021 15:38	WG1649541
Acetone	U		11.3	50.0	1	04/18/2021 18:19	WG1653830
1,2-Dibromoethane	U		0.205	0.250	50	04/11/2021 15:38	WG1649541
Acrolein	U	C3	2.54	50.0	1	04/18/2021 18:19	WG1653830
Acrylonitrile	U		0.671	10.0	1	04/18/2021 18:19	WG1653830
Benzene	5.61		0.0941	1.00	1	04/18/2021 18:19	WG1653830
Bromobenzene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
Bromochloromethane	U		0.128	1.00	1	04/18/2021 18:19	WG1653830
Bromodichloromethane	U		0.136	1.00	1	04/18/2021 18:19	WG1653830
Bromoform	U		0.129	1.00	1	04/18/2021 18:19	WG1653830
Bromomethane	U		0.605	5.00	1	04/18/2021 18:19	WG1653830
n-Butylbenzene	5.28		0.157	1.00	1	04/18/2021 18:19	WG1653830
sec-Butylbenzene	7.54		0.125	1.00	1	04/18/2021 18:19	WG1653830
tert-Butylbenzene	10.0		0.127	1.00	1	04/18/2021 18:19	WG1653830
Carbon disulfide	U		0.0962	1.00	1	04/18/2021 18:19	WG1653830
Carbon tetrachloride	U		0.128	1.00	1	04/18/2021 18:19	WG1653830
Chlorobenzene	U		0.116	1.00	1	04/18/2021 18:19	WG1653830
Chlorodibromomethane	U		0.140	1.00	1	04/18/2021 18:19	WG1653830
Chloroethane	U	J4	0.192	5.00	1	04/18/2021 18:19	WG1653830
Chloroform	U		0.111	5.00	1	04/18/2021 18:19	WG1653830
Chloromethane	U		0.960	2.50	1	04/18/2021 18:19	WG1653830
2-Chlorotoluene	U		0.106	1.00	1	04/18/2021 18:19	WG1653830
4-Chlorotoluene	U		0.114	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dibromo-3-Chloropropane	U	C3	0.276	5.00	1	04/18/2021 18:19	WG1653830
Dibromomethane	U		0.122	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichlorobenzene	U		0.107	1.00	1	04/18/2021 18:19	WG1653830
1,3-Dichlorobenzene	U		0.110	1.00	1	04/18/2021 18:19	WG1653830
1,4-Dichlorobenzene	U		0.120	1.00	1	04/18/2021 18:19	WG1653830
Dichlorodifluoromethane	U		0.374	5.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloroethane	U		0.100	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichloroethane	6.82		0.0819	1.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloroethene	U		0.188	1.00	1	04/18/2021 18:19	WG1653830
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/18/2021 18:19	WG1653830
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,2-Dichloropropane	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,1-Dichloropropene	U		0.142	1.00	1	04/18/2021 18:19	WG1653830
1,3-Dichloropropane	U		0.110	1.00	1	04/18/2021 18:19	WG1653830
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/18/2021 18:19	WG1653830
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
2,2-Dichloropropane	U		0.161	1.00	1	04/18/2021 18:19	WG1653830
Di-isopropyl ether	U		0.105	1.00	1	04/18/2021 18:19	WG1653830
Ethylbenzene	64.3		0.137	1.00	1	04/18/2021 18:19	WG1653830
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/18/2021 18:19	WG1653830
Isopropylbenzene	34.6		0.105	1.00	1	04/18/2021 18:19	WG1653830
p-Isopropyltoluene	U		0.120	1.00	1	04/18/2021 18:19	WG1653830
2-Butanone (MEK)	U		1.19	10.0	1	04/18/2021 18:19	WG1653830
Methylene Chloride	U		0.430	5.00	1	04/18/2021 18:19	WG1653830
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/18/2021 18:19	WG1653830
Methyl tert-butyl ether	U		0.101	1.00	1	04/18/2021 18:19	WG1653830

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	29.8		1.00	5.00	1	04/18/2021 18:19	WG1653830
n-Propylbenzene	58.9		0.0993	1.00	1	04/18/2021 18:19	WG1653830
Styrene	U		0.118	1.00	1	04/18/2021 18:19	WG1653830
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/18/2021 18:19	WG1653830
1,1,2,2-Tetrachloroethane	U	C3	0.133	1.00	1	04/18/2021 18:19	WG1653830
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/18/2021 18:19	WG1653830
Tetrachloroethene	U		0.300	1.00	1	04/18/2021 18:19	WG1653830
Toluene	1.31		0.278	1.00	1	04/18/2021 18:19	WG1653830
1,2,3-Trichlorobenzene	U	C4	0.230	1.00	1	04/18/2021 18:19	WG1653830
1,2,4-Trichlorobenzene	U	C3	0.481	1.00	1	04/18/2021 18:19	WG1653830
1,1,1-Trichloroethane	U		0.149	1.00	1	04/18/2021 18:19	WG1653830
1,1,2-Trichloroethane	U		0.158	1.00	1	04/18/2021 18:19	WG1653830
Trichloroethene	U		0.190	1.00	1	04/18/2021 18:19	WG1653830
Trichlorofluoromethane	U		0.160	5.00	1	04/18/2021 18:19	WG1653830
1,2,4-Trimethylbenzene	56.7		0.322	1.00	1	04/18/2021 18:19	WG1653830
1,2,3-Trimethylbenzene	3.99		0.104	1.00	1	04/18/2021 18:19	WG1653830
1,3,5-Trimethylbenzene	13.2		0.104	1.00	1	04/18/2021 18:19	WG1653830
Vinyl chloride	U		0.234	1.00	1	04/18/2021 18:19	WG1653830
Xylenes, Total	63.3		0.174	3.00	1	04/18/2021 18:19	WG1653830
o-Xylene	3.29		0.174	1.00	1	04/18/2021 18:19	WG1653830
m&p-Xylene	60.0		0.430	2.00	1	04/18/2021 18:19	WG1653830
(S) Toluene-d8	93.1			80.0-120		04/18/2021 18:19	WG1653830
(S) 4-Bromofluorobenzene	94.7			77.0-126		04/18/2021 18:19	WG1653830
(S) 1,2-Dichloroethane-d4	123			70.0-130		04/18/2021 18:19	WG1653830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	1170		254	888	1.11	04/16/2021 21:55	WG1651579
(S) o-Terphenyl	81.8			50.0-150		04/16/2021 21:55	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0211	0.0555	1.11	04/12/2021 16:12	WG1648369
Acenaphthene	0.0535	J	0.0211	0.0555	1.11	04/12/2021 16:12	WG1648369
Acenaphthylene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(a)anthracene	U		0.0222	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(a)pyrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(b)fluoranthene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(g,h,i)perylene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Benzo(k)fluoranthene	U		0.0222	0.278	1.11	04/12/2021 16:12	WG1648369
Chrysene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Dibenz(a,h)anthracene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Fluoranthene	U		0.0122	0.0555	1.11	04/12/2021 16:12	WG1648369
Fluorene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Naphthalene	32.4		0.142	0.555	1.11	04/12/2021 16:12	WG1648369
Phenanthrene	U		0.0200	0.0555	1.11	04/12/2021 16:12	WG1648369
Pyrene	U		0.0189	0.0555	1.11	04/12/2021 16:12	WG1648369
1-Methylnaphthalene	9.39		0.0222	0.555	1.11	04/12/2021 16:12	WG1648369
2-Methylnaphthalene	4.58		0.0311	0.555	1.11	04/12/2021 16:12	WG1648369
2-Chloronaphthalene	U		0.0133	0.555	1.11	04/12/2021 16:12	WG1648369
(S) Nitrobenzene-d5	80.6			11.0-135		04/12/2021 16:12	WG1648369
(S) 2-Fluorobiphenyl	77.0			32.0-120		04/12/2021 16:12	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
(S) p-Terphenyl-d14	89.2		ug/l	ug/l		date / time	WG1648369

Sample Narrative:

L1336848-04 WG1648369: Dilution due to sample volume.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	10.4	<u>B</u> <u>J</u>	10.0	100	1	04/13/2021 23:29	WG1650388
(S) a,a,a-Trifluorotoluene(FID)	91.7			50.0-150		04/13/2021 23:29	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 14:03	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 17:19	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 14:03	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 17:19	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 17:19	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 17:19	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 17:19	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 17:19	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 17:19	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 17:19	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 17:19	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 17:19	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 17:19	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 17:19	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 17:19	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 17:19	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 17:19	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 17:19	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 17:19	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 17:19	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 17:19	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 17:19	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 17:19	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 17:19	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 17:19	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 17:19	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 17:19	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 17:19	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 17:19	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 17:19	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 17:19	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 17:19	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 17:19	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 17:19	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 17:19	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 17:19	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 17:19	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 17:19	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 17:19	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 17:19	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	<u>C3</u>	1.00	5.00	1	04/13/2021 17:19	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 17:19	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 17:19	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 17:19	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 17:19	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 17:19	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 17:19	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 17:19	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 17:19	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 17:19	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 17:19	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 17:19	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 17:19	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 17:19	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 17:19	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:19	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:19	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 17:19	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 17:19	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 17:19	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 17:19	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 17:19	WG1650373
(S) 4-Bromofluorobenzene	102			77.0-126		04/13/2021 17:19	WG1650373
(S) 1,2-Dichloroethane-d4	100			70.0-130		04/13/2021 17:19	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		254	888	1.11	04/16/2021 22:16	WG1651579
(S) o-Terphenyl	72.1			50.0-150		04/16/2021 22:16	WG1651579

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	04/12/2021 16:32	WG1648369
Acenaphthene	U		0.0190	0.0500	1	04/12/2021 16:32	WG1648369
Acenaphthylene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(a)anthracene	U		0.0200	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(a)pyrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(b)fluoranthene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Benzo(k)fluoranthene	U		0.0200	0.250	1	04/12/2021 16:32	WG1648369
Chrysene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Fluoranthene	U		0.0110	0.0500	1	04/12/2021 16:32	WG1648369
Fluorene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Naphthalene	U		0.128	0.500	1	04/12/2021 16:32	WG1648369
Phenanthrene	U		0.0180	0.0500	1	04/12/2021 16:32	WG1648369
Pyrene	U		0.0170	0.0500	1	04/12/2021 16:32	WG1648369
1-Methylnaphthalene	U		0.0200	0.500	1	04/12/2021 16:32	WG1648369
2-Methylnaphthalene	U		0.0280	0.500	1	04/12/2021 16:32	WG1648369
2-Chloronaphthalene	U		0.0120	0.500	1	04/12/2021 16:32	WG1648369
(S) Nitrobenzene-d5	69.5			11.0-135		04/12/2021 16:32	WG1648369
(S) 2-Fluorobiphenyl	78.5			32.0-120		04/12/2021 16:32	WG1648369

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
(S) p-Terphenyl-d14	99.5		ug/l	ug/l		date / time	
				23.0-122		04/12/2021 16:32	WG1648369

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method AK101

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
TPHGAK C6 to C10	11.2	<u>B</u> <u>J</u>	10.0	100	1	04/13/2021 22:46	WG1650388
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.6			50.0-150		04/13/2021 22:46	WG1650388

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,2,3-Trichloropropane	U		0.00200	0.00500	1	04/11/2021 13:40	WG1649541
Acetone	U		11.3	50.0	1	04/13/2021 17:38	WG1650373
1,2-Dibromoethane	U		0.00410	0.00500	1	04/11/2021 13:40	WG1649541
Acrolein	U		2.54	50.0	1	04/13/2021 17:38	WG1650373
Acrylonitrile	U		0.671	10.0	1	04/13/2021 17:38	WG1650373
Benzene	U		0.0941	1.00	1	04/13/2021 17:38	WG1650373
Bromobenzene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
Bromochloromethane	U		0.128	1.00	1	04/13/2021 17:38	WG1650373
Bromodichloromethane	U		0.136	1.00	1	04/13/2021 17:38	WG1650373
Bromoform	U		0.129	1.00	1	04/13/2021 17:38	WG1650373
Bromomethane	U		0.605	5.00	1	04/13/2021 17:38	WG1650373
n-Butylbenzene	U		0.157	1.00	1	04/13/2021 17:38	WG1650373
sec-Butylbenzene	U		0.125	1.00	1	04/13/2021 17:38	WG1650373
tert-Butylbenzene	U		0.127	1.00	1	04/13/2021 17:38	WG1650373
Carbon disulfide	U		0.0962	1.00	1	04/13/2021 17:38	WG1650373
Carbon tetrachloride	U		0.128	1.00	1	04/13/2021 17:38	WG1650373
Chlorobenzene	U		0.116	1.00	1	04/13/2021 17:38	WG1650373
Chlorodibromomethane	U		0.140	1.00	1	04/13/2021 17:38	WG1650373
Chloroethane	U		0.192	5.00	1	04/13/2021 17:38	WG1650373
Chloroform	U		0.111	5.00	1	04/13/2021 17:38	WG1650373
Chloromethane	U		0.960	2.50	1	04/13/2021 17:38	WG1650373
2-Chlorotoluene	U		0.106	1.00	1	04/13/2021 17:38	WG1650373
4-Chlorotoluene	U		0.114	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	04/13/2021 17:38	WG1650373
Dibromomethane	U		0.122	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichlorobenzene	U		0.107	1.00	1	04/13/2021 17:38	WG1650373
1,3-Dichlorobenzene	U		0.110	1.00	1	04/13/2021 17:38	WG1650373
1,4-Dichlorobenzene	U		0.120	1.00	1	04/13/2021 17:38	WG1650373
Dichlorodifluoromethane	U		0.374	5.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloroethane	U		0.100	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichloroethane	U		0.0819	1.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloroethene	U		0.188	1.00	1	04/13/2021 17:38	WG1650373
cis-1,2-Dichloroethene	U		0.126	1.00	1	04/13/2021 17:38	WG1650373
trans-1,2-Dichloroethene	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,2-Dichloropropane	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,1-Dichloropropene	U		0.142	1.00	1	04/13/2021 17:38	WG1650373
1,3-Dichloropropane	U		0.110	1.00	1	04/13/2021 17:38	WG1650373
cis-1,3-Dichloropropene	U		0.111	1.00	1	04/13/2021 17:38	WG1650373
trans-1,3-Dichloropropene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
2,2-Dichloropropane	U		0.161	1.00	1	04/13/2021 17:38	WG1650373
Di-isopropyl ether	U		0.105	1.00	1	04/13/2021 17:38	WG1650373
Ethylbenzene	U		0.137	1.00	1	04/13/2021 17:38	WG1650373
Hexachloro-1,3-butadiene	U		0.337	1.00	1	04/13/2021 17:38	WG1650373
Isopropylbenzene	U		0.105	1.00	1	04/13/2021 17:38	WG1650373
p-Isopropyltoluene	U		0.120	1.00	1	04/13/2021 17:38	WG1650373
2-Butanone (MEK)	U		1.19	10.0	1	04/13/2021 17:38	WG1650373
Methylene Chloride	U		0.430	5.00	1	04/13/2021 17:38	WG1650373
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	04/13/2021 17:38	WG1650373
Methyl tert-butyl ether	U		0.101	1.00	1	04/13/2021 17:38	WG1650373



Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Naphthalene	U	<u>C3</u>	1.00	5.00	1	04/13/2021 17:38	WG1650373
n-Propylbenzene	U		0.0993	1.00	1	04/13/2021 17:38	WG1650373
Styrene	U		0.118	1.00	1	04/13/2021 17:38	WG1650373
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	04/13/2021 17:38	WG1650373
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	04/13/2021 17:38	WG1650373
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	04/13/2021 17:38	WG1650373
Tetrachloroethene	U	<u>J4</u>	0.300	1.00	1	04/13/2021 17:38	WG1650373
Toluene	U		0.278	1.00	1	04/13/2021 17:38	WG1650373
1,2,3-Trichlorobenzene	U	<u>C4</u>	0.230	1.00	1	04/13/2021 17:38	WG1650373
1,2,4-Trichlorobenzene	U	<u>C4</u>	0.481	1.00	1	04/13/2021 17:38	WG1650373
1,1,1-Trichloroethane	U		0.149	1.00	1	04/13/2021 17:38	WG1650373
1,1,2-Trichloroethane	U		0.158	1.00	1	04/13/2021 17:38	WG1650373
Trichloroethene	U		0.190	1.00	1	04/13/2021 17:38	WG1650373
Trichlorofluoromethane	U		0.160	5.00	1	04/13/2021 17:38	WG1650373
1,2,4-Trimethylbenzene	U		0.322	1.00	1	04/13/2021 17:38	WG1650373
1,2,3-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:38	WG1650373
1,3,5-Trimethylbenzene	U		0.104	1.00	1	04/13/2021 17:38	WG1650373
Vinyl chloride	U		0.234	1.00	1	04/13/2021 17:38	WG1650373
Xylenes, Total	U		0.174	3.00	1	04/13/2021 17:38	WG1650373
o-Xylene	U		0.174	1.00	1	04/13/2021 17:38	WG1650373
m&p-Xylene	U		0.430	2.00	1	04/13/2021 17:38	WG1650373
(S) Toluene-d8	110			80.0-120		04/13/2021 17:38	WG1650373
(S) 4-Bromofluorobenzene	99.4			77.0-126		04/13/2021 17:38	WG1650373
(S) 1,2-Dichloroethane-d4	98.6			70.0-130		04/13/2021 17:38	WG1650373

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3642026-3 04/13/21 18:31

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHGAK C6 to C10	15.3	↓	10.0	100
(S) a,a,a-Trifluorotoluene(FID)	91.7			60.0-120

Laboratory Control Sample (LCS)

(LCS) R3642026-1 04/13/21 17:26

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TPHGAK C6 to C10	5000	3860	77.2	60.0-120	
(S) a,a,a-Trifluorotoluene(FID)			104	60.0-120	

L1336137-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336137-01 04/13/21 23:51 • (MS) R3642026-4 04/14/21 02:22 • (MSD) R3642026-5 04/14/21 02:49

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHGAK C6 to C10	5000	10.3	3680	3700	73.4	73.8	1	70.0-130			0.542	20
(S) a,a,a-Trifluorotoluene(FID)					100	101		50.0-150				

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/14/21 00:56 • (MS) R3642026-6 04/14/21 03:10 • (MSD) R3642026-7 04/14/21 03:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
TPHGAK C6 to C10	5000	13.0	3640	3690	72.5	73.5	1	70.0-130			1.36	20
(S) a,a,a-Trifluorotoluene(FID)					102	103		50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643373-2 04/11/21 12:58

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
1,2,3-Trichloropropane	U		0.00200	0.00500
1,2-Dibromoethane	U		0.00410	0.00500

Laboratory Control Sample (LCS)

(LCS) R3643373-1 04/11/21 12:34

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
1,2,3-Trichloropropane	0.0500	0.0500	100	70.0-130	
1,2-Dibromoethane	0.0500	0.0470	94.0	70.0-130	

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/11/21 14:50 • (MS) R3643373-3 04/11/21 16:01 • (MSD) R3643373-4 04/11/21 16:24

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
1,2,3-Trichloropropane	2.50	U	2.95	2.80	118	112	50	70.0-130			5.22	20
1,2-Dibromoethane	2.50	U	2.45	2.60	98.0	104	50	70.0-130			5.94	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643092-2 04/13/21 16:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromochloromethane	U		0.128	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3643092-2 04/13/21 16:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
o-Xylene	U		0.174	1.00
m&p-Xylenes	U		0.430	2.00
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	99.6			77.0-126
(S) 1,2-Dichloroethane-d4	100			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	29.5	118	19.0-160	
Acrolein	25.0	25.3	101	10.0-160	

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acrylonitrile	25.0	28.6	114	55.0-149	
Benzene	5.00	4.63	92.6	70.0-123	
Bromobenzene	5.00	5.42	108	73.0-121	
Bromodichloromethane	5.00	4.64	92.8	75.0-120	
Bromochloromethane	5.00	5.80	116	76.0-122	
Bromoform	5.00	6.05	121	68.0-132	
Bromomethane	5.00	3.90	78.0	10.0-160	
n-Butylbenzene	5.00	4.91	98.2	73.0-125	
sec-Butylbenzene	5.00	5.13	103	75.0-125	
tert-Butylbenzene	5.00	5.33	107	76.0-124	
Carbon disulfide	5.00	4.49	89.8	61.0-128	
Carbon tetrachloride	5.00	5.20	104	68.0-126	
Chlorobenzene	5.00	5.45	109	80.0-121	
Chlorodibromomethane	5.00	5.84	117	77.0-125	
Chloroethane	5.00	4.11	82.2	47.0-150	
Chloroform	5.00	4.75	95.0	73.0-120	
Chloromethane	5.00	5.85	117	41.0-142	
2-Chlorotoluene	5.00	5.08	102	76.0-123	
4-Chlorotoluene	5.00	4.41	88.2	75.0-122	
1,2-Dibromo-3-Chloropropane	5.00	4.68	93.6	58.0-134	
Dibromomethane	5.00	4.87	97.4	80.0-120	
1,2-Dichlorobenzene	5.00	5.23	105	79.0-121	
1,3-Dichlorobenzene	5.00	5.42	108	79.0-120	
1,4-Dichlorobenzene	5.00	5.08	102	79.0-120	
Dichlorodifluoromethane	5.00	4.25	85.0	51.0-149	
1,1-Dichloroethane	5.00	4.67	93.4	70.0-126	
1,2-Dichloroethane	5.00	4.89	97.8	70.0-128	
1,1-Dichloroethene	5.00	5.04	101	71.0-124	
cis-1,2-Dichloroethene	5.00	5.12	102	73.0-120	
trans-1,2-Dichloroethene	5.00	4.98	99.6	73.0-120	
1,2-Dichloropropane	5.00	6.03	121	77.0-125	
1,1-Dichloropropene	5.00	4.87	97.4	74.0-126	
1,3-Dichloropropane	5.00	5.14	103	80.0-120	
cis-1,3-Dichloropropene	5.00	4.56	91.2	80.0-123	
trans-1,3-Dichloropropene	5.00	4.73	94.6	78.0-124	
2,2-Dichloropropane	5.00	4.54	90.8	58.0-130	
Di-isopropyl ether	5.00	5.33	107	58.0-138	
Ethylbenzene	5.00	5.23	105	79.0-123	
Hexachloro-1,3-butadiene	5.00	4.89	97.8	54.0-138	
Isopropylbenzene	5.00	5.87	117	76.0-127	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3643092-1 04/13/21 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	5.00	5.13	103	76.0-125	
2-Butanone (MEK)	25.0	30.1	120	44.0-160	
Methylene Chloride	5.00	4.81	96.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	25.0	28.0	112	68.0-142	
Methyl tert-butyl ether	5.00	4.68	93.6	68.0-125	
Naphthalene	5.00	3.82	76.4	54.0-135	
n-Propylbenzene	5.00	4.80	96.0	77.0-124	
Styrene	5.00	5.05	101	73.0-130	
1,1,1,2-Tetrachloroethane	5.00	5.63	113	75.0-125	
1,1,2,2-Tetrachloroethane	5.00	4.37	87.4	65.0-130	
Tetrachloroethene	5.00	6.80	136	72.0-132	J4
Toluene	5.00	5.05	101	79.0-120	
1,1,2-Trichlorotrifluoroethane	5.00	4.78	95.6	69.0-132	
1,2,3-Trichlorobenzene	5.00	4.18	83.6	50.0-138	
1,2,4-Trichlorobenzene	5.00	4.90	98.0	57.0-137	
1,1,1-Trichloroethane	5.00	5.01	100	73.0-124	
1,1,2-Trichloroethane	5.00	5.58	112	80.0-120	
Trichloroethene	5.00	5.43	109	78.0-124	
Trichlorofluoromethane	5.00	4.61	92.2	59.0-147	
1,2,3-Trimethylbenzene	5.00	4.75	95.0	77.0-120	
1,2,4-Trimethylbenzene	5.00	4.79	95.8	76.0-121	
1,3,5-Trimethylbenzene	5.00	4.84	96.8	76.0-122	
Vinyl chloride	5.00	4.42	88.4	67.0-131	
Xylenes, Total	15.0	15.7	105	79.0-123	
o-Xylene	5.00	5.16	103	80.0-122	
m&p-Xylenes	10.0	10.5	105	80.0-122	
(S) Toluene-d8			108	80.0-120	
(S) 4-Bromofluorobenzene			98.0	77.0-126	
(S) 1,2-Dichloroethane-d4			102	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	24.4	16.8	97.6	67.2	1	10.0-160		J3	36.9	35
Acrolein	25.0	U	23.0	26.5	92.0	106	1	10.0-160			14.1	39
Acrylonitrile	25.0	U	27.0	30.8	108	123	1	21.0-160			13.1	32
Benzene	5.00	U	3.59	4.35	71.8	87.0	1	17.0-158			19.1	27

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	U	4.43	5.54	88.6	111	1	30.0-149			22.3	28
Bromodichloromethane	5.00	U	3.79	4.59	75.8	91.8	1	31.0-150			19.1	27
Bromochloromethane	5.00	U	4.61	5.50	92.2	110	1	38.0-142			17.6	26
Bromoform	5.00	U	5.44	6.00	109	120	1	29.0-150			9.79	29
Bromomethane	5.00	U	3.11	3.70	62.2	74.0	1	10.0-160			17.3	38
n-Butylbenzene	5.00	U	3.84	5.03	76.8	101	1	31.0-150			26.8	30
sec-Butylbenzene	5.00	U	4.14	5.28	82.8	106	1	33.0-155			24.2	29
tert-Butylbenzene	5.00	U	4.21	5.36	84.2	107	1	34.0-153			24.0	28
Carbon disulfide	5.00	U	2.86	3.52	57.2	70.4	1	10.0-156			20.7	28
Carbon tetrachloride	5.00	U	4.16	5.01	83.2	100	1	23.0-159			18.5	28
Chlorobenzene	5.00	U	4.29	5.14	85.8	103	1	33.0-152			18.0	27
Chlorodibromomethane	5.00	U	4.95	5.72	99.0	114	1	37.0-149			14.4	27
Chloroethane	5.00	U	3.43	4.00	68.6	80.0	1	10.0-160			15.3	30
Chloroform	5.00	U	3.85	4.39	77.0	87.8	1	29.0-154			13.1	28
Chloromethane	5.00	U	4.27	5.18	85.4	104	1	10.0-160			19.3	29
2-Chlorotoluene	5.00	U	4.01	4.87	80.2	97.4	1	32.0-153			19.4	28
4-Chlorotoluene	5.00	U	3.71	4.57	74.2	91.4	1	32.0-150			20.8	28
1,2-Dibromo-3-Chloropropane	5.00	U	4.46	5.37	89.2	107	1	22.0-151			18.5	34
Dibromomethane	5.00	U	4.06	5.04	81.2	101	1	30.0-151			21.5	27
1,2-Dichlorobenzene	5.00	U	4.34	5.31	86.8	106	1	34.0-149			20.1	28
1,3-Dichlorobenzene	5.00	U	4.27	5.34	85.4	107	1	36.0-146			22.3	27
1,4-Dichlorobenzene	5.00	U	4.43	5.28	88.6	106	1	35.0-142			17.5	27
Dichlorodifluoromethane	5.00	U	3.41	4.30	68.2	86.0	1	10.0-160			23.1	29
1,1-Dichloroethane	5.00	U	3.73	4.37	74.6	87.4	1	25.0-158			15.8	27
1,2-Dichloroethane	5.00	U	3.82	4.86	76.4	97.2	1	29.0-151			24.0	27
1,1-Dichloroethene	5.00	U	3.85	4.60	77.0	92.0	1	11.0-160			17.8	29
cis-1,2-Dichloroethene	5.00	U	4.25	4.80	85.0	96.0	1	10.0-160			12.2	27
trans-1,2-Dichloroethene	5.00	U	3.72	4.63	74.4	92.6	1	17.0-153			21.8	27
1,2-Dichloropropane	5.00	U	3.96	4.73	79.2	94.6	1	30.0-156			17.7	27
1,1-Dichloropropene	5.00	U	3.71	4.46	74.2	89.2	1	25.0-158			18.4	27
1,3-Dichloropropane	5.00	U	4.33	5.23	86.6	105	1	38.0-147			18.8	27
cis-1,3-Dichloropropene	5.00	U	3.60	4.14	72.0	82.8	1	34.0-149			14.0	28
trans-1,3-Dichloropropene	5.00	U	3.93	4.48	78.6	89.6	1	32.0-149			13.1	28
2,2-Dichloropropane	5.00	U	3.52	4.39	70.4	87.8	1	24.0-152			22.0	29
Di-isopropyl ether	5.00	U	4.45	5.33	89.0	107	1	21.0-160			18.0	28
Ethylbenzene	5.00	U	4.26	5.04	85.2	101	1	30.0-155			16.8	27
Hexachloro-1,3-butadiene	5.00	U	4.22	5.23	84.4	105	1	20.0-154			21.4	34
Isopropylbenzene	5.00	U	4.78	5.80	95.6	116	1	28.0-157			19.3	27
p-Isopropyltoluene	5.00	U	4.11	5.23	82.2	105	1	30.0-154			24.0	29
2-Butanone (MEK)	25.0	U	25.6	31.2	102	125	1	10.0-160			19.7	32

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336780-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336780-13 04/13/21 18:16 • (MS) R3643092-3 04/13/21 23:32 • (MSD) R3643092-4 04/13/21 23:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methylene Chloride	5.00	U	3.69	4.60	73.8	92.0	1	23.0-144			22.0	28
4-Methyl-2-pentanone (MIBK)	25.0	U	26.4	31.5	106	126	1	29.0-160			17.6	29
Methyl tert-butyl ether	5.00	U	4.11	4.98	82.2	99.6	1	28.0-150			19.1	29
Naphthalene	5.00	U	3.39	4.12	67.8	82.4	1	12.0-156			19.4	35
n-Propylbenzene	5.00	U	3.89	4.79	77.8	95.8	1	31.0-154			20.7	28
Styrene	5.00	U	4.04	4.86	80.8	97.2	1	33.0-155			18.4	28
1,1,1,2-Tetrachloroethane	5.00	U	4.81	5.72	96.2	114	1	36.0-151			17.3	29
1,1,2,2-Tetrachloroethane	5.00	U	4.07	5.09	81.4	102	1	33.0-150			22.3	28
Tetrachloroethene	5.00	U	5.16	6.50	103	130	1	10.0-160			23.0	27
Toluene	5.00	U	4.10	4.83	82.0	96.6	1	26.0-154			16.3	28
1,1,2-Trichlorotrifluoroethane	5.00	U	4.07	4.85	81.4	97.0	1	23.0-160			17.5	30
1,2,3-Trichlorobenzene	5.00	U	3.08	4.11	61.6	82.2	1	17.0-150			28.7	36
1,2,4-Trichlorobenzene	5.00	U	3.84	5.06	76.8	101	1	24.0-150			27.4	33
1,1,1-Trichloroethane	5.00	U	4.07	4.80	81.4	96.0	1	23.0-160			16.5	28
1,1,2-Trichloroethane	5.00	U	4.82	5.67	96.4	113	1	35.0-147			16.2	27
Trichloroethene	5.00	U	4.20	5.14	84.0	103	1	10.0-160			20.1	25
Trichlorofluoromethane	5.00	U	3.86	4.74	77.2	94.8	1	17.0-160			20.5	31
1,2,3-Trimethylbenzene	5.00	U	3.88	4.68	77.6	93.6	1	32.0-149			18.7	28
1,2,4-Trimethylbenzene	5.00	U	4.30	4.77	86.0	95.4	1	26.0-154			10.4	27
1,3,5-Trimethylbenzene	5.00	U	4.03	4.75	80.6	95.0	1	28.0-153			16.4	27
Vinyl chloride	5.00	U	3.24	4.02	64.8	80.4	1	10.0-160			21.5	27
Xylenes, Total	15.0	U	13.3	15.3	88.7	102	1	29.0-154			14.0	28
o-Xylene	5.00	U	4.43	5.13	88.6	103	1	45.0-144			14.6	26
m&p-Xylenes	10.0	U	8.83	10.2	88.3	102	1	43.0-146			14.4	26
(S) Toluene-d8					109	110		80.0-120				
(S) 4-Bromofluorobenzene					100	102		77.0-126				
(S) 1,2-Dichloroethane-d4					101	101		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	5.00	U	6.36	6.32	127	126	1	38.0-142			0.631	26
Carbon disulfide	5.00	U	4.27	4.26	85.4	85.2	1	10.0-156			0.234	28
Acetone	25.0	U	29.1	19.0	116	76.0	1	10.0-160		J3	42.0	35
Acrolein	25.0	U	28.1	29.4	112	118	1	10.0-160			4.52	39
Acrylonitrile	25.0	U	33.0	33.9	132	136	1	21.0-160			2.69	32
Benzene	5.00	U	5.30	5.43	106	109	1	17.0-158			2.42	27

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromobenzene	5.00	U	6.42	6.38	128	128	1	30.0-149			0.625	28
Bromodichloromethane	5.00	U	5.23	5.44	105	109	1	31.0-150			3.94	27
Bromoform	5.00	U	6.46	6.80	129	136	1	29.0-150			5.13	29
Bromomethane	5.00	U	4.46	4.30	89.2	86.0	1	10.0-160			3.65	38
n-Butylbenzene	5.00	U	5.94	6.03	119	121	1	31.0-150			1.50	30
sec-Butylbenzene	5.00	U	6.48	6.63	130	133	1	33.0-155			2.29	29
tert-Butylbenzene	5.00	U	6.25	6.64	125	133	1	34.0-153			6.05	28
Carbon tetrachloride	5.00	U	6.31	6.31	126	126	1	23.0-159			0.000	28
Chlorobenzene	5.00	U	6.21	6.41	124	128	1	33.0-152			3.17	27
Chlorodibromomethane	5.00	U	6.47	6.68	129	134	1	37.0-149			3.19	27
Chloroethane	5.00	U	5.13	5.11	103	102	1	10.0-160			0.391	30
Chloroform	5.00	U	5.44	5.72	109	114	1	29.0-154			5.02	28
Chloromethane	5.00	U	6.51	6.52	130	130	1	10.0-160			0.153	29
2-Chlorotoluene	5.00	U	6.00	6.22	120	124	1	32.0-153			3.60	28
4-Chlorotoluene	5.00	U	5.40	5.70	108	114	1	32.0-150			5.41	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.72	6.14	114	123	1	22.0-151			7.08	34
Dibromomethane	5.00	U	5.37	5.66	107	113	1	30.0-151			5.26	27
1,2-Dichlorobenzene	5.00	0.114	6.27	6.61	123	130	1	34.0-149			5.28	28
1,3-Dichlorobenzene	5.00	U	6.27	6.58	125	132	1	36.0-146			4.82	27
1,4-Dichlorobenzene	5.00	U	6.20	6.41	124	128	1	35.0-142			3.33	27
Dichlorodifluoromethane	5.00	U	5.13	5.06	103	101	1	10.0-160			1.37	29
1,1-Dichloroethane	5.00	U	5.38	5.53	108	111	1	25.0-158			2.75	27
1,2-Dichloroethane	5.00	U	4.99	5.48	99.8	110	1	29.0-151			9.36	27
1,1-Dichloroethene	5.00	U	5.92	5.64	118	113	1	11.0-160			4.84	29
cis-1,2-Dichloroethene	5.00	49.0	54.7	56.6	114	152	1	10.0-160			3.41	27
trans-1,2-Dichloroethene	5.00	0.319	5.85	5.68	111	107	1	17.0-153			2.95	27
1,2-Dichloropropane	5.00	U	5.61	6.02	112	120	1	30.0-156			7.05	27
1,1-Dichloropropene	5.00	U	5.73	5.65	115	113	1	25.0-158			1.41	27
1,3-Dichloropropane	5.00	U	5.60	5.97	112	119	1	38.0-147			6.40	27
cis-1,3-Dichloropropene	5.00	U	4.74	5.03	94.8	101	1	34.0-149			5.94	28
trans-1,3-Dichloropropene	5.00	U	5.02	5.24	100	105	1	32.0-149			4.29	28
2,2-Dichloropropane	5.00	U	4.92	5.28	98.4	106	1	24.0-152			7.06	29
Di-isopropyl ether	5.00	U	5.90	6.11	118	122	1	21.0-160			3.50	28
Ethylbenzene	5.00	U	6.36	6.41	127	128	1	30.0-155			0.783	27
Hexachloro-1,3-butadiene	5.00	U	6.50	6.76	130	135	1	20.0-154			3.92	34
Isopropylbenzene	5.00	U	7.10	7.07	142	141	1	28.0-157			0.423	27
p-Isopropyltoluene	5.00	U	6.40	6.44	128	129	1	30.0-154			0.623	29
2-Butanone (MEK)	25.0	U	32.0	35.0	128	140	1	10.0-160			8.96	32
Methylene Chloride	5.00	U	5.16	5.28	103	106	1	23.0-144			2.30	28
4-Methyl-2-pentanone (MIBK)	25.0	U	32.1	34.3	128	137	1	29.0-160			6.63	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/13/21 20:49 • (MS) R3643092-5 04/14/21 00:11 • (MSD) R3643092-6 04/14/21 00:30

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	5.00	U	5.27	5.51	105	110	1	28.0-150			4.45	29
o-Xylene	5.00	U	6.21	6.07	124	121	1	45.0-144			2.28	26
m&p-Xylenes	10.0	U	11.4	12.4	114	124	1	43.0-146			8.40	26
Naphthalene	5.00	U	4.40	4.84	88.0	96.8	1	12.0-156			9.52	35
n-Propylbenzene	5.00	U	5.90	5.92	118	118	1	31.0-154			0.338	28
Styrene	5.00	U	5.82	5.86	116	117	1	33.0-155			0.685	28
1,1,1,2-Tetrachloroethane	5.00	U	6.60	6.78	132	136	1	36.0-151			2.69	29
1,1,2,2-Tetrachloroethane	5.00	U	5.28	5.72	106	114	1	33.0-150			8.00	28
Tetrachloroethene	5.00	92.2	107	102	296	196	1	10.0-160	EV	EV	4.78	27
Toluene	5.00	U	5.86	5.99	117	120	1	26.0-154			2.19	28
1,1,2-Trichlorotrifluoroethane	5.00	U	6.19	5.97	124	119	1	23.0-160			3.62	30
1,2,3-Trichlorobenzene	5.00	U	4.61	5.02	92.2	100	1	17.0-150			8.52	36
1,2,4-Trichlorobenzene	5.00	U	5.83	5.67	117	113	1	24.0-150			2.78	33
1,1,1-Trichloroethane	5.00	U	6.08	5.96	122	119	1	23.0-160			1.99	28
1,1,2-Trichloroethane	5.00	U	6.54	6.66	131	133	1	35.0-147			1.82	27
Trichloroethene	5.00	20.2	27.6	27.5	148	146	1	10.0-160			0.363	25
Trichlorofluoromethane	5.00	U	5.79	5.71	116	114	1	17.0-160			1.39	31
1,2,3-Trimethylbenzene	5.00	U	5.48	5.68	110	114	1	32.0-149			3.58	28
1,2,4-Trimethylbenzene	5.00	U	5.68	5.74	114	115	1	26.0-154			1.05	27
1,3,5-Trimethylbenzene	5.00	U	5.71	5.84	114	117	1	28.0-153			2.25	27
Vinyl chloride	5.00	U	5.07	5.13	101	103	1	10.0-160			1.18	27
Xylenes, Total	15.0	U	17.6	18.5	117	123	1	29.0-154			4.99	28
(S) Toluene-d8					109	109		80.0-120				
(S) 4-Bromofluorobenzene					99.3	100		77.0-126				
(S) 1,2-Dichloroethane-d4					101	99.6		70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643512-3 04/18/21 14:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromochloromethane	U		0.128	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3643512-3 04/18/21 14:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,2,4-Trimethylbenzene	U		0.322	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
o-Xylene	U		0.174	1.00
m&p-Xylenes	U		0.430	2.00
(S) Toluene-d8	99.1			80.0-120
(S) 4-Bromofluorobenzene	96.1			77.0-126
(S) 1,2-Dichloroethane-d4	117			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	23.8	24.6	95.2	98.4	19.0-160			3.31	27
Acrolein	25.0	11.5	12.0	46.0	48.0	10.0-160			4.26	26

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Acrylonitrile	25.0	24.0	23.5	96.0	94.0	55.0-149			2.11	20
Benzene	5.00	5.06	4.86	101	97.2	70.0-123			4.03	20
Bromobenzene	5.00	4.53	4.37	90.6	87.4	73.0-121			3.60	20
Bromodichloromethane	5.00	5.63	5.63	113	113	75.0-120			0.000	20
Bromochloromethane	5.00	5.17	5.22	103	104	76.0-122			0.962	20
Bromoform	5.00	4.66	4.45	93.2	89.0	68.0-132			4.61	20
Bromomethane	5.00	7.01	6.31	140	126	10.0-160			10.5	25
n-Butylbenzene	5.00	4.95	4.77	99.0	95.4	73.0-125			3.70	20
sec-Butylbenzene	5.00	4.42	4.20	88.4	84.0	75.0-125			5.10	20
tert-Butylbenzene	5.00	4.28	4.13	85.6	82.6	76.0-124			3.57	20
Carbon disulfide	5.00	4.93	4.75	98.6	95.0	61.0-128			3.72	20
Carbon tetrachloride	5.00	4.91	4.77	98.2	95.4	68.0-126			2.89	20
Chlorobenzene	5.00	4.70	4.62	94.0	92.4	80.0-121			1.72	20
Chlorodibromomethane	5.00	4.89	4.93	97.8	98.6	77.0-125			0.815	20
Chloroethane	5.00	7.70	7.50	154	150	47.0-150	J4		2.63	20
Chloroform	5.00	5.69	5.57	114	111	73.0-120			2.13	20
Chloromethane	5.00	5.88	5.93	118	119	41.0-142			0.847	20
2-Chlorotoluene	5.00	4.44	4.24	88.8	84.8	76.0-123			4.61	20
4-Chlorotoluene	5.00	4.40	4.30	88.0	86.0	75.0-122			2.30	20
1,2-Dibromo-3-Chloropropane	5.00	3.42	3.74	68.4	74.8	58.0-134			8.94	20
Dibromomethane	5.00	5.37	5.45	107	109	80.0-120			1.48	20
1,2-Dichlorobenzene	5.00	4.61	4.57	92.2	91.4	79.0-121			0.871	20
1,3-Dichlorobenzene	5.00	4.83	4.81	96.6	96.2	79.0-120			0.415	20
1,4-Dichlorobenzene	5.00	5.21	4.91	104	98.2	79.0-120			5.93	20
Dichlorodifluoromethane	5.00	5.88	5.65	118	113	51.0-149			3.99	20
1,1-Dichloroethane	5.00	5.71	5.46	114	109	70.0-126			4.48	20
1,2-Dichloroethane	5.00	5.61	5.60	112	112	70.0-128			0.178	20
1,1-Dichloroethene	5.00	5.20	5.07	104	101	71.0-124			2.53	20
cis-1,2-Dichloroethene	5.00	5.03	5.03	101	101	73.0-120			0.000	20
trans-1,2-Dichloroethene	5.00	5.35	5.20	107	104	73.0-120			2.84	20
1,2-Dichloropropane	5.00	5.18	5.28	104	106	77.0-125			1.91	20
1,1-Dichloropropene	5.00	5.40	5.21	108	104	74.0-126			3.58	20
1,3-Dichloropropane	5.00	5.06	4.93	101	98.6	80.0-120			2.60	20
cis-1,3-Dichloropropene	5.00	5.21	5.11	104	102	80.0-123			1.94	20
trans-1,3-Dichloropropene	5.00	4.83	4.94	96.6	98.8	78.0-124			2.25	20
2,2-Dichloropropane	5.00	4.68	4.59	93.6	91.8	58.0-130			1.94	20
Di-isopropyl ether	5.00	5.30	5.20	106	104	58.0-138			1.90	20
Ethylbenzene	5.00	4.89	4.87	97.8	97.4	79.0-123			0.410	20
Hexachloro-1,3-butadiene	5.00	4.38	4.27	87.6	85.4	54.0-138			2.54	20
Isopropylbenzene	5.00	5.01	4.91	100	98.2	76.0-127			2.02	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643512-1 04/18/21 13:03 • (LCSD) R3643512-2 04/18/21 13:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
p-Isopropyltoluene	5.00	4.62	4.42	92.4	88.4	76.0-125			4.42	20
2-Butanone (MEK)	25.0	24.1	24.1	96.4	96.4	44.0-160			0.000	20
Methylene Chloride	5.00	5.17	5.08	103	102	67.0-120			1.76	20
4-Methyl-2-pentanone (MIBK)	25.0	24.5	24.8	98.0	99.2	68.0-142			1.22	20
Methyl tert-butyl ether	5.00	5.31	5.34	106	107	68.0-125			0.563	20
Naphthalene	5.00	5.05	4.44	101	88.8	54.0-135			12.9	20
n-Propylbenzene	5.00	4.43	4.20	88.6	84.0	77.0-124			5.33	20
Styrene	5.00	4.68	4.66	93.6	93.2	73.0-130			0.428	20
1,1,1,2-Tetrachloroethane	5.00	4.59	4.63	91.8	92.6	75.0-125			0.868	20
1,1,2,2-Tetrachloroethane	5.00	3.91	4.01	78.2	80.2	65.0-130			2.53	20
Tetrachloroethene	5.00	4.99	4.66	99.8	93.2	72.0-132			6.84	20
Toluene	5.00	4.66	4.54	93.2	90.8	79.0-120			2.61	20
1,1,2-Trichlorotrifluoroethane	5.00	4.83	4.70	96.6	94.0	69.0-132			2.73	20
1,2,3-Trichlorobenzene	5.00	3.68	3.85	73.6	77.0	50.0-138			4.52	20
1,2,4-Trichlorobenzene	5.00	3.81	3.84	76.2	76.8	57.0-137			0.784	20
1,1,1-Trichloroethane	5.00	5.65	5.30	113	106	73.0-124			6.39	20
1,1,2-Trichloroethane	5.00	4.88	4.89	97.6	97.8	80.0-120			0.205	20
Trichloroethene	5.00	5.30	5.04	106	101	78.0-124			5.03	20
Trichlorofluoromethane	5.00	5.65	5.57	113	111	59.0-147			1.43	20
1,2,3-Trimethylbenzene	5.00	4.66	4.49	93.2	89.8	77.0-120			3.72	20
1,2,4-Trimethylbenzene	5.00	4.37	4.17	87.4	83.4	76.0-121			4.68	20
1,3,5-Trimethylbenzene	5.00	4.41	4.29	88.2	85.8	76.0-122			2.76	20
Vinyl chloride	5.00	5.92	5.76	118	115	67.0-131			2.74	20
Xylenes, Total	15.0	14.2	13.9	94.7	92.7	79.0-123			2.14	20
o-Xylene	5.00	4.71	4.58	94.2	91.6	80.0-122			2.80	20
m&p-Xylenes	10.0	9.51	9.36	95.1	93.6	80.0-122			1.59	20
(S) Toluene-d8				98.1	98.7	80.0-120				
(S) 4-Bromofluorobenzene				97.6	101	77.0-126				
(S) 1,2-Dichloroethane-d4				116	119	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3643315-1 04/16/21 19:13

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
AK102 DRO C10-C25	U		229	800
<i>(S) o-Terphenyl</i>	65.5			60.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643315-2 04/16/21 19:34 • (LCSD) R3643315-3 04/16/21 19:54

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
AK102 DRO C10-C25	3000	2490	2820	83.0	94.0	75.0-125			12.4	20
<i>(S) o-Terphenyl</i>				98.8	100	60.0-120				

L1336848-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1336848-01 04/16/21 20:14 • (MS) R3643315-4 04/16/21 20:34 • (MSD) R3643315-5 04/16/21 20:55

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3160	U	2560	2620	81.0	82.9	1.05	75.0-125			2.32	20
<i>(S) o-Terphenyl</i>					98.8	98.6		50.0-150				

L1337040-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1337040-01 04/16/21 22:36 • (MS) R3643315-6 04/16/21 22:56 • (MSD) R3643315-7 04/16/21 23:16

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3340	U	2710	2730	81.1	91.0	1.11	75.0-125			0.735	20
<i>(S) o-Terphenyl</i>					89.4	101		50.0-150				

L1338736-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1338736-02 04/17/21 01:18 • (MS) R3643315-8 04/17/21 01:38 • (MSD) R3643315-9 04/17/21 01:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
AK102 DRO C10-C25	3340	U	2770	2270	82.9	75.7	1.11	75.0-125			19.8	20
<i>(S) o-Terphenyl</i>					95.7	87.5		50.0-150				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3641000-3 04/12/21 14:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0170	0.0500
Benzo(a)anthracene	U		0.0200	0.0500
Benzo(a)pyrene	U		0.0180	0.0500
Benzo(b)fluoranthene	U		0.0170	0.0500
Benzo(g,h,i)perylene	U		0.0180	0.0500
Benzo(k)fluoranthene	U		0.0200	0.250
Chrysene	U		0.0180	0.0500
Dibenz(a,h)anthracene	U		0.0180	0.0500
Fluoranthene	U		0.0110	0.0500
Fluorene	U		0.0170	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500
Naphthalene	U		0.128	0.500
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0170	0.0500
1-Methylnaphthalene	U		0.0200	0.500
2-Methylnaphthalene	U		0.0280	0.500
2-Chloronaphthalene	U		0.0120	0.500
(S) Nitrobenzene-d5	82.0			11.0-135
(S) 2-Fluorobiphenyl	87.0			32.0-120
(S) p-Terphenyl-d14	115			23.0-122

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3641000-1 04/12/21 12:55 • (LCSD) R3641000-2 04/12/21 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.64	1.60	82.0	80.0	43.0-127			2.47	20
Acenaphthene	2.00	1.86	1.75	93.0	87.5	42.0-120			6.09	20
Acenaphthylene	2.00	1.81	1.72	90.5	86.0	43.0-120			5.10	20
Benzo(a)anthracene	2.00	1.70	1.59	85.0	79.5	46.0-120			6.69	20
Benzo(a)pyrene	2.00	1.67	1.58	83.5	79.0	44.0-122			5.54	20
Benzo(b)fluoranthene	2.00	1.94	1.80	97.0	90.0	43.0-122			7.49	20
Benzo(g,h,i)perylene	2.00	1.96	1.77	98.0	88.5	25.0-137			10.2	23
Benzo(k)fluoranthene	2.00	1.87	1.75	93.5	87.5	39.0-128			6.63	22
Chrysene	2.00	1.94	1.83	97.0	91.5	42.0-129			5.84	20
Dibenz(a,h)anthracene	2.00	1.82	1.62	91.0	81.0	25.0-139			11.6	22
Fluoranthene	2.00	1.82	1.74	91.0	87.0	48.0-131			4.49	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3641000-1 04/12/21 12:55 • (LCSD) R3641000-2 04/12/21 13:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Fluorene	2.00	1.90	1.80	95.0	90.0	42.0-120			5.41	20
Indeno(1,2,3-cd)pyrene	2.00	1.76	1.64	88.0	82.0	37.0-133			7.06	20
Naphthalene	2.00	1.91	1.79	95.5	89.5	30.0-120			6.49	22
Phenanthrene	2.00	1.89	1.79	94.5	89.5	42.0-120			5.43	20
Pyrene	2.00	1.97	1.91	98.5	95.5	38.0-124			3.09	20
1-Methylnaphthalene	2.00	1.95	1.84	97.5	92.0	43.0-120			5.80	20
2-Methylnaphthalene	2.00	1.84	1.73	92.0	86.5	40.0-120			6.16	20
2-Chloronaphthalene	2.00	1.79	1.68	89.5	84.0	39.0-120			6.34	20
<i>(S) Nitrobenzene-d5</i>				90.5	85.5	11.0-135				
<i>(S) 2-Fluorobiphenyl</i>				93.5	87.5	32.0-120				
<i>(S) p-Terphenyl-d14</i>				118	113	23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

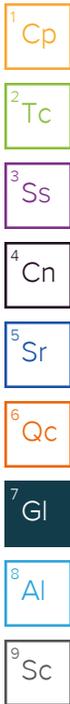
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	The sample concentration is too high to evaluate accurate spike recoveries.



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address:

Arcadis - Chevron - AK

880 H St.
Anchorage, AK 99501

Billing Information:

Attn: Accounts Payable
630 Plaza Dr Ste 600
Highlands Ranch, CO 80129

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Report to:
Sydney Clark

Email To:
Sydney.Clark@arcadis.com; Nicole.Monroe@arc

Project Description:
97324

City/State
Collected: Anchorage, AK

Please Circle:
PT MT CT ET

Phone: 907-276-8095

Client Project #
30063667.19.21

Lab Project #
CHEVARCAK-97324

Collected by (print):
E. Wojcik

Site/Facility ID #
4417 LAKE OTIS PKWY,

P.O. #

Collected by (signature):
[Signature]

Rush? (Lab MUST Be Notified)

Quote #

Immediately
packed on Ice N Y

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day Standard

Date Results Needed

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	123TCP/EDB V524LL 40mlAmb-HCl	AK101 40mlAmb HCl	AK102 100ml Amb HCl	PAHs 8270ESIM 100ml Amb-NoPres	VOCs 8260D 40mlAmb-HCl							
MW-9-W-20210407	Grab	GW	-	4.7.21	1200	33	X	X	X	X	X							
MW-2R-W-20210407	Grab	GW	-	4.7.21	1400	13	X	X	X	X	X							
MW-1R-W-20210407	Grab	GW	-	4.7.21	1500	7	X	X	X	X	X							
BD-1-W-20210407	Grab	GW	-	4.7.21	-	13	X	X	X	X	X							
EQB-1-W-20210407	Grab	GW	-	4.7.21	1600	13	X	X	X	X	X							
Trip Blank	-	GW	-	4.7.21	-	3	X	X			X							
		GW																
		GW																
		GW																



12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

SDG # 1336848
E086
Acctnum: CHEVARCAK
Template: T184177
Prelogin: P836293
PM: 110 - Brian Ford
PB: TN 3-31-21
Shipped Via:
Remarks Sample # (lab only)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist

COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headpace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Samples returned via:
 UPS FedEx Courier

Tracking # 98830083 8154

Relinquished by: (Signature) <i>[Signature]</i>	Date: 4.8.21	Time: 0800	Received by: (Signature)	Trip Blank Received: Yes/No 3 HCl / MeOH TBR	Temp: 4.2.6 °C	Bottles Received: 76	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date: 4/9/21	Time: 1500	Hold:	Condition: NCP / OK

L1336848 CHEVARCAK NCF

R5

Time estimate: oh Time spent: oh

Members

● Matthew Shacklock (responsible)

- Parameter(s) past holding time
- Temperature not in range
- Improper container type
- pH not in range
- Insufficient sample volume
- Sample is biphasic
- Vials received with headspace
- Broken container
- Sufficient sample remains
- If broken container: Insufficient packing material around container
- If broken container: Insufficient packing material inside cooler
- If broken container: Improper handling by carrier: _____
- If broken container: Sample was frozen
- If broken container: Container lid not intact
- Client informed by Call
- Client informed by Email
- Client informed by Voicemail
- Date/Time: _____
- PM initials: _____
- Client Contact: _____

Comments

Matthew Shacklock 10 April 2021 9:33 AM

Received broken vials for following IDs"
 MW9 (2 vials), MW-12 (4 vials), BD-1 (1 vial)

Laboratory Data Review Checklist

Completed By:

Bhagyashree A Fulzele

Title:

Project Chemist

Date:

May 07, 2021

Consultant Firm:

ARCADIS U.S., Inc

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1336848

Laboratory Report Date:

05/22/2021

CS Site Name:

First Semi Annual 2021 Groundwater Monitoring Report

ADEC File Number:

2100.26.008

Hazard Identification Number:

23885

Note: Any N/A or No box checked must have an explanation in the comments box.

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

Yes No N/A Comments:

Yes.

b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes No N/A Comments:

Not applicable.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

Yes No N/A Comments:

Yes.

b. Correct analyses requested?

Yes No N/A Comments:

Yes.

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

Yes No N/A Comments:

Yes.

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No N/A Comments:

Yes.

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No N/A Comments:

Yes, sample received broken vials for sample IDs out of 31 vials 02 vials were broken for sample ID MW-9-W-20210407 and out of 12 vials 1 vial was broken for sample ID BD-1-W-20210407.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes No N/A Comments:

Yes.

e. Data quality or usability affected?

Comments:

Data quality/usability was not affected.

4. Case Narrative

a. Present and understandable?

Yes No N/A Comments:

Yes.

b. Discrepancies, errors, or QC failures identified by the lab?

Yes No N/A Comments:

Yes.

c. Were all corrective actions documented?

Yes No N/A Comments:

Yes.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes No N/A Comments:

Yes.

b. All applicable holding times met?

Yes No N/A Comments:

Yes.

c. All soils reported on a dry weight basis?

Yes No N/A Comments:

Not applicable.

d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?

Yes No N/A Comments:

Yes.

e. Data quality or usability affected?

Data quality/usability was not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Yes.

ii. All method blank results less than limit of quantitation (LOQ) or project specified objectives?

Yes No N/A Comments:

No.

iii. If above LOQ or project specified objectives, what samples are affected?

Comments:

Method AK101: Compound TPHGAK C6 to C10 (15.3 J ug/L) was detected below the reporting limit in method blank batch WG1650388. A blank action level was established at five times of the reported blank concentration. Compound result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

v. Data quality or usability affected?

Comments:

Method blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

Yes No N/A Comments:

Yes.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Not applicable.

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Method SW846 8260D: LCS/LCSD recovery was greater than the control limit for compound chloroethane in preparation batch WG1653830. The compound was non-detected in any of the associated samples; therefore, no other qualification was required.

LCS recovery was greater than the control limit for compound tetrachloroethene in preparation batch WG1650373. Compound detected in the associated samples was qualified as estimated (J).

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from LCS/LCSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Yes.

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Accuracy: Compound tetrachloroethene result in samples MW-9-W-20210407 and MW-2R-W-20210407 was qualified as estimated (J).

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

- vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The LCS/LCSD recovery exceedances are considered minor and would result in the estimation of the associated data. The reported data should still consider as usable.

- c. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Note: Leave blank if not required for project

- i. Organics – One MS/MSD reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

The MS/MSD analysis was performed on sample MW-9-W-20210407 for Method AK101, AK102 and SW846 8260D.

- ii. Metals/Inorganics – one MS and one MSD reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

Not applicable.

- iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Yes.

- iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? RPD reported from MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes No N/A Comments:

Method SW846 8260D: MS/MSD RPD for compound acetone was exceeded the control limit in sample MW-9-W-20210407. The compound result in associated sample was qualified as estimated (UJ).

- v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

The MS/MSD RPD exceedance was observed for compound acetone in sample ID MW-9-W-20210407 and qualified as estimated (UJ).

- vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Yes.

- vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

MS/MSD RPD exceedance is considered minor and would result in the estimation of associated data. The reported data should still consider as usable.

- d. Surrogates – Organics Only or Isotope Dilution Analytes (IDA) – Isotope Dilution Methods Only

- i. Are surrogate/IDA recoveries reported for organic analyses – field, QC and laboratory samples?

Yes No N/A Comments:

Yes.

- ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes No N/A Comments:

Yes.

- iii. Do the sample results with failed surrogate/IDA recoveries have data flags? If so, are the data flags clearly defined?

Yes No N/A Comments:

Not applicable.

iv. Data quality or usability affected?

Comments:

Data quality or usability was not affected.

e. Trip Blanks

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples?
(If not, enter explanation below.)

Yes No N/A Comments:

Trip blank sample was collected as TRIP BLANK-20210407.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC?
(If not, a comment explaining why must be entered below)

Yes No N/A Comments:

Yes.

iii. All results less than LOQ and project specified objectives?

Yes No N/A Comments:

Method AK101: Compound TPHGAK C6 to C10 (11.2 J ug/L) was detected below the reporting limit in TRIP BLANK-20210407. A blank action level was established at five times of the reported blank concentration. Compound result in associated samples was qualified as non-detect (UB) at reporting limit.

iv. If above LOQ or project specified objectives, what samples are affected?

Comments:

Compound TPHGAK C6 to C10 result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

v. Data quality or usability affected?

Comments:

Trip blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

f. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No N/A Comments:

Yes.

ii. Submitted blind to lab?

Yes No N/A Comments:

Field duplicate BD-1-W-20210407 was collected from sample MW-2R-W-20210407.

- iii. Precision – All relative percent differences (RPD) less than specified project objectives?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No N/A Comments:

Yes.

- iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

Data quality/usability was not affected.

- g. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below)?

Yes No N/A Comments:

Equipment blank sample was collected as EQB-1-W-20210407.

- i. All results less than LOQ and project specified objectives?

Yes No N/A Comments:

Method AK101: Compound TPHGAK C6 to C10 (10.4 J ug/L) was detected below the reporting limit in EQB-1-W-20210407. A blank action level was established at five times of the reported blank concentration. Compound result in associated samples was qualified as non-detect (UB) at reporting limit.

- ii. If above LOQ or project specified objectives, what samples are affected?

Comments:

Compound TPHGAK C6 to C10 result in sample IDs MW-9-W-20210407 and MW-1R-W-20210407 was qualified as non-detect (UB) at reporting limit.

- iii. Data quality or usability affected?

Comments:

Equipment blank contamination considered as minor and would result in the non-detect of the associated data. The reported data should still consider as usable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

- a. Defined and appropriate?

Yes No N/A Comments:

Yes.