



Ms. Rebekah Reams
Alaska Department of Environmental Conservation
Spill Prevention and Response, Contaminated Sites Program
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Fairbanks, Alaska 99709

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Date: November 17, 2023
Our Ref: 30064212
Subject: Second Half 2023, Semi-Annual Status Report
Portage Chevron Service Station 9-2609
(Former Chevron-Branded Service Station No. 92609)
Mile 79 Seward Highway, Girdwood, Alaska
ADEC File No.: 2110.38.007
ADEC Hazard ID: 2007

Dear Ms. Reams,

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis), has prepared this report to document the second half 2023 groundwater monitoring activities of for the Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station No. 92609) located at Mile 79 Seward Highway, Girdwood, Alaska (site). This work was conducted under the direction of a "Qualified Environmental Professional" (QEP) and "Qualified Sampler" (18 Alaska Administrative Code [AAC] 75.333).

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

Sincerely,

Arcadis U.S., Inc.

A handwritten signature in blue ink that reads "Nick Wood".

Nick Wood
Project Manager
Email: nick.wood@arcadis.com
Direct Line: 808.522.0342

Copies

James Kiernan, CEMC (*electronic copy*)
Erik Norberg, Alaska Statewide Environmental (*electronic copy*)

SEMI-ANNUAL STATUS REPORT

Second Half 2023

November 17, 2023

Work Conducted This Period [Second Half 2023]:

1. Conducted second half 2023 semi-annual groundwater monitoring activities on September 18, 2023.
2. Prepared the *second Half 2023, Semi-Annual Status Report*.

Work Proposed Next Period [First Half 2024]:

3. Conduct the first half 2024 groundwater monitoring activities.
4. Prepare the *first Half 2024, Semi-Annual Status Report*.

Site Description

The site is in south central Alaska, at the easternmost extent of the Turnagain Arm of Cook Inlet. The Site is bordered to the west by undeveloped open and forested land and to the north by a gravel lot that is currently being used as an intermittent construction laydown area. Immediately to the south, east, and northeast of the Site is Seward Highway. However, pending construction Seward highway will be relocated to the north of the Site. The closest surface water is a section of Portage Creek, located downgradient approximately 267 feet to the north of the Site. A section of the Placer River is located approximately 730 feet to the west of the Site. Static groundwater depths have historically ranged between 0.68 and 11.90 feet below top of casing (ft btoc). Groundwater depths in site monitoring wells may fluctuate due to local tidal influences, which can be as great as 37 feet. Historic groundwater flow is to the northwest. The site is currently a vacant lot with an abandoned kiosk. The site was formerly operated as a Chevron service station until 1980, when it was decommissioned. During its 1980 decommissioning, two 10,000-gallon underground storage tanks (USTs), one 3,000 gallon UST, and product piping were removed. There are currently four groundwater monitoring wells located onsite (MW-6, MW-9, MW-13, and MW-14) and seven groundwater monitoring wells located offsite (MW-1, MW-3, MW-7, MW-8, and MW-10 through MW-12). Additionally, there is a drinking water well (DWW-1) east of the site. The Site is bordered to the west by undeveloped open and forested land and to the north by a gravel lot that is currently being used as an intermittent construction laydown area. Immediately to the south and east of the Site is Seward Highway. The A site location map and site plan are shown as **Figure 1** and **Figure 2**, respectively.

Site Activities this Reporting Period

Current phase of project:

Monitoring

Frequency of monitoring and sampling:

Semi-Annual

Monitoring wells containing light non-aqueous phase liquid (LNAPL):

None

Cumulative LNAPL recovered to date:
(gallons)

0.00

Approximate depth to groundwater: (feet below top of casing)	1.36 (MW-6) to 9.06 (DWW-1)
Approximate groundwater elevation: (feet relative to NAVD88)	22.84 (DWW-1) to 28.22 (MW-6)
Groundwater flow direction	East
Groundwater gradient (feet per foot)	0.002
Current remediation techniques:	None
Summary of unusual activity:	Could not locate MW-10, MW-11, MW-12, MW-13, and MW-14 due to construction staging on site. Casing and vault damage observed at MW-6, unable to sample.
Agency directive requirements:	None

Groundwater Gauging and Sampling Methods

On September 18, 2023, the second semi-annual 2023 groundwater monitoring and sampling activities were conducted. Groundwater monitoring wells scheduled to be gauged and/or sampled are summarized in **Table 1**. Monitoring wells were gauged with an oil/water interface probe in the order of lowest to highest historical petroleum hydrocarbon concentrations in groundwater to determine groundwater elevations and ascertain if LNAPL was present. Following gauging, groundwater was purged and sampled using low flow purge technology via bladder pump in accordance with the Field Sampling Guidance (ADEC 2022a) and *Arcadis Standard Groundwater Sampling and Monitoring Wells (Arcadis 2022a)*. Non-disposable groundwater gauging equipment was decontaminated prior to and after each use with a detergent solution and rinsed in potable water. 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. 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. Water quality parameters were considered stable when three successive readings were within the following ADEC limits:

- $\pm 3\%$ for temperature (minimum of ± 0.2 °C),
- ± 0.1 for pH,
- $\pm 3\%$ for conductivity,
- ± 10 mV for redox potential,
- $\pm 10\%$ for dissolved oxygen, and
- $\pm 10\%$ for turbidity.

Following well stabilization, the flow rate was reduced to between 100 to 150 milliliters per minute and samples were collected into laboratory sample bottles. Groundwater samples were collected from the top foot of the water column in monitoring wells per the sampling schedule (**Table 1**) with the following exception: monitoring wells

MW-10, MW-11, MW-12, MW-13, and MW-14 could not be located due to construction on site. Well casing and vault damaged for MW-6 and could not be sampled. The groundwater potentiometric surface elevation and a rose diagram of historical groundwater flow directions are illustrated on **Figure 3**.

Groundwater samples collected were analyzed by Pace Analytical National Center for Testing & Innovation (Pace) of Mt. Juliet, Tennessee for the following constituents:

- Full-Scan volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260D.
- Total petroleum hydrocarbons as gasoline range organics (GRO) by Alaska Method AK101,
- Diesel range organics (DRO) by Alaska Method AK102, and
- Residual range organics (RRO) by Alaska Method AK103.

A groundwater duplicate sample (BD-1) was collected from monitoring well MW-9 and submitted blind to Pace. Additionally, an equipment blank (EQB-1) sample was collected and trip blanks (Trip Blank) were included in sample coolers for quality assurance purposes. Field notes collected during groundwater monitoring activities including monitoring well purge rates and drawdown are presented in **Attachment A**.

Groundwater Sampling Results

Groundwater analytical results obtained during this event indicate constituents of potential concern (COPCs) exceed the ADEC Oil Pollution Prevention Requirements (18 AAC 75) identified in Table C - Groundwater Cleanup Levels (GCLs). Analytical data are summarized in **Table 2** and **Table 3**. The laboratory report is included as **Attachment B**.

- All analytes were not detected above ADEC GCLs.

Historical analytical results (pre-2023) are presented in **Attachment C**.

Laboratory Data Review

As required by the ADEC Guidelines for Data Reporting (ADEC 2022b), Arcadis completed a laboratory data review checklist for the laboratory report generated for this event. The data review checklist is included as **Attachment D**. Quality assurance and quality control parameters related to the precision, accuracy, representativeness, comparability, completeness, and sensitivity of the data presented in this report suggest that the data quality objectives have been met with the following exceptions:

- Accuracy:
 - Continuing calibration recovery was lower than the control limit for compound 1,2,4-trichlorobenzene in sample locations MW-3, MW-7, DWW-1, BD-1, EQB-1, and Trip Blank for USEPA Method 8260D. Analytical result in the associated sample locations were qualified as estimated.
 - Continuing calibration recovery was lower than the control limit for compound acrolein in sample location MW-9 for USEPA Method 8260D. Analytical result in the associated sample location were qualified as estimated.

- Precision:
 - Relative Percent Difference (RPD) for laboratory control sample/laboratory control sample duplicate (LCS/LCSD) was exceeded for the compound 2,2-dichloropropane. Sample location MW-9 for USEPA Method 8260D were qualified as estimated for this compound.
 - RPD for LCS/LCSD was exceeded for the compound DRO. Sample locations MW-7, MW-9 and BD-1 for Alaska Method AK 102 were qualified as estimated for this compound.
 - RPD for matrix spike/matrix spike duplicate was exceeded for the compound dichlorodifluoromethane. Sample location MW-9 for USEPA Method 8260D were qualified as estimated for this compound.
- Sensitivity:
 - The laboratory reported detection limit for compounds naphthalene, chloroform, 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, and vinyl chloride exceeded the GCLs; however, the laboratory method detection limit is below the GCLs therefore the sensitivity of the analyses was still adequate for the samples. 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.
 - Compounds 1,2,3-trichloropropane and 1,2-dibromoethane analyzed for USEPA method 524/8260 hybrid procedure by the laboratory. The results are considered from lower reporting limit, but surrogate recoveries were not reported for USEPA method 524. Hence the results for compounds 1,2,3-trichloropropane and 1,2-dibromoethane are non-detects and qualified as estimated (UJ).

Investigation Derived Waste

Purge water and decontamination water collected during groundwater sampling was temporarily collected into 5-gallon buckets and treated onsite via a Granular Activated Carbon (GAC) bucket. The treatment of purge water and decontamination water was completed per the *Arcadis Summary of Procedures for Investigation Derived Waste Treatment Utilizing Granular Activated Carbon (Arcadis 2022b)*. Approximately 6 gallons of groundwater was treated during this event.

Conclusion and Recommendations

The observed groundwater flow direction and hydraulic gradient towards the east during this event are generally inconsistent with historical data which show a predominant gradient towards the northwest. Analytical results from the monitoring wells are generally consistent with historical data.

Arcadis recommends groundwater sampling continues in accordance with the current semi-annual schedule.

The first semi-annual sampling event will be conducted in spring of 2024.

Ms. Rebekah Reams
Alaska Department of Environmental Conservation
November 17, 2023

References

- ADEC. 2022a. Field Sampling Guidance. ADEC, Division of Spill Prevention and Response Contaminated Sites Program. August.
- ADEC. 2022b. Technical Memorandum 22-001; Guidelines for Data Reporting. ADEC, Division of Spill Prevention and Response Contaminated Sites Program. August 15.
- ADEC. 2023. 18-AAC-75 Oil and Other Hazardous Substances Pollution Control. ADEC. Amended February 5th.
- Arcadis. 2022a. Standard Groundwater Sampling for Monitoring Well. April
- Arcadis. 2022b. Summary of Procedures for Investigation Derived Waste Treatment Utilizing Granular Activated Carbon. September.
- GHD Inc. 2018. Second Semiannual 2018 Groundwater Monitoring Report: Former Chevron-Branded Service Station 92609, Mile 79 Seward Highway, Girdwood, AK. November 14.

Ms. Rebekah Reams
Alaska Department of Environmental Conservation
November 17, 2023

Should you have any questions or concerns regarding this submittal please do not hesitate to contact us.

Sincerely,

Arcadis U.S., Inc.



Matthew Wood
Staff Scientist

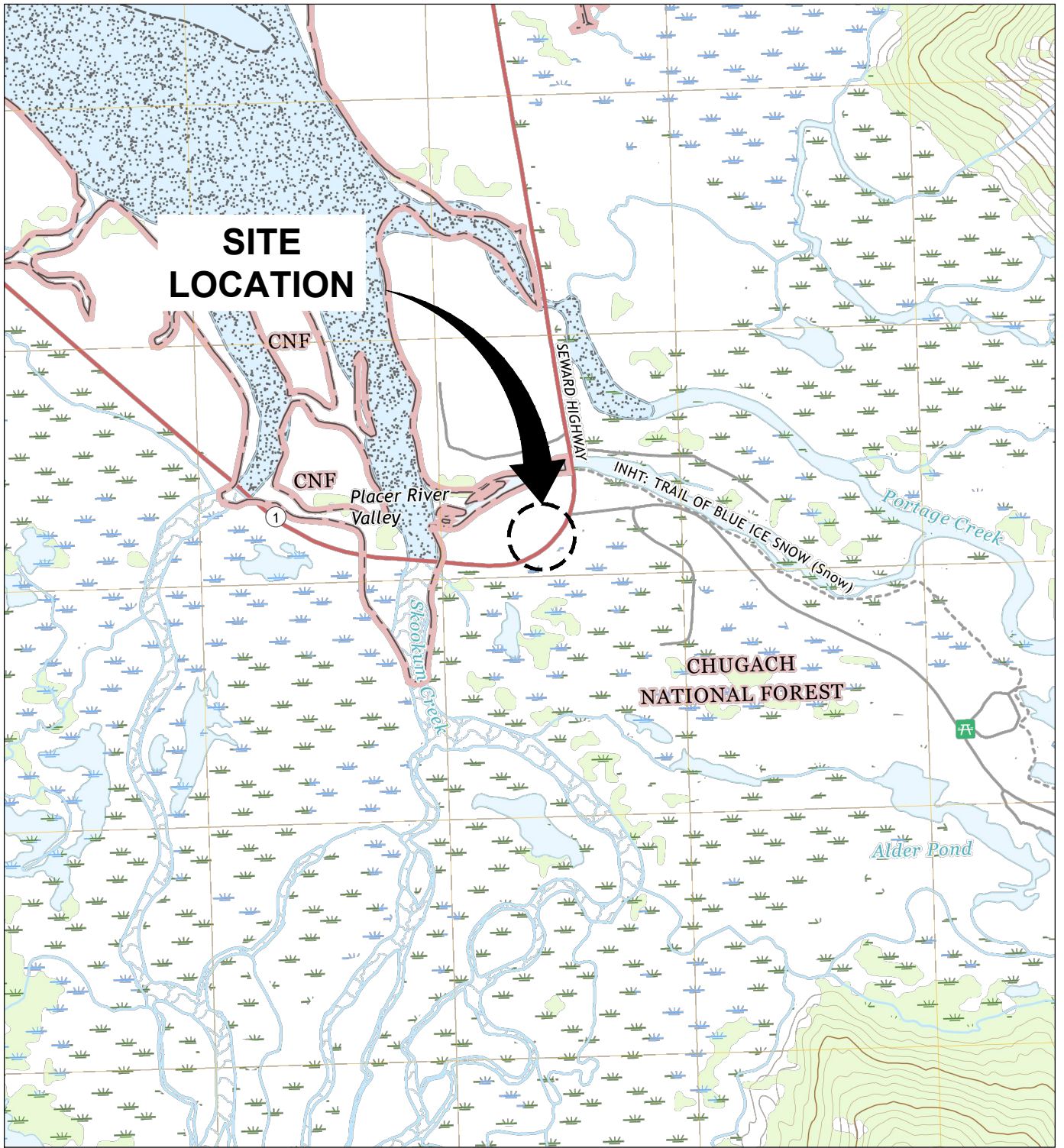


Nick Wood
Project Manager

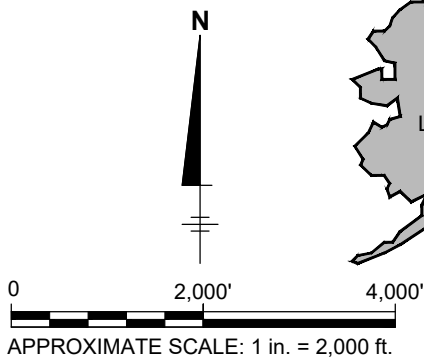
Enclosures:

- Figure 1. Site Location Map
- Figure 2. Site Plan
- Figure 3. Groundwater Elevation Contour Map
- Table 1. Groundwater Monitoring Schedule
- Table 2. Current Groundwater Gauging and Analytical Results
- Table 3. Historical Groundwater Gauging and Analytical Results
- Attachment A. Field Notes
- Attachment B. Laboratory Analytical Results
- Attachment C. Historical Groundwater Analytical Results- First Quarter 1992 to 2022
- Attachment D. ADEC Data Review Checklist

Figures



REFERENCE: BASE MAP USGS 7.5 MIN. TOPO. SEWARD D-6 SE, ALASKA, 2018.



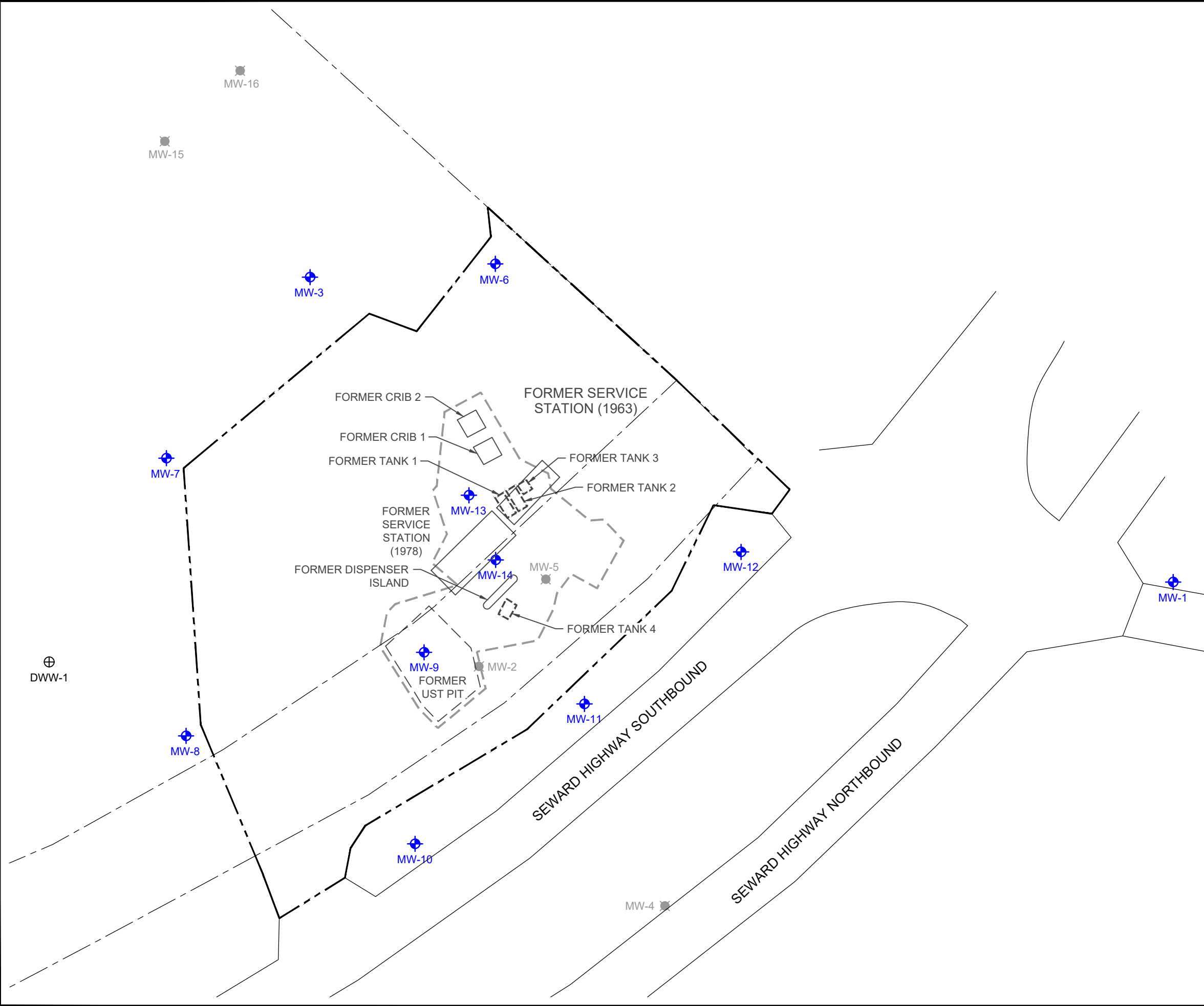
PORTAGE CHEVRON SERVICE STATION 9-2609
 (FORMER CHEVRON SERVICE STATION 92609)
 MILE 79 SEWARD HIGHWAY
 GIRDWOOD, ALASKA

SITE LOCATION MAP



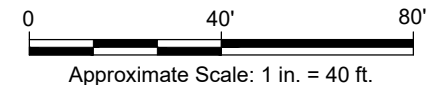
FIGURE
1

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LEGEND:

- APPROXIMATE LIMITS OF CEMC DISTURBANCE
- LOT BOUNDARY
- EXCAVATION LIMIT
- MW-1 GROUNDWATER MONITORING WELL
- MW-5 DECOMMISSIONED/DESTROYED MONITORING WELL
- DWW-1 DRINKING WATER WELL
- UST UNDERGROUND STORAGE TANK



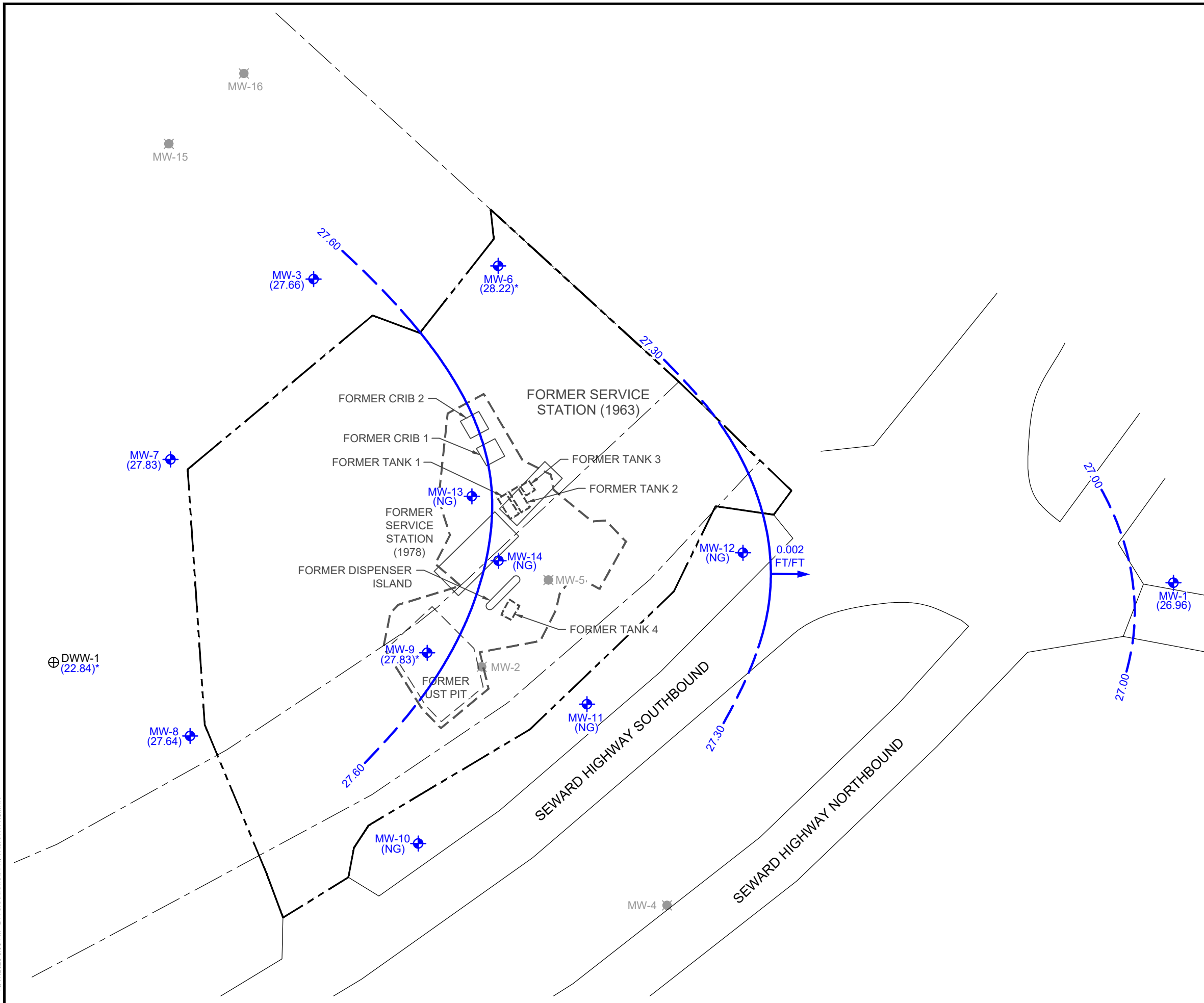
PORTAGE CHEVRON SERVICE STATION 9-2609
(FORMER CHEVRON SERVICE STATION 92609)
MILE 79 SEWARD HIGHWAY
GIRDWOOD, ALASKA

SITE PLAN

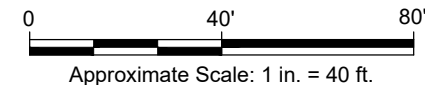
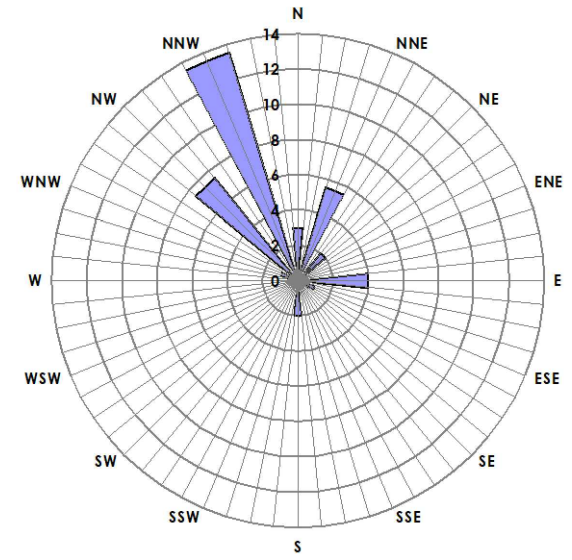
ARCADIS

FIGURE **2**

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- LEGEND:**
- LOT BOUNDARY
 - - - EXCAVATION LIMIT
 - MW-1 (27.83) GROUNDWATER MONITORING WELL
 - MW-5 DESTROYED MONITORING WELL
 - DWW-1 DRINKING WATER WELL
 - (27.83) GROUNDWATER ELEVATION IN FEET RELATIVE TO NAVD88
 - 27.60 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
 - ← GROUNDWATER FLOW DIRECTION
 - 0.002 FT/FT APPROXIMATE HYDRAULIC GRADIENT (FEET/FOOT)
 - (NG) NOT GAUGED
 - * WELL NOT USED FOR CONTOURING
 - UST UNDERGROUND STORAGE TANK
 - NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988



PORTAGE CHEVRON SERVICE STATION 9-2609
(FORMER CHEVRON SERVICE STATION 92609)
MILE 79 SEWARD HIGHWAY
GIRDWOOD, ALASKA

**GROUNDWATER ELEVATION
CONTOUR MAP
SEPTEMBER 18, 2023**

ARCADIS | FIGURE 3

Tables

Table 1
Groundwater Monitoring Schedule
First Semi Annual 2023
Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
Mile 79 Seward Highway,
Anchorage, Alaska

Well ID	Sample Schedule	Gauge	Sample	Comment
MW-1	Semi Annual	Y	N	
MW-3	Semi Annual	Y	Y	
MW-6	Semi Annual	Y	Y	Destroyed from construction
MW-7	Semi Annual	Y	Y	
MW-8	Semi Annual	Y	N	
MW-9	Semi Annual	Y	Y	
MW-10	Semi Annual	N	N	Could not locate well construction on site.
MW-11	Semi Annual	N	N	Could not locate well construction on site.
MW-12	Semi Annual	N	N	Could not locate well construction on site.
MW-13	Semi Annual	N	N	Could not locate well construction on site.
MW-14	Semi Annual	N	N	Could not locate well construction on site.
DWW-1	Semi Annual	Y	Y	
BD-1	Semi Annual	N	Y	
TB	Semi Annual	N	Y	
EQB-1	Semi Annual	N	Y	
MS/MSD-1	Semi Annual	N	Y	
Note:				
All wells sampled for Volatile Organic Compounds (GC/MS) 8260D and 123-TCP/EDB Low level 524/8260D and Alaska AK101 Determination of GRO and Alaska AK102 Determination of DRO and Alaska AK103 Determination of RRO				

Table 2
 Current Groundwater Gauging and Analytical Data
 First Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	DRO (µg/L)	GRO (µg/L)	RRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	EDB (µg/L)	EDC (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	Acrolein (µg/L)	Acrylonitrile (µg/L)
ADEC Groundwater Cleanup Levels					1,500	2,200	1,100	4.6	1,100	15	150	140	0.075	1.7	1.7	14,000	--	--
MW-1	09/18/23	32.27	5.31	26.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	09/18/23	32.76	5.10	27.66	<800	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/18/23	32.70	4.87	27.83	<800 J	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	09/18/23	30.13	2.30	27.83	<800 J [-800 J]	<100 [<100]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	<0.00500 J [-0.00500 J]	<1.00 [<1.00]	<5.00 [-5.00]	<50.0 [<50.0]	<50.0 J [-50.0]	<10.0 [<10.0]
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	09/18/23	31.90	9.06	22.84	689 J	<100	<800	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0

Acronyms and Abbreviations:
 -- = Not Available or Not Analyzed
 [] = Blind Duplicate Sample Result
 <0.00100 = Not detected at or above the reported detection limit (RDL)
 µg/L = Micrograms per liter
 ADEC = Alaska Department of Environmental Conservation
 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 Level
 Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
 DTW = Depth to groundwater
 feet = Relative to NAVD88
 bTOC = Below top of casing
 GW Elev = Groundwater elevation
 ID = Identification
 MW = Groundwater monitoring well
 TOC = Top of casing
 GRO = Total petroleum hydrocarbons, gasoline range organics
 DRO = Total petroleum hydrocarbons, diesel range organics
 RRO = Total petroleum hydrocarbons, residual range organics
 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane
 EDC = 1,2-Dichloroethane
 J = The associated numerical value is an estimated concentration only
 B = Compound considered non-detect at the listed value due to associated blank contamination.

Analytical Methods:
 1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Method AK103
 2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
 3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:
 18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pollution Control, Table C. Groundwater Cleanup Levels, as amended through February 5, 2023.

Table 2
 Current Groundwater Gauging and Analytical Data
 First Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	Bromobenzene (µg/L)	Bromochloromethane (µg/L)	Bromodichloromethane (µg/L)	Bromoform (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	sec-Butylbenzene (µg/L)	tert-Butylbenzene (µg/L)	Carbon Disulfide (µg/L)	Carbon Tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chlorodibromo-methane (Dibromochloro-methane) (µg/L)	Chloroethane (Ethyl Chloride) (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	2-Chlorotoluene (o-Chlorotoluene) (µg/L)	4-Chlorotoluene (p-Chlorotoluene) (µg/L)
ADEC Groundwater Cleanup Levels					62	--	1.3	33	7.5	1,000	2,000	690	810	4.6	78	8.7	21,000	2.2	190	--	--
MW-1	09/18/23	32.27	5.31	26.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	09/18/23	32.76	5.10	27.66	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/18/23	32.70	4.87	27.83	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	09/18/23	30.13	2.30	27.83	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<5.00 [<5.00]	<2.50 [<2.50]	<1.00 [<1.00]	<1.00 [<1.00]
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	09/18/23	31.90	9.06	22.84	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00

Acronyms and Abbreviations:
 -- = Not Available or Not Analyzed
 [] = Blind Duplicate Sample Result
 <0.00100 = Not detected at or above the reported detection limit (RDL)
 µg/L = Micrograms per liter
 ADEC = Alaska Department of Environmental Conservation
Bold = Detected above laboratory method detection limit (MDL)
Bold and Italicized = Constituent considered non-detect, however Laboratory RDL is greater than the ADEC RDL
Bold and Shaded = Value exceeds ADEC Groundwater Cleanup Level
 DTW = Depth to groundwater
 feet = Relative to NAVD88
 bTOC = Below top of casing
 GW Elev = Groundwater elevation
 ID = Identification
 MW = Groundwater monitoring well
 TOC = Top of casing
 GRO = Total petroleum hydrocarbons, gasoline range organics
 DRO = Total petroleum hydrocarbons, diesel range organics
 RRO = Total petroleum hydrocarbons, residual range organics
 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane
 EDC = 1,2-Dichloroethane
 J = The associated numerical value is an estimated concentration only
 B = Compound considered non-detect at the listed value due to associated blank contaminant

Analytical Methods:
 1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Me
 2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
 3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:
 18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pol

Table 2
 Current Groundwater Gauging and Analytical Data
 First Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	1,2-Dibromo-3- chloropropane (µg/L)	Dibromomethane (Methylene bromide) (µg/L)	1,2-Dichlorobenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	1,4-Dichlorobenzene (µg/L)	Dichlorodifluoromethane (Freon 12) (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (cis-1,2-Dichloroethylene) (µg/L)	trans-1,2-Dichloroethene (trans-1,2-Dichloroethylene) (µg/L)	1,2-Dichloropropane (µg/L)	1,3-Dichloropropane (µg/L)	2,2-Dichloropropane (µg/L)	1,1-Dichloropropene (µg/L)	cis-1,3-Dichloropropene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Di-Isopropyl ether (µg/L)
ADEC Groundwater Cleanup Levels																					
MW-1	09/18/23	32.27	5.31	26.96	--	8.3	300	300	4.8	200	28	280	36	360	8.2	--	--	--	--	--	--
MW-3	09/18/23	32.76	5.10	27.66	<5.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/18/23	32.70	4.87	27.83	<5.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	09/18/23	30.13	2.30	27.83	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 J [<5.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 J [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	09/18/23	31.90	9.06	22.84	<5.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Acronyms and Abbreviations:
 -- = Not Available or Not Analyzed
 [] = Blind Duplicate Sample Result
 <0.00100 = Not detected at or above the reported detection limit (RDL)
 µg/L = Micrograms per liter
 ADEC = Alaska Department of Environmental Conservation
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 Bold and Italicized = Constituent considered non-detect, however Laboratory RDL is greater than the ADEC
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 bTOC = Below top of casing
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 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane
 EDC = 1,2-Dichloroethane
 J = The associated numerical value is an estimated concentration only
 B = Compound considered non-detect at the listed value due to associated blank contaminant

Analytical Methods:
 1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Me
 2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
 3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:
 18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pol

Table 2
 Current Groundwater Gauging and Analytical Data
 First Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	Hexachloro-1,3-butadiene (Hexachlorobutadiene) (µg/L)	Isopropylbenzene (Cumene) (µg/L)	p-Isopropyltoluene (µg/L)	2-Butanone (Methyl ethyl ketone) (µg/L)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (µg/L)	Methylene chloride (µg/L)	n-Propylbenzene (Propylbenzene) (µg/L)	Styrene (µg/L)	1,1,1,2-Tetrachloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	Tetrachloroethene (Tetrachloroethylene) (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,4-Trichlorobenzene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (Trichloroethylene) (µg/L)	Trichlorofluoromethane (Freon 11) (µg/L)
ADEC Groundwater Cleanup Levels					1.4	450	--	5,600	8,300	110	660	1,200	6.7	0.76	41	7	4	8,000	0.41	2.8	5,200
MW-1	09/18/23	32.27	5.31	26.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	09/18/23	32.76	5.10	27.66	<1.00	<1.00	<1.00	<10.0	<10.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/18/23	32.70	4.87	27.83	<1.00	<1.00	<1.00	<10.0	<10.0	<5.00	<1.00	0.131 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	09/18/23	30.13	2.30	27.83	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<10.0 [<10.0]	<10.0 [<10.0]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	0.442 J [<5.00]
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	09/18/23	31.90	9.06	22.84	<1.00	<1.00	<1.00	<10.0	<10.0	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00

Acronyms and Abbreviations:
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 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane
 EDC = 1,2-Dichloroethane
 J = The associated numerical value is an estimated concentration only
 B = Compound considered non-detect at the listed value due to associated blank contaminant

Analytical Methods:
 1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Me
 2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
 3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:
 18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pol

Table 2
 Current Groundwater Gauging and Analytical Data
 First Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	1,2,3-Trichloropropane (µg/L)	1,1,2-Trichlorotrifluoroethane (1,1,2-Trichloro-1,2,2-trifluoroethane) (Freon 113) (µg/L)	1,2,3-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	Vinyl Chloride (µg/L)	Comments
ADEC Groundwater Cleanup Levels					0.0075	10,000	--	56	60	0.19	
MW-1	09/18/23	32.27	5.31	26.96	--	--	--	--	--	--	
MW-3	09/18/23	32.76	5.10	27.66	<0.00500 J	<1.00	<1.00	<1.00	<1.00	<1.00	
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	DTW taken at bgs.
MW-7	09/18/23	32.70	4.87	27.83	<0.00500 J	<1.00	<1.00	<1.00	<1.00	<1.00	
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	
MW-9	09/18/23	30.13	2.30	27.83	<0.00500 J [<0.00500 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	Could not locate well construction on site.
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	Could not locate well construction on site.
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	Could not locate well construction on site.
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	Could not locate well construction on site.
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	Could not locate well construction on site.
DWW-1	09/18/23	31.90	9.06	22.84	<0.00500 J	<1.00	<1.00	<1.00	<1.00	<1.00	

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 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane
 EDC = 1,2-Dichloroethane
 J = The associated numerical value is an estimated concentration only
 B = Compound considered non-detect at the listed value due to associated blank contaminant

Analytical Methods:
 1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Me
 2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 6260 except where noted above.
 3. EDB analyzed by USEPA Method 6260 and 524 Method but method with the lowest RDL is considered

Reference:
 18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pol

Table 3
 Historical Groundwater Gauging and Analytical Data
 First and Second Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	TOC (ft bTOC)	DTW (feet bTOC)	GW Elev. (feet)	DRO (µg/L)	GRO (µg/L)	RRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	EDB (µg/L)	EDC (µg/L)	Naphthalene (µg/L)	Acetone (µg/L)	Acrolein (µg/L)	Acrylonitrile (µg/L)	Bromobenzene (µg/L)	Bromochloromethane (µg/L)	Bromodichloromethane (µg/L)
ADEC Groundwater Cleanup Levels					1,500	2,200	1,100	4.6	1,100	15	190	140	0.075	1.7	1.7	14,000	--	--	62	--	1.3
MW-1	05/08/23	32.27	6.91	25.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	09/18/23	32.27	5.31	26.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/08/23	32.76	5.89	26.87	<800 B	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<5.00 J	<50.0 J	<50.0 J	<10.0	<1.00	<1.00	<1.00
MW-3	09/18/23	32.76	5.10	27.66	<800	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0	<1.00	<1.00	<1.00
MW-6	05/08/23	29.58	3.50	26.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	09/18/23	29.58	1.36	28.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/08/23	32.70	5.68	27.02	<800 B	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<5.00 J	<50.0 J	<50.0 J	<10.0	<1.00	<1.00	<1.00
MW-7	09/18/23	32.70	4.87	27.83	<800 J	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0	<1.00	<1.00	<1.00
MW-8	05/08/23	34.39	7.52	26.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	09/18/23	34.39	6.75	27.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/08/23	30.13	3.33	26.80	<940 B	<100	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<5.00 J	<50.0 J	<50.0 J	<10.0	<1.00	<1.00	<1.00
MW-9	09/18/23	30.13	2.30	27.83	<800 J [<800 J]	<100 [<100]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	00500 J [<0.00500]	<1.00 [<1.00]	<5.00 J [<5.00 J]	<50.0 J [<50.0 J]	<50.0 J [<50.0 J]	<10.0 [<10.0]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-10	05/08/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	09/18/23	31.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	05/08/23	31.11	4.85	26.26	<840 B	<100 B	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<5.00 J	<50.0 J	<50.0	<10.0	<1.00	<1.00	<1.00
MW-11	09/18/23	31.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	05/08/23	30.31	4.04	26.27	<800 B J [<800 B]	<100 B J [<100]	--	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<1.00 [<1.00]	<0.00500	<1.00 [<1.00]	<5.00 J [<5.00 J]	24.7 J [38.1 J]	<50.0 J [<50.0 J]	<10.0 [<10.0]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-12	09/18/23	30.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	05/08/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	30.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	05/08/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	29.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	05/08/23	31.90	10.02	21.88	<840 B	<100	<840 B	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500	<1.00	<5.00 J	<50.0 J	<50.0 J	<10.0	<1.00	<1.00	<1.00
DWW-1	09/18/23	31.90	9.06	22.84	689 J	<100	<800	<1.00	<1.00	<1.00	<3.00	<1.00	<0.00500 J	<1.00	<5.00	<50.0	<50.0	<10.0	<1.00	<1.00	<1.00

Acronyms and Abbreviations:

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- [] = Blind Duplicate Sample Result
- <0.00100 = Not detected at or above the reported detection limit (RDL)
- µg/L = Micrograms per liter
- ADEC = Alaska Department of Environmental Conservation
- 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 Level Value exceeds ADEC Groundwater Cleanup Level
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- DTW = Depth to groundwater
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- bTOC = Below top of casing
- GW Elev = Groundwater elevation
- ID = Identification
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- GRO = Total petroleum hydrocarbons, gasoline range organics
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- MTBE = Methyl tert-butyl ether
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane
- J = The associated numerical value is an estimated concentration only
- Compound considered non-
- B = detect at the listed value due to associated blank contamination.

Analytical Methods:

1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Method AK103
2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:

18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pollution Control, Table C. Groundwater Cleanup Levels, as amended through February 5, 2023.

Table 3
 Historical Groundwater Gauging and Analytical Data
 First and Second Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	Bromoform (µg/L)	Bromomethane (µg/L)	n-Butylbenzene (µg/L)	sec-Butylbenzene (µg/L)	tert-Butylbenzene (µg/L)	Carbon Disulfide (µg/L)	Carbon Tetrachloride (µg/L)	Chlorobenzene (µg/L)	Chlorodibromo-methane (Dibromochloro-methane) (µg/L)	Chloroethane (Ethyl Chloride) (µg/L)	Chloroform (µg/L)	Chloromethane (µg/L)	2-Chlorotoluene (o-Chlorotoluene) (µg/L)	4-Chlorotoluene (p-Chlorotoluene) (µg/L)	1,2-Dibromo-3-chloropropane (µg/L)	Dibromomethane (Methylene bromide) (µg/L)	1,2-Dichlorobenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	1,4-Dichlorobenzene (µg/L)
	ADEC Groundwater	33	7.5	1,000	2,000	690	810	4.6	78	8.7	21,000	2.2	190	--	--	--	8.3	300	300	4.6
MW-1	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/08/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00
MW-3	09/18/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-6	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/08/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00
MW-7	09/18/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-8	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/08/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00
MW-9	09/18/23	<1.00 [<1.00]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<5.00 [<5.00]	<2.50 [<2.50]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-10	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	05/08/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00
MW-11	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	05/08/23	<1.00 [<1.00]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<5.00 [<5.00]	<2.50 [<2.50]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-12	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	05/08/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00
DWW-1	09/18/23	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00

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- RRO = Total petroleum hydrocarbons, residual range organics
- MTBE = Methyl tert-butyl ether
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane
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Table 3
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 First and Second Semi Annual 2023
 Portage Chevron Service Station 9-2609 (Former Chevron-Branded Service Station 92609)
 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) (µg/L)	1,1-Dichloroethane (µg/L)	1,1-Dichloroethene (µg/L)	cis-1,2-Dichloroethene (cis-1,2-Dichloroethylene) (µg/L)	trans-1,2-Dichloroethene (trans-1,2-Dichloroethylene) (µg/L)	1,2-Dichloropropane (µg/L)	1,3-Dichloropropane (µg/L)	2,2-Dichloropropane (µg/L)	1,1-Dichloropropene (µg/L)	cis-1,3-Dichloropropene (µg/L)	trans-1,3-Dichloropropene (µg/L)	Di-isopropyl ether (µg/L)	Hexachloro-1,3-butadiene (Hexachlorobutadiene) (µg/L)	Isopropylbenzene (Cumene) (µg/L)	p-Isopropyltoluene (µg/L)	2-Butanone (Methyl ethyl ketone) (µg/L)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (µg/L)
	ADEC Groundwater	200	28	280	36	360	8.2	--	--	--	--	--	--	1.4	450	--	5,600	6,300
MW-1	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<10.0	<10.0
MW-3	09/18/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0
MW-6	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<10.0	<10.0
MW-7	09/18/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0
MW-8	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<10.0	<10.0
MW-9	09/18/23	<5.00 J [-5.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 J [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<10.0 [<10.0]	<10.0 [<10.0]
MW-10	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0
MW-11	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	05/08/23	<5.00 [-5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 J [-1.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 J [-1.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	1.68 J [1.92 J]	<10.0 [<10.0]
MW-12	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<10.0	<10.0
DWW-1	09/18/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0

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- ID = Identification
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 First and Second Semi Annual 2023
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 Mile 79 Seward Highway,
 Anchorage, Alaska

Well ID	Sample Date	Methylene chloride (µg/L)	n-Propylbenzene (Propylbenzene) (µg/L)	Styrene (µg/L)	1,1,1,2-Tetrachloroethane (µg/L)	1,1,2,2-Tetrachloroethane (µg/L)	Tetrachloroethene (Tetrachloroethylene) (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,4-Trichlorobenzene (µg/L)	1,1,1-Trichloroethane (µg/L)	1,1,2-Trichloroethane (µg/L)	Trichloroethene (Trichloroethylene) (µg/L)	Trichlorofluoromethane (Freon 11) (µg/L)	1,2,3-Trichloropropane (µg/L)	1,1,2-Trichlorotrifluoroethane (1,1,2-Trichloro-1,2,2-trifluoroethane) (Freon 113) (µg/L)	1,2,3-Trimethylbenzene (µg/L)	1,2,4-Trimethylbenzene (µg/L)
ADEC Groundwater		110	660	1,200	5.7	0.76	41	7	4	8,000	0.41	2.8	5,200	0.0075	10,000	--	56
MW-1	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500	<1.00	<1.00	<1.00
MW-3	09/18/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500 J	<1.00	<1.00	<1.00
MW-6	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500	<1.00	<1.00	<1.00
MW-7	09/18/23	<5.00	<1.00	0.131 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500 J	<1.00	<1.00	<1.00
MW-8	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500	<1.00	<1.00	<1.00
MW-9	09/18/23	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	0.442 J [<5.00]	<0.00500 J [<0.00500 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-10	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<1.00	<5.00	<0.00500	<1.00	<1.00	<1.00
MW-11	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	05/08/23	<5.00 [<5.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 J [<1.00 J]	<1.00 [<1.00 J]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]	<5.00 [<5.00]	<0.00500 [<0.00500]	<1.00 [<1.00]	<1.00 [<1.00]	<1.00 [<1.00]
MW-12	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	05/08/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	09/18/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DWW-1	05/08/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500	<1.00	<1.00	<1.00
DWW-1	09/18/23	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<1.00	<1.00	<1.00	<5.00	<0.00500 J	<1.00	<1.00	<1.00

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Well ID	Sample Date	1,3,5-Trimethylbenzene (µg/L)	Vinyl Chloride (µg/L)	Comments
ADEC Groundwater				
		60	0.19	
MW-1	05/08/23	--	--	
MW-1	09/18/23	--	--	
MW-3	05/08/23	<1.00	<1.00	
MW-3	09/18/23	<1.00	<1.00	
MW-6	05/08/23	--	--	Casing and Vault damaged. Only Gauged
MW-6	09/18/23	--	--	DTW taken at bgs.
MW-7	05/08/23	<1.00	<1.00	
MW-7	09/18/23	<1.00	<1.00	
MW-8	05/08/23	--	--	
MW-8	09/18/23	--	--	
MW-9	05/08/23	<1.00	<1.00	
MW-9	09/18/23	<1.00 [<1.00]	<1.00 [<1.00]	
MW-10	05/08/23	--	--	Could not locate well construction on site.
MW-10	09/18/23	--	--	Could not locate well construction on site.
MW-11	05/08/23	<1.00	<1.00	
MW-11	09/18/23	--	--	Could not locate well construction on site.
MW-12	05/08/23	<1.00 [<1.00]	<1.00 [<1.00]	
MW-12	09/18/23	--	--	Could not locate well construction on site.
MW-13	05/08/23	--	--	Could not locate well construction on site.
MW-13	09/18/23	--	--	Could not locate well construction on site.
MW-14	05/08/23	--	--	Could not locate well construction on site.
MW-14	09/18/23	--	--	Could not locate well construction on site.
DWW-1	05/08/23	<1.00	<1.00	
DWW-1	09/18/23	<1.00	<1.00	

Acronyms and Abbreviations:

- = Not Available or Not Analyzed
- [] = Blind Duplicate Sample Result
- <0.00100 = Not detected at or above the reported detection limit (RDL)
- µg/L = Micrograms per liter
- ADEC = Alaska Department of Environmental Conservation
- 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 Level Value exceeds ADEC Groundwater Cleanup Level
- Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level
- DTW = Depth to groundwater
- feet = Relative to NAVD88
- bTOC = Below top of casing
- GW Elev = Groundwater elevation
- ID = Identification
- MW = Groundwater monitoring well
- TOC = Top of casing
- GRO = Total petroleum hydrocarbons, gasoline range organics
- DRO = Total petroleum hydrocarbons, diesel range organics
- RRO = Total petroleum hydrocarbons, residual range organics
- MTBE = Methyl tert-butyl ether
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane
- J = The associated numerical value is an estimated concentration only
- Compound considered non-detect at the listed value due to associated blank contamination.

Analytical Methods:

1. GRO analyzed by Alaska Method AK101, DRO analyzed by Alaska Method AK102, RRO analyzed by Alaska Method AK103
2. Tables 2 and 3 constituents of concern analyzed by USEPA Method 8260 except where noted above.
3. EDB analyzed by USEPA Method 8260 and 524 Method but method with the lowest RDL is considered

Reference:

18 AAC 75. Department of Environmental Conservation, State of Alaska, Oil and Other Hazardous Substances Pollution Control, Table C. Groundwater Cleanup Levels, as amended through February 5, 2023.

Attachment A

Field Notes



Daily Log



Project Number : 30064212

Prepared By: Evan Wujcik

Site ID: 92609

Site Name: Portage

City: Portage

State: Alaska

Project Manager: Wood, Nicholas

Portfolio: COP 5.0

Subportfolio: West

Inside Chevron Operational Control? Yes No

Staff on Site

Evan Wujcik

Weather(°F)	PPE	Equipment
Clear		Water Quality Meter (i.e. YSI), Water Level Meter (WLM), Bladder Pump, Photoionization Detector (PID)

Date	Time	Description of Activities
09/18/2023	6:30	Arrive on site Locate Wells
09/18/2023	7:00	Sample MW3 Decon equipment See COC for analysis
09/18/2023	8:00	Sample MW7 Decon equipment See COC for analysis
09/18/2023	9:00	Sample DWW1 Decon equipment See COC for analysis
09/18/2023	10:00	Sample MW9 BD/MS/MSD samples collected at this location Decon equipment See COC for analysis
09/18/2023	11:30	Load vehicle Mobilize offsite Could not locate MW10,11,12,13, 14 due to current construction on site. Located MW6 but casing and vault damaged leaving the well compromised. Discussed with APM to gauge well but not sample due to the casing being exposed. Site photos taken to show construction and lost well locations.

Signature



Groundwater Gauging Log

Project Number	30064212							
Client:	Chevron							
Site ID:	92609							
Site Location:	Portage, Alaska							
Measuring Point:	Top of Casing							
Date(s):	09/18/2023							
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)	LNAPL Removed (gal)	Comments
DWW-1	09/18/2023	06:45	9.06	ND	69.40	0	--	--
MW-1	09/18/2023	06:40	5.31	ND	14.40	0	--	--
MW-3	09/18/2023	06:27	5.10	ND	16.70	0	--	--
MW-6	09/18/2023	06:46	1.36	ND	10.10	0	--	DTW taken at bgs.
MW-7	09/18/2023	06:48	4.87	ND	18.10	0	--	--
MW-8	09/18/2023	06:44	6.75	ND	17.20	0	--	--
MW-9	09/18/2023	07:03	2.30	ND	12.20	0	--	--

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

Project Number	30064212	Well ID	DWW-1	Date	9/18/2023				
Site Location	Portage, Alaska	Site ID	92609	Weather (°F)	Clear	Sampled by	Evan Wujcik		
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	6	Well Casing Material	PVC		
Static Water Level (ft-bmp)	9.06	Total Depth (ft-bmp)	69.4	Water Column (ft)	60.34	Gallons in Well	88.24		
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Collection Type	Grab				
Sample Time	09:00	Well Volumes Purged	0.01	Sample ID	DWW-1-W-20230918	Purge Equipment	Bladder		
Purge Start	08:30	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment	Bladder		
Purge End	08:50	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)	Color
08:33	200	9.07	6.71	0.488	10.1	0.18	10.41	-2	--
08:36	200	9.07	6.86	0.690	11.1	0.00	10.31	-35	--
08:39	200	9.07	7.01	0.858	11.5	0.00	10.16	-62	--
08:42	200	9.07	7.09	0.911	11.0	0.00	10.09	-68	--
08:45	200	9.07	7.09	0.907	10.8	0.00	10.09	-72	--

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: DWW-1-W-20230918 Sample Time: 09:00 Sample Depth (ft-bmp) (e.g. pump intake): 40
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 9.07

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	30064212	Well ID	MW-7	Date	9/18/2023				
Site Location	Portage, Alaska	Site ID	92609	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)	4.87	Total Depth (ft-bmp)	18.1	Water Column (ft)	13.23	Gallons in Well	2.15		
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Collection Type	Grab				
Sample Time	08:00	Well Volumes Purged	0.37	Sample ID	MW-7-W-20230918	Purge Equipment	Bladder		
Purge Start	07:30	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment	Bladder		
Purge End	07:50	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)	Color
07:33	200	4.91	6.78	0.069	41.4	3.97	10.85	146	--
07:36	200	4.94	6.54	0.075	28.2	2.92	10.80	132	--
07:39	200	4.97	6.44	0.074	15.8	1.60	10.77	130	--
07:42	200	4.99	6.43	0.074	10.1	0.97	10.87	130	--
07:45	200	5	6.37	0.074	7.5	0.60	10.77	131	--

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-7-W-20230918 Sample Time: 08:00 Sample Depth (ft-bmp) (e.g. pump intake): 5.5
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 5

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	30064212	Well ID	MW-3	Date	9/18/2023	
Site Location	Portage, Alaska	Site ID	92609	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)	5.1	Total Depth (ft-bmp)	16.7	Water Column (ft)	11.6	Gallons in Well 1.88
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	07:00	Well Volumes Purged	0.34	Sample ID	MW-3-W-20230918	Purge Equipment Bladder
Purge Start	06:30	Gallons Purged	0.63	Duplicate ID	--	Sample Equipment Bladder
Purge End	06:50	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)	Color
06:33	200	5.13	8.00	0.045	10.3	6.39	11.19	186	--
06:36	200	5.16	7.56	0.044	6.8	5.66	11.11	193	--
06:39	200	5.19	7.40	0.044	6.7	5.26	11.08	193	--
06:42	200	5.22	7.27	0.043	6.4	5.10	11.05	188	--

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-3-W-20230918 Sample Time: 07:00 Sample Depth (ft-bmp) (e.g. pump intake): 6
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 5.22

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	30064212	Well ID	MW-9	Date	9/18/2023				
Site Location	Portage, Alaska	Site ID	92609	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)	2.3	Total Depth (ft-bmp)	12.2	Water Column (ft)	9.9	Gallons in Well	1.61		
Water Quality Meter Make/Model	Horiba U-52	Purge Method	Low-Flow	Collection Type	Grab				
Sample Time	10:00	Well Volumes Purged	0.39	Sample ID	MW-9-W-20230918	Purge Equipment	Bladder		
Purge Start	09:30	Gallons Purged	0.63	Duplicate ID	BD/MS/MSD	Sample Equipment	Bladder		
Purge End	09:50	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)	Color
09:33	200	2.33	7.28	0.635	451	5.50	11.66	-41	--
09:36	200	2.35	7.27	0.626	290	5.36	11.82	-27	--
09:39	200	2.37	7.28	0.613	173	5.18	11.90	-14	--
09:42	200	2.4	7.27	0.617	87.5	5.01	11.97	-1	--

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-20230918 Sample Time: 10:00 Sample Depth (ft-bmp) (e.g. pump intake): 3
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 2.4

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

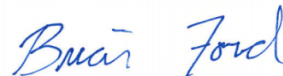
Attachment B

Laboratory Analytical Results

Arcadis - Chevron - AK

Sample Delivery Group: L1657249
Samples Received: 09/19/2023
Project Number: 30064212.19.45
Description: 92609
Site: MILE 79 SEWARD HWY PORTAGE, AK
Report To: Nick Wood
880 H St.
Anchorage, AK 99501

Entire Report Reviewed By:

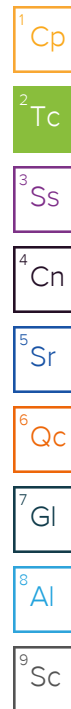


Brian Ford
Project Manager

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.

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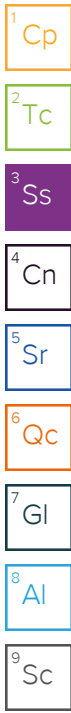


SAMPLE SUMMARY

MW-3-W-20230918 L1657249-01 GW

Collected by E. Wujcik Collected date/time 09/18/23 07:00 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 05:35	09/23/23 05:35	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 18:15	09/25/23 18:15	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 05:16	09/24/23 05:16	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2137282	1	09/22/23 06:07	09/25/23 14:23	TJD	Mt. Juliet, TN



MW-7-W-20230918 L1657249-02 GW

Collected by E. Wujcik Collected date/time 09/18/23 08:00 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 05:57	09/23/23 05:57	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 18:39	09/25/23 18:39	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 05:35	09/24/23 05:35	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2139235	1	09/28/23 06:02	09/29/23 05:00	DMG	Mt. Juliet, TN

MW-9-W-20230918 L1657249-03 GW

Collected by E. Wujcik Collected date/time 09/18/23 10:00 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 06:20	09/23/23 06:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 19:03	09/25/23 19:03	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138909	1	09/25/23 14:24	09/25/23 14:24	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2140369	1	09/27/23 23:09	09/27/23 23:09	DYW	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2139235	1	09/28/23 06:02	09/29/23 16:34	TJD	Mt. Juliet, TN

DWW-1-W-20230918 L1657249-04 GW

Collected by E. Wujcik Collected date/time 09/18/23 09:00 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 06:43	09/23/23 06:43	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 19:27	09/25/23 19:27	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 05:54	09/24/23 05:54	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102/103	WG2139217	1	09/26/23 07:35	09/27/23 11:39	TJD	Mt. Juliet, TN

BD-1-W-20230918 L1657249-05 GW

Collected by E. Wujcik Collected date/time 09/18/23 00:00 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 07:05	09/23/23 07:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 19:51	09/25/23 19:51	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 06:13	09/24/23 06:13	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2139235	1	09/28/23 06:02	09/29/23 05:26	DMG	Mt. Juliet, TN

EQB-1-W-20230918 L1657249-06 GW

Collected by E. Wujcik Collected date/time 09/18/23 10:30 Received date/time 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 04:50	09/23/23 04:50	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 20:15	09/25/23 20:15	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 02:25	09/24/23 02:25	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102/103	WG2139217	1	09/26/23 07:35	09/27/23 12:00	TJD	Mt. Juliet, TN

SAMPLE SUMMARY

TRIP BLANK-20230918 L1657249-07 GW

Collected by: E. Wujcik
 Collected date/time: 09/18/23 00:00
 Received date/time: 09/19/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method AK101	WG2137891	1	09/23/23 04:05	09/23/23 04:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135702	1	09/25/23 17:51	09/25/23 17:51	BRA	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2138289	1	09/24/23 01:47	09/24/23 01:47	ACG	Mt. Juliet, TN

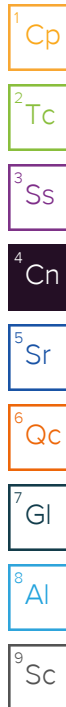
- ¹Cp
- ²Tc
- ³Ss
- ⁴Cn
- ⁵Sr
- ⁶Qc
- ⁷Gl
- ⁸Al
- ⁹Sc

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/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
WG2138289	L1657249-01	1,2,4-Trichlorobenzene
WG2138289	L1657249-02	1,2,4-Trichlorobenzene
WG2138289	L1657249-04	1,2,4-Trichlorobenzene
WG2138289	L1657249-05	1,2,4-Trichlorobenzene
WG2138289	L1657249-06	1,2,4-Trichlorobenzene
WG2138289	L1657249-07	1,2,4-Trichlorobenzene
WG2138909	L1657249-03	Acrolein

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

Batch	Lab Sample ID	Analytes
WG2138289	(LCS) R3977472-1, L1657249-01, 02, 04, 05, 06, 07	1,1-Dichloroethene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 4-Chlorotoluene, Bromodichloromethane, sec-Butylbenzene and tert-Butylbenzene

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

Batch	Lab Sample ID	Analytes
WG2138909	(LCSD) R3978332-2	2,2-Dichloropropane

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

Batch	Lab Sample ID	Analytes
WG2138909	(MSD) R3978332-5, L1657249-03	Dichlorodifluoromethane

Semi-Volatile Organic Compounds (GC) by Method AK102

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

Batch	Lab Sample ID	Analytes
WG2139235	(LCSD) R3979811-3, L1657249-02, 03, 05	AK102 DRO C10-C25

The sample matrix interfered with the ability to make any accurate determination; spike value is high.

Batch	Lab Sample ID	Analytes
WG2139235	(MS) R3979811-4	AK102 DRO C10-C25

CASE NARRATIVE

Semi-Volatile Organic Compounds (GC) by Method AK102

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

Batch	Lab Sample ID	Analytes
WG2139235	(MSD) R3979811-5	AK102 DRO C10-C25

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

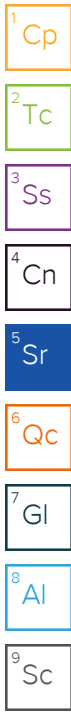
⁹ Sc

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	U		28.7	100	1	09/23/2023 05:35	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	98.6			50.0-150		09/23/2023 05:35	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 05:16	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 18:15	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 05:16	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 18:15	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 05:16	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 05:16	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 05:16	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 05:16	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 05:16	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 05:16	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 05:16	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 05:16	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 05:16	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 05:16	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 05:16	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 05:16	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 05:16	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 05:16	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 05:16	WG2138289
Chloroform	U		0.111	5.00	1	09/24/2023 05:16	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 05:16	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 05:16	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 05:16	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 05:16	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 05:16	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 05:16	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 05:16	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 05:16	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 05:16	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 05:16	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 05:16	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 05:16	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 05:16	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 05:16	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 05:16	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 05:16	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 05:16	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 05:16	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 05:16	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 05:16	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 05:16	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 05:16	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 05:16	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 05:16	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 05:16	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 05:16	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 05:16	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 05:16	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 05:16	WG2138289



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 05:16	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 05:16	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 05:16	WG2138289
Styrene	U		0.118	1.00	1	09/24/2023 05:16	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 05:16	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 05:16	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 05:16	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 05:16	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 05:16	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 05:16	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 05:16	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 05:16	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 05:16	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 05:16	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 05:16	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 05:16	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 05:16	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 05:16	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 05:16	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 05:16	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 05:16	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 05:16	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 05:16	WG2138289
(S) Toluene-d8	94.4			80.0-120		09/24/2023 05:16	WG2138289
(S) 4-Bromofluorobenzene	101			77.0-126		09/24/2023 05:16	WG2138289
(S) 1,2-Dichloroethane-d4	111			70.0-130		09/24/2023 05:16	WG2138289

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

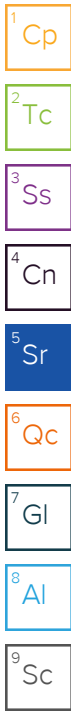
Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		170	800	1	09/25/2023 14:23	WG2137282
(S) o-Terphenyl	101			50.0-150		09/25/2023 14:23	WG2137282

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	U		28.7	100	1	09/23/2023 05:57	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	103			50.0-150		09/23/2023 05:57	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 05:35	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 18:39	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 05:35	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 18:39	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 05:35	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 05:35	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 05:35	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 05:35	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 05:35	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 05:35	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 05:35	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 05:35	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 05:35	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 05:35	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 05:35	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 05:35	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 05:35	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 05:35	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 05:35	WG2138289
Chloroform	U		0.111	5.00	1	09/24/2023 05:35	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 05:35	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 05:35	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 05:35	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 05:35	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 05:35	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 05:35	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 05:35	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 05:35	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 05:35	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 05:35	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 05:35	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 05:35	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 05:35	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 05:35	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 05:35	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 05:35	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 05:35	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 05:35	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 05:35	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 05:35	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 05:35	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 05:35	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 05:35	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 05:35	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 05:35	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 05:35	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 05:35	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 05:35	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 05:35	WG2138289



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 05:35	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 05:35	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 05:35	WG2138289
Styrene	0.131	<u>J</u>	0.118	1.00	1	09/24/2023 05:35	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 05:35	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 05:35	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 05:35	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 05:35	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 05:35	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 05:35	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 05:35	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 05:35	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 05:35	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 05:35	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 05:35	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 05:35	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 05:35	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 05:35	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 05:35	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 05:35	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 05:35	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 05:35	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 05:35	WG2138289
(S) Toluene-d8	96.4			80.0-120		09/24/2023 05:35	WG2138289
(S) 4-Bromofluorobenzene	104			77.0-126		09/24/2023 05:35	WG2138289
(S) 1,2-Dichloroethane-d4	116			70.0-130		09/24/2023 05:35	WG2138289

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

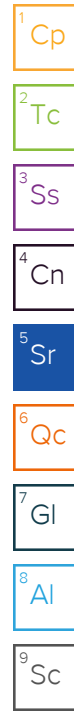
Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U	<u>J3</u>	170	800	1	09/29/2023 05:00	WG2139235
(S) o-Terphenyl	65.0			50.0-150		09/29/2023 05:00	WG2139235

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	U		28.7	100	1	09/23/2023 06:20	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	94.3			50.0-150		09/23/2023 06:20	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/25/2023 14:24	WG2138909
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 19:03	WG2135702
Acrolein	U	<u>C3</u>	2.54	50.0	1	09/25/2023 14:24	WG2138909
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 19:03	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/25/2023 14:24	WG2138909
Benzene	U		0.0941	1.00	1	09/25/2023 14:24	WG2138909
Bromobenzene	U		0.118	1.00	1	09/25/2023 14:24	WG2138909
Bromochloromethane	U		0.128	1.00	1	09/25/2023 14:24	WG2138909
Bromodichloromethane	U		0.136	1.00	1	09/25/2023 14:24	WG2138909
Bromoform	U		0.129	1.00	1	09/25/2023 14:24	WG2138909
Bromomethane	U		0.605	5.00	1	09/25/2023 14:24	WG2138909
n-Butylbenzene	U		0.157	1.00	1	09/25/2023 14:24	WG2138909
sec-Butylbenzene	U		0.125	1.00	1	09/25/2023 14:24	WG2138909
tert-Butylbenzene	U		0.127	1.00	1	09/25/2023 14:24	WG2138909
Carbon disulfide	U		0.0962	1.00	1	09/25/2023 14:24	WG2138909
Carbon tetrachloride	U		0.128	1.00	1	09/25/2023 14:24	WG2138909
Chlorobenzene	U		0.116	1.00	1	09/25/2023 14:24	WG2138909
Chlorodibromomethane	U		0.140	1.00	1	09/25/2023 14:24	WG2138909
Chloroethane	U		0.192	5.00	1	09/25/2023 14:24	WG2138909
Chloroform	U		0.111	5.00	1	09/25/2023 14:24	WG2138909
Chloromethane	U		0.960	2.50	1	09/25/2023 14:24	WG2138909
2-Chlorotoluene	U		0.106	1.00	1	09/25/2023 14:24	WG2138909
4-Chlorotoluene	U		0.114	1.00	1	09/25/2023 14:24	WG2138909
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/25/2023 14:24	WG2138909
1,2-Dibromoethane	U		0.126	1.00	1	09/25/2023 14:24	WG2138909
Dibromomethane	U		0.122	1.00	1	09/25/2023 14:24	WG2138909
1,2-Dichlorobenzene	U		0.107	1.00	1	09/25/2023 14:24	WG2138909
1,3-Dichlorobenzene	U		0.110	1.00	1	09/25/2023 14:24	WG2138909
1,4-Dichlorobenzene	U		0.120	1.00	1	09/25/2023 14:24	WG2138909
Dichlorodifluoromethane	U	<u>J3</u>	0.374	5.00	1	09/25/2023 14:24	WG2138909
1,1-Dichloroethane	U		0.100	1.00	1	09/25/2023 14:24	WG2138909
1,2-Dichloroethane	U		0.0819	1.00	1	09/25/2023 14:24	WG2138909
1,1-Dichloroethene	U		0.188	1.00	1	09/25/2023 14:24	WG2138909
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/25/2023 14:24	WG2138909
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/25/2023 14:24	WG2138909
1,2-Dichloropropane	U		0.149	1.00	1	09/25/2023 14:24	WG2138909
1,1-Dichloropropene	U		0.142	1.00	1	09/25/2023 14:24	WG2138909
1,3-Dichloropropane	U		0.110	1.00	1	09/25/2023 14:24	WG2138909
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/25/2023 14:24	WG2138909
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/25/2023 14:24	WG2138909
2,2-Dichloropropane	U		0.161	1.00	1	09/25/2023 14:24	WG2138909
Di-isopropyl ether	U		0.105	1.00	1	09/25/2023 14:24	WG2138909
Ethylbenzene	U		0.137	1.00	1	09/25/2023 14:24	WG2138909
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/25/2023 14:24	WG2138909
Isopropylbenzene	U		0.105	1.00	1	09/25/2023 14:24	WG2138909
p-Isopropyltoluene	U		0.120	1.00	1	09/25/2023 14:24	WG2138909
2-Butanone (MEK)	U		1.19	10.0	1	09/25/2023 14:24	WG2138909
Methylene Chloride	U		0.430	5.00	1	09/25/2023 14:24	WG2138909
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/25/2023 14:24	WG2138909



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

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.101	1.00	1	09/25/2023 14:24	WG2138909
Naphthalene	U		1.00	5.00	1	09/25/2023 14:24	WG2138909
n-Propylbenzene	U		0.0993	1.00	1	09/25/2023 14:24	WG2138909
Styrene	U		0.118	1.00	1	09/25/2023 14:24	WG2138909
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/25/2023 14:24	WG2138909
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/25/2023 14:24	WG2138909
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/25/2023 14:24	WG2138909
Tetrachloroethene	U		0.300	1.00	1	09/25/2023 14:24	WG2138909
Toluene	U		0.278	1.00	1	09/27/2023 23:09	WG2140369
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/25/2023 14:24	WG2138909
1,2,4-Trichlorobenzene	U		0.481	1.00	1	09/25/2023 14:24	WG2138909
1,1,1-Trichloroethane	U		0.149	1.00	1	09/25/2023 14:24	WG2138909
1,1,2-Trichloroethane	U		0.158	1.00	1	09/25/2023 14:24	WG2138909
Trichloroethene	U		0.190	1.00	1	09/25/2023 14:24	WG2138909
Trichlorofluoromethane	0.442	<u>J</u>	0.160	5.00	1	09/25/2023 14:24	WG2138909
1,2,3-Trichloropropane	U		0.237	2.50	1	09/25/2023 14:24	WG2138909
1,2,4-Trimethylbenzene	U		0.322	1.00	1	09/25/2023 14:24	WG2138909
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/25/2023 14:24	WG2138909
1,3,5-Trimethylbenzene	U		0.104	1.00	1	09/25/2023 14:24	WG2138909
Vinyl chloride	U		0.234	1.00	1	09/25/2023 14:24	WG2138909
Xylenes, Total	U		0.174	3.00	1	09/25/2023 14:24	WG2138909
o-Xylene	U		0.174	1.00	1	09/25/2023 14:24	WG2138909
m&p-Xylene	U		0.430	2.00	1	09/25/2023 14:24	WG2138909
(S) Toluene-d8	108			80.0-120		09/25/2023 14:24	WG2138909
(S) Toluene-d8	94.6			80.0-120		09/27/2023 23:09	WG2140369
(S) 4-Bromofluorobenzene	103			77.0-126		09/25/2023 14:24	WG2138909
(S) 4-Bromofluorobenzene	91.7			77.0-126		09/27/2023 23:09	WG2140369
(S) 1,2-Dichloroethane-d4	83.4			70.0-130		09/25/2023 14:24	WG2138909
(S) 1,2-Dichloroethane-d4	113			70.0-130		09/27/2023 23:09	WG2140369

- 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	<u>J3</u>	170	800	1	09/29/2023 16:34	WG2139235
(S) o-Terphenyl	63.9			50.0-150		09/29/2023 16:34	WG2139235

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	U		28.7	100	1	09/23/2023 06:43	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	94.1			50.0-150		09/23/2023 06:43	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 05:54	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 19:27	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 05:54	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 19:27	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 05:54	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 05:54	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 05:54	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 05:54	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 05:54	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 05:54	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 05:54	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 05:54	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 05:54	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 05:54	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 05:54	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 05:54	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 05:54	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 05:54	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 05:54	WG2138289
Chloroform	U		0.111	5.00	1	09/24/2023 05:54	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 05:54	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 05:54	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 05:54	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 05:54	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 05:54	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 05:54	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 05:54	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 05:54	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 05:54	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 05:54	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 05:54	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 05:54	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 05:54	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 05:54	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 05:54	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 05:54	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 05:54	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 05:54	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 05:54	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 05:54	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 05:54	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 05:54	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 05:54	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 05:54	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 05:54	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 05:54	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 05:54	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 05:54	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 05:54	WG2138289

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
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 05:54	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 05:54	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 05:54	WG2138289
Styrene	U		0.118	1.00	1	09/24/2023 05:54	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 05:54	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 05:54	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 05:54	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 05:54	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 05:54	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 05:54	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 05:54	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 05:54	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 05:54	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 05:54	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 05:54	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 05:54	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 05:54	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 05:54	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 05:54	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 05:54	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 05:54	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 05:54	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 05:54	WG2138289
(S) Toluene-d8	96.8			80.0-120		09/24/2023 05:54	WG2138289
(S) 4-Bromofluorobenzene	105			77.0-126		09/24/2023 05:54	WG2138289
(S) 1,2-Dichloroethane-d4	115			70.0-130		09/24/2023 05:54	WG2138289

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 AK102/103

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	689	<u>J</u>	170	800	1	09/27/2023 11:39	WG2139217
AK103 RRO C25-C36	U		460	800	1	09/27/2023 11:39	WG2139217
(S) o-Terphenyl	70.7			50.0-150		09/27/2023 11:39	WG2139217
(S) n-Triacontane d62	89.5			50.0-150		09/27/2023 11:39	WG2139217

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	U		28.7	100	1	09/23/2023 07:05	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	90.4			50.0-150		09/23/2023 07:05	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 06:13	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 19:51	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 06:13	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 19:51	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 06:13	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 06:13	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 06:13	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 06:13	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 06:13	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 06:13	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 06:13	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 06:13	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 06:13	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 06:13	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 06:13	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 06:13	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 06:13	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 06:13	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 06:13	WG2138289
Chloroform	U		0.111	5.00	1	09/24/2023 06:13	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 06:13	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 06:13	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 06:13	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 06:13	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 06:13	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 06:13	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 06:13	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 06:13	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 06:13	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 06:13	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 06:13	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 06:13	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 06:13	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 06:13	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 06:13	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 06:13	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 06:13	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 06:13	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 06:13	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 06:13	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 06:13	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 06:13	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 06:13	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 06:13	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 06:13	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 06:13	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 06:13	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 06:13	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 06:13	WG2138289

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
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 06:13	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 06:13	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 06:13	WG2138289
Styrene	U		0.118	1.00	1	09/24/2023 06:13	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 06:13	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 06:13	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 06:13	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 06:13	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 06:13	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 06:13	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 06:13	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 06:13	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 06:13	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 06:13	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 06:13	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 06:13	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 06:13	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 06:13	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 06:13	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 06:13	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 06:13	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 06:13	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 06:13	WG2138289
(S) Toluene-d8	96.6			80.0-120		09/24/2023 06:13	WG2138289
(S) 4-Bromofluorobenzene	100			77.0-126		09/24/2023 06:13	WG2138289
(S) 1,2-Dichloroethane-d4	116			70.0-130		09/24/2023 06:13	WG2138289

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	<u>J3</u>	170	800	1	09/29/2023 05:26	WG2139235
(S) o-Terphenyl	78.2			50.0-150		09/29/2023 05:26	WG2139235

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	U		28.7	100	1	09/23/2023 04:50	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	99.8			50.0-150		09/23/2023 04:50	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 02:25	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 20:15	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 02:25	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 20:15	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 02:25	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 02:25	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 02:25	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 02:25	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 02:25	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 02:25	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 02:25	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 02:25	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 02:25	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 02:25	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 02:25	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 02:25	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 02:25	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 02:25	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 02:25	WG2138289
Chloroform	0.668	J	0.111	5.00	1	09/24/2023 02:25	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 02:25	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 02:25	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 02:25	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 02:25	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 02:25	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 02:25	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 02:25	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 02:25	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 02:25	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 02:25	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 02:25	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 02:25	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 02:25	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 02:25	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 02:25	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 02:25	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 02:25	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 02:25	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 02:25	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 02:25	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 02:25	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 02:25	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 02:25	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 02:25	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 02:25	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 02:25	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 02:25	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 02:25	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 02:25	WG2138289

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
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 02:25	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 02:25	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 02:25	WG2138289
Styrene	U		0.118	1.00	1	09/24/2023 02:25	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 02:25	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 02:25	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 02:25	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 02:25	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 02:25	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 02:25	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 02:25	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 02:25	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 02:25	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 02:25	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 02:25	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 02:25	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 02:25	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 02:25	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 02:25	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 02:25	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 02:25	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 02:25	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 02:25	WG2138289
(S) Toluene-d8	95.4			80.0-120		09/24/2023 02:25	WG2138289
(S) 4-Bromofluorobenzene	102			77.0-126		09/24/2023 02:25	WG2138289
(S) 1,2-Dichloroethane-d4	113			70.0-130		09/24/2023 02:25	WG2138289

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 AK102/103

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
AK102 DRO C10-C25	U		170	800	1	09/27/2023 12:00	WG2139217
AK103 RRO C25-C36	U		460	800	1	09/27/2023 12:00	WG2139217
(S) o-Terphenyl	75.5			50.0-150		09/27/2023 12:00	WG2139217
(S) n-Triacontane d62	84.5			50.0-150		09/27/2023 12:00	WG2139217

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	U		28.7	100	1	09/23/2023 04:05	WG2137891
(S) a,a,a-Trifluorotoluene(FID)	91.6			50.0-150		09/23/2023 04:05	WG2137891

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		11.3	50.0	1	09/24/2023 01:47	WG2138289
1,2,3-Trichloropropane	U		0.00200	0.00500	1	09/25/2023 17:51	WG2135702
Acrolein	U		2.54	50.0	1	09/24/2023 01:47	WG2138289
1,2-Dibromoethane	U		0.00410	0.00500	1	09/25/2023 17:51	WG2135702
Acrylonitrile	U		0.671	10.0	1	09/24/2023 01:47	WG2138289
Benzene	U		0.0941	1.00	1	09/24/2023 01:47	WG2138289
Bromobenzene	U		0.118	1.00	1	09/24/2023 01:47	WG2138289
Bromochloromethane	U		0.128	1.00	1	09/24/2023 01:47	WG2138289
Bromodichloromethane	U	J4	0.136	1.00	1	09/24/2023 01:47	WG2138289
Bromoform	U		0.129	1.00	1	09/24/2023 01:47	WG2138289
Bromomethane	U		0.605	5.00	1	09/24/2023 01:47	WG2138289
n-Butylbenzene	U		0.157	1.00	1	09/24/2023 01:47	WG2138289
sec-Butylbenzene	U	J4	0.125	1.00	1	09/24/2023 01:47	WG2138289
tert-Butylbenzene	U	J4	0.127	1.00	1	09/24/2023 01:47	WG2138289
Carbon disulfide	U		0.0962	1.00	1	09/24/2023 01:47	WG2138289
Carbon tetrachloride	U		0.128	1.00	1	09/24/2023 01:47	WG2138289
Chlorobenzene	U		0.116	1.00	1	09/24/2023 01:47	WG2138289
Chlorodibromomethane	U		0.140	1.00	1	09/24/2023 01:47	WG2138289
Chloroethane	U		0.192	5.00	1	09/24/2023 01:47	WG2138289
Chloroform	U		0.111	5.00	1	09/24/2023 01:47	WG2138289
Chloromethane	U		0.960	2.50	1	09/24/2023 01:47	WG2138289
2-Chlorotoluene	U		0.106	1.00	1	09/24/2023 01:47	WG2138289
4-Chlorotoluene	U	J4	0.114	1.00	1	09/24/2023 01:47	WG2138289
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	09/24/2023 01:47	WG2138289
1,2-Dibromoethane	U		0.126	1.00	1	09/24/2023 01:47	WG2138289
Dibromomethane	U		0.122	1.00	1	09/24/2023 01:47	WG2138289
1,2-Dichlorobenzene	U		0.107	1.00	1	09/24/2023 01:47	WG2138289
1,3-Dichlorobenzene	U		0.110	1.00	1	09/24/2023 01:47	WG2138289
1,4-Dichlorobenzene	U		0.120	1.00	1	09/24/2023 01:47	WG2138289
Dichlorodifluoromethane	U		0.374	5.00	1	09/24/2023 01:47	WG2138289
1,1-Dichloroethane	U		0.100	1.00	1	09/24/2023 01:47	WG2138289
1,2-Dichloroethane	U		0.0819	1.00	1	09/24/2023 01:47	WG2138289
1,1-Dichloroethene	U	J4	0.188	1.00	1	09/24/2023 01:47	WG2138289
cis-1,2-Dichloroethene	U		0.126	1.00	1	09/24/2023 01:47	WG2138289
trans-1,2-Dichloroethene	U		0.149	1.00	1	09/24/2023 01:47	WG2138289
1,2-Dichloropropane	U		0.149	1.00	1	09/24/2023 01:47	WG2138289
1,1-Dichloropropene	U		0.142	1.00	1	09/24/2023 01:47	WG2138289
1,3-Dichloropropane	U		0.110	1.00	1	09/24/2023 01:47	WG2138289
cis-1,3-Dichloropropene	U		0.111	1.00	1	09/24/2023 01:47	WG2138289
trans-1,3-Dichloropropene	U		0.118	1.00	1	09/24/2023 01:47	WG2138289
2,2-Dichloropropane	U		0.161	1.00	1	09/24/2023 01:47	WG2138289
Di-isopropyl ether	U		0.105	1.00	1	09/24/2023 01:47	WG2138289
Ethylbenzene	U		0.137	1.00	1	09/24/2023 01:47	WG2138289
Hexachloro-1,3-butadiene	U		0.337	1.00	1	09/24/2023 01:47	WG2138289
Isopropylbenzene	U		0.105	1.00	1	09/24/2023 01:47	WG2138289
p-Isopropyltoluene	U		0.120	1.00	1	09/24/2023 01:47	WG2138289
2-Butanone (MEK)	U		1.19	10.0	1	09/24/2023 01:47	WG2138289
Methylene Chloride	U		0.430	5.00	1	09/24/2023 01:47	WG2138289
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	09/24/2023 01:47	WG2138289

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
Methyl tert-butyl ether	U		0.101	1.00	1	09/24/2023 01:47	WG2138289
Naphthalene	U		1.00	5.00	1	09/24/2023 01:47	WG2138289
n-Propylbenzene	U		0.0993	1.00	1	09/24/2023 01:47	WG2138289
Styrene	U		0.118	1.00	1	09/24/2023 01:47	WG2138289
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	09/24/2023 01:47	WG2138289
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	09/24/2023 01:47	WG2138289
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	09/24/2023 01:47	WG2138289
Tetrachloroethene	U		0.300	1.00	1	09/24/2023 01:47	WG2138289
Toluene	U		0.278	1.00	1	09/24/2023 01:47	WG2138289
1,2,3-Trichlorobenzene	U		0.230	1.00	1	09/24/2023 01:47	WG2138289
1,2,4-Trichlorobenzene	U	<u>C3</u>	0.481	1.00	1	09/24/2023 01:47	WG2138289
1,1,1-Trichloroethane	U		0.149	1.00	1	09/24/2023 01:47	WG2138289
1,1,2-Trichloroethane	U		0.158	1.00	1	09/24/2023 01:47	WG2138289
Trichloroethene	U		0.190	1.00	1	09/24/2023 01:47	WG2138289
Trichlorofluoromethane	U		0.160	5.00	1	09/24/2023 01:47	WG2138289
1,2,3-Trichloropropane	U		0.237	2.50	1	09/24/2023 01:47	WG2138289
1,2,4-Trimethylbenzene	U	<u>J4</u>	0.322	1.00	1	09/24/2023 01:47	WG2138289
1,2,3-Trimethylbenzene	U		0.104	1.00	1	09/24/2023 01:47	WG2138289
1,3,5-Trimethylbenzene	U	<u>J4</u>	0.104	1.00	1	09/24/2023 01:47	WG2138289
Vinyl chloride	U		0.234	1.00	1	09/24/2023 01:47	WG2138289
Xylenes, Total	U		0.174	3.00	1	09/24/2023 01:47	WG2138289
o-Xylene	U		0.174	1.00	1	09/24/2023 01:47	WG2138289
m&p-Xylene	U		0.430	2.00	1	09/24/2023 01:47	WG2138289
(S) Toluene-d8	94.4			80.0-120		09/24/2023 01:47	WG2138289
(S) 4-Bromofluorobenzene	102			77.0-126		09/24/2023 01:47	WG2138289
(S) 1,2-Dichloroethane-d4	116			70.0-130		09/24/2023 01:47	WG2138289

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3977819-3 09/23/23 03:19

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPHGAK C6 to C10	U		28.7	100
(S) a,a,a-Trifluorotoluene(FID)	95.8			60.0-120

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

(LCS) R3977819-1 09/23/23 01:24 • (LCSD) R3977819-2 09/23/23 01:47

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPHGAK C6 to C10	5000	4700	4750	94.0	95.0	60.0-120			1.06	20
(S) a,a,a-Trifluorotoluene(FID)				99.3	104	60.0-120				

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/23/23 06:20 • (MS) R3977819-4 09/23/23 11:13 • (MSD) R3977819-5 09/23/23 11:36

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	U	4920	4710	98.4	94.2	1	70.0-130			4.36	20
(S) a,a,a-Trifluorotoluene(FID)					98.6	96.1		50.0-150				

L1657251-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657251-02 09/23/23 10:06 • (MS) R3977819-6 09/23/23 11:59 • (MSD) R3977819-7 09/23/23 12:21

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	25000	U	23100	22900	92.4	91.6	5	70.0-130			0.870	20
(S) a,a,a-Trifluorotoluene(FID)					98.6	95.3		50.0-150				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3977640-2 09/25/23 17:27

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) R3977640-1 09/25/23 17:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
1,2,3-Trichloropropane	0.0500	0.0460	92.0	70.0-130	
1,2-Dibromoethane	0.0500	0.0520	104	70.0-130	

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/25/23 19:03 • (MS) R3977640-3 09/26/23 01:03 • (MSD) R3977640-4 09/26/23 01:27

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	0.0500	U	0.0420	0.0450	84.0	90.0	1	70.0-130			6.90	20
1,2-Dibromoethane	0.0500	U	0.0450	0.0500	90.0	100	1	70.0-130			10.5	20

L1657251-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657251-02 09/25/23 21:03 • (MS) R3977640-5 09/26/23 01:51 • (MSD) R3977640-6 09/26/23 02:15

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	0.0500	U	0.0480	0.0490	96.0	98.0	1	70.0-130			2.06	20
1,2-Dibromoethane	0.0500	U	0.0490	0.0540	98.0	108	1	70.0-130			9.71	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3977472-2 09/24/23 01:09

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
Bromochloromethane	U		0.128	1.00
Bromodichloromethane	U		0.136	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
1,2-Dibromoethane	U		0.126	1.00
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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3977472-2 09/24/23 01:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.137	1.00
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	0.178	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
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	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-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	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-Xylene	U		0.430	2.00
(S) Toluene-d8	96.1			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	114			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3977472-1 09/24/23 00:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	33.8	135	19.0-160	
Acrolein	25.0	35.0	140	10.0-160	
Acrylonitrile	25.0	30.8	123	55.0-149	
Benzene	5.00	5.95	119	70.0-123	
Bromobenzene	5.00	5.28	106	73.0-121	
Bromochloromethane	5.00	5.55	111	76.0-122	
Bromodichloromethane	5.00	6.12	122	75.0-120	J4
Bromoform	5.00	4.62	92.4	68.0-132	
Bromomethane	5.00	4.76	95.2	10.0-160	
n-Butylbenzene	5.00	5.94	119	73.0-125	
sec-Butylbenzene	5.00	6.29	126	75.0-125	J4
tert-Butylbenzene	5.00	6.30	126	76.0-124	J4
Carbon disulfide	5.00	5.82	116	61.0-128	
Carbon tetrachloride	5.00	6.23	125	68.0-126	
Chlorobenzene	5.00	5.23	105	80.0-121	
Chlorodibromomethane	5.00	5.01	100	77.0-125	
Chloroethane	5.00	5.33	107	47.0-150	
Chloroform	5.00	5.68	114	73.0-120	
Chloromethane	5.00	3.20	64.0	41.0-142	
2-Chlorotoluene	5.00	5.76	115	76.0-123	
4-Chlorotoluene	5.00	6.15	123	75.0-122	J4
1,2-Dibromo-3-Chloropropane	5.00	4.82	96.4	58.0-134	
1,2-Dibromoethane	5.00	5.06	101	80.0-122	
Dibromomethane	5.00	5.62	112	80.0-120	
1,2-Dichlorobenzene	5.00	5.28	106	79.0-121	
1,3-Dichlorobenzene	5.00	5.62	112	79.0-120	
1,4-Dichlorobenzene	5.00	5.36	107	79.0-120	
Dichlorodifluoromethane	5.00	5.90	118	51.0-149	
1,1-Dichloroethane	5.00	6.08	122	70.0-126	
1,2-Dichloroethane	5.00	5.73	115	70.0-128	
1,1-Dichloroethene	5.00	6.43	129	71.0-124	J4
cis-1,2-Dichloroethene	5.00	5.65	113	73.0-120	
trans-1,2-Dichloroethene	5.00	5.69	114	73.0-120	
1,2-Dichloropropane	5.00	6.11	122	77.0-125	
1,1-Dichloropropene	5.00	6.27	125	74.0-126	
1,3-Dichloropropane	5.00	5.28	106	80.0-120	
cis-1,3-Dichloropropene	5.00	6.04	121	80.0-123	
trans-1,3-Dichloropropene	5.00	5.38	108	78.0-124	
2,2-Dichloropropane	5.00	5.56	111	58.0-130	
Di-isopropyl ether	5.00	6.51	130	58.0-138	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3977472-1 09/24/23 00:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Ethylbenzene	5.00	5.35	107	79.0-123	
Hexachloro-1,3-butadiene	5.00	5.62	112	54.0-138	
Isopropylbenzene	5.00	5.94	119	76.0-127	
p-Isopropyltoluene	5.00	5.56	111	76.0-125	
2-Butanone (MEK)	25.0	31.9	128	44.0-160	
Methylene Chloride	5.00	5.40	108	67.0-120	
4-Methyl-2-pentanone (MIBK)	25.0	30.5	122	68.0-142	
Methyl tert-butyl ether	5.00	5.21	104	68.0-125	
Naphthalene	5.00	4.63	92.6	54.0-135	
n-Propylbenzene	5.00	5.98	120	77.0-124	
Styrene	5.00	4.76	95.2	73.0-130	
1,1,1,2-Tetrachloroethane	5.00	5.34	107	75.0-125	
1,1,2,2-Tetrachloroethane	5.00	4.75	95.0	65.0-130	
1,1,2-Trichlorotrifluoroethane	5.00	6.42	128	69.0-132	
Tetrachloroethene	5.00	5.45	109	72.0-132	
Toluene	5.00	5.29	106	79.0-120	
1,2,3-Trichlorobenzene	5.00	4.52	90.4	50.0-138	
1,2,4-Trichlorobenzene	5.00	4.61	92.2	57.0-137	
1,1,1-Trichloroethane	5.00	6.15	123	73.0-124	
1,1,2-Trichloroethane	5.00	4.90	98.0	80.0-120	
Trichloroethene	5.00	5.98	120	78.0-124	
Trichlorofluoromethane	5.00	6.48	130	59.0-147	
1,2,3-Trichloropropane	5.00	5.30	106	73.0-130	
1,2,4-Trimethylbenzene	5.00	6.19	124	76.0-121	J4
1,2,3-Trimethylbenzene	5.00	5.70	114	77.0-120	
1,3,5-Trimethylbenzene	5.00	6.14	123	76.0-122	J4
Vinyl chloride	5.00	6.09	122	67.0-131	
Xylenes, Total	15.0	16.5	110	79.0-123	
o-Xylene	5.00	5.56	111	80.0-122	
m&p-Xylene	10.0	10.9	109	80.0-122	
(S) Toluene-d8			95.6	80.0-120	
(S) 4-Bromofluorobenzene			105	77.0-126	
(S) 1,2-Dichloroethane-d4			115	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) R3978332-3 09/25/23 12:21

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
Bromochloromethane	U		0.128	1.00
Bromodichloromethane	U		0.136	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
1,2-Dibromoethane	U		0.126	1.00
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

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3978332-3 09/25/23 12:21

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.137	1.00
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
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	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-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	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-Xylene	U		0.430	2.00
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	82.4			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R3978332-1 09/25/23 11:23 • (LCSD) R3978332-2 09/25/23 11:42

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	22.7	24.7	90.8	98.8	19.0-160			8.44	27
Acrolein	25.0	15.9	17.1	63.6	68.4	10.0-160			7.27	26
Acrylonitrile	25.0	24.6	25.8	98.4	103	55.0-149			4.76	20
Benzene	5.00	5.42	5.34	108	107	70.0-123			1.49	20
Bromobenzene	5.00	4.99	4.72	99.8	94.4	73.0-121			5.56	20
Bromochloromethane	5.00	5.44	5.29	109	106	76.0-122			2.80	20
Bromodichloromethane	5.00	5.01	4.72	100	94.4	75.0-120			5.96	20
Bromoform	5.00	5.33	5.23	107	105	68.0-132			1.89	20
Bromomethane	5.00	5.02	4.36	100	87.2	10.0-160			14.1	25
n-Butylbenzene	5.00	5.51	5.36	110	107	73.0-125			2.76	20
sec-Butylbenzene	5.00	5.45	5.19	109	104	75.0-125			4.89	20
tert-Butylbenzene	5.00	5.21	5.14	104	103	76.0-124			1.35	20
Carbon disulfide	5.00	6.00	5.59	120	112	61.0-128			7.08	20
Carbon tetrachloride	5.00	5.51	4.86	110	97.2	68.0-126			12.5	20
Chlorobenzene	5.00	5.78	5.32	116	106	80.0-121			8.29	20
Chlorodibromomethane	5.00	5.44	5.22	109	104	77.0-125			4.13	20
Chloroethane	5.00	4.97	4.46	99.4	89.2	47.0-150			10.8	20
Chloroform	5.00	5.09	4.89	102	97.8	73.0-120			4.01	20
Chloromethane	5.00	6.74	6.70	135	134	41.0-142			0.595	20
2-Chlorotoluene	5.00	5.03	4.71	101	94.2	76.0-123			6.57	20
4-Chlorotoluene	5.00	5.19	4.93	104	98.6	75.0-122			5.14	20
1,2-Dibromo-3-Chloropropane	5.00	5.34	5.09	107	102	58.0-134			4.79	20
1,2-Dibromoethane	5.00	5.62	5.25	112	105	80.0-122			6.81	20
Dibromomethane	5.00	5.14	4.83	103	96.6	80.0-120			6.22	20
1,2-Dichlorobenzene	5.00	5.52	5.23	110	105	79.0-121			5.40	20
1,3-Dichlorobenzene	5.00	5.61	5.10	112	102	79.0-120			9.52	20
1,4-Dichlorobenzene	5.00	5.62	5.12	112	102	79.0-120			9.31	20
Dichlorodifluoromethane	5.00	6.33	5.73	127	115	51.0-149			9.95	20
1,1-Dichloroethane	5.00	5.62	5.15	112	103	70.0-126			8.73	20
1,2-Dichloroethane	5.00	4.44	4.47	88.8	89.4	70.0-128			0.673	20
1,1-Dichloroethene	5.00	5.87	5.73	117	115	71.0-124			2.41	20
cis-1,2-Dichloroethene	5.00	5.26	5.24	105	105	73.0-120			0.381	20
trans-1,2-Dichloroethene	5.00	5.62	5.25	112	105	73.0-120			6.81	20
1,2-Dichloropropane	5.00	5.87	5.50	117	110	77.0-125			6.51	20
1,1-Dichloropropene	5.00	5.28	5.20	106	104	74.0-126			1.53	20
1,3-Dichloropropane	5.00	5.46	5.34	109	107	80.0-120			2.22	20
cis-1,3-Dichloropropene	5.00	5.42	4.78	108	95.6	80.0-123			12.5	20
trans-1,3-Dichloropropene	5.00	4.97	4.60	99.4	92.0	78.0-124			7.73	20
2,2-Dichloropropane	5.00	5.71	4.56	114	91.2	58.0-130		J3	22.4	20
Di-isopropyl ether	5.00	5.83	5.68	117	114	58.0-138			2.61	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) R3978332-1 09/25/23 11:23 • (LCSD) R3978332-2 09/25/23 11:42

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 %
Ethylbenzene	5.00	5.63	5.22	113	104	79.0-123			7.56	20
Hexachloro-1,3-butadiene	5.00	5.88	5.78	118	116	54.0-138			1.72	20
Isopropylbenzene	5.00	5.69	5.28	114	106	76.0-127			7.47	20
p-Isopropyltoluene	5.00	5.35	5.15	107	103	76.0-125			3.81	20
2-Butanone (MEK)	25.0	24.0	24.6	96.0	98.4	44.0-160			2.47	20
Methylene Chloride	5.00	5.36	5.42	107	108	67.0-120			1.11	20
4-Methyl-2-pentanone (MIBK)	25.0	27.7	26.8	111	107	68.0-142			3.30	20
Methyl tert-butyl ether	5.00	4.70	4.73	94.0	94.6	68.0-125			0.636	20
Naphthalene	5.00	4.70	4.77	94.0	95.4	54.0-135			1.48	20
n-Propylbenzene	5.00	5.30	4.95	106	99.0	77.0-124			6.83	20
Styrene	5.00	5.73	5.21	115	104	73.0-130			9.51	20
1,1,1,2-Tetrachloroethane	5.00	5.62	5.43	112	109	75.0-125			3.44	20
1,1,2,2-Tetrachloroethane	5.00	5.24	4.94	105	98.8	65.0-130			5.89	20
1,1,2-Trichlorotrifluoroethane	5.00	5.23	4.80	105	96.0	69.0-132			8.57	20
Tetrachloroethene	5.00	5.98	5.74	120	115	72.0-132			4.10	20
1,2,3-Trichlorobenzene	5.00	5.39	5.38	108	108	50.0-138			0.186	20
1,2,4-Trichlorobenzene	5.00	5.67	5.16	113	103	57.0-137			9.42	20
1,1,1-Trichloroethane	5.00	5.31	4.93	106	98.6	73.0-124			7.42	20
1,1,2-Trichloroethane	5.00	5.56	5.32	111	106	80.0-120			4.41	20
Trichloroethene	5.00	5.76	5.55	115	111	78.0-124			3.71	20
Trichlorofluoromethane	5.00	4.89	4.20	97.8	84.0	59.0-147			15.2	20
1,2,3-Trichloropropane	5.00	5.04	5.08	101	102	73.0-130			0.791	20
1,2,4-Trimethylbenzene	5.00	5.27	4.88	105	97.6	76.0-121			7.68	20
1,2,3-Trimethylbenzene	5.00	5.30	4.94	106	98.8	77.0-120			7.03	20
1,3,5-Trimethylbenzene	5.00	5.39	5.03	108	101	76.0-122			6.91	20
Vinyl chloride	5.00	5.57	5.36	111	107	67.0-131			3.84	20
Xylenes, Total	15.0	16.9	15.8	113	105	79.0-123			6.73	20
o-Xylene	5.00	5.62	5.18	112	104	80.0-122			8.15	20
m&p-Xylene	10.0	11.3	10.6	113	106	80.0-122			6.39	20
(S) Toluene-d8				108	108	80.0-120				
(S) 4-Bromofluorobenzene				100	101	77.0-126				
(S) 1,2-Dichloroethane-d4				85.3	86.3	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/25/23 14:24 • (MS) R3978332-4 09/25/23 20:07 • (MSD) R3978332-5 09/25/23 20:26

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	22.9	25.7	91.6	103	1	10.0-160			11.5	35
Acrolein	25.0	U	29.7	31.9	119	128	1	10.0-160			7.14	39
Acrylonitrile	25.0	U	27.6	28.6	110	114	1	21.0-160			3.56	32
Benzene	5.00	U	4.34	3.76	86.8	75.2	1	17.0-158			14.3	27
Bromobenzene	5.00	U	4.03	3.69	80.6	73.8	1	30.0-149			8.81	28
Bromochloromethane	5.00	U	4.55	4.46	91.0	89.2	1	38.0-142			2.00	26
Bromodichloromethane	5.00	U	4.24	3.94	84.8	78.8	1	31.0-150			7.33	27
Bromoform	5.00	U	4.92	5.19	98.4	104	1	29.0-150			5.34	29
Bromomethane	5.00	U	3.51	2.95	70.2	59.0	1	10.0-160			17.3	38
n-Butylbenzene	5.00	U	4.01	3.42	80.2	68.4	1	31.0-150			15.9	30
sec-Butylbenzene	5.00	U	4.09	3.62	81.8	72.4	1	33.0-155			12.2	29
tert-Butylbenzene	5.00	U	4.01	3.59	80.2	71.8	1	34.0-153			11.1	28
Carbon disulfide	5.00	U	4.26	3.33	85.2	66.6	1	10.0-156			24.5	28
Carbon tetrachloride	5.00	U	4.41	3.66	88.2	73.2	1	23.0-159			18.6	28
Chlorobenzene	5.00	U	4.57	3.97	91.4	79.4	1	33.0-152			14.1	27
Chlorodibromomethane	5.00	U	4.85	4.78	97.0	95.6	1	37.0-149			1.45	27
Chloroethane	5.00	U	3.68	3.04	73.6	60.8	1	10.0-160			19.0	30
Chloroform	5.00	U	4.19	3.65	83.8	73.0	1	29.0-154			13.8	28
Chloromethane	5.00	U	5.03	4.15	101	83.0	1	10.0-160			19.2	29
2-Chlorotoluene	5.00	U	3.79	3.41	75.8	68.2	1	32.0-153			10.6	28
4-Chlorotoluene	5.00	U	3.96	3.49	79.2	69.8	1	32.0-150			12.6	28
1,2-Dibromo-3-Chloropropane	5.00	U	5.00	5.39	100	108	1	22.0-151			7.51	34
1,2-Dibromoethane	5.00	U	4.79	4.80	95.8	96.0	1	34.0-147			0.209	27
Dibromomethane	5.00	U	4.32	4.40	86.4	88.0	1	30.0-151			1.83	27
1,2-Dichlorobenzene	5.00	U	4.24	4.21	84.8	84.2	1	34.0-149			0.710	28
1,3-Dichlorobenzene	5.00	U	4.22	3.83	84.4	76.6	1	36.0-146			9.69	27
1,4-Dichlorobenzene	5.00	U	4.17	4.10	83.4	82.0	1	35.0-142			1.69	27
Dichlorodifluoromethane	5.00	U	5.58	3.98	112	79.6	1	10.0-160		J3	33.5	29
1,1-Dichloroethane	5.00	U	4.51	3.81	90.2	76.2	1	25.0-158			16.8	27
1,2-Dichloroethane	5.00	U	4.04	3.74	80.8	74.8	1	29.0-151			7.71	27
1,1-Dichloroethene	5.00	U	4.56	3.89	91.2	77.8	1	11.0-160			15.9	29
cis-1,2-Dichloroethene	5.00	U	4.54	4.01	90.8	80.2	1	10.0-160			12.4	27
trans-1,2-Dichloroethene	5.00	U	4.26	3.53	85.2	70.6	1	17.0-153			18.7	27
1,2-Dichloropropane	5.00	U	4.60	4.17	92.0	83.4	1	30.0-156			9.81	27
1,1-Dichloropropene	5.00	U	4.36	3.59	87.2	71.8	1	25.0-158			19.4	27
1,3-Dichloropropane	5.00	U	4.87	4.63	97.4	92.6	1	38.0-147			5.05	27
cis-1,3-Dichloropropene	5.00	U	4.19	3.83	83.8	76.6	1	34.0-149			8.98	28
trans-1,3-Dichloropropene	5.00	U	4.21	4.09	84.2	81.8	1	32.0-149			2.89	28
2,2-Dichloropropane	5.00	U	3.75	3.26	75.0	65.2	1	24.0-152			14.0	29
Di-isopropyl ether	5.00	U	5.02	4.79	100	95.8	1	21.0-160			4.69	28

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/25/23 14:24 • (MS) R3978332-4 09/25/23 20:07 • (MSD) R3978332-5 09/25/23 20:26

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 %
Ethylbenzene	5.00	U	4.40	3.75	88.0	75.0	1	30.0-155			16.0	27
Hexachloro-1,3-butadiene	5.00	U	4.49	3.89	89.8	77.8	1	20.0-154			14.3	34
Isopropylbenzene	5.00	U	4.35	3.60	87.0	72.0	1	28.0-157			18.9	27
p-Isopropyltoluene	5.00	U	3.98	3.42	79.6	68.4	1	30.0-154			15.1	29
2-Butanone (MEK)	25.0	U	24.7	26.0	98.8	104	1	10.0-160			5.13	32
Methylene Chloride	5.00	U	4.26	3.88	85.2	77.6	1	23.0-144			9.34	28
4-Methyl-2-pentanone (MIBK)	25.0	U	27.0	28.2	108	113	1	29.0-160			4.35	29
Methyl tert-butyl ether	5.00	U	4.41	4.33	88.2	86.6	1	28.0-150			1.83	29
Naphthalene	5.00	U	4.07	3.83	81.4	76.6	1	12.0-156			6.08	35
n-Propylbenzene	5.00	U	3.97	3.41	79.4	68.2	1	31.0-154			15.2	28
Styrene	5.00	U	4.57	3.92	91.4	78.4	1	33.0-155			15.3	28
1,1,1,2-Tetrachloroethane	5.00	U	4.54	4.14	90.8	82.8	1	36.0-151			9.22	29
1,1,2,2-Tetrachloroethane	5.00	U	4.72	5.11	94.4	102	1	33.0-150			7.93	28
1,1,2-Trichlorotrifluoroethane	5.00	U	4.56	3.52	91.2	70.4	1	23.0-160			25.7	30
Tetrachloroethene	5.00	U	4.82	3.76	96.4	75.2	1	10.0-160			24.7	27
1,2,3-Trichlorobenzene	5.00	U	4.49	4.11	89.8	82.2	1	17.0-150			8.84	36
1,2,4-Trichlorobenzene	5.00	U	4.55	4.14	91.0	82.8	1	24.0-150			9.44	33
1,1,1-Trichloroethane	5.00	U	4.33	3.44	86.6	68.8	1	23.0-160			22.9	28
1,1,2-Trichloroethane	5.00	U	4.81	4.86	96.2	97.2	1	35.0-147			1.03	27
Trichloroethene	5.00	U	4.35	3.69	87.0	73.8	1	10.0-160			16.4	25
Trichlorofluoromethane	5.00	0.442	4.19	3.39	75.0	59.0	1	17.0-160			21.1	31
1,2,3-Trichloropropane	5.00	U	4.52	4.83	90.4	96.6	1	34.0-151			6.63	29
1,2,4-Trimethylbenzene	5.00	U	3.89	3.47	77.8	69.4	1	26.0-154			11.4	27
1,2,3-Trimethylbenzene	5.00	U	3.88	3.66	77.6	73.2	1	32.0-149			5.84	28
1,3,5-Trimethylbenzene	5.00	U	3.92	3.45	78.4	69.0	1	28.0-153			12.8	27
Vinyl chloride	5.00	U	4.38	3.64	87.6	72.8	1	10.0-160			18.5	27
Xylenes, Total	15.0	U	13.1	11.1	87.3	74.0	1	29.0-154			16.5	28
o-Xylene	5.00	U	4.30	3.73	86.0	74.6	1	45.0-144			14.2	26
m&p-Xylene	10.0	U	8.80	7.39	88.0	73.9	1	43.0-146			17.4	26
(S) Toluene-d8					107	107		80.0-120				
(S) 4-Bromofluorobenzene					103	98.9		77.0-126				
(S) 1,2-Dichloroethane-d4					88.7	85.9		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) R3978858-3 09/27/23 20:51

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Toluene	U		0.278	1.00
(S) Toluene-d8	94.0			80.0-120
(S) 4-Bromofluorobenzene	89.7			77.0-126
(S) 1,2-Dichloroethane-d4	115			70.0-130

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

(LCS) R3978858-1 09/27/23 19:50 • (LCSD) R3978858-2 09/27/23 20:10

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 %
Toluene	5.00	5.48	5.38	110	108	79.0-120			1.84	20
(S) Toluene-d8				96.9	92.9	80.0-120				
(S) 4-Bromofluorobenzene				93.6	88.8	77.0-126				
(S) 1,2-Dichloroethane-d4				110	111	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) R3977721-1 09/25/23 10:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
AK102 DRO C10-C25	U		170	800
<i>(S) o-Terphenyl</i>	67.3			60.0-120

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

(LCS) R3977721-2 09/25/23 11:06 • (LCSD) R3977721-3 09/25/23 11:32

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	5530	5710	92.2	95.2	75.0-125			3.20	20
<i>(S) o-Terphenyl</i>				86.6	75.8	60.0-120				

L1657314-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657314-09 09/25/23 20:37 • (MS) R3977721-4 09/25/23 11:57 • (MSD) R3977721-5 09/25/23 12:23

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	714	7350	6730	111	100	1	75.0-125			8.81	20
<i>(S) o-Terphenyl</i>					74.4	75.8		50.0-150				

L1657363-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657363-04 09/25/23 23:42 • (MS) R3977721-7 09/26/23 00:07 • (MSD) R3977721-6 09/25/23 13:32

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	6490	6150	108	103	1	75.0-125			5.38	20
<i>(S) o-Terphenyl</i>					108	81.3		50.0-150				

Method Blank (MB)

(MB) R3977721-1 09/25/23 10:40

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
AK102 DRO C10-C25	U		170	800
<i>(S) o-Terphenyl</i>	67.3			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) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3977721-2 09/25/23 11:06 • (LCSD) R3977721-3 09/25/23 11:32

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 %
AK102 DRO C10-C25	6000	5530	5710	92.2	95.2	75.0-125			3.20	20
(S) o-Terphenyl				86.6	75.8	60.0-120				

L1657314-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657314-09 09/25/23 20:37 • (MS) R3977721-4 09/25/23 11:57 • (MSD) R3977721-5 09/25/23 12:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
AK102 DRO C10-C25	6000	714	7350	6730	111	100	1	75.0-125			8.81	20
(S) o-Terphenyl					74.4	75.8		50.0-150				

L1657363-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657363-04 09/25/23 23:42 • (MS) R3977721-7 09/26/23 00:07 • (MSD) R3977721-6 09/25/23 13:32

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
AK102 DRO C10-C25	6000	U	6490	6150	108	103	1	75.0-125			5.38	20
(S) o-Terphenyl					108	81.3		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) R3979811-1 09/29/23 14:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
AK102 DRO C10-C25	U		170	800
<i>(S) o-Terphenyl</i>	77.9			60.0-120

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

(LCS) R3979811-2 09/29/23 14:26 • (LCSD) R3979811-3 09/29/23 14:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	6010	4830	100	80.5	75.0-125		J3	21.8	20
<i>(S) o-Terphenyl</i>				72.0	85.4	60.0-120				

L1657247-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657247-08 09/29/23 15:17 • (MS) R3979811-4 09/29/23 15:43 • (MSD) R3979811-5 09/29/23 16:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	7570	5680	126	94.7	1	75.0-125	J5	J3	28.5	20
<i>(S) o-Terphenyl</i>					57.8	82.6		50.0-150				

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/29/23 16:34 • (MS) R3979811-6 09/29/23 16:59 • (MSD) R3979811-7 09/29/23 17:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	5480	5720	91.3	95.3	1	75.0-125			4.29	20
<i>(S) o-Terphenyl</i>					71.3	73.8		50.0-150				

L1657251-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657251-02 09/29/23 17:50 • (MS) R3979811-8 09/29/23 18:16 • (MSD) R3979811-9 09/29/23 18:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	5530	5130	92.2	85.5	1	75.0-125			7.50	20
<i>(S) o-Terphenyl</i>					65.9	76.4		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) R3979811-1 09/29/23 14:01

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
AK102 DRO C10-C25	U		170	800
<i>(S) o-Terphenyl</i>	77.9			60.0-120

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

(LCS) R3979811-2 09/29/23 14:26 • (LCSD) R3979811-3 09/29/23 14:52

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	6010	4830	100	80.5	75.0-125		J3	21.8	20
<i>(S) o-Terphenyl</i>				72.0	85.4	60.0-120				

L1657247-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657247-08 09/29/23 15:17 • (MS) R3979811-4 09/29/23 15:43 • (MSD) R3979811-5 09/29/23 16:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	7570	5680	126	94.7	1	75.0-125	J5	J3	28.5	20
<i>(S) o-Terphenyl</i>					57.8	82.6		50.0-150				

L1657249-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657249-03 09/29/23 16:34 • (MS) R3979811-6 09/29/23 16:59 • (MSD) R3979811-7 09/29/23 17:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	5480	5720	91.3	95.3	1	75.0-125			4.29	20
<i>(S) o-Terphenyl</i>					71.3	73.8		50.0-150				

L1657251-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657251-02 09/29/23 17:50 • (MS) R3979811-8 09/29/23 18:16 • (MSD) R3979811-9 09/29/23 18:41

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
AK102 DRO C10-C25	6000	U	5530	5130	92.2	85.5	1	75.0-125			7.50	20
<i>(S) o-Terphenyl</i>					65.9	76.4		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) R3978563-1 09/27/23 04:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
AK102 DRO C10-C25	U		170	800
AK103 RRO C25-C36	U		460	800
(S) o-Terphenyl	80.1			60.0-120
(S) n-Triacontane d62	92.0			60.0-120

1 Cp

2 Tc

3 Ss

4 Cn

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

(LCS) R3978563-2 09/27/23 05:03 • (LCSD) R3978563-5 09/27/23 18:20

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	6000	4830	4690	80.5	78.2	75.0-125			2.94	20
(S) o-Terphenyl				95.8	94.0	60.0-120				

5 Sr

6 Qc

7 Gl

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

(LCS) R3978563-3 09/27/23 05:44 • (LCSD) R3978563-4 09/27/23 06:04

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	%	%	%			%	%
AK103 RRO C25-C36	6000	5230	4940	87.2	82.3	60.0-120			5.70	20
(S) n-Triacontane d62				103	93.0	60.0-120				

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

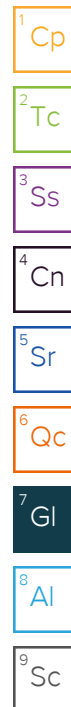
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



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 2
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Report to: Nick Wood		Email To: Alaura.Gonzalez@arcadis.com;erika.midkiff@ar		City/State Collected: <i>Portage, AK</i>		Please Circle: PT MT CT ET		 MT JULIET, TN 12065 Lebanon Rd Mount Juliet, TN 37122 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		
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Project Description: 92609	Client Project # 30064212.19.45	Lab Project # CHEVARCAK-92609	SDG # <i>L1105749</i> D056							
-------------------------------	------------------------------------	----------------------------------	--------------------------------------	--	--	--	--	--	--	--

Phone: 907-276-8095	Site/Facility ID # MILE 79 SEWARD HWY	P.O. #	Acctnum: CHEVARCAK Template: T237505							
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Collected by (print): <i>E. W. York</i>	Rush? (Lab MUST Be Notified)		Quote #		Date Results Needed		No. of Cntrs		
Collected by (signature): <i>[Signature]</i>	<input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day								

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	AK101 40mlAmb HCl	AK102 100ml Amb HCl	AK103 100ml Amb HCl	EDB/123TCP V524LL 40mlAmb-HCl	VOCs 8260 40mlAmb-HCl						Remarks	Sample # (lab only)
MW-1	<i>Grab</i>	GW	-	<i>9.18.23</i>	-												
MW-3 -W-20230918		GW	-		0700	11	X	X	X	X							-01
MW-6		GW	-														
MW-7 -W-20230918		GW	-		0800	11	X	X	X	X							-02
MW-9		GW	-		1000	33	X	X	X	X						MS/MSD	-03
MW-10		GW	-														
MW-11		GW	-														
MW-12		GW	-														
MW-13		GW	-														
MW-14		GW	-														

* 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: <input type="checkbox"/> NP <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headpace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
--	----------	---	--	--	--

Relinquished by: (Signature) <i>[Signature]</i>	Date: 9.18.23	Time: 1900	Received by: (Signature)	Trip Blank Received: Yes/No 4 <input checked="" type="checkbox"/> HCl / MeOH TBR	Tracking # <i>6426 8303 8753</i>		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <i>26.8 °C</i> <i>2.6+0=2.6</i>	Bottles Received: <i>88</i>	If preservation required by Login: Date/Time	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Hayden</i>	Date: 9/19/23	Time: 900	Hold:	Condition: NCF / OK

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

Report to: **Nick Wood**
 Email To: **Alaura.Gonzalez@arcadis.com;erika.midkiff@ar**

Project Description: **92609** City/State Collected: **Portage, AK** Please Circle: **PT** **MT** **CT** **ET**

Phone: **907-276-8095** Client Project # **30064212.19.45** Lab Project # **CHEVARCAK-92609**

Collected by (print): **E. Wojcik** Site/Facility ID # **MILE 79 SEWARD HWY** P.O. #

Collected by (signature): *[Signature]* **Rush?** (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Immediately Packed on Ice **N** **Y** Date Results Needed

Analysis / Container / Preservative	AK101 40ml/Amb HCl	AK102 100ml Amb HCl	AK103 100ml Amb HCl	EDB/123TCP V524LL 40ml/Amb-HCl	VOCs 8260 40ml/Amb-HCl
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X

Chain of Custody Page **2** of **2**

Pace
 PEOPLE ADVANCING SCIENCE

MT JULIET, TN
 12065 Lebanon Rd. Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **L1157249**

Table #

Acctnum: **CHEVARCAK**
 Template: **T237505**
 Prelogin: **P1023397**
 PM: **110 - Brian Ford**
 PE: **09-11-23**

Shipped Via:

Remarks	Sample # (lab only)
	-04
	-05
	-06
	-07

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
DWW-1 - W-20230918	Grab	GW	-	9.18.23	0900	11
BD-1 - W-20230918	↓	GW	-	↓	-	11
BD-2	↓	GW	-	↓	-	11
EQB-1 - W-20230918	↓	GW	-	↓	1030	11
Trip Blank	-	GW	-	-	-	4
		GW				

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

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: UPS FedEx Courier _____ Tracking # _____

Sample Receipt Checklist

COC Seal Present/Intact: NP N

COC Signed/Accurate: N

Bottles arrive intact: N

Correct bottles used: N

Sufficient volume sent: N

If Applicable

VOA Zero Headspace: N

Preservation Correct/Checked: N

RAD Screen <0.5 mR/hr: N

Relinquished by: (Signature) <i>[Signature]</i>	Date: 9.18.23	Time: 1400	Received by: (Signature) <i>[Signature]</i>	Trip Blank Received: 4 Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/> HCL <input type="checkbox"/> MeOH <input type="checkbox"/> TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 6.6 ± 0.8 °C Bottles Received: 88
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 9/19/23 Time: 900

Hold: _____ Condition: **NCF** **OK**

Attachment C

**Historical Groundwater Analytical Results – Third Quarter 1992
through 2022**

Table 1. Historical Groundwater Gauging and Analytical Results
Third Quarter 1992 through 2022
 Former Chevron-Branded Service Station
 Mile 79 Seward Highway, Girdwood, Alaska

Well ID	Sample Date	TOC (ft)	DTW (ft b/TOC)	LNAPL Thickness (ft)	GW Elevation (ft)	DRO (mg/L)	GRO (mg/L)	RRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE 1634-04-4 (mg/L)	EDB (mg/L)	EDC (mg/L)	TDS (mg/L)	Naphthalene (mg/L)	Comments	
ADEC Groundwater Cle Levels						1.5	2.2	1.1	0.0046	1.1	0.015	0.19	0.14	0.0000750	0.0017	--	--	0.0017	
MW-8	10/11/2005	30.05	2.73	--	27.32	<0.084	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-8	05/08/2006	30.05	2.66	--	27.39	<0.036	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-8	09/15/2006	30.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/15/2007	30.05	3.53	--	26.52	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	08/08/2007	30.05	7.88	--	22.17	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	06/17/2008	30.05	9.06	--	20.99	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	08/29/2008	30.05	11.07	--	18.98	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/13/2009	30.05	8.25	--	21.8	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	09/09/2009	28.86	8.82	--	20.04	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	06/07/2010	28.86	8.35	--	20.51	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	08/03/2010	28.86	9.63	--	19.23	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/17/2011	28.86	8.84	--	20.02	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	09/14/2011	28.86	6.61	--	22.25	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/31/2012	28.86	7.47	--	21.39	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	08/02/2012	28.86	9.59	--	19.27	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/18/2013	28.86	6.97	--	21.89	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	09/15/2013	28.86	7.32	--	21.54	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/09/2014	28.86	9.00	--	19.86	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	10/02/2014	28.86	8.24	--	20.62	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/04/2015	28.86	8.08	--	20.78	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	10/15/2015	28.86	7.57	--	21.29	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	05/20/2016	28.86	8.28	--	20.58	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	09/29/2016	28.86	7.78	--	21.08	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	05/10/2017	28.86	7.38	--	21.48	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	10/09/2017	28.86	7.01	--	21.85	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	06/11/2018	28.86	8.65	--	20.21	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	09/10/2018	28.86	9.68	--	19.18	--	--	--	--	--	--	--	--	--	--	--	--	Monitor only	
MW-8	10/02/2019	34.39	8.11	0.00	26.28	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	04/20/2020	34.39	7.18	0.00	27.21	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	10/21/2020	34.39	7.68	0.00	26.71	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	04/26/2021	34.39	8.23	0.00	26.16	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	09/13/2021	34.39	10.10	0.00	24.29	--	--	--	--	--	--	--	--	--	--	--	--		
MW-8	05/09/2022	34.39	7.00	0.00	27.39	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled	
MW-8	09/06/2022	34.39	6.97	0.00	27.42	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled	
MW-9	05/02/2001	197.9	3.59	--	194.31	0.66200	3.79	--	0.01140	0.05780	0.08160	0.48400	0.0619	<0.005	--	--	--		
MW-9	09/27/2001	197.9	2.35	--	195.55	--	0.09860	--	0.00085	<0.0005	<0.0005	0.00103	0.00361	--	--	--	--		
MW-9	10/05/2001	197.9	2.31	--	195.59	0.176 / 0.194	--	--	--	--	--	--	--	--	--	--	--		
MW-9	05/09/2002	197.9	5.71	--	192.19	1.13	5.07	--	0.00699	0.14600	0.15300	0.76300	0.00491	<0.05	--	--	--		
MW-9	09/21/2002	197.9	3.91	--	193.99	0.70500	5.55	--	0.01160	0.06390	0.13500	0.93900	0.00562	<0.005	--	--	--		
MW-9	05/25/2003	197.9	4.93	--	192.97	1.70	5.30	--	0.00300	0.05100	0.16000	0.97000	<0.002	--	--	--	--		
MW-9	10/03/2003	30.05	3.23	--	26.82	2.20	6.90	--	0.00400	0.05300	0.19000	0.93000	<0.002	--	--	--	--		
MW-9	04/25/2004	30.05	2.58	--	27.47	0.16000	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--		
MW-9	07/01/2004	30.05	5.63	--	24.42	1.70	6.20	--	<0.01	0.07000	0.14000	1.00	<0.0005	--	--	--	--		
MW-9	10/25/2004	30.05	4.46	--	25.59	2.50	6.50	--	<0.01	0.03300	0.12000	0.77000	--	--	--	--	--		
MW-9	06/13/2005	30.05	3.93	--	26.12	2.20	4.40	--	<0.020	0.02300	0.12000	0.62000	--	--	--	--	--		
MW-9	10/11/2005	30.05	2.60	--	27.45	0.21 [0.19]	<0.01 [<0.01]	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	--		
MW-9	05/08/2006	30.05	2.31	--	27.74	0.25 [0.23]	<0.01 [<0.01]	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	--		
MW-9	09/15/2006	30.05	2.91	--	27.14	0.19000	0.01400	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-9	05/15/2007	30.05	3.37	--	26.68	2.0 [1.7]	0.6 [0.4]	--	<0.005 [<0.002]	0.003 [0.002]	0.01 [0.006]	0.05 [0.04]	--	--	--	--	--		
MW-9	08/08/2007	30.05	6.55	--	23.5	1.2 [1.4]	2.7 [2.8]	--	<0.02 [<0.02]	0.02 [0.02]	0.09 [0.08]	0.4 [0.4]	--	--	--	--	--		
MW-9	06/17/2008	30.05	4.88	--	25.17	1.30	1.40	--	<0.0005	0.06600	0.03000	0.20000	--	--	--	--	--		
MW-9	08/29/2008	30.05	6.39	--	23.66	1.30	3.70	--	<0.02	0.02000	0.10000	0.50000	--	--	--	--	--		
MW-9	05/13/2009	30.05	4.00	--	26.05	0.27000	0.13000	--	<0.0005	<0.0005	0.00110	0.00640	--	--	--	--	--		
MW-9	09/09/2009	24.53	4.73	--	19.8	0.92000	2.20	--	<0.020	0.00990	0.05900	0.37000	--	--	--	--	--		
MW-9	06/07/2010	24.53	4.06	--	20.47	1.50	0.18000	--	0.0009 J	0.0007 J	0.00240	0.00750	--	--	--	--	--		
MW-9	08/03/2010	24.53	5.11	--	19.42	2.50	2.70	--	<0.020	0.01200	0.08000	0.37000	--	--	--	--	--		

Table 1. Historical Groundwater Gauging and Analytical Results
Third Quarter 1992 through 2022
Former Chevron-Branded Service Station
Mile 79 Seward Highway, Girdwood, Alaska

Well ID	Sample Date	TOC (ft)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elevation (ft)	DRO (mg/L)	GRO (mg/L)	RRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE 1634-04-4 (mg/L)	EDB (mg/L)	EDC (mg/L)	TDS (mg/L)	Naphthalene (mg/L)	Comments	
ADEC Groundwater Cle Levels						1.5	2.2	1.1	0.0046	1.1	0.015	0.19	0.14	0.0000750	0.0017	--	--	0.0017	
MW-12	05/02/2001	198.08	4.03	--	194.05	<0.1	<0.05	--	<0.0002	<0.0005	<0.0005	<0.001	<0.001	--	--	--	--		
MW-12	09/27/2001	198.08	2.54	--	195.54	--	<0.05	--	<0.0002	<0.0005	<0.0005	<0.001	<0.001	--	--	--	--		
MW-12	10/05/2001	198.08	2.57	--	195.51	<0.113 / <0.1	--	--	--	--	--	--	--	--	--	--	--		
MW-12	05/09/2002	198.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-12	09/21/2002	198.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-12	05/25/2003	198.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
MW-12	10/03/2003	30.24	4.37	--	25.87	0.13000	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--		
MW-12	04/25/2004	30.24	2.70	--	27.54	0.03800	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--		
MW-12	07/01/2004	30.24	6.76	--	23.48	0.29000	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	<0.0005	--	--	--		
MW-12	10/25/2004	30.24	6.77	--	24.83	0.09100	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	06/13/2005	30.24	4.88	--	25.36	1.40	0.01300	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	10/11/2005	30.24	2.66	--	27.58	0.09500	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	05/08/2006	30.24	2.50	--	27.74	0.04700	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	09/15/2006	30.24	3.07	--	27.17	0.09100	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	05/15/2007	30.24	3.54	--	26.7	0.03800	<0.01	--	<0.001	<0.001	<0.001	<0.0015	--	--	--	--	--		
MW-12	08/08/2007	30.24	8.78	--	21.46	<0.24	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--		
MW-12	06/17/2008	30.24	5.99	--	24.25	<0.12	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--		
MW-12	08/29/2008	30.24	9.04	--	21.2	<0.5	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--		
MW-12	05/13/2009	30.24	4.96	--	25.28	0.11000	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	09/09/2009	24.72	5.83	--	18.89	0.074 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	06/07/2010	24.72	5.11	--	19.61	0.077 J	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--		
MW-12	08/03/2010	24.72	5.88	--	18.84	0.077 J	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--		
MW-12	05/17/2011	24.72	5.53	--	19.19	<0.26	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--		
MW-12	09/14/2011	24.72	1.94	--	22.78	0.11 J	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--		
MW-12	05/31/2012	24.72	3.25	--	21.47	1.30	0.016 J	--	<0.0020	<0.0020	<0.0020	0.0025 J	--	--	--	--	--		
MW-12	08/02/2012	24.72	5.60	--	19.12	0.39000	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--		
MW-12_BP	05/19/2013	24.72	3.08	--	21.64	0.064 J	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--		
MW-12_HS	05/19/2013	24.72	3.08	--	21.64	0.64000	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	Sample collected via hydrasleeve	
MW-12	09/15/2013	24.72	2.99	--	21.73	1.60	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--		
MW-12_LF	05/09/2014	24.72	6.48	--	18.24	<0.068	<0.050	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--		
MW-12_HS	05/09/2014	24.72	6.48	--	18.24	0.25 J	<0.050	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--	Sample collected via hydrasleeve	
MW-12	10/02/2014	24.72	4.48	--	20.24	0.11 J	<0.050	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--		
MW-12	05/04/2015	24.72	4.00	--	20.72	0.13 J	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--		
MW-12	10/15/2015	24.72	3.41	--	21.31	0.061 J	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	--	No purge method	
MW-12	09/29/2016	24.72	3.71	--	21.01	0.11 J	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--		
MW-12	05/11/2017	24.72	3.10	--	21.62	0.053 J	<0.10	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--		
MW-12	10/09/2017	24.72	2.64	--	22.08	<0.26	<0.10	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--		
MW-12	06/11/2018	24.72	5.19	--	19.53	<0.25	<0.10	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	--		
MW-12	09/11/2018	24.72	6.64	--	18.08	0.15 J	<0.10	--	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	--	--		
MW-12	05/07/2019	30.31	5.35	0.00	24.96	<0.26 B J	<0.10	--	<0.001	<0.001	<0.001	<0.005	--	--	--	--	--		
MW-12	10/02/2019	30.31	3.92	0.00	26.39	<0.110	<0.250	--	<0.000500	<0.00200	<0.00300	<0.00500	<0.00200	<0.000500	<0.000500	--	--	<0.000500 B	
MW-12	04/20/2020	30.31	3.13	0.00	27.18	<0.800 J	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500	
MW-12	10/22/2020	30.31	3.95	0.00	26.36	<0.824	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500	
MW-12	04/26/2021	30.31	4.12	0.00	26.19	<0.800	<0.100 B	--	<0.00100	0.000561 J	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500	
MW-12	09/13/2021	30.31	6.85	0.00	23.46	<0.800 B	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500 J	
MW-12	05/09/2022	30.31	4.02	0.00	26.29	<0.840	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500	
MW-12	09/06/2022	30.31	3.58	0.00	26.73	<0.872	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	<0.00500 J	

Table 1. Historical Groundwater Gauging and Analytical Results
Third Quarter 1992 through 2022
Former Chevron-Branded Service Station
Mile 79 Seward Highway, Girdwood, Alaska

Well ID	Sample Date	TOC (ft)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elevation (ft)	DRO (mg/L)	GRO (mg/L)	RRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE 1634-04-4 (mg/L)	EDB (mg/L)	EDC (mg/L)	TDS (mg/L)	Naphthalene (mg/L)	Comments	
ADEC Groundwater Cle Levels						1.5	2.2	1.1	0.0046	1.1	0.015	0.19	0.14	0.0000750	0.0017	--	--	0.0017	
MW-13	06/13/2005	29.8	4.00	--	25.8	14.0 [15.0]	3.0 [2.9]	--	<0.01 [0.01]	0.0091 [0.0091]	0.032 [0.030]	0.18 [0.17]	--	--	--	--	--	--	
MW-13	10/11/2005	29.8	2.48	--	27.32	0.64 [0.54]	<0.01 [0.019]	--	<0.0005 [0.0005]	<0.0005 [0.0005]	<0.0005 [0.0005]	<0.0015 [0.0021]	--	--	--	--	--	--	
MW-13	05/08/2006	29.8	2.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	09/15/2006	29.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not be located
MW-13	05/15/2007	29.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	08/08/2007	29.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	06/17/2008	29.8	8.31	--	24.33	4.2 [4.7]	0.6 [0.5]	--	<0.005 [0.002]	0.004 [0.004]	0.02 [0.02]	0.07 [0.07]	--	--	--	--	--	--	
MW-13	08/29/2008	29.8	8.31	--	21.49	14 [10]	4.2 [4.6]	--	<0.02 [0.02]	0.02 [0.02]	0.1 [0.1]	0.5 [0.5]	--	--	--	--	--	--	
MW-13	05/13/2009	29.8	4.04	--	25.76	3.70	0.24000	--	<0.0005	0.00080	0.00120	0.00770	--	--	--	--	--	--	
MW-13	09/09/2009	24.35	5.00	--	19.35	1.7 [2.5]	0.19 [12]	--	<0.0020 [0.080]	0.0073 [0.040]	0.0046 [0.44]	0.030 [2.0]	--	--	--	--	--	--	
MW-13	06/07/2010	24.35	4.18	--	20.17	0.97 [0.96]	<0.10 [0.029 J]	--	<0.0020 [0.0020]	<0.0020 [0.0010 J]	<0.0020 [0.0009 J]	<0.0050 [0.0034 J]	--	--	--	--	0.00270	--	
MW-13	08/03/2010	24.35	5.24	--	19.11	2.4 [2.8]	0.034 J [0.032 J]	--	<0.0020 [0.0020]	<0.0020 [0.0020]	0.0017 J [0.0017 J]	0.0087 [0.0085]	--	--	--	--	--	--	
MW-13	05/17/2011	24.35	4.80	--	19.55	9.20	0.054 J	--	<0.0020	<0.0020	<0.0020	0.0017 J	--	--	--	--	--	--	
MW-13	09/14/2011	24.35	1.56	--	22.79	1.70	0.017 J	--	<0.0020	0.0005 J	<0.0020	0.00500	--	--	--	--	--	--	
MW-13	05/31/2012	24.35	2.51	--	21.84	3.00	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--	--	
MW-13	08/02/2012	24.35	5.08	--	19.27	3.00	0.044 J	--	<0.0020	0.0005 J	0.001 J	0.0048 J	--	--	--	--	--	--	
MW-13	05/18/2013	24.35	2.02	--	22.33	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13_BP	05/19/2013	--	--	--	--	0.56 J	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
MW-13_HS	05/19/2013	--	--	--	--	0.76000	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-13	09/15/2013	24.35	2.56	--	21.79	0.53000	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
MW-13_LF	05/09/2014	24.35	5.41	--	18.94	2.90	0.10000	--	<0.00015	0.00014 J	0.00072 J	0.00410	--	--	--	--	--	--	
MW-13_HS	05/09/2014	24.35	5.41	--	18.94	3.30	<0.050	--	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	--	--	Sample collected via hydrasleeve
MW-13	10/02/2014	24.35	4.06	--	20.29	0.79000	<0.050	--	0.00030 J	0.00120	0.00022 J	<0.00040	--	--	--	--	--	--	
MW-13	05/04/2015	24.35	3.80	--	20.55	0.18 J	0.010 J	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
MW-13	10/15/2015	24.35	2.99	--	21.36	0.071 J	<0.10	--	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	--	--	
MW-12	05/20/2016	24.72	4.31	--	20.41	0.13 J	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	No purge method
MW-13	05/20/2016	24.35	4.04	--	20.31	0.11 J [0.16 J]	0.015 J [0.015 J]	--	<0.0005 [0.0005]	<0.0005 [0.0005]	0.0006 J [0.0006 J]	0.001 [0.001]	--	--	--	--	--	--	
MW-13	09/30/2016	24.35	3.52	--	20.83	0.28000	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	
MW-13	05/10/2017	24.35	2.79	--	21.56	0.19 J	<0.10	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
MW-13	10/09/2017	24.35	2.23	--	22.12	0.078 J [0.087 J]	<0.10 [0.10]	--	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	
MW-13	06/11/2018	24.35	4.49	--	19.86	0.95 J [1.0 J]	1.8 [1.8]	--	<0.001 [0.001]	0.061 [0.074]	0.026 [0.028]	0.12 [0.13]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	<0.001 [0.001]	
MW-13	09/11/2018	24.35	7.11	--	17.24	1.50	0.024 J	--	<0.001	<0.001	0.0003 J	<0.005	<0.001	<0.001	<0.005	--	--	--	
MW-13	05/07/2019	30.00	4.57	0.00	25.43	1.3 J	<0.10	--	<0.001	<0.001	<0.001	<0.005	--	--	--	--	--	--	
MW-13	10/02/2019	30.00	3.35	0.00	26.65	0.31 [0.32]	<0.250 [0.250]	-- [--]	<0.000500 [0.000500]	<0.00200 [0.00200]	<0.00300 [0.00300]	<0.00500 [0.00500]	<0.00200 [0.00200]	<0.000500 [0.000500]	<0.000500 [0.000500]	<0.000500 [0.000500]	<0.000500 B [0.000500 B]	<0.000500 [0.000500]	
MW-13	04/20/2020	30.00	2.73	0.00	27.27	<0.800	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	--	
MW-13	10/22/2020	30.00	3.63	0.00	26.37	0.308 J	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	--	
MW-13	04/26/2021	30.00	3.85	0.00	26.15	<0.800	<0.100 B	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	--	--	
MW-13	09/13/2021	30.00	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not be located
MW-13	05/09/2022	30.00	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not be located
MW-13	09/06/2022	30.00	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not be located

Table 1. Historical Groundwater Gauging and Analytical Results
Third Quarter 1992 through 2022
 Former Chevron-Branded Service Station
 Mile 79 Seward Highway, Girdwood, Alaska

Well ID	Sample Date	TOC (ft)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elevation (ft)	DRO (mg/L)	GRO (mg/L)	RRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE 1634-04-4 (mg/L)	EDB (mg/L)	EDC (mg/L)	TDS (mg/L)	Naphthalene (mg/L)	Comments	
ADEC Groundwater Cle Levels						1.5	2.2	1.1	0.0046	1.1	0.015	0.19	0.14	0.0000750	0.0017	--	0.0017		
Trip Blank	09/14/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Trip Blank	05/31/1996	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	08/22/1996	--	--	--	--	--	<0.05	--	<0.0005	0.00068	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	10/22/1996	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	04/26/1997	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	09/09/1997	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	04/19/1998	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	<0.005	--	--	--	--	--	
Trip Blank	04/29/1999	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	--	--	--	--	--	
Trip Blank	10/14/1999	--	--	--	--	--	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	
Trip Blank	05/20/2000	--	--	--	--	--	<0.08	--	<0.0005	<0.0005	<0.0005	<0.001	<0.001	--	--	--	--	--	
Trip Blank	09/24/2000	--	--	--	--	--	<0.05	--	<0.0002	0.00087	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank	05/02/2001	--	--	--	--	--	<0.05	--	--	--	--	--	<0.001	--	--	--	--	--	
Trip Blank	09/27/2001	--	--	--	--	--	<0.05	--	<0.0002	<0.0005	<0.0005	<0.001	<0.001	--	--	--	--	--	
Trip Blank	05/09/2002	--	--	--	--	--	<0.05	--	<0.0002	<0.0005	<0.0005	<0.001	<0.001	--	--	--	--	--	
Trip Blank	09/21/2002	--	--	--	--	--	<0.05	--	<0.0002	0.00056	<0.0005	<0.001	<0.001	--	--	--	--	--	
Trip Blank	05/25/2003	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	--	--	
Trip Blank	10/03/2003	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	--	--	
Trip Blank	04/29/2004	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0005	--	<0.0005	--	--	--	--	
Trip Blank	07/01/2004	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	10/25/2004	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	06/13/2005	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	10/11/2005	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	05/08/2006	--	--	--	--	--	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	09/15/2006	--	--	--	--	<0.023	<0.01	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	05/15/2007	--	--	--	--	--	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	<0.000097	<0.001	--	--	--	
Trip Blank	08/08/2007	--	--	--	--	--	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--	--	
Trip Blank	06/17/2008	--	--	--	--	--	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--	--	
Trip Blank	08/29/2008	--	--	--	--	--	<0.01	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--	--	
Trip Blank	04/30/2009	--	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	09/02/2009	--	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	--	--	
Trip Blank	06/07/2010	--	--	--	--	--	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--	--	
Trip Blank	08/03/2010	--	--	--	--	--	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--	--	
Trip Blank	05/17/2011	--	--	--	--	--	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--	--	
Trip Blank	09/14/2011	--	--	--	--	--	<0.10	--	<0.0020	<0.0020	<0.0020	<0.0050	--	--	--	--	--	--	
Trip Blank	10/10/2011	--	--	--	--	--	<0.10	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	--	
Trip Blank*	05/31/2012	--	--	--	--	--	<0.10	--	<0.0020 [<0.0005]	<0.0020 [<0.0005]	<0.0020 [<0.0005]	<0.0050 [<0.0010]	--	--	--	--	--	--	
Trip Blank*	08/02/2012	--	--	--	--	--	<0.10	--	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0010 / <0.0050	--	--	--	--	--	--	
Trip Blank-1	05/18/2013	--	--	--	--	--	--	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
Trip Blank-2	05/18/2013	--	--	--	--	--	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
Trip Blank-3	05/19/2013	--	--	--	--	--	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
Trip Blank-4	05/19/2013	--	--	--	--	--	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
Trip Blank	09/15/2013	--	--	--	--	--	<0.050	--	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	--	--	
Trip Blank-1**	05/09/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	<0.00011 / <0.00011	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	
Trip Blank-2	05/09/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	<0.00011 / <0.00011	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	
Trip Blank-3	05/09/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	<0.00011 / <0.00011	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	
Trip Blank-4	05/09/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	<0.00011 / <0.00011	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	
Trip Blank-1**	10/02/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	<0.00011 / <0.00011	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	
Trip Blank-2**	10/02/2014	--	--	--	--	--	<0.050	--	<0.000073 / <0.00015	0.00013 J / 0.00013 J	<0.000096 / <0.00016	<0.00020 / <0.00040	--	--	--	--	--	--	

Table 1. Historical Groundwater Gauging and Analytical Results

Third Quarter 1992 through 2022

Former Chevron-Branded Service Station
Mile 79 Seward Highway, Girdwood, Alaska

Well ID	Sample Date	TOC (ft)	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elevation (ft)	DRO (mg/L)	GRO (mg/L)	RRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE 1634-04-4 (mg/L)	EDB (mg/L)	EDC (mg/L)	TDS (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cle Levels						1.5	2.2	1.1	0.0046	1.1	0.015	0.19	0.14	0.0000750	0.0017	--	0.0017	
Trip Blank-1*	05/04/2015	--	--	--	--	--	<0.10	--	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0010 / <0.0050	--	--	--	--	--	
Trip Blank-2*	05/04/2015	--	--	--	--	--	<0.10	--	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0005 / <0.0020	<0.0010 / <0.0050	--	--	--	--	--	
Trip Blank	10/15/2015	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0010	--	--	--	--	--	
Trip Blank*	05/20/2016	--	--	--	--	--	<0.10	--	<0.0005 / <0.001	<0.0005 / <0.001	<0.0005 / <0.001	<0.0010 / <0.001	--	--	--	--	--	
Trip Blank	09/30/2016	--	--	--	--	--	<0.10	--	<0.001	<0.001	<0.001	<0.001	--	--	--	--	--	
Trip Blank*	05/11/2017	--	--	--	--	--	<0.10	--	<0.0005 / <0.001	<0.0005 / <0.001	<0.0005 / <0.001	<0.001 / <0.001	<0.001	<0.001	<0.001	--	--	
Trip Blank*	10/10/2017	--	--	--	--	--	<0.10	--	<0.0005 / <0.001	0.0005 J / <0.001	<0.0005 / <0.001	<0.0005 / <0.001	<0.001	<0.001	<0.001	--	--	
Trip Blank*	06/12/2018	--	--	--	--	--	<0.10	--	<0.0005 / <0.001	<0.0005 / <0.001	<0.0005 / <0.001	<0.0005 / <0.001	<0.001	<0.001	<0.001	--	--	
Trip Blank-1	09/11/2018	--	--	--	--	--	<0.10	--	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	--	--	
Trip Blank-2	09/11/2018	--	--	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.001	--	--	--	--	--	
Trip Blank	04/30/2019	--	--	--	--	--	--	<0.014	--	<0.0002	<0.0002	<0.0004	<0.001	--	--	--	--	
Trip Blank	04/30/2019	--	--	--	--	--	<0.10	--	<0.001	<0.001	<0.005	--	--	--	--	--	--	
Trip Blank	10/02/2019	--	--	--	--	--	<0.250	--	<0.000500	<0.00200	<0.00300	<0.00500	<0.00200	<0.000500	<0.000500	--	0.0000380 J	
Trip Blank	04/21/2020	--	--	--	--	--	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	Well gauged on 4/20/2020
Trip Blank	10/22/2020	--	--	--	--	--	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Trip Blank	04/26/2021	--	--	--	--	--	0.0288 B J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Trip Blank	09/13/2021	--	--	--	--	--	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500 J	
Trip Blank	05/09/2022	--	--	--	--	--	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Trip Blank	09/06/2022	--	--	--	--	--	<0.100	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500 J	
Equipment Blank	05/07/2019	--	--	--	--	0.085 J	<0.10	--	<0.001	0.0008 J	<0.001	<0.005	--	--	--	--	--	
Equipment Blank	10/02/2019	--	--	--	--	--	<0.11	--	<0.000500	<0.00200	<0.00300	<0.00500	<0.00200	0.0000520 J	<0.000500	--	0.0000140 J	
Equipment Blank	04/20/2020	--	--	--	--	--	<0.800	<0.800	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Equipment Blank	10/21/2020	--	--	--	--	--	<0.800	<0.800	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Equipment Blank	04/26/2021	--	--	--	--	--	<0.800	0.0161 J	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Equipment Blank	09/13/2021	--	--	--	--	--	0.284 J	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500 J	
Equipment Blank	05/09/2022	--	--	--	--	--	<0.840	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500	
Equipment Blank	09/06/2022	--	--	--	--	--	<0.800 J	<0.100	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	--	<0.00500 J	

Notes:

ID = Identification
 MW = Groundwater monitoring well
 DWW = Drinking water well
 TOC = Top of casing
 DTW = Depth to groundwater
 ft bTOC = Feet below top of casing
 ft = Feet relative to NAVD88
 GW Elev = Groundwater elevation
 x [y] or x / y = Blind Duplicate Sample Result
 mg/L = Milligrams per liter
 [] = Duplicate Sample Result
 LNAPL = Light Non-Aqueous Phase Liquid
 <0.100 = Not detected at or above the reported detection limit (RDL)
Bold = Value exceeds 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
 -- = Not Measured/Not analyzed/Non-detect

GRO = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to Alaska Method AK101
 DRO = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to Alaska Method AK102
 RRO = Total petroleum hydrocarbons, residual range by LUFT GC/MS according to Alaska Method AK102/AK103
 Samples analytes by USEPA Method 8260D:
 Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
 MTBE = Methyl tert-butyl ether
 EDB = 1,2-Dibromoethane EPA 524.2 / SW-846 8021B
 EDC = 1,2-Dichloroethane
 TDS = total dissolved solids
 Naphthalene
 ADEC = Alaska Department of Environmental Conservation
 NAVD88 = North American Vertical Datum of 1988
 LUFT = Leaking Underground Fuel Tank
 GC/MS = Gas chromatography/Mass Spectrometry
 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.

J = The associated numerical value is an estimated concentration only
 B = Compound reported at the listed value due to associated blank contamination
 * = Trip Blank analysis for BTEX was completed via EPA 524.2, with duplicate analysis completed via 8021B
 ** = Trip Blank analysis for BTEX was completed via EPA 524.2, with duplicate analysis completed via 8260.

Attachment D

ADEC Data Review

Laboratory Data Review Checklist

Completed By:

Dilip Kumar H S

Title:

Project Chemist

Date:

October 09, 2023

Consultant Firm:

ARCADIS U.S., Inc

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1657249

Laboratory Report Date:

09/19/2023

CS Site Name:

Semi Annual 2023 Groundwater Monitoring Report

ADEC File Number:

2110.38.007

Hazard Identification Number:

2007

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

1. Laboratory

- a. Did an ADEC Contaminated Sites Laboratory Approval Program (CS-LAP) 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-LAP approved?

Yes No N/A Comments:

Not applicable.

2. Chain of Custody (CoC)

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

Yes No N/A Comments:

Yes.

- b. Were the correct analyses requested?

Yes No N/A Comments:

Yes.

3. Laboratory Sample Receipt Documentation

- a. Is the sample/cooler temperature documented and within range at receipt (0° to 6° C)?

Yes No N/A Comments:

Yes.

- b. Is the sample preservation acceptable – acidified waters, methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No N/A Comments:

Yes.

- c. Is the sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials); canister vacuum/pressure checked and no open valves etc?

Yes No N/A Comments:

Yes.

- 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, canister not holding a vacuum, etc.?

Yes No N/A Comments:

Yes. no discrepancies.

e. Is the data quality or usability affected?

Comments:

Data quality or usability was not affected.

4. Case Narrative

a. Is the case narrative present and understandable?

Yes No N/A Comments:

Yes.

b. Are there 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 or usability was not affected.

5. Samples Results

a. Are the correct analyses performed/reported as requested on COC?

Yes No N/A Comments:

Yes.

b. Are all applicable holding times met?

Yes No N/A Comments:

Yes.

c. Are all soils reported on a dry weight basis?

Yes No N/A Comments:

No soil samples were submitted for analysis.

d. Are the reported limit of quantitation (LOQs) or limits of detection (LOD), or reporting limits (RL) less than the Cleanup Level for the project?

Yes No N/A Comments:

Yes.

e. Is the data quality or usability affected?

Data quality or usability was not affected.

6. QC Samples

a. Method Blank

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

Yes No N/A Comments:

Yes.

ii. Are all method blank results less than limit of quantitation LOQ (or RL)?

Yes No N/A Comments:

Yes.

iii. If above LOQ or RL, what samples are affected?

Yes No N/A Comments:

None of the samples were affected.

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

Yes No N/A Comments:

None of the samples were affected.

v. Data quality or usability affected?

Comments:

Data quality or usability was not affected.

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

i. Organics – Are 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 – Are one LCS and one sample duplicate reported per matrix,
analysis and 20 samples?

Yes No N/A Comments:

Not applicable.

iii. Accuracy – Are 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:

Sample locations associated with the LCS/LCSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Method	Compounds	LCS Recovery	LCSD Recovery
MW-3-W-20230918 MW-7-W-20230918 DWW-1-W-20230918 BD-1-W-20230918 EQB-1-W-20230918 TRIP BLANK-20230918	8260 D	Bromodichloromethane	> UL	NA
		sec-Butylbenzene	> UL	NA
		tert-Butylbenzene	> UL	NA
		4-Chlorotoluene	> UL	NA
		1,1-Dichloroethene	> UL	NA
		1,2,4-Trimethylbenzene	> UL	NA
		1,3,5-Trimethylbenzene	> UL	NA

Note:

UL – Upper control limit

NA – Not applicable

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

- iv. Precision –Are all relative percent differences (RPD) reported and less than method or laboratory limits and project specified objectives, if applicable? Was the 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:

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compounds
MW-7-W-20230918 MW-9-W-20230918 BD-1-W-20230918	AK102 DRO C10-C25
MW-9-W-20230918	2,2-Dichloropropane

The criteria used to evaluate the RPD between the LCS/LCSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

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

Yes No N/A Comments:

Recovery:

Method SW846 8260D: LCS recovery for bromodichloromethane, sec-butylbenzene, tert-butylbenzene, 4-chlorotoluene, 1,1-dichloroethene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene were greater than the control limit. Samples MW-3-W-20230918, MW-7-W-20230918, DWW-1-W-20230918, BD-1-W-20230918, EQB-1-W-20230918 and TRIP BLANK-20230918 were non-detect for these compounds; therefore, qualification of the data was not warranted.

RPD:

Method AK 102: Compound AK102 DRO C10-C25 result in sample IDs MW-7-W-20230918, MW-9-W-20230918, and BD-1-W-20230918 were qualified as estimated (UJ).

Method SW846 8260D: Compound 2,2-dichloropropane result in sample ID MW-9-W-20230918 was qualified as estimated (UJ).

- vii. Is the data quality or usability affected? (Use comment box to explain.)

Comments:

LCS/LCSD recovery and RPD exceedance 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 – Are one MS/MSD reported per matrix, analysis and 20 samples?

Yes No N/A Comments:

The MS/MSD analysis was performed on sample ID MW-9-W-20230918.

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

Yes No N/A Comments:

Metal analysis was not performed within this SDG.

iii. Accuracy – Are 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 – Are 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:

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compounds
MW-9-W-20230918	Dichlorodifluoromethane

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

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

Comments:

RPD:
Method SW846 8260D: Compound dichlorodifluoromethane result in sample ID MW-9-W-20230918 was 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. Is the data quality or usability affected? (Use comment box to explain.)

Comments:

MS/MSD RPD exceedance are considered minor and would result in the estimation of the 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 – Are all percent recoveries (%R) reported and within method or laboratory limits and project specified objectives, if applicable? (AK Petroleum methods 50-150 %R for field samples 60-120% R for QC samples; 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:

None of the samples were affected.

- iv. Is the data quality or usability affected?

Comments:

Data quality or usability was not affected.

e. Trip Blanks

- i. Is 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-20230918.

- ii. Are all results less than LOQ or RL?

Yes No N/A Comments:

Yes.

- iii. If above LOQ or RL, what samples are affected?

Yes No N/A Comments:

None of the samples were affected.

- iv. Is data quality or usability affected?

Comments:

Data quality or usability was not affected.

f. Field Duplicate

- i. Are one field duplicate submitted per matrix, analysis and 10 project samples?

Yes No N/A Comments:

Yes.

- ii. Was the duplicate submitted blind to lab?

Yes No N/A Comments:

Yes.

iii. Precision – All relative percent differences (RPD) less than specified project objectives?

(Recommended: 30% water, 50% soil) x 100

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

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No N/A Comments:

Results for duplicate samples are summarized in the following table.

Sample ID / Duplicate ID	Method	Compounds / Analytes	Sample Result	Duplicate Result	RPD
MW-9-W-20230918/ BD-1-W-20230918	SW 8260D	Trichlorofluoromethane	0.442 J	5.0 U	AC

Notes:

AC Acceptable

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

Comments:

Data quality or usability was not affected.

g. Decontamination or Equipment Blank

i. Were decontamination or equipment blanks collected?

Yes No N/A Comments:

Equipment blank sample was collected as EQB-1-W-20230918.

ii. Are all results less than LOQ or RL?

Yes No N/A Comments:

Yes.

iii. If above LOQ or RL, specify what samples are affected?

Yes No N/A Comments:

None of the samples were affected.

iv. Are data quality or usability affected?

Comments:

Data quality or usability was not affected.

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

a. Are they defined and appropriate?

Yes No N/A Comments:

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compounds	Recovery
MW-9-W-20230918	CCV %D	Acrolein	Low
MW-3-W-20230918 MW-7-W-20230918 DWW-1-W-20230918 BD-1-W-20230918 EQB-1-W-20230918 TRIP BLANK-20230918		1,2,4-Trichlorobenzene	

Results associated with calibrations outside of the recovery limits are qualified as estimated (UJ/J).

Compounds 1,2,3-trichloropropane and 1,2-dibromoethane analyzed for USEPA method 524/8260 hybrid procedure by the laboratory. The results are considered from lower reporting limit, but surrogate recoveries were not reported for USEPA method 524. Hence the results for compounds 1,2,3-trichloropropane and 1,2-dibromoethane are non-detects and qualified as estimated (UJ).

Sample ID	Compounds
MW-3-W-20230918 MW-7-W-20230918 MW-9-W-20230918 DWW-1-W-20230918	1,2,3-Trichloropropane
BD-1-W-20230918 EQB-1-W-20230918 TRIP BLANK-20230918	1,2-Dibromoethane