



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: October 6, 2023  
Our Ref: 30063655  
Subject: Third Quarter 2023 Groundwater Monitoring Report  
Chevron - #1252 (Chevron-Branded Service Station #91252)  
11836 Old Glenn Highway, Eagle River, Alaska  
ADEC File No.: 2107.26.003  
ADEC Hazard ID: 23705

Dear Ms. Reams,

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis), has prepared this report to document the third quarter 2023 groundwater monitoring activities for the Chevron #1252 (Chevron-Branded Service Station #91252), located at 11836 Old Glenn Highway in Eagle River, 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 "Gerald A. Robinson".

Gerald A. Robinson  
Project Manager  
Email: [Gerald.Robinson@arcadis.com](mailto:Gerald.Robinson@arcadis.com)  
Direct Line: 724.934.9507

Copies

James Kiernan, CEMC (*electronic copy*)  
Mark Engelke, Cook Inlet Marketing Group, Inc. (*electronic copy*)

# THIRD QUARTER 2023 GROUNDWATER MONITORING REPORT

October 6, 2023

## Work Conducted This Period [Third Quarter 2023]:

1. Conducted quarterly groundwater monitoring activities on August 9, 2023.
2. Prepared the *Third Quarter 2023 Groundwater Monitoring Report*.

## Work Proposed Next Period [Fourth Quarter 2023]:

1. Conduct the fourth quarter 2023 groundwater monitoring activities.
2. Prepare the *Fourth Quarter 2023 Groundwater Monitoring Report*.

## Site Description

The site is located in south-central Alaska, east of Cook Inlet and Eagle River. Glacial deposits consisting of sands, gravels, and cobbles were observed in prior site investigations. Static groundwater depths historically range between 16.00 and 33.56 feet below top of casing. Groundwater flow has been observed primarily towards the north-northwest. The site operated as a Chevron-branded gasoline station with three underground storage tanks (USTs; two 15,000-gallon gasoline and one 15,000-gallon diesel), four fuel dispenser islands, associated product piping, and a convenience store. Historically, USTs at the sites contained leaded and unleaded gasoline. Petroleum impacts were observed in soil and ground water during facility upgrades in 1995, and source of contamination is presumed to be USTs, associated dispensers, and product piping.

On March 3, 2023, the Alaska Department of Environmental Conservation (ADEC) approved a *Groundwater Sampling Analyte Reduction Request – Groundwater Sampling Work Plan Addendum* which included monitoring and sampling of monitoring wells MW-2 through MW-6, MW-8 and MW-9 on a quarterly basis, and quarterly gauging of MW-1R. The surrounding properties are primarily commercial, and bordered by businesses to the north, south, east and west. A site location map and site plan are shown as **Figures 1** and **2**, respectively.

## Site Activities this Reporting Period

Current phase of project:

Monitoring

Frequency of monitoring and sampling:

Quarterly

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)

15.83 (MW-8) to 16.12 (MW-9) – Perched wells  
30.09 (MW-1R) to 32.84 (MW-3) – Deeper wells

Approximate groundwater elevation: (feet relative to NAVD88)	273.72 (MW-3) to 277.49 (MW-1R)
Groundwater flow direction	North-Northwest
Groundwater gradient (feet per foot)	0.033
Current remediation techniques:	None
Summary of unusual activity:	Monitoring wells MW-8 and MW-9 contained insufficient water to sample. MW-6 was not gauged or sampled as the vault was flooded. MW-1R was only gauged.
Agency directive requirements:	None

## Groundwater Gauging and Sampling Methods

On August 9, 2023, the third quarter 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 ADEC Field Sampling Guidance (ADEC 2022a) and *Arcadis Standards for 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 an oil/water interface probe 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  $\pm 0.2^\circ\text{C}$ ),
- $\pm 0.1$  for pH,
- $\pm 3\%$  for conductivity,
- $\pm 10$  mV for redox potential,
- $\pm 10\%$  for dissolved oxygen, and
- $\pm 10\%$  for turbidity.

Following well stabilization, the flow rate was set 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-8 and MW-9 contained insufficient water to sample. MW-6 was not gauged or sampled as the vault was

flooded. MW-1R was only gauged. The groundwater elevation contour map and a rose diagram of historical groundwater flow directions are illustrated on **Figure 3**.

In a letter dated March 3, 2023, ADEC approved a reduction of analytes for the site. Groundwater samples collected were analyzed by Pace Analytical National Center for Testing & Innovation (Pace) in Mt. Juliet, Tennessee for the following constituents:

- Select volatile organic compounds including benzene, toluene, ethylbenzene, total xylenes, 1,2-dibromoethane, and 1,2-dichloroethane by United States Environmental Protection Agency (USEPA) Method 8260D.
- Total petroleum hydrocarbons as diesel range organics (DRO) by Alaska Method AK102.
- Total lead by USEPA Method 6010D.
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270E-SIM.

A groundwater duplicate sample (BD-1) was collected from monitoring well MW-5 and submitted blind with the samples set to Pace. Additionally, an equipment blank (EQB-1) sample was collected, and trip blanks 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) were reported at concentrations that are less than the ADEC Oil Pollution Prevention Requirements (18 AAC 75) identified in Table C - Groundwater Cleanup Levels (GCLs). Analytical data from the most recent sampling event are summarized in **Tables 2** and **3**. Groundwater analytical data collected in 2023 are summarized in **Tables 4** and **5**. The laboratory report is included as **Attachment B**. 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:
  - Matrix Spike (MS) recovery was less than the control limit for 1,2-dibromomethane for USEPA Method 8260D. Analytical results in MW-2 were qualified as estimated.
  - A surrogate recovery exceedance was observed in MW-3 for Alaska Method AK102. Target compound results were qualified as estimated.

- Comparability:
  - The laboratory results are presented in the same units as previous reports to allow comparison. The target compounds were not detected in trip blanks, EQB-1, and method blank with below exceptions.
    - Fluoranthene was detected below the reporting limit in the EQB-1 for USEPA Method 8270E. Based on blank evaluation, the results for fluoranthene in MW-2, MW-3, MW-4, MW-5, and BD-1 were qualified as non-detect.

## 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 were treated during this event.

## Conclusion and Recommendations

The observed groundwater flow direction and hydraulic gradient during this event are generally consistent with historical data. Analytical results from the monitoring wells are generally consistent with historical data.

Arcadis recommends groundwater sampling continues in accordance with the current quarterly schedule. The fourth quarter sampling event will be conducted in October 2023.

Ms. Rebekah Reams  
Alaska Department of Environmental Conservation  
Date: October 6, 2023

## References

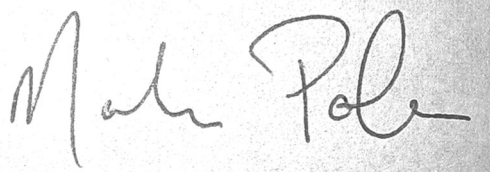
- ADEC. 2022a. Field Sampling Guidance. ADEC, Division of Spill Prevention and Response Contaminated Sites Program. August.
- ADEC. 2022b. Technical Memorandum 22-001; Guidelines for Data Reporting. ADEC, Division of Spill Prevention and Response Contaminated Sites Program. August 15.
- Arcadis. 2022a. Standard Groundwater Sampling for Monitoring Well. April
- Arcadis. 2022b. Summary of Procedures for Investigation Derived Waste Treatment Utilizing Granular Activated Carbon. September.
- ADEC. 2023. 18-AAC-75 Oil and Other Hazardous Substances Pollution Control. ADEC. Amended February 5th.

Ms. Rebekah Reams  
Alaska Department of Environmental Conservation  
Date: October 6, 2023

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

Sincerely,

Arcadis U.S., Inc.

A handwritten signature in black ink that reads "Nate Polen". The signature is written in a cursive style.

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Nate Polen  
Associate Project Manager

A handwritten signature in blue ink that reads "Gerald A. Robinson". The signature is written in a cursive style.

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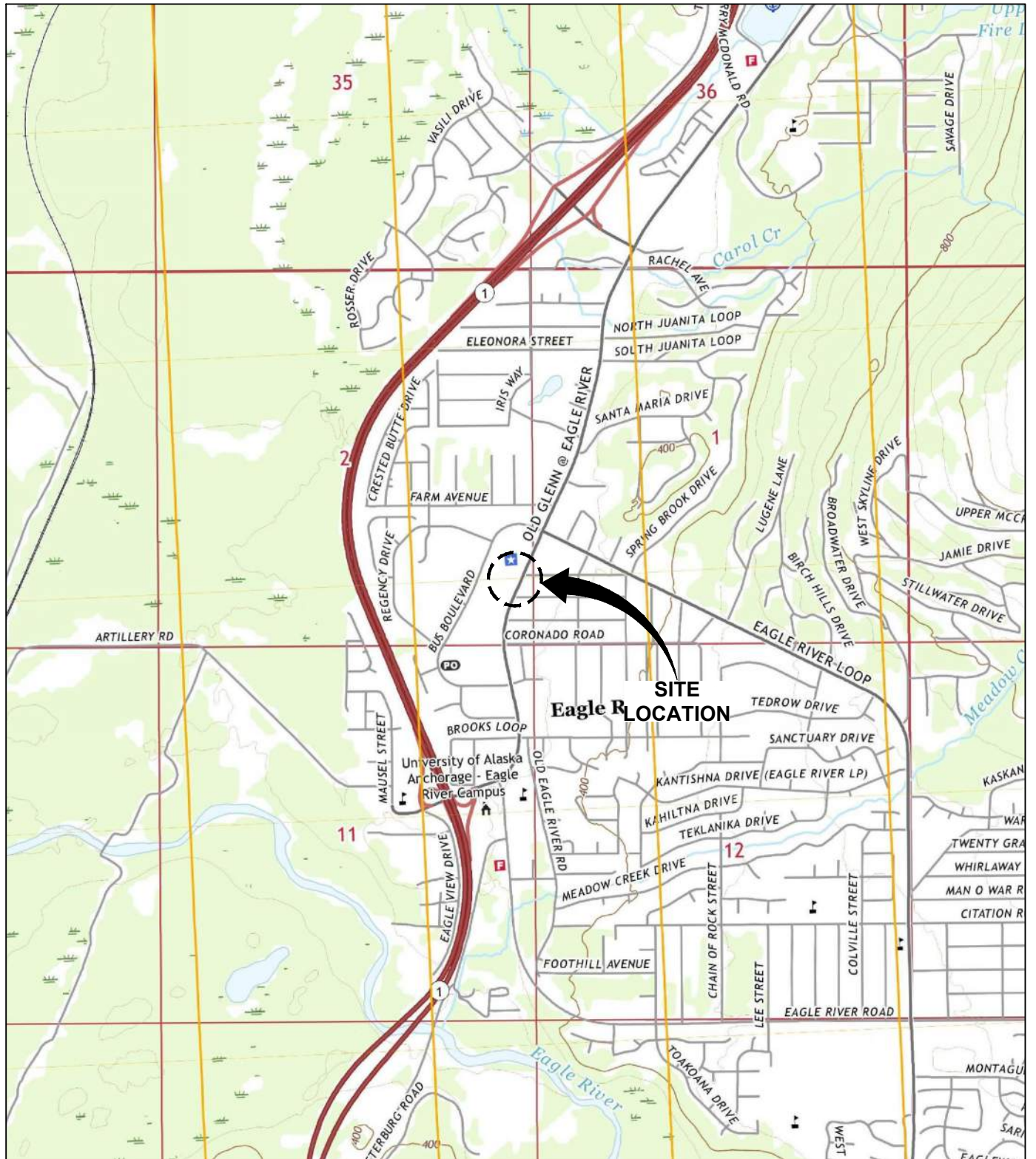
Gerald A. Robinson  
Project Manager

Enclosures:

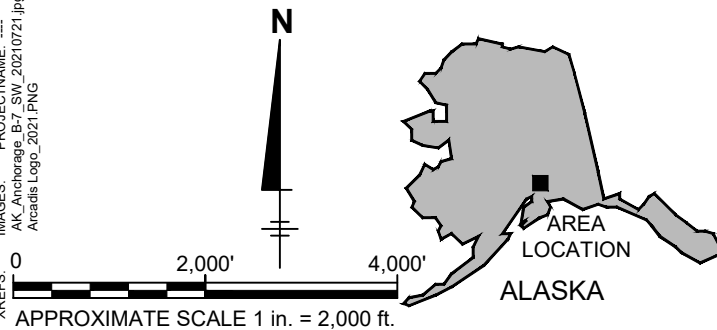
- Figure 1. Site Location Map
- Figure 2. Site Plan
- Figure 3. Groundwater Elevation Contour Map
- Table 1. Groundwater Monitoring Schedule
- Table 2. Current Groundwater Gauging and Analytical Results
- Table 3. Current Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
- Table 4. Historical Groundwater Gauging and Analytical Results
- Table 5. Historical Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons
- Attachment A. Field Notes
- Attachment B. Laboratory Analytical Results
- Attachment C. Historical Groundwater Analytical Results- Second Quarter 2020 to 2022
- Attachment D. ADEC Data Review

# Figures





SOURCE : BASE MAP USGS US TOPO; ANCHORAGE B-7 SW, AK, 2021.



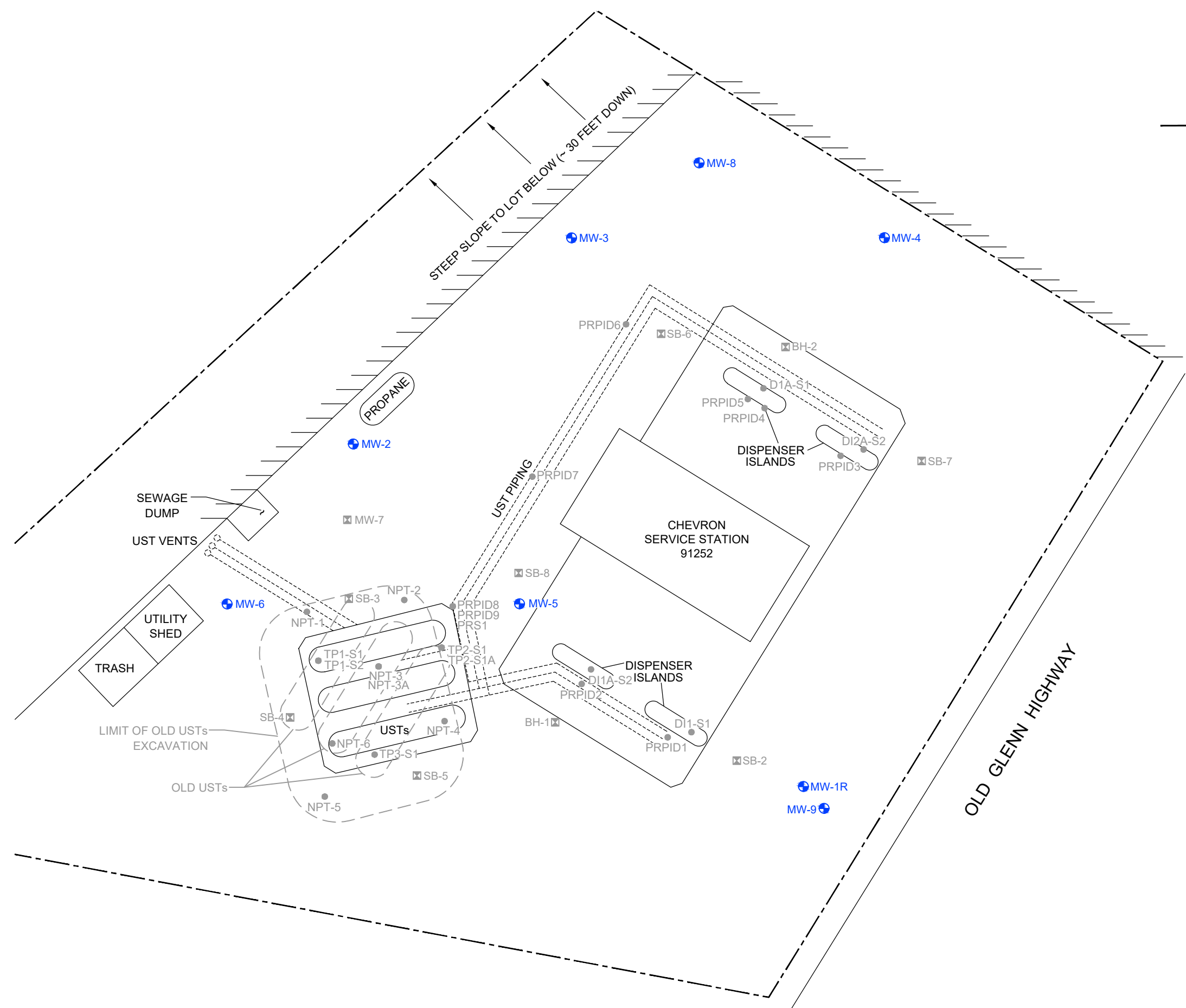
CHEVRON #1252 (CHEVRON-BRANDED SERVICE STATION #91252) 11836 OLD GLENN HIGHWAY EAGLE RIVER, ALASKA	
<b>SITE LOCATION MAP</b>	
	FIGURE <b>1</b>

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 BY: SHANKARAPPA, VASANTH KUMAR  
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**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- MW-4 ● GROUNDWATER MONITORING WELL
- SB-7 ☒ SOIL BORING LOCATION
- DI1-S1 ● SOIL SAMPLE LOCATION
- USTs UNDERGROUND STORAGE TANKS



**NOTES:**

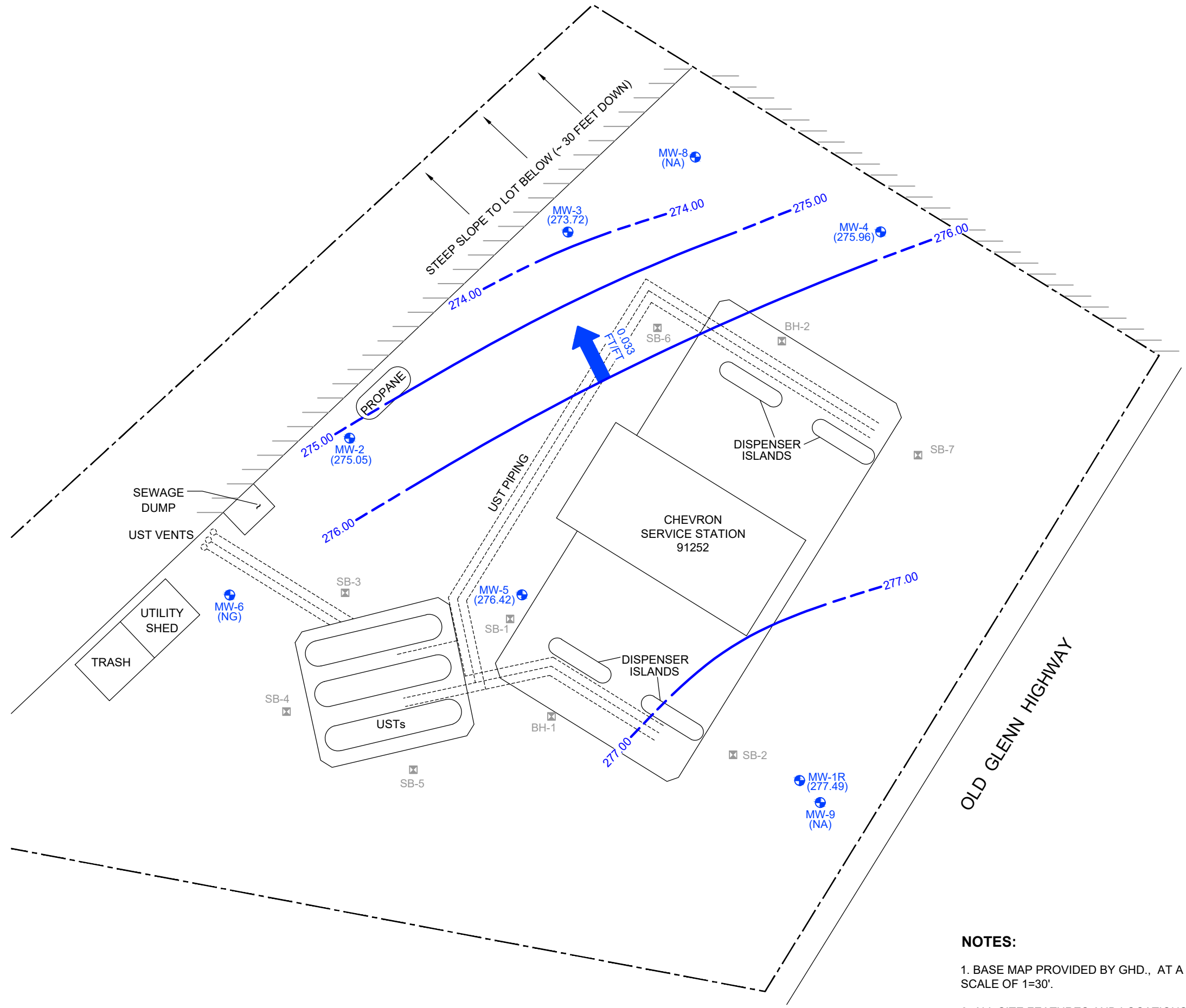
1. BASE MAP PROVIDED BY GHD., AT A SCALE OF 1=30'.
2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
3. MW-7 WAS NOT COMPLETED AS A MONITORING WELL BECAUSE OF UTILITY CONFLICTS



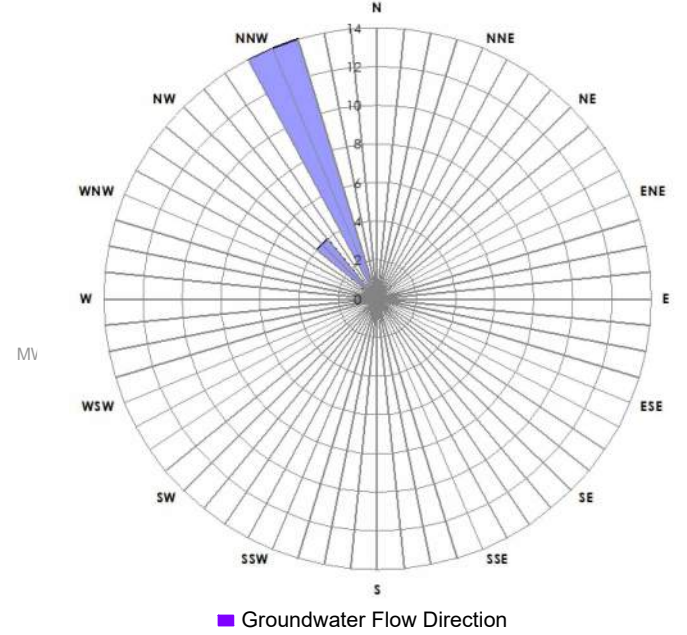
CHEVRON #1252 (CHEVRON-BRANDED SERVICE STATION #91252) 11836 OLD GLENN HIGHWAY EAGLE RIVER, ALASKA	
<b>SITE PLAN</b>	
	FIGURE <b>2</b>

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- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
  - MW-4 GROUNDWATER MONITORING WELL
  - SB-7 SOIL BORING LOCATION
  - (277.49) GROUNDWATER ELEVATION IN FEET RELATIVE TO NAVD88
  - 277.00 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - APPROXIMATE GROUNDWATER FLOW DIRECTION
  - 0.033 FT/FT APPROXIMATE HYDRAULIC GRADIENT (FEET/FOOT)
  - (NG) NOT GAUGED
  - (NA) GROUNDWATER ELEVATION NOT AVAILABLE, WELL NOT SURVEYED
  - NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988



0 25' 50'  
APPROXIMATE SCALE: 1 in. = 25 ft.

- NOTES:**
1. BASE MAP PROVIDED BY GHD., AT A SCALE OF 1=30'.
  2. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

CHEVRON #1252  
(CHEVRON-BRANDED SERVICE STATION #91252)  
11836 OLD GLENN HIGHWAY  
EAGLE RIVER, ALASKA

**GROUNDWATER ELEVATION CONTOUR MAP**  
**AUGUST 9, 2023**

**ARCADIS**

FIGURE **3**

# Tables



**Table 1**  
**Groundwater Monitoring Schedule**  
**Third Quarter 2023**  
**Chevron #1252**  
**(Chevron-Branded Service Station #91252)**  
**11836 Old Glenn Highway**  
**Eagle River, Alaska**

Well ID	Sample Schedule	Gauge	Sample	Comment
MW-1R	Quarterly	Y	N	
MW-2	Quarterly	Y	Y	
MW-3	Quarterly	Y	Y	
MW-4	Quarterly	Y	Y	
MW-5	Quarterly	Y	Y	
MW-6	Quarterly	Y	Y	
MW-8	Quarterly	Y	Y	
MW-9	Quarterly	Y	Y	
BD	Quarterly	N	Y	
TB	Quarterly	N	Y	VOCs only
EQB	Quarterly	N	Y	
MS/MSD	Quarterly	N	Y	

**Note:**

Wells sampled for select volatile organic compounds including benzene, toluene, ethylbenzene, total xylenes, 1,2-dichloroethane and 1,2-dibromoethane by United States Environmental Protection Agency (USEPA) Method 8260D, polycyclic aromatic hydrocarbons by USEPA Method 8270E-SIM, Total Lead by USEPA Method 6010D and total petroleum hydrocarbons diesel range organics by Alaska Method AK102.

Table 2  
 Current Groundwater Gauging and Analytical Results  
 Third Quarter 2023  
 Chevron #1252  
 (Chevron-Branded Service Station #91252)  
 11836 Old Glenn Highway  
 Eagle River, Alaska

Well ID	Sample Date	TOC (feet)	DTW (feet bTOC)	GW Elev. (feet)	DRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB	EDC	Lead	Comments
ADEC Groundwater Cleanup Levels					1,500	4.6	1,100	15	190	0.075	1.7	15	
MW-1R	08/09/23	307.58	30.09	277.49	--	--	--	--	--	--	--	--	Gauge only
MW-2	08/09/23	306.78	31.73	275.05	<b>170 J</b>	<1.00	<1.00	<1.00	<3.00	<0.00500 J	<1.00	<6.00	
MW-3	08/09/23	306.56	32.84	273.72	<b>528 J</b>	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-4	08/09/23	307.41	31.45	275.96	<b>222 J</b>	<b>0.111 J</b>	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-5	08/09/23	307.78	31.36	276.42	<b>1,280 [1,040]</b>	<b>0.558 J [0.553 J]</b>	<1.00 [<1.00]	<1.00 [<1.00]	<3.00 [<3.00]	<0.00500 [<0.00500]	<b>0.636 J [0.607 J]</b>	<6.00 [<6.00]	
MW-6	08/09/23	306.64	--	--	--	--	--	--	--	--	--	--	Not gauged nor sampled, vault flooded
MW-8	08/09/23	--	15.83	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	08/09/23	--	16.12	--	--	--	--	--	--	--	--	--	Not enough water to sample

**Notes:**

1. DRO analyzed by Alaska Method AK102.
2. Lead analyzed by United States Environmental Protection Agency (USEPA) Method 6010D.
3. Constituents of concern analyzed by USEPA Method 8260D except where noted above.
4. All results reported in micrograms per liter.

**Acronyms and Abbreviations:**

- = Not Available or Not Analyzed
- [ ] = Blind Duplicate Sample Result
- <1.00 = 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
- DRO = Total petroleum hydrocarbons, diesel range organics
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane
- J = The associated numerical value is an estimated concentration only
- B = The same analyte is found in the associated blank

**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  
 Current Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons  
 Third Quarter 2023  
 Chevron #1252  
 (Chevron-Branded Service Station #91252)  
 11836 Old Glenn Highway  
 Eagle River, Alaska

Well ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	2-Chloro-naphthalene	Chrysene	Dibenz(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene
ADEC Groundwater Cleanup		530	260	43	0.3	0.25	2.5	0.26	0.8	750	2.0	0.25	260	290	0.19	11	36	1.7	170	120
MW-1R	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<b>0.0230 J</b>	<0.0500
MW-3	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0935 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<b>0.0672</b>	<b>0.163</b>
MW-4	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<b>0.0255 J</b>	<b>0.0412 J</b>	<0.500	<b>0.0184 J</b>	<0.0500
MW-5	08/09/23	<b>0.0675</b> <b>[0.0663]</b>	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<b>0.0206 J</b> [<0.0500]	<0.250 [<0.250]	<0.500 [<0.500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 B [<0.0500 B]	<b>0.432</b> <b>[0.446]</b>	<b>0.0208 J</b> [<0.0500]	<0.500 [<0.500]	<0.500 [<0.500]	<b>0.191 J</b> <b>[0.187 J]</b>	<b>0.309</b> <b>[0.344]</b>	<0.0500 [<0.0500]
MW-6	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:  
 1. Constituents of concern analyzed by USEPA Method 8270E-SIM.  
 2. All results reported in micrograms per liter.

Acronyms and Abbreviations:  
 -- = Not Available or Not Analyzed  
 [ ] = Blind Duplicate Sample Result  
 <0.0500 = 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)  
 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  
 J = The associated numerical value is an estimated concentration only  
 B = The same analyte is found in the associated blank

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 4**  
**Historical Groundwater Gauging and Analytical Results**  
**First Quarter 2023 through Third Quarter 2023**  
**Chevron #1252**  
**(Chevron-Branded Service Station #91252)**  
**11836 Old Glenn Highway**  
**Eagle River, Alaska**

Well ID	Sample Date	TOC (feet)	DTW (feet bTOC)	GW Elev. (feet)	DRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB	EDC	Lead	Comments
ADEC Groundwater Cleanup Levels					1,500	4.6	1,100	15	190	0.075	1.7	15	
MW-1R	03/23/23	307.58	30.40	277.18	--	--	--	--	--	--	--	--	Gauge only
MW-1R	05/04/23	307.58	29.23	278.35	--	--	--	--	--	--	--	--	Gauge only
MW-1R	08/09/23	307.58	30.09	277.49	--	--	--	--	--	--	--	--	Gauge only
MW-2	03/23/23	306.78	32.20	274.58	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-2	05/04/23	306.78	30.96	275.82	<800 B	<1.00	<1.00	<1.00	<3.00	<b>0.0100</b>	<1.00	<b>4.46 J</b>	
MW-2	08/09/23	306.78	31.73	275.05	<b>170 J</b>	<1.00	<1.00	<1.00	<3.00	<0.00500 J	<1.00	<6.00	
MW-3	03/23/23	306.56	33.75	272.81	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<b>3.98 J</b>	
MW-3	05/04/23	306.56	31.24	275.32	<b>&lt;8,000 B J</b>	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<b>11.7</b>	PVC casing cut down
MW-3	08/09/23	306.56	32.84	273.72	<b>528 J</b>	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-4	03/23/23	307.41	31.63	275.78	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-4	05/04/23	307.41	30.80	276.61	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-4	08/09/23	307.41	31.45	275.96	<b>222 J</b>	<b>0.111 J</b>	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-5	03/23/23	307.78	31.68	276.10	<800 B [ <b>&lt;800 B</b> ]	<b>0.301 J [0.234 J]</b>	<1.00 J [ <b>&lt;1.00</b> ]	<1.00 J [ <b>0.381 J</b> ]	<3.00 J [ <b>1.47 J</b> ]	<0.00500 [ <b>&lt;0.00500</b> ]	<b>0.484 J [<b>&lt;1.00</b>]</b>	<6.00 [ <b>&lt;6.00</b> ]	
MW-5	05/04/23	307.78	30.94	276.84	<b>1,310 [1,300]</b>	<b>0.305 J [0.273 J]</b>	<1.00 [ <b>&lt;1.00</b> ]	<1.00 [ <b>&lt;1.00</b> ]	<3.00 [ <b>&lt;3.00</b> ]	<0.00500 J [ <b>&lt;0.00500</b> ]	<b>0.707 J [0.733 J]</b>	<6.00 [ <b>5.17 J</b> ]	
MW-5	08/09/23	307.78	31.36	276.42	<b>1,280 [1,040]</b>	<b>0.558 J [0.553 J]</b>	<1.00 [ <b>&lt;1.00</b> ]	<1.00 [ <b>&lt;1.00</b> ]	<3.00 [ <b>&lt;3.00</b> ]	<0.00500 [ <b>&lt;0.00500</b> ]	<b>0.636 J [0.607 J]</b>	<6.00 [ <b>&lt;6.00</b> ]	
MW-6	03/23/23	306.64	31.51	275.13	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-6	05/04/23	306.64	30.44	276.20	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<6.00	
MW-6	08/09/23	306.64	--	--	--	--	--	--	--	--	--	--	Not gauged nor sampled, vault flooded
MW-8	03/23/23	--	16.28	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-8	05/04/23	--	14.90	--	<800 B	<1.00	<1.00	<1.00	<3.00	<0.00500	<1.00	<b>69.7</b>	
MW-8	08/09/23	--	15.83	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	03/23/23	--	16.22	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	05/04/23	--	16.25	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	08/09/23	--	16.12	--	--	--	--	--	--	--	--	--	Not enough water to sample

**Notes:**

1. DRO analyzed by Alaska Method AK102.
2. Lead analyzed by United States Environmental Protection Agency (USEPA) Method 6010D.
3. Constituents of concern analyzed by USEPA Method 8260D except where noted above.
4. All results reported in micrograms per liter.

**Acronyms and Abbreviations:**

- = Not Available or Not Analyzed
- [ ] = Blind Duplicate Sample Result
- <1.00 = 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
- DRO = Total petroleum hydrocarbons, diesel range organics
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane
- J = The associated numerical value is an estimated concentration only
- B = The same analyte is found in the associated blank

**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 5  
Historical Groundwater Analytical Results - Polycyclic Aromatic Hydrocarbons  
First Quarter 2023 through Third Quarter 2023  
Chevron #1252  
(Chevron-Branded Service Station #91252)  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	2-Chloronaphthalene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
ADEC Groundwater Cleanup Levels		530	260	43	0.3	0.25	2.5	0.26	0.8	750	2.0	0.25	260	290	0.19	11	36	1.7	170	120
MW-1R	03/23/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1R	05/04/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1R	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/23/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<b>0.0140 J</b>	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<0.0500
MW-2	05/04/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<0.0500
MW-2	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<b>0.0230 J</b>	<0.0500
MW-3	03/23/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<b>0.0218 J</b>	<b>0.0375 J</b>	<0.250	<0.500	<0.0500	<0.0500	<b>0.0195 J</b>	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<b>0.0389 J</b>
MW-3	05/04/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<b>0.0203 J</b>	<b>0.0367 J</b>	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<b>0.0406 J</b>
MW-3	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0935 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<b>0.0672</b>	<b>0.163</b>
MW-4	03/23/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<b>0.0152 J</b>	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<b>0.0196 J</b>
MW-4	05/04/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<0.500	<0.500	<0.500	<0.0500	<0.0500
MW-4	08/09/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<0.0500	<b>0.0255 J</b>	<b>0.0412 J</b>	<0.500	<b>0.0184 J</b>	<0.0500
MW-5	03/23/23	<b>0.0387 J</b> [<0.0500]	<b>0.0386 J</b> [ <b>0.0332 J</b> ]	<b>0.0306 J</b> [ <b>0.0293 J</b> ]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.250 J [<0.250]	<b>0.0434 J</b> [ <b>0.0354 J</b> ]	<0.0500 [<0.0500]	<0.0500 J [<0.0500]	<0.0500 J [ <b>0.0110 J</b> ]	<b>0.309 J</b> [ <b>0.387</b> ]	<0.0500 J [<0.0500]	<b>0.0256 J</b> [<0.500]	<0.500 J [<0.500]	<0.500 J [<0.500]	<b>0.317 J</b> [ <b>0.414</b> ]	<0.0500 J [<0.0500]
MW-5	05/04/23	<b>0.0676</b> [ <b>0.0708</b> ]	<0.0500 [<0.0500]	<b>0.0371 J</b> [ <b>0.0348 J</b> ]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.250 J [<0.250]	<b>0.0596 J</b> [ <b>0.0551 J</b> ]	<0.0500 J [<0.0500]	<0.0500 J [<0.0500]	<0.0500 B [<0.0500 B]	<b>0.668</b> [ <b>0.652</b> ]	<0.0500 J [<0.0500]	<0.500 [<0.500]	<0.500 [<0.500]	<0.500 [<0.500]	<b>0.532</b> [ <b>0.516</b> ]	<b>0.0199 J</b> [ <b>0.0202 J</b> ]
MW-5	08/09/23	<b>0.0675</b> [ <b>0.0663</b> ]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<b>0.0206 J</b> [<0.0500]	<0.250 [<0.250]	<0.500 [<0.500]	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0500 B [<0.0500 B]	<b>0.432</b> [ <b>0.446</b> ]	<b>0.0208 J</b> [<0.0500]	<0.500 [<0.500]	<0.500 [<0.500]	<b>0.191 J</b> [ <b>0.187 J</b> ]	<b>0.309</b> [ <b>0.344</b> ]	<0.0500 [<0.0500]
MW-6	03/23/23	<0.0500	<b>0.0258 J</b>	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.250	<0.500	<0.0500	<0.0500	<b>0.0194 J</b>	<0.0500	<0.0500	<0.500	<0.500	<0.500	<b>0.0454 J</b>	<b>0.0329 J</b>
MW-6	05/04/23	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<b>0.0318 J</b>	<0.250	<0.500	<0.0500	<0.0500	<0.0500 B	<0.0500	<b>0.0209 J</b>	<0.500	<0.500	<0.500	<0.0500	<b>0.0244 J</b>
MW-6	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	03/23/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	05/04/23	<0.0555	<0.0555	<0.0555	<0.0555	<0.0555	<0.0555	<0.0555	<0.278	<0.555	<0.0555	<0.0555	<0.0555 B	<0.0555	<0.0555	<0.555	<0.555	<0.555	<0.0555	<0.0555
MW-8	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	03/23/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/04/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	08/09/23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. Constituents of concern analyzed by USEPA Method 8270E-SIM.
2. All results reported in micrograms per liter.

Acronyms and Abbreviations:

- = Not Available or Not Analyzed
- [ ] = Blind Duplicate Sample Result
- <0.0500 = 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)
- 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
- J = The associated numerical value is an estimated concentration only
- B = The same analyte is found in the associated blank

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 :** 30063655

**Prepared By:** Evan Wujcik

**Site ID:** 91252

**Site Name:** Chevron - 91252

**City:** Eagle River

**State:** Alaska

**Project Manager:** Gerald Robinson

**Portfolio:** COP 3.0

**Subportfolio:** West

**Inside Chevron Operational Control? Yes  No**

**Staff on Site**

Evan Wujcik

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

Date	Time	Description of Activities
08/09/2023	6:00	Arrive on site Locate Wells
08/09/2023	7:00	Sample MW4 Decon equipment See COC for analysis
08/09/2023	8:00	Sample MW3 Decon equipment See COC for analysis
08/09/2023	9:00	Sample MW2 MS/MSD samples collected from this location Decon equipment See COC for analysis
08/09/2023	10:00	Sample MW5 BD samples collected from this location Decon equipment See COC for analysis
08/09/2023	10:30	Load vehicle Mobilize offsite MW8 and 9 not enough water to sample. MW6 no gauge or sample. Vault flooded and could not drain the water faster than the recharge.

**Signature**



## Groundwater Gauging Log

<b>Project Number</b>		30063655						
<b>Client:</b>		Chevron						
<b>Site ID:</b>		91252						
<b>Site Location:</b>		Eagle River, Alaska						
<b>Measuring Point:</b>		Top of Casing						
<b>Date(s):</b>		08/09/2023						
<b>Sampler(s):</b>		Evan Wujcik						
<b>Gauging Equipment:</b>		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
MW-1R	08/09/2023	06:13	30.09	ND	38.20	0	--	--
MW-2	08/09/2023	06:04	31.73	ND	38.40	0	--	--
MW-3	08/09/2023	06:07	32.84	ND	37.00	0	--	--
MW-4	08/09/2023	06:16	31.45	ND	44.00	0	--	--
MW-5	08/09/2023	06:03	31.36	ND	42.50	0	--	--
MW-8	08/09/2023	06:29	15.83	ND	16.30	0	--	Not enough water to sample
MW-9	08/09/2023	06:08	16.12	ND	16.27	0	--	Not enough water to sample

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

<b>Project Number</b>	30063655	<b>Well ID</b>	MW-3	<b>Date</b>	8/9/2023				
<b>Site Location</b>	Eagle River, Alaska	<b>Site ID</b>	91252	<b>Weather (°F)</b>	Clear	<b>Sampled by</b>	Evan Wujcik		
<b>Measuring Point Description</b>	Top of Casing	<b>Screen Depth Interval (ft-bmp)</b>	-- to --	<b>Casing Diameter (in.)</b>	2	<b>Well Casing Material</b>	PVC		
<b>Static Water Level (ft-bmp)</b>	32.84	<b>Total Depth (ft-bmp)</b>	37	<b>Water Column (ft)</b>	4.16	<b>Gallons in Well</b>	0.68		
<b>Water Quality Meter Make/Model</b>	Horiba U-52	<b>Purge Method</b>	Low-Flow	<b>Collection Type</b>	Grab				
<b>Sample Time</b>	08:00	<b>Well Volumes Purged</b>	1.17	<b>Sample ID</b>	MW-3-W-20230809	<b>Purge Equipment</b>	Bladder		
<b>Purge Start</b>	07:30	<b>Gallons Purged</b>	0.79	<b>Duplicate ID</b>	--	<b>Sample Equipment</b>	Bladder		
<b>Purge End</b>	07:50	<b>Total Purge Time (h:m)</b>	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	32.88	7.25	2.01	0.0	1.48	11.57	-57	--
07:36	200	32.91	7.12	2.33	0.0	0.82	11.60	-57	--
07:39	200	32.96	7.05	2.45	0.0	0.29	11.83	-53	--
07:42	200	33	7.02	2.49	0.0	0.07	12.02	-50	--
07:45	200	33.04	7.00	2.52	0.0	0.00	12.10	-47	--

**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-20230809 Sample Time: 08:00 Sample Depth (ft-bmp) (e.g. pump intake): 34  
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 33.04

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

<b>Project Number</b>	30063655	<b>Well ID</b>	MW-4	<b>Date</b>	8/9/2023				
<b>Site Location</b>	Eagle River, Alaska	<b>Site ID</b>	91252	<b>Weather (°F)</b>	Clear	<b>Sampled by</b>	Evan Wujcik		
<b>Measuring Point Description</b>	Top of Casing	<b>Screen Depth Interval (ft-bmp)</b>	-- to --	<b>Casing Diameter (in.)</b>	2	<b>Well Casing Material</b>	PVC		
<b>Static Water Level (ft-bmp)</b>	31.45	<b>Total Depth (ft-bmp)</b>	44	<b>Water Column (ft)</b>	12.55	<b>Gallons in Well</b>	2.04		
<b>Water Quality Meter Make/Model</b>	Horiba U-52	<b>Purge Method</b>	Low-Flow	<b>Collection Type</b>	Grab				
<b>Sample Time</b>	07:00	<b>Well Volumes Purged</b>	0.31	<b>Sample ID</b>	MW-4-W-20230809	<b>Purge Equipment</b>	Bladder		
<b>Purge Start</b>	06:30	<b>Gallons Purged</b>	0.63	<b>Duplicate ID</b>	--	<b>Sample Equipment</b>	Bladder		
<b>Purge End</b>	06:50	<b>Total Purge Time (h:m)</b>	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	31.48	7.85	0.973	58.2	9.85	10.27	98	--
06:36	200	31.5	7.79	0.962	51.1	8.70	9.68	100	--
06:39	200	31.52	7.77	0.945	44.8	8.42	9.14	102	--
06:42	200	31.55	7.73	0.940	40.1	8.44	10.10	104	--

**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-4-W-20230809 Sample Time: 07:00 Sample Depth (ft-bmp) (e.g. pump intake): 32  
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 31.55

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

<b>Project Number</b>	30063655	<b>Well ID</b>	MW-5	<b>Date</b>	8/9/2023				
<b>Site Location</b>	Eagle River, Alaska	<b>Site ID</b>	91252	<b>Weather (°F)</b>	Clear	<b>Sampled by</b>	Evan Wujcik		
<b>Measuring Point Description</b>	Top of Casing	<b>Screen Depth Interval (ft-bmp)</b>	-- to --	<b>Casing Diameter (in.)</b>	2	<b>Well Casing Material</b>	PVC		
<b>Static Water Level (ft-bmp)</b>	31.36	<b>Total Depth (ft-bmp)</b>	42.5	<b>Water Column (ft)</b>	11.14	<b>Gallons in Well</b>	1.81		
<b>Water Quality Meter Make/Model</b>	Horiba U-52	<b>Purge Method</b>	Low-Flow	<b>Collection Type</b>	Grab				
<b>Sample Time</b>	10:00	<b>Well Volumes Purged</b>	0.44	<b>Sample ID</b>	MW-5-W-20230809	<b>Purge Equipment</b>	Bladder		
<b>Purge Start</b>	09:30	<b>Gallons Purged</b>	0.79	<b>Duplicate ID</b>	BD	<b>Sample Equipment</b>	Bladder		
<b>Purge End</b>	09:50	<b>Total Purge Time (h:m)</b>	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	31.38	6.83	10.8	165	1.52	10.74	2	--
09:36	200	31.4	6.82	11.8	73.5	0.00	10.17	-4	--
09:39	200	31.42	6.82	12.0	47.8	0.00	10.01	-6	--
09:42	200	31.44	6.81	12.1	22.2	0.00	9.84	-9	--

**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-5-W-20230809 Sample Time: 10:00 Sample Depth (ft-bmp) (e.g. pump intake): 32  
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 31.44

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

<b>Project Number</b>	30063655	<b>Well ID</b>	MW-2	<b>Date</b>	8/9/2023				
<b>Site Location</b>	Eagle River, Alaska	<b>Site ID</b>	91252	<b>Weather (°F)</b>	Clear	<b>Sampled by</b>	Evan Wujcik		
<b>Measuring Point Description</b>	Top of Casing	<b>Screen Depth Interval (ft-bmp)</b>	-- to --	<b>Casing Diameter (in.)</b>	2	<b>Well Casing Material</b>	PVC		
<b>Static Water Level (ft-bmp)</b>	31.73	<b>Total Depth (ft-bmp)</b>	38.4	<b>Water Column (ft)</b>	6.67	<b>Gallons in Well</b>	1.08		
<b>Water Quality Meter Make/Model</b>	Horiba U-52	<b>Purge Method</b>	Low-Flow	<b>Collection Type</b>	Grab				
<b>Sample Time</b>	09:00	<b>Well Volumes Purged</b>	0.73	<b>Sample ID</b>	MW-2-W-20230809	<b>Purge Equipment</b>	Bladder		
<b>Purge Start</b>	08:30	<b>Gallons Purged</b>	0.79	<b>Duplicate ID</b>	MS/MSD	<b>Sample Equipment</b>	Bladder		
<b>Purge End</b>	08:50	<b>Total Purge Time (h:m)</b>	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	31.76	7.12	2.22	474	2.10	11.23	-10	--
08:36	200	31.79	7.15	1.99	243	2.58	10.55	15	--
08:39	200	31.82	7.15	1.94	160	2.60	10.21	40	--
08:42	200	31.84	7.17	1.91	131	2.60	9.96	54	--
08:45	200	31.86	7.18	1.89	130	2.66	9.86	63	--

**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-2-W-20230809 Sample Time: 09:00 Sample Depth (ft-bmp) (e.g. pump intake): 34  
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: 31.86

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: L1645337  
Samples Received: 08/11/2023  
Project Number: 30063655.19.45  
Description: 91252  
Site: 11836 OLD GLENN HWY EAGLE RIV  
Report To: Gerald Robinson  
880 H St.  
Anchorage, AK 99501

Entire Report Reviewed By:



Brian Ford  
Project Manager

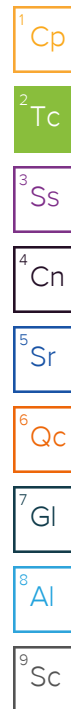
Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory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

Pace Analytical National

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

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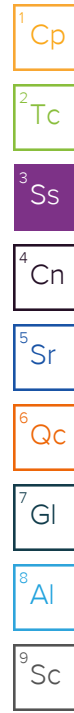


# SAMPLE SUMMARY

## MW-4-W-20230809 L1645337-01 GW

Collected by EW      Collected date/time 08/09/23 07:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 10:10	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 17:44	08/14/23 17:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/17/23 02:16	08/17/23 02:16	BAM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2116303	1	08/18/23 02:39	08/18/23 02:39	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/19/23 02:13	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/12/23 19:36	AED	Mt. Juliet, TN



## MW-3-W-20230809 L1645337-02 GW

Collected by EW      Collected date/time 08/09/23 08:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 10:13	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 18:08	08/14/23 18:08	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/17/23 02:36	08/17/23 02:36	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/23/23 02:26	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/15/23 21:40	AED	Mt. Juliet, TN

## MW-2-W-20230809 L1645337-03 GW

Collected by EW      Collected date/time 08/09/23 09:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 09:39	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 18:32	08/14/23 18:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/17/23 02:57	08/17/23 02:57	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/19/23 02:33	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/12/23 20:47	AED	Mt. Juliet, TN

## MW-5-W-20230809 L1645337-04 GW

Collected by EW      Collected date/time 08/09/23 10:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 10:16	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 18:56	08/14/23 18:56	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/17/23 03:17	08/17/23 03:17	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/19/23 03:34	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/12/23 21:40	AED	Mt. Juliet, TN

## BD-1-W-20230809 L1645337-05 GW

Collected by EW      Collected date/time 08/09/23 00:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 10:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 19:20	08/14/23 19:20	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/17/23 03:37	08/17/23 03:37	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/19/23 03:54	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/12/23 21:58	AED	Mt. Juliet, TN

# SAMPLE SUMMARY

## EQB-1-W-20230809 L1645337-06 GW

Collected by EW      Collected date/time 08/09/23 10:30      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2113306	1	08/16/23 00:35	08/18/23 10:23	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 19:44	08/14/23 19:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/16/23 23:02	08/16/23 23:02	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	1	08/18/23 11:00	08/19/23 04:14	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2112637	1	08/12/23 08:08	08/12/23 22:15	AED	Mt. Juliet, TN

1  
Cp

2  
Tc

3  
Ss

4  
Cn

## TRIP BLANK 1-20230809 L1645337-07 GW

Collected by EW      Collected date/time 08/09/23 00:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 13:21	08/14/23 13:21	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2119349	1	08/23/23 14:48	08/23/23 14:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	2.38	08/18/23 11:00	08/19/23 04:34	TJD	Mt. Juliet, TN

5  
Sr

6  
Qc

7  
Gl

8  
Al

## TRIP BLANK 2-20230809 L1645337-08 GW

Collected by EW      Collected date/time 08/09/23 00:00      Received date/time 08/11/23 11:35

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2113515	1	08/14/23 13:45	08/14/23 13:45	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2115236	1	08/16/23 20:07	08/16/23 20:07	BAM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method AK102	WG2114922	2.38	08/18/23 11:00	08/19/23 04:54	TJD	Mt. Juliet, TN

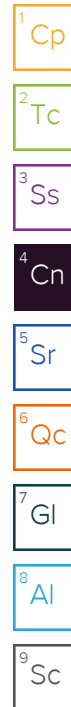
9  
Sc

# 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



## Sample Delivery Group (SDG) Narrative

---

Analyzed from headspace vial.

Batch	Method	Lab Sample ID
WG2119349	8260D	L1645337-07

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

---

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

Batch	Lab Sample ID	Analytes
WG2113515	(MS) R3961822-3, L1645337-03	1,2-Dibromoethane

## Semi-Volatile Organic Compounds (GC) by Method AK102

---

Surrogate recovery limits have been exceeded; values are outside upper control limits.

Batch	Analyte	Lab Sample ID
WG2114922	o-Terphenyl	(LCS) R3964065-2

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2114922	o-Terphenyl	L1645337-02

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

Batch	Lab Sample ID	Analytes
WG2114922	(MS) R3964065-4	AK102 DRO C10-C25

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

---

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG2112637	p-Terphenyl-d14	(MS) R3960734-3, (MSD) R3960734-4

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG2112637	Pyrene	L1645337-02, 06

# CASE NARRATIVE

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

---

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

Batch	Lab Sample ID	Analytes
WG2112637	(MS) R3960734-3, (MSD) R3960734-4	12 analytes

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

Batch	Lab Sample ID	Analytes
WG2112637	(MSD) R3960734-4	Anthracene and Phenanthrene

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 10:10	<a href="#">WG2113306</a>

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

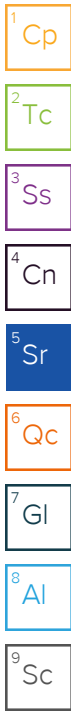
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.111	J	0.0941	1.00	1	08/18/2023 02:39	<a href="#">WG2116303</a>
Toluene	U		0.278	1.00	1	08/17/2023 02:16	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 17:44	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/17/2023 02:16	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/17/2023 02:16	<a href="#">WG2115236</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/17/2023 02:16	<a href="#">WG2115236</a>
(S) Toluene-d8	108			80.0-120		08/17/2023 02:16	<a href="#">WG2115236</a>
(S) Toluene-d8	100			80.0-120		08/18/2023 02:39	<a href="#">WG2116303</a>
(S) 4-Bromofluorobenzene	95.3			77.0-126		08/17/2023 02:16	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	103			77.0-126		08/18/2023 02:39	<a href="#">WG2116303</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		08/17/2023 02:16	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	101			70.0-130		08/18/2023 02:39	<a href="#">WG2116303</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	222	J	170	800	1	08/19/2023 02:13	<a href="#">WG2114922</a>
(S) o-Terphenyl	84.4			50.0-150		08/19/2023 02:13	<a href="#">WG2114922</a>

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

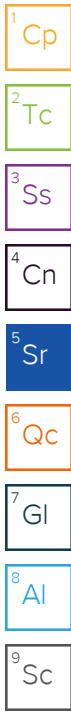
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Acenaphthene	U		0.0190	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Fluoranthene	0.0175	J	0.0110	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Fluorene	U		0.0170	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Naphthalene	U		0.128	0.500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Phenanthrene	0.0184	J	0.0180	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
Pyrene	U		0.0170	0.0500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
1-Methylnaphthalene	0.0255	J	0.0200	0.500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
2-Methylnaphthalene	0.0412	J	0.0280	0.500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/12/2023 19:36	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	97.3			11.0-135		08/12/2023 19:36	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	70.9			32.0-120		08/12/2023 19:36	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	64.8			23.0-122		08/12/2023 19:36	<a href="#">WG2112637</a>





Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 10:13	<a href="#">WG2113306</a>



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/17/2023 02:36	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/17/2023 02:36	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 18:08	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/17/2023 02:36	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/17/2023 02:36	<a href="#">WG2115236</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/17/2023 02:36	<a href="#">WG2115236</a>
(S) Toluene-d8	107			80.0-120		08/17/2023 02:36	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	103			77.0-126		08/17/2023 02:36	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		08/17/2023 02:36	<a href="#">WG2115236</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	528	<u>J</u>	170	800	1	08/23/2023 02:26	<a href="#">WG2114922</a>
(S) o-Terphenyl	49.4	<u>J2</u>		50.0-150		08/23/2023 02:26	<a href="#">WG2114922</a>

Sample Narrative:

L1645337-02 WG2114922: Sample produced emulsion during Extraction process, low surr/spike recoveries due to matrix.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Acenaphthene	U		0.0190	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Fluoranthene	0.0935		0.0110	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Fluorene	U		0.0170	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Naphthalene	U		0.128	0.500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Phenanthrene	0.0672		0.0180	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
Pyrene	0.163	<u>B</u>	0.0170	0.0500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
1-Methylnaphthalene	U		0.0200	0.500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
2-Methylnaphthalene	U		0.0280	0.500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/15/2023 21:40	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	118			11.0-135		08/15/2023 21:40	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	75.8			32.0-120		08/15/2023 21:40	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	65.4			23.0-122		08/15/2023 21:40	<a href="#">WG2112637</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 09:39	<a href="#">WG2113306</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/17/2023 02:57	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/17/2023 02:57	<a href="#">WG2115236</a>
1,2-Dibromoethane	U	J6	0.00410	0.00500	1	08/14/2023 18:32	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/17/2023 02:57	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/17/2023 02:57	<a href="#">WG2115236</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/17/2023 02:57	<a href="#">WG2115236</a>
(S) Toluene-d8	108			80.0-120		08/17/2023 02:57	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	101			77.0-126		08/17/2023 02:57	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	107			70.0-130		08/17/2023 02:57	<a href="#">WG2115236</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	170	J	170	800	1	08/19/2023 02:33	<a href="#">WG2114922</a>
(S) o-Terphenyl	93.9			50.0-150		08/19/2023 02:33	<a href="#">WG2114922</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Acenaphthene	U		0.0190	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Fluoranthene	0.0132	J	0.0110	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Fluorene	U		0.0170	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Naphthalene	U		0.128	0.500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Phenanthrene	0.0230	J	0.0180	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
Pyrene	U		0.0170	0.0500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
1-Methylnaphthalene	U		0.0200	0.500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
2-Methylnaphthalene	U		0.0280	0.500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/12/2023 20:47	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	110			11.0-135		08/12/2023 20:47	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	78.5			32.0-120		08/12/2023 20:47	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	76.0			23.0-122		08/12/2023 20:47	<a href="#">WG2112637</a>

1  
Cp

2  
Tc

3  
Ss

4  
Cn

5  
Sr

6  
Qc

7  
Gl

8  
Al

9  
Sc

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 10:16	<a href="#">WG2113306</a>

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	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.558	J	0.0941	1.00	1	08/17/2023 03:17	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/17/2023 03:17	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 18:56	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/17/2023 03:17	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/17/2023 03:17	<a href="#">WG2115236</a>
1,2-Dichloroethane	0.636	J	0.0819	1.00	1	08/17/2023 03:17	<a href="#">WG2115236</a>
(S) Toluene-d8	107			80.0-120		08/17/2023 03:17	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	97.2			77.0-126		08/17/2023 03:17	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	105			70.0-130		08/17/2023 03:17	<a href="#">WG2115236</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	1280		170	800	1	08/19/2023 03:34	<a href="#">WG2114922</a>
(S) o-Terphenyl	88.3			50.0-150		08/19/2023 03:34	<a href="#">WG2114922</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Acenaphthene	0.0675		0.0190	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	0.0206	J	0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Fluoranthene	0.0123	J	0.0110	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Fluorene	0.432		0.0170	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	0.0208	J	0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Naphthalene	0.191	J	0.128	0.500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Phenanthrene	0.309		0.0180	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
Pyrene	U		0.0170	0.0500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
1-Methylnaphthalene	U		0.0200	0.500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
2-Methylnaphthalene	U		0.0280	0.500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/12/2023 21:40	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	68.5			11.0-135		08/12/2023 21:40	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	37.0			32.0-120		08/12/2023 21:40	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	27.6			23.0-122		08/12/2023 21:40	<a href="#">WG2112637</a>

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 10:20	<a href="#">WG2113306</a>

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	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	0.553	J	0.0941	1.00	1	08/17/2023 03:37	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/17/2023 03:37	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 19:20	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/17/2023 03:37	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/17/2023 03:37	<a href="#">WG2115236</a>
1,2-Dichloroethane	0.607	J	0.0819	1.00	1	08/17/2023 03:37	<a href="#">WG2115236</a>
(S) Toluene-d8	109			80.0-120		08/17/2023 03:37	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	98.1			77.0-126		08/17/2023 03:37	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	110			70.0-130		08/17/2023 03:37	<a href="#">WG2115236</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	1040		170	800	1	08/19/2023 03:54	<a href="#">WG2114922</a>
(S) o-Terphenyl	69.8			50.0-150		08/19/2023 03:54	<a href="#">WG2114922</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Acenaphthene	0.0663		0.0190	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Fluoranthene	0.0116	J	0.0110	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Fluorene	0.446		0.0170	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Naphthalene	0.187	J	0.128	0.500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Phenanthrene	0.344		0.0180	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
Pyrene	U		0.0170	0.0500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
1-Methylnaphthalene	U		0.0200	0.500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
2-Methylnaphthalene	U		0.0280	0.500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/12/2023 21:58	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	70.0			11.0-135		08/12/2023 21:58	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	37.9			32.0-120		08/12/2023 21:58	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	31.8			23.0-122		08/12/2023 21:58	<a href="#">WG2112637</a>

## Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	08/18/2023 10:23	<a href="#">WG2113306</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/16/2023 23:02	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/16/2023 23:02	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 19:44	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/16/2023 23:02	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/16/2023 23:02	<a href="#">WG2115236</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/16/2023 23:02	<a href="#">WG2115236</a>
(S) Toluene-d8	101			80.0-120		08/16/2023 23:02	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	98.2			77.0-126		08/16/2023 23:02	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	111			70.0-130		08/16/2023 23:02	<a href="#">WG2115236</a>

## Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	U		170	800	1	08/19/2023 04:14	<a href="#">WG2114922</a>
(S) o-Terphenyl	91.4			50.0-150		08/19/2023 04:14	<a href="#">WG2114922</a>

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Acenaphthene	U		0.0190	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Acenaphthylene	U		0.0170	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Benzo(a)anthracene	U		0.0200	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Benzo(a)pyrene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Benzo(b)fluoranthene	U		0.0170	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Benzo(g,h,i)perylene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Benzo(k)fluoranthene	U		0.0200	0.250	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Chrysene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Dibenz(a,h)anthracene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Fluoranthene	0.0235	J	0.0110	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Fluorene	U		0.0170	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Naphthalene	U		0.128	0.500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Phenanthrene	U		0.0180	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
Pyrene	0.0224	B J	0.0170	0.0500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
1-Methylnaphthalene	U		0.0200	0.500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
2-Methylnaphthalene	U		0.0280	0.500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
2-Chloronaphthalene	U		0.0120	0.500	1	08/12/2023 22:15	<a href="#">WG2112637</a>
(S) Nitrobenzene-d5	117			11.0-135		08/12/2023 22:15	<a href="#">WG2112637</a>
(S) 2-Fluorobiphenyl	81.5			32.0-120		08/12/2023 22:15	<a href="#">WG2112637</a>
(S) p-Terphenyl-d14	93.5			23.0-122		08/12/2023 22:15	<a href="#">WG2112637</a>

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

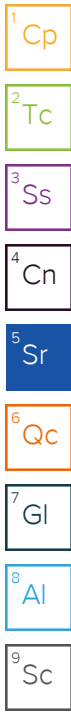
Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/23/2023 14:48	<a href="#">WG2119349</a>
Toluene	U		0.278	1.00	1	08/23/2023 14:48	<a href="#">WG2119349</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 13:21	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/23/2023 14:48	<a href="#">WG2119349</a>
Total Xylenes	U		0.174	3.00	1	08/23/2023 14:48	<a href="#">WG2119349</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/23/2023 14:48	<a href="#">WG2119349</a>
(S) Toluene-d8	106			80.0-120		08/23/2023 14:48	<a href="#">WG2119349</a>
(S) 4-Bromofluorobenzene	103			77.0-126		08/23/2023 14:48	<a href="#">WG2119349</a>
(S) 1,2-Dichloroethane-d4	109			70.0-130		08/23/2023 14:48	<a href="#">WG2119349</a>

Semi-Volatile Organic Compounds (GC) by Method AK102

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	U		405	1900	2.38	08/19/2023 04:34	<a href="#">WG2114922</a>
(S) o-Terphenyl	78.5			50.0-150		08/19/2023 04:34	<a href="#">WG2114922</a>

Sample Narrative:

L1645337-07 WG2114922: Diluted due to sample volume.



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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	08/16/2023 20:07	<a href="#">WG2115236</a>
Toluene	U		0.278	1.00	1	08/16/2023 20:07	<a href="#">WG2115236</a>
1,2-Dibromoethane	U		0.00410	0.00500	1	08/14/2023 13:45	<a href="#">WG2113515</a>
Ethylbenzene	U		0.137	1.00	1	08/16/2023 20:07	<a href="#">WG2115236</a>
Total Xylenes	U		0.174	3.00	1	08/16/2023 20:07	<a href="#">WG2115236</a>
1,2-Dichloroethane	U		0.0819	1.00	1	08/16/2023 20:07	<a href="#">WG2115236</a>
(S) Toluene-d8	104			80.0-120		08/16/2023 20:07	<a href="#">WG2115236</a>
(S) 4-Bromofluorobenzene	96.6			77.0-126		08/16/2023 20:07	<a href="#">WG2115236</a>
(S) 1,2-Dichloroethane-d4	109			70.0-130		08/16/2023 20:07	<a href="#">WG2115236</a>

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	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
AK102 DRO C10-C25	U		405	1900	2.38	08/19/2023 04:54	<a href="#">WG2114922</a>
(S) o-Terphenyl	103			50.0-150		08/19/2023 04:54	<a href="#">WG2114922</a>

Sample Narrative:

L1645337-08 WG2114922: Diluted due to sample volume.

Method Blank (MB)

(MB) R3962514-1 08/18/23 09:33

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Lead	U		2.99	6.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

Laboratory Control Sample (LCS)

(LCS) R3962514-2 08/18/23 09:36

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Lead	1000	925	92.5	80.0-120	

<sup>4</sup>Cn

<sup>5</sup>Sr

L1645337-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645337-03 08/18/23 09:39 • (MS) R3962514-4 08/18/23 09:44 • (MSD) R3962514-5 08/18/23 09:47

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 %
Lead	1000	U	933	933	93.3	93.3	1	75.0-125			0.0772	20

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3961822-2 08/14/23 10:46

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

Laboratory Control Sample (LCS)

(LCS) R3961822-1 08/14/23 10:22

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
1,2-Dibromoethane	0.0500	0.0450	90.0	70.0-130	

L1645337-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645337-03 08/14/23 18:32 • (MS) R3961822-3 08/14/23 21:19 • (MSD) R3961822-4 08/14/23 21:43

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 %
1,2-Dibromoethane	0.0500	U	0.0340	0.0390	68.0	78.0	1	70.0-130	J6		13.7	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3962233-3 08/16/23 19:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
1,2-Dichloroethane	U		0.0819	1.00
(S) Toluene-d8	107			80.0-120
(S) 4-Bromofluorobenzene	96.3			77.0-126
(S) 1,2-Dichloroethane-d4	108			70.0-130

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

(LCS) R3962233-1 08/16/23 18:05 • (LCSD) R3962233-2 08/16/23 18:25

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	%	%	%			%	%
Benzene	5.00	4.58	5.44	91.6	109	70.0-123			17.2	20
Toluene	5.00	4.48	5.41	89.6	108	79.0-120			18.8	20
Ethylbenzene	5.00	4.39	5.23	87.8	105	79.0-123			17.5	20
Total Xylenes	15.0	13.7	16.1	91.3	107	79.0-123			16.1	20
1,2-Dichloroethane	5.00	5.25	5.51	105	110	70.0-128			4.83	20
(S) Toluene-d8				102	104	80.0-120				
(S) 4-Bromofluorobenzene				97.6	96.8	77.0-126				
(S) 1,2-Dichloroethane-d4				108	108	70.0-130				

L1645337-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645337-03 08/17/23 02:57 • (MS) R3962233-4 08/17/23 04:59 • (MSD) R3962233-5 08/17/23 05:21

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	%	%		%			%	%
Benzene	5.00	U	4.32	4.94	86.4	98.8	1	17.0-158			13.4	27
Toluene	5.00	U	4.49	4.99	89.8	99.8	1	26.0-154			10.5	28
Ethylbenzene	5.00	U	4.46	5.04	89.2	101	1	30.0-155			12.2	27
Total Xylenes	15.0	U	13.7	14.9	91.3	99.3	1	29.0-154			8.39	28
1,2-Dichloroethane	5.00	U	4.69	5.27	93.8	105	1	29.0-151			11.6	27
(S) Toluene-d8					106	108		80.0-120				
(S) 4-Bromofluorobenzene					95.6	95.6		77.0-126				
(S) 1,2-Dichloroethane-d4					108	110		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) R3962644-3 08/17/23 23:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
(S) Toluene-d8	100			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

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

(LCS) R3962644-1 08/17/23 22:47 • (LCSD) R3962644-2 08/17/23 23:08

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	%	%	%			%	%
Benzene	5.00	4.77	4.80	95.4	96.0	70.0-123			0.627	20
(S) Toluene-d8				97.1	100	80.0-120				
(S) 4-Bromofluorobenzene				101	94.9	77.0-126				
(S) 1,2-Dichloroethane-d4				107	103	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) R3964621-4 08/23/23 14:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
1,2-Dichloroethane	U		0.0819	1.00
(S) Toluene-d8	108			80.0-120
(S) 4-Bromofluorobenzene	104			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

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

(LCS) R3964621-1 08/23/23 12:42 • (LCSD) R3964621-2 08/23/23 13:03

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	%	%	%			%	%
Benzene	5.00	5.21	5.73	104	115	70.0-123			9.51	20
Toluene	5.00	5.44	5.66	109	113	79.0-120			3.96	20
Ethylbenzene	5.00	5.47	5.48	109	110	79.0-123			0.183	20
Total Xylenes	15.0	16.2	16.6	108	111	79.0-123			2.44	20
1,2-Dichloroethane	5.00	5.40	5.69	108	114	70.0-128			5.23	20
(S) Toluene-d8				108	105	80.0-120				
(S) 4-Bromofluorobenzene				102	102	77.0-126				
(S) 1,2-Dichloroethane-d4				107	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) R3964065-1 08/18/23 21:34

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
AK102 DRO C10-C25	U		170	800
(S) o-Terphenyl	101			60.0-120

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

(LCS) R3964065-2 08/18/23 21:54 • (LCSD) R3964065-3 08/18/23 22:15

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	6850	6050	114	101	75.0-125			12.4	20
(S) o-Terphenyl				136	117	60.0-120	J1			

L1644984-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1644984-02 08/18/23 22:55 • (MS) R3964065-4 08/18/23 23:15 • (MSD) R3964065-5 08/18/23 23:35

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	4260	4750	71.0	79.2	1	75.0-125	J6		10.9	20
(S) o-Terphenyl					93.1	115		50.0-150				

L1645337-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645337-03 08/19/23 02:33 • (MS) R3964065-6 08/19/23 02:53 • (MSD) R3964065-7 08/19/23 03:14

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	170	5600	5130	93.3	85.5	1	75.0-125			8.76	20
(S) o-Terphenyl					118	118		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) R3960734-2 08/12/23 17:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0170	0.0500
Benzo(a)anthracene	U		0.0200	0.0500
Benzo(a)pyrene	0.0269	U	0.0180	0.0500
Benzo(b)fluoranthene	0.0438	U	0.0170	0.0500
Benzo(g,h,i)perylene	U		0.0180	0.0500
Benzo(k)fluoranthene	U		0.0200	0.250
Chrysene	U		0.0180	0.0500
Dibenz(a,h)anthracene	U		0.0180	0.0500
Fluoranthene	U		0.0110	0.0500
Fluorene	U		0.0170	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0180	0.0500
Naphthalene	U		0.128	0.500
Phenanthrene	U		0.0180	0.0500
Pyrene	0.0199	U	0.0170	0.0500
1-Methylnaphthalene	U		0.0200	0.500
2-Methylnaphthalene	U		0.0280	0.500
2-Chloronaphthalene	U		0.0120	0.500
(S) Nitrobenzene-d5	106			11.0-135
(S) 2-Fluorobiphenyl	87.0			32.0-120
(S) p-Terphenyl-d14	89.0			23.0-122

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Laboratory Control Sample (LCS)

(LCS) R3960734-1 08/12/23 16:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	2.00	1.85	92.5	43.0-127	
Acenaphthene	2.00	1.86	93.0	42.0-120	
Acenaphthylene	2.00	1.85	92.5	43.0-120	
Benzo(a)anthracene	2.00	1.94	97.0	46.0-120	
Benzo(a)pyrene	2.00	1.86	93.0	44.0-122	
Benzo(b)fluoranthene	2.00	1.73	86.5	43.0-122	
Benzo(g,h,i)perylene	2.00	1.54	77.0	25.0-137	
Benzo(k)fluoranthene	2.00	1.76	88.0	39.0-128	
Chrysene	2.00	1.84	92.0	42.0-129	
Dibenz(a,h)anthracene	2.00	1.62	81.0	25.0-139	
Fluoranthene	2.00	1.91	95.5	48.0-131	

Laboratory Control Sample (LCS)

(LCS) R3960734-1 08/12/23 16:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	2.00	1.82	91.0	42.0-120	
Indeno(1,2,3-cd)pyrene	2.00	1.87	93.5	37.0-133	
Naphthalene	2.00	1.82	91.0	30.0-120	
Phenanthrene	2.00	1.86	93.0	42.0-120	
Pyrene	2.00	1.62	81.0	38.0-124	
1-Methylnaphthalene	2.00	1.61	80.5	43.0-120	
2-Methylnaphthalene	2.00	1.68	84.0	40.0-120	
2-Chloronaphthalene	2.00	1.67	83.5	39.0-120	
(S) Nitrobenzene-d5			108	11.0-135	
(S) 2-Fluorobiphenyl			81.5	32.0-120	
(S) p-Terphenyl-d14			81.5	23.0-122	

L1645322-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645322-02 08/12/23 19:54 • (MS) R3960734-3 08/12/23 20:11 • (MSD) R3960734-4 08/12/23 20:29

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 %
Anthracene	1.82	U	0.393	0.295	21.6	16.2	1	28.0-120	J6	J3 J6	28.5	25
Acenaphthene	1.82	U	0.872	0.779	47.9	42.8	1	16.0-120			11.3	25
Acenaphthylene	1.82	U	0.822	0.726	45.2	39.9	1	16.0-121			12.4	26
Benzo(a)anthracene	1.82	U	0.148	0.151	8.13	8.30	1	19.0-125	J6	J6	2.01	26
Benzo(a)pyrene	1.82	U	0.121	0.117	6.65	6.43	1	10.0-126	J6	J6	3.36	32
Benzo(b)fluoranthene	1.82	U	0.148	0.140	8.13	7.69	1	10.0-125	J6	J6	5.56	36
Benzo(g,h,i)perylene	1.82	U	0.0531	0.0526	2.92	2.89	1	10.0-128	J6	J6	0.946	37
Benzo(k)fluoranthene	1.82	U	0.0908	0.0954	4.99	5.24	1	10.0-124	J6	J6	4.94	32
Chrysene	1.82	U	0.122	0.121	6.70	6.65	1	18.0-127	J6	J6	0.823	26
Dibenz(a,h)anthracene	1.82	U	0.0437	0.0409	2.40	2.25	1	10.0-132	J6	J6	6.62	43
Fluoranthene	1.82	U	0.167	0.152	9.18	8.35	1	37.0-122	J6	J6	9.40	23
Fluorene	1.82	U	0.760	0.667	41.8	36.6	1	20.0-120			13.0	26
Indeno(1,2,3-cd)pyrene	1.82	U	0.0991	0.0869	5.45	4.77	1	10.0-130	J6	J6	13.1	38
Naphthalene	1.82	U	0.916	0.845	50.3	46.4	1	14.0-120			8.06	20
Phenanthrene	1.82	U	0.408	0.307	22.4	16.9	1	26.0-120	J6	J3 J6	28.3	24
Pyrene	1.82	U	0.166	0.135	9.12	7.42	1	29.0-120	J6	J6	20.6	24
1-Methylnaphthalene	1.82	U	0.730	0.783	40.1	43.0	1	10.0-145			7.01	24
2-Methylnaphthalene	1.82	U	0.755	0.855	41.5	47.0	1	10.0-143			12.4	24
2-Chloronaphthalene	1.82	U	0.789	0.711	43.4	39.1	1	16.0-120			10.4	25
(S) Nitrobenzene-d5					73.6	53.9		11.0-135				
(S) 2-Fluorobiphenyl					42.6	36.6		32.0-120				
(S) p-Terphenyl-d14					22.5	18.4		23.0-122	J2	J2		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1645337-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1645337-03 08/12/23 20:47 • (MS) R3960734-5 08/12/23 21:04 • (MSD) R3960734-6 08/12/23 21:22

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 %
Anthracene	2.00	U	1.80	1.91	90.0	95.5	1	28.0-120			5.93	25
Acenaphthene	2.00	U	1.90	1.92	95.0	96.0	1	16.0-120			1.05	25
Acenaphthylene	2.00	U	1.89	1.90	94.5	95.0	1	16.0-121			0.528	26
Benzo(a)anthracene	2.00	U	1.50	1.66	75.0	83.0	1	19.0-125			10.1	26
Benzo(a)pyrene	2.00	U	0.819	1.02	40.9	51.0	1	10.0-126			21.9	32
Benzo(b)fluoranthene	2.00	U	0.756	0.974	37.8	48.7	1	10.0-125			25.2	36
Benzo(g,h,i)perylene	2.00	U	0.262	0.348	13.1	17.4	1	10.0-128			28.2	37
Benzo(k)fluoranthene	2.00	U	0.784	0.931	39.2	46.5	1	10.0-124			17.1	32
Chrysene	2.00	U	1.45	1.61	72.5	80.5	1	18.0-127			10.5	26
Dibenz(a,h)anthracene	2.00	U	0.223	0.310	11.1	15.5	1	10.0-132			32.6	43
Fluoranthene	2.00	0.0132	1.74	1.82	86.3	90.3	1	37.0-122			4.49	23
Fluorene	2.00	U	1.81	1.81	90.5	90.5	1	20.0-120			0.000	26
Indeno(1,2,3-cd)pyrene	2.00	U	0.297	0.394	14.8	19.7	1	10.0-130			28.1	38
Naphthalene	2.00	U	1.78	1.78	89.0	89.0	1	14.0-120			0.000	20
Phenanthrene	2.00	0.0230	1.83	1.97	90.3	97.3	1	26.0-120			7.37	24
Pyrene	2.00	U	1.61	1.77	80.5	88.5	1	29.0-120			9.47	24
1-Methylnaphthalene	2.00	U	1.68	1.63	84.0	81.5	1	10.0-145			3.02	24
2-Methylnaphthalene	2.00	U	1.71	1.64	85.5	82.0	1	10.0-143			4.18	24
2-Chloronaphthalene	2.00	U	1.67	1.70	83.5	85.0	1	16.0-120			1.78	25
(S) Nitrobenzene-d5					116	109		11.0-135				
(S) 2-Fluorobiphenyl					81.5	80.5		32.0-120				
(S) p-Terphenyl-d14					63.5	75.5		23.0-122				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

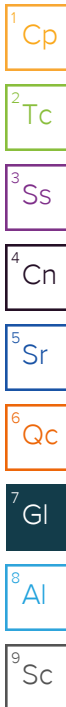
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location.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

### Abbreviations and Definitions

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

### Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



# 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 <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	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 <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	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 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

<sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> 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.

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr


<sup>6</sup> Qc

<sup>7</sup> Gl

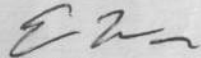
<sup>8</sup> Al

<sup>9</sup> Sc

Company Name/Address: <b>Arcadis - Chevron - AK</b>  880 H St. Anchorage, AK 99501		Billing Information: <b>Attn: Acouns Payable</b> 630 Plaza Dr Ste 600 Highlands Ranch, CO 80129		Pres Chk	Analysis / Container / Preservative								Chain of Custody Page 1 of 1
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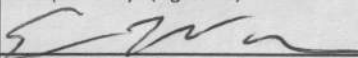
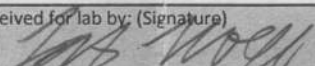
Report to: <b>Gerald Robinson</b>		Email To: <b>Alaura.Gonzalez@arcadis.com;environmentDM-</b>		City/State Collected: <b>Eagle River, AK</b>		Please Circle: PT MT CT ET <b>AK</b>						 <b>MT JULIET, TN</b> 12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <a href="https://info.pacelabs.com/hubs/pas-standard-terms.pdf">https://info.pacelabs.com/hubs/pas-standard-terms.pdf</a>
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Project Description: <b>91252</b>	Client Project # <b>30063655.19.45</b>	Lab Project # <b>CHEVARCAK-91252</b>										SDG # <b>1645331</b>
Phone: <b>907-276-8095</b>	Site/Facility ID # <b>11836 OLD GLENN HWY EAGLE</b>	P.O. #										Ta <b>1099</b>

Collected by (print): <b>E. Wojcik</b>	<b>Rush?</b> (Lab MUST Be Notified)		Quote #		Date Results Needed		No. of Cntrs					Acctnum: <b>CHEVARCAK</b>
Collected by (signature): 	<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 checked="" type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day											Template: <b>T234766</b>
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>												Prelogin: <b>P1014493</b>
											PM: <b>110 - Brian Ford</b>	
											PB:	

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	AK102 100ml Amb HCl		BTEX, EDC 8260 40ml Amb-HCl		EDB 524LL 40ml Amb-HCl		PAHs 8270SIM 100ml Amb-NoPres		Total Lead 6010 250ml HDPE-HNO3		Remarks		Sample # (lab only)	
MW-4-W-20230809	Grab	GW	-	8.9.23	0900	11	X	X	X	X	X							Color 1	-01
MW-3-W-20230809		GW	-		0900	11	X	X	X	X	X								-02
MW-2-W-20230809		GW	-		0900	33	X	X	X	X	X							MS/MSD	-03
MW-5-W-20230809		GW	-		1000	11	X	X	X	X	X								-04
BD-1-W-20230809		GW	-		-	11	X	X	X	X	X							Color 2	-05
EQA-1-W-20230809		GW	-		1030	11	X	X	X	X	X								-06
Trip Blank 1	-	GW	-	-	-	3	X	X	X									Color 1	-07
Trip Blank 2	-	GW	-	-	-	3	X	X	X									Color 2	-08
		GW																	
		GW																	

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____	Remarks:	pH _____ Temp _____ Flow _____ Other _____	<b>Sample Receipt Checklist</b> COC Seal Present/Intact: <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 Headspace: <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
Samples returned via: UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier _____	Tracking # <b>mlti</b>		

Relinquished by: (Signature) 	Date: <b>8.10.23</b>	Time: <b>0900</b>	Received by: (Signature)	Trip Blank Received: <input checked="" type="checkbox"/> Yes / No HCL / MeOH TBR	Bottles Received: <b>6</b>		If preservation required by Login: Date/Time	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>11:35</b> °C	Bottles Received: <b>mlti</b>			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: <b>8/10/23</b>	Time: <b>11:35</b>	Hold:	Conditions: <b>NCF 1 OK</b>	

L1648337

Tracking Numbers	Temperature
6354 .9918 5589	0448   40 = .1
6374 2250 6080	0448 3.4 40 = 3.4

# Attachment C

**Historical Groundwater Analytical Results – Second Quarter 2020 to 2022**

**Table 1. Historical Groundwater Gauging and Analytical Results**

**Third Quarter 2003 through 2022**  
 Chevron-Branded Service Station 91252  
 11836 Old Glenn Highway  
 Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
<b>ADEC Groundwater Cleanup Levels<sup>a</sup></b>					<b>1.5</b>	<b>2.2</b>	<b>0.0046</b>	<b>1.1</b>	<b>0.015</b>	<b>0.19</b>	<b>0.14</b>	<b>0.00075</b>	<b>0.0017</b>	<b>0.0017</b>	
MW-1	10/6/2003	301.20	16.00	285.20	0.77	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
MW-1	12/17/2003	301.20	21.93	279.27	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1	3/26/2004	301.20	22.04	279.16	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1	6/5/2004	301.20	19.74	281.46	2.3	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-1	9/27/2004	301.20	16.07	285.13	0.68	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-1	12/9/2004	301.20	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1	3/24/2005	301.20	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1	5/17/2005	301.20	20.46	280.74	3.9	0.017	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-1	9/25/2005	301.20	16.06	285.14	0.6	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	
MW-1	5/17/2006	301.20	21.73	279.47	--	--	--	--	--	--	--	--	--	--	
MW-1	9/26/2006	301.20	20.24	280.96	0.52	--	--	--	--	--	--	--	--	--	
MW-1	5/18/2007	301.20	20.50	280.70	2.6	--	--	--	--	--	--	--	--	--	
MW-1	9/20/2007	301.20	21.96	279.24	--	--	--	--	--	--	--	--	--	--	
MW-1	3/28/2008	301.20	22.21	278.99	<0.391	--	--	--	--	--	--	--	--	--	
MW-1	6/9/2008	301.20	21.00	280.20	--	--	--	--	--	--	--	--	--	--	
MW-1	9/15/2008	301.20	19.49	281.71	--	--	--	--	--	--	--	--	--	--	
MW-1R	10/28/2008	--	30.55	--	0.22 [0.24]	<0.01 [<0.01]	<0.001 [<0.001]	<0.001 [<0.001]	<0.001 [<0.001]	<0.002 [<0.002]	--	--	--	--	
MW-1R	5/6/2009	--	30.63	--	0.065	--	--	--	--	--	--	--	--	--	
MW-1R	9/14/2009	--	30.68	--	<0.050	--	--	--	--	--	--	--	--	--	
MW-1R	4/21/2010	301.73	30.30	271.43	<0.050	--	--	--	--	--	--	--	--	--	
MW-1R	7/22/2010	301.73	38.23	271.23	<0.051	--	--	--	--	--	--	--	--	--	
MW-1R	8/3/2011	301.73	30.67	271.06	0.058 J	--	--	--	--	--	--	--	--	--	
MW-1R	5/30/2012	301.73	29.95	271.78	0.10 J	--	--	--	--	--	--	<0.000096	<0.0005	--	
MW-1R	8/23/2012	301.73	30.25	271.48	<0.050	--	--	--	--	--	--	--	--	--	
MW-1R	5/6/2013	301.73	29.96	271.77	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	5/8/2013	--	--	--	<0.076 J	--	--	--	--	--	--	--	--	--	
MW-1R	5/8/2013	--	--	--	0.21 J	--	--	--	--	--	--	--	--	--	collected via hydrosleeve
MW-1R	9/16/2013	301.73	30.09	271.64	<0.21	--	--	--	--	--	--	--	--	--	
MW-1R	4/29/2014	301.73	30.27	271.46	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	4/30/2014	--	--	--	<0.065	--	--	--	--	--	--	--	--	--	
MW-1R	10/1/2014	301.73	30.20	271.53	0.081 J	--	--	--	--	--	--	--	--	--	
MW-1R	5/6/2015	301.73	30.50	271.23	<0.051 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-1R	10/20/2015	301.73	30.29	271.44	<0.053	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-1R	5/19/2016	301.73	31.50	270.23	0.26	--	--	--	--	--	--	--	--	--	
MW-1R	9/28/2016	301.73	30.36	271.37	<0.051	--	--	--	--	--	--	--	--	--	
MW-1R	5/22/2017	301.73	30.33	271.40	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-1R	10/16/2017	301.73	30.34	271.39	--	--	--	--	--	--	--	--	--	--	
MW-1R	4/19/2018	301.63	30.27	271.36	--	--	--	--	--	--	--	--	--	--	TOC adjusted for 2.4" cut
MW-1R	9/4/2018	299.23	30.34	268.89	--	--	--	--	--	--	--	--	--	--	TOC adjusted for 2.4" cut
MW-1R	4/8/2019	307.58	30.35	277.23	--	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-1R	9/9/2019	307.58	30.51	277.07	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	4/1/2020	307.58	30.50	277.08	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	10/2/2020	307.58	30.20	277.38	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	4/6/2021	307.58	30.35	277.23	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	8/25/2021	307.58	30.16	277.42	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	4/28/2022	307.58	30.00	277.58	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	7/7/2022	307.58	30.26	277.32	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-1R	10/6/2022	307.58	29.76	277.82	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-2	10/6/2003	300.92	32.39	268.53	1.9 [0.88]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.002 [<0.002]	--	--	--	
MW-2	12/17/2003	300.92	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	3/26/2004	300.92	32.45	268.47	0.14 [0.2]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	
MW-2	6/5/2004	300.92	31.97	268.95	<0.24 [0.27]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-2	9/27/2004	300.92	32.43	268.49	0.43	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-2	12/9/2004	300.92	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	3/24/2005	300.92	36.67	264.25	--	--	--	--	--	--	--	--	--	--	
MW-2	5/17/2005	300.92	32.27	268.65	0.64 [0.56]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	



**Table 1. Historical Groundwater Gauging and Analytical Results**  
**Third Quarter 2003 through 2022**  
Chevron-Branded Service Station 91252  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels <sup>a</sup>					1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.000075	0.0017	0.0017	
MW-2	9/25/2005	300.92	32.21	268.71	0.034	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	
MW-2	5/17/2006	300.92	32.09	268.83	<0.12	--	--	--	--	--	--	--	--	--	
MW-2	9/26/2006	300.92	32.14	268.78	<0.24	--	--	--	--	--	--	--	--	--	
MW-2	3/29/2007	300.92	32.22	268.70	0.1	--	--	--	--	--	--	--	--	--	
MW-2	5/18/2007	300.92	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-2	9/20/2007	300.92	32.32	268.60	0.061	--	--	--	--	--	--	--	--	--	
MW-2	3/28/2008	300.92	32.17	268.75	<0.391	--	--	--	--	--	--	--	--	--	
MW-2	6/9/2008	300.92	31.95	268.97	0.049	--	--	--	--	--	--	--	--	--	
MW-2	9/15/2008	300.92	32.24	268.68	<0.049	--	--	--	--	--	--	--	--	--	
MW-2	10/28/2008	300.92	32.26	268.66	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-2	5/6/2009	300.92	32.20	268.72	0.053	--	--	--	--	--	--	--	--	--	
MW-2	9/14/2009	300.92	32.38	268.54	<0.050	--	--	--	--	--	--	--	--	--	
MW-2	4/21/2010	300.91	31.40	269.51	0.21 J	--	--	--	--	--	--	--	--	--	
MW-2	7/22/2010	300.91	31.82	269.09	0.12 J	--	--	--	--	--	--	--	--	--	
MW-2	8/3/2011	300.91	32.10	268.81	0.13 J	--	--	--	--	--	--	--	--	--	
MW-2	5/30/2012	300.91	31.36	269.55	0.36	--	--	--	--	--	--	0.0000097 J	<0.0005	--	
MW-2	8/23/2012	300.91	31.82	269.09	<0.051	--	--	--	--	--	--	--	--	--	
MW-2	5/6/2013	300.91	31.16	269.75	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-2	5/8/2013	--	--	--	0.46 J	--	--	--	--	--	--	--	--	--	
MW-2	5/8/2013	--	--	--	0.56 J	--	--	--	--	--	--	--	--	--	collected via hydrosleeve
MW-2	9/16/2013	300.91	31.50	269.41	0.52	--	--	--	--	--	--	--	--	--	
MW-2	4/29/2014	300.91	31.00	269.91	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-2	4/30/2014	--	--	--	<0.068	--	--	--	--	--	--	--	--	--	
MW-2	10/1/2014	300.91	31.78	269.13	0.071 J	--	--	--	--	--	--	--	--	--	
MW-2	5/6/2015	300.91	31.97	268.94	0.054 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-2	10/20/2015	300.91	31.81	269.10	<0.050	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-2	5/19/2016	300.91	32.09	268.82	<0.052	--	--	--	--	--	--	--	--	--	
MW-2	9/28/2016	300.91	31.89	269.02	0.060 J	--	--	--	--	--	--	--	--	--	
MW-2	5/22/2017	300.91	31.67	269.24	0.33	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-2	10/16/2017	300.91	31.87	269.04	0.092 J	--	--	--	--	--	--	--	--	--	
MW-2	4/19/2018	300.91	31.49	269.42	0.30 J	--	--	--	--	--	--	--	--	--	
MW-2	9/4/2018	300.91	31.82	269.09	0.068 J	--	--	--	--	--	--	--	--	--	
MW-2	4/8/2019	306.78	31.81	274.97	<0.25 B <sup>1</sup> [ $<0.25 B^1$ ]	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-2	9/9/2019	306.78	32.05	32.05	0.12	--	--	--	--	--	--	--	--	--	
MW-2	4/1/2020	306.78	32.11	274.67	--	--	--	--	--	--	--	--	--	--	Well obstructed by ice, sample not collected
MW-2	10/2/2020	306.78	31.75	275.03	<0.800	--	<0.00100 J	<0.00100 J	<0.00100 J	<0.00300 J	<0.00100 J	<0.00000500 J	<0.00100 J	<0.00500 J	
MW-2	4/6/2021	306.78	--	--	--	--	--	--	--	--	--	--	--	--	Well frozen at roughly 2 feet btoc
MW-2	8/25/2021	306.78	31.76	275.02	<0.800 B	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
MW-2	3/30/2022	306.78	31.68	275.10	<0.888	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
MW-2	4/28/2022	306.78	31.28	275.50	0.243 J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	0.00000500 J	<0.00100	<0.00500 B J	
MW-2	7/7/2022	306.78	31.88	274.90	<0.800	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
MW-2	10/6/2022	306.78	31.42	275.36	0.323 J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	0.000007	0.000136 J	<0.00500	
MW-3	10/6/2003	300.69	33.80	266.89	2.9	0.016	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
MW-3	12/17/2003	300.69	34.00	266.69	2.3	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
MW-3	3/26/2004	300.69	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	6/5/2004	300.69	32.96	267.73	1.5	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-3	9/27/2004	300.69	34.02	266.67	0.73	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-3	12/9/2004	300.69	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	3/24/2005	300.69	32.94	267.75	1.1 [0.77]	<0.01 [ $<0.01$ ]	<0.0005 [ $<0.0005$ ]	<0.0005 [ $<0.0005$ ]	<0.0005 [ $<0.0005$ ]	<0.0015 [ $<0.0015$ ]	--	--	--	--	
MW-3	5/17/2005	300.69	32.27	268.42	0.41	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-3	9/25/2005	300.69	33.62	267.07	1.2	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	
MW-3	5/17/2006	300.69	33.40	267.29	0.55	--	--	--	--	--	--	--	--	--	
MW-3	9/26/2006	300.69	33.69	267.00	1	--	--	--	--	--	--	--	--	--	
MW-3	3/29/2007	300.69	34.08	266.61	0.61	--	--	--	--	--	--	--	--	--	
MW-3	5/18/2007	300.69	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-3	9/20/2007	300.69	33.92	266.77	0.69	--	--	--	--	--	--	--	--	--	
MW-3	3/28/2008	300.69	33.85	266.84	<0.391	--	--	--	--	--	--	--	--	--	
MW-3	6/9/2008	300.69	33.08	267.61	0.32	--	--	--	--	--	--	--	--	--	

**Table 1. Historical Groundwater Gauging and Analytical Results**  
**Third Quarter 2003 through 2022**  
Chevron-Branded Service Station 91252  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels <sup>a</sup>					1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.000075	0.0017	0.0017	
MW-3	9/15/2008	300.69	33.81	266.88	0.63	--	--	--	--	--	--	--	--	--	
MW-3	10/28/2008	300.69	33.90	266.79	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-3	5/6/2009	300.69	33.72	266.97	1.5	--	--	--	--	--	--	--	--	--	
MW-3	9/14/2009	300.69	34.17	266.52	1.1	--	--	--	--	--	--	--	--	--	
MW-3	4/21/2010	300.69	33.04	267.68	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-3	7/22/2010	300.72	33.23	267.49	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-3	7/23/2010	300.72	--	--	0.76	--	--	--	--	--	--	--	--	--	
MW-3	8/3/2011	300.72	33.71	267.01	1.7	--	--	--	--	--	--	--	--	--	
MW-3	5/30/2012	300.72	31.61	269.11	0.23 J	--	--	--	--	--	--	<0.0000097	<0.0005	--	
MW-3	8/23/2012	300.72	33.28	267.44	0.35	--	--	--	--	--	--	--	--	--	
MW-3	5/6/2013	300.72	32.09	268.63	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-3	5/8/2013	300.72	--	--	0.29 J	--	--	--	--	--	--	--	--	--	collected via hydrosleeve
MW-3	5/8/2013	300.72	--	--	0.42 J	--	--	--	--	--	--	--	--	--	
MW-3	9/16/2013	300.72	32.59	268.13	0.31 J	--	--	--	--	--	--	--	--	--	
MW-3	4/29/2014	300.72	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	10/1/2014	300.72	32.92	267.80	0.38 J	--	--	--	--	--	--	--	--	--	
MW-3	5/6/2015	300.72	33.56	267.16	0.52 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-3	10/20/2015	300.72	33.24	267.48	0.35	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-3	5/19/2016	300.72	33.69	267.03	0.4	--	--	--	--	--	--	--	--	--	
MW-3	9/28/2016	300.72	33.56	267.16	0.49	--	--	--	--	--	--	--	--	--	
MW-3	5/22/2017	300.72	32.94	267.78	0.3	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-3	10/16/2017	300.72	33.41	267.31	0.093 J	--	--	--	--	--	--	--	--	--	
MW-3	4/19/2018	300.72	32.72	268.00	0.16 J	--	--	--	--	--	--	--	--	--	
MW-3	9/4/2018	298.32	33.34	264.98	0.27	--	--	--	--	--	--	--	--	--	TOC adjusted for 2.4" cut
MW-3	4/8/2019	306.56	33.43	273.13	--	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-3	9/9/2019	306.56	33.97	272.59	--	--	--	--	--	--	--	--	--	--	
MW-3	4/1/2020	306.56	33.88	272.68	<0.800	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	Well sampled, blind duplicate not collected due to slow well recharge
MW-3	10/2/2020	306.56	33.48	273.08	0.328 J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
MW-3	4/6/2021	306.56	33.99	272.57	0.372 J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
MW-3	8/25/2021	306.56	33.38	273.18	<0.800 B	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
MW-3	3/30/2022	306.56	33.15	273.41	--	--	--	--	--	--	--	--	--	--	Well frozen. Could not get pump down the well
MW-3	4/28/2022	306.56	31.96	274.60	--	--	--	--	--	--	--	--	--	--	Well frozen. Could not get pump down the well
MW-3	7/7/2022	306.56	33.36	273.20	0.574 J	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
MW-3	10/6/2022	306.56	32.79	273.77	1.14	--	<0.00100	<0.00100 B	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
MW-4	10/6/2003	301.09	32.25	268.84	0.23	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
MW-4	12/17/2003	301.09	31.75	269.34	0.16 [0.13]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.002 [<0.002]	--	--	--	
MW-4	3/26/2004	301.09	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	6/5/2004	301.09	31.37	269.72	3.2	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-4	9/27/2004	301.09	31.03	270.06	1.8 [2.0]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-4	12/9/2004	301.09	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	3/24/2005	301.09	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	5/17/2005	301.09	30.89	270.20	0.56	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-4	9/25/2005	301.09	31.51	269.58	0.25	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	
MW-4	5/17/2006	301.09	31.30	269.79	0.09	--	--	--	--	--	--	--	--	--	
MW-4	9/26/2006	301.09	31.51	269.58	1.5	--	--	--	--	--	--	--	--	--	
MW-4	3/29/2007	301.09	31.63	269.46	0.11	--	--	--	--	--	--	--	--	--	
MW-4	5/18/2007	301.09	31.04	270.05	0.98	--	--	--	--	--	--	--	--	--	
MW-4	9/20/2007	301.09	31.60	269.49	0.21	--	--	--	--	--	--	--	--	--	
MW-4	3/28/2008	301.09	31.22	269.87	<0.391	--	--	--	--	--	--	--	--	--	
MW-4	6/9/2008	301.09	31.24	269.85	0.026	--	--	--	--	--	--	--	--	--	
MW-4	9/15/2008	301.09	31.31	269.78	0.075	--	--	--	--	--	--	--	--	--	
MW-4	10/28/2008	301.09	32.07	269.02	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	5/6/2009	301.09	31.41	269.68	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/21/2010	301.11	31.23	269.88	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	7/22/2010	301.11	31.44	269.67	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	8/3/2011	301.11	31.50	269.61	--	--	--	--	--	--	--	--	--	--	Not sampled



**Table 1. Historical Groundwater Gauging and Analytical Results**  
**Third Quarter 2003 through 2022**  
Chevron-Branded Service Station 91252  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
<b>ADEC Groundwater Cleanup Levels<sup>a</sup></b>					<b>1.5</b>	<b>2.2</b>	<b>0.0046</b>	<b>1.1</b>	<b>0.015</b>	<b>0.19</b>	<b>0.14</b>	<b>0.00075</b>	<b>0.0017</b>	<b>0.0017</b>	
MW-4	5/30/2012	301.11	30.44	270.67	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	8/23/2012	301.11	31.25	269.86	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	5/6/2013	301.11	30.59	270.52	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	9/16/2013	301.11	31.09	270.02	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/29/2014	301.11	31.12	269.99	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	10/1/2014	301.11	30.96	270.15	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	5/6/2015	301.11	31.41	269.70	<b>0.11 J</b>	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-4	10/20/2015	301.11	30.25	270.86	<b>0.10 J</b>	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-4	5/19/2016	301.11	31.49	269.62	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	9/28/2016	301.11	31.14	269.97	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	5/22/2017	301.11	31.12	269.99	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-4	10/16/2017	301.11	31.41	269.70	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/19/2018	301.11	31.01	270.10	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	9/4/2018	301.11	31.19	269.92	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/8/2019	307.41	31.56	275.85	--	--	--	--	--	--	--	--	--	--	
MW-4	9/9/2019	307.41	31.8	275.61	--	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-4	4/1/2020	307.41	31.14	276.27	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	10/2/2020	307.41	31.60	275.81	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/6/2021	307.41	31.46	275.95	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	8/25/2021	307.41	31.39	276.02	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	3/30/2022	307.41	31.02	276.39	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	4/28/2022	307.41	30.86	276.55	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	7/7/2022	307.41	31.45	275.96	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-4	10/6/2022	307.41	30.77	276.64	--	--	--	--	--	--	--	--	--	--	Not sampled
MW-5	9/25/2005	301.54	31.61	269.93	<b>1.9</b>	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	<0.0025	--	--	--	
MW-5	5/17/2006	301.54	31.49	270.05	<0.12 [ <b>0.22</b> ]	<0.01 [<0.01]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	9/26/2006	301.54	31.53	270.01	<0.24 [<0.24]	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	3/29/2007	301.54	31.76	269.78	<b>0.091 [0.1]</b>	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	5/18/2007	301.54	31.34	270.20	<b>0.39</b> [<0.24]	--	<0.001 [<0.001]	<0.001 [<0.001]	<0.001 [<0.001]	<0.002 [<0.002]	--	--	--	--	
MW-5	9/20/2007	301.54	31.70	269.84	<b>0.23</b> [ <b>0.23</b> ]	--	<0.001 [<0.001]	<0.001 [<0.001]	<0.001 [<0.001]	<0.002 [<0.002]	--	--	--	--	
MW-5	3/28/2008	301.54	31.48	270.06	<0.391 [<0.391]	--	<0.005 [<0.0005]	<0.0005 [<0.005]	<0.005 [<0.0005]	<0.0015 [<0.015]	--	--	--	--	
MW-5	6/9/2008	301.54	31.45	270.09	<b>0.12</b> [ <b>0.11</b> ]	<0.01 [<0.01]	<0.001 [<0.001]	<0.001 [<0.001]	<0.001 [<0.001]	<0.002 [<0.002]	--	--	--	--	
MW-5	9/15/2008	301.54	31.58	269.96	<b>0.36</b> [ <b>0.30</b> ]	0.01 [<0.01]	<0.001 [<0.001]	<0.001 [<0.001]	<0.001 [<0.001]	<0.002 [<0.002]	--	--	--	--	
MW-5	10/28/2008	301.54	31.61	269.93	--	--	--	--	--	--	--	--	--	--	
MW-5	5/6/2009	301.54	31.68	269.86	<b>0.13 J</b> [ <b>0.059 J</b> ]	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	9/14/2009	301.54	31.76	269.78	<b>0.19 J</b> [ <b>0.61 J</b> ]	0.010 J [<0.010]	--	--	--	--	--	--	--	--	
MW-5	4/21/2010	301.54	30.51	271.03	<0.05 [ <b>0.27 J</b> ]	<0.010 [0.012 J]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	7/22/2010	301.54	31.49	270.05	<b>0.80 J</b> [ <b>0.44 J</b> ]	<0.010 [<0.010]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	8/3/2011	301.54	31.70	269.84	<b>1.2</b> [ <b>1.2 J</b> ]	<0.010 [0.014 J]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	5/30/2012	301.54	31.07	270.47	<b>1.2</b> [ <b>1.6</b> ]	<0.010 [<0.010]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	<0.0000096 [<0.0000095]	<0.0005 [<0.0005]	--	
MW-5	8/23/2012	301.54	31.39	270.15	<b>1.1</b> [ <b>1.1</b> ]	<0.010 [<0.010]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-5	5/6/2013	301.54	31.04	270.50	--	--	--	--	--	--	--	--	--	--	collected via hydrosleeve
MW-5	5/8/2013	301.54	--	--	<b>1.4</b> [ <b>1.5</b> ]	<b>0.0090 J</b> [ <b>0.012 J</b> ]	<b>0.00068 J</b> [ <b>0.00070 J</b> ]	<0.000077 [<0.000077]	<b>0.000096 J</b> [ <b>0.00010 J</b> ]	<0.00022 [<0.00022]	--	--	--	--	
MW-5	5/8/2013	301.54	--	--	<b>1.6</b> [ <b>1.8</b> ]	<b>0.013 J</b> [ <b>0.0076 J</b> ]	<b>0.00055 J</b> [ <b>0.00067 J</b> ]	<0.000077 [<0.000077]	<0.000081 [<0.000081]	<0.00022 [<0.00022]	--	--	--	--	
MW-5	9/16/2013	301.54	31.16	270.38	<b>0.80</b> [ <b>0.85</b> ]	<0.050 [<0.050]	<b>0.00038 J</b> [ <b>0.00036 J</b> ]	<0.00023 [<0.00023]	<0.00024 [<0.00024]	<0.00072 [<0.00072]	--	--	--	--	
MW-5	4/29/2014	301.54	31.39	270.15	--	--	--	--	--	--	--	--	--	--	
MW-5	4/30/2014	301.54	--	--	<b>0.79</b> [ <b>0.74</b> ]	<0.050 [<0.050]	<0.00015 [<0.00015]	<0.00011 [<0.00011]	<0.00016 [<0.00016]	<0.00040 [<0.00040]	--	--	--	--	
MW-5	10/1/2014	301.54	31.38	270.16	<b>1.0</b> [ <b>0.97</b> ]	<0.050 J [<0.050 J]	<b>0.00056 J</b> [ <b>0.00058 J</b> ]	<0.00011 J [<0.00011]	<0.00016 J [<0.00016]	<0.00040 J [<0.00040]	--	--	--	--	
MW-5	5/6/2015	301.54	31.59	269.95	<b>1.3 J</b> [ <b>1.2 J</b> ]	<0.010 [<0.010]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-5	10/20/2015	301.54	30.94	271.14	<b>2.0</b> [ <b>1.9</b> ]	<b>0.012 J</b> [ <b>0.017 J</b> ]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	--	--	--	--	
MW-5	5/19/2016	301.54	31.61	269.93	<b>1.5</b> [ <b>1.6</b> ]	<b>0.014 J</b> [ <b>0.011 J</b> ]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-5	9/28/2016	301.54	31.46	270.08	<b>1.5</b> [ <b>1.8</b> ]	<0.010 [<0.010]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	--	--	--	
MW-5	5/22/2017	301.54	31.33	270.21	<b>2.3</b> [ <b>2.3</b> ]	--	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	--	
MW-5	10/16/2017	301.54	31.39	270.15	<b>1.8 J</b> [ <b>1.7 J</b> ]	--	--	--	--	--	--	--	--	--	

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**Third Quarter 2003 through 2022**  
Chevron-Branded Service Station 91252  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels <sup>a</sup>					1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.00075	0.0017	0.0017	
MW-5	4/19/2018	301.54	31.25	270.29	1.2 J [1.5 J]	--	--	--	--	--	--	--	--	--	
MW-5	9/4/2018	300.34	31.44	268.90	1.6 J [3.4 J]	--	--	--	--	--	--	--	--	--	TOC adjusted for 1.15" cut
MW-5	4/8/2019	307.78	31.53	276.25	0.92	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-5	9/9/2019	307.78	31.69	276.09	1.7	--	--	--	--	--	--	--	--	--	Not sampled
MW-5	4/1/2020	307.78	31.68	276.10	--	--	--	--	--	--	--	--	--	--	Well obstructed by ice, sample not collected
MW-5	10/2/2020	307.78	31.36	276.42	1.46 [1.37]	-- [-]	0.000291 J [0.000275 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000667 J [0.000733 J]	<0.00500 [<0.00500]	
MW-5	4/6/2021	307.78	31.45	276.33	0.915 [0.964]	-- [-]	0.000120 J [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	
MW-5	8/25/2021	307.78	31.31	276.47	<0.840 B [<0.800 B]	-- [-]	0.000311 J [0.000274 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000620 J [0.000619 J]	<0.00500 [<0.00500]	
MW-5	3/30/2022	307.78	32.28	275.50	1.1 [1.04]	-- [-]	0.000274 J [0.000295 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000523 J [0.000573 J]	<0.00500 J [<0.00500 J]	
MW-5	4/28/2022	307.78	31.14	276.64	1.03 [1.26]	-- [-]	0.000297 J [0.000290 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000541 J [0.000599 J]	<0.00500 J [<0.00500 J]	
MW-5	7/7/2022	307.78	31.45	276.33	1.59 [1.71]	-- [-]	0.000507 J [0.000492 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000644 J [0.000687 J]	<0.00500 J [<0.00500 J]	
MW-5	10/6/2022	307.78	31.10	276.68	1.9 [1.74]	-- [-]	0.000766 J [0.000751 J]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00300 [<0.00300]	<0.00100 [<0.00100]	<0.00000500 [<0.00000500]	0.000587 J [0.000635 J]	<0.00500 J [<0.00500 J]	
MW-6	9/25/2005	300.30	31.14	269.16	<0.24 [0.42]	0.01 [0.01]	0.0005 [0.0005]	<0.0005 [<0.0005]	<0.0005 [<0.0005]	<0.0015 [<0.0015]	<0.0025 [<0.0025]	--	--	--	
MW-6	5/17/2006	300.30	31.04	269.26	0.27	--	--	--	--	--	--	--	--	--	
MW-6	9/26/2006	300.30	31.11	269.19	<0.24	--	--	--	--	--	--	--	--	--	
MW-6	3/29/2007	300.30	31.15	269.15	2.3	--	--	--	--	--	--	--	--	--	
MW-6	5/18/2007	300.30	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	9/20/2007	300.30	31.24	269.06	0.19	--	--	--	--	--	--	--	--	--	
MW-6	3/28/2008	300.30	31.13	269.17	<0.391	--	--	--	--	--	--	--	--	--	
MW-6	6/9/2008	300.30	30.94	269.36	<0.69	--	--	--	--	--	--	--	--	--	
MW-6	9/15/2008	300.30	31.18	269.12	0.11	--	--	--	--	--	--	--	--	--	
MW-6	10/28/2008	300.30	31.19	269.11	--	--	--	--	--	--	--	--	--	--	
MW-6	5/6/2009	300.30	31.13	269.17	0.11	--	--	--	--	--	--	--	--	--	
MW-6	9/14/2009	300.30	31.31	268.99	0.13 J	--	--	--	--	--	--	--	--	--	
MW-6	4/21/2010	300.30	31.30	269.00	1.1	--	--	--	--	--	--	--	--	--	
MW-6	7/22/2010	300.30	30.92	269.38	0.27	--	--	--	--	--	--	--	--	--	
MW-6	8/3/2011	300.30	31.14	269.16	0.24 J	--	--	--	--	--	--	--	--	--	
MW-6	5/30/2012	300.30	30.55	269.75	0.21 J	--	--	--	--	--	--	<0.0000096	<0.0005	--	
MW-6	8/23/2012	300.30	30.99	269.31	0.050 J	--	--	--	--	--	--	--	--	--	collected via hydrosleeve
MW-6	5/6/2013	300.30	30.42	269.88	--	--	--	--	--	--	--	--	--	--	
MW-6	5/8/2013	300.30	--	--	0.40 J	--	--	--	--	--	--	--	--	--	
MW-6	5/8/2013	300.30	--	--	0.51 J	--	--	--	--	--	--	--	--	--	
MW-6	9/16/2013	300.30	30.68	269.62	0.5	--	--	--	--	--	--	--	--	--	
MW-6	4/29/2014	300.30	30.81	269.49	--	--	--	--	--	--	--	--	--	--	
MW-6	4/30/2014	300.30	--	--	0.10 J	--	--	--	--	--	--	--	--	--	
MW-6	10/1/2014	300.30	30.99	269.31	0.20 J	--	--	--	--	--	--	--	--	--	
MW-6	5/6/2015	300.30	31.08	269.22	0.11 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
MW-6	10/20/2015	300.30	30.94	269.36	0.24 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
MW-6	5/19/2016	300.30	31.20	269.10	0.053 J	--	--	--	--	--	--	--	--	--	
MW-6	9/28/2016	300.30	30.94	269.36	0.29	--	--	--	--	--	--	--	--	--	
MW-6	5/22/2017	300.30	30.86	269.44	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
MW-6	10/16/2017	300.30	31.01	269.29	--	--	--	--	--	--	--	--	--	--	
MW-6	4/19/2018	300.30	30.56	269.74	--	--	--	--	--	--	--	--	--	--	
MW-6	9/4/2018	300.30	31.03	269.27	--	--	--	--	--	--	--	--	--	--	
MW-6	4/8/2019	306.64	31.20	275.44	--	--	--	--	--	--	--	--	--	--	DTW taken from well survey 6/6/2019
MW-6	9/9/2019	306.64	31.41	275.23	--	--	--	--	--	--	--	--	--	--	
MW-6	4/1/2020	306.64	31.41	275.23	--	--	--	--	--	--	--	--	--	--	

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11836 Old Glenn Highway  
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Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
ADEC Groundwater Cleanup Levels <sup>a</sup>					1.5	2.2	0.0046	1.1	0.015	0.19	0.14	0.00075	0.0017	0.0017	
MW-6	10/2/2020	306.64	31.03	275.61	--	--	--	--	--	--	--	--	--	--	
MW-6	4/6/2021	306.64	--	--	--	--	--	--	--	--	--	--	--	--	Well frozen at 2.25 feet btoc
MW-6	8/25/2021	306.64	31.03	275.61	--	--	--	--	--	--	--	--	--	--	Well frozen at 2.25 feet btoc
MW-6	3/30/2022	306.64	31.00	--	--	--	--	--	--	--	--	--	--	--	Well frozen at 2.25 feet btoc
MW-6	4/28/2022	306.64	30.70	275.94	--	--	--	--	--	--	--	--	--	--	Well frozen at 2.25 feet btoc
MW-6	7/7/2022	306.64	31.20	275.44	--	--	--	--	--	--	--	--	--	--	Well frozen at 2.25 feet btoc
MW-6	10/6/2022	306.64	30.79	275.85	--	--	--	--	--	--	--	--	--	--	
MW-8	3/30/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate due to ice and snow
MW-8	4/28/2022	--	Dry	--	--	--	--	--	--	--	--	--	--	--	Dry
MW-8	7/7/2022	--	16.20	--	--	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-8	10/6/2022	--	16.20	--	--	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	3/30/2022	--	Dry	--	--	--	--	--	--	--	--	--	--	--	Insufficient water to sample
MW-9	4/28/2022	--	16.18	--	--	--	--	--	--	--	--	--	--	--	Insufficient water to sample
MW-9	7/7/2022	--	16.18	--	--	--	--	--	--	--	--	--	--	--	Not enough water to sample
MW-9	10/6/2022	--	16.18	--	--	--	--	--	--	--	--	--	--	--	Not enough water to sample
Trip Blank	10/6/2003	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
Trip Blank	12/17/2003	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	--	--	--	
Trip Blank	3/26/2004	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	
Trip Blank	6/5/2004	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	9/27/2004	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	3/24/2005	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	5/17/2005	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	9/25/2005	--	--	--	--	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	--	--	--	
Trip Blank	9/26/2006	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	3/29/2007	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	9/20/2007	--	--	--	--	--	<0.001	<0.001	<0.001	<0.002	--	--	--	--	
Trip Blank	3/28/2008	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	6/5/2008	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	9/15/2008	--	--	--	--	<0.01	<0.001	<0.001	<0.001	<0.002	--	--	--	--	
Trip Blank	10/28/2008	--	--	--	--	<0.01	<0.001	<0.001	<0.001	<0.002	--	--	--	--	
Trip Blank	5/6/2009	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	9/14/2009	--	--	--	--	<0.010	--	--	--	--	--	--	--	--	Not sampled
Trip Blank	4/21/2010	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	7/22/2010	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	8/3/2011	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	5/30/2012	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	<0.0005	--	
Trip Blank	8/23/2012	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	5/8/2013	--	--	--	--	<0.0070	<0.00062	<0.00077	<0.00081	<0.00022	--	--	--	--	
Trip Blank	9/16/2013	--	--	--	--	<0.050	<0.00024	<0.00023	<0.00024	<0.00072	--	--	--	--	
Trip Blank	4/30/2014	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	
Trip Blank	10/1/2014	--	--	--	--	<0.050	<0.00015	<0.00011	<0.00016	<0.00040	--	--	--	--	
Trip Blank	5/6/2015	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	10/20/2015	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	5/19/2016	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0015	--	--	--	--	
Trip Blank	9/28/2016	--	--	--	--	<0.010	<0.0005	<0.0005	<0.0005	<0.0005	--	--	--	--	
Trip Blank	5/22/2017	--	--	--	--	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--	
Trip Blank	9/9/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled
Trip Blank	4/1/2020	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500	
Trip Blank	10/2/2020	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500	
Trip Blank	4/6/2021	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500	
Trip Blank	8/25/2021	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500	
Trip Blank	3/30/2022	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500 J	
Trip Blank	4/28/2022	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500 J	
Trip Blank	7/7/2022	--	--	--	--	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500 J	
Trip Blank	10/6/2022	--	--	--	--	--	<0.00100	<b>0.000391 J</b>	<0.00100	<0.00300	<0.00100	<0.0000500	<0.00100	<0.00500 J	

**Table 1. Historical Groundwater Gauging and Analytical Results**  
**Third Quarter 2003 through 2022**  
Chevron-Branded Service Station 91252  
11836 Old Glenn Highway  
Eagle River, Alaska

Well ID	Sample Date	TOC (ft amsl)	DTW (ft bTOC)	GW Elev (ft amsl)	DRO (mg/L)	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	EDB (mg/L)	EDC (mg/L)	Naphthalene (mg/L)	Comments
<b>ADEC Groundwater Cleanup Levels<sup>a</sup></b>					<b>1.5</b>	<b>2.2</b>	<b>0.0046</b>	<b>1.1</b>	<b>0.015</b>	<b>0.19</b>	<b>0.14</b>	<b>0.000075</b>	<b>0.0017</b>	<b>0.0017</b>	
QA (EB)	4/1/2020	--	--	--	<b>0.929</b>	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
QA (EB)	10/2/2020	--	--	--	<0.800	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
QA (EB)	4/6/2021	--	--	--	<0.840	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
QA (EB)	8/25/2021	--	--	--	<b>0.600 J</b>	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500	
QA (EB)	3/30/2022	--	--	--	<1.00	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
QA (EB)	4/28/2022	--	--	--	<0.840	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
QA (EB)	7/7/2022	--	--	--	<0.800	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500 J	
QA (EB)	10/6/2022	--	--	--	<0.800	--	<0.00100	<0.00100	<0.00100	<0.00300	<0.00100	<0.00000500	<0.00100	<0.00500J	

**Notes:**

ID = Identification  
MW = Groundwater monitoring well  
TOC = Top of casing  
DTW = Depth to groundwater  
ft bTOC = Feet below top of casing  
ft = Feet relative to NAVD88  
  
GW Elev = Groundwater elevation  
mg/L = Milligrams per liter  
<0.00100 = Not detected at or above the reported detection limit (RDL)  
**Bold** = Value detected above 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  
  
J = The associated numerical value is an estimated concentration only  
B = The same analyte is found in the associated blank.  
-- = Not sampled/not measured/not available  
[ ] = Blind Duplicate Sample Result  
QA (EB) = Quality Assurance (Equipment Blank)  
NAVD88 = North American Vertical Datum of 1988

DRO = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to State of Alaska Method AK102.  
GRO = Total petroleum hydrocarbons, gasoline range according to State of Alaska Method AK101.  
Samples analytes by USEPA Method 8260D:  
Benzene, Toluene, Ethylbenzene and Total xylenes (collectively BTEX)  
MTBE = Methyl tert-butyl ether  
EDB = 1,2-Dibromoethane  
  
EDC = 1,2-Dichloroethane  
Naphthalene  
LUFT = Leaking Underground Fuel Tank  
GC/MS = Gas chromatography/Mass Spectrometry  
<sup>a</sup> = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)  
LNAPL = Light non-aqueous phase liquid  
ADEC = Alaska Department of Environmental Conservation  
The laboratory for this site was changed from Eurofins Calscience to Pace Analytical prior to the first quarter 2020 groundwater monitoring event. Prior to this date, Eurofins Calscience was using the carbon ranges as follows: GRO as C6-C10 and DRO as C13-C22. Pace Analytical reports the following carbon ranges: GRO as C5-C12 and DRO as C12-C22.

**Table 2. Historical Groundwater Analytical Results - Additional VOCs**

Second Quarter 2020 through 2022

Chevron-Branded Service Station 91252

11836 Old Glenn Highway

Eagle River, Alaska

Well ID	Sample Date	Acetone (mg/L)	Acrolein (mg/L)	Acrylonitrile (mg/L)	Bromobenzene (mg/L)	Bromochloromethane (mg/L)	Bromodichloromethane (mg/L)	Bromoform (mg/L)	Bromomethane (mg/L)	n-Butylbenzene (mg/L)	sec-Butylbenzene (mg/L)	tert-Butylbenzene (mg/L)	Carbon Disulfide (mg/L)	Carbon Tetrachloride (mg/L)
<b>Groundwater Cleanup Levels</b>		<b>14</b>	--	--	<b>0.062</b>	--	<b>0.0013</b>	<b>0.033</b>	<b>0.0075</b>	<b>1.00</b>	<b>2.00</b>	<b>0.69</b>	<b>0.81</b>	<b>0.0046</b>
MW-2	4/1/2020	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/2/2020	<0.0500 J	<0.0500 J	<0.0100 J	<0.00100 J	<0.00100 J	<0.00100 J	<0.00100 J	<0.00500 J	<0.00100 J	<0.00100 J	<0.00100 J	<0.00100 J	<0.00100 J
MW-2	4/6/2021	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8/25/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2	3/30/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2	4/28/2022	<0.0500 J	<0.0500 J	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2	07/07/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-2	10/06/2022	<0.0500	<0.0500 J	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	4/1/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	10/2/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	4/6/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	4/6/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500 J	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	8/25/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-3	10/06/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100 J	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
MW-5	4/1/2020	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	10/2/2020	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000634 J [0.000781 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-5	4/6/2021	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000471 J [0.000394 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-5	8/25/2021	<0.0500 [<0.0500]	<0.0500 B [<0.0500 B]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 J [<0.00500 J]	<0.00100 [<0.00100]	<b>0.000703 J [0.000701 J]</b>	<0.00100 [<0.00100]	<0.00100 B [<0.00100 B]	<0.00100 [<0.00100]
MW-5	3/30/2022	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000774 J [0.000726 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-5	4/28/2022	<0.0500 J [<0.0500 J]	<0.0500 J [<0.0500 J]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000646 J [0.000654 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-5	07/07/2022	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000779 J [0.000760 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
MW-5	10/06/2022	<0.0500 [<0.0500]	<0.0500 [<0.0500]	<0.0100 [<0.0100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 J [<0.00100 J]	<0.00500 [<0.00500]	<0.00100 [<0.00100]	<b>0.000760 J [0.000801 J]</b>	<0.00100 [<0.00100]	<0.00100 [<0.00100]	<0.00100 [<0.00100]
Trip Blank	4/1/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	10/2/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	4/6/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	8/25/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500 J	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	3/30/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	4/28/2022	<0.0500 J	<0.0500 J	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	07/07/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Trip Blank	10/06/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100 J	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	4/1/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<b>0.00301</b>	<b>0.000670 J</b>	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	10/2/2020	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<b>0.000159 J</b>	<0.00100
QA (EB)	4/6/2021	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	8/25/2021	<0.0500	<b>0.00341</b>	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500 J	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	3/30/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	4/28/2022	<0.0500 J	<0.0500 J	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	07/07/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
QA (EB)	10/06/2022	<0.0500	<0.0500	<0.0100	<0.00100	<0.00100	<0.00100	<0.00100 J	<0.00500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100

**Notes:**

ID = Identification

MW = Groundwater monitoring well

mg/L = Milligrams per liter

<0.00100 = Not detected at or above the Reported Detection Limit

**Bold** = Detected above laboratory method detection limit (MDL)

**Bold and Shaded** = Value exceeds ADEC Groundwater Cleanup Level

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

J = The associated numerical value is an estimated concentration only.

B = The same analyte is found in the associated blank.

[ ] = Blind Duplicate Sample Result

ADEC = Alaska Department of Environmental Conservation

Constituents analyzed by United States Environmental Protection Agency Method 8260D











**Table 2. Historical Groundwater Analytical Results - Additional VOCs**

Second Quarter 2020 through 2022

Chevron-Branded Service Station 91252

11836 Old Glenn Highway

Eagle River, Alaska

Well ID	Sample Date	1,1,2-Trichloroethane (mg/L)	Trichloroethene (Trichloroethylene) (mg/L)	Trichlorofluoromethane (Freon 11) (mg/L)	1,2,3-Trichloropropane (mg/L)	1,1,2-Trichlorotrifluoroethane (1,1,2-Trichloro-1,2,2-trifluoroethane) (Freon 113) (mg/L)	1,2,3-Trimethylbenzene (mg/L)	1,2,4-Trimethylbenzene (mg/L)	1,3,5-Trimethylbenzene (mg/L)	Vinyl Chloride (mg/L)	Comments
<b>Groundwater Cleanup Levels</b>		<b>0.00041</b>	<b>0.0028</b>	<b>5.2</b>	<b>0.0000075</b>	<b>10</b>	<b>--</b>	<b>0.056</b>	<b>0.06</b>	<b>0.00019</b>	
MW-2	4/1/2020	--	--	--	--	--	--	--	--	--	Well obstructed by ice, sample not collected
MW-2	10/2/2020	<0.00100 J	<0.00100 J	<0.00500 J	<0.00000500	<0.00100 J	<0.00100 J	<0.00100 J	<0.00100 J	<0.00100 J	
MW-2	4/6/2021	--	--	--	--	--	--	--	--	--	Well frozen at roughly 2 feet btoc
MW-2	8/25/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-2	3/30/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-2	4/28/2022	<0.00100	<0.00100	<0.00500	<0.00000500 J	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100 J	
MW-2	07/07/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-2	10/06/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	4/1/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	10/2/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	4/6/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	4/6/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	8/25/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-3	10/06/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
MW-5	4/1/2020	--	--	--	--	--	--	--	--	--	Well obstructed by ice, sample not collected
MW-5	10/2/2020	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
MW-5	4/6/2021	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
MW-5	8/25/2021	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
MW-5	3/30/2022	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	0.000350 J [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
MW-5	4/28/2022	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100000 J [ <i>&lt;0.00100 J</i> ]	
MW-5	07/07/2022	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
MW-5	10/06/2022	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00500 [ <i>&lt;0.00500</i> ]	<0.00000500 [ <i>&lt;0.00000500</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	0.000106 J [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	<0.00100 [ <i>&lt;0.00100</i> ]	
Trip Blank	4/1/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	10/2/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	4/6/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	8/25/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	3/30/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	4/28/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100 J	
Trip Blank	07/07/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
Trip Blank	10/06/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	4/1/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	10/2/2020	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	4/6/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	8/25/2021	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	3/30/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	4/28/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100 J	
QA (EB)	07/07/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	
QA (EB)	10/06/2022	<0.00100	<0.00100	<0.00500	<0.00000500	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	

**Table 3. Historical Groundwater Polycyclic Aromatic Hydrocarbons (PAHs) Analytical Data**

Chevron-Branded Service Station 91252  
 11836 Old Glenn Highway  
 Eagle River, Alaska

Well ID	Sample Date	Acenaphthene (mg/L)	Acenaphthylene (mg/L)	Anthracene (mg/L)	Benzo(a) anthracene (mg/L)	Benzo(a) pyrene (mg/L)	Benzo(b) fluoranthene (mg/L)	Benzo(g,h,i) perylene (mg/L)	Benzo(k) fluoranthene (mg/L)	Chrysene (mg/L)	Dibenz(a,h) anthracene (mg/L)	Ethene (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd) pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)
<b>ADEC Groundwater Cleanup Levels<sup>a</sup></b>		<b>0.53</b>	<b>0.26</b>	<b>0.043</b>	<b>0.0003</b>	<b>0.00025</b>	<b>0.0025</b>	<b>0.00026</b>	<b>0.0008</b>	<b>0.002</b>	<b>0.00025</b>	<b>NC</b>	<b>0.26</b>	<b>0.29</b>	<b>0.00019</b>	<b>0.0017</b>	<b>0.17</b>	<b>0.12</b>
<b>MW-1R</b>	05/22/2017	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<b>0.00012 J</b>	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.00029	<0.00029	<b>0.00015 J</b>
<b>MW-2</b>	05/22/2017	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.00029	<0.00029	<0.000096
<b>MW-3</b>	05/22/2017	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.000095	<0.00029	<0.00029	<0.000095
<b>MW-4</b>	05/22/2017	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.00029	<0.00029	<0.000096
<b>MW-5</b>	05/22/2017	<b>0.00024 [0.00026]</b>	<b>0.000083 [0.000091]</b>	<b>0.00013 [0.00014]</b>	<b>0.000011 J [0.000010 J]</b>	<b>0.000010 J [&lt;0.0000098]</b>	<b>0.000027 J [0.000027 J]</b>	<b>0.000025 J [0.000023 J]</b>	<0.000097 [<0.000098]	<b>0.000040 J [0.000039 J]</b>	<0.000097 [<0.000098]	<b>0.000041 J [0.000040 J]</b>	<b>0.000041 J [0.000040 J]</b>	<b>0.0018 [0.0020]</b>	<b>0.000010 J [&lt;0.000098]</b>	<b>0.0014 [0.00082]</b>	<b>0.0012 [0.0013]</b>	<b>0.000068 [0.000065]</b>
<b>MW-6</b>	05/22/2017	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<b>0.00059</b>	<0.00029	<0.000097

**Notes:**

PAHs = Poly aromatic hydrocarbons by Method SW8270  
 ID = Identification  
 MW = Groundwater monitoring well  
 ADEC = Alaska Department of Environmental Conservation  
<sup>a</sup> = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)  
<sup>1</sup> = Level set at solubility concentration, followed by human health risk-based cleanup level in parentheses  
**Bold** = At or above the method detection limit (MDL)  
 mg/L = milligrams per liter  
 J = The associated numerical value is an estimated concentration only  
 - = Not measured / not analyzed  
 <0.000097= Constituent not detected above method detection limit (MDL)  
 [ ] = Blind Duplicate Sample Result

# Attachment D

## ADEC Data Review Checklist

## Laboratory Data Review Checklist

Completed By:

Dilip Kumar H S

Title:

Project Chemist

Date:

August 29, 2023

Consultant Firm:

ARCADIS U.S., Inc

Laboratory Name:

Pace Analytical

Laboratory Report Number:

L1645337

Laboratory Report Date:

08/11/2023

CS Site Name:

Semi Annual 2023 Groundwater Monitoring Report

ADEC File Number:

2107.26.003

Hazard Identification Number:

23705

**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. no discrepancies.

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?

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:

Yes.

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:

Yes.

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? 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:

Yes.

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

Comments:

None of the samples were affected.

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:

Data quality or usability was not affected.

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-2-W-20230809.

ii. Metals/Inorganics – 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-2-W-20230809.



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 MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Method	Compounds	MS Recovery	MSD Recovery
MW-2-W-20230809	8260D	1,2-Dibromoethane	< LL but > 10%	AC

Note:

AC – Acceptable

LL – Lower control limit

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD 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
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

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:

Yes.

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

Comments:

Recovery:

Method SW846 8260D: MS recovery for 1,2-Dibromoethane was less than the control limit in sample MW-2-W-20230809. Target compound result in associated sample 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 recovery 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:

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Method	Surrogate	Recovery
MW-3-W-20230809	AK102	(S) o-Terphenyl	< LL but > 10%

Note:

LL – Lower control limit

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

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	UJ1
	Detect	J1

Note:

<sup>1</sup> A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

Method AK102: Surrogate recovery for (S) o-Terphenyl was less than the control limit in sample MW-3-W-20230809. Target compounds result in associated samples were qualified as estimated (J).

- 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:

Yes.

- iv. Is the data quality or usability affected?

Comments:

Surrogate recovery exceedance are considered minor and would result in the estimation of the associated data. The reported data should still consider as usable.

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 samples were collected as TRIP BLANK 1 and TRIP BLANK 2

- 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?

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)

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

Where  $R_1$  = Sample Concentration  
 $R_2$  = Field Duplicate Concentration

Yes  No  N/A  Comments:

Results for duplicate samples are summarized in the following table.

Sample ID / Duplicate ID	Method	Compounds / Analytes	Sample Result	Duplicate Result	RPD
MW-5-W-20230809/BD-1-W-20230809	8260D	Benzene	0.558 J	0.553 J	AC
		1,2-Dibromoethane	0.636 J	0.607 J	AC
	AK 102	AK102 DRO C10-C25	1280	1040	AC
	8270E-SIM	Acenaphthene	0.0675	0.0663	AC
		Benzo(g,h,i)perylene	0.0206 J	0.050 U	AC
		Fluoranthene	0.0123 J	0.0116 J	AC
		Fluorene	0.432	0.446	3.2%
		Indeno(1,2,3-cd)pyrene	0.0208 J	0.0500 U	AC
		Naphthalene	0.191 J	0.187 J	AC
			Phenanthrene	0.309	0.344

Notes:

AC Acceptable

The field duplicate differences were within control limit.

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-20230809.

ii. Are all results less than LOQ or RL?

Yes  No  N/A  Comments:

No.

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

Comments:

Sample Locations	Method	Compound	Sample Result	Qualification
MW-4-W-20230809 MW-2-W-20230809 MW-5-W-20230809 BD-1-W-20230809	8270 E SIM	Fluoranthene	Detected sample results <RL and <BAL	“UB” at RL
MW-3-W-20230809			Detected sample results >RL and <BAL	

Note:

RL Reporting limit

iv. Are data quality or usability affected?

Comments:

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

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

a. Are they defined and appropriate?

Yes  No  N/A  Comments:

Yes.