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

Subject:
2022 First Quarter Groundwater Monitoring Report

Dear Ms. Reams,

On behalf of Chevron Environmental Management Company (Chevron), Arcadis U.S., Inc. (Arcadis) has prepared the attached *First Quarter 2022 Groundwater Monitoring Report* for the first quarter groundwater monitoring event of 2022 for the following facility:

<u>Chevron Branded</u> <u>Station No.</u>	<u>ADEC File No.</u>	<u>Hazard ID:</u>	<u>Location</u>
381811	102.26.027	24230	501 East 30th Avenue Fairbanks, Alaska

ENVIRONMENT

Date:
April 15, 2022

Contact:
Nick Wood

Phone:
808-522-0342

Email:
nick.wood@arcadis.com

Our ref:
30064229

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

Sincerely,

Arcadis U.S., Inc.

Nick Wood
Project Manager

Copies:
James Kiernan (*electronic copy*)
Nathan Davis (*electronic copy*)



Chevron Environmental Management Company

2022 FIRST QUARTER GROUNDWATER MONITORING REPORT

Chevron Station No. 381811
501 East 30th Avenue
Fairbanks, Alaska
ADEC File No. 102.26.027

April 15 2022



2022 FIRST QUARTER GROUNDWATER MONITORING REPORT

Chevron Service Station No. 381811

501 East 30th Avenue
Fairbanks, Alaska

ADEC File No: 102.26.027
HAZARD ID No: 24230

Prepared for:

**Chevron Environmental Management
Company**

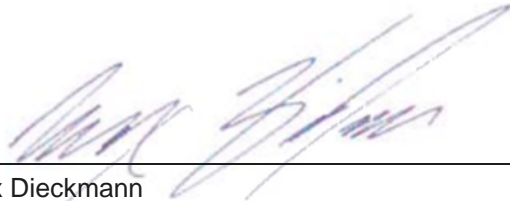
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Max Dieckmann
Staff Geologist



Nick Wood
Project Manager

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**GROUNDWATER MONITORING REPORT
FIRST QUARTER 2022
April 15, 2022**

Facility No.: <u>Former Chevron Service Station No. 381811</u>	Address: <u>501 East 30th Avenue, Fairbanks, Alaska</u>
Arcadis Contact Person / Phone No.:	<u>Nick Wood / 808-522-0342</u>
Arcadis Project No.:	<u>30064229</u>
Primary Agency/Regulatory ID No.:	<u>Alaska Department of Environmental Conservation (ADEC) / Rebekah Reams / ADEC file ID: 102.26.027</u>

WORK CONDUCTED THIS PERIOD [First Quarter 2022]:

1. Conducted quarterly groundwater monitoring activities on March 14, 2022.
2. Prepared the *First Quarter 2022 Groundwater Monitoring Report*.

WORK PROPOSED NEXT PERIOD [Second Quarter 2022]:

1. Conduct quarterly groundwater monitoring activities in the Second Quarter of 2022
2. Prepare the *2022 Second Quarter Groundwater Monitoring Report*.
3. Prepare the Soil Vapor Investigation Report.
4. Investigate damage to monitoring well MW-5 during second quarter groundwater monitoring activities.

Current Phase of Project:	<u>Monitoring</u>	
Frequency of Monitoring / Sampling:	<u>Quarterly</u>	
Is Light Non-Aqueous Phase Liquid (LNAPL) Present On-site:	<u>Yes, 0.06 (MW-3)</u>	(feet)
Cumulative LNAPL Recovered to Date:	<u>0.00</u>	(gallons)
Approximate Depth to Groundwater:	<u>10.68 (MW-3)</u>	(feet below top of casing)
Approximate Groundwater Elevation:	<u>431.98 (MW-3)</u>	(feet relative to NAVD88)
Groundwater Flow Direction	<u>Not Determinable</u>	

Groundwater Gradient	Not Determinable	(feet per foot)
Current Remediation Techniques:	None	
Permits for Discharge:	None	
Summary of Unusual Activity:	Monitoring wells MW-1, MW-2, and MW-4 were unable to be located due to snow and ice. Monitoring well MW-3 was not sampled due to presence of LNAPL and ice within the well casing. Monitoring well MW-5 was destroyed by a snowplow and could not be sampled	
Agency Directive Requirements:	None	

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis), has prepared this report to document the first quarter groundwater sampling event of 2022 for Former Chevron Service Station No. 381811, located at 501 East 30th Avenue, Fairbanks, Alaska (the site). The site location map and site plan are shown on Figure 1 and Figure 2, respectively.

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

2 GROUNDWATER MONITORING

2.1 Groundwater Gauging Methods

The 2022 first quarter groundwater monitoring event was conducted on March 14, 2022. Site monitoring wells were gauged with an oil/water interface probe to determine depth-to-water and to ascertain if LNAPL was present. In order to prevent the possibility of cross-contamination, wells were gauged in the order of lowest to highest historical petroleum hydrocarbon concentrations in groundwater. In addition, non-disposable groundwater gauging equipment was decontaminated prior to and after each use with a detergent solution and rinsed in potable water.

2.2 Groundwater Elevation and Flow Direction

During the first quarter 2022 monitoring event, monitoring wells MW-1 through MW-5 were scheduled to be gauged for groundwater elevations and the presence of LNAPL. Groundwater monitoring well MW-3 contained 0.06 feet of LNAPL during gauging. Monitoring wells MW-1, MW-2, and MW-4 were unable to be located due to large amounts of snow present at the site, therefore a groundwater elevation map and groundwater flow direction could not be prepared. The well box for MW-5 was destroyed by a snowplow during 2021 and was unable to be gauged and sampled. The groundwater monitoring event field notes and photograph log are presented in Appendix B.

The flow direction in the first quarter could not be determined. The groundwater flow has historically been varied at the site. Current and historical groundwater gauging and analytical results are included in Table 1 and Table 2, respectively.

2.3 Groundwater Sampling Methods

The first quarter groundwater monitoring event was conducted on March 14, 2022. Groundwater samples were not collected from wells MW-1, MW-2 and MW-4 as they were unable to be located and inaccessible. Well MW-3 was not sampled due to presence of LNAPL. The well box for MW-5 was destroyed by a snowplow and was unable to be sampled. A groundwater analytical map could not be prepared for this sampling event.

2.4 Groundwater Analytical Results

No samples were collected during the first quarter 2022 monitoring event due to snow and ice, and the presence of LNAPL in the only accessible well, MW-3. Historical analytical groundwater data for total petroleum hydrocarbons (TPH) as gasoline range organics (TPH-g), TPH as diesel range organics (TPH-d), TPH as residual range organics (TPH-r), benzene, toluene, ethylbenzene, total xylenes (collectively BTEX), naphthalene, methyl tert-butyl ether (MTBE), 1,2-Dichloroethane (EDC), and total lead are summarized in Table 2. Historical analytical results for additional constituents analyzed by United States Environmental Protection Agency USEPA method 8260D are summarized in Table 3a through 3e. Additional historic groundwater analytical data is included in Appendix C.

3 CONCLUSIONS AND RECOMMENDATIONS

During the first quarter 2022 groundwater monitoring event, samples were not collected from any of the monitoring wells due to snow and ice, and the presence of LNAPL in the only accessible well, MW-3. Future monitoring events conducted in the first quarter will be scheduled to take place later in the quarter (i.e., late March) to increase the probability of being able to successfully access and sample the wells.

The amount of damage to monitoring well MW-5 due to the snowplow in 2021 will be assessed during the second quarterly event of 2022 as the well was not able to be located during this event. Following this assessment, Arcadis will provide recommendation for abandoning the well and advancing a replacement or repairing the well in place.

Groundwater monitoring will continue in accordance with the current quarterly schedule. The second quarterly sampling event of 2022 will be conducted in June of 2022.

4 REFERENCES

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

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

TABLES



Table 1. Current Groundwater Gauging and Analytical Results

Five Star Auto, Chevron Station 381811
501 East 30th Avenue
Fairbanks, Alaska

Well ID	Sample Date	TOC (ft)	Datum	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-r (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	EDC (µg/L)	Total Lead (µg/L)	Comments
ADEC Groundwater Cleanup Levels							2,200	1,500	1,100	4.6	1,100	15	190	1.7	140	280	15	
MW-1	03/14/2022	443.05	NAVD 88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access due to ice/snow
MW-2	03/14/2022	442.15	NAVD 88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access due to ice/snow
MW-3	03/14/2022	442.66	NAVD 88	10.68	0.06	431.98	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	03/14/2022	443.00	NAVD 88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to access due to ice/snow
MW-5	03/14/2022	441.92	NAVD 88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Destroyed by Snow Plow
QA (EQB)	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
QA (TB)	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

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
- µg/L = Micrograms per liter
- <1.00 = Not detected at or above the Reported Detection Limit (RDL)
- Bold** = Value exceeds laboratory Method Detection Limit (MDL); LNAPL thickness and/or volume recovered is greater than 0.00 ft
- 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 compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect
- NAVD 88 = North American Vertical Datum of 1988
- ADEC = Alaska Department of Environmental Conservation
- TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
- TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to USEPA Method AK102/103
- TPH-r = Total petroleum hydrocarbons, residual range by LUFT GC/MS according to USEPA Method AK102/103
- Samples analyzed by EPA Method 8260D:
 - Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
 - MTBE = Methyl tert-butyl ether
 - EDC = 1,2-Dichloroethane
 - Naphthalene
 - Lead by USEPA Method 6010D
- QA (EQB) = Quality Assurance (Equipment Blank)
- QA (TB) = Quality Assurance (Trip Blank)
- LNAPL = Light Non-Aqueous Phase Liquid
- = Not analyzed/ Not measured/ Not Available
- LUFT = Leaking Underground Fuel Tank
- GC/MS = Gas chromatography/Mass Spec
- [] = Duplicate Result
- If LNAPL is present, GW Elevation is corrected according to the following formula (TOC elevation - DTW) + (0.8 x LNAPL thickness)

Table 2. Historic Groundwater Gauging and Analytical Results
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	Screen Interval (ft bTOC)	TOC (ft)	Datum	DTW (ft bTOC)	LNAPL Thickness (ft)	GW Elev (ft)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-r (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	MTBE (µg/L)	EDC (µg/L)	Lead (µg/L)	Comments	
ADEC Groundwater Cleanup Level								2,200	1,500	1,100	4.6	1,100	15	190	1.7	140	280	15		
MW-1	8/28/2019	4-14	443.05	NAVD88	6.76	0.00	436.29	<100 [<100]	570 [530]	1,400 [1,300]	<0.50 BJ [<0.51 BJ]	0.58 J [<0.39]	<0.50 [<0.50]	<0.75 [<0.75]	<0.027 J [<0.027 J]	<0.44 [<0.44]	<0.024 J [<0.024 J]	<2.7 [<2.7]	Gauged on 9/4/2019	
MW-1	11/6/2019	4-14	443.05	NAVD88	8.41	0.00	434.64	<100	620	680	<0.50 B	<2.0 B	<0.50	<0.75	<0.50 B	<0.44	<0.024	17 J		
MW-1	6/18/2020	4-14	443.05	NAVD88	7.44	0.00	435.61	<100	496 J	962	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	<1.00	8.88	
MW-1	7/28/2020	4-14	443.05	NAVD88	6.40	0.00	436.65	11.4 J	441 J	1,100	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	<6.00		
MW-1	3/25/2021	4-14	443.05	NAVD88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	unable to be located due to large snow banks from plowing
MW-1	6/14/2021	4-14	443.05	NAVD88	8.08	0.00	434.97	<100 B	498 J	<850 B	0.233 J	1.51	1.23	9.85	1.34 J	<1.00	<1.00	<100 B		
MW-1	8/17/2021	4-14	443.05	NAVD88	7.76	0.00	435.29	<100 B J	<800 B J	<800 J	<1.00	0.525 J	<1.00 B	<3.00 B	<5.00	<1.00	<1.00	3.69 J		
MW-1	10/13/2021	4-14	443.05	NAVD 88	8.28	0.00	434.77	<100 B	831 J	--	<1.00 J	<1.00 J	<1.00 J	<3.00 J	<5.00 J	<1.00 J	<1.00 J	5.21 J		
MW-1	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate due to ice/snow
MW-2	8/28/2019	4-14	442.15	NAVD88	5.97	0.00	436.18	63,000 J	1,300	530	13,000 J	13,000	1,600	6,000	41 J	<4.4	40 J	<2.7	Gauged on 9/4/2019	
MW-2	11/6/2019	4-14	442.15	NAVD88	7.62	0.00	434.53	69,000	480 J	<250 BJ	14,000 J	12,000 D	1,100 D	3,900 D	30 J	<0.44	<250 BJ	<2.7		
MW-2	6/18/2020	4-14	442.15	NAVD88	6.63	0.00	435.52	29,000 [29,400]	1,180 [1,150]	524 J [700 J]	8,130 J [8,340 J]	5,970 J [6,770 J]	1,040 J [969 J]	<30.0 [<30.0]	54.2 [51.3]	<10.0 [<10.0]	<10.0 [<10.0]	<6.00 [<6.00]		
MW-2	7/28/2020	4-14	442.15	NAVD88	5.55	0.00	436.60	47,900 J [48,500 J]	1,740 [1,530]	466 J [<840]	16,200 [17,200]	17,000 [17,600]	1,630 [1,790]	6,170 [6,490]	<2,500 [$<2,500$]	<500 [<500]	67.1 J [<500]	<6.00 [5.64 J]		
MW-2	3/25/2021	4-14	442.15	NAVD88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	unable to be located due to large snow banks from plowing
MW-2	6/14/2021	4-14	442.15	NAVD88	7.28	0.00	434.87	77,300	2,170	<800 B	17,000	16,100	1,700	6,140	<2,500 J	<500	<500	<6.00		
MW-2	8/17/2021	4-14	442.15	NAVD88	6.95	0.00	435.20	67,300	2,000	<800 J	12,800	12,700	1,420	5,220	<2,500	<500	<500	<6.00		
MW-2	10/13/2021	4-14	442.15	NAVD 88	7.45	0.00	434.70	90,400	2,140	--	18,400	18,200	1,530	5,780	<2,500 J	<500	<500	<6.00		
MW-2	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Unable to locate due to ice/snow
MW-3	8/28/2019	3.5-13.5	442.66	NAVD88	6.42	0.00	436.24	190,000 J	4,100	1,200	47,000 J	49,000	3,500	15,000	130 J	<0.44	460 J	33	Gauged on 9/4/2019	
MW-3	11/6/2019	3.5-13.5	442.66	NAVD88	8.06	0.00	434.60	210,000	1,500	470	32,000 J	49,000 D	3,600 D	14,600 D	<250 BJ	<0.44	<250 BJ	47		
MW-3	6/18/2020	3.5-13.5	442.66	NAVD88	7.23	0.00	435.43	52,300	4,520	473 J	15,200 J	16,200 J	1,460 J	<150	125 J	<50.0	<50.0	30.7		
MW-3	7/28/2020	3.5-13.5	442.66	NAVD88	6.17	0.00	436.49	69,800 J	2,750	<800	16,900	23,100	2,300	11,100	<5,000	<1,000	96.5 J	33.3		
MW-3	3/25/2021	3.5-13.5	442.66	NAVD88	9.80	0.00	432.86	200,000 J [203,000]	3,730 [3,700]	<840 B [<888 B]	28,400 J [48,200 J]	25,200 J [43,300 J]	1,570 [2,670]	6,850 [11,000]	<5,000 [$<5,000$]	<1,000 [$<1,000$]	168 J [288 J]	36.5 [35.7]		
MW-3	6/14/2021	3.5-13.5	442.66	NAVD88	7.77	0.00	434.89	110,000 [118,000]	6,690 [6,070]	<800 B [<888 B]	17,300 [16,100]	27,300 [28,400]	2,520 [2,690]	13,900 [15,300]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	88.7 [89.8]		
MW-3	8/17/2021	3.5-13.5	442.66	NAVD88	7.44	0.00	435.22	120,000 [115,000]	5,040 [4,260]	<800 J [<800 J]	16,500 [17,100]	24,500 [25,100]	2,550 [2,620]	14,400 [14,700]	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	66.1 [64.9]		
MW-3	10/13/2021	3.5-13.5	442.66	NAVD 88	7.96	0.00	434.70	166,000 [163,000]	5,740 [6,950]	--	25,000 [24,100]	35,000 [32,000]	3,200 [2,920]	17,200 [16,100]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	64 [61.4]		
MW-3	03/14/2022	3.5-13.5	442.66	NAVD 88	10.68	0.06	431.98	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	9/4/2019	4-14.5	443.00	NAVD88	7.64	1.21	436.33	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	4-14.5	443.00	NAVD88	9.69	1.68	434.65	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	4-14.5	443.00	NAVD88	7.70	0.23	435.48	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	4-14.5	443.00	NAVD88	6.60	0.15	436.52	--	--	--	--	--	--	--	--	--	--	--	--	Unable to be located due to large snow banks from plowing
MW-4	3/25/2021	4-14.5	443.00	NAVD88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/14/2021	4-14.5	443.00	NAVD88	8.25	0.07	434.75	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	8/17/2021	4-14.5	443.00	NAVD88	7.90	0.07	435.11	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	10/13/2021	4-14.5	443.00	NAVD 88	8.45	0.05	434.55	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not accessible due to large snow/ice beam covering the well
MW-5	8/28/2019	2.1-12.1	441.92	NAVD88	5.79	0.00	436.13	2,200 J	530	380	1,600 J	7.1 J	4.5	20.3	0.47 J	<0.44	22 J	<2.7		
MW-5	11/6/2019	2.1-12.1	441.92	NAVD88	7.42	0.00	434.50	170 J [300]	240 [230]	<260 B [<280 B]	50 J [110 J]	<0.39 [<2.0]	<0.50 [<2.5]	<0.75 [<3.8]	<0.50B [<5.0 BJ]	<0.44 [<0.44]	1.0 [<5.0 BJ]	<2.7 [<2.7]		
MW-5	6/18/2020	2.1-12.1	441.92	NAVD88	6.43	0.00	435.49	1,760	278 J	623 J	1,580 J	0.462 J	5.81	<5.00	<1.00	<1.00	20.8 J	<6.00		
MW-5	7/28/2020	2.1-12.1	441.92	NAVD88	5.35	0.00	436.57	2,710	453 J	<800	2,750	<25.0	<25.0	<75.0	<125	<25.0	33.9	12.2		
MW-5	3/25/2021	2.1-12.1	441.92	NAVD88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	6/14/2021	2.1-12.1	441.92	NAVD88	6.85	0.00	435.07	1,460	423 J	<800 B	678	7.75 J	<25.0	<75.0	<125 J	<25.0	8.60 J	3.39 J		
MW-5	8/17/2021	2.1-12.1	441.92	NAVD88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	2.1-12.1	441.92	NAVD 88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Destroyed by Snow Plow
MW-5	03/14/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Well Destroyed by Snow Plow
TMW-1	8/26/2019	5-15	442.80	NAVD88	9.75	0.00	433.05	21,000 [20,000]	4,400 [4,700]	640 [690]	1,900 J [320 J]	1,900 J [260 J]	1,400 J [200 J]	6,200 J [560 J]	220 [230]	<0.44 [<0.44]	14 J [--]	<2.7 [<2.7]		
TMW-2	8/26/2019	4-14.3	443.00	NAVD88	9.15	0.00	433.85	<100	4,500	11,000	<0.50 BJ	<0.39	<0.50	<0.75	<0.026	<0.44	<0.024J	<2.7		
QA (EQB)	6/18/2020	--	--	--	--	--	--	<100	<800	<800	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	<6.00		
QA (EQB)	7/28/2020	--	--	--	--	--	--	<100	<800	<840	<1.00	<1.00	<1.00	<3.00	<5.00	<1.00	<1.00	<6.00		
QA (EQB)	3/25/2021	--	--	--	--	--	--	26.7 J	<800	<800	<1.00	<1.00	0.655 J	4.84	<5.00	<1.00	<1.00	<6.00		
QA (EQB)	6/14/2021	--	--	--	--	--	--	19.6 J	<800	<800	<1.00	<1.00	0.139 J	1.54 J	<5.00 J	<1.00	<1.00	<6.00		
QA (EQB)	8/17/2021	--	--	--	--	--	--	<100	358 J	<800 J	<1.00	<1.00	0.528 J	3.17	<5.00	<1.00	<1.00	<6.00		
QA (EQB)	10/13/2021	--	--	--	--	--	--	<100	<888	--	<1.00	<1.00	<1.00	<3.00	<5.00 J	<1.00	<1.00	<6.00		
QA (TB)	6/18/2020																			

Notes:

ID = Identification
 MW = Groundwater monitoring well
 TMW = Temporary Groundwater monitoring well
 TOC = Top of casing
 DTW = Depth to groundwater
 ft bTOC = Feet below top of casing
 ft = Feet relative to NAVD88
 [] = Duplicate Sample Results
 GW Elev = Groundwater elevation
 µg/L = Micrograms per Liter
 ADEC = Alaska Department of Environmental Conservation
 <1.00 = Not detected at or above the Reported Detection Limit (RDL)
Bold = Value exceeds laboratory Method Detection Limit (MDL); LNAPL thickness and/or volume recovered is greater than 0.00 ft
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 compound was positively identified; however, the associated numerical value is an estimated concentration only.
 B = Compound considered non-detect at the listed value due to associated blank contamination.

TPH-g = Total petroleum hydrocarbons, gasoline range by LUFT GC/MS according to United States Environmental Protection Agency (USEPA) Method AK101
 TPH-d = Total petroleum hydrocarbons, diesel range by LUFT GC/MS according to USEPA Method AK102/103
 TPH-r = Total petroleum hydrocarbons, residual range by LUFT GC/MS according to USEPA Method AK102/103
 Samples analyzed by EPA Method 8260D:
 Benzene, Toluene, Ethylbenzene and Total Xylenes (collectively BTEX)
 MTBE = Methyl tert-butyl ether
 EDC = 1,2-Dichloroethane
 Naphthalene
 Lead by USEPA Method 6010D
 -- = Not sampled/not measured/not available
 LNAPL = Light non-aqueous phase liquid
 QA (EQB) = Quality Assurance (Equipment Blank)
 QA (TB) = Quality Assurance (Trip Blank)
 LUFT = Leaking Underground Fuel Tank
 GC/MS = Gas chromatography/Mass Spec
 If LNAPL is present, GW Elevation is corrected according to the following formula (TOC elevation - DTW) + (0.8 x LNAPL thickness)

Table 3a. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	1,1,2-Trichloroethane (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,2-Dibromoethane (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	Chloroform (µg/L)	Naphthalene by 8260C SIM (µg/L)	1,1-Dichloroethene (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (µg/L)	2-Butanone (Methyl ethyl ketone) (µg/L)	4-Isopropyltoluene (µg/L)	Comments
ADEC Groundwater Cleanup Levels		0.41	56	0.075	60	4.7	2.2	1.7	280	28	300	--	--	
MW-1	8/28/2019	<0.017 [<0.017]	<0.61 [<0.61]	<0.014 J [<0.014 J]	<0.55 [<0.55]	<0.18 [<0.18]	<0.0090 J [<0.0090 J]	<0.22 B J [<0.28 B J]	<0.014 [<0.014]	<0.22 [<0.22]	<0.46 [<0.46]	<4.7 [<4.7]	<0.28 [<0.28]	
MW-1	11/6/2019	<0.017	<0.61	<0.0020	<0.18	<0.55	<0.0090	<0.50 B	<0.014	<0.22	<0.014	<0.014	<0.28	
MW-1	6/18/2020	<1.00	<1.00	<0.0250	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
MW-1	7/28/2020	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
MW-1	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	6/14/2021	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00 J	<1.00	<1.00	<1.00	<10.0	<1.00	
MW-1	8/17/2021	<1.00	1.53	<0.00500 J	0.376 J	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0 J	<1.00	
MW-1	10/13/2021	<1.00 J	<1.00	<0.00500 J	<1.00	<5.00 J	<5.00 J	<1.00 J	<1.00 J	<1.00 J	<1.00 J	<1.00	<1.00	
MW-2	8/28/2019	1.0	490	6.8 J	120	<1.8	<0.0090 J	51 J	<0.014	<2.2	<4.6	<4.7	5.6 J	
MW-2	11/6/2019	0.67 J	290 D	1.6 D	<0.18	64	<0.0090	30 J	<0.014	<0.22	1.1 J	<0.014	1.7 J	
MW-2	6/18/2020	<10.0 [<10.0]	598 [560]	<50.0 [<50.0]	118 [112]	<10.0 [<10.0]	<50.0 [<50.0]	54.2 [51.3]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<100 [<100]	<10 B [<10 B]	
MW-2	7/28/2020	<500 [<500]	540 [546]	<50.0 [<50.0]	139 J [131 J]	<500 [<500]	<2,500 [$<2,500$]	<2,500 [$<2,500$]	<500 [<500]	<500 [<500]	<500 [<500]	<5,000 [$<5,000$]	<500 [<500]	
MW-2	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/14/2021	<500	461 J	<25.0	153 J	<500	<2,500	<2,500 J	<500 J	<500	<500	<5,000	<500	
MW-2	8/17/2021	<500	527	<25.0	162 J	<500	<2,500	<2,500	<500	<500	<500	<5,000	<500	
MW-2	10/13/2021	<500	459 J	<25.0	114 J	<2,500	<2,500 J	<500	<500	<500	<5,000	<500	<500	
MW-3	8/28/2019	<0.017 J	840 J	380 J	<280	<0.18	2.8 J	140 J	0.033 J	0.43 J	<0.46	48.0	4.3	
MW-3	11/6/2019	<0.017 J	1,100 D	310 D	<0.18	260 D	<0.0090 J	<250 B J	<0.014 J	<0.22	280 J	<0.014 J	4.5	
MW-3	6/18/2020	<50.0	1,620	60.0	334	<50.0	<250	125 J	<50.0	<50.0	<50.0	<500	<50.0	
MW-3	7/28/2020	<1,000	1,580	<125	369 J	<1,000	<5,000	<5,000	<1,000	<1,000	<1,000	<10,000	<1,000	
MW-3	3/25/2021	<1,000 [$<1,000$]	601 J [956 J]	298 [300]	--	<1,000 [$<1,000$]	<5,000 [$<5,000$]	--	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	--	
MW-3	6/14/2021	<1,000	1,660	80	465 J	<1,000	<5,000	<5,000 J	<1,000	<1,000	<1,000	<10,000	<1,000	
MW-3	8/17/2021	<1,000 [<500]	1,870 [1,940]	95.0 [90.0]	398 J [489 J]	<1,000 [<500]	<5,000 [$<2,500$]	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<10,000 [$<5,000$]	<1,000 [<500]	
MW-3	10/13/2021	<1,000 [<500]	2,220 [2,060]	125 [115]	493 J [476 J]	<5,000 [$<2,500$]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<10,000 [$<5,000$]	<1,000 [<500]	<1,000 [<500]	
MW-4	8/28/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-5	8/28/2019	<0.017	6.4	0.031 J	1.1 J	<0.18	1.1 J	<50 BJ	0.029 J	<0.22	<0.46	<4.7	1.1 J	
MW-5	11/6/2019	<0.017 [<0.017]	<0.61 [<0.61]	<0.0020 [<0.0098 B]	<0.18 [<0.18]	<0.55 [<0.55]	2.9 [2.7]	<0.50 B [<5.0 B J]	0.036 J [<0.014]	<0.22 [<0.22]	<0.014 [<0.14 J]	<0.014 [<0.014]	<0.28 [<0.28]	
MW-5	6/18/2020	<1.00	1.05	<50.0	0.221 J	<1.00	2.42 J	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
MW-5	7/28/2020	<25.0	<25.0	<12.5	<25.0	<25.0	<125	<125	<25.0	<25.0	<25.0	<250	<25.0	
MW-5	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	6/14/2021	<25.0	<25.0	<1.00	<25.0	<25.0	<125	<125	<25.0	<25.0	<25.0	<250	<25.0	
MW-5	8/17/2021	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed by plow
TMW-1	8/26/2019	<1.7 J [<0.24 J]	1,000 J [180 J]	<1.4 J [<0.40 J]	300 J [140 J]	<0.18 [<0.18]	<0.90 J [<0.50]	280 J [88 J]	<1.4 J [<0.78]	<0.22 [<0.22]	<0.46 [<0.46]	<4.7 [<4.7]	19 [18]	
TMW-2	8/26/2019	<0.017	<0.61	<0.014 J	<0.55	<0.18	<0.50 BJ	<0.50 BJ	<0.014	<0.22	<0.46	<4.7	<0.28	
TMW-3	8/26/2019	<0.017 J	180	<0.014 J	44	<0.18	2.5 J	2.4 J	<0.014 J	<0.22	<0.46	<4.7	<0.28	
QA (EQB)	11/6/2019	<0.017	<0.61	<0.0020	<0.18	<0.55	<0.0090	<0.013	<0.014	<0.22	<0.014	<0.014	<0.28	
QA (EQB)	6/18/2020	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (EQB)	7/28/2020	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (EQB)	3/25/2021	<1.00	<1.00	<0.0200	--	<1.00	<5.00	--	<1.00	<1.00	<1.00	<10.0	--	
QA (EQB)	6/14/2021	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00 J	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (EQB)	8/17/2021	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (EQB)	10/13/2021	<1.00	<1.00	<0.00500	<1.00	<5.00	<5.00 J	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (TB)	11/6/2019	<0.017	<0.61	0.0024 J	<0.18	<0.55	<0.0090	0.17 J	<0.014	<0.22	<0.014	<0.014	<0.28	
QA (TB)	6/18/2020	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (TB)	7/28/2020	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (TB)	3/25/2021	<1.00	<1.00	--	--	<1.00	<5.00	--	<1.00	<1.00	<1.00	<10.0	--	
QA (TB)	6/14/2021	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00 J	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (TB)	8/17/2021	<1.00	<1.00	<0.00500	<1.00	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<10.0	<1.00	
QA (TB)	10/13/2021	<1.00	<1.00	<0.00500	<1.00	<5.00	<5.00 J	<1.00	<1.00	<1.00	<1.00	<10.0	<1.00	

Table 3a. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	1,1,2-Trichloroethane (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,2-Dibromoethane (µg/L)	1,3,5-Trimethylbenzene (µg/L)	1,3-Dichlorobenzene (µg/L)	Chloroform (µg/L)	Naphthalene by 8260C SIM (µg/L)	1,1 Dichloroethene (µg/L)	1,1-Dichloroethane (µg/L)	1,2-Dichlorobenzene (o-Dichlorobenzene) (µg/L)	2-Butanone (Methyl ethyl ketone) (µg/L)	4-Isopropyltoluene (µg/L)	Comments
ADEC Groundwater Cleanup Levels		0.41	56	0.075	60	4.7	2.2	1.7	280	28	300	--	--	

Notes

- ID = Identification
- MW = Groundwater monitoring well
- TMW = Temporary Groundwater monitoring well
- [] = Duplicate Sample Results
- µg/L= Micrograms per Liter
- ADEC = Alaska Department of Environmental Conservation
- <1.00 = Not detected at or above the Reported Detection Limit (RDL)
- Bold** = Value exceeds laboratory Method Detection Limit (MDL)
- Bold Shaded**= Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- = Not sampled/not measured/not available
- J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B = Compound considered non-detect at the listed value due to associated blank contamination.
- D = Sample results derived from dilution
- VOCs = Volatile Organic Compounds analyzed by USEPA Method 8260D:

Table 3b. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	4-Methyl-2-pentanone (µg/L)	Acetone (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	cis-1,2-Dichloroethene (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (Dichloromethane) (µg/L)	n-Butylbenzene (µg/L)	n-Propylbenzene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	t-Butylbenzene (µg/L)	Comments
ADEC Groundwater Cleanup Levels		6300	14000	78	--	36	--	100	1000	--	2000	1200	690	
MW-1	8/28/2019	<2.5 [<2.5]	<7.8 [<7.8]	<0.44 [<0.44]	<1.1 [<1.1]	<0.69 [<0.69]	<0.51 [<0.51]	<1.4 [<1.4]	<0.44 [<0.44]	<0.50 [<0.50]	<0.49 [<0.49]	<1.0 [<1.0]	<0.58 [<0.58]	
MW-1	11/6/2019	<2.5	<7.8	<0.44	<1.1	<0.69	<0.51	<1.4	<0.44	<0.50	<0.49	<1.0	<0.58	
MW-1	6/18/2020	<10.0	<50.0	0.228 J	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
MW-1	7/28/2020	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
MW-1	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	6/14/2021	<10.0	<50.0 J	<1.00	<5.00	<1.00	<1.00 B	<5.00	0.259 J	1.06	<1.00	0.122 J	<1.00	
MW-1	8/17/2021	<10.0	334	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	0.269 J	<1.00	<1.00	<1.00	
MW-1	10/13/2021	<10.0 J	<50.0	<1.00 J	<5.00 J	<1.00 J	<1.00 J	<5.00 J	<1.00	<1.00	<1.00	<1.00 J	<1.00 J	
MW-2	8/28/2019	<25	<78	<4.4	<11	<6.9	71	<14	19 J	140	<4.9	<10	<5.8	
MW-2	11/6/2019	<2.5	<7.8	<0.44	<1.1	<0.69	39	4.3 J	2.3 J	75	1.5 J	<1.0	0.59 J	
MW-2	6/18/2020	<100 [<100]	<500 [<500]	<10.0 [<10.0]	<50.0 [<50.0]	<10.0 [<10.0]	69.3 [65.8]	<50.0 [<50.0]	<10.0 [<10.0]	134 [129]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	
MW-2	7/28/2020	<5,000 [<5,000]	<25,000 [<25,000]	<500 [<500]	<2,500 [<2,500]	<500 [<500]	66.5 J [71.6 J]	<2,500 [<2,500]	<500 [<500]	135 J [132 J]	<500 [<500]	<500 [<500]	<500 [<500]	
MW-2	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/14/2021	<5,000	<25,000 J	<500	<2,500	<500	<500 B J	<2,500	<500	110 J	<500	<500	<500	
MW-2	8/17/2021	<5,000	<25,000	<500	<2,500	<500	70.2 J	<2,500	<500	108 J	<500	<500	<500	
MW-2	10/13/2021	<5,000	<25,000	<500	<2,500	<500	62.0 J	<2,500	<500	130 J	<500	<500	<500	
MW-3	8/28/2019	3.3 J	<7.8	<0.44	6.2	<0.69	<260	8.3	72	<250	9.2	5.3	2.0 J	
MW-3	11/6/2019	<2.5	<7.8	<0.44	3.8 J	<0.69	140	3.5 J	17	270 D	8.7	6.1	2.5 J	
MW-3	6/18/2020	<500	<2,500	<50.0	<250	<50.0	117	<250	16.9 J	225	<50.0	<50.0	<50.0	
MW-3	7/28/2020	<10,000	<50,000	<1,000	<5,000	<1,000	126 J	<5,000	<1,000	264 J	<1,000	<1,000	<1,000	
MW-3	3/25/2021	<1,000 [<10,000]	<50,000 [<50,000]	<1,000 [<1,000]	<5,000 [<5,000]	<1,000 [<1,000]	<1,000 [<1,000]	<5,000 [<5,000]	--	--	--	<1,000 [<1,000]	--	
MW-3	6/14/2021	<10,000 [5,000]	<50,000 J [<25,000 J]	<1,000 [<500]	<5,000 [<2,500]	<1,000 [<500]	182 J [152 J]	<5,000 [<2,500]	<1,000 [<500]	250 J [264 J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	8/17/2021	<10,000 [<5,000]	<50,000 [<25,000]	<1,000 [<500]	<5,000 [<2,500]	<1,000 [<500]	148 J [155 J]	<5,000 [<2,500]	<1,000 [<500]	293 J [305 J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	10/13/2021	<10,000 [<5,000]	<50,000 [<25,000]	<1,000 [<500]	<5,000 [<2,500]	<1,000 [<500]	176 J [151 J]	<5,000 [<2,500]	<1,000 [<500]	380 J [362 J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-4	8/28/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-5	8/28/2019	<2.5	<7.8	<0.44	<1.1	4.1	6	<1.4	1.0 J	3.8	<0.49	<1.0	<0.58	
MW-5	11/6/2019	<2.5 [<2.5]	<7.8 [<7.8]	<0.44 [<0.44]	<1.1 [<1.1]	<0.69 [<0.69]	<0.51 [<0.51]	<1.4 [<1.4]	<0.44 [<0.44]	<0.50 [<0.50]	<0.49 [<0.49]	<1.0 [<1.0]	<0.58 [<0.58]	
MW-5	6/18/2020	<10.0	<50.0 J	<1.00	<5.00	2.25	3.15	<5.00	<1.00	1.34	<1.00	<1.00	<1.00	
MW-5	7/28/2020	<250	<1,250	<25.0	<125	5.78 J	5.05 J	<125	<25.0	<25.0	<25.0	<25.0	<25.0	
MW-5	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	6/14/2021	<250	<1,250 J	<25.0	<125	<25.0	<25.0	<125	<25.0	<25.0	<25.0	<25.0	<25.0	
MW-5	8/17/2021	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed by plow
TMW-1	8/26/2019	<2.5 J [<2.5 J]	<78 J [2,100 J]	<0.44 [<0.44]	<1.1 [<1.1]	<0.69 [<0.69]	94 [99]	<14 [<1.4 J]	140 [110 J]	240 [160 J]	22 J [21 J]	<1.0 [<1.0]	13 [14]	
TMW-2	8/26/2019	<2.5 J	<7.8	<0.44	<1.1	<0.69	<0.51	<1.4	<0.44	<0.50	<0.49	<1.0	<0.58	
TMW-3	8/26/2019	<2.5 J	19 J	<0.44	<1.1	<0.69	16	<14	<4.4	12 J	<4.9	<1.0	<0.58	
QA (EQB)	11/6/2019	<2.5	<7.8	<0.44	<1.1	<0.69	<0.51	<1.4	<0.44	<0.50	<0.49	<1.0	<0.58	
QA (EQB)	6/18/2020	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	7/28/2020	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	3/25/2021	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	--	--	--	<1.00	--	
QA (EQB)	6/14/2021	<10.0	<50.0 J	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	8/17/2021	<10.0	54.2	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	10/13/2021	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (TB)	11/6/2019	<2.5	<7.8	<0.44	<1.1	<0.69	<0.51	<1.4	<0.44	<0.50	<0.49	<1.0	<0.58	
QA (TB)	6/18/2020	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (TB)	7/28/2020	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (TB)	3/25/2021	<10.0	<50.0	<1.00	<5.00	<1.00	<1.00	<5.00	--	--	--	<1.00	--	
QA (TB)	6/14/2021	<10.0	<50.0 J	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (TB)	8/17/2021	<10.0	28.9 J	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
QA (TB)	10/13/2021	<10.0	25.7 J	<1.00	<5.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	

Table 3b. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	4-Methyl-2-pentanone (µg/L)	Acetone (µg/L)	Chlorobenzene (µg/L)	Chloroethane (µg/L)	cis-1,2-Dichloroethene (µg/L)	Isopropylbenzene (µg/L)	Methylene chloride (Dichloromethane) (µg/L)	n-Butylbenzene (µg/L)	n-Propylbenzene (µg/L)	sec-Butylbenzene (µg/L)	Styrene (µg/L)	t-Butylbenzene (µg/L)	Comments
ADEC Groundwater Cleanup Levels		6300	14000	78	--	36	--	100	1000	--	2000	1200	690	

Notes

- ID = Identification
- MW = Groundwater monitoring well
- TMW = Temporary Groundwater monitoring well
- [] = Duplicate Sample Results
- µg/L= Micrograms per Liter
- ADEC = Alaska Department of Environmental Conservation
- <1.00 = Not detected at or above the Reported Detection Limit (RDL)
- Bold** = Value exceeds laboratory Method Detection Limit (MDL)
- Bold Shaded**= Value exceeds ADEC Groundwater Cleanup Level
- Bold and Italicized** : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
- = Not sampled/not measured/not available
- J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- VOCs = Volatile Organic Compounds analyzed by USEPA Method 8260D:

Table 3c. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	Tetrachloroethene (µg/L)	Trichloroethene (Trichloroethylene) (µg/L)	Trichlorofluoromethane (Freon 11) (µg/L)	Vinyl chloride (Chloroethene) (µg/L)	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1,2,2-Tetrachloroethane (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichlorobenzene (µg/L)	1,2-Dichloropropane (µg/L)	1,3-Dichloropropane (µg/L)	Comments
ADEC Groundwater Cleanup Levels		41	2.8	5200	0.19	5.7	0.76	4.7	7	0.0075	4	8.2	4.7	
MW-1	8/28/2019	<0.017 [<0.017]	<0.0090 J [<0.0090 J]	0.75 J [0.80 J]	<0.013 [<0.013]	<0.0090 J [<0.0090 J]	<0.049 [<0.049]	<0.29 [<0.29]	<1.1 [<1.1]	<0.41 [<0.41]	<0.33 [<0.33]	<0.18 [<0.18]	<0.35 [<0.35]	
MW-1	11/6/2019	<0.017	<0.0090	<0.63	<0.013	<0.0090	<0.049	<0.29	<1.1	<0.41	<0.33	<0.46	<0.18	
MW-1	6/18/2020	<1.00	<1.00	6.32	<1.00	<1.00	<1.00	<1.00	<1.00	<0.0250	<1.00	<1.00	<1.00	
MW-1	7/28/2020	<1.00	<1.00	0.732 J	<1.00 J	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
MW-1	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	6/14/2021	<1.00	<1.00	2.91 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<0.00500	<1.00 J	<1.00	<1.00	
MW-1	8/17/2021	<1.00	<1.00	7.07	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500 J	<1.00	<1.00	<1.00	
MW-1	10/13/2021	<1.00	<1.00 J	0.514 J	<1.00 J	<1.00	<1.00 J	<1.00 J	<1.00 J	<0.00500 J	<1.00 J	<1.00 J	<1.00 J	
MW-2	8/28/2019	<0.017	0.19 J	<6.3	0.15 J	<0.0090 J	<0.049	<2.9	<1.1	<4.1	<3.3	<1.8	<3.5	
MW-2	11/6/2019	<0.50 B	<0.0090	<32	<0.013	<0.0090	<0.049	<0.29	<1.1	<0.41	<0.33	<0.46	<0.18	
MW-2	6/18/2020	<10.0 [<10.0]	<10.0 [<10.0]	<50.0 [<50.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	40.0 J [<50.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0	
MW-2	7/28/2020	<500 [<500]	<500 [<500]	<2,500 [$<2,500$]	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<50.0 [<50.0]	<500 [<500]	<500 [<500]	<500 [<500]	
MW-2	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/14/2021	<500	<500	<2,500	<500	<500	<500	<500	<500 J	<25.0	<500 J	<500	<500	
MW-2	8/17/2021	<500	<500	<2,500	<500	<500	<500	<500	<500	<25.0	<500	<500	<500	
MW-2	10/13/2021	<500	<500	<2,500 J	<500	<500	<500	<500	<500 J	<25.0	<500	<500	<500	
MW-3	8/28/2019	0.034 J	<0.0090 J	0.63 J	<0.013 J	<0.0090 J	<0.049 J	<0.29	<1.1	<0.41	<0.33	<0.18	<1.80	
MW-3	11/6/2019	<0.50 B J	<0.0090 J	0.81 J	<0.013 J	<0.0090 J	<0.049 J	<0.29	<1.1	<0.41	<0.33	<0.46	<0.18	
MW-3	6/18/2020	<50.0	<50.0	<250	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	
MW-3	7/28/2020	<1,000	<1,000	<5,000	<1,000	<1,000	<1,000	<1,000	<1,000	<125	<1,000	<1,000	<1,000	
MW-3	3/25/2021	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<5,000 [$<5,000$]	<1,000 [$<1,000$]	--	<1,000 [$<1,000$]	--	<1,000 [$<1,000$]	--	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000	
MW-3	6/14/2021	<1,000 [<500]	<1,000 [<500]	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 J [<500 J]	<25.0 [<25.0]	<1,000 J [<500 J]	<1,000 [<500]	<1,000 [<500]	
MW-3	8/17/2021	<1,000 [<500]	<1,000 [<500]	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<25.0 [<25.0]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	10/13/2021	<1,000 [<500]	<1,000 [<500]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 J [<500 J]	10.0 J [<25.0]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-4	8/28/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-5	8/28/2019	<0.017	0.29 J	56	<0.013	<0.0090 J	<0.049	<0.29	<1.1	<0.41	<0.33	<0.18	<0.35	
MW-5	11/6/2019	<0.017 [<0.017]	0.12 J [0.11 J]	140 D [150 D]	<0.013 [<0.013]	<0.0090 [<0.0090]	<0.049 [<0.049]	<0.29 [<0.29]	<1.1 [<1.1]	<0.41 [<0.41]	<0.33 [<0.33]	<0.46 [<0.46]	<0.18 [<0.18]	
MW-5	6/18/2020	<1.00	0.344 J	85.0	<1.00	<1.00	<1.00	<1.00	<1.00	<50.0	<1.00	<1.00	<1.00	
MW-5	7/28/2020	<25.0	<25.0	67.9 J	<25.0	<25.0	<25.0	<25.0	<25.0	<12.5	<25.0	<25.0	<25.0	
MW-5	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	6/14/2021	<25.0	<25.0	89.3 J	<25.0	<25.0	<25.0	<25.0	<25.0 J	<1.00	17.1 J	<25.0	<25.0	
MW-5	8/17/2021	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed by plow
TMW-1	8/26/2019	<1.7 J [<0.41 J]	<0.90 J [<0.85]	3 [2.6 J]	<1.3 J [<0.22]	<0.90 J [<0.18]	<4.9 J [<0.52]	<0.29 [<0.29]	<1.1 J [<1.1 J]	<0.41 [<0.41]	<3.3 [<0.33 J]	<0.18 [<0.18]	<0.35 J [<0.35 J]	
TMW-2	8/26/2019	1.5	<0.0090 J	44	<0.013	<0.0090 J	<0.049	<0.29	<1.1 J	<0.41	<0.33	<0.18	<0.35 J	
TMW-3	8/26/2019	1.3 J	<0.0090 J	32	<0.013 J	<0.0090 J	<0.049 J	<0.29	<1.1 J	<0.41	<3.3	<0.18	<0.35 J	
QA (EQB)	11/6/2019	0.036 J	<0.0090	<0.63	<0.013	<0.0090	<0.049	<0.29	<1.1	<0.41	<0.33	<0.46	<0.18	
QA (EQB)	6/18/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (EQB)	7/28/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (EQB)	3/25/2021	<1.00	<1.00	<5.00	<1.00	--	<1.00	--	<1.00	--	<1.00	<1.00	--	
QA (EQB)	6/14/2021	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<0.00500	<1.00 J	<1.00	<1.00	
QA (EQB)	8/17/2021	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (EQB)	10/13/2021	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<0.00500	<1.00	<1.00	<1.00	
QA (TB)	11/6/2019	<0.017	<0.0090	<0.63	<0.013	<0.0090	<0.049	<0.29	<1.1	<0.41	<0.33	<0.46	<0.18	
QA (TB)	6/18/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (TB)	7/28/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (TB)	3/25/2021	<1.00	<1.00	<5.00	<1.00	--	<1.00	--	<1.00	--	<1.00	<1.00	--	
QA (TB)	6/14/2021	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00 J	<0.00500	<1.00 J	<1.00	<1.00	
QA (TB)	8/17/2021	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00500	<1.00	<1.00	<1.00	
QA (TB)	10/13/2021	<1.00	<1.00	<5.00 J	<1.00	<1.00	<1.00	<1.00	<1.00 J	<0.00500	<1.00	<1.00	<1.00	

Notes

- ID = Identification
- MW = Groundwater monitoring well
- TMW = Temporary Groundwater monitoring well
- [] = Duplicate Sample Results
- µg/L = Micrograms per Liter
- ADEC = Alaska Department of Environmental Conservation

Table 3c. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	Tetrachloroethene (µg/L)	Trichloroethene (Trichloroethylene) (µg/L)	Trichlorofluoromethane (Freon 11) (µg/L)	Vinyl chloride (Chloroethene) (µg/L)	1,1,1,2-Tetrachloroethane (µg/L)	1,1,1,2-Tetrachloroethane (µg/L)	1,1-Dichloropropene (µg/L)	1,2,3-Trichlorobenzene (µg/L)	1,2,3-Trichloropropane (µg/L)	1,2,4-Trichlorobenzene (µg/L)	1,2-Dichloropropane (µg/L)	1,3-Dichloropropane (µg/L)	Comments
ADEC Groundwater Cleanup Levels		41	2.8	5200	0.19	5.7	0.76	4.7	7	0.0075	4	8.2	4.7	

<1.00 = Not detected at or above the Reported Detection Limit (RDL)

Bold = Value exceeds laboratory Method Detection Limit (MDL)

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

-- = Not sampled/not measured/not available

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B = Compound considered non-detect at the listed value due to associated blank contamination.

D = Sample results derived from dilution

VOCs = Volatile Organic Compounds analyzed by USEPA Method 8260D:

Table 3d. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	1,4-Dichlorobenzene (µg/L)	Bromobenzene (µg/L)	Bromochloromethane (µg/L)	Bromodichloromethane (µg/L)	Bromoform (µg/L)	Bromomethane (Methyl bromide) (µg/L)	Carbon disulfide (µg/L)	Carbon Tetrachloride (µg/L)	Chloromethane (Methyl chloride) (µg/L)	cis-1,3-Dichloropropene (µg/L)	Dibromochloro-methane (µg/L)	Dibromomethane (Methylene bromide) (µg/L)	Comments
ADEC Groundwater Cleanup Levels		4.8	62	--	1.3	33	7.5	810	4.6	190	4.7	8.7	8.3	
MW-1	8/28/2019	<0.014 [<0.014]	<0.43 [<0.43]	<0.29 [<0.29]	<0.0060 J [<0.0060 J]	<0.013 J [<0.013 J]	<0.012 [<0.012]	<0.53 [<0.53]	<0.30 [<0.30]	<5.4 [<5.4]	<0.026 [<0.026]	<0.016 [<0.016]	<0.017 [<0.017]	
MW-1	11/6/2019	<0.35	<0.43	<0.29	<0.0060	<0.013	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
MW-1	6/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
MW-1	7/28/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00 J	<1.00	<1.00	<2.50 J	<1.00	<1.00	<1.00	
MW-1	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	6/14/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
MW-1	8/17/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00 J	<1.00	<1.00	<2.50 J	<1.00	<1.00	<1.00	
MW-1	10/13/2021	<1.00	<1.00 J	<1.00 J	<1.00	<1.00	<5.00 J	<1.00 J	<1.00	<2.50 J	<1.00 J	<1.00	<1.00 J	
MW-2	8/28/2019	<0.014	<4.3	<2.9	<0.0060 J	<0.013 J	<0.012	<5.3	<3.0	<5.4	<0.026	<0.016	<0.017	
MW-2	11/6/2019	<0.35	<0.43	<0.29	<0.0060	<0.013	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
MW-2	6/18/2020	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<50.0 [<50.0]	<10.0 [<10.0]	<10.0 [<10.0]	<25.0 [<25.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	
MW-2	7/28/2020	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	<2,500 [$<2,500$]	<500 [<500]	<500 [<500]	<1,250 J [$<1,250$ J]	<500 [<500]	<500 [<500]	<500 [<500]	
MW-2	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	6/14/2021	<500	<500 J	<500	<500	<500	<2,500	<500	<500	<1,250 J	<500	<500	<500	
MW-2	8/17/2021	<500	<500	<500	<500	<500 J	<2,500 J	<500	<500	<1,250 J	<500	<500	<500	
MW-2	10/13/2021	<500	<500	<500	<500	<500	<2,500 J	<500	<500	<1,250	<500	<500	<500	
MW-3	8/28/2019	<0.014 J	<0.43	<0.29	<0.0060 J	<0.013 J	<0.012 J	<0.53	<0.30	<5.4	<0.026 J	<0.016 J	<0.017 J	
MW-3	11/6/2019	<0.35	<0.43	<0.29	<0.0060 J	<0.013 J	<0.012 J	<0.53	<0.30	<5.4	<0.026 J	<0.016 J	<0.017 J	
MW-3	6/18/2020	<50.0	<50.0	<50.0	<50.0	<50.0	<250	<50.0	<50.0	<125	<50.0	<50.0	<50.0	
MW-3	7/28/2020	<1,000	<1,000	<1,000	<1,000	<1,000	<5,000	<1,000	<1,000	<2,500 J	<1,000	<1,000	<1,000	
MW-3	3/25/2021	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<5,000 [$<5,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<2,500 [$<2,500$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	<1,000 [$<1,000$]	
MW-3	6/14/2021	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<2,500 [$<1,250$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	8/17/2021	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 J [<500 J]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	<2,500 J [$<1,250$ J]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	10/13/2021	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<5,000 J [$<2,500$ J]	<1,000 [<500]	<1,000 [<500]	<2,500 [$<1,250$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-4	8/28/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-5	8/28/2019	<0.014	<0.43	<0.29	<0.0060 J	<0.013 J	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
MW-5	11/6/2019	<0.35 [<0.35]	<0.43 [<0.43]	<0.29 [<0.29]	<0.0060 [<0.0060]	<0.013 [<0.013]	<0.012 [<0.012]	<0.53 [<0.53]	<0.30 [<0.30]	<5.4 [<5.4]	<0.026 [<0.026]	<0.016 [<0.016]	<0.017 [<0.017]	
MW-5	6/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
MW-5	7/28/2020	<25.0	<25.0	<25.0	<25.0	<25.0	<125	<25.0	<25.0	<62.5 J	<25.0	<25.0	<25.0	
MW-5	3/25/2021	--	--	--	--	--	--	--	--	--	--	--	--	
MW-5	6/14/2021	<25.0	<25.0	<25.0	<25.0	<25.0	<125	<25.0	<25.0	<62.5	<25.0	<25.0	<25.0	
MW-5	8/17/2021	--	--	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	--	--	--	--	--	--	--	--	--	--	--	--	Destroyed by plow
TMW-1	8/26/2019	<1.4 J [<0.98]	<0.43 [<0.43]	<0.29 [<0.29]	<0.60 J [<0.14]	<1.3 J [<0.56]	<1.2 J [<1.1]	<0.53 [<0.53]	<0.30 [<0.30]	<5.4 [<5.4]	<2.6 J [<0.20 J]	<1.6 J [<0.50 J]	<1.7 J [<0.34]	
TMW-2	8/26/2019	<0.014	<0.43	<0.29	<0.0060 J	<0.013 J	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
TMW-3	8/26/2019	<0.014 J	<0.43	<0.29	<0.0060 J	<0.013 J	<0.012 J	<0.53	<0.30	<5.4	<0.026 J	<0.016 J	<0.017 J	
QA (EQB)	11/6/2019	<0.35	<0.43	<0.29	<0.0060	<0.013	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
QA (EQB)	6/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (EQB)	7/28/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (EQB)	3/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	--	
QA (EQB)	6/14/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (EQB)	8/17/2021	<1.00	<1.00	<1.00	<1.00	<1.00 J	<5.00 J	0.294 J	<1.00	<2.50 J	<1.00	<1.00	<1.00	
QA (EQB)	10/13/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00 J	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (TB)	11/6/2019	<0.35	<0.43	<0.29	<0.0060	<0.013	<0.012	<0.53	<0.30	<5.4	<0.026	<0.016	<0.017	
QA (TB)	6/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (TB)	7/28/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (TB)	3/25/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	--	
QA (TB)	6/14/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	
QA (TB)	8/17/2021	<1.00	<1.00	<1.00	<1.00	<1.00 J	<5.00 J	0.112 J	<1.00	<2.50 J	<1.00	<1.00	<1.00	
QA (TB)	10/13/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00 J	<1.00	<1.00	<2.50	<1.00	<1.00	<1.00	

Notes

- ID = Identification
- MW = Groundwater monitoring well
- TMW = Temporary Groundwater monitoring well
- [] = Duplicate Sample Results
- µg/L = Micrograms per Liter
- ADEC = Alaska Department of Environmental Conservation

Table 3d. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	1,4-Dichlorobenzene (µg/L)	Bromobenzene (µg/L)	Bromochloromethane (µg/L)	Bromodichloromethane (µg/L)	Bromoform (µg/L)	Bromomethane (Methyl bromide) (µg/L)	Carbon disulfide (µg/L)	Carbon Tetrachloride (µg/L)	Chloromethane (Methyl chloride) (µg/L)	cis-1,3-Dichloropropene (µg/L)	Dibromochloro-methane (µg/L)	Dibromomethane (Methylene bromide) (µg/L)	Comments
ADEC Groundwater Cleanup Levels		4.8	62	--	1.3	33	7.5	810	4.6	190	4.7	8.7	8.3	

<1.00 = Not detected at or above the Reported Detection Limit (RDL)

Bold = Value exceeds laboratory Method Detection Limit (MDL)

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

-- = Not sampled/not measured/not available

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

VOCs = Volatile Organic Compounds analyzed by USEPA Method 8260D:

Table 3e. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) (µg/L)	Hexachlorobutadiene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	1,2-Dibromo-3-chloropropane (DBCP) (µg/L)	2-Hexanone (µg/L)	o-Chlorotoluene (µg/L)	p-Chlorotoluene (µg/L)	sec-Dichloropropane (µg/L)	1,1,1-Trichloroethane (µg/L)	Comments
ADEC Groundwater Cleanup Levels		200	1.4	360	4.7	--	38	--	--	--	8000	
MW-1	8/28/2019	<2.3 [<2.3]	<0.026 [<0.026]	<0.39 [<0.39]	<0.027 [<0.027]	<1.8 [<1.8]	--	<0.51 [<0.51]	<0.51 [<0.51]	<0.32 [<0.32]	<0.39 [<0.39]	
MW-1	11/6/2019	<2.3	<0.026	<0.39	<0.027	<1.8	<4.7	<0.51	<0.51	<0.32	<0.39	
MW-1	6/18/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
MW-1	7/28/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
MW-1	3/25/2021	--	--	--	--	--	--	--	--	--	--	
MW-1	6/14/2021	<5.00 J	<1.00 J	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
MW-1	8/17/2021	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
MW-1	10/13/2021	<5.00	<1.00	<1.00 J	<1.00 J	<5.00 J	--	<1.00	<1.00	<1.00 J	<1.00 J	
MW-2	8/28/2019	<23	<0.026	<3.9	<0.027	<18	--	<5.1	<5.1	<5.1	<3.2	
MW-2	11/6/2019	<2.3	<0.026	<0.39	<0.027	<1.8	<4.7	<0.51	<0.51	<0.32	<0.39	
MW-2	6/18/2020	<50.0 [<50.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<50.0 [<50.0]	-- [-]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	<10.0 [<10.0]	
MW-2	7/28/2020	<2,500 [$<2,500$]	<500 [<500]	<500 [<500]	<500 [<500]	<2,500 [$<2,500$]	--	<500 [<500]	<500 [<500]	<500 [<500]	<500 [<500]	
MW-2	3/25/2021	--	--	--	--	--	--	--	--	--	--	
MW-2	6/14/2021	<2,500 J	<500 J	<500	<500	<2,500 J	--	<500 J	<500	<500	<500	
MW-2	8/17/2021	<2,500	<500	<500	<500	<2,500 J	--	<500	<500	<500	<500	
MW-2	10/13/2021	<2,500	<500	<500	<500	<2,500 J	--	<500	<500	<500	<500	
MW-3	8/28/2019	<2.3	<0.026 J	<0.39	<0.027 J	<1.8	--	<0.51	<0.51	<0.32	<0.39	
MW-3	11/6/2019	<2.3	<0.026 J	<0.39	<0.027 J	<1.8	<4.7	<0.51	<0.51	<0.32	<0.39	
MW-3	6/18/2020	<250	<50.0	<50.0	<50.0	<250	--	<50.0	<50.0	<50.0	<50.0	
MW-3	7/28/2020	<5,000	<1,000	<1,000	<1,000	<5,000	--	<1,000	<1,000	<1,000	<1,000	
MW-3	3/25/2021	<5,000 [$<5,000$]	--	<1,000 [$<1,000$]	<1,000 [$<1,000$]	--	--	--	--	--	--	
MW-3	6/14/2021	<5,000 J [$<2,500$ J]	<1,000 J [<500]	<1,000 [<500]	<1,000 [<500]	<5,000 J [$<2,500$ J]	--	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	8/17/2021	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<5,000 J [$<2,500$ J]	--	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-3	10/13/2021	<5,000 [$<2,500$]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<5,000 J [$<2,500$ J]	--	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	<1,000 [<500]	
MW-4	8/28/2019	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	11/6/2019	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	6/18/2020	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	7/28/2020	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-4	3/25/2021	--	--	--	--	--	--	--	--	--	--	Not Sampled - LNAPL present
MW-5	8/28/2019	<2.3	<0.026	<0.39	<0.027	<1.8	--	<0.51	<0.51	<0.32	<0.39	
MW-5	11/6/2019	<2.3 [<2.3]	<0.026 [<0.026]	<0.39 [<0.39]	<0.027 [<0.027]	<1.8 [<1.8]	<4.7 [<4.7]	<0.51 [<0.51]	<0.51 [<0.51]	<0.32 [<0.32]	<0.39 [<0.39]	
MW-5	6/18/2020	<5.00 J	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
MW-5	7/28/2020	<125	<25.0	<25.0	<25.0	<125	--	<25.0	<25.0	<25.0	<25.0	
MW-5	3/25/2021	--	--	--	--	--	--	--	--	--	--	
MW-5	6/14/2021	<125 J	<25.0 J	<25.0	<25.0	<125 J	--	<25.0	<25.0	<25.0	<25.0	
MW-5	8/17/2021	--	--	--	--	--	--	--	--	--	--	Flooded
MW-5	10/13/2021	--	--	--	--	--	--	--	--	--	--	Destroyed by plow
TMW-1	8/26/2019	<2.3 [<2.3]	<2.6 J [<0.79 J]	<0.39 [<0.39]	<2.7 J [<0.16 J]	<18 [<1.8 J]	--	<0.51 [<0.51]	<0.51 [<0.51]	<0.32 [<0.32]	<0.39 [<0.39]	
TMW-2	8/26/2019	<2.3	<0.026	<0.39	<0.027	<1.8	--	<0.51	<0.51	<0.32	<0.39	
TMW-3	8/26/2019	<2.3	<0.026 J	<0.39	<0.027 J	<18	--	<0.51	<0.51	<0.32	<0.39	
QA (EQB)	11/6/2019	<2.3	<0.026	<0.39	<0.027	<1.8	<4.7	<0.51	<0.51	<0.32	<0.39	
QA (EQB)	6/18/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	7/28/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	3/25/2021	<5.00	--	<1.00	<1.00	--	--	--	--	--	--	
QA (EQB)	6/14/2021	<5.00 J	<1.00 J	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	8/17/2021	<5.00	<1.00	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
QA (EQB)	10/13/2021	<5.00	<1.00	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
QA (TB)	11/6/2019	<2.3	0.034 J	<0.39	<0.027	<1.8	<4.7	<0.51	<0.51	<0.32	<0.39	
QA (TB)	6/18/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
QA (TB)	7/28/2020	<5.00	<1.00	<1.00	<1.00	<5.00	--	<1.00	<1.00	<1.00	<1.00	
QA (TB)	3/25/2021	<5.00	--	<1.00	<1.00	--	--	--	--	--	--	
QA (TB)	6/14/2021	<5.00 J	<1.00 J	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
QA (TB)	8/17/2021	<5.00	<1.00	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	
QA (TB)	10/13/2021	<5.00	<1.00	<1.00	<1.00	<5.00 J	--	<1.00	<1.00	<1.00	<1.00	

Table 3e. Historical Groundwater Analytical Results - Additional VOCs
Third Quarter 2019 to Current
 Five Star Auto, Chevron Station 381811
 501 East 30th Avenue
 Fairbanks, Alaska

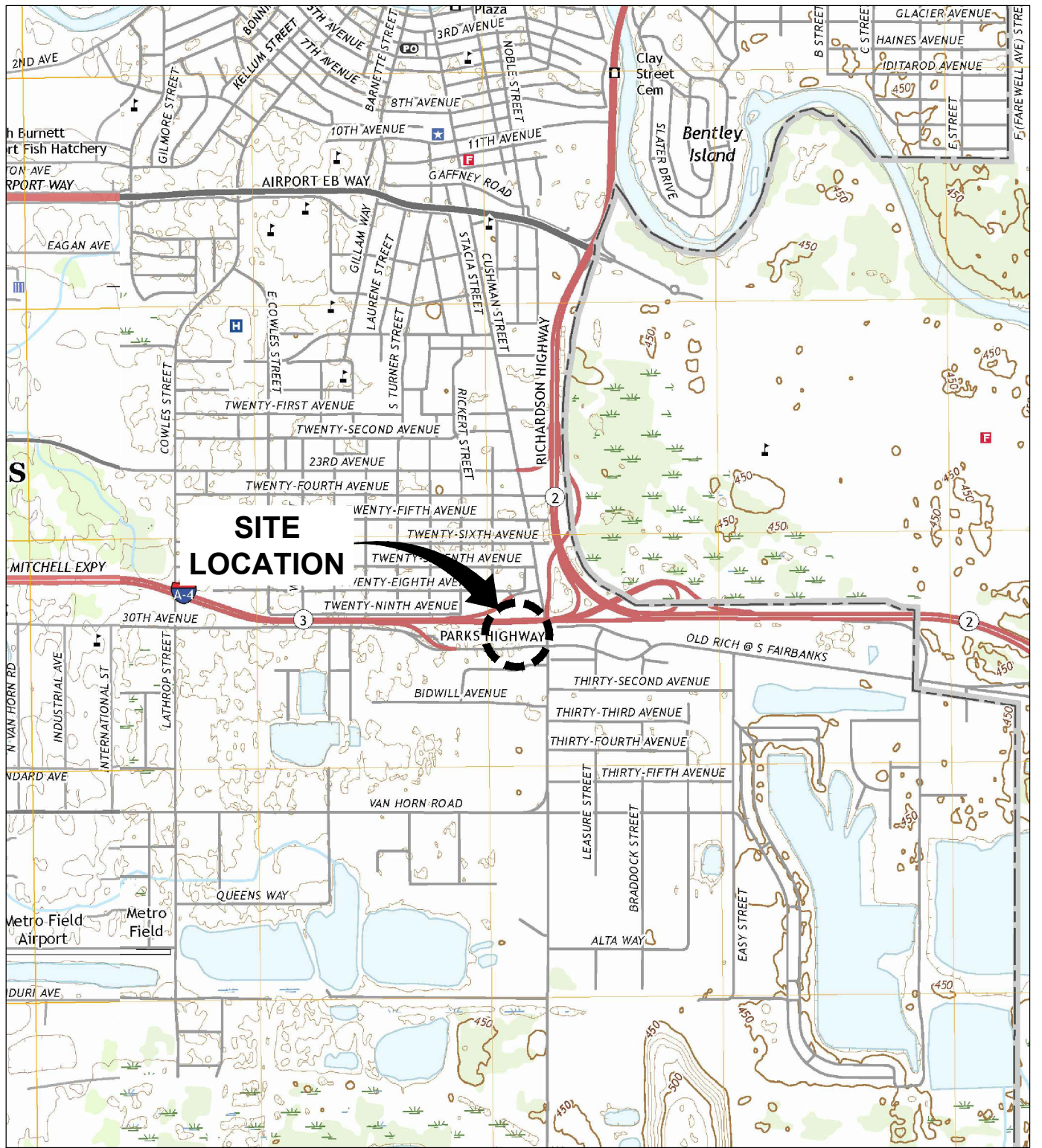
Well ID	Sample Date	Dichlorodifluoromethane (Freon 12) (µg/L)	Hexachlorobutadiene (µg/L)	trans-1,2-Dichloroethene (µg/L)	trans-1,3-Dichloropropene (µg/L)	1,2-Dibromo-3-chloropropane (DBCP) (µg/L)	2-Hexanone (µg/L)	o-Chlorotoluene (µg/L)	p-Chlorotoluene (µg/L)	sec-Dichloropropane (µg/L)	1,1,1-Trichloroethane (µg/L)	Comments
ADEC Groundwater Cleanup Levels		200	1.4	360	4.7	--	38	--	--	--	8000	

Notes

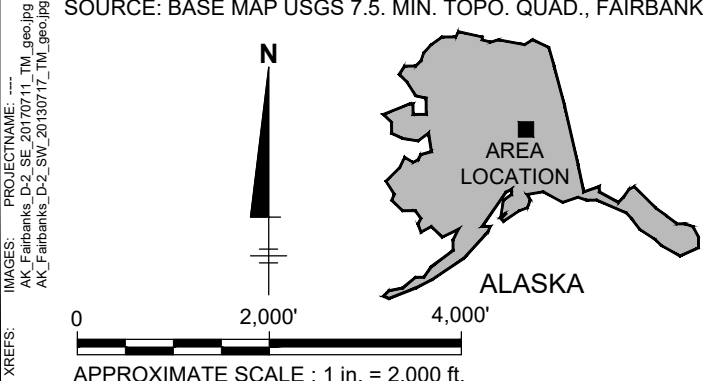
ID = Identification
 MW = Groundwater monitoring well
 TMW = Temporary Groundwater monitoring well
 [] = Duplicate Sample Results
 µg/L = Micrograms per Liter
 ADEC = Alaska Department of Environmental Conservation
 <1.00 = Not detected at or above the Reported Detection Limit (RDL)
Bold and Italicized : Constituent considered non-detect, however Laboratory RDL is greater than the ADEC Groundwater Cleanup Level
 -- = Not sampled/not measured/not available
 J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
 VOCs = Volatile Organic Compounds analyzed by USEPA Method 8260D:

FIGURES





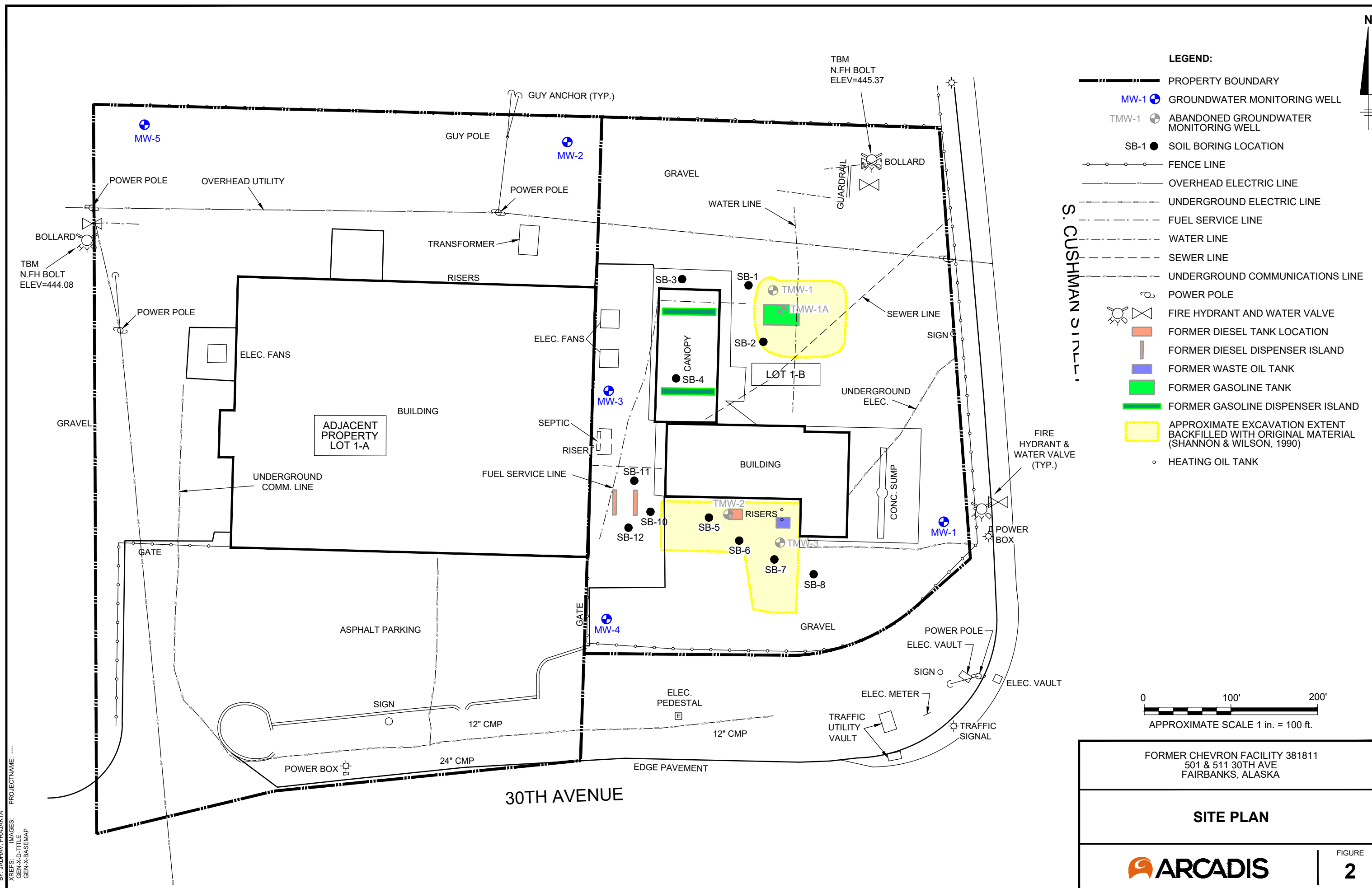
SOURCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., FAIRBANKS D-2 SW, FAIRBANKS D-2 SE, AK.



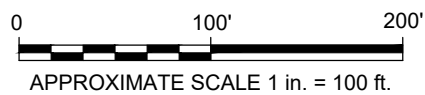
FORMER CHEVRON FACILITY 381811 501 & 511 30TH AVE FAIRBANKS, ALASKA	
SITE LOCATION MAP	
	FIGURE 1

C:\Users\jadhav6954\ArcGIS\Projects\2022\01-11-Fairbanks Alaska\Project Files\2022\01-11-Fairbanks Alaska\GEN-F02-SITE PLAN.dwg LAYOUT: 2. SAVED: 12/30/2021 10:51 PM ACADVER: 23.1S (LMS TECH) PAGES: 1. PLOTTED: 3/24/2022 11:24 AM

PROJECTNAME: ---
 XREFS: IMAGES: ---
 GEN-X-D-TITLE
 GEN-X-BASEMAP



- LEGEND:**
- PROPERTY BOUNDARY
 - MW-1 ● GROUNDWATER MONITORING WELL
 - TMW-1 ● ABANDONED GROUNDWATER MONITORING WELL
 - SB-1 ● SOIL BORING LOCATION
 - FENCE LINE
 - OVERHEAD ELECTRIC LINE
 - UNDERGROUND ELECTRIC LINE
 - FUEL SERVICE LINE
 - WATER LINE
 - SEWER LINE
 - UNDERGROUND COMMUNICATIONS LINE
 - POWER POLE
 - FIRE HYDRANT AND WATER VALVE
 - FORMER DIESEL TANK LOCATION
 - FORMER DIESEL DISPENSER ISLAND
 - FORMER WASTE OIL TANK
 - FORMER GASOLINE TANK
 - FORMER GASOLINE DISPENSER ISLAND
 - APPROXIMATE EXCAVATION EXTENT BACKFILLED WITH ORIGINAL MATERIAL (SHANNON & WILSON, 1990)
 - HEATING OIL TANK



FORMER CHEVRON FACILITY 381811
 501 & 511 30TH AVE
 FAIRBANKS, ALASKA

SITE PLAN

ARCADIS

FIGURE
2



S. CUSHMAN STREET

30TH AVENUE

ADJACENT PROPERTY LOT 1-A

LOT 1-B

CANOPY

CONC. SUMP

ELEC. PEDESTAL

ELEC. METER

TRAFFIC UTILITY VAULT

TRAFFIC SIGNAL

ELEC. VAULT

ELEC. VAULT

POWER POLE

POWER BOX

FIRE HYDRANT & WATER VALVE (TYP.)

SIGN

SEWER LINE

UNDERGROUND ELEC.

BUILDING

RISERS

SB-5

SB-6

SB-7

SB-8

SB-10

SB-11

SEPTIC RISER

ELEC. FANS

FUEL SERVICE LINE

RISER

BUILDING

UNDERGROUND COMM. LINE

ASPHALT PARKING

SIGN

24" CMP

12" CMP

EDGE PAVEMENT

GRAVEL

GRAVEL

BUILDING

RISERS

SB-10

SB-11

SB-12

ELEC. FANS

FUEL SERVICE LINE

RISER

BUILDING

UNDERGROUND COMM. LINE

ASPHALT PARKING

SIGN

24" CMP

12" CMP

EDGE PAVEMENT

GRAVEL

GRAVEL

BUILDING

RISERS

SB-10

SB-11

SB-12

ELEC. FANS

FUEL SERVICE LINE

RISER

BUILDING

UNDERGROUND COMM. LINE

ASPHALT PARKING

SIGN

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12" CMP

EDGE PAVEMENT

GRAVEL

GRAVEL

BUILDING

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SB-11

SB-12

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FUEL SERVICE LINE

RISER

BUILDING

UNDERGROUND COMM. LINE

ASPHALT PARKING

SIGN

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12" CMP

EDGE PAVEMENT

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GRAVEL

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EDGE PAVEMENT

GRAVEL

GRAVEL

BUILDING

RISERS

SB-10

SB-11

SB

APPENDIX A

Site Background and History



**Chevron Environmental
Management Company**

Appendix A:

Site History and Background

Chevron Facility 381811

501 East 30th Avenue
Fairbanks, Alaska
ADEC File No: 102.26.027
HAZARD ID No: 24230

August 18, 2020

1 SITE BACKGROUND AND HISTORY

1.1 Site Description and Vicinity

Chevron facility 381811 is located at 501 East 30th Avenue in Fairbanks, Alaska. The site is a fenced, vacant dirt and gravel lot with two attached structures, one building and one former car wash bay.

The surrounding area consists of commercial and residential use. The site is surrounded by the Mitchell Expressway to the North, South Cushman Street to the East, and East 30th Avenue to the South. Adjacent to the site to the west is a commercial and retail warehouse with a parking lot (adjacent property).

1.2 Site History

Historically, the site was used as a retail gas station and contained one building, one car wash bay, four dispenser islands, and underground storage tanks (USTs). Property records from 1979 indicate there were four USTs onsite: one 5,000-gallon tank and three 1,000 gallon tanks. The historical records do not indicate the type of material held in each UST or the exact location of each UST. However, on August 20, 1990 one 500-gallon used oil underground storage tank, one 400-gallon diesel UST, and one 10,000-gallon gasoline UST were excavated and removed from the site. Removal activities and sampling were summarized in the *Monitoring Removal of Underground Storage Tanks at 30th Avenue and Cushman Street, Fairbanks, Alaska* submitted to the ADEC on September 17, 1990 by Shannon & Wilson, Inc. During removal of the USTs the presence of hydrocarbon impacted soils were observed in the excavated soil. The excavated soil was used to refill the excavation pits.

2 SITE CHARACTERIZATION

In 2015, the owner of the adjacent property to the west conducted a Phase II limited investigation of environmental impacts on their property (Rescon Alaska 2017). Elevated concentrations of hydrocarbons, especially benzene, were found in soil and groundwater samples collected throughout the property. Concentrations were highest at the eastern side of the property, that borders the site. ADEC requested an investigation work plan be submitted to investigate the potential environmental impacts in soil and groundwater related to the UST removal in 1990.

In 2019, Arcadis U.S., Inc. (Arcadis) conducted a groundwater investigation to further investigate the impacts discovered in the 2015 Phase II investigation. Five Monitoring wells were installed onsite (MW-1 through MW-5). Elevated concentrations of hydrocarbons, benzene, toluene, ethylbenzene, xylenes, and naphthalene were found in soil and groundwater samples collected at the property. Additionally, 1.21 feet of light non aqueous phase liquid (LNAPL) was found within monitoring well MW-4. Baildown testing and LNAPL characterization testing come completed to evaluate the nature and recoverability of the LNAPL found onsite. Characterization activities indicated the LNAPL onsite is unweathered gasoline of regular grade with low transmissivity.

3 CURRENT SITE MONITORING ACTIVITIES

The site currently has a network of 5 groundwater monitoring wells located onsite (MW-1 through MW-5) monitored and sampled quarterly. The first official quarterly sampling event at the site occurred during the second quarter of 2020.

4 GEOLOGY AND HYDROGEOLOGY

4.1 Site Hydrogeology

The bedrock in Fairbanks, Alaska is mainly Birch Creek schist which is composed of metamorphosed Precambrian igneous and sedimentary rocks. Overlying Pleistocene silt, sand, and gravel were deposited in the area from the surrounding mountain ranges by glacial rivers. The soil at and surrounding the site is characterized as Urban land with paved surfaces and minimal slope (Rescon Alaska 2017).

The area is in a flood plain and groundwater fluctuates several feet, typically ranging from an estimated 8 to 13 feet below grade.



5 REFERENCES

Rescon Alaska. 2017. Phase I Environmental Site Assessment, 501 30th Avenue Fairbanks, Alaska. January.

APPENDIX B

Field Data Sheets



Project Number : 30064229

Site ID: 381811

City: Fairbanks

Project Manager: Wood, Nicholas

Portfolio: COP 5.0

Prepared By:

Site Name: Five Start Auto Care Center

State: Alaska

Subportfolio: West

Inside Chevron Operational Control? Yes No

Staff on Site

Gantt Jeffers, Evan Wujcik

Subcontractor Information

Company Name:

Type of Services:

Did they participate in the H&S tailgate discussion? Yes No

Subcontractor Mitigation Plans:

Are all training certificates accounted for? Yes No

Was all equipment inspected? Yes No

Weather(°F)	PPE	Equipment
Sunny -16° - 11° F		Bladder Pump, Water Quality Meter (i.e. YSI), Interface Probe (IP), Photoionization Detector (PID)

Date	Time	Description of Activities
03/14/2022	04:00	Approximate time of departure to airport for GJ and EW.
03/14/2022	04:20	GJ and EW: Approximate arrive to Anchorage airport. Check in, check bags and go through security.
03/14/2022	04:45	Get through security at airport and board flight to Fairbanks AK.
03/14/2022	05:17	Plane departs from Anchorage AK.
03/14/2022	05:50	Plane arrive at Fairbanks airport. Deplane and pick up baggage and rental cars.
03/14/2022	06:16	Mob to Fairbanks Arcadis office.
03/14/2022	06:40	Arrive at Arcadis Fairbanks office. Load equipment.
03/14/2022	07:40	GJ mod to fedex to get lab bottles and pine equipment. EW mob to get marine battery and mag locator.
03/14/2022	08:30	GJ back from getting items from fedex. Prep equipment.
03/14/2022	08:45	EW back from getting equipment. Load cars.

Equipment and Calibration Information:

Supplier: Pine

Model:

Rental Number:

Calibrated:

Bump
Checked:

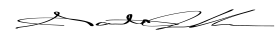
Calibration
Passed: no

PIDSN:

Date	Time	Calibrated Fluid and Value	Lot #	Expiration Date	Initial Reading	Final Reading
03/14/2022	11:25					

End of Day Questions	Yes No		Comments	
	Was waste generated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approximate volume of waste
			Container type	
			Confirm container is not leaking	Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you performed work in accordance with the applicable QP/TGI?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Change in plans (project delays)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Unable to sample well locations.	
Discovery of significant new site characteristics?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Upcoming regulatory, community, or other stakeholder views change?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Incident at the site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Is there a potential dispute?	<input type="checkbox"/>	<input type="checkbox"/>		
Identification of strategic opportunity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
New application, renewal, or permit modification?	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Signature



Photograph Log

Chevron Environmental Management Company
Chevron Site 381811



Photograph: 1

Description:
Approximate Location of MW-1 during the first quarter 2022 groundwater monitoring event.

Location: Chevron Site 381811, Fairbanks, Alaska

Date: 3/14/2022



Photograph: 2

Description:
Approximate location of MW-2 during the first quarter 2022 groundwater monitoring event

Location: Chevron Site 381811, Fairbanks, Alaska

Date: 3/14/2022

Photograph Log

Chevron Environmental Management Company
Chevron Site 381811



Photograph: 3

Description: Well casing of MW-3 during the first quarter 2022 groundwater monitoring event

Location: Chevron Site 381811, Fairbanks, Alaska

Date: 3/14/2022



Photograph: 4

Description: Location of MW-3 during the first quarter 2022 groundwater monitoring event

Location: Chevron Site 381811, Fairbanks, Alaska

Date: 3/14/2022

Photograph Log

Chevron Environmental Management Company
Chevron Site 381811



Photograph: 5

Description:
Approximate location
of MW-4 during the
first quarter 2022
groundwater
monitoring event

**Location: Chevron
Site 381811,
Fairbanks, Alaska**

Date: 3/14/2022



Groundwater Gauging Log

Project Number	30064229							
Client:	Chevron							
Site ID:	381811							
Site Location:	Fairbanks, Alaska							
Measuring Point:	Top of Casing							
Date(s):	03/14/2022							
Sampler(s):	Evan Wujcik							
Gauging Equipment:	Water Level Meter							
Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft bmp)	Total Depth (ft bmp)	PID Reading (ppm)	LNAPL Removed (gal)	Comments
MW-3	03/14/2022	11:13	10.68	10.62	--	--	--	--

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

APPENDIX C

Additional Historic Groundwater Analytical Data



Appendix C.1. Groundwater Gauging and Analytical Results- Polychlorinated Biphenyls

Five Star Auto, Chevron Station 381811

501 East 30th Avenue

Fairbanks, Alaska

Well ID	Sample Date	Aroclor 1016 (µg/L)	Aroclor 1221 (µg/L)	Aroclor 1232 (µg/L)	Aroclor 1242 (µg/L)	Aroclor 1248 (µg/L)	Aroclor 1254 (µg/L)	Aroclor 1260 (µg/L)	Comments
ADEC Groundwater Cleanup Level		--	--	--	--	--	--	--	
MW-1	8/28/2019	<0.070 [<0.068]	<0.086 [<0.084]	<0.072 [<0.071]	<0.067 [<0.066]	<0.059 [<0.058]	<0.086 [<0.084]	<0.070 [<0.068]	
MW-2	8/28/2019	<0.064	<0.079	<0.066	<0.062	<0.055	<0.079	<0.064	
MW-3	8/28/2019	<0.066	<0.082	<0.069	<0.064	<0.057	<0.082	<0.066	
MW-4 ¹	8/28/2019	--	--	--	--	--	--	--	Not sampled - LNAPL Present
MW-5	8/28/2019	<0.066	<0.082	<0.069	<0.064	<0.057	<0.082	<0.066	
TMW-1	8/26/2019	<0.067 [<0.062]	<0.082 [<0.076]	<0.069 [<0.064]	<0.065 [<0.060]	<0.057 [<0.053]	<0.082 [<0.076]	<0.067 [<0.062]	
TMW-2	8/26/2019	<0.063	<0.078	<0.065	<0.061	<0.054	<0.078	<0.063	
TMW-3	8/26/2019	<0.062	<0.076	<0.064	<0.060	<0.053	<0.076	<0.062	

Notes

¹ = MW-4 was not sampled due to 1.21 feet of LNAPL present

LNAPL = Light non-aqueous phase liquid

ID = Identification

MW = Groundwater monitoring well

TMW = Temporary Groundwater monitoring well

[] = Duplicate Sample Results

µg/L= Micrograms per Liter

ADEC = Alaska Department of Environmental Conservation

<0.0002 = Not detected at or above the method detection limit (MDL)

-- = Not sampled/not measured/not available

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B = Compound considered non-detect at the listed value due to associated blank contamination.

Polychlorinated Biphenyls (PCBs) Aroclor 1016 through 1260 analysed by USEPA Method 8082A

Appendix C.2. Groundwater Gauging and Analytical Results- Semi-Volatile Organic Compounds

Five Star Auto, Chevron Station 381811

501 East 30th Avenue

Fairbanks, Alaska

Well ID	Sample Date	1-Methyl-naphthalene (µg/L)	2-Methyl-Naphthalene (µg/L)	Acenaphthene (µg/L)	Acenaphthylene (µg/L)	Anthracene (µg/L)	Benzo(a)anthracene (µg/L)	Benzo(a)pyrene (µg/L)	Benzo(b)fluoranthene (µg/L)	Benzo(g,h,i)perylene (µg/L)	Benzo(k)fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h)anthracene (µg/L)	Fluoranthene (µg/L)	Fluorene (µg/L)	Indeno(1,2,3-cd)Pyrene (µg/L)	Phenanthrene (µg/L)	Pyrene (µg/L)	Comments
ADEC Groundwater Cleanup Level		11	36	530	260	43	0.3	0.25	2.5	0.26(600)¹	0.80/25	2.0 (250)¹	0.25	260(800)¹	290	0.19(2.5)¹	170	120	
MW-1	8/28/2019	<0.0075 J [0.0097 J]	0.0071 J [0.0075 J]	<0.0064 J [0.0065 J]	0.0064 J [0.0065 J]	<0.0064 [0.0065]	<0.0064 [0.0065]	<0.0064 [0.0065]	<0.014 [0.014]	<0.0064 [0.0065]	<0.0064 [0.0065]	<0.016 [0.016]	<0.014 [0.014]	<0.016 [0.016]	<0.0064 J [0.0065 J]	<0.0064 [0.0065]	<0.018 J [0.019 J]	<0.0064 [0.0065]	
MW-2	8/28/2019	0.82 J	0.74 J	<0.0065 J	<0.0065 J	<0.0065	<0.0065	<0.0065	<0.016	<0.0065	<0.0065	<0.016	<0.014	<0.016	<0.0065 J	<0.0065	<0.019 J	<0.0065	
MW-3	8/28/2019	7.5 J	12 J	<0.0065 J	<0.0065 J	<0.0065	<0.0065	<0.0065	<0.014	<0.0065	<0.0065	<0.016	<0.014	<0.016	0.14 J	<0.0065	0.088 J	<0.0065	
MW-4 ²	8/28/2019	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - LNAPL Present
MW-5	8/28/2019	0.11 J	0.11 J	<0.0065 J	<0.0065 J	<0.0065	<0.0065	<0.0065	<0.014	<0.0065	<0.0065	<0.016	<0.014	<0.016	<0.0065 J	<0.0065	<0.018J	<0.0065	
TMW-1	8/26/2019	96 [100]	120 [120]	0.86 J [0.85 J]	<0.60 [0.61]	0.024 J [0.032 J]	<0.0060 [0.0061]	<0.0060 J [0.0061 J]	<0.013 [0.013]	<0.0060 [0.0061]	<0.0060 [0.0061]	<0.015 [0.015]	<0.013 [0.013]	<0.015 [0.015]	1.7 J [1.7 J]	<0.0060 [0.0061]	0.41 [0.41]	<0.0060 [0.011 J]	
TMW-2	8/26/2019	0.030 J	<0.031 B	<0.0062	0.05	<0.0062	<0.0062	<0.0062 J	<0.013	<0.0062	<0.0062	<0.015	<0.013	<0.015	<0.0062	<0.0062	<0.017	<0.0062	
TMW-3	8/26/2019	0.22	0.2	0.030 J	<0.0061	0.020 J	<0.0061	<0.0061 J	<0.013	<0.0061	<0.0061	<0.015	<0.013	<0.015	0.0071 J	<0.0061	0.018 J	<0.0061	

Notes

¹ = The ADEC Cleanup Levels provided include the constituent's solubility concentration using the equations set out in the Procedures for Calculating Cleanup Levels followed by the human health risk-based cleanup level in parentheses

² = MW-4 was not sampled due to 1.21 feet of LNAPL present

ID = Identification

MW = Groundwater monitoring well

TMW = Temporary Groundwater monitoring well

[] = Duplicate Sample Results

µg/L= Micrograms per Liter

ADEC = Alaska Department of Environmental Conservation

Bold = Value exceeds lab detection limit

Bold Shaded = Value exceeds ADEC Groundwater Cleanup Level

<0.0002 = Not detected at or above the method detection limit (MDL)

-- = Not sampled/not measured/not available

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B = Compound considered non-detect at the listed value due to associated blank contamination.

Semi-Volatile Organic Compounds (SVOCs) analyzed by USEPA Method 8270D SIM:

1-Methyl-naphthalene

2-Methyl-naphthalene

Acenaphthene

Acenaphthylene

Anthracene

Benzo(a)anthracene

Benzo(a)pyrene

Benzo(b)fluoranthene

Benzo(g,h,i)perylene

Benzo(k)fluoranthene

Chrysene

Dibenz(a,h)anthracene

Fluoranthene

Fluorene

Indeno(1,2,3-cd)Pyrene

Phenanthrene