Transmittal

Date:	December 20, 2017	Reference No.:	062327 / Chevron 95414

To: Robert Weimer
Alaska Department of Conservation (ADEC)
555 Cordova Street
Anchorage, Alaska 95501

Subject: ADEC File ID 2100.26.062

No. of Copies	Description/Title	Drawing No./ Document Ref.	Issue
1	Fourth Quarter 2017 Groundwater Monitoring Report	Report 13	

Issued for: ☐ Your information ☒ As requested ☐ Construction ☐ Quotation
☐ Your approval/comments ☐ Returned to you ☐ For re-submission

Sent by: ☐ Overnight courier ☐ Same day courier ☒ Other: Mail enclosed

Remarks:

Should you have any questions or require additional information, please contact Siobhan Pritchard at (720) 974-0935

Copy to: Dan Carrier (*electronic copy*)
Stephen M. Ellis
Rolph Hanson
Richard Sanchis

Completed by: Siobhan Pritchard [Please Print]

Signed:

Filing: Correspondence File

GHD
14998 West 6th Avenue Suite 800 Golden Colorado 80401 USA
T 720 974 0935 F 720 974 0936 W www.ghd.com

Fourth Quarter 2017
Groundwater Monitoring Report

Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, Alaska
ADEC File ID: 2100.26.062
Hazard ID: 24602

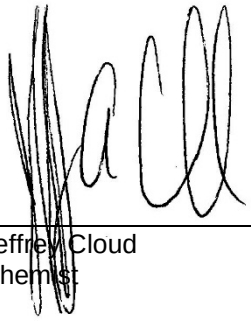
Chevron Environmental Management Company

GHD | 14998 West 6th Avenue, Suite 800, Golden, Colorado USA 80401

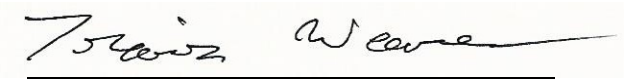
062327 | 95 | 4Q17 | Report No 13 | December 20, 2017

Fourth Quarter 2017
Groundwater Monitoring Report

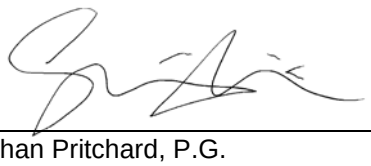
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, Alaska
ADEC File ID: 2100.26.062
Hazard ID: 24602



Jeffrey Cloud
Chemist



Travis Weaver
Project Engineer



Siobhan Pritchard, P.G.
Senior Project Geologist

Table of Contents

Figure Index

Table Index

Appendix Index

Acronyms and Abbreviations

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
COPCs	contaminants of potential concern
CSM	conceptual site model
DRO	diesel range organics
ft btoc	feet below top of casing
GRO	gasoline range organics
mg/L	milligrams per liter
No	number
PAHs	polynuclear aromatic hydrocarbons
P.G.	Professional Geologist
UST	underground storage tank
VOCs	volatile organic compounds

1. Introduction

GHD is submitting this *Fourth Quarter 2017 Groundwater Monitoring Report* to the Alaska Department of Environmental Conservation (ADEC) on behalf of Chevron Environmental Management Company (Chevron) for Chevron-branded service station 95414. Groundwater monitoring and sampling was performed by GHD in accordance with ADEC's August 2017 *Field Sampling Guidance*. Reporting was performed by GHD in accordance with ADEC's March 7, 2017 *Site Characterization Work Plan and Reporting Guidance for Investigation of Contaminated Sites.*

Project objectives are to monitor current groundwater conditions to evaluate petroleum hydrocarbon attenuation.

1.1 Site Description and Background

The site is located at 5210 Old Seward Highway, Anchorage, Alaska (Figure 1). The property's legal description is HIGHWAY PARK #1 TR 7. The site latitude and longitude are approximately 61.173671° north and 149.866289° west. The site has been an active service station since 1969. In 1996, the service station was remodeled, three gasoline USTs, one diesel UST, one used-oil UST, dispenser islands and piping were removed and replaced, and petroleum hydrocarbons were detected in soil. The site is currently an active Chevron-branded service station with three USTs, four dispensers under a canopy, and product piping.

The surrounding area is mixed commercial and industrial. The adjacent properties to the north and northwest are listed as current or former ADEC contaminated sites.

Four onsite and six offsite monitoring wells are monitored quarterly (Figure 2). Surface water samples are collected from Campbell Creek during the second and third quarters, if accessible. Site photographs are presented in Appendix A.

1.2 Hydrogeology

The site is located in south central Alaska, between the northern Knik Arm and southern Turnagain Arm of Cook Inlet. The site is immediately north of Campbell Creek. Historic static groundwater depths have ranged between 2.74 and 9.53 feet below top of casing (ft btoc) according to groundwater data from 1998 to present. Static groundwater depths ranged from 4.63 (MW-7) to 7.65 ft btoc (MW-3) on November 10, 2017. Groundwater flow was to the southwest with a gradient of 0.01.

1.3 Conceptual Site Model

GHD completed a conceptual site model (CSM) for this site. Human health CSM scoping and graphics forms are included as Appendix B.

1.4 Contaminants of Potential Concern - Cleanup Levels

Site contaminants of potential concern (COPCs) are:

Table 1.1 Contaminants of Potential Concern

COPCs	ADEC Cleanup Levels	
	Groundwater (mg/L)	Soil (mg/kg)
DRO	1.5	250
GRO	2.2	300
Benzene	0.0046	0.022
Naphthalene	0.0017	0.038

mg/L milligrams per liter
mg/kg milligrams per kilogram
DRO diesel range organics
GRO gasoline range organics

ADEC Table C Groundwater Cleanup Levels (Title 18 Alaska Administrative Code (AAC) 75.345) and ADEC Method Two Soil Cleanup Levels, Tables B1 and B2, under 40-inch zone, migration to groundwater (Title 18 AAC 75.341) are the default site cleanup levels for groundwater and soil.

2. Groundwater Monitoring and Sampling

GHD gauged and sampled wells MW-1 to MW-8, and MW-10 on November 10, 2017. Access to MW-9R and Campbell Creek has still not been granted so MW-9R and the creek were not monitored or sampled. Monitoring data package is presented in Appendix C.

2.1 Low Flow Sampling

Prior to gauging, each well cap was removed to allow groundwater levels to stabilize and equilibrate. Depth to groundwater and total well depth were measured using a water level meter capable of 0.01 foot accuracy. A QED Sample Pro bladder pump with a self-contained compressor and control unit was used to purge groundwater from the well. The pump intake was set as close to the soil/groundwater interface as possible and caution was exercised to ensure the water table was within the screened interval of the well. Clean disposable Teflon-lined tubing and bladders were used to minimize the risk of volatile contaminant absorption by the sampling equipment. GHD continuously monitored water levels while purging and adjusted the pumping rate as needed to limit drawdown to 0.3 feet. Water quality parameters (listed below) were measured continuously and recorded every five minutes. Groundwater samples were collected only after a minimum of three successive readings fell within the following ADEC limits:

- pH: ± 0.1

- conductivity: ± 3%
- oxidation/reduction potential: ± 10 millivolts
- dissolved oxygen: ± 10%
- turbidity: ± 10%

2.2 Data Quality

All field instruments were calibrated prior to mobilization according to manufacturer specifications and calibration was checked and documented onsite on a daily basis. Calibration forms are included in Appendix C. The field staff is trained in routine maintenance and operation of field instruments. All reusable sampling equipment was decontaminated between wells with a stiff brush and laboratory-grade detergent and rinsed twice with clean water and once with distilled water between wells.

Samples analyzed for volatile organic compounds (VOCs) were collected before samples for non-volatile compounds. Groundwater samples, including one duplicate per ten samples collected, were collected directly into clean containers supplied by the laboratory, placed on ice in an insulated cooler, chilled to approximately 4°C (+/- 2°C). The coolers were sealed for transport and shipped to Eurofins Lancaster analytical laboratory under chain-of-custody. Laboratory data was qualified by a GHD chemist and an ADEC lab checklist was completed.

2.3 Purged Groundwater Disposal

Approximately 2.3 gallons of groundwater not used for sampling was filtered through granular activated carbon and purged to the ground surface in the permeable planter areas near the northeastern side of the site to ensure no offsite runoff.

3. Results and Findings

3.1 Groundwater Analytical Methods

Collected groundwater samples were analyzed for one or more of the following:

- Diesel range organics (DRO) by Alaska Series Method AK102
- Gasoline range organics (GRO) by Alaska Series Method AK101
- VOCs by method SW-846 8260B
- Polynuclear aromatic hydrocarbons (PAHs) by method SW-846 8270C SIM

3.2 Groundwater Sampling Results

No petroleum hydrocarbons or naphthalene were detected above cleanup levels in well MW-10. MW-8 and/or its duplicate contained the highest concentrations DRO (0.46 milligrams per liter (mg/L)), GRO (1.6 mg/L), and benzene (0.018 mg/L).

The laboratory analytical report is presented in Appendix D. Current groundwater analytical data is presented in Table 1, historical groundwater analytical data is presented in Table 2, and the PAHs

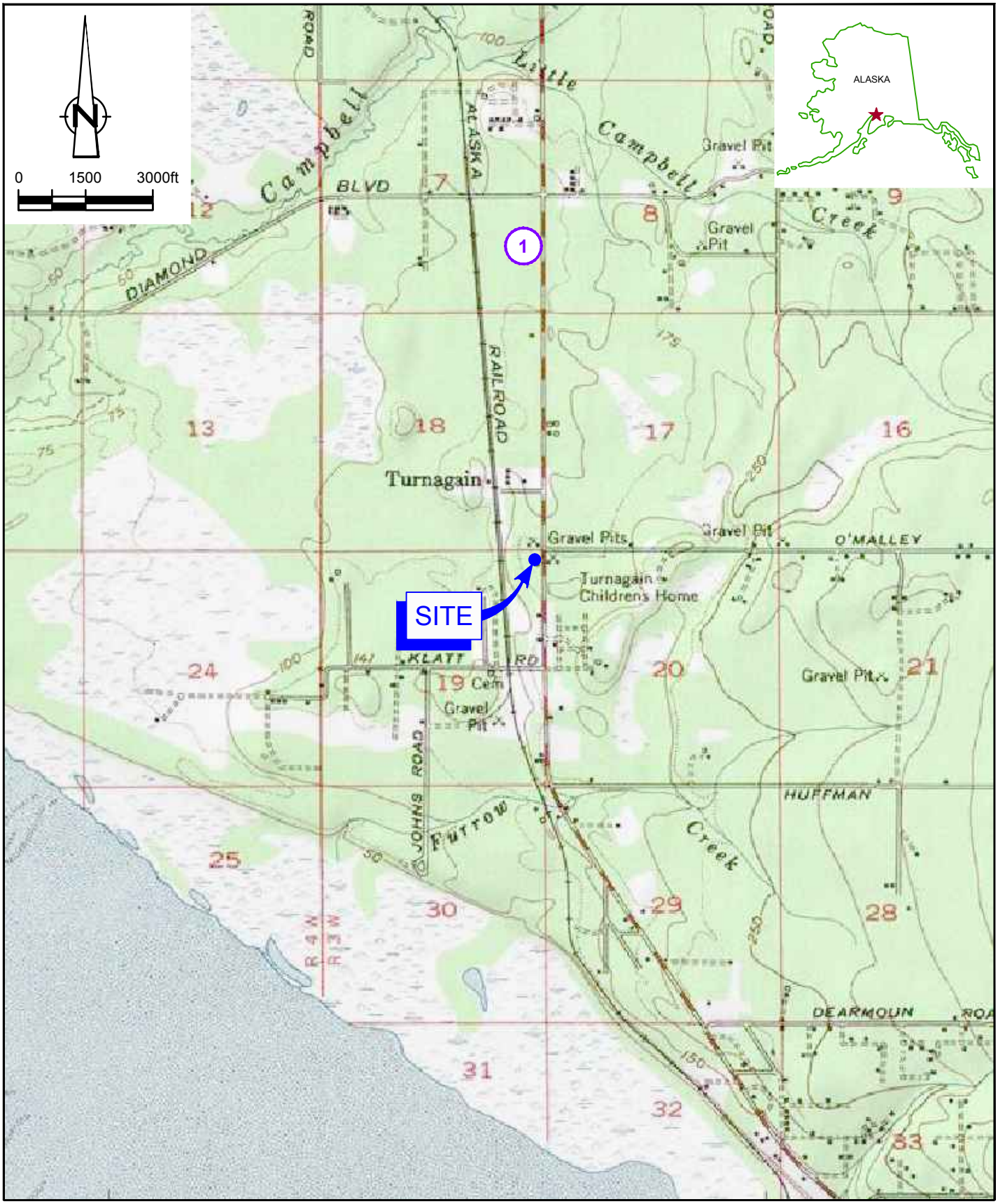
analytical data is presented in Table 3. The petroleum hydrocarbon concentration graphs are presented in Appendix E and the hydrocarbon concentrations in groundwater are presented on Figure 2.

Based on the quality assurance/quality control review, the data submitted were judged to be acceptable for use without qualification. The ADEC Laboratory Data Review Checklist and memorandum are presented in Appendix F.

4. Conclusions

Petroleum hydrocarbons have been detected above cleanup levels in onsite wells. GHD will continue quarterly groundwater monitoring and sampling in 2018.

Figures



SOURCE: TOPO! MAPS

CHEVRON-BRANDED SERVICE STATION 95414
5210 OLD SEWARD HIGHWAY
ANCHORAGE, ALASKA

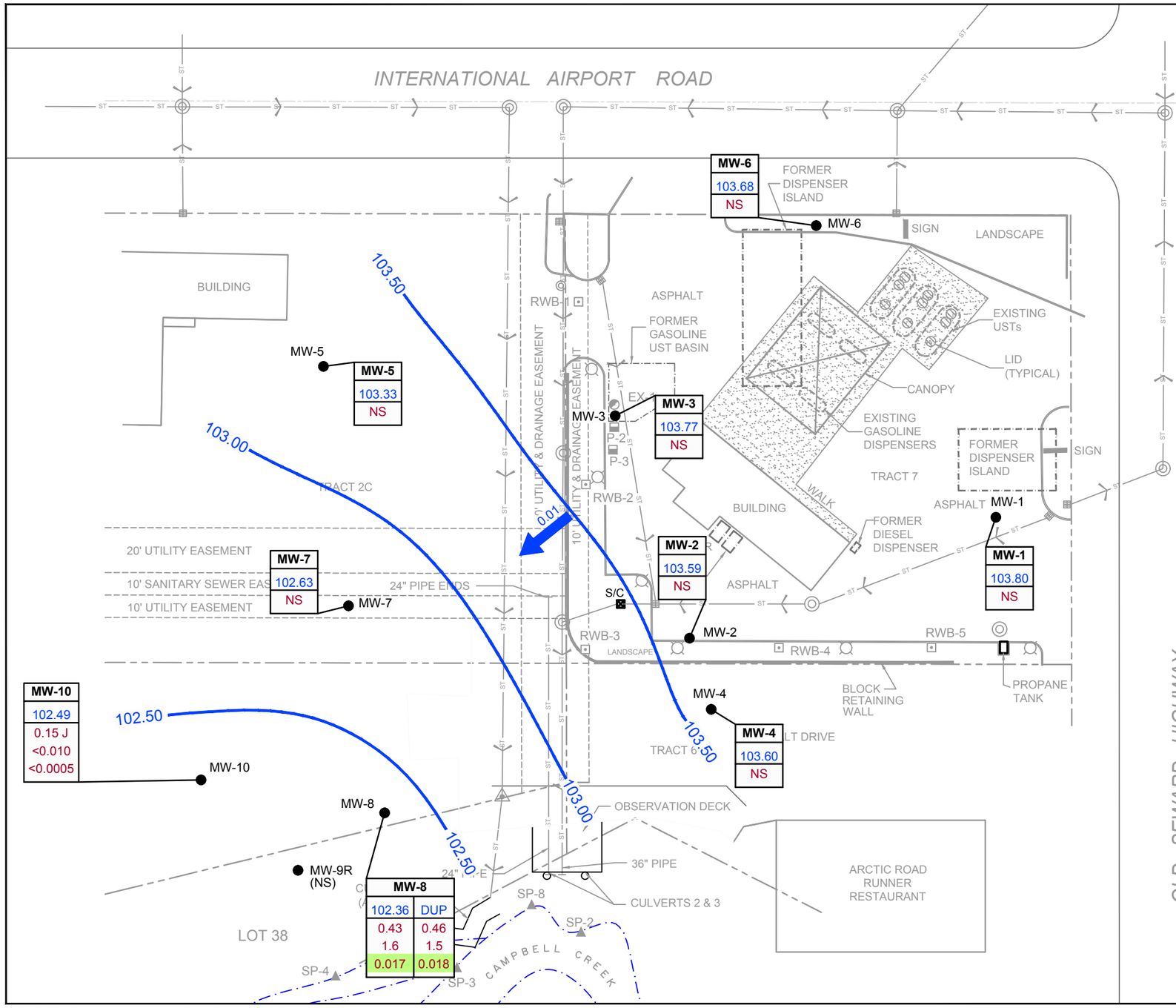
62327-95

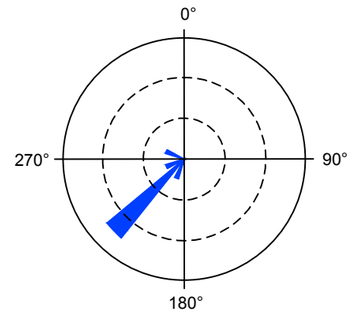
Dec 11, 2017

VICINITY MAP

FIGURE 1

CAD File: P:\drawings\62000s\62327\62327-REPORTS\62327-95(013)\62327-95(013)GN\62327-95(013)GN-WA001.DWG





HISTORICAL GROUNDWATER FLOW DIRECTION
(2015-2017)

LEGEND

- MONITORING WELL
- MONITORING POINT
- EXTRACTION WELL
- HAND AUGER BORING LOCATION
- STREAM SAMPLE LOCATION
- LIGHT POLE
- MANHOLE
- S/C SUMP WITH CLARIFIER
- CONCRETE
- FORMER FACILITY FOOTPRINT
- STORM SEWER FLOW DIRECTION
- PROPERTY LINE
- UTILITY EASEMENT
- 103.00 GROUNDWATER ELEVATION CONTOUR, IN FEET ABOVE MEAN SEA LEVEL (FT MSL),
- 0.01 GROUNDWATER FLOW DIRECTION AND GRADIENT

MW-10	WELL DESIGNATION
102.49	GROUNDWATER ELEVATION (FT MSL)
0.15 J	DRO CONCENTRATION (mg/L)
<0.010	GRO CONCENTRATION (mg/L)
<0.0005	BENZENE CONCENTRATION (mg/L)

- mg/L MILLIGRAMS PER LITER
- DUP DUPLICATE SAMPLE
- J ESTIMATED VALUE BETWEEN METHOD DETECTION LIMIT AND LABORATORY REPORTING LIMIT
- NS NOT SAMPLED

RESULTS HIGHLIGHTED GREEN EXCEED ADEC TABLE C GROUNDWATER CLEANUP LEVEL (18 AAC 75.345)

SOURCE: Basemap prepared from October 31, 2007 survey by Karabelinkoff Surveying.

0 25 50ft

CHEVRON-BRANDED SERVICE STATION 95414
5210 OLD SEWARD HIGHWAY
ANCHORAGE, ALASKA

GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP - NOVEMBER 10, 2017

62327-95
Dec 20, 2017

FIGURE 2

CAD File: P:\drawings\62000s\62327\62327-REPORTS\62327-95(013)\62327-95(013)GN\62327-95(013)GN-WA002.DWG

Tables

Table 1

Current Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS			
	Units	ft msl	ft btoc	ft msl	DRO mg/L	GRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**0.0046**	**1.1**	**0.015**	**0.19**
MW-1	11/10/2017[1]	110.54	6.74	103.80	--	--	--	--	--	--
MW-2	11/10/2017[1]	111.15	7.56	103.59	--	--	--	--	--	--
MW-3	11/10/2017[1]	111.42	7.65	103.77	--	--	--	--	--	--
MW-4	11/10/2017[1]	108.94	5.34	103.60	--	--	--	--	--	--
MW-5	11/10/2017[1]	108.66	5.33	103.33	--	--	--	--	--	--
MW-6	11/10/2017[1]	111.10	7.42	103.68	--	--	--	--	--	--
MW-7	11/10/2017[1]	107.26	4.63	102.63	--	--	--	--	--	--
MW-8	11/10/2017	108.70	6.34	102.36	0.43 / 0.46	1.6 / 1.5	**0.017 / 0.018**	0.001 / 0.001	0.015 / **0.016**	0.026 / 0.027
MW-9R	11/10/2017[2]	108.08	--	--	--	--	--	--	--	--
MW-10	11/10/2017	109.35	6.86	102.49	0.15 J	<0.010	<0.0005	<0.0005	<0.0005	<0.0005
QA	11/10/2017	--	--	--	--	<0.010	<0.0005	0.0005 J	<0.0005	<0.0005

Table 1

Current Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Notes and Abbreviations

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater Elevation

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics by Alaska Series Method AK102 , Petroleum Hydrocarbons, Diesel and Petroleum Hydrocarbons (C10-C25) DRO and C10-C28 Petroleum Hydrocarbons, Diesel and C13-C22 Petroleum Hydrocarbons, Diesel

GRO = Gasoline Range Organics by Alaska Series Method AK101 , Petroleum Hydrocarbons (C6-C10)-GRO and Petroleum Hydrocarbons, Gasoline

Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B or SW-E46 8021B

Total Xylenes = Sum of m-, o-, and p-xylenes

VOC = Volatile Organic Compounds by EPA Method 524.2

ADEC = Alaska Department of Environmental Conservation

[a] = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)

BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level

ft msl = Feet Above Mean Sea Level

ft btoc = Feet Below Top of Casing

mg/L = Milligrams per liter

J = Estimated Concentration.

-- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

1 - monitor only

2 - inaccessible

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	GRO mg/L	RRO mg/L	PRIMARY VOCS Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L	MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-1	09/03/1998	101.92	7.20	94.72	--	--	--	--	--	--	--	--	--
MW-1	05/20/2000	101.92	7.30	94.62	0.295	--	--	--	--	--	--	<0.0020	--
MW-1	09/21/2000	101.92	7.46	94.46	--	--	--	--	--	--	--	--	--
MW-1	05/01/2001	101.92	7.87	94.05	--	--	--	--	--	--	--	--	--
MW-1	09/25/2001	101.92	7.48	94.44	--	--	--	--	--	--	--	--	--
MW-1	05/07/2002	109.76	7.42	102.34	--	--	--	--	--	--	--	--	--
MW-1	09/29/2002	109.76	6.77	102.99	--	--	--	--	--	--	--	--	--
MW-1	06/06/2003	109.82	7.40	102.42	--	--	--	--	--	--	--	--	--
MW-1	10/03/2003	109.82	6.95	102.87	--	--	--	--	--	--	--	--	--
MW-1	12/18/2003	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	03/22/2004	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	06/09/2004	109.82	7.06	102.76	--	0.93	--	**0.099**	0.026	0.0090	0.079	<0.0020	--
MW-1	09/21/2004	109.82	7.80	102.02	--	0.78	--	**0.080**	0.0030	0.0030	0.073	<0.0020	--
MW-1	10/29/2004	109.82	--	--	--	0.51	--	**0.087**	0.0020	0.0010	0.030	<0.00050	--
MW-1	12/06/2004	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	03/21/2005	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	05/15/2005	109.82	6.75	103.07	--	0.41	--	**0.074**	0.0020	0.0010	0.0020	<0.0020	--
MW-1	09/28/2005	109.82	6.50	103.32	--	0.40	--	**0.064**	0.0020	0.0010	0.018	<0.0020	--
MW-1	12/07/2005	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	04/07/2006	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	05/18/2006	109.82	7.63	102.19	0.53	0.73	--	**0.095**	0.0050	0.0040	0.038	--	--
MW-1	09/28/2006	109.82	6.41	103.41	0.58	0.21	--	**0.010**	0.00070	<0.00050	0.0020	--	--
MW-1	12/20/2006	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	03/15/2007	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	05/21/2007	109.82	7.32	102.5	--	--	--	**0.037**	0.012	0.0050	0.0040	--	--
MW-1	09/27/2007	109.82	6.71	103.11	--	--	--	**0.014**	0.0008	0.0010	0.0020	--	--
MW-1	05/17/2008	109.82	7.39	102.43	--	--	--	**0.023**	0.0030	0.0040	0.0020	--	--
MW-1	06/26/2008	109.82	6.86	102.96	0.39	0.30	--	**0.020**	0.0020	0.0020	<0.0020	--	--
MW-1	09/17/2008	109.82	6.65	103.17	0.43	0.30	--	**0.020**	<0.0010	0.0010	0.0050	--	--
MW-1	03/20/2009	109.82	7.92	101.9	--	--	--	--	--	--	--	--	--
MW-1	06/09/2009	109.82	6.75	103.07	0.36	0.49	--	**0.031**	0.0057	0.0056	0.016	--	--
MW-1	09/23/2009	109.82	7.59	102.23	--	--	--	--	--	--	--	--	--
MW-1	09/24/2009	109.82	--	--	--	0.42	--	**0.044**	0.0020	0.0025	0.022	--	--
MW-1	12/09/2009	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	03/22/2010	109.82	7.97	101.85	--	--	--	--	--	--	--	--	--
MW-1	05/06/2010	109.82	7.45	102.37	--	--	--	--	--	--	--	--	--
MW-1	05/10/2010	109.82	7.38	102.44	0.55	0.22	--	**0.036**	0.00060	0.00070	0.0066	--	--
MW-1	10/05/2010	109.82	7.44	102.38	--	0.20	--	**0.029**	0.0012	<0.00050	0.0085	--	--
MW-1	12/21/2010	109.82	6.61	103.21	--	--	--	--	--	--	--	--	--
MW-1	03/09/2011	109.82	--	--	--	--	--	--	--	--	--	--	--
MW-1	06/13/2011	109.82	7.30	102.52	0.60	0.13	--	**0.010**	0.00070	<0.00050	0.0038	--	--
MW-1	09/15/2011	109.82	7.50	102.32	--	0.15	--	**0.020**	0.0014	<0.00050	0.0078	--	--
MW-1	12/08/2011	109.82	6.59	103.23	--	--	--	--	--	--	--	--	--
MW-1	03/21/2012	109.82	7.80	102.02	--	--	--	--	--	--	--	--	--
MW-1	06/20/2012	109.82	6.38	103.44	--	--	--	0.0020	<0.00050	<0.00050	<0.0015	--	--
MW-1	09/19/2012	109.82	5.94	103.88	--	--	--	0.0014J	<0.00050	<0.00050	<0.0015	--	--
MW-1	11/06/2012	110.54	5.25	105.29	--	--	--	--	--	--	--	--	--
MW-1	04/01/2013	110.54	7.85	102.69	--	--	--	--	--	--	--	--	--
MW-1	05/02/2013	110.54	7.60	102.94	--	--	--	--	--	--	--	--	--
MW-1	09/18/2013	110.54	6.51	104.03	--	--	--	--	--	--	--	--	--
MW-1	09/19/2013	110.54	--	--	<0.42	0.166	--	**0.0186**	<0.00100	<0.00100	<0.00300	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-1	11/12/2013	110.54	6.59	103.95	--	--	--	--	--	--	--	--	--
MW-1	03/27/2014	110.54	7.63	102.91	--	--	--	--	--	--	--	--	--
MW-1	05/12/2014	110.54	7.28	103.26	<0.42	0.152	--	**0.0112**	<0.00100	<0.00100	<0.00300	--	--
MW-1	05/12/2014	110.54	--	--	<0.40	<0.10	--	0.0026	<0.0010	<0.0010	<0.0030	--	--
MW-1	09/12/2014	110.54	7.11	103.43	<0.40	<0.10	--	0.0023	<0.0010	<0.0010	<0.0030	--	--
MW-1	11/14/2014	110.54	7.76	102.78	--	--	--	--	--	--	--	--	--
MW-1	03/06/2015	110.54	--	--	--	--	--	--	--	--	--	--	--
MW-1	04/30/2015	110.54	7.72	102.82	0.56	0.28	--	**0.018**	0.00080J	<0.00050	0.012	--	--
MW-1	09/22/2015	110.54	6.28	104.26	0.15J	0.048J	--	0.00070J	<0.00050	<0.00050	0.00060J	--	--
MW-1	11/09/2015	110.54	7.36	103.18	--	--	--	--	--	--	--	--	--
MW-1	03/09/2016	110.54	6.88	103.66	--	--	--	--	--	--	--	--	--
MW-1	06/06/2016	110.54	7.31	103.23	0.40	0.053 J	--	0.003	<0.0005	<0.0005	0.002	--	--
MW-1	09/21/2016	110.54	7.11	103.43	0.50	2.2	--	0.0008 J	<0.0005	<0.0005	0.001	--	--
MW-1	11/01/2016	110.54	7.48	103.06	--	--	--	--	--	--	--	--	--
MW-1	04/13/2017	110.54	7.75	102.79	--	--	--	--	--	--	--	--	--
MW-1	06/01/2017	110.54	7.59	102.95	0.23 J	0.28	--	**0.009**	0.002	0.0008 J	0.017	<0.0005	--
MW-1	08/16/2017	110.54	7.53	103.01	0.29 J	0.60	--	**0.027**	0.002	0.0007 J	0.037	<0.0005	--
MW-1	11/10/2017	110.54	6.74	103.80	--	--	--	--	--	--	--	--	--
MW-2	09/03/1998	100.96	8.51	92.45	--	--	--	--	--	--	--	--	--
MW-2	05/20/2000	100.96	8.55	92.41	<0.25	--	--	--	--	--	--	<0.0020	--
MW-2	09/21/2000	100.96	8.67	92.29	--	--	--	--	--	--	--	--	--
MW-2	09/26/2000	100.96	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/01/2001	100.96	9.00	91.96	--	--	--	--	--	--	--	--	--
MW-2	09/25/2001	100.96	8.72	92.24	--	--	--	--	--	--	--	--	--
MW-2	05/07/2002	100.96	8.62	92.34	--	--	--	--	--	--	--	--	--
MW-2	09/29/2002	100.96	7.94	93.02	--	--	--	--	--	--	--	--	--
MW-2	06/06/2003	110.64	8.53	102.11	--	--	--	--	--	--	--	--	--
MW-2	10/03/2003	110.64	7.94	102.70	--	--	--	--	--	--	--	--	--
MW-2	12/18/2003	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/22/2004	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/09/2004	110.64	8.12	102.52	0.53	0.051	--	**0.014**	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-2	09/21/2004	110.64	8.99	101.65	0.43	0.050	--	**0.0090**	<0.00050	<0.00050	0.00050	<0.0020	--
MW-2	10/29/2004	110.64	--	--	0.24	0.046	0.42	**0.017**	<0.00050	<0.00050	<0.00050	<0.00050	--
MW-2	12/06/2004	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/21/2005	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/15/2005	110.64	8.09	102.55	0.51	0.034	--	**0.0060**	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-2	09/28/2005	110.64	8.84	101.80	0.060	0.015	--	0.0030	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-2	12/07/2005	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	04/07/2006	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/18/2006	110.64	8.76	101.88	0.62	0.075	--	**0.011**	<0.00050	<0.00050	0.0020	--	--
MW-2	09/28/2006	110.64	7.61	103.03	0.26 / <0.24	0.084 / 0.090	--	**0.0080 / 0.012**	<0.00050 / <0.00050	<0.00050 / <0.00050	0.0010 / 0.0020	--	--
MW-2	12/20/2006	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/15/2007	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/21/2007	110.64	8.51	102.13	--	--	--	**0.0070**	<0.00050	<0.00050	0.0030	--	--
MW-2	09/27/2007	110.64	7.89	102.75	--	--	--	0.0030	<0.00050	<0.00050	0.0010	--	--
MW-2	05/17/2008	110.64	8.59	102.05	--	--	--	0.0040	<0.00050	<0.00050	0.0020	--	--
MW-2	06/26/2008	110.64	8.03	102.61	0.50	0.020	--	0.0020	<0.0010	<0.0010	<0.0020	--	--
MW-2	09/17/2008	110.64	7.71	102.93	0.49	0.070	--	0.0010	<0.0010	<0.0010	0.0030	--	--
MW-2	03/20/2009	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/08/2009	110.64	7.80	102.84	0.26	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-2	09/23/2009	110.64	8.68	101.96	--	0.039	--	0.00080	<0.00050	<0.00050	<0.0015	--	--
MW-2	12/09/2009	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/22/2010	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/06/2010	110.64	8.51	102.13	--	--	--	--	--	--	--	--	--
MW-2	05/10/2010	110.64	8.42	102.22	0.22	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	10/05/2010	110.64	9.53	101.11	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	12/21/2010	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	03/09/2011	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/13/2011	110.64	8.32	102.32	0.47	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	09/15/2011	110.64	8.55	102.09	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	12/08/2011	110.64	7.65	102.99	--	--	--	--	--	--	--	--	--
MW-2	03/21/2012	110.64	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/20/2012	110.64	7.32	103.32	--	--	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	09/19/2012	110.64	6.81	103.83	--	--	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-2	11/06/2012	111.15	6.17	104.98	--	--	--	--	--	--	--	--	--
MW-2	04/01/2013	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/02/2013	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	09/18/2013	111.15	7.45	103.70	--	--	--	--	--	--	--	--	--
MW-2	09/19/2013	111.15	--	--	<0.42	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-2	11/12/2013	111.15	7.49	103.66	--	--	--	--	--	--	--	--	--
MW-2	03/27/2014	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/12/2014	111.15	8.15	103.00	<0.40	<0.10	--	0.0018	<0.0010	<0.0010	<0.0030	--	--
MW-2	05/12/2014	111.15	--	--	<0.45	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-2	09/12/2014	111.15	8.04	103.11	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-2	09/12/2014	111.15	--	--	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-2	11/14/2014	111.15	8.61	102.54	--	--	--	--	--	--	--	--	--
MW-2	03/06/2015	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	04/30/2015	111.15	8.62	102.53	0.62	<0.10	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-2	09/22/2015	111.15	8.21	102.94	0.070J	<0.10	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-2	11/09/2015	111.15	8.22	102.93	--	--	--	--	--	--	--	--	--
MW-2	03/09/2016	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/06/2016	111.15	8.00	103.15	0.72	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-2	09/21/2016	111.15	7.92	103.23	0.78	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-2	11/01/2016	111.15	8.33	102.82	--	--	--	--	--	--	--	--	--
MW-2	04/13/2017	111.15	--	--	--	--	--	--	--	--	--	--	--
MW-2	06/01/2017	111.15	8.42	102.73	0.12 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-2	08/16/2017	111.15	8.42	102.73	0.18 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-2	11/10/2017	111.15	7.56	103.59	--	--	--	--	--	--	--	--	--
MW-3	09/03/1998	100.55	8.60	91.95	--	--	--	--	--	--	--	--	--
MW-3	05/20/2000	100.55	8.50	92.05	**2.59**	--	--	--	--	--	--	<0.010	--
MW-3	09/21/2000	100.55	8.83	91.72	--	--	--	--	--	--	--	--	--
MW-3	05/01/2001	100.55	8.94	91.61	--	--	--	--	--	--	--	--	--
MW-3	09/25/2001	100.55	8.95	91.60	--	--	--	--	--	--	--	--	--
MW-3	05/07/2002	110.84	8.42	102.42	--	--	--	--	--	--	--	--	--
MW-3	09/29/2002	110.84	7.74	103.10	--	--	--	--	--	--	--	--	--
MW-3	06/06/2003	110.90	8.78	102.12	--	--	--	--	--	--	--	--	--
MW-3	10/03/2003	110.90	7.73	103.17	--	--	--	--	--	--	--	--	--
MW-3	12/18/2003	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/22/2004	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/09/2004	110.90	8.29	102.61	**3.4**	**15**	--	**0.65**	0.26	**0.59**	**2.6**	<0.0020	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	GRO mg/L	RRO mg/L	PRIMARY VOCS Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L	MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-3	09/21/2004	110.90	9.13	101.77	**5.9**	**16**	--	**0.57**	0.18	**0.62**	**2.4**	<0.0020	--
MW-3	10/29/2004	110.90	--	--	--	**10**	--	**0.33**	0.15	**0.56**	**1.6**	<0.0010	--
MW-3	12/06/2004	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/21/2005	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/15/2005	110.90	8.72	102.18	**3.3**	**14**	--	**0.57**	0.39	**0.53**	**1.9**	<0.0020	--
MW-3	09/28/2005	110.90	7.79	103.11	**2.9**	**12**	--	**0.27**	0.17	**0.54**	**2.1**	<0.0020	--
MW-3	12/07/2005	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	04/07/2006	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/18/2006	110.90	8.57	102.33	**2.3**	**15**	--	**0.42**	0.51	**0.61**	**2.5**	--	--
MW-3	09/28/2006	110.90	7.24	103.66	**2.9**	**12**	--	**0.20**	0.18	**0.43**	**1.6**	--	--
MW-3	12/20/2006	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/15/2007	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	05/21/2007	110.90	8.49	102.41	**2.5 / 2.4**	**11 / 9.4**	--	**0.50 / 0.41**	0.13 / 0.086	**0.50 / 0.48**	**1.8 / 1.7**	--	--
MW-3	09/27/2007	110.90	7.71	103.19	**3.2 / 3.2**	**7.2 / 11**	--	**0.39 / 0.38**	0.48 / 0.43	**0.50 / 0.52**	**1.7 / 1.7**	--	--
MW-3	05/17/2008	110.90	8.43	102.47	**2.0 / 2.1**	**16 / 16**	--	**0.48 / 0.49**	0.54 / 0.56	**0.77 / 0.75**	**2.8 / 2.7**	--	--
MW-3	06/26/2008	110.90	8.16	102.74	**2.6**	**11**	--	**0.30**	0.20	**0.50**	**1.8**	--	--
MW-3	09/17/2008	110.90	7.68	103.22	**2.1**	**14**	--	**0.30**	0.50	**0.70**	**2.5**	--	--
MW-3	03/20/2009	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/08/2009	110.90	7.95	102.95	1.5	**13**	--	**0.26**	0.19	**0.55**	**2.0**	--	--
MW-3	09/23/2009	110.90	8.86	102.04	**2.3**	**14**	--	**0.39**	0.17	**0.69**	**2.4**	--	--
MW-3	12/09/2009	110.90	7.99	102.91	--	--	--	--	--	--	--	--	--
MW-3	03/22/2010	110.90	9.22	101.68	--	--	--	--	--	--	--	--	--
MW-3	05/06/2010	110.90	8.29	102.61	--	--	--	--	--	--	--	--	--
MW-3	05/10/2010	110.90	8.56	102.34	**2.1**	**12**	--	**0.38**	0.098	**0.6**	**2.3**	--	--
MW-3	10/05/2010	110.90	8.69	102.21	**2.1**	**10**	--	**0.20**	0.065	**0.52**	**1.5**	--	--
MW-3	12/21/2010	110.90	--	--	--	--	--	--	--	--	--	--	--
MW-3	03/09/2011	110.90	9.21	101.69	--	--	--	--	--	--	--	--	--
MW-3	06/13/2011	110.90	8.40	102.50	**2.2**	**8.1**	--	**0.38**	0.057	**0.39**	**1.2**	--	--
MW-3	09/15/2011	110.90	8.69	102.21	**2.5**	**12**	--	**0.15**	0.14	**0.48**	**1.9**	--	--
MW-3	12/08/2011	110.90	7.37	103.53	--	--	--	--	--	--	--	--	--
MW-3	03/21/2012	110.90	9.01	101.89	--	--	--	--	--	--	--	--	--
MW-3	06/20/2012	110.90	7.95	102.95	**2.8 / 1.9**[1]	**12**	--	**0.10**	0.061	**0.47**	**1.7**	--	--
MW-3	09/19/2012	110.90	6.81	104.09	**3.2 / 1.8**[1]	**11**	--	**0.095**	0.038	**0.520**	**1.70**	--	--
MW-3	11/06/2012	111.42	6.55	104.87	--	--	--	--	--	--	--	--	--
MW-3	04/01/2013	111.42	9.02	102.40	--	--	--	--	--	--	--	--	--
MW-3	05/02/2013	111.42	8.71	102.71	--	--	--	--	--	--	--	--	--
MW-3	09/18/2013	111.42	7.29	104.13	--	--	--	--	--	--	--	--	--
MW-3	09/19/2013	111.42	--	--	**3.4 / 2.2**[1]	**8.98**	--	**0.101**	0.0365	**0.411**	**1.27**	--	--
MW-3	11/12/2013	111.42	7.98	103.44	--	--	--	--	--	--	--	--	--
MW-3	03/27/2014	111.42	8.58	102.84	--	--	--	--	--	--	--	--	--
MW-3	05/12/2014	111.42	8.07	103.35	**2.7**	**8.46**	--	**0.142**	0.0198	**0.317**	**1.13**	--	--
MW-3	05/12/2014	111.42	--	--	**2.0**	**9.65**	--	**0.143**	0.0126	**0.378**	**0.804**	--	--
MW-3	09/12/2014	111.42	7.95	103.47	**2.4**	**6.65**	--	**0.0320**	0.0141	**0.216**	**0.686**	--	--
MW-3	11/14/2014	111.42	8.83	102.59	--	--	--	--	--	--	--	--	--
MW-3	03/06/2015	111.42	--	--	--	--	--	--	--	--	--	--	--
MW-3	04/30/2015	111.42	8.71	102.71	**5.2**	**11**	--	**0.24**	0.058	**0.40**	**1.4**	--	--
MW-3	09/22/2015	111.42	8.10	103.32	**3.6**	**7.6**	--	**0.26**	0.042	**0.39**	**1.3**	--	--
MW-3	11/09/2015	111.42	8.12	103.30	--	--	--	--	--	--	--	--	--
MW-3	03/09/2016	111.42	--	--	--	--	--	--	--	--	--	--	--
MW-3	06/06/2016	111.42	7.98	103.44	**5.2 / 6.0**	**17 / 18**	--	**0.21 / 0.22**	0.052 / 0.054	**0.67 / 0.72**	**3.4 / 3.6**	--	--
MW-3	09/21/2016	111.42	7.82	103.60	**2.7**	**3.7**	--	**0.088**	0.01	**0.13**	**0.48**	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-3	11/01/2016	111.42	8.22	103.20	--	--	--	--	--	--	--	--	--
MW-3	04/13/2017	111.42	8.23	103.19	--	--	--	--	--	--	--	--	--
MW-3	06/01/2017	111.42	8.17	103.25	**2.2**	**11**	--	**0.13**	0.041	**0.41**	**1.7**	<0.001	--
MW-3	08/16/2017	111.42	8.17	103.25	**2.6 J**	**13**	--	**0.12**	0.035	**0.41**	**1.8**	<0.001	--
MW-3	11/10/2017	111.42	7.65	103.77	--	--	--	--	--	--	--	--	--
MW-4	08/16/2000	--	6.15	--	--	--	--	--	--	--	--	--	--
MW-4	09/21/2000	--	6.30	--	--	--	--	--	--	--	--	--	--
MW-4	09/26/2000	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/01/2001	--	6.68	--	--	--	--	--	--	--	--	--	--
MW-4	09/25/2001	--	6.39	--	--	--	--	--	--	--	--	--	--
MW-4	05/07/2002	108.14	7.00	101.14	--	--	--	--	--	--	--	--	--
MW-4	09/29/2002	108.14	5.67	102.47	--	--	--	--	--	--	--	--	--
MW-4	06/06/2003	108.26	6.18	102.08	--	--	--	--	--	--	--	--	--
MW-4	10/03/2003	108.26	5.64	102.62	--	--	--	--	--	--	--	--	--
MW-4	12/18/2003	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/22/2004	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	06/09/2004	108.26	5.86	102.40	1.0	1.7	--	**0.11**	0.0040	**0.045**	0.075	<0.0020	--
MW-4	06/09/2004	108.26	--	--	0.61	0.12	--	**0.0070**	<0.00050	<0.00050	0.0040	<0.0020	--
MW-4	09/21/2004	108.26	6.78	101.48	0.32	0.061	--	<0.00050	<0.00050	<0.00050	0.0030	<0.0020	--
MW-4	09/21/2004	108.26	--	--	0.43	0.064	--	<0.00050	<0.00050	<0.00050	0.0030	<0.0020	--
MW-4	12/06/2004	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/21/2005	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/15/2005	108.26	5.94	102.32	0.84	0.089	--	0.0010	<0.00050	<0.00050	0.0040	<0.0020	--
MW-4	09/28/2005	108.26	9.40	98.86	**1.8**	0.026	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-4	12/07/2005	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	04/07/2006	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/18/2006	108.26	6.61	101.65	0.75	0.026	--	<0.00050	<0.00050	<0.00050	0.0010	--	--
MW-4	09/28/2006	108.26	5.44	--	**1.8**	0.10	--	0.0020	<0.00050	<0.00050	0.0010	--	--
MW-4	12/20/2006	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	03/15/2007	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/21/2007	108.26	6.36	101.90	0.64	--	--	0.0010	<0.00050	<0.00050	0.0020	--	--
MW-4	09/27/2007	108.26	5.85	102.41	0.85	--	--	<0.00050	<0.00050	<0.00050	0.0010	--	--
MW-4	05/19/2008	108.26	6.53	101.73	0.54	--	--	0.0010	<0.00050	<0.00050	0.0020	--	--
MW-4	06/26/2008	108.26	5.91	102.35	0.49	0.060	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-4	09/17/2008	108.26	5.60	102.66	0.44	0.050	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-4	03/20/2009	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	06/09/2009	108.26	5.74	102.52	0.27	0.032	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	09/23/2009	108.26	6.59	101.67	0.11	0.029	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	12/09/2009	108.26	5.44	102.82	--	--	--	--	--	--	--	--	--
MW-4	03/22/2010	108.26	6.75	101.51	--	--	--	--	--	--	--	--	--
MW-4	05/06/2010	108.26	6.25	102.01	--	--	--	--	--	--	--	--	--
MW-4	05/10/2010	108.26	7.15	101.11	0.63	0.033	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	10/05/2010	108.26	6.26	102.00	0.75	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	12/21/2010	108.26	5.39	102.87	--	--	--	--	--	--	--	--	--
MW-4	03/09/2011	108.26	--	--	--	--	--	--	--	--	--	--	--
MW-4	06/13/2011	108.26	6.08	102.18	0.39	0.015	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	09/15/2011	108.26	6.36	101.90	0.37	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	12/08/2011	108.26	5.50	102.76	--	--	--	--	--	--	--	--	--
MW-4	03/21/2012	108.26	6.67	101.59	--	--	--	--	--	--	--	--	--
MW-4	06/20/2012	108.26	5.18	103.08	0.17 / <0.048[1]	0.019	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	GRO mg/L	RRO mg/L	PRIMARY VOCS Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L	MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-4	09/19/2012	108.26	4.60	103.66	0.24 J / <0.050[1]	0.014 J	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-4	11/06/2012	108.94	4.00	104.94	--	--	--	--	--	--	--	--	--
MW-4	04/01/2013	108.94	6.79	102.15	--	--	--	--	--	--	--	--	--
MW-4	05/02/2013	108.94	6.60	102.34	<0.50	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	05/02/2013	108.94	--	--	<0.50	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	09/18/2013	108.94	5.32	103.62	--	--	--	--	--	--	--	--	--
MW-4	09/19/2013	108.94	--	--	0.55 / <0.43[1]	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	11/12/2013	108.94	5.56	103.38	--	--	--	--	--	--	--	--	--
MW-4	03/27/2014	108.94	--	--	--	--	--	--	--	--	--	--	--
MW-4	05/12/2014	108.94	6.05	102.89	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	05/12/2014	108.94	--	--	<0.42	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	09/12/2014	108.94	5.96	102.98	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-4	11/14/2014	108.94	6.25	102.69	--	--	--	--	--	--	--	--	--
MW-4	03/06/2015	108.94	--	--	--	--	--	--	--	--	--	--	--
MW-4	04/30/2015	108.94	6.37	102.57	0.37	0.019 J	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-4	09/22/2015	108.94	5.92	103.02	0.073 J	0.014 J	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-4	11/09/2015	108.94	5.96	102.98	--	--	--	--	--	--	--	--	--
MW-4	03/09/2016	108.94	4.06	104.88	--	--	--	--	--	--	--	--	--
MW-4	06/06/2016	108.94	5.72	103.22	0.23 J	0.015 J	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-4	09/21/2016	108.94	5.72	103.22	0.63	0.014 J	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-4	11/01/2016	108.94	6.09	102.85	--	--	--	--	--	--	--	--	--
MW-4	04/13/2017	108.94	6.49	102.45	--	--	--	--	--	--	--	--	--
MW-4	06/01/2017	108.94	6.26	102.68	0.33	0.021 J	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-4	08/16/2017	108.94	6.26	102.68	0.16 J	0.032 J	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-4	11/10/2017	108.94	5.34	103.60	--	--	--	--	--	--	--	--	--
MW-5	08/16/2000	--	5.97	--	--	--	--	--	--	--	--	--	--
MW-5	09/21/2000	--	6.25	--	--	--	--	--	--	--	--	--	--
MW-5	05/01/2001	--	6.06	--	--	--	--	--	--	--	--	--	--
MW-5	09/25/2001	--	6.40	--	--	--	--	--	--	--	--	--	--
MW-5	05/07/2002	108.01	--	--	--	--	--	--	--	--	--	--	--
MW-5	09/29/2002	108.01	--	--	--	--	--	--	--	--	--	--	--
MW-5	12/07/2002	108.14	6.18	101.96	--	--	--	--	--	--	--	--	--
MW-5	06/06/2003	108.14	6.29	101.85	--	--	--	--	--	--	--	--	--
MW-5	10/03/2003	108.14	4.79	103.35	--	--	--	--	--	--	--	--	--
MW-5	12/18/2003	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	03/22/2004	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	06/09/2004	108.14	6.83	101.31	0.70	0.32	--	**0.039**	0.0010	0.0090	0.020	<0.0020	--
MW-5	09/21/2004	108.14	6.65	101.49	0.53	0.33	--	**0.030**	0.0010	0.0030	0.022	<0.0020	--
MW-5	12/06/2004	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	03/21/2005	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	05/15/2005	108.14	5.87	102.27	0.82	0.15	--	**0.015**	<0.00050	0.0020	0.0030	<0.0020	--
MW-5	09/28/2005	108.14	5.42	102.72	0.67	0.15	--	**0.015**	0.00060	0.00090	0.011	<0.0020	--
MW-5	12/07/2005	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	04/07/2006	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	05/18/2006	108.14	6.36	101.78	0.62	1.3	--	**0.068**	0.027	**0.034**	0.088	--	--
MW-5	09/28/2006	108.14	4.56	--	<0.24	0.17	--	**0.010**	<0.00050	0.0010	0.013	--	--
MW-5	12/20/2006	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	03/15/2007	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	05/21/2007	108.14	6.11	102.03	--	--	--	**0.094**	0.043	**0.054**	0.16	--	--
MW-5	09/27/2007	108.14	5.15	102.99	--	--	--	**0.030**	0.0020	0.0090	0.030	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-5	05/19/2008	108.14	6.05	102.09	--	--	--	**0.039**	0.0020	**0.019**	0.012	--	--
MW-5	06/26/2008	108.14	5.87	102.27	--	0.20	--	**0.020**	<0.0010	0.0050	0.0030	--	--
MW-5	09/17/2008	108.14	6.05	102.09	0.41	0.10	--	**0.010**	<0.0010	<0.0010	<0.0020	--	--
MW-5	03/20/2009	108.14	7.10	101.04	--	--	--	--	--	--	--	--	--
MW-5	06/08/2009	108.14	5.51	102.63	0.57	1.5	--	**0.042**	0.020	**0.041**	0.11	--	--
MW-5	09/23/2009	108.14	6.38	101.76	--	0.42	--	**0.024**	0.0018	0.0090	0.029	--	--
MW-5	12/09/2009	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	03/22/2010	108.14	6.90	101.24	--	--	--	--	--	--	--	--	--
MW-5	05/06/2010	108.14	5.69	102.45	--	--	--	--	--	--	--	--	--
MW-5	05/10/2010	108.14	5.61	102.53	--	--	--	--	--	--	--	--	--
MW-5	10/05/2010	108.14	--	--	--	0.054	--	0.0029	<0.00050	0.00090	0.0039	--	--
MW-5	12/21/2010	108.14	5.86	102.28	--	--	--	--	--	--	--	--	--
MW-5	03/09/2011	108.14	--	--	--	--	--	--	--	--	--	--	--
MW-5	06/13/2011	108.14	5.90	102.24	0.59	0.30	--	**0.015**	0.0032	0.011	0.027	--	--
MW-5	09/15/2011	108.14	6.34	101.8	--	0.68	--	**0.030**	0.0017	**0.016**	0.057	--	--
MW-5	12/08/2011	108.14	5.33	102.81	--	--	--	--	--	--	--	--	--
MW-5	03/21/2012	108.14	6.50	101.64	--	--	--	--	--	--	--	--	--
MW-5	06/20/2012	108.14	5.10	103.04	--	--	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-5	09/19/2012	108.14	3.15	104.99	--	--	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-5	11/06/2012	108.66	4.10	104.56	--	--	--	--	--	--	--	--	--
MW-5	04/01/2013	108.66	6.84	101.82	--	--	--	--	--	--	--	--	--
MW-5	05/02/2013	108.66	6.50	102.16	1.2 / 0.59[1]	**2.54**	--	**0.0588**	0.0205	**0.0943**	**0.219**	--	--
MW-5	05/02/2013	108.66	--	--	0.98 / <0.50[1]	**2.64**	--	**0.0577**	0.0204	**0.0945**	**0.213**	--	--
MW-5	09/18/2013	108.66	4.80	103.86	--	--	--	--	--	--	--	--	--
MW-5	09/19/2013	108.66	--	--	<0.42	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-5	11/12/2013	108.66	5.43	103.23	--	--	--	--	--	--	--	--	--
MW-5	03/27/2014	108.66	--	--	--	--	--	--	--	--	--	--	--
MW-5	05/12/2014	108.66	5.53	103.13	--	--	--	--	--	--	--	--	--
MW-5	05/13/2014	108.66	--	--	<0.40	0.115	--	0.0028	<0.0010	<0.0010	0.0063	--	--
MW-5	05/13/2014	108.66	--	--	<0.40	0.109	--	0.0042	<0.0010	<0.0010	0.0074	--	--
MW-5	09/12/2014	108.66	5.50	103.16	<0.42	0.214	--	0.0020	<0.0010	<0.0010	0.0048	--	--
MW-5	11/14/2014	108.66	6.39	102.27	--	--	--	--	--	--	--	--	--
MW-5	03/06/2015	108.66	5.00	103.66	--	--	--	--	--	--	--	--	--
MW-5	04/30/2015	108.66	--	--	--	--	--	--	--	--	--	--	--
MW-5	09/22/2015	108.66	5.53	103.13	0.65	0.014 J	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-5	11/09/2015	108.66	8.31	100.35	--	--	--	--	--	--	--	--	--
MW-5	03/09/2016	108.66	5.32	103.34	--	--	--	--	--	--	--	--	--
MW-5	06/06/2016	108.66	--	--	--	--	--	--	--	--	--	--	--
MW-5	09/21/2016	108.66	5.69	102.97	1.1	0.041 J	--	0.0009 J	<0.0005	<0.0005	0.001	--	--
MW-5	11/01/2016	108.66	--	--	--	--	--	--	--	--	--	--	--
MW-5	04/13/2017	108.66	--	--	--	--	--	--	--	--	--	--	--
MW-5	06/01/2017	108.66	6.02	102.64	0.52	0.78	--	0.016	0.004	**0.016**	0.062	<0.0005	--
MW-5	08/16/2017	108.66	6.02	102.64	0.25 J	0.32	--	**0.008**	0.0008 J	0.003	0.018	<0.0005	--
MW-5	11/10/2017	108.66	5.33	103.33	--	--	--	--	--	--	--	--	--
MW-6	08/16/2000	--	8.17	--	--	--	--	--	--	--	--	--	--
MW-6	09/21/2000	--	8.28	--	--	--	--	--	--	--	--	--	--
MW-6	05/01/2001	--	8.76	--	--	--	--	--	--	--	--	--	--
MW-6	09/25/2001	--	8.25	--	--	--	--	--	--	--	--	--	--
MW-6	05/07/2002	110.58	8.39	102.19	--	--	--	--	--	--	--	--	--
MW-6	09/29/2002	110.58	--	--	--	--	--	--	--	--	--	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-6	12/07/2002	110.61	8.07	102.54	--	--	--	--	--	--	--	--	--
MW-6	06/06/2003	110.61	8.34	102.27	--	--	--	--	--	--	--	--	--
MW-6	10/03/2003	110.61	7.85	102.76	--	--	--	--	--	--	--	--	--
MW-6	12/18/2003	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	03/22/2004	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/09/2004	110.61	7.97	102.64	--	--	--	--	--	--	--	--	--
MW-6	09/21/2004	110.61	8.70	101.91	--	--	--	--	--	--	--	--	--
MW-6	10/29/2004	110.61	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--
MW-6	12/06/2004	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	03/21/2005	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/15/2005	110.61	7.61	103.00	--	--	--	--	--	--	--	--	--
MW-6	09/28/2005	110.61	7.23	103.38	--	--	--	--	--	--	--	--	--
MW-6	12/07/2005	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	04/07/2006	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/18/2006	110.61	8.51	102.10	--	--	--	--	--	--	--	--	--
MW-6	09/28/2006	110.61	7.04	103.57	--	--	--	--	--	--	--	--	--
MW-6	12/20/2006	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	03/15/2007	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/21/2007	110.61	8.01	102.60	--	--	--	--	--	--	--	--	--
MW-6	09/27/2007	110.61	7.38	103.23	--	--	--	--	--	--	--	--	--
MW-6	05/17/2008	110.61	7.89	102.72	--	--	--	--	--	--	--	--	--
MW-6	06/26/2008	110.61	7.50	103.11	0.35	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-6	09/17/2008	110.61	7.26	103.35	0.32	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-6	03/20/2009	110.61	8.53	102.08	--	--	--	--	--	--	--	--	--
MW-6	06/09/2009	110.61	7.50	103.11	1.3	0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	09/23/2009	110.61	8.02	102.59	0.36	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	12/09/2009	110.61	7.37	103.24	--	--	--	--	--	--	--	--	--
MW-6	03/22/2010	110.61	8.55	102.06	--	--	--	--	--	--	--	--	--
MW-6	05/06/2010	110.61	7.71	102.90	--	--	--	--	--	--	--	--	--
MW-6	05/10/2010	110.61	8.40	102.21	1.2	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	10/05/2010	110.61	7.96	102.65	**2.4**	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	12/21/2010	110.61	7.67	102.94	--	--	--	--	--	--	--	--	--
MW-6	03/09/2011	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/13/2011	110.61	7.80	102.81	**3.7**	0.012	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	09/15/2011	110.61	7.99	102.62	**2.8**	0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	12/08/2011	110.61	7.94	102.67	--	--	--	--	--	--	--	--	--
MW-6	03/21/2012	110.61	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/20/2012	110.61	7.29	103.32	1.5 / <0.050[1]	0.012	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	07/05/2012	110.61	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	09/19/2012	110.61	6.76	103.85	0.81 / <0.050[1]	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-6	11/06/2012	111.10	6.54	104.56	--	--	--	--	--	--	--	--	--
MW-6	04/01/2013	111.10	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/02/2013	111.10	8.25	102.85	<0.50 / <0.50[1]	<0.10	--	<0.0010	0.0013	<0.0010	<0.0030	--	--
MW-6	05/02/2013	111.10	--	--	1.5	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-6	09/18/2013	111.10	6.85	104.25	--	--	--	--	--	--	--	--	--
MW-6	09/19/2013	111.10	--	--	1.2 / <0.42[1]	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-6	11/12/2013	111.10	7.43	103.67	--	--	--	--	--	--	--	--	--
MW-6	03/27/2014	111.10	--	--	--	--	--	--	--	--	--	--	--
MW-6	05/12/2014	111.10	7.65	103.45	0.89	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-6	05/12/2014	111.10	--	--	**1.6**	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-6	09/12/2014	111.10	5.50	105.60	0.89	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-6	11/14/2014	111.10	8.54	102.56	--	--	--	--	--	--	--	--	--
MW-6	03/06/2015	111.10	7.10	104.00	--	--	--	--	--	--	--	--	--
MW-6	04/30/2015	111.10	--	--	--	--	--	--	--	--	--	--	--
MW-6	09/22/2015	111.10	7.62	103.48	1.4	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	<0.0051
MW-6	11/09/2015	111.10	8.31	102.79	--	--	--	--	--	--	--	--	--
MW-6	03/09/2016	111.10	7.35	103.75	--	--	--	--	--	--	--	--	--
MW-6	06/07/2016	111.10	7.88	103.22	1.3 / 1.3	<0.010 / <0.010	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--
MW-6	09/21/2016	111.10	7.44	103.66	**2.7 / 2.3**	<0.010 / <0.010	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--
MW-6	11/01/2016	111.10	7.80	103.30	--	--	--	--	--	--	--	--	--
MW-6	04/13/2017	111.10	--	--	--	--	--	--	--	--	--	--	--
MW-6	06/01/2017	111.10	7.45	103.65	**3.0**	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-6	08/16/2017	111.10	7.88	103.22	**1.7 J**	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-6	11/10/2017	111.10	7.42	103.68	--	--	--	--	--	--	--	--	--
MW-7	09/29/2002	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/07/2002	106.69	4.87	101.82	--	--	--	--	--	--	--	--	--
MW-7	06/06/2003	106.69	4.90	101.79	--	--	--	--	--	--	--	--	--
MW-7	10/03/2003	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	10/04/2003	106.69	3.22	103.47	--	--	--	--	--	--	--	--	--
MW-7	12/18/2003	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/22/2004	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	06/09/2004	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/21/2004	106.69	6.26	100.43	**7.3**	**8.0**	--	**0.26**	0.031	**0.29**	**0.73**	<0.0020	--
MW-7	12/06/2004	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/21/2005	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/15/2005	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/28/2005	106.69	4.09	102.60	0.22	0.089	--	0.0040	<0.00050	0.0030	0.0040	<0.0020	--
MW-7	12/07/2005	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	04/07/2006	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/18/2006	106.69	5.14	101.55	**3.3**	**4.5**	--	**0.18**	0.025	**0.18**	**0.45**	--	--
MW-7	09/28/2006	106.69	3.55	103.14	**4.4**	**3.2**	--	**0.077**	0.0080	**0.11**	**0.22**	--	--
MW-7	12/20/2006	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/15/2007	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/21/2007	106.69	5.05	101.64	0.60	**3.2**	--	**0.16**	0.014	**0.15**	**0.42**	--	--
MW-7	09/27/2007	106.69	4.17	102.52	0.36	0.50	--	**0.016**	0.0020	**0.024**	0.056	--	--
MW-7	05/19/2008	106.69	5.15	101.54	0.85	**6.1**	--	**0.33**	0.092	**0.33**	**1.1**	--	--
MW-7	06/26/2008	106.69	4.71	101.98	**1.6**	**10**	--	**0.30**	0.080	**0.40**	**1.2**	--	--
MW-7	09/17/2008	106.69	3.62	103.07	0.51	**3.6**	--	**0.10**	0.020	**0.20**	**0.50**	--	--
MW-7	03/20/2009	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	06/08/2009	106.69	4.45	102.24	1.3	**10**	--	**0.32**	0.051	**0.34**	**1.1**	--	--
MW-7	09/23/2009	106.69	5.19	101.50	**1.6**	**11**	--	**0.32**	0.035	**0.46**	**1.4**	--	--
MW-7	12/09/2009	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/22/2010	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/06/2010	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/10/2010	106.69	4.61	102.08	**1.7**	**4.5**	--	**0.18**	0.050	**0.19**	**0.54**	--	--
MW-7	12/21/2010	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/09/2011	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	06/13/2011	106.69	4.95	101.74	**1.7**	**9.3**	--	**0.32**	0.034	**0.38**	**1.2**	--	--
MW-7	09/15/2011	106.69	5.29	101.40	**2.1**	**9.0**	--	**0.24**	0.020	**0.34**	**1.0**	--	--
MW-7	12/08/2011	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/21/2012	106.69	--	--	--	--	--	--	--	--	--	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	GRO mg/L	RRO mg/L	PRIMARY VOCS Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L	MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-7	06/20/2012	106.69	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/19/2012	106.69	4.30	102.39	1.1 / 0.60[1]	**5.1**	--	**0.076**	0.0074	**0.12**	**0.30**	--	--
MW-7	11/06/2012	107.26	2.74	104.52	--	--	--	--	--	--	--	--	--
MW-7	04/01/2013	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/02/2013	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/18/2013	107.26	3.80	103.46	--	--	--	--	--	--	--	--	--
MW-7	09/19/2013	107.26	--	--	1.1 / 0.80[1]	**2.54**	--	**0.0661**	0.00650	**0.113**	**0.266**	--	--
MW-7	11/12/2013	107.26	4.24	103.02	--	--	--	--	--	--	--	--	--
MW-7	03/27/2014	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	05/12/2014	107.26	4.62	102.64	--	--	--	--	--	--	--	--	--
MW-7	05/13/2014	107.26	--	--	<0.40	0.963	--	**0.0464**	0.00370	**0.0482**	0.0900	--	--
MW-7	05/13/2014	107.26	--	--	<0.40	0.538	--	**0.00830**	<0.00100	0.0108	0.0297	--	--
MW-7	09/12/2014	107.26	4.50	102.76	<0.40	0.219	--	0.0038	<0.0010	0.0042	0.0064	--	--
MW-7	11/14/2014	107.26	5.27	101.99	--	--	--	--	--	--	--	--	--
MW-7	04/30/2015	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	09/22/2015	107.26	4.50	102.76	0.94	0.011J	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-7	11/09/2015	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	03/09/2016	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	06/06/2016	107.26	4.31	102.95	1.1	0.041 J	--	<0.0005	<0.0005	<0.0005	0.0007 J	--	--
MW-7	09/21/2016	107.26	4.47	102.79	1.2	**2.3**	--	**0.081**	0.007	**0.094**	0.17	--	--
MW-7	11/01/2016	107.26	5.02	102.24	--	--	--	--	--	--	--	--	--
MW-7	04/13/2017	107.26	--	--	--	--	--	--	--	--	--	--	--
MW-7	06/01/2017	107.26	5.09	102.17	1.4	**6.9**	--	**0.18**	0.018	**0.29**	**0.53**	<0.001	--
MW-7	08/16/2017	107.26	5.03	102.23	0.73 J	**5.2**	--	**0.12**	0.015	**0.20**	**0.54**	<0.0005	--
MW-7	11/10/2017	107.26	4.63	102.63	--	--	--	--	--	--	--	--	--
MW-8	10/03/2003	108.20	5.55	102.65	--	--	--	--	--	--	--	--	--
MW-8	12/18/2003	108.20	5.89	102.31	--	--	--	--	--	--	--	--	--
MW-8	03/22/2004	108.20	7.16	101.04	0.90	**2.2**	--	**0.11**	0.0050	**0.076**	0.16	<0.00050	--
MW-8	03/22/2004	108.20	--	--	0.89	**2.6**	--	**0.11**	0.0050	**0.078**	0.16	<0.00050	--
MW-8	06/09/2004	108.20	6.22	101.98	1.3	**2.6**	--	**0.15**	0.0080	**0.11**	0.10	<0.0020	--
MW-8	09/21/2004	108.20	7.27	100.93	1.5	**4.1**	--	**0.23**	0.014	**0.15**	**0.34**	<0.0020	--
MW-8	12/06/2004	108.20	6.67	101.53	1.1	**4.8**	--	**0.18**	0.015	**0.19**	**0.37**	<0.0020	--
MW-8	03/21/2005	108.20	7.14	101.06	1.0	1.6	--	**0.12**	0.0030	**0.080**	0.027	<0.0020	--
MW-8	03/21/2005	108.20	--	--	0.92	1.7	--	**0.12**	0.0020	**0.078**	0.027	<0.0020	--
MW-8	05/15/2005	108.20	6.26	101.94	0.91 / 0.60	**4.3** / 0.086	--	**0.21** / 0.0010	0.012 / <0.00050	**0.17 / <0.00050**	0.16 / 0.0030	<0.0020 / <0.0020	--
MW-8	09/28/2005	108.20	5.94	102.26	0.92	**3.5**	--	**0.25**	0.019	**0.17**	**0.24**	<0.0020	--
MW-8	12/07/2005	108.20	6.01	102.19	0.99	1.1	--	**0.036**	0.0030	**0.026**	0.027	<0.0020	--
MW-8	04/07/2006	108.20	7.30	100.90	1.1	1.5	--	**0.096**	0.0040	**0.052**	0.077	<0.00050	--
MW-8	04/07/2006	108.20	--	--	0.98	1.5	--	**0.096**	0.0040	**0.050**	0.069	<0.00050	--
MW-8	05/18/2006	108.20	7.06	101.14	0.72	**3.6**	--	**0.16**	0.010	**0.14**	0.17	--	--
MW-8	09/28/2006	108.20	5.82	102.38	1.0	**4.3**	--	**0.19**	0.016	**0.17**	**0.40**	--	--
MW-8	12/20/2006	108.20	5.00	103.20	0.86	1.0	--	**0.038**	0.0027	**0.027**	0.040	--	--
MW-8	03/15/2007	108.20	7.37	100.83	0.62	0.10	--	**0.020**	0.0020	0.010	0.020	0.0050	--
MW-8	03/15/2007	108.20	--	--	0.70	0.030	--	**0.020**	0.0020	0.010	0.020	<0.010	--
MW-8	05/21/2007	108.20	7.04	101.16	0.98	1.4	--	**0.062**	0.0020	**0.047**	0.030	--	--
MW-8	09/27/2007	108.15	6.22	101.93	**1.6**	**4.9**	--	**0.16**	0.011	**0.14**	**0.26**	--	--
MW-8	12/11/2007	108.15	6.24	101.91	0.75	1.7	--	**0.040**	0.0030	**0.030**	0.070	<0.10	--
MW-8	03/04/2008	108.15	6.67	101.48	--	--	--	--	--	--	--	--	--
MW-8	05/19/2008	108.15	7.08	101.07	0.72	**4.9**	--	**0.19**	0.014	**0.20**	**0.34**	--	--
MW-8	06/04/2008	108.15	7.74	100.41	0.71	**2.9**	--	**0.10**	0.010	**0.10**	**0.20**	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-8	06/26/2008	108.15	6.28	101.87	0.70	2.1	--	**0.060**	0.0040	**0.050**	0.040	--	--
MW-8	09/17/2008	108.15	5.81	102.34	--	--	--	--	--	--	--	--	--
MW-8	09/18/2008	108.15	--	--	0.98	**6.1**	--	**0.20**	0.020	**0.20**	**0.50**	--	--
MW-8	12/10/2008	108.15	6.16	101.99	0.72	1.2	--	**0.040**	0.0030	**0.020**	0.050	<0.010	--
MW-8	03/20/2009	108.15	7.46	100.69	0.88	0.97	--	**0.027**	0.0016	**0.015**	0.021	<0.010	--
MW-8	06/09/2009	108.15	5.90	102.25	0.68	**2.4**	--	**0.078**	0.0052	**0.073**	0.087	--	--
MW-8	09/23/2009	108.15	6.83	101.32	0.78	**3.6**	--	**0.15**	0.010	**0.10**	**0.20**	--	--
MW-8	12/09/2009	108.15	5.99	102.16	0.64	1.6	--	**0.038**	0.0029	**0.025**	0.062	--	--
MW-8	03/22/2010	108.15	7.33	100.82	--	--	--	--	--	--	--	--	--
MW-8	03/25/2010	108.15	--	--	0.64	0.87	--	**0.024**	0.0014	0.012	0.0072	--	--
MW-8	05/06/2010	108.15	6.79	101.36	--	--	--	--	--	--	--	--	--
MW-8	05/10/2010	108.15	6.48	101.67	0.79	**4.8**	--	**0.14**	0.010	**0.14**	**0.28**	--	--
MW-8	10/05/2010	108.15	6.88	101.27	0.99	**2.3**	--	**0.091**	0.0056	**0.066**	0.083	--	--
MW-8	12/21/2010	108.15	5.60	102.55	0.81	1.1	--	**0.020**	0.0028	0.010	0.032	--	--
MW-8	03/09/2011	108.15	7.41	100.74	0.87	1.0	--	**0.026**	0.0024	0.013	0.039	--	--
MW-8	06/13/2011	108.15	7.60	100.55	1.3	**2.4**	--	**0.084**	0.0058	**0.071**	0.11	--	--
MW-8	09/15/2011	108.15	6.91	101.24	**1.6**	**4.8**	--	**0.15**	0.013	**0.11**	**0.26**	--	--
MW-8	12/08/2011	108.15	5.89	102.26	0.86 / 0.22[1]	1.6	--	**0.042**	0.0034	**0.029**	0.062	--	--
MW-8	03/21/2012	108.15	6.62	101.53	0.73 / 0.21[1]	1.4	--	**0.027**	0.0028	**0.016**	0.053	--	--
MW-8	06/20/2012	108.15	5.34	102.81	1.1 / 0.45[1]	**2.7**	--	**0.090**	0.0062	**0.079**	0.052	--	--
MW-8	07/05/2012	108.15	--	--	--	**2.8**	--	**0.12**	0.0088	**0.10**	0.080	--	--
MW-8	09/19/2012	108.15	4.68	103.47	1.2 / 0.53[1]	**3.7**	--	**0.14**	0.010	**0.12**	**0.22**	--	--
MW-8	11/06/2012	108.70	4.10	104.60	0.67 / 0.33[1]	**2.5**	--	**0.084**	0.0036	**0.10**	0.019	--	--
MW-8	04/01/2013	108.70	7.30	101.40	0.52 / <0.45[1]	0.293	--	**0.0084**	<0.0010	<0.0010	<0.0030	--	--
MW-8	05/02/2013	108.70	7.15	101.55	--	--	--	--	--	--	--	--	--
MW-8	05/03/2013	108.70	--	--	0.53 / <0.50[1]	0.394	--	**0.0175**	<0.00100	0.00660	<0.00300	--	--
MW-8	05/03/2013	108.70	--	--	<0.50	0.53	--	**0.0188**	<0.00100	0.00800	<0.00300	--	--
MW-8	09/18/2013	108.70	5.63	103.07	1.20 / 0.75[1]	**3.72**	--	**0.134**	0.0112	**0.181**	**0.237**	--	--
MW-8	11/12/2013	108.70	5.84	102.86	1.00	**3.4**	--	**0.0980**	0.00810	**0.145**	**0.281**	--	--
MW-8	03/27/2014	108.70	--	--	--	--	--	--	--	--	--	--	--
MW-8	05/12/2014	108.70	6.48	102.22	--	--	--	--	--	--	--	--	--
MW-8	05/13/2014	108.70	--	--	0.78	1.84	--	**0.0709**	0.00370	**0.0794**	0.0687	--	--
MW-8	05/13/2014	108.70	--	--	0.75	**2.08**	--	**0.0951**	0.00430	**0.0961**	0.0865	--	--
MW-8	09/12/2014	108.70	6.32	102.38	1.0	**2.86**	--	**0.100**	0.00630	**0.118**	**0.135**	--	--
MW-8	09/12/2014	108.70	--	--	0.99	**2.72**	--	**0.103**	0.00650	**0.121**	**0.140**	--	--
MW-8	11/14/2014	108.70	6.80	101.90	**1.5**	1.28	--	**0.0648**	0.00300	**0.0589**	0.0408	--	--
MW-8	03/06/2015	108.70	5.10	103.60	0.46	0.24	--	0.0044	<0.0010	<0.0010	<0.0030	--	--
MW-8	04/30/2015	108.70	7.02	101.68	0.41	0.95	--	**0.020**	0.0010	0.011	0.028	--	--
MW-8	09/22/2015	108.70	6.53	102.17	0.62	**2.3**	--	**0.13**	0.010	**0.12**	**0.25**	--	--
MW-8	11/09/2015	108.70	6.58	102.12	1.4	**4.3**	--	**0.11**	0.010	**0.13**	**0.32**	--	--
MW-8	03/09/2016	108.70	5.74	102.96	0.088 J	0.057 J	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-8	06/06/2016	108.70	5.57	103.13	0.30	0.054 J	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-8	09/21/2016	108.70	6.14	102.56	1.2	**3.1**	--	**0.10**	0.007	**0.071**	0.19	--	--
MW-8	11/01/2016	108.70	6.74	101.96	0.57 J / 0.58 J	1.7 J / 1.8 J	--	**0.022 / 0.022**	0.002 / 0.002	0.012 / 0.012	0.051 / 0.052	--	--
MW-8	04/13/2017	108.70	7.16	101.54	0.28 / 0.24 J	0.61 / 0.52	--	**0.01 / 0.009**	0.0007 J / 0.0007 J	0.004 / 0.004	0.006 / 0.005	<0.0005 / <0.0005	--
MW-8	06/01/2017	108.70	6.83	101.87	0.75	1.7	--	**0.042**	0.003	**0.058**	0.055	<0.0005	--
MW-8	08/16/2017	108.70	6.85	101.85	0.39 J / 0.48 J	**2.2 / 2.2**	--	**0.059 / 0.058**	0.004 / 0.004	**0.040 / 0.039**	0.038 / 0.035	<0.0005 / <0.0005	--
MW-8	11/10/2017	108.70	6.34	102.36	0.43 / 0.46	1.6 / 1.5	--	**0.017 / 0.018**	0.001 / 0.001	0.015 / **0.016**	0.026 / 0.027	--	--
MW-9	10/03/2003	107.27	4.73	102.54	--	--	--	--	--	--	--	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-9	12/18/2003	107.27	5.03	102.24	--	--	--	--	--	--	--	--	--
MW-9	03/22/2004	107.27	--	--	--	--	--	--	--	--	--	--	--
MW-9	06/09/2004	107.27	5.45	101.82	1.0	2.1	--	**0.16**	0.0070	**0.074**	0.12	<0.0020	--
MW-9	09/21/2004	107.27	5.57	101.70	0.26	<0.010	--	0.00060	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-9	12/06/2004	107.27	5.59	101.68	0.69	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-9	03/21/2005	107.27	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/15/2005	107.27	5.57	101.70	**2.6**	0.052	--	**0.011**	<0.00050	0.00080	0.00060	<0.0020	--
MW-9	09/28/2005	107.27	5.22	102.05	1.1	1.1	--	**0.10**	0.0020	**0.035**	0.057	<0.0020	--
MW-9	12/07/2005	107.27	5.24	102.03	0.73	0.33	--	**0.065**	0.00060	0.0040	0.0010	<0.0020	--
MW-9	04/07/2006	107.27	6.47	100.80	0.096	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--
MW-9	05/18/2006	107.27	6.29	100.98	1.2	0.019	--	0.0010	<0.00050	<0.00050	<0.00050	--	--
MW-9	09/28/2006	107.27	4.66	102.61	**1.6**	0.060	--	0.0010	<0.00050	<0.00050	<0.00050	--	--
MW-9	12/20/2006	107.27	3.85	103.42	0.54	0.60	--	**0.048**	0.0013	**0.024**	0.027	--	--
MW-9	03/15/2007	107.27	--	--	--	--	--	--	--	--	--	--	--
MW-9	05/21/2007	107.27	--	--	--	--	--	--	--	--	--	--	--
MW-9	09/27/2007	107.27	--	--	--	--	--	--	--	--	--	--	--
													--
MW-9R	09/27/2007	107.58	5.78	101.80	0.41	0.40	--	**0.037**	0.0020	**0.024**	0.035	--	--
MW-9R	12/11/2007	107.58	6.25	101.33	0.63	1.8	--	**0.10**	0.0050	**0.070**	0.10	<0.10	--
MW-9R	03/04/2008	107.58	6.10	101.48	--	--	--	--	--	--	--	--	--
MW-9R	05/19/2008	107.58	6.69	100.89	0.84	0.20	--	**0.017**	<0.00050	0.0070	0.011	--	--
MW-9R	06/04/2008	107.58	6.28	101.30	0.51	2.2	--	**0.090**	0.0050	**0.070**	0.10	--	--
MW-9R	06/26/2008	107.58	5.90	101.68	0.79	**5.0**	--	**0.20**	0.020	**0.20**	**0.40**	--	--
MW-9R	09/17/2008	107.58	5.31	102.27	--	--	--	--	--	--	--	--	--
MW-9R	09/18/2008	107.58	--	--	0.065	0.020	--	0.0040	<0.0010	<0.0010	<0.0020	--	--
MW-9R	12/10/2008	107.58	8.78	98.80	0.80	**2.7**	--	**0.10**	0.0080	**0.10**	**0.30**	<0.050	--
MW-9R	03/19/2009	107.58	7.18	100.40	1.1	**3.8**	--	**0.14**	0.0081	**0.13**	**0.30**	<0.050	--
MW-9R	06/09/2009	107.58	5.70	101.88	0.80	**3.8**	--	**0.19**	0.011	**0.16**	**0.34**	--	--
MW-9R	09/23/2009	107.58	6.45	101.13	0.59	**2.5**	--	**0.16**	0.0066	**0.094**	**0.15**	--	--
MW-9R	12/09/2009	107.58	5.37	102.21	0.60	**3.7**	--	**0.15**	0.0098	**0.15**	**0.34**	--	--
MW-9R	03/22/2010	107.58	6.69	100.89	--	--	--	--	--	--	--	--	--
MW-9R	03/25/2010	107.58	--	--	0.60	0.38	--	**0.019**	0.00060	0.013	0.016	--	--
MW-9R	05/06/2010	107.58	6.10	101.48	--	--	--	--	--	--	--	--	--
MW-9R	05/10/2010	107.58	6.00	101.58	0.25	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00150	--	--
MW-9R	10/05/2010	107.58	6.23	101.35	0.41	1.3	--	**0.072**	0.0030	**0.047**	0.066	--	--
MW-9R	12/21/2010	107.58	5.57	102.01	0.93	**2.5**	--	**0.13**	0.0053	**0.084**	0.15	--	--
MW-9R	03/09/2011	107.58	--	--	--	--	--	--	--	--	--	--	--
MW-9R	06/13/2011	107.58	6.01	101.57	0.82	1.9	--	**0.12**	0.0049	**0.071**	0.12	--	--
MW-9R	09/15/2011	107.58	6.40	101.18	0.75	1.4	--	**0.11**	0.0011	**0.020**	0.040	--	--
MW-9R	12/08/2011	107.58	5.34	102.24	0.84 / 0.21[1]	2.2	--	**0.076**	0.0019	**0.050**	0.074	--	--
MW-9R	03/21/2012	107.58	7.17	100.41	0.75 / 0.33[1]	0.57	--	**0.010**	0.00060	0.0038	0.0024	--	--
MW-9R	06/20/2012	107.58	4.83	102.75	**2.0** / 0.63[1]	**4.4**	--	**0.16**	0.011	**0.15**	**0.30**	--	--
MW-9R	07/05/2012	107.58	--	--	--	**2.3**	--	**0.064**	0.0035	**0.061**	0.11	--	--
MW-9R	09/19/2012	107.58	4.13	103.45	0.18J / 0.065J[1]	0.58	--	**0.019**	0.00080J	0.011	0.028	--	--
MW-9R	11/06/2012	108.08	3.58	104.50	0.15J / 0.097J[1]	0.72	--	**0.013**	0.0011J	**0.023**	0.033	--	--
MW-9R	04/01/2013	108.08	6.92	101.16	<0.48	0.415	--	**0.0354**	0.00140	**0.0195**	0.0239	--	--
MW-9R	05/02/2013	108.08	6.14	101.94	--	--	--	--	--	--	--	--	--
MW-9R	05/03/2013	108.08	--	--	<0.500	0.565	--	**0.0238**	0.00130	**0.0233**	0.0273	--	--
MW-9R	05/03/2013	108.08	--	--	<0.50	0.472	--	**0.0407**	0.00150	**0.0230**	0.0289	--	--
MW-9R	09/18/2013	108.08	5.15	102.93	0.50 / <0.39[1]	0.634	--	**0.0490**	<0.00100	0.0133	0.0198	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-9R	11/12/2013	108.08	5.39	102.69	0.54	0.936	--	**0.0306**	0.00140	**0.0316**	0.0542	--	--
MW-9R	03/27/2014	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	05/12/2014	108.08	6.03	102.05	--	--	--	--	--	--	--	--	--
MW-9R	05/13/2014	108.08	--	--	<0.40	0.726	--	**0.0233**	0.00160	**0.0276**	0.0606	--	--
MW-9R	05/13/2014	108.08	--	--	<0.40	<0.10	--	0.0022	<0.0010	0.0013	<0.0030	--	--
MW-9R	09/12/2014	108.08	5.88	102.20	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-9R	11/14/2014	108.08	6.10	101.98	<0.40	0.385	--	**0.0299**	<0.00100	0.0100	0.0203	--	--
MW-9R	03/06/2015	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	04/30/2015	108.08	6.40	101.68	0.44	0.018 J	--	0.0020	<0.00050	<0.00050	<0.00050	--	--
MW-9R	09/22/2015	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	11/09/2015	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	03/09/2016	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	06/06/2016	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	09/21/2016	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	11/01/2016	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	04/13/2017	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	06/01/2017	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	08/16/2017	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-9R	11/10/2017	108.08	--	--	--	--	--	--	--	--	--	--	--
MW-10	10/03/2003	108.93	4.98	103.95	--	--	--	--	--	--	--	--	--
MW-10	12/18/2003	108.93	6.65	102.28	--	--	--	--	--	--	--	--	--
MW-10	03/22/2004	108.93	--	--	--	--	--	--	--	--	--	--	--
MW-10	06/09/2004	108.93	7.01	101.92	--	--	--	--	--	--	--	--	--
MW-10	09/21/2004	108.93	7.38	101.55	1.5	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-10	12/06/2004	108.93	7.05	101.88	0.64	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-10	12/06/2004	108.93	--	--	1.5	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-10	03/21/2005	108.93	7.36	101.57	0.43	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-10	05/15/2005	108.93	6.74	102.19	**1.6**	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
MW-10	09/28/2005	108.93	6.31	102.62	1.0 / 1.2	<0.010 / <0.010	--	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.0020 / <0.0020	--
MW-10	12/07/2005	108.93	6.69	102.24	1.1 / 1.1	<0.010 / <0.010	--	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.0020 / <0.0020	--
MW-10	04/07/2006	108.93	7.55	101.38	0.41	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--
MW-10	05/18/2006	108.93	7.31	101.62	**2.3 / 2.6**	<0.010 / <0.010	--	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	--	--
MW-10	09/28/2006	108.93	5.47	103.46	**1.6**	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-10	12/20/2006	108.93	5.75	103.18	1.0	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-10	03/15/2007	108.93	8.05	100.88	0.83	0.80	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0030	--
MW-10	05/21/2007	108.93	7.38	101.55	1.2	<0.010	--	<0.00050	<0.00050	<0.00050	0.0010	--	--
MW-10	09/27/2007	108.78	6.31	102.47	0.87	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-10	12/11/2007	108.78	7.27	101.51	1.5	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0030	--
MW-10	03/04/2008	108.78	7.23	101.55	--	--	--	--	--	--	--	--	--
MW-10	05/19/2008	108.78	7.29	101.49	**3.3**	0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-10	06/04/2008	108.78	7.07	101.71	0.95	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-10	06/26/2008	108.78	6.85	101.93	1.0	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-10	09/17/2008	108.78	5.20	103.58	--	--	--	--	--	--	--	--	--
MW-10	09/18/2008	108.78	--	--	0.24	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
MW-10	12/10/2008	108.78	6.83	101.95	1.2	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	<0.0030	--
MW-10	03/19/2009	108.78	8.04	100.74	0.76	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	<0.0025	--
MW-10	06/09/2009	108.78	6.52	102.26	0.69	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	09/23/2009	108.78	7.40	101.38	1.4	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	12/09/2009	108.78	6.67	102.11	1.3	0.012	--	0.0012	<0.00050	<0.00050	<0.0015	--	--
MW-10	03/22/2010	108.78	7.83	100.95	--	--	--	--	--	--	--	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	GRO mg/L	RRO mg/L	PRIMARY VOCS Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylene (total) mg/L	MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
MW-10	03/25/2010	108.78	--	--	1.5	0.011	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	05/06/2010	108.78	6.61	102.17	--	--	--	--	--	--	--	--	--
MW-10	05/10/2010	108.78	6.61	102.17	0.86	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	10/05/2010	108.78	7.40	101.38	**2.2**	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	12/21/2010	108.78	6.64	102.14	1.3	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	03/09/2011	108.78	7.98	100.80	0.83	0.024	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	06/13/2011	108.78	7.14	101.64	1.2	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	09/15/2011	108.78	7.46	101.32	**1.6**	0.013	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	12/08/2011	108.78	6.28	102.50	0.55 / 0.048[1]	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	03/21/2012	108.78	--	--	--	--	--	--	--	--	--	--	--
MW-10	06/20/2012	108.78	6.00	102.78	1.3 / 0.058[1]	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	07/05/2012	108.78	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	09/19/2012	108.78	5.11	103.67	0.56 / <0.051[1]	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	11/06/2012	109.35	4.94	104.41	1.0 / <0.049[1]	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
MW-10	04/01/2013	109.35	7.43	101.92	0.52 / <0.42[1]	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	05/02/2013	109.35	6.70	102.65	--	--	--	--	--	--	--	--	--
MW-10	05/03/2013	109.35	--	--	<0.50	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	05/03/2013	109.35	--	--	<0.52	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	09/18/2013	109.35	6.03	103.32	0.76 / <0.48[1]	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	11/12/2013	109.35	6.41	102.94	0.52	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	03/27/2014	109.35	7.14	102.21	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	05/12/2014	109.35	6.82	102.53	--	--	--	--	--	--	--	--	--
MW-10	05/13/2014	109.35	--	--	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	05/13/2014	109.35	--	--	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	09/12/2014	109.35	6.68	102.67	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	11/14/2014	109.35	7.35	102.00	0.53	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	03/06/2015	109.35	5.35	104.00	<0.40	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
MW-10	04/30/2015	109.35	7.44	101.91	0.78	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
MW-10	09/22/2015	109.35	6.80	102.55	0.54 / 0.55	<0.010 / <0.010	--	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	--	--
MW-10	11/09/2015	109.35	9.11	100.24	0.75 / 0.72	<0.050 / <0.050	--	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	<0.00050 / <0.00050	--	--
MW-10	03/09/2016	109.35	5.84	103.51	0.42 / 0.41	0.10 / 0.018 J	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--	--
MW-10	06/06/2016	109.35	6.69	102.66	0.96	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-10	09/21/2016	109.35	6.81	102.54	1.3	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-10	11/01/2016	109.35	7.25	102.10	1.4 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
MW-10	04/13/2017	109.35	6.45	102.90	0.11 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-10	06/01/2017	109.35	7.26	102.09	0.61 / 0.64	<0.010 / <0.010	--	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	--
MW-10	08/16/2017	109.35	7.09	102.26	0.19 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
MW-10	11/10/2017	109.35	6.86	102.49	0.15 J	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
Trip Blank	05/27/2004	--	--	--	--	--	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--
Trip Blank	06/10/2004	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
Trip Blank	06/10/2004	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
Trip Blank	06/10/2004	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
Trip Blank	09/22/2004	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
Trip Blank	09/22/2004	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.0020	--
Trip Blank	05/09/2005	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	05/11/2005	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	05/18/2005	--	--	--	--	<0.010	--	<0.00020	<0.00020	<0.00020	<0.00060	--	--
Trip Blank	06/16/2005	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/28/2005	--	--	--	--	<0.010	--	<0.00020	<0.00020	<0.00020	<0.00060	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**
Trip Blank	05/17/2006	--	--	--	--	<0.010	--	<0.00020	<0.00020	<0.00020	<0.00060	--	--
Trip Blank	07/24/2006	--	--	--	--	--	--	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	--
Trip Blank	09/23/2006	--	--	--	--	<0.010	--	<0.00020	<0.00020	<0.00020	<0.00060	--	--
Trip Blank	05/16/2007	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	09/27/2007	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	05/17/2008	--	--	--	--	<0.010	--	--	--	--	--	--	--
Trip Blank	06/04/2008	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	09/11/2008	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	09/13/2008	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	09/14/2008	--	--	--	--	<0.010	--	<0.0010	<0.0010	<0.0010	<0.0020	--	--
Trip Blank	05/29/2009	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/17/2009	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/18/2009	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	05/11/2010	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/07/2010	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	04/20/2011	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	07/07/2011	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/28/2011	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/28/2011	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	05/21/2012	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	09/18/2012	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.0015	--	--
Trip Blank	05/06/2013	--	--	--	--	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
Trip Blank	09/16/2013	--	--	--	--	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
Trip Blank	05/05/2014	--	--	--	--	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
Trip Blank	09/02/2014	--	--	--	--	<0.10	--	<0.0010	<0.0010	<0.0010	<0.0030	--	--
Trip Blank	04/16/2015	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
Trip Blank	09/22/2015	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
Trip Blank	11/09/2015	--	--	--	--	<0.010	--	<0.00050	<0.00050	<0.00050	<0.00050	--	--
Trip Blank	03/09/2016	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
Trip Blank	06/06/2016	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
Trip Blank	09/21/2016	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	--	--
Trip Blank	04/13/2017	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Trip Blank	06/01/2017	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Trip Blank	08/16/2017	--	--	--	--	<0.010	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	--
Trip Blank	11/10/2017	--	--	--	--	<0.010	--	<0.0005	0.0005 J	<0.0005	<0.0005	--	--

Table 2

Historical Groundwater Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location	Date	TOC ft msl	DTW ft btoc	GWE ft msl	HYDROCARBONS DRO mg/L	HYDROCARBONS GRO mg/L	HYDROCARBONS RRO mg/L	PRIMARY VOCS Benzene mg/L	PRIMARY VOCS Toluene mg/L	PRIMARY VOCS Ethylbenzene mg/L	PRIMARY VOCS Xylene (total) mg/L	PRIMARY VOCS MTBE mg/L	Lead mg/L
ADEC Groundwater Cleanup Levels 2016[a]					**1.5**	**2.2**	**1.1**	**0.0046**	**1.1**	**0.015**	**0.19**	**0.14**	**0.015**

Notes and Abbreviations

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater Elevation

DRO = Diesel Range Organics by Alaska Series Method AK102 , Petroleum Hydrocarbons, Diesel and PEROLEUM HYDROCARBONS (C10-C25) DRO and C10-C28 Petroleum Hydrocarbons, Diesel and C13-C22 Petroleum Hydrocarbons, Diesel

GRO = Gasoline Range Organics by Alaska Series Method AK101 , Petroleum Hydrocarbons (C6-C10)-GRO and Petroleum Hydrocarbons, Gasoline

RRO = Gasoline Range Organics by Alaska Series Method AK103

Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B or SW-E46 8021B

Total Xylenes = Sum of m-, o-, and p-xylenes

MTBE = Methyl Tertiary-Butyl Ether

VOC = Volatile Organic Compounds by EPA Method 524.2

ADEC = Alaska Department of Environmental Conservation

[a] = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)

BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level

ft msl = Feet Above Mean Sea Level

ft btoc = Feet Below Top of Casing

mg/L = Milligrams per liter

J = Estimated Concentration.

-- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

HS = collected via Hydrasleeve

[1] = DRO with Silica Gel cleanup

Table 3

Groundwater PAHs Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location ID	Date Sampled	PAHs							
	Units	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
ADEC Groundwater Cleanup Levels 2016[a]		**0.53**	**0.26**	**0.043**	**0.00012**	**0.000034**	**0.00034**	**0.00026**	**0.00080**
MW-1	06/01/2017	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047
MW-1	08/16/2017	--	--	--	--	--	--	--	--
MW-1	11/10/2017	--	--	--	--	--	--	--	--
MW-2	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049
MW-2	08/16/2017	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.0000096
MW-2	11/10/2017	--	--	--	--	--	--	--	--
MW-3	06/01/2017	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-3	08/16/2017	0.000041 J / 0.000046 J	<0.0000095 / <0.000019	<0.0000095 / 0.000048 J	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097
MW-3	11/10/2017	--	--	--	--	--	--	--	--
MW-4	06/01/2017	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-4	08/16/2017	--	--	--	--	--	--	--	--
MW-4	11/10/2017	--	--	--	--	--	--	--	--
MW-5	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049
MW-5	08/16/2017	--	--	--	--	--	--	--	--
MW-5	11/10/2017	--	--	--	--	--	--	--	--
MW-6	06/01/2017	0.000068	0.000022 J	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047
MW-6	08/16/2017	<0.0000098	0.000012 J	<0.0000098	<0.0000098	<0.0000098	<0.0000098	<0.0000098	<0.0000098
MW-6	11/10/2017	--	--	--	--	--	--	--	--
MW-7	06/01/2017	0.000010 J	<0.000047	<0.000047	<0.000047	<0.000047	0.000011 J	0.000010 J	<0.000047
MW-7	08/16/2017	0.000039 J	<0.0000096	<0.0000096	<0.0000096	<0.0000096	0.000013 J	0.000014 J	<0.0000096
MW-7	11/10/2017	--	--	--	--	--	--	--	--
MW-8	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049
MW-8	08/16/2017	--	--	--	--	--	--	--	--
MW-8	11/10/2017	--	--	--	--	--	--	--	--
MW-9R	06/01/2017	--	--	--	--	--	--	--	--
MW-9R	08/16/2017	--	--	--	--	--	--	--	--
MW-9R	11/10/2017	--	--	--	--	--	--	--	--
MW-10	06/01/2017	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049
MW-10	08/16/2017	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.0000094
MW-10	11/10/2017	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	0.000017 J / 0.000016 J	0.000016 J / 0.000014 J	<0.0000095 / <0.0000097

Table 3

Groundwater PAHs Analytical Results
Chevron-Branded Service Station 95414
5210 Old Seward Highway
Anchorage, AK

Location ID	Date Sampled	PAHs							
	Units	Chrysene mg/L	Dibenz(a,h)anthracene 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
ADEC Groundwater Cleanup Levels 2016[a]		**0.0020**	**0.000034**	**0.26**	**0.29**	**0.00019**	**0.0017**	**0.17**	**0.12**
MW-1	06/01/2017	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	<0.000057	<0.000057	<0.000047
MW-1	08/16/2017	--	--	--	--	--	--	--	--
MW-1	11/10/2017	--	--	--	--	--	--	--	--
MW-2	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000059	<0.000059	<0.000049
MW-2	08/16/2017	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.0000096	<0.000029	<0.000029	<0.0000096
MW-2	11/10/2017	--	--	--	--	--	--	--	--
MW-3	06/01/2017	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000060	<0.000060	<0.000050
MW-3	08/16/2017	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	0.000027 J / 0.000024 J	<0.0000095 / <0.0000097	**0.15 / 0.19**	0.000039 J / <0.000029	<0.0000095 / <0.0000097
MW-3	11/10/2017	--	--	--	--	--	--	--	--
MW-4	06/01/2017	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000060	<0.000060	<0.000050
MW-4	08/16/2017	--	--	--	--	--	--	--	--
MW-4	11/10/2017	--	--	--	--	--	--	--	--
MW-5	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	0.00067	<0.000059	<0.000049
MW-5	08/16/2017	--	--	--	--	--	--	--	--
MW-5	11/10/2017	--	--	--	--	--	--	--	--
MW-6	06/01/2017	<0.000047	<0.000047	<0.000047	0.000037 J	<0.000047	**0.098**	<0.000057	<0.000047
MW-6	08/16/2017	<0.0000098	<0.0000098	<0.0000098	<0.0000098	<0.0000098	<0.00003	<0.00003	<0.0000098
MW-6	11/10/2017	--	--	--	--	--	--	--	--
MW-7	06/01/2017	<0.000047	<0.000047	<0.000047	<0.000047	<0.000047	**0.024**	<0.000057	<0.000047
MW-7	08/16/2017	0.000013 J	<0.0000096	<0.0000096	0.000016 J	<0.0000096	**0.038**	<0.000029	<0.0000096
MW-7	11/10/2017	--	--	--	--	--	--	--	--
MW-8	06/01/2017	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000059	<0.000059	<0.000049
MW-8	08/16/2017	--	--	--	--	--	--	--	--
MW-8	11/10/2017	--	--	--	--	--	--	--	--
MW-9R	06/01/2017	--	--	--	--	--	--	--	--
MW-9R	08/16/2017	--	--	--	--	--	--	--	--
MW-9R	11/10/2017	--	--	--	--	--	--	--	--
MW-10	06/01/2017	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000047/<0.000049	<0.000057/<0.000059	<0.000057/<0.000059	<0.000047/<0.000049
MW-10	08/16/2017	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.0000094	<0.000028	<0.000028	<0.0000094
MW-10	11/10/2017	<0.0000095 / <0.0000097	<0.0000095 / <0.0000097	0.000010 J / <0.0000097	<0.0000095 / <0.0000097	0.000011 J / 0.000010 J	<0.000028 / <0.000029	<0.000028 / <0.000029	<0.0000095 / <0.0000097

Notes and Abbreviations

PAHs = Poly Aromatic Hydrocarbons, including Acenaphthene , Anthracene , Acenaphthylene , 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 , Naphthalene , Phenanthrene , Pyrene by Method SW8270

ADEC = Alaska Department of Environmental Conservation

[a] = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)

BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level

ft msl = Feet Above Mean Sea Level

ft btoc = Feet Below Top of Casing

mg/L = Milligrams per liter

J = Estimated Concentration.

-- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

Appendix A
Site Photographs

1. Site overview, looking southeast

2. Offsite well MW-8

3. Offsite well MW-7

4. Offsite well MW-5 damaged; installed new well cap.

Appendix B
Human Health Conceptual Site Model Scoping and Graphics Forms

Print Form

Appendix A - Human Health Conceptual Site Model Scoping Form and Standardized Graphic

Site Name: Chevron 95414

File Number: 2100.26.062

Completed by: Siobhan Pritchard

Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, summary text about the CSM and a graphic depicting exposure pathways should be submitted with the site characterization work plan and updated as needed in later reports.

General Instructions: Follow the italicized instructions in each section below.

1. General Information:

Sources *(check potential sources at the site)*

- ☒ USTs
- ☐ ASTs
- ☒ Dispensers/fuel loading racks
- ☐ Drums
- ☐ Vehicles
- ☐ Landfills
- ☐ Transformers
- ☐ Other:

Release Mechanisms *(check potential release mechanisms at the site)*

- ☐ Spills
- ☒ Leaks
- ☐ Direct discharge
- ☐ Burning
- ☐ Other:

Impacted Media *(check potentially-impacted media at the site)*

- ☐ Surface soil (0-2 feet bgs*)
- ☒ Subsurface soil (>2 feet bgs)
- ☐ Air
- ☐ Sediment
- ☐ Groundwater
- ☐ Surface water
- ☐ Biota
- ☐ Other:

Receptors *(check receptors that could be affected by contamination at the site)*

- ☒ Residents (adult or child)
- ☒ Commercial or industrial worker
- ☒ Construction worker
- ☐ Subsistence harvester (i.e. gathers wild foods)
- ☐ Subsistence consumer (i.e. eats wild foods)
- ☒ Site visitor
- ☒ Trespasser
- ☒ Recreational user
- ☐ Farmer
- ☐ Other:

* bgs - below ground surface

2. Exposure Pathways: *(The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)*

a) Direct Contact -

1. Incidental Soil Ingestion

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site-specific basis.) ☒

If the box is checked, label this pathway complete: Complete

Comments:

2. Dermal Absorption of Contaminants from Soil

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.) ☒

Can the soil contaminants permeate the skin (see Appendix B in the guidance document)? ☐

If both boxes are checked, label this pathway complete: Incomplete

Comments:

b) Ingestion -

1. Ingestion of Groundwater

Have contaminants been detected or are they expected to be detected in the groundwater, or are contaminants expected to migrate to groundwater in the future? ☒

Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if DEC has determined the ground-water is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350. ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

2. Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water, or are contaminants expected to migrate to surface water in the future? ☒

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities). ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

3. Ingestion of Wild and Farmed Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild or farmed foods? ☐

Do the site contaminants have the potential to bioaccumulate (see Appendix C in the guidance document)? ☐

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. soil within the root zone for plants or burrowing depth for animals, in groundwater that could be connected to surface water, etc.) ☐

If all of the boxes are checked, label this pathway complete: Incomplete

Comments:

c) Inhalation-

1. Inhalation of Outdoor Air

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site specific basis.) ☒

Are the contaminants in soil volatile (see Appendix D in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

2. Inhalation of Indoor Air

Are occupied buildings on the site or reasonably expected to be occupied or placed on the site in an area that could be affected by contaminant vapors? (within 30 horizontal or vertical feet of petroleum contaminated soil or groundwater; within 100 feet of non-petroleum contaminted soil or groundwater; or subject to "preferential pathways," which promote easy airflow like utility conduits or rock fractures) ☒

Are volatile compounds present in soil or groundwater (see Appendix D in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

3. **Additional Exposure Pathways:** *(Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)*

Dermal Exposure to Contaminants in Groundwater and Surface Water

Dermal exposure to contaminants in groundwater and surface water may be a complete pathway if:

- Climate permits recreational use of waters for swimming.
- Climate permits exposure to groundwater during activities, such as construction.
- Groundwater or surface water is used for household purposes, such as bathing or cleaning.

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are deemed protective of this pathway because dermal absorption is incorporated into the groundwater exposure equation for residential uses.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Inhalation of Volatile Compounds in Tap Water

Inhalation of volatile compounds in tap water may be a complete pathway if:

- The contaminated water is used for indoor household purposes such as showering, laundering, and dish washing.
- The contaminants of concern are volatile (common volatile contaminants are listed in Appendix D in the guidance document.)

DEC groundwater cleanup levels in 18 AAC 75, Table C are protective of this pathway because the inhalation of vapors during normal household activities is incorporated into the groundwater exposure equation.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Inhalation of Fugitive Dust

Inhalation of fugitive dust may be a complete pathway if:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers (Particulate Matter - PM_{10}). Particles of this size are called respirable particles and can reach the pulmonary parts of the lungs when inhaled.

DEC human health soil cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway because the inhalation of particulates is incorporated into the soil exposure equation.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

Direct Contact with Sediment

This pathway involves people's hands being exposed to sediment, such as during some recreational, subsistence, or industrial activity. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if the the contaminants are able to permeate the skin (see Appendix B in the guidance document). This type of exposure should be investigated if:

- Climate permits recreational activities around sediment.
- The community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

Generally, DEC direct contact soil cleanup levels in 18 AAC 75, Table B1, are assumed to be protective of direct contact with sediment.

Check the box if further evaluation of this pathway is needed: ☐

Comments:

4. Other Comments *(Provide other comments as necessary to support the information provided in this form.)*

HUMAN HEALTH CONCEPTUAL SITE MODEL GRAPHIC FORM

Site: Chevron 95414
ADEC File ID: 2100.26.062

Completed By: GHD Services, Inc
Date Completed: 12/11/17

***Instructions*: Follow the numbered directions below. Do not consider contaminant concentrations or engineering/land use controls when describing pathways.**

(1) *Check the media that could be directly affected by the release.*

(2) *For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Check additional media under (1) if the media acts as a secondary source.*

Media	Transport Mechanisms	
☐ Surface Soil (0-2 ft bgs)	☐ Direct release to surface soil	check soil
	☐ Migration to subsurface	check soil
	☐ Migration to groundwater	check groundwater
	☐ Volatilization	check air
	☐ Runoff or erosion	check surface water
	☐ Uptake by plants or animals	check biota
	☐ Other (list):	
☑ Subsurface Soil (2-15 ft bgs)	☐ Direct release to subsurface soil	check soil
	☑ Migration to groundwater	check groundwater
	☑ Volatilization	check air
	☐ Uptake by plants or animals	check biota
	☐ Other (list):	
☑ Ground-water	☐ Direct release to groundwater	check groundwater
	☑ Volatilization	check air
	☑ Flow to surface water body	check surface water
	☐ Flow to sediment	check sediment
	☐ Uptake by plants or animals	check biota
	☐ Other (list):	
☐ Surface Water	☐ Direct release to surface water	check surface water
	☐ Volatilization	check air
	☐ Sedimentation	check sediment
	☐ Uptake by plants or animals	check biota
	☐ Other (list):	
☐ Sediment	☐ Direct release to sediment	check sediment
	☐ Resuspension, runoff, or erosion	check surface water
	☐ Uptake by plants or animals	check biota
	☐ Other (list):	

(3) *Check all exposure media identified in (2).*

(4) *Check all pathways that could be complete. The pathways identified in this column **must** agree with Sections 2 and 3 of the Human Health CSM Scoping Form.*

(5) *Identify the receptors potentially affected by each exposure pathway: Enter "C" for current receptors, "F" for future receptors, "C/F" for both current and future receptors, or "I" for insignificant exposure.*

Current & Future Receptors

Exposure Media	Exposure Pathway/Route	Residents (adults or children)	Commercial or industrial workers	Site visitors, trespassers, or recreational users	Construction workers	Farmers or subsistence harvesters	Subsistence consumers	Other
☑ soil	☑ Incidental Soil Ingestion	F	C/F	C/F	F			
	☐ Dermal Absorption of Contaminants from Soil							
	☐ Inhalation of Fugitive Dust							
☑ groundwater	☑ Ingestion of Groundwater	F	C/F	C/F	F			
	☐ Dermal Absorption of Contaminants in Groundwater							
	☐ Inhalation of Volatile Compounds in Tap Water							
☑ air	☑ Inhalation of Outdoor Air	F	C/F	C/F	F			
	☑ Inhalation of Indoor Air	F	C/F	C/F	F			
	☐ Inhalation of Fugitive Dust							
☑ surface water	☑ Ingestion of Surface Water	F	C/F	C/F	F			
	☐ Dermal Absorption of Contaminants in Surface Water							
	☐ Inhalation of Volatile Compounds in Tap Water							
☐ sediment	☐ Direct Contact with Sediment							
☐ biota	☐ Ingestion of Wild or Farmed Foods							

Revised, 10/01/2010

Appendix C
Monitoring Data Package

DAILY FIELD REPORT

Project Name: 95414	GHD Proj. Mgr: S. PRITCHER	Field Rep: O. YAN / T. WEAVER
Project Number: 062327	Date: 11/10/17	5210 OLD SEWARD HWY ANCHORAGE, AK
Scope of Work: GW SAMPLING / GAUGE WELLS / COLLECT GW.		
Equipment: YSI METER / MP-50, WATER LEVEL & TURBIDITY METER		Weather: CLD ~ HIGH MID-20's.

Time	Activity/Comments	SWA
0850	ARRIVE ONSITE; NOTIFY PM; CONDUCT TAILGATE SAFETY MEETING	
0920	BEGIN GAUGING WELLS	
1037	FINISH GAUGING ALL ON SITE & OFFSITE WELLS	
1048	START MONITORING LF PURGE PARAMETERS @ MW-10	
1120	COLLECT SAMPLES MW-10-W-171110 & DUP-1-W-171110	
1150	START LF PURGE MONITORING @ MW-8, STRONG HYDROCARBON ODOR	
1222	COLLECT SAMPLES MW-8-W-171110 & DUP-2-W-171010	
1239	PACK SAMPLES	
1300	MOB TO AIRPORT TO SHIP SAMPLES	
1330	MOB TO DISCOVERY DRILLING & YYT TO DROP OFF SAMPLING SUPPLIES	
1415	ARRIVE BACK @ OFFICE & UNLOAD TRUCK	

SWA Key:	A: Person or People	B: Equipment	C: Environmental
	D: Procedures/Processes/JSA-review/revise	E: Visitors	

Operational Mileage: Start _____ End _____ Total _____

Groundwater Monitoring Field Sheet

Project Name: 95414 (ADEC File ID: 2100.26.062)
Project Number: 062327
Field Staff: O.Yan / T. Weaver
Date: November 10, 2017

Well ID	Time	DTW (ft - btoc)	DTB (ft-btoc)	DTW (ft-btoc)	Product Thickness (feet)	Amount of Product Removed (feet)	Casing Diameter (inches)	PID (ppm)	Comments
MW-1	0950	6.74	13.75				2"		* gauge only
MW-2	0920	7.56	16.64				2"		* gauge only SOFT BOTTOM
MW-3	0934	7.65	19.54				2"		* gauge only
MW-4	0926	5.34	18.11				2"		* gauge only
MW-5	1005	6.33	15.54				2"		* gauge only
MW-6	0943	7.42	16.37				2"		* gauge only
MW-7	1010	4.63	12.13				2"		* gauge only
MW-8	1037	6.34	12.22				2"		
MW-9R	← INNACCESIBLE						2"		No Access →
MW-10	1024	6.86	12.25				2"		SOFT BOTTOM

GAC Filtered Water Volume: 2.3 gallons

Volume logged on *Portable GAC Volume Tracking Log?* ☑

DTP - depth to product; DTW - depth to water; DTB - depth to bottom; ft-btoc - feet below top of casing ; ppm - parts per million

Groundwater Sampling Form

Project No. 062327 PM Siobhan Pritchard Well ID MW-10 Date 11/10/17 Page 2 of 2

Site ID / Location 95414 / 5210 Old Seward Highway, Anchorage, Alaska (ADEC File ID: 2100.26.062)

Screen Setting (ft-btoc) Unknown Casing Diameter (in.) 2" Well Material x PVC SS

Sampled by O. Yan, T. Weaver

Static Water Level (ft-btoc) 6.86 Total Depth (ft-btoc) 12.25 Water Column / Gallons in Well 5.39 / 0.86

Sample ID MW-10-W-171110 Dup ID DUP-1-W-171110

Sample Time 1120 Start End

No-Purge Method

Sampler Length (in) 36 ☐ 30 ☐ Depth of Sampler (ft-btoc)

Weights Top ☐ Bottom ☐ Position Supended ☐ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☐ No ☐

Low Flow Method

Pump type Bladder ☒ Other ☐ Pump Intake (ft-btoc) 7.42

Flow rate (ml/minute) 120-100 Volumes Purged 1.2

Did well Dewater? Yes ☐ No ☐ Purge Time: Start 1048 End 1114

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1053	5	120	6.96	0.15	5.45	0.195	7.14	2.26	320.8	68.15	CLEAR
1058	10	120	6.98	0.4	5.36	0.193	6.55	1.05	386.4	46.43	" "
1103	15	100	7.03	0.55	4.89	0.193	6.79	0.53	424.5	35.30	" "
1108	20	100	7.19	0.75	4.63	0.191	7.05	0.08	448.4	25.79	" "
1113	25	100	7.21	0.95	4.40	0.188	7.92	0.05	519.5	20.18	" "

Constituents Sampled

		Container	Number	Preservative
BTEX by 8260	☒ 8021 ☐	40 mL voa	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	☒	40 mL voa	3	HCl
DRO by AK 102	☒	250 mL amber	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☒	1 L amber	2	None
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16 (circled); 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Field Test Results:

Ferrous Iron mg/L Nitrate mg/L Other

Well Information

Well Location: ARTIC ROADRUNNER

Condition of Well: GOOD

Well Completion: Flush Mount / Stick Up (circled)

Well Locked at Arrival: Yes (circled) / No

Well Locked at Departure: Yes (circled) / No

Additional Notes

Groundwater Sampling Form

Project No. 062327 PM Siobhan Pritchard Well ID MW-8 Date 11/10/17 Page 1 of 2

Site ID / Location 95414 / 5210 Old Seward Highway, Anchorage, Alaska (ADEC File ID: 2100.26.062)

Screen Setting (ft-btoc) Unknown Casing Diameter (in.) 2" Well Material x PVC SS Sampled by O. Yan, T. Weaver

Sample ID MW-8-W-171110

Static Water Level (ft-btoc) 6.34 Total Depth (ft-btoc) 12.22 Water Column / Gallons in Well 5.88 / 0.94 Dup ID DUP-2-W-171110

Sample Time 1222 Start End

No-Purge Method

Sampler Length (in) 36 ☐ 30 ☐ Depth of Sampler (ft-btoc)

Weights Top ☐ Bottom ☐ Position Suspended ☐ Bottom set ☐

Was Teflon Baler used to collect non volatile samples Yes ☐ No ☐

Low Flow Method

Pump type Bladder ☒ Other ☐ Pump Intake (ft-btoc) 7.28

Flow rate (ml/minute) 100 Volumes Purged 1.1

Did well Dewater? Yes ☐ No ☒ Purge Time: Start 1150 End 1220

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH 0.1	Redox (mV) 10	Turbidity (NTU)	Additional notes
1155	5	100	6.34	0.1	7.05	0.457	11.64	6.16	-62.2	5.86	CLEAR
1200	10	100	6.35	0.35	6.13	0.461	4.82	6.33	-61.0	3.41	" "
1205	15	100	6.34	0.5	5.65	0.452	3.74	5.73	-16.6	1.85	" "
1210	20	100	6.34	0.65	5.54	0.454	2.15	5.29	-6.0	0.00	" "
1215	25	100	6.74	0.45	5.46	0.455	2.00	5.19	0.2	0.00	" "

Constituents Sampled		Container	Number	Preservative
BTEX by 8260	■ 8021 ☐	40 mL voa	3	HCl
HVOCs by 8260	☐			
GRO by AK 101	■	40 mL voa	3	HCl
DRO by AK 102	■	250 mL amber	2	HCl
RRO by AK 103	☐			
Lead by 6010	☐			
PAHs by 8270	☐			
Alkalinity by 2320B	☐			
Methane by RSK175	☐			
Sulfate by EPA 300	☐			
Nitrate/Nitrite by EPA 300	☐			
Ferrous Iron	☐			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16 (circled); 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Field Test Results:

Ferrous Iron mg/L Nitrate mg/L Other

Well Information

Well Location: ARTIC ROADRUNNER

Condition of Well: GOOD

Well Completion: ~~Flush Mount~~ / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Additional Notes

STRONG HYDROCARBON ODOR

Chevron Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only
Acct. # ______________ Group # ______________ Sample # ______________
Instructions on reverse side correspond with circled numbers.

SCR #: ______________

(1) Client Information

Facility # CHEVRON 95419 — WBS 08.02

Site Address: 520 OLD SEWARD HWY, ANCHORAGE, AK

Chevron PM: DAN CARRIER — Lead Consultant: GHD SERVICES, INC

Consultant/Office: ANCHORAGE, AK

Consultant Project Mgr.: SIOBHAN PRITCHARD

Consultant Phone #: 720-974-0763

Sampler: T. WEAVER, O. YAN

(4) Matrix

☐ Sediment ☑ Ground ☐ Surface
☐ Soil ☐ Potable ☐ NPDES ☐ Air
Water ☐ Oil

(5) Analyses Requested

BTEX + MTBE ☐ 8021 ☒ 8260 ☒ Naphth; 8260 full scan; Oxygenates; TPH-GRO ☐ 8015 ☒ 8260 (AK-101); TPH-DRO without Silica Gel Cleanup ☐ (AK-102); TPH-DRO with Silica Gel Cleanup ☐; VPH ☐ EPH ☐ Method ____; Lead Total ☐ Diss. ☐ Method ____; PAH's 8270

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021/8260/Naphth	8260 full scan	Oxygenates	TPH-GRO (AK-101)	TPH-DRO without Silica Gel Cleanup (AK-102)	TPH-DRO with Silica Gel Cleanup	VPH/EPH	Lead	PAH's 8270			
MW-8-W-171110	11/10/17	1222	X			X		8	X			X	X							
MW-[illegible]-W-171110	11/10/17	1120	X			X		10	X			X	X				X			
DUP-1-W-171110	11/10/17	—	X			X		2									X			
DUP-2-W-171110	11/10/17	—	X			X		8	X			X	X							
QA-1-W-171110	—	—	TB			TB		2	X			X								

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(6) Remarks

EMAIL RESULTS TO: SIOBHAN.PRITCHARD@GHD.COM

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) — circled; 5 day; 4 day; 72 hour; 48 hour; 24 hour

(8) Data Package (circle if required)

Type I - Full; (Alaska/Type III) — circled; Type VI (Raw Data)

EDD (circle if required): CVX-RTBU-FI_05 (default); Other: ______

(9)

Relinquished by	Date	Time	Received by	Date	Time
[signature]	11/10/17	1305			

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ______ — Received by ______ Date ____ Time ____

Temperature Upon Receipt ________ °C — Custody Seals Intact? Yes No

TTT Environmental

The preferred source for instrument Rentals, Sales, Service, and Supplies!

INSTRUMENT RENTAL FUNCTION/CHECKLIST

Company Name: GHD

Rental Description: I/F probe - 100 FT

Sales Order #: 172862

Serial #: 6451

Item Description	Qty	Checked Out?	Checked In?	Damaged / Missing?
Interface Probe	1	1		
Cushioned carrying case	1	//		
Spare Battery (9V)	1 or 2	//		
Optional		✓		
Operators manual				
Tape guide				

Instrument Function Test / Inspection (Correct all deficiencies)	✓	Pre-rental Check-out	Post-rental Check-in ("No's" may be customer charge)	
Soft sided case clean (inside and out) and in good condition with proper length, size, and meter type properly marked:	/		Yes	No
TTT property tag and s/n# in place on front of meter:	/			
Meter front and rear spools are in good condition:	/		Yes	No
Spool properly secured to frame and spool brake functional:	/		Yes	No
Meter sits flat, frame not bent, and probe holder in place:	/		Yes	No
Probe not bent, probe bottom in good condition, and tape connection at top of probe in good condition when flexed:	/		Yes	No
Meter battery cover, buttons, and knobs in place, tight, and in good condition:	/		Yes	No
Red LED and buzzer works properly when "Start" button pressed (indicates good batteries). When applicable, Green LED stays flashing until "off is pressed":	/	Yes	Yes	No
Probe buzzes properly when placed in water:	/	Yes	Yes	No
Meter provides different tone when passed from Oil to water..transition is clear & precise going both directions:	/			
Spare batteries test good, white tape over contacts and placed in resealable bag in front pocket of meter bag:	/			

Signature (Check-out): [signature]

Signature (Check-in): [signature]

Declared Value: $1,350

* By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).
* Notify TTT within 24hrs of receipt if anything is damaged or missing.
* Customer is responsible for all parts and equipment damaged or missing during rental.
* All instruments have been inspected and calibrated (when applicable) prior to rental.

Phone: (907) 770-9041 **Fax: (907) 770-9046** **Email: info@tttenviro.com** **www.tttenviro.com**

TTT Environmental

The preferred source for instrument Rentals, Sales, Service, and Supplies!

CALIBRATION/INSPECTION REPORT

Calibration Date: 11/8/2017
Report Date (check-out): 11/8/2017

Company Name: GHD
Rental Description: YSI 556

S/O #: S172862
Serial #: 556-05.D2373AR

CALIBRATION*

Sensor	Zero Value	Calibration*			
		Desired reading	Instrument reading	mV	Slope/Gain
Spec. Conductivity/Cond.	na	1.413 @25 C	1.413 @ 18.40 C	1.413/1235	0.992
pH	na	7.000 @25 C	7.02 @ 18.68 C	11.7	
pH	na	4.01 @25 C	4.00 @ 18.90 C	178.1	166
pH	na	10.000 @25 C	10.05 @ 19.12 C	-164.6	176
ORP	na	220mV @25 C	240 @ 19.22 C	9.1	
D.O.	na	100% @25 C	100.6 % 18.82 C	BP=30.13	0.801
			9.37 Mg/L		

* Calibrated per manufacturer specifications

CALIBRATION SOLUTION INFORMATION

Components	Conc.	Lot #	Manuf.	Accuracy	Fill Date	Exp. Date
Specific Conductivity	100%	RW1	OAKTON	-	na	12/1/2017
pH	7.00	13C2S	YSI	+/- 0.01	na	2/1/2018
pH	4.01@25C	13B3R	YSI	+/- 0.01	na	4/1/2019
pH	10.00@25C	13B3T	YSI	+/- 0.01	na	12/1/2017
ORP	220mV	4118	Hanna	-	na	3/1/2019

Calibrated by: Steve Ziegler

Signature:

INSTRUMENT INSPECTION

Item	Pre-rental Check-out	Post-rental Check-in ("Damaged" or "No" may indicate customer charge)
Inspect all instrument components for cracks, damage, etc:		No Damage Damaged
Meter (battery cover screws) & cable?:		No Damage Damaged
Cable is plugged into handheld?:	Yes	Yes No
Instrument powers on/off properly?:	Yes	Yes No
Battery power bar (lower right hand corner) shows at least 30%?:	Yes	
Display/LCD contrast is correct and no black streaks in LCD screen exist?:	Yes	Yes No
All display readings are positive (excluding pHmV & ORP)?:	Yes	Yes No
Probe inspection?:		No Damage Damaged
Probe transport cup is attached & contains 1/4" tap water or pH 4 buffer?:	Yes	Yes No
Calibrated within the last 10 days?:	Yes	
Rental checklist completed?:	Yes	Yes

Comments:

Signature (Check-out):

Signature (Check-in):

Phone: (907) 770-9041 **Fax: (907) 770-9046** **Email: info@tttenviro.com** **www.tttenviro.com**

TTT Environmental

The preferred source for instrument Rentals, Sales, Service, and Supplies!

INSTRUMENT RENTAL FUNCTION/CHECKLIST

Company Name: GHD

Rental Description: YSI 556

S/O #: 5172862

Serial #: 23T3AR

Item Description	Checked Out?	Checked In?	Damaged / Missing?
556 Multi parameter meter with barometer	✓		
Wrist strap	/		
4 meter probe assembly w/ pH/ORP, cond./temp, & DO	/		
Pelican carrying case	/		
556 Quick-start Guide & CD in ziploc bag	/		
YSI 5511 Maintenance kit (including the following):	/		
Probe installation/removal tool	/		
DO sensor set screw	/		
Allen wrench for DO sensor set screw	/		
DO sensor port plug	/		
Conductivity probe cleaning brush	/		
O-Rings for DO sensor	/		
2 - Replacement Flow cell O-ring	/		
DO membrane kit (w/**2 replacement caps & instructions**)	/		
DO membrane solution (at least 1/4 full)	/		
Probe Sensor Guard	/		
Transport/Calibration cup	/		
Stainless Steel sampling cup	/		
Optional:			
Flow cell (including the following):	X		
2 each hose barbs: 3/16", 1/4", 3/8", 1/2"			
Optional - 2 each YSI body couplings			
Both upper and lower o-rings in place on flow cell			

Instrument Function Test / Inspection (Correct all deficiencies)	
Pelican case general condition, rubber seal, TTT label, & foam in place and in good condition:	Yes
TTT property tag in place on top of instrument:	Yes
Instrument display face plate in good condition (only minor scratches and smears); And backlight functions properly:	Yes
Date and Time set correctly (Esc/system setup/date & time):	Yes
Shutoff time set to 60 min. (Esc/system setup/shut off time):	Yes
All data deleted (Esc/file/delete all files/delete):	Yes
Battery power bar (lower right hand corner) shows at least 30%:	Yes

Signature (Check-out): _____ Signature (Check-in): _____

Declared Value: $3,700

* By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).
* Customer is responsible for all parts and equipment damaged or missing during rental.
* All instruments have been inspected and calibrated (when applicable) prior to rental.
* TTT suggests calibrating/bump testing instruments prior to each days use.

Phone: (907) 770-9041 **Fax: (907) 770-9046** **Email: info@tttenviro.com** **www.tttenviro.com**

Appendix D
Laboratory Analytical Report

eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Report Date: November 29, 2017 23:28

Project: 95414

Account #: 10880
Group Number: 1874606
SDG: AKC19
PO Number: 0015239580
Release Number: CARRIER
State of Sample Origin: AK

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	GHD	Attn: GHD EDF
Electronic Copy To	GHD	Attn: Siobhan Pritchard
Electronic Copy To	GHD	Attn: Sarah Gillette
Electronic Copy To	GHD	Attn: Jeffrey Cloud
Electronic Copy To	Chevron	Attn: GHD EDD

Respectfully Submitted,

Megan A. Moeller
Senior Specialist

(717) 556-7261

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
MW-8-W-171110 Grab Groundwater	11/10/2017 12:22	9314717
MW-10-W-171110 Grab Groundwater	11/10/2017 11:20	9314718
DUP-1-WD-171110 Grab Groundwater	11/10/2017	9314719
DUP-2-WD-171110 Grab Groundwater	11/10/2017	9314720
QA-1-T-171110 Water	11/10/2017	9314721

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-6766 • www.EurofinsUS.com/LancLabsEnv

Project Name: 95414
ELLE Group #: 1874606

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

For dual column analyses, the surrogate (for multi-surrogate tests, at least one surrogate) must be within the acceptance limits on at least one of the two columns.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

No additional comments are necessary.

Sample Description: **MW-8-W-171110 Grab Groundwater**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017 12:22
SDG#: AKC19-01

ChevronTexaco
ELLE Sample #: WW 9314717
ELLE Group #: 1874606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/l**	**mg/l**	**mg/l**	
10945	Benzene	71-43-2	0.017	0.0005	0.001	1
10945	Ethylbenzene	100-41-4	0.015	0.0005	0.001	1
10945	Toluene	108-88-3	0.001	0.0005	0.001	1
10945	Xylene (Total)	1330-20-7	0.026	0.0005	0.001	1
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	1.6	0.010	0.10	1
GC Petroleum Hydrocarbons	**AK 102-SV 4/8/02**		**mg/l**	**mg/l**	**mg/l**	
13025	DRO C10-C25	n.a.	0.43	0.050	0.25	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX 8260B Water	SW-846 8260B	1	Z173201AA	11/16/2017 14:58	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z173201AA	11/16/2017 14:58	Anthony H Downey	1
01438	TPH-GRO AK water C6-C10	AK 101	1	17323A53A	11/19/2017 17:43	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	17323A53A	11/19/2017 17:43	Marie D Beamenderfer	1
13025	AK 102-SV DRO	AK 102-SV 4/8/02	1	173220017A	11/21/2017 03:37	Tyler O Griffin	1
13027	Mini-Ext. AK 102-SV DRO	AK 102/AK 103 04/08/02	1	173220017A	11/20/2017 12:30	Bradley W VanLeuven	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10-W-171110 Grab Groundwater**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

ChevronTexaco
ELLE Sample #: WW 9314718
ELLE Group #: 1874606
Matrix: Groundwater

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017 11:20
SDG#: AKC19-02

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/l**	**mg/l**	**mg/l**	
10945	Benzene	71-43-2	N.D.	0.0005	0.001	1
10945	Ethylbenzene	100-41-4	N.D.	0.0005	0.001	1
10945	Toluene	108-88-3	N.D.	0.0005	0.001	1
10945	Xylene (Total)	1330-20-7	N.D.	0.0005	0.001	1
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/l**	**mg/l**	**mg/l**	
12971	Acenaphthene	83-32-9	N.D.	0.0000095	0.000047	1
12971	Acenaphthylene	208-96-8	N.D.	0.0000095	0.000047	1
12971	Anthracene	120-12-7	N.D.	0.0000095	0.000047	1
12971	Benzo(a)anthracene	56-55-3	N.D.	0.0000095	0.000047	1
12971	Benzo(a)pyrene	50-32-8	N.D.	0.0000095	0.000047	1
12971	Benzo(b)fluoranthene	205-99-2	0.000017 J	0.0000095	0.000047	1
12971	Benzo(g,h,i)perylene	191-24-2	0.000016 J	0.0000095	0.000047	1
12971	Benzo(k)fluoranthene	207-08-9	N.D.	0.0000095	0.000047	1
12971	Chrysene	218-01-9	N.D.	0.0000095	0.000047	1
12971	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0000095	0.000047	1
12971	Fluoranthene	206-44-0	0.000010 J	0.0000095	0.000047	1
12971	Fluorene	86-73-7	N.D.	0.0000095	0.000047	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.000011 J	0.0000095	0.000047	1
12971	Naphthalene	91-20-3	N.D.	0.000028	0.000057	1
12971	Phenanthrene	85-01-8	N.D.	0.000028	0.000057	1
12971	Pyrene	129-00-0	N.D.	0.0000095	0.000047	1
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	N.D.	0.010	0.10	1
GC Petroleum Hydrocarbons	**AK 102-SV 4/8/02**		**mg/l**	**mg/l**	**mg/l**	
13025	DRO C10-C25	n.a.	0.15 J	0.051	0.25	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX 8260B Water	SW-846 8260B	1	Z173201AA	11/16/2017 15:22	Anthony H Downey	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10-W-171110 Grab Groundwater**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017 11:20
SDG#: AKC19-02

ChevronTexaco
ELLE Sample #: WW 9314718
ELLE Group #: 1874606
Matrix: Groundwater

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z173201AA	11/16/2017 15:22	Anthony H Downey	1
12971	SIM SVOAs 8270D, water	SW-846 8270D SIM	1	17319WAR026	11/23/2017 03:39	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	17319WAR026	11/16/2017 17:10	Shawn J McMullen	1
01438	TPH-GRO AK water C6-C10	AK 101	1	17323A53A	11/19/2017 18:10	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	17323A53A	11/19/2017 18:10	Marie D Beamenderfer	1
13025	AK 102-SV DRO	AK 102-SV 4/8/02	1	173220017A	11/21/2017 04:01	Tyler O Griffin	1
13027	Mini-Ext. AK 102-SV DRO	AK 102/AK 103 04/08/02	1	173220017A	11/20/2017 12:30	Bradley W VanLeuven	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-1-WD-171110 Grab Groundwater**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017
SDG#: AKC19-03FD

ChevronTexaco
ELLE Sample #: WW 9314719
ELLE Group #: 1874606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D SIM**		**mg/l**	**mg/l**	**mg/l**	
12971	Acenaphthene	83-32-9	N.D.	0.0000097	0.000048	1
12971	Acenaphthylene	208-96-8	N.D.	0.0000097	0.000048	1
12971	Anthracene	120-12-7	N.D.	0.0000097	0.000048	1
12971	Benzo(a)anthracene	56-55-3	N.D.	0.0000097	0.000048	1
12971	Benzo(a)pyrene	50-32-8	N.D.	0.0000097	0.000048	1
12971	Benzo(b)fluoranthene	205-99-2	0.000016 J	0.0000097	0.000048	1
12971	Benzo(g,h,i)perylene	191-24-2	0.000014 J	0.0000097	0.000048	1
12971	Benzo(k)fluoranthene	207-08-9	N.D.	0.0000097	0.000048	1
12971	Chrysene	218-01-9	N.D.	0.0000097	0.000048	1
12971	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0000097	0.000048	1
12971	Fluoranthene	206-44-0	N.D.	0.0000097	0.000048	1
12971	Fluorene	86-73-7	N.D.	0.0000097	0.000048	1
12971	Indeno(1,2,3-cd)pyrene	193-39-5	0.000010 J	0.0000097	0.000048	1
12971	Naphthalene	91-20-3	N.D.	0.000029	0.000058	1
12971	Phenanthrene	85-01-8	N.D.	0.000029	0.000058	1
12971	Pyrene	129-00-0	N.D.	0.0000097	0.000048	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12971	SIM SVOAs 8270D, water	SW-846 8270D SIM	1	17319WAR026	11/23/2017 04:08	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	17319WAR026	11/16/2017 17:10	Shawn J McMullen	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-2-WD-171110 Grab Groundwater**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017
SDG#: AKC19-04FD

ChevronTexaco
ELLE Sample #: WW 9314720
ELLE Group #: 1874606
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/l**	**mg/l**	**mg/l**	
10945	Benzene	71-43-2	0.018	0.0005	0.001	1
10945	Ethylbenzene	100-41-4	0.016	0.0005	0.001	1
10945	Toluene	108-88-3	0.001	0.0005	0.001	1
10945	Xylene (Total)	1330-20-7	0.027	0.0005	0.001	1
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	1.5	0.010	0.10	1
GC Petroleum Hydrocarbons	**AK 102-SV 4/8/02**		**mg/l**	**mg/l**	**mg/l**	
13025	DRO C10-C25	n.a.	0.46	0.053	0.27	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX 8260B Water	SW-846 8260B	1	Z173201AA	11/16/2017 15:47	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z173201AA	11/16/2017 15:47	Anthony H Downey	1
01438	TPH-GRO AK water C6-C10	AK 101	1	17323A53A	11/19/2017 18:38	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	17323A53A	11/19/2017 18:38	Marie D Beamenderfer	1
13025	AK 102-SV DRO	AK 102-SV 4/8/02	1	173220017A	11/21/2017 04:25	Tyler O Griffin	1
13027	Mini-Ext. AK 102-SV DRO	AK 102/AK 103 04/08/02	1	173220017A	11/20/2017 12:30	Bradley W VanLeuven	1

*=This limit was used in the evaluation of the final result

Sample Description: **QA-1-T-171110 Water**
Facility# 95414
5210 Old Seward Hwy - Anchorage, AK

ChevronTexaco
ELLE Sample #: WW 9314721
ELLE Group #: 1874606
Matrix: Water

Project Name: **95414**

Submittal Date/Time: 11/13/2017 10:05
Collection Date/Time: 11/10/2017
SDG#: AKC19-05TB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/l**	**mg/l**	**mg/l**	
10945	Benzene	71-43-2	N.D.	0.0005	0.001	1
10945	Ethylbenzene	100-41-4	N.D.	0.0005	0.001	1
10945	Toluene	108-88-3	0.0005 J	0.0005	0.001	1
10945	Xylene (Total)	1330-20-7	N.D.	0.0005	0.001	1
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	N.D.	0.010	0.10	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX 8260B Water	SW-846 8260B	1	Z173201AA	11/16/2017 12:09	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z173201AA	11/16/2017 12:09	Anthony H Downey	1
01438	TPH-GRO AK water C6-C10	AK 101	1	17323A53A	11/19/2017 15:24	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	17323A53A	11/19/2017 15:24	Marie D Beamenderfer	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ChevronTexaco
Reported: 11/29/2017 23:28

Group Number: 1874606

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: Z173201AA	Sample number(s): 9314717-9314718,9314720-9314721		
Benzene	N.D.	0.0005	0.001
Ethylbenzene	N.D.	0.0005	0.001
Toluene	N.D.	0.0005	0.001
Xylene (Total)	N.D.	0.0005	0.001
Batch number: 17319WAR026	Sample number(s): 9314718-9314719		
Acenaphthene	N.D.	0.000010	0.000050
Acenaphthylene	N.D.	0.000010	0.000050
Anthracene	N.D.	0.000010	0.000050
Benzo(a)anthracene	N.D.	0.000010	0.000050
Benzo(a)pyrene	N.D.	0.000010	0.000050
Benzo(b)fluoranthene	N.D.	0.000010	0.000050
Benzo(g,h,i)perylene	N.D.	0.000010	0.000050
Benzo(k)fluoranthene	N.D.	0.000010	0.000050
Chrysene	N.D.	0.000010	0.000050
Dibenz(a,h)anthracene	N.D.	0.000010	0.000050
Fluoranthene	N.D.	0.000010	0.000050
Fluorene	N.D.	0.000010	0.000050
Indeno(1,2,3-cd)pyrene	N.D.	0.000010	0.000050
Naphthalene	N.D.	0.000030	0.000060
Phenanthrene	N.D.	0.000030	0.000060
Pyrene	N.D.	0.000010	0.000050
Batch number: 17323A53A	Sample number(s): 9314717-9314718,9314720-9314721		
TPH-GRO AK water C6-C10	N.D.	0.010	0.10
Batch number: 173220017A	Sample number(s): 9314717-9314718,9314720		
DRO C10-C25	N.D.	0.050	0.25

LCS/LCSD

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z173201AA	Sample number(s): 9314717-9314718,9314720-9314721								
Benzene	0.0200	0.0193			96		78-120		
Ethylbenzene	0.0200	0.0196			98		78-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 11/29/2017 23:28

Group Number: 1874606

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Toluene	0.0200	0.0195			98		80-120		
Xylene (Total)	0.0600	0.0603			100		80-120		
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17319WAR026	Sample number(s): 9314718-9314719								
Acenaphthene	0.00100	0.00101	0.00100	0.00103	101	103	62-127	2	30
Acenaphthylene	0.00100	0.000713	0.00100	0.000726	71	73	48-105	2	30
Anthracene	0.00100	0.000797	0.00100	0.000771	80	77	60-112	3	30
Benzo(a)anthracene	0.00100	0.000990	0.00100	0.00101	99	101	62-122	2	30
Benzo(a)pyrene	0.00100	0.000929	0.00100	0.000945	93	94	60-114	2	30
Benzo(b)fluoranthene	0.00100	0.00107	0.00100	0.00108	107	108	59-126	1	30
Benzo(g,h,i)perylene	0.00100	0.000908	0.00100	0.000927	91	93	58-118	2	30
Benzo(k)fluoranthene	0.00100	0.000917	0.00100	0.000928	92	93	63-117	1	30
Chrysene	0.00100	0.000896	0.00100	0.000898	90	90	63-116	0	30
Dibenz(a,h)anthracene	0.00100	0.000967	0.00100	0.000983	97	98	65-119	2	30
Fluoranthene	0.00100	0.000935	0.00100	0.000899	94	90	60-115	4	30
Fluorene	0.00100	0.000844	0.00100	0.000860	84	86	57-118	2	30
Indeno(1,2,3-cd)pyrene	0.00100	0.000934	0.00100	0.000951	93	95	64-115	2	30
Naphthalene	0.00100	0.000806	0.00100	0.000847	81	85	47-110	5	30
Phenanthrene	0.00100	0.000961	0.00100	0.000963	96	96	59-113	0	30
Pyrene	0.00100	0.000919	0.00100	0.000910	92	91	59-119	1	30
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 17323A53A	Sample number(s): 9314717-9314718,9314720-9314721								
TPH-GRO AK water C6-C10	1.10	1.13	1.10	1.14	103	104	60-120	1	20
	mg/l	**mg/l**	**mg/l**	**mg/l**					
Batch number: 173220017A	Sample number(s): 9314717-9314718,9314720								
DRO C10-C25	4.00	3.16	4.00	3.25	79	81	75-125	3	20

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: Z173201AA	Sample number(s): 9314717-9314718,9314720-9314721 UNSPK: P314656									
Benzene	N.D.	0.0200	0.0217	0.0200	0.0212	108	106	78-120	2	30
Ethylbenzene	N.D.	0.0200	0.0223	0.0200	0.0221	111	110	78-120	1	30
Toluene	N.D.	0.0200	0.0222	0.0200	0.0220	111	110	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 11/29/2017 23:28

Group Number: 1874606

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Xylene (Total)	N.D.	0.0600	0.0690	0.0600	0.0688	115	115	80-120	0	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: BTEX 8260B Water
Batch number: Z173201AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9314717	101	96	101	101
9314718	105	99	100	96
9314720	100	95	102	102
9314721	105	99	100	98
Blank	103	98	101	97
LCS	100	97	102	104
MS	101	98	101	104
MSD	101	98	101	104
Limits:	80-120	80-120	80-120	80-120

Analysis Name: SIM SVOAs 8270D, water
Batch number: 17319WAR026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9314718	95	90	87
9314719	89	86	84
Blank	90	87	76
LCS	91	94	90
LCSD	87	95	95
Limits:	42-119	39-121	29-123

Analysis Name: TPH-GRO AK water C6-C10
Batch number: 17323A53A

	Trifluorotoluene-F
9314717	109
9314718	96
9314720	108

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 11/29/2017 23:28

Group Number: 1874606

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: TPH-GRO AK water C6-C10
Batch number: 17323A53A

	Trifluorotoluene-F
9314721	94
Blank	100
LCS	108
LCSD	109
Limits:	60-120

Analysis Name: AK 102-SV DRO
Batch number: 173220017A

	Orthoterphenyl
9314717	89
9314718	78
9314720	78
Blank	84
LCS	84
LCSD	82
Limits:	50-150

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Chevron Generic Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 10880

For Eurofins Lancaster Laboratories Environmental use only
Group # 1874606 Sample # 9319717-21
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility #	WBS
CHEVRON 95419	08.02
Site Address	
5210 OLD SEWARD HWY, ANCHORAGE AK	
Chevron PM	Lead Consultant
DAN CARRIER	GHD SERVICES, INC
Consultant/Office	
ANCHORAGE, AK	
Consultant Project Mgr.	
SIOBHAN PRITCHARD	
Consultant Phone #	
720-974-0963	
Sampler	
T. WEAVER, O. YAN	

4 Matrix

Soil ☐ Sediment ☐ | Water ☑ Ground ☐ Potable ☐ NPDES ☐ Surface | Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☒	8260 full scan	Oxygenates ____	TPH-GRO 8015 ☐ 8260 ☒ AK-101	TPH-DRO without Silica Gel Cleanup ☐ AK-102	TPH-DRO with Silica Gel Cleanup ☐	VPH ☐ EPH ☐ Method ____	Lead Total ☐ Diss. ☐ Method ____	PAH's 8270
MW-8-W-171110	11/10/17	1222	X			X		8	X			X	X				
MW-10-W-171110	11/10/17	1120	X			X		10	X			X	X				X
DUP-1-W-171110	11/10/17	—	X			X		2									X
DUP-2-W-171110	11/10/17	—	X			X		8	X			X	X				
QA-1-W-171110	—	—	TB			TD		2	X			X					

6 Remarks

EMAIL RESULTS TO:

SIOBHAN.PRITCHARD@GHD.COM

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full | (Alaska/Type III) | Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time (9)
Tim Weaver	11/10/17	1305			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature Upon Receipt 4.6 °C

Received by: Date 11/11/17 Time 1005

Custody Seals Intact? (Yes) No

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 200810

Group Number(s): 1874606

Client: Chevron

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	11/11/2017 10:05
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	AK		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Simon Nies (25112) at 17:06 on 11/11/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	4.6	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	non-detect
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

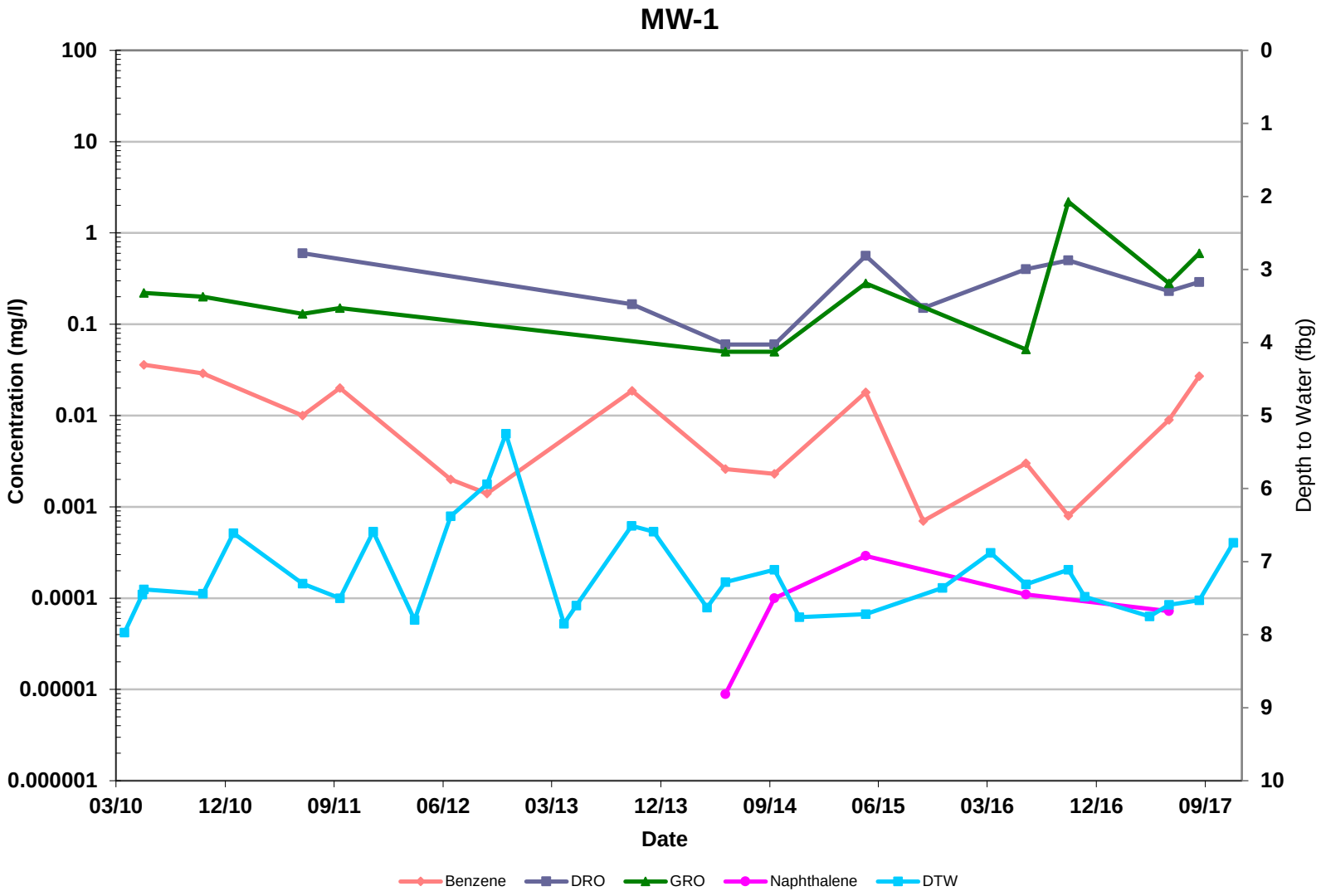
eurofins | Lancaster Laboratories Environmental

Data Qualifiers

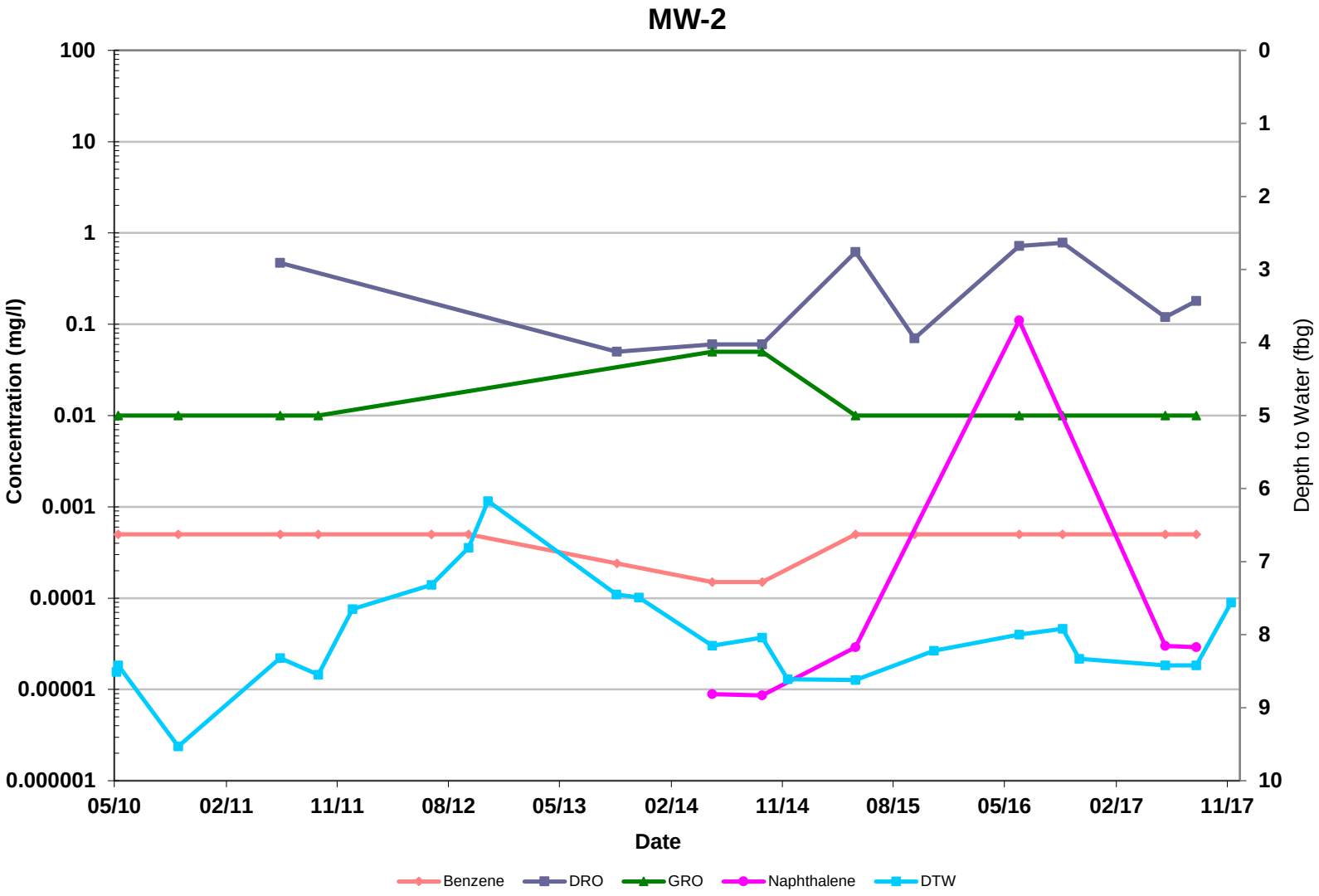
Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Appendix E
Petroleum Hydrocarbon Concentration Graphs

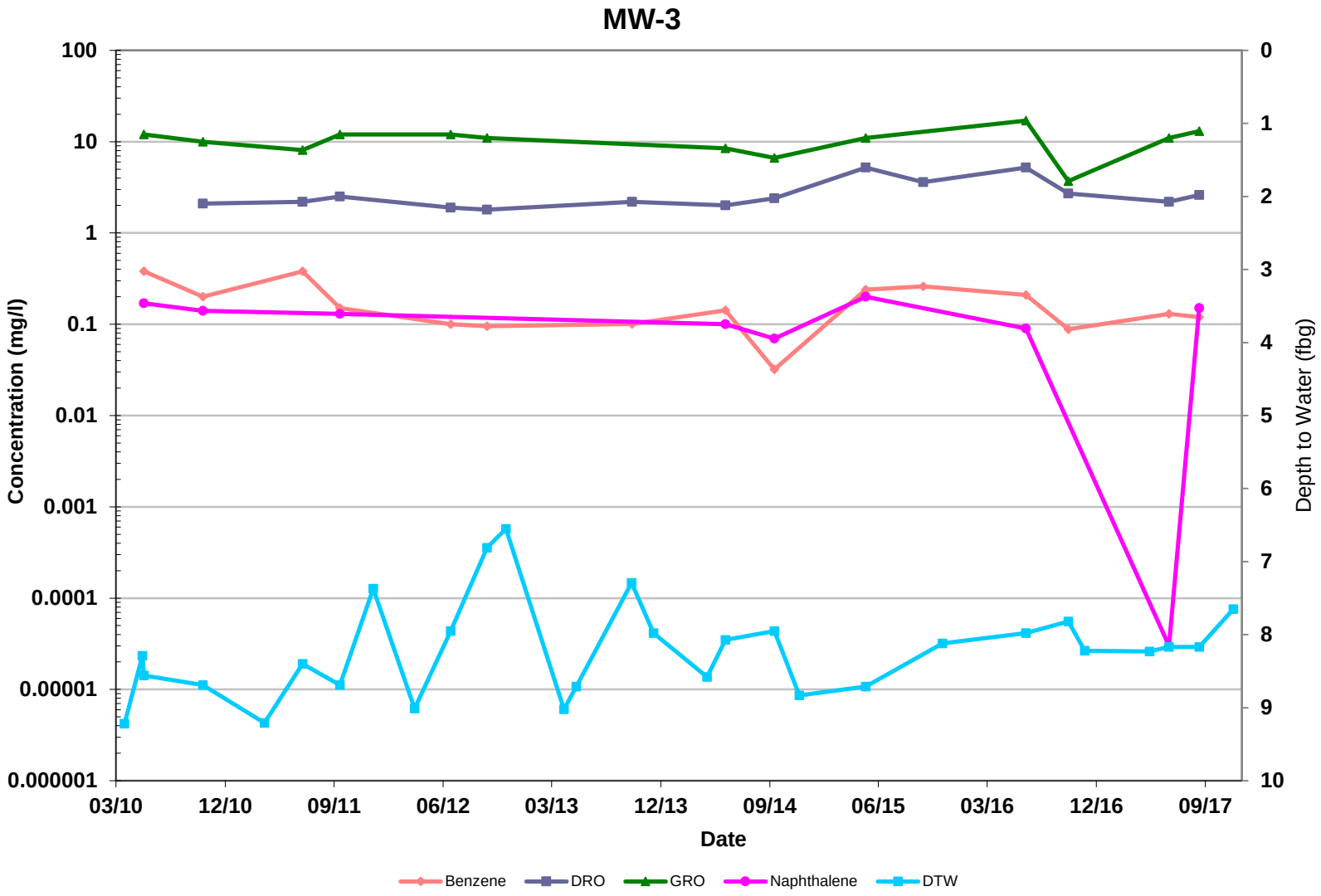


Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

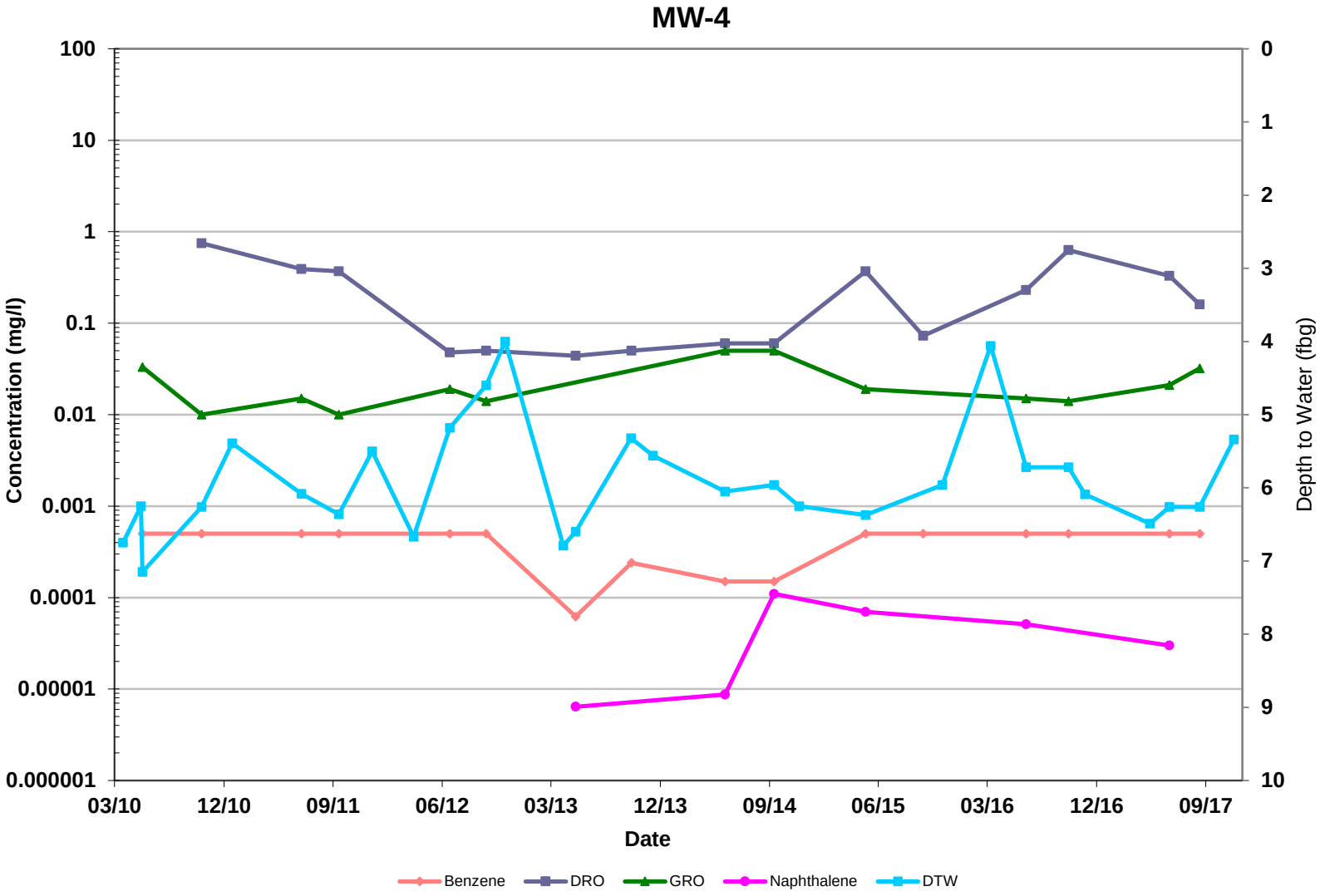


GHD

Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

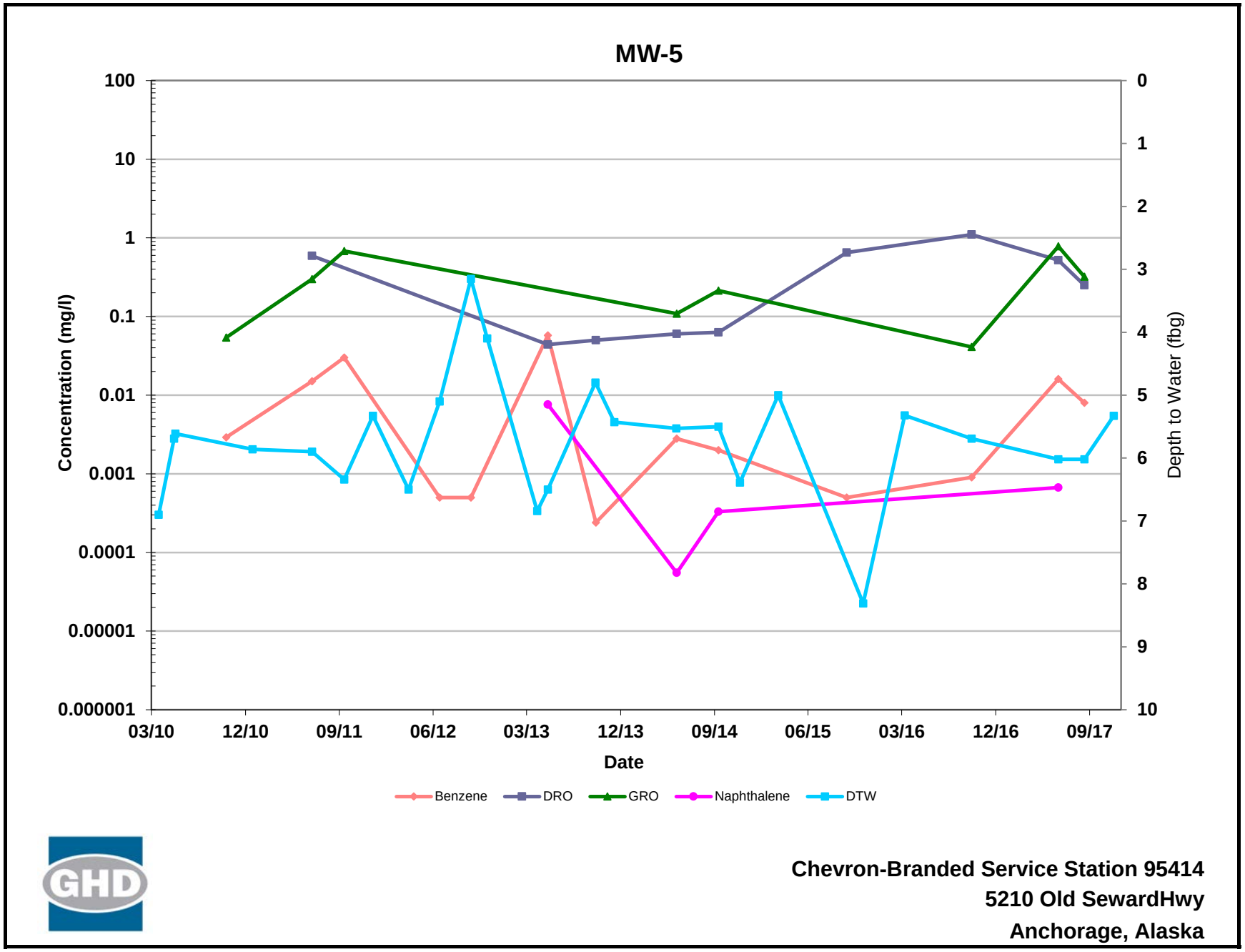


Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

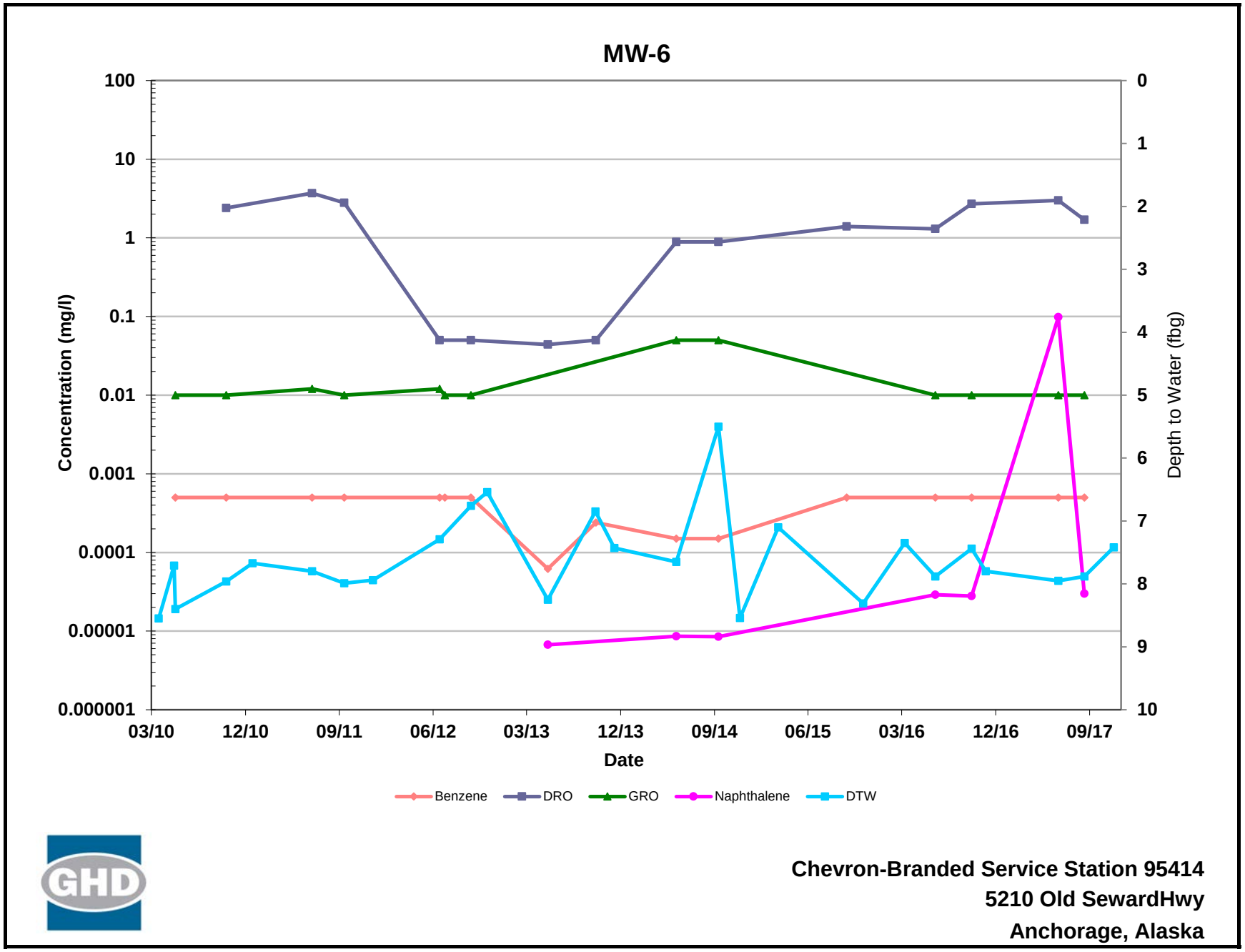


GHD

Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

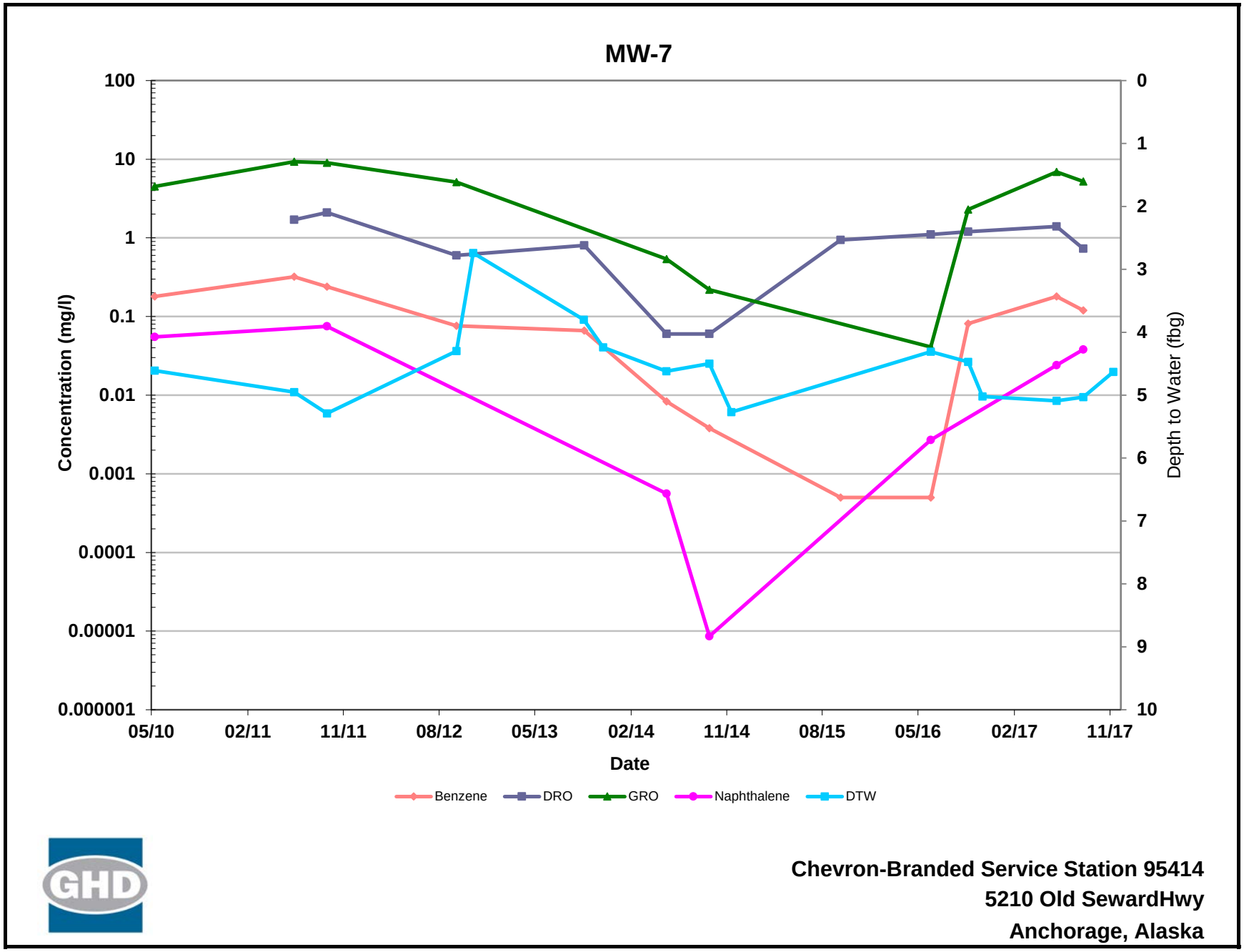


Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska



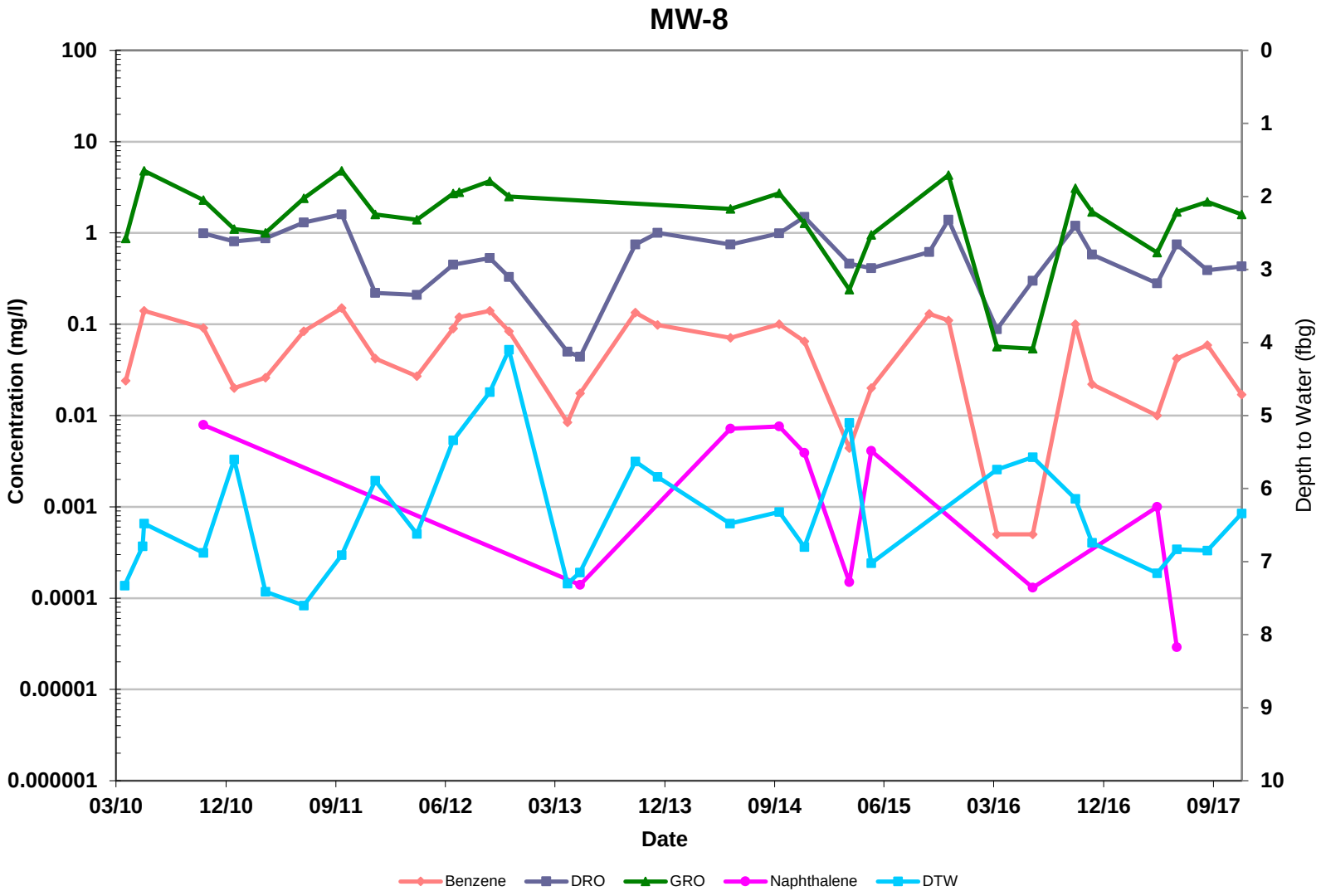
GHD

Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

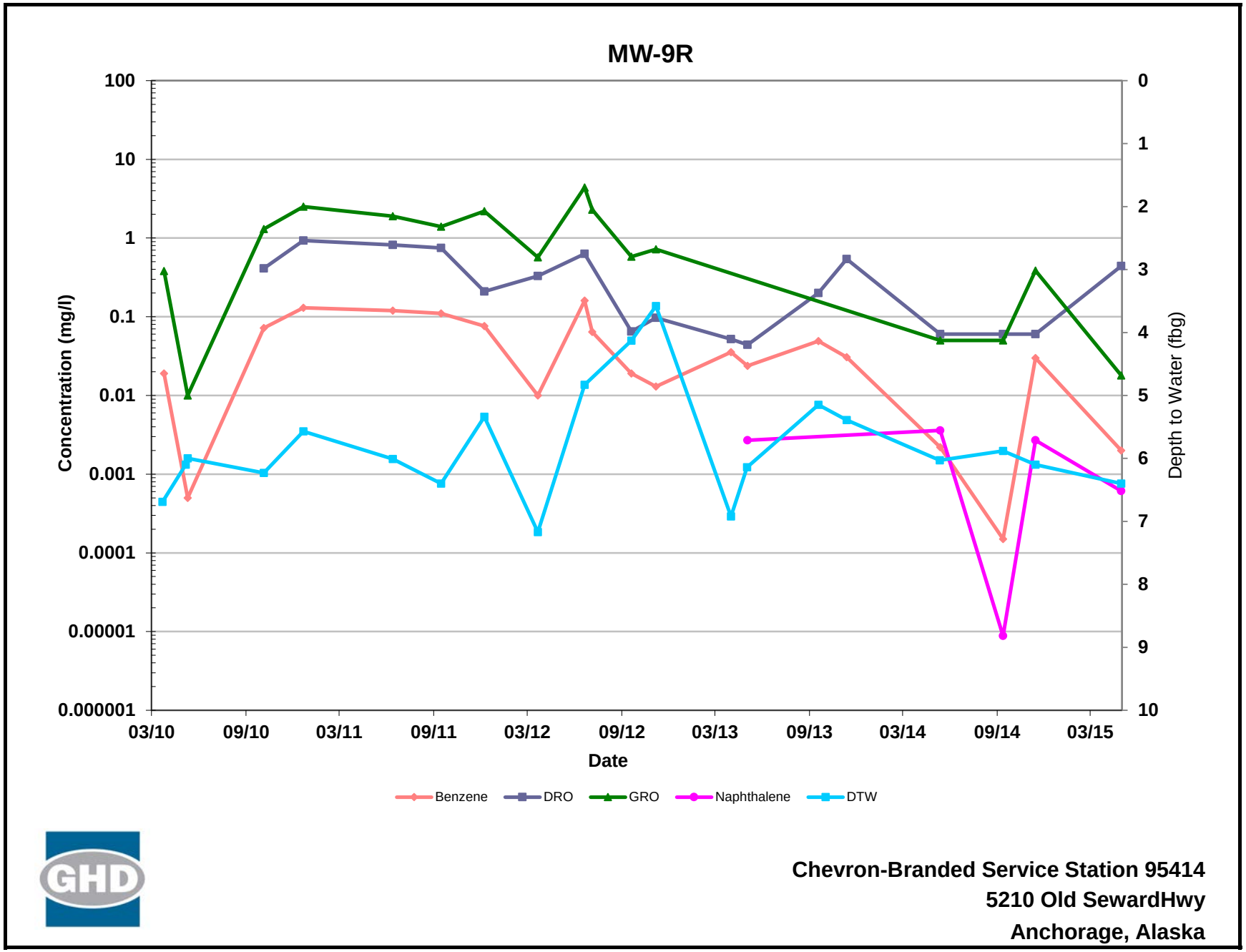


GHD

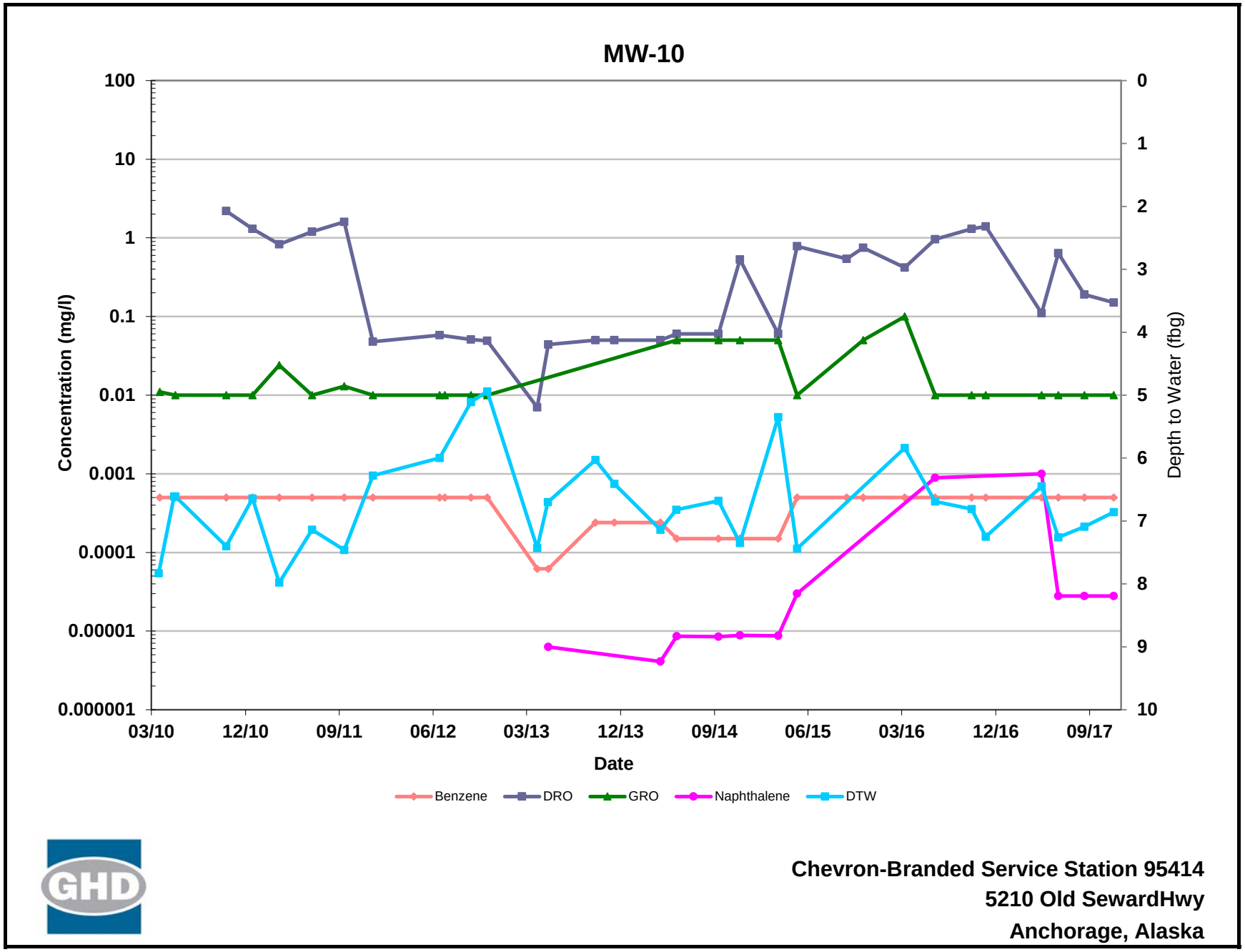
Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska



Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska



Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska



GHD

Chevron-Branded Service Station 95414
5210 Old SewardHwy
Anchorage, Alaska

Appendix F
ADEC Laboratory Data Review Checklist and Memorandum

Laboratory Data Review Checklist

Completed by:

J Cloud

Title:

Project Chemist

Date:

December 01, 2017

CS Report Name:

Fourth Quarter 2017 Groundwater Monitoring Report

Report Date:

November 29, 2017

Consultant Firm:

GHD Services Inc.

Laboratory Name:

Eurofins Lancaster Laboratories Environmental

Laboratory Report Number:

1874606

ADEC File Number:

2100.26.062

Hazard Identification Number:

24602

1. Laboratory

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

      (•) Yes ( ) No Comments:

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

      ( ) Yes (•) No Comments:

      Samples not transferred

2. Chain of Custody (COC)

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

      (•) Yes ( ) No Comments:

   b. Correct analyses requested?

      (•) Yes ( ) No Comments:

3. Laboratory Sample Receipt Documentation

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

      (•) Yes ( ) No Comments:

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

      (•) Yes ( ) No Comments:

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

      (•) Yes ( ) No Comments:

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

      ( ) Yes (•) No Comments:

      No discrepanices

e. Data quality or usability affected?

Comments:

None

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No Comments:

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

( ) Yes (•) No Comments:

No discrepancies

c. Were all corrective actions documented?

( ) Yes (•) No Comments:

No corrective actions

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

Comments:

None

5. Samples Results

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

(•) Yes ( ) No Comments:

b. All applicable holding times met?

(•) Yes ( ) No Comments:

c. All soils reported on a dry weight basis?

( ) Yes (•) No Comments:

No soils

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

(•) Yes ( ) No Comments:

e. Data quality or usability affected?

Comments:

None

6. QC Samples

a. Method Blank

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

(•) Yes ( ) No Comments:

ii. All method blank results less than limit of quantitation (LOQ)?

(•) Yes ( ) No Comments:

iii. If above LOQ, what samples are affected?

Comments:

No affected samples

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

( ) Yes (•) No Comments:

No affected samples

v. Data quality or usability affected?

Comments:

None

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

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

(•) Yes ( ) No Comments:

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

( ) Yes (•) No Comments:

No metals/inorganics

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

(•) Yes ( ) No Comments:

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

(•) Yes ( ) No Comments:

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

Comments:

No affected samples

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

( ) Yes (•) No Comments:

No affected samples

vii. Data quality or usability affected?

Comments:

None

c. Surrogates – Organics Only

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

(•) Yes ( ) No Comments:

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

(•) Yes ( ) No Comments:

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

( ) Yes (•) No Comments:

No failed surroates

iv. Data quality or usability affected?

Comments:

None

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and cooler?

(•) Yes ( ) No Comments:

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

( ) Yes ( ) No Comments:

iii. All results less than LOQ?

( ) Yes (•) No Comments:

Toluene was present at a low concentration

iv. If above LOQ, what samples are affected?

Comments:

No affected samples

v. Data quality or usability affected?

Comments:

The associated sample results were either non-detect or significantly greater than the blank was were not impacted. No qualification of the data was deemed necessary.

e. Field Duplicate

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

(•) Yes ( ) No Comments:

ii. Submitted blind to lab?

(•) Yes ( ) No Comments:

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

RPD (%) = 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 Comments:

iv. Data quality or usability affected?

Comments:

None

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

( ) Yes ( ) No (•) Not Applicable

i. All results less than LOQ?

( ) Yes (•) No Comments:

Not collected

ii. If above LOQ, what samples are affected?

Comments:

Not collected

iii. Data quality or usability affected?

Comments:

Not collected

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

a. Defined and appropriate?

(•) Yes ( ) No Comments:

Memorandum

December 11, 2017

To:	ADEC	Ref. No.:	062327
From:	Jeffrey Cloud	Tel:	206-914-3141
cc:	Siobhan Pritchard		

Subject: **QA/QC Review**
ChevronTexaco Site 95414
Job # 1874606
November 2017

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in Anchorage, Alaska during November 2017. Samples were submitted to Eurofins Lancaster Laboratories Environmental, located in Lancaster, Pennsylvania.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes, laboratory control samples (LCS) and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods and applicable guidance from the document entitled "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008 subsequently referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody document and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC), semivolatile organic compound (SVOC), gasoline range organics (GRO) and diesel range organics (DRO) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the associated control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

5. Laboratory Control Sample Analyses

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS and LCS/LCSD contained all analytes of interest. All LCS and LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision (where applicable).

6. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample and two field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest with the exception of toluene present at a low concentration. The associated sample results were either non-detect or significantly greater than the blank. No qualification of the data was deemed necessary.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate samples were collected and submitted "blind" to the laboratory. The RPDs associated with these duplicate samples must be less than 50 percent. If the reported concentration in both the investigative sample and its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

7. Analyte Reporting

Non-detect data were reported down to the laboratory's method detections limit (MDL) for each analyte. Positive analyte detections less than the reporting limit (RL) but greater than the MDL were reported as estimated (J).

8. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable without qualification.