March 19, 2019

Mr. Dale Myers
Washington State Department of Ecology
3190 160th Ave SE
Bellevue, Washington 98008-5452

Subject: **First Semi-annual 2018 Groundwater Monitoring and Sampling Report**
Former Standard Oil Service Station, Chevron Site No. 209335
1225 North 45th Street
Seattle, Washington

Dear Mr. Myers:

Leidos Inc. (Leidos), on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the first semi-annual 2018 groundwater monitoring and sampling event at former Standard Oil Service Station, Chevron Site No. 209335 (the site) located in Seattle, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan, Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on May 17, 2018. Gettler-Ryan collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in monitoring wells MW-6, MW-7, MW-8, MW-9, and MW-10. SPH were not observed in any of the monitoring wells. Groundwater flow direction was toward the south at a gradient of approximately 0.003 to 0.007 feet per foot. A potentiometric map is provided as Figure 2.

Groundwater samples were collected from all monitoring wells and submitted under chain of custody (COC) procedures to Eurofins Lancaster Laboratories, Inc. in Lancaster, Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics (TPH-GRO) by Northwest Method NWTPH-Gx;
- TPH as diesel-range organics (TPH-DRO) and TPH as heavy oil-range organics (TPH-HRO) by Northwest Method NWTPH-Dx without silica-gel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes by United States Environmental Protection Agency (USEPA) Method 8021B; and
- Total lead by USEPA Method 6020.

Field data sheets and COC documentation are provided in the Gettler-Ryan groundwater monitoring and sampling data package (Attachment A).

RESULTS

Groundwater elevations and flow direction during this event are consistent with historical data. Historical groundwater elevation data, SPH thickness data, and laboratory analytical results are summarized in Table 1. The laboratory analysis report is provided as Attachment B and hydrographs are included in Attachment C.

The results of the first semi-annual 2018 sampling event indicate that petroleum-hydrocarbon constituent concentrations have been below Model Toxics Control Act (MTCA) Method A cleanup levels for at least five monitoring and sampling events in monitoring wells MW-8, MW-9, and MW-10. Petroleum-hydrocarbon constituent concentrations within monitoring well MW-6 did not exceed MTCA Method A cleanup levels for this monitoring and sampling event. Concentrations of lead, TPH-DRO, TPH-GRO, ethylbenzene, and total xylenes in monitoring well MW-7 were above their respective MTCA Method A cleanup levels during this sampling event.

If you have any questions or comments, please contact me at (425) 482-3328 or via email at ottemanr@leidos.com.

Sincerely,

Leidos, Inc.

Ruth Otteman, LG #2633
Project Manager

Enclosures:

Figure 1 – Vicinity Map
Figure 2 – Potentiometric Map
Table 1 – Groundwater Monitoring Data and Analytical Results
Attachment A – Groundwater Monitoring and Sampling Data Package
Attachment B – Laboratory Analysis Report
Attachment C – Hydrographs

cc: Mr. Eric Hetrick – CEMC (electronic copy)
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Project File

REPORT LIMITATIONS

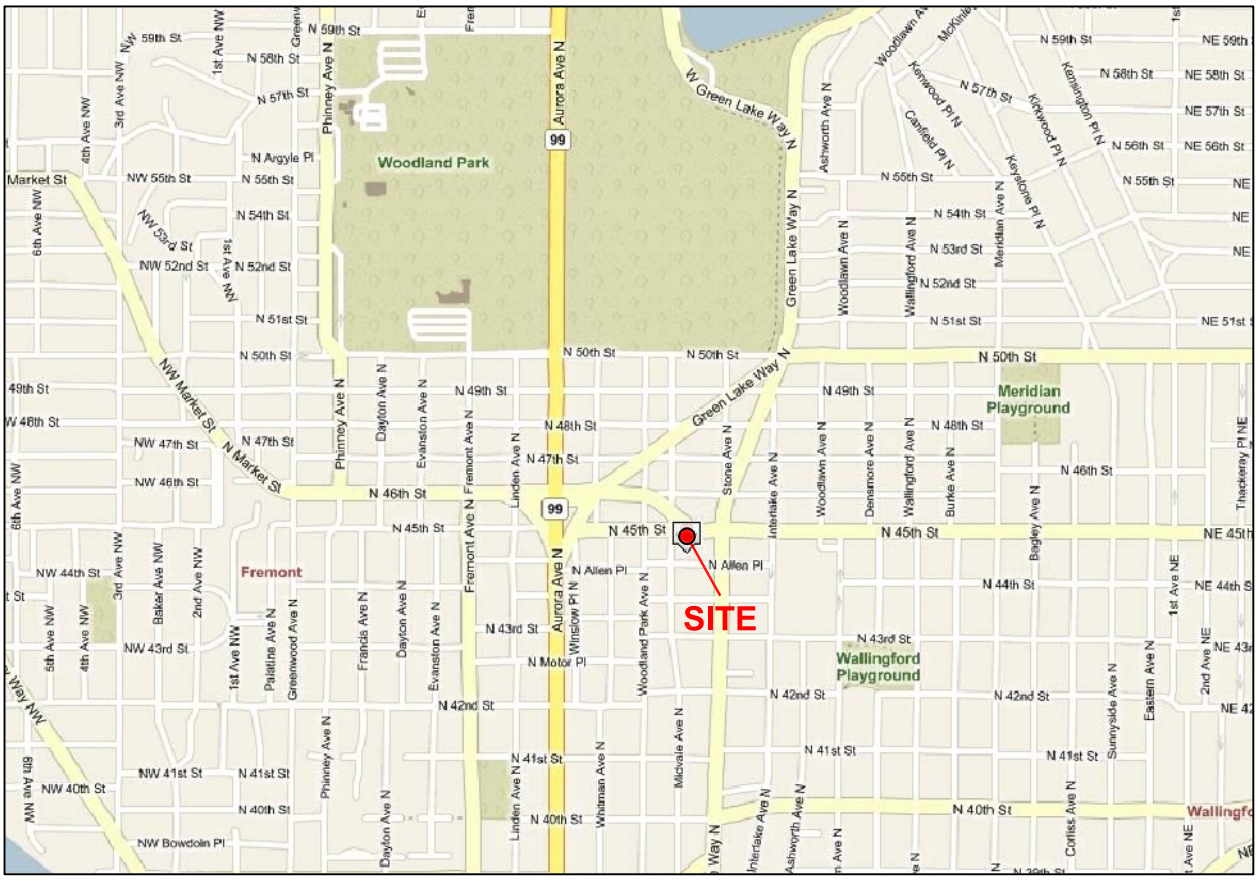
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and that Leidos shall have no responsibility or liability for the consequences thereof.

Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied upon by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.



Maps Provided by Seattle.gov

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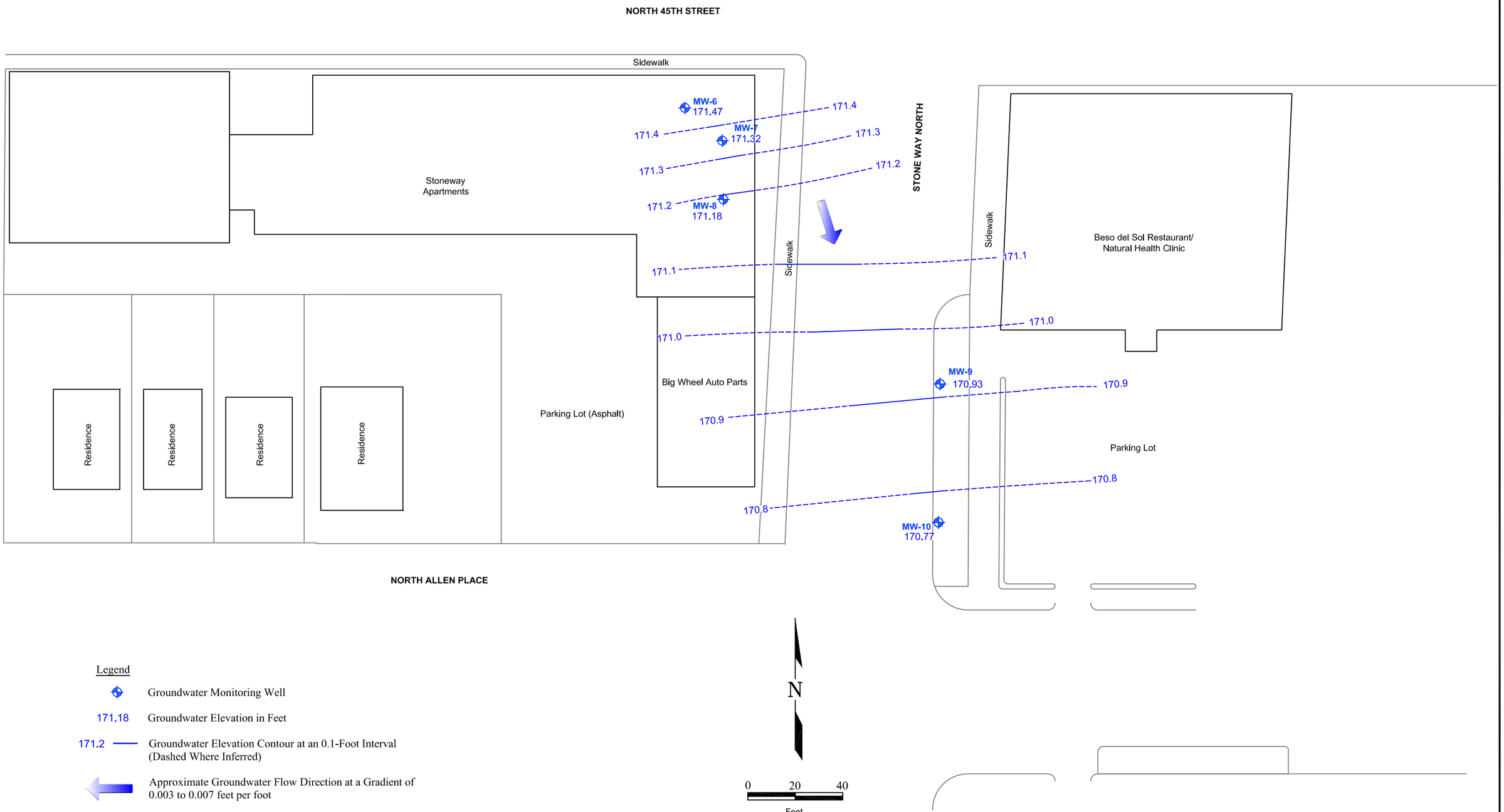
Former Standard Oil Service Station Chevron No. 209335 1225 North 45th Street Seattle, Washington	FIGURE 1 Vicinity Map
FILE NAME: 209335 Vicinity Map.dwg	DATE: 8/7/2014



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Former Standard Oil Service Station
Chevron No. 209335
1225 North 45th Street
Seattle, Washington

FIGURE 2
Potentiometric Map
May 17, 2018

DATE: 3/20/2019 | DRAWING: 209335 Site Map.dwg

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-1															
10/11/00		97.95	--	34.50	--	63.45	--	--	--	--	--	--	--	--	--
12/16/00		97.95	--	35.91	0.00	62.04	ND	ND	74.4	ND	ND	ND	ND	ND	ND
03/26/01		97.95	--	36.54	0.00	61.41	ND	ND	ND	ND	ND	ND	ND	ND	--
06/25/01		97.95	--	36.78	0.00	61.17	<281	<842	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
09/24/01		97.95	--	37.14	0.00	60.81	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
12/13/01		97.95	--	37.25	0.00	60.70	<250	<500	<80.0	<0.500	<0.500	<0.500	<1.00	--	--
03/08/02	NP	97.95	--	36.79	0.00	61.16	<250	<750	<50	<0.50	<0.50	<0.50	<1.5	--	--
05/29/02		97.95	--	36.44	0.00	61.51	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
09/16/02	NP	97.95	--	36.71	0.00	61.24	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--
12/05/02		97.95	--	37.09	0.00	60.86	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
03/04/03	NP	97.95	--	37.26	0.00	60.69	<250	<250	100	<0.50	<0.50	<0.50	<3.0	--	--
06/03/03		97.95	--	37.09	0.00	60.86	SAMPLED SEMI-ANNUALLY			--	--	--	--	--	--
10/27/03		97.95	--	37.42	0.00	60.53	NOT SAMPLED DUE TO INSUFFICIENT WATER					--	--	--	--
03/31/04	NP	97.95	--	37.12	0.00	60.83	<800	<1,000	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/28/04		97.95	--	37.14	0.00	60.81	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
09/29/04		97.95	--	37.50	0.00	60.45	NOT SAMPLED DUE TO INSUFFICIENT WATER					--	--	--	--
01/04/05		97.95	--	37.61	0.00	60.34	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
ABANDONED															
MW-2															
10/11/00		98.70	--	34.50	--	64.20	--	--	--	--	--	--	--	--	--
12/16/00		98.70	--	36.46	0.00	62.24	**1,000**	ND	**28,100**	**283**	**2,560**	693	**4,020**	ND	0.00194
03/26/01		98.70	--	37.12	0.00	61.58	**1,180**	ND	**17,000**	**143**	**1,450**	378	**2,180**	ND	--
06/25/01		98.70	--	37.37	0.00	61.33	418	<750	**11,700**	**92.3**	547	181	**1,010**	--	--
09/24/01		98.70	--	37.72	0.00	60.98	**4,840**	<557	**22,100**	**120**	**1,380**	658	**4,100**	--	--
12/13/01		98.70	--	37.89	0.00	60.81	**5,540**	<500	**84,000**	**185**	**3,960**	**1,590**	**9,950**	--	--
03/08/02		98.70	37.24	38.00	0.76	61.31	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
05/29/02		98.70	36.81	37.54	0.73	61.74	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
09/16/02		98.70	37.19	37.61	0.42	61.43	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
10/15/02		98.70	37.24	37.68	0.44	61.37	--	--	--	--	--	--	--	--	--
11/22/02		98.70	37.12	37.63	0.51	61.48	--	--	--	--	--	--	--	--	--
12/05/02		98.70	37.51	38.10	0.59	61.07	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
01/28/03		98.70	36.77	37.33	0.56	61.82	--	--	--	--	--	--	--	--	--
02/13/03		98.70	37.44	38.02	0.58	61.14	--	--	--	--	--	--	--	--	--
03/04/03		98.70	INACCESSIBLE - VEHICLE PARKED OVER WELL				--	--	--	--	--	--	--	--	--
04/21/03		98.70	37.21	37.78	0.57	61.38	--	--	--	--	--	--	--	--	--
05/08/03		98.70	37.43	37.94	0.51	61.17	--	--	--	--	--	--	--	--	--

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FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-2 (cont.)															
06/03/03		98.70	37.37	37.91	0.54	61.22	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
07/06/03		98.70	36.96	37.51	0.55	61.63	--	--	--	--	--	--	--	--	--
08/18/03		98.70	37.49	38.02	0.53	61.10	--	--	--	--	--	--	--	--	--
10/27/03		98.70	37.54	39.98	2.44	60.67	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
11/17/03		98.70	37.10	37.58	0.48	61.50	--	--	--	--	--	--	--	--	--
12/31/03		98.70	36.18	38.19	2.01	62.12	--	--	--	--	--	--	--	--	--
02/09/04		98.70	37.00	37.49	0.49	61.60	--	--	--	--	--	--	--	--	--
03/04/04		98.70	35.85	37.06	1.21	62.61	--	--	--	--	--	--	--	--	--
03/31/04		98.70	37.32	39.05	1.73	61.03	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/28/04		98.70	37.32	39.05	1.73	61.03	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
09/11/04		98.70	37.65	39.10	1.45	60.76	--	--	--	--	--	--	--	--	--
09/29/04		98.70	37.71	39.39	1.68	60.65	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
11/22/04		98.70	36.89	38.16	1.27	61.56	--	--	--	--	--	--	--	--	--
01/04/05		98.70	37.88	39.80	1.92	60.44	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
01/14/05		98.70	37.49	39.02	1.53	60.90	--	--	--	--	--	--	--	--	--
ABANDONED															
MW-3															
10/11/00		98.76	--	34.00	--	64.76	--	--	--	--	--	--	--	--	--
12/16/00		98.76	--	36.39	0.00	62.37	ND	ND	ND	ND	0.612	ND	1.95	ND	ND
03/26/01		98.76	--	37.05	0.00	61.71	ND	ND	ND	ND	ND	ND	ND	ND	--
06/25/01		98.76	--	37.29	0.00	61.47	<250	<750	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
09/24/01		98.76	--	37.64	0.00	61.12	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
12/13/01		98.76	--	37.78	0.00	60.98	<250	<500	<80.0	<0.500	<0.500	<0.500	<1.00	--	--
03/08/02	NP	98.76	--	37.28	0.00	61.48	<250	<750	320	<0.50	0.64	2.1	15	--	--
05/29/02		98.76	--	36.92	0.00	61.84	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
09/16/02	NP	98.76	--	37.21	0.00	61.55	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--
12/05/02		98.76	--	37.58	0.00	61.18	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
03/04/03	NP	98.76	--	37.79	0.00	60.97	<250	<250	<50	<0.50	<0.50	<0.50	<1.5	--	--
06/03/03		98.76	--	37.68	0.00	61.08	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
10/27/03	NP	98.76	--	38.00	0.00	60.76	<250	<250	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/31/04	NP	98.76	--	37.65	0.00	61.11	<800	<1,000	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/28/04		98.76	--	37.68	0.00	61.08	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
09/29/04	NP	98.76	--	38.01	0.00	60.75	<250	<250	<50	<0.5	<0.5	<0.5	<1.5	--	--
01/04/05		98.76	--	38.19	0.00	60.57	SAMPLED SEMIANNUALLY			--	--	--	--	--	--
ABANDONED															

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Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-4															
10/11/00		98.52	--	35.00	--	63.52	--	--	--	--	--	--	--	--	--
12/16/00		98.52	--	36.35	0.00	62.17	ND	ND	**58,200**	**326**	**5,520**	**1,430**	**8,520**	ND	0.0123
03/26/01		98.52	--	37.00	0.00	61.52	266	ND	**27,200**	**178**	**2,160**	**785**	**4,160**	ND	--
06/25/01		98.52	--	37.25	0.00	61.27	<250	<750	**12,300**	**69.0**	654	416	**1,910**	--	--
09/24/01		98.52	--	37.60	0.00	60.92	<250	<500	**4,130**	**30.1**	154	197	684	--	--
12/13/01		98.52	--	37.72	0.00	60.80	<250	<500	**5,490**	**30.3**	175	177	679	--	--
03/08/02	NP	98.52	--	38.36	0.00	60.16	<250	<750	**9,000**	<50	150	170	710	--	--
05/29/02	NP	98.52	--	36.86	0.00	61.66	<250	<750	**6,700**	**22**	150	190	780	--	--
08/07/02		98.52	--	36.92	0.00	61.60	--	--	--	--	--	--	--	--	--
09/16/02	NP	98.52	--	37.16	0.00	61.36	<250	<250	**7,500**	**46**	230	240	630	--	--
12/05/02	NP	98.52	--	37.53	0.00	60.99	<250	<250	**14,000**	**73**	400	540	**1,500**	--	--
03/04/03		98.52	36.68	36.71	0.03	61.83	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/03/03		98.52	36.59	36.63	0.04	61.92	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
07/06/03		98.52	36.90	36.93	0.03	61.61	--	--	--	--	--	--	--	--	--
08/18/03		98.52	36.76	36.80	0.04	61.75	--	--	--	--	--	--	--	--	--
10/27/03	NP	98.52	--	37.96	0.00	60.56	<400	<500	**2,200**	**16**	55	76	170	--	--
11/17/03		98.52	36.34	36.37	0.03	62.17	--	--	--	--	--	--	--	--	--
12/31/03		98.52	--	36.88	0.00	61.64	--	--	--	--	--	--	--	--	--
02/09/04		98.52	36.14	36.17	0.03	62.37	--	--	--	--	--	--	--	--	--
03/04/04		98.52	--	36.74	0.00	61.78	--	--	--	--	--	--	--	--	--
03/31/04	NP	98.52	--	37.59	0.00	60.93	<250	<250	**3,900**	**14**	96	110	340	--	--
06/28/04	NP	98.52	--	37.54	0.00	60.98	<250	<250	**1,600**	**8.5**	15	59	110	--	--
09/11/04		98.52	37.78	37.81	0.03	60.73	--	--	--	--	--	--	--	--	--
09/29/04	NP	98.52	--	37.86	0.00	60.66	<250	<250	**1,500**	**18**	40	76	170	--	--
11/22/04		98.52	--	36.81	0.00	61.71	--	--	--	--	--	--	--	--	--
01/04/05	NP	98.52	--	38.11	0.00	60.41	**1,600**	<250	**1,600**	**10**	13	60	110	--	--
01/14/05		98.52	--	37.58	0.00	60.94	--	--	--	--	--	--	--	--	--
ABANDONED															
MW-5															
10/11/00		99.42	--	34.50	--	64.92	--	--	--	--	--	--	--	--	--
12/16/00		99.42	--	37.18	0.00	62.24	**5,080**	ND	**146,000**	ND	**15,100**	**4,160**	**24,100**	ND	0.0200
03/26/01		99.42	--	37.91	0.00	61.51	**77,900**	ND	**149,000**	**256**	**10,600**	**4,000**	**24,200**	ND	--
06/25/01		99.42	--	38.14	0.00	61.28	**109,000**	<18,100	**127,000**	**210**	**9,580**	**3,730**	**21,500**	--	--
09/24/01		99.42	38.40	38.44	0.04	61.01	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
12/13/01		99.42	38.55	38.59	0.04	60.86	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/08/02		99.42	37.96	38.46	0.50	61.36	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--

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1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-5 (cont.)															
05/29/02		99.42	37.60	38.05	0.45	61.73	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
08/07/02		99.42	37.73	38.12	0.39	61.61	--	--	--	--	--	--	--	--	--
09/16/02		99.42	38.00	38.39	0.39	61.34	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
10/15/02		99.42	38.09	38.47	0.38	61.25	--	--	--	--	--	--	--	--	--
11/22/02		99.42	37.84	38.26	0.42	61.50	--	--	--	--	--	--	--	--	--
12/05/02		99.42	38.42	38.78	0.36	60.93	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
01/28/03		99.42	37.88	38.24	0.36	61.47	--	--	--	--	--	--	--	--	--
02/13/03		99.42	38.33	38.68	0.35	61.02	--	--	--	--	--	--	--	--	--
03/04/03		99.42	37.54	37.89	0.35	61.81	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
04/21/03		99.42	37.96	38.29	0.33	61.39	--	--	--	--	--	--	--	--	--
05/08/03		99.42	38.50	38.82	0.32	60.86	--	--	--	--	--	--	--	--	--
06/03/03		99.42	37.42	37.76	0.34	61.93	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
07/06/03		99.42	37.77	38.11	0.34	61.58	--	--	--	--	--	--	--	--	--
08/18/03		99.42	38.54	38.86	0.32	60.82	--	--	--	--	--	--	--	--	--
10/27/03		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
11/17/03		99.42	37.87	38.17	0.30	61.49	--	--	--	--	--	--	--	--	--
12/31/03		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
02/09/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
03/04/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
03/31/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
06/28/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
09/11/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
09/29/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
11/22/04		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
01/04/05		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
01/14/05		99.42	WELL DRY/OBSTRUCTED			--	--	--	--	--	--	--	--	--	--
ABANDONED															
MW-6															
02/09/06		197.18	--	36.74	0.00	160.44	**680**	98	**1,500**	<0.5	0.7	1.2	37	--	--
05/03/07		197.18	--	36.74	0.00	160.44	**1,000**	130	380	**29**	1	4	30	--	--
06/16/09		197.18	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09	NP	197.18	--	27.46	0.00	169.72	270	<70	<50	<0.5	<0.5	<0.5	<1.5	--	**22.9**
12/11/09	NP	197.18	--	27.55	0.00	169.63	35	<69	<50	<0.5	<0.5	<0.5	<1.5	--	0.76
06/09/10	NP	197.18	--	26.84	0.00	170.34	360	<340	**5,900**	<0.5	<0.5	<0.5	350	--	13.2
11/19/10	NP	197.18	--	26.97	0.00	170.21	240	81	750	<0.5	<0.5	<0.5	11	--	3.7
06/21/11	NP	197.18	--	25.77	0.00	171.41	270	88	**2,400**	<0.5	<0.5	0.6	9.2	--	3.2

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TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-6 (cont.)															
09/22/11	NP	197.18	--	25.90	0.00	171.28	<29	<69	660	<0.5	<0.5	<0.5	4.1	--	3.3
12/09/11	NP	197.18	--	27.34	0.00	169.84	<29	<69	64	**140**	0.5	<0.5	<1.5	--	0.44
03/30/12	NP	197.18	--	26.80	0.00	170.38	<30	<69	90	<0.5	<0.5	<0.5	<1.5	--	2.5
06/20/12	NP	197.18	--	26.56	0.00	170.62	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	<0.034
10/05/12	NP	197.18	--	27.08	0.00	170.10	<32	<74	<50	<0.5	<0.5	<0.5	<1.5	--	1.2
12/27/12	NP	197.18	--	27.13	0.00	170.05	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	2
03/18/13[8]		197.18	--	26.63	0.00	170.55	<30	<71	120	<0.5	<0.5	<0.5	<1.5	--	--
03/22/13[9]		197.18	--	26.71	0.00	170.47	<31	<72	100	<0.5	<0.5	<0.5	<1.5	--	--
03/28/13	NP	197.18	--	26.61	0.00	170.57	<29	<67	79	<0.5	<0.5	<0.5	<1.5	--	3.7
06/27/13	NP	197.18	--	26.42	0.00	170.76	<29	<68	120	<0.5	<0.5	<0.5	<1.5	--	1.3
10/17/13	NP	197.18	--	26.64	0.00	170.54	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	0.33
03/20/14	NP	197.18	--	26.68	0.00	170.50	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	4
06/25/14	NP	197.18	--	26.85	0.00	170.33	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	2.1
09/24/14	NP	197.18	--	27.19	0.00	169.99	<28	<66	<50	<0.2	<0.2	<0.2	<0.2	--	0.00048
12/11/14	NP	197.18	--	27.16	0.00	170.02	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	1.5
03/11/15	NP	197.18	--	26.66	0.00	170.52	<30	<71	<50	<0.5	0.5	<0.5	<1.5	--	0.0063
10/21/15	NP	197.18	--	27.47	0.00	169.71	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	10.9
04/20/16	NP	197.18	--	26.66	0.00	170.52	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	0.0064
10/17/16	NP	197.18	--	26.98	0.00	170.20	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	14.8
05/17/17	NP	197.18	--	25.99	0.00	171.19	<29/<29[10]	<68/<68[10]	<50	<0.5	<0.5	<0.5	<1.5	--	**30.5**
10/19/17	NP	197.18	--	26.03	0.00	171.15	<29/32[10]	<68/<68[10]	<50	<0.5	<0.5	<0.5	<1.5	--	**33**
05/17/18		197.18	--	25.71	0.00	171.47	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	8.5
MW-7															
02/09/06		197.42	37.87	38.17	0.30	159.49	--	--	--	--	--	--	--	--	--
05/03/07		197.42	26.55	27.80	0.00	169.62	--	--	--	--	--	--	--	--	--
06/16/09		197.42	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09[6]		197.42	27.39	--[7]	--[7]	--[7]	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
12/11/09[6]		197.42	27.50	--[7]	--[7]	--[7]	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/09/10[6]		197.42	27.03	28.20	1.17	170.16	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
11/19/10		197.42	27.08	28.34	1.26	170.09	NOT SAMPLED DUE TO THE PRESENCE OF SPH							--	
06/21/11		197.42	--	26.12	0.00	171.30	**11,000**	<1,800	**150,000**	**45**	**4,800**	**2,600**	**18,000**	--	**310**
09/22/11		197.42	--	26.25	0.00	171.17	**2,000**	<340	**100,000**	**29**	**4,300**	**1,900**	**17,000**	--	**94.4**
12/09/11		197.42	27.45	27.80	0.35	169.90	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/30/12		197.42	27.15	27.35	0.20	170.23	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/20/12		197.42	26.90	27.05	0.15	170.49	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-7 (cont.)															
10/05/12		197.42	27.38	27.76	0.38	169.96	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
12/27/12		197.42	27.46	27.65	0.19	169.92	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/18/13[8]		197.42	27.01	27.18	0.17	170.38	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/22/13[9]		197.42	--	27.03	0.00	170.39	**5,200**	<69	**99,000**	**12**	**1,600**	**1,700**	**17,000**	--	--
03/28/13		197.42	26.91	27.00	0.09	170.49	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/27/13		197.42	26.77	26.79	0.02	170.65	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
10/17/13		197.42	27.03	27.05	0.02	170.39	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
03/20/14		197.42	26.99	27.11	0.12	170.41	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
06/25/14		197.42	27.26	27.28	0.02	170.16	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
09/24/14		197.42	27.56	27.61	0.05	169.85	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
12/11/14	NP	197.42	--	27.50	0.00	169.92	**55,000**	<6,900	**96,000**	<13	600	660	**14,000**	--	**168**
03/11/15	NP	197.42	--	26.96	0.00	170.46	**200,000**	<17,000	**65,000**	<5.0	470	570	**6,700**	--	0.0717
10/21/15		197.42	27.77	28.17	0.40	169.57	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
04/20/16		197.42	26.91	27.31	0.40	170.43	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
10/17/16		197.42	27.25	27.57	0.32	170.11	NOT SAMPLED DUE TO THE PRESENCE OF SPH					--	--	--	--
05/17/17	NP	197.42	--	26.38	0.00	171.04	**29,000/41,000**[10]	<660/<1,300[10]	**480,000**	<50	360	**1,400**	**18,000**	--	**1,020**
10/19/17	NP	197.42	--	26.62	0.00	170.80	**24,000/29,000**[10]	<1,300/<6,700[10]	**63,000**	4.1	190	**900**	**8,100**	--	**203**
05/17/18		197.42	--	26.10	0.00	171.32	**12,000**	<670	**140,000**	<10	390	**1,200**	**8,700**	--	**78.8**
MW-8															
02/09/06		197.35	--	36.74	0.00	160.61	280	<96	440	<0.5	1.1	3.3	28	--	--
05/03/07		197.35	--	36.74	0.00	160.61	**940**	<200	**2,600**	<0.5	<0.5	<0.5	<0.5	--	--
06/16/09		197.35	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09	NP	197.35	--	27.84	0.00	169.51	390	<700	430	<0.5	<0.5	<0.5	2.2	--	3.5
12/11/09	NP	197.35	--	27.91	0.00	169.44	300	<69	<50	<0.5	<0.5	<0.5	<1.5	--	7.3
06/09/10	NP	197.35	--	27.21	0.00	170.14	280	180	350	<0.5	<0.5	<0.5	<1.5	--	**16.5**
11/19/10	NP	197.35	--	27.34	0.00	170.01	320	120	94	<0.5	<0.5	<0.5	<1.5	--	3.4
06/21/11	NP	197.35	--	26.18	0.00	171.17	94	150	54	<0.5	<0.5	1.0	<1.5	--	3.6
09/22/11	NP	197.35	--	26.30	0.00	171.05	<29	<68	140	<0.5	<0.5	2.9	1.70	--	1.8
12/09/11	NP	197.35	--	27.70	0.00	169.65	70	<69	320	<2.0	<2.0	<0.5	3.0	--	0.3
03/30/12	NP	197.35	--	27.20	0.00	170.15	<30	<70	**2,000**	3.0	3.9	45	120	--	2.9
06/20/12	NP	197.35	--	27.00	0.00	170.35	<30	<70	170	0.7	0.7	1.3	2.2	--	1.8
10/05/12	NP	197.35	--	27.49	0.00	169.86	<31	<71	490	1.0	1.7	19	32	--	1.3
12/27/12	NP	197.35	--	27.49	0.00	169.86	<29	<68	280	0.6	0.7	4.7	6.8	--	1.1
03/18/13[8]		197.35	--	27.06	0.00	170.29	<30	<70	320	<0.5	<0.5	29	22	--	--
03/22/13[9]		197.35	--	27.13	0.00	170.22	<29	<68	360	<0.5	<0.5	29	22	--	--
03/28/13	NP	197.35	--	27.09	0.00	170.26	<29	<67	80	<0.5	<0.5	<0.5	<1.5	--	1.9

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-8 (cont.)															
06/27/13	NP	197.35	--	26.86	0.00	170.49	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	2
10/17/13	NP	197.35	--	27.05	0.00	170.30	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	0.36
03/20/14	NP	197.35	--	27.01	0.00	170.34	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	1.4
06/25/14	NP	197.35	--	27.31	0.00	170.04	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	0.24
09/24/14	NP	197.35	--	27.63	0.00	169.72	<29	<67	93	<0.2	<0.2	2.9	1	--	0.00013
12/11/14	NP	197.35	--	27.46	0.00	169.89	<30	<70	59	<0.5	0.5	0.6	<1.5	--	0.12
03/11/15	NP	197.35	--	27.18	0.00	170.17	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	0.00032
10/21/15	NP	197.35	--	27.89	0.00	169.46	<28	<66	110	<0.5	<0.5	1.1	3.9	--	0.63
04/20/16	NP	197.35	--	27.87	0.00	169.48	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	0.00046
10/17/16	NP	197.35	--	27.42	0.00	169.93	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	0.16
05/17/17	NP	197.35	--	26.46	0.00	170.89	<28/46[10]	<66/<66[10]	<50	<0.5	<0.5	<0.5	<1.5	--	0.56
10/19/17	NP	197.35	--	26.49	0.00	170.86	<28/<28[10]	<66/<66[10]	<50	<0.5	<0.5	<0.5	<1.5	--	0.31
05/17/18		197.35	--	26.17	0.00	171.18	55	<67	<50	<0.5	<0.5	<0.5	<1.5	--	<0.11
MW-9															
05/03/07		208.11	--	36.74	0.00	171.37	<400	<500	<50	<0.5	<0.5	4	18	--	--
06/16/09		208.11	--	38.72	0.00	169.39	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	**19.3**
07/01/09	NP	208.11	--	38.03	0.00	170.08	<31	<71	--	--	--	--	--	--	--
12/11/09	NP	208.11	--	38.86	0.00	169.25	76	<69	<50	<0.5	<0.5	<0.5	<1.5	--	14.5
06/09/10	NP	208.11	--	38.17	0.00	169.94	42	110	<50	<0.5	<0.5	<0.5	<1.5	--	**21.2**
11/19/10	NP	208.11	--	38.23	0.00	169.88	<29	130	<50	<0.5	<0.5	<0.5	<1.5	--	**18.7**
06/21/11	NP	208.11	--	37.15	0.00	170.96	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	4.7
09/22/11	NP	208.11	--	37.25	0.00	170.86	<300	<700	<50	<0.5	<0.5	<0.5	<1.5	--	12.4
12/09/11	NP	208.11	--	38.66	0.00	169.45	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	2.8
03/30/12	NP	208.11	--	29.60	0.00	178.51	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	**114**
06/20/12	NP	208.11	--	38.00	0.00	170.11	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	3.8
10/05/12	NP	208.11	--	38.44	0.00	169.67	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	10.6
12/27/12	NP	208.11	--	38.50	0.00	169.61	<31	<73	<50	<0.5	<0.5	<0.5	<1.5	--	5.3
03/28/13	NP	208.11	--	29.73	0.00	178.38	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	<0.073
06/27/13	NP	208.11	--	37.81	0.00	170.30	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	5.4
10/17/13	NP	208.11	--	37.77	0.00	170.34	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	0.34
03/20/14	NP	208.11	--	29.58	0.00	178.53	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	4.1
06/25/14	NP	208.11	--	34.92	0.00	173.19	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	2.5
09/24/14	NP	208.11	--	38.56	0.00	169.55	<29	<67	<50	<0.2	<0.2	<0.2	<0.2	--	0.0015
12/11/14	NP	208.11	--	38.53	0.00	169.58	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	<0.082
03/11/15	NP	208.11	--	29.63	0.00	178.48	<28	<66	<50	<0.5	0.5	<0.5	<1.5	--	0.0002
10/21/15	NP	208.11	--	38.81	0.00	169.30	<28	<66	<50	<0.5	0.5	<0.5	<1.5	--	12.4

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
MW-9 (cont.)															
04/20/16	NP	208.11	--	38.02	0.00	170.09	<29	<67	<50	<0.5	0.5	<0.5	<1.5	--	0.0049
10/17/16	NP	208.11	--	38.32	0.00	169.79	<28	<66	<50	<0.5	0.5	<0.5	<1.5	--	3.2
05/17/17	NP	208.11	--	37.41	0.00	170.70	<28/44[10]	<66/<66[10]	<50	<0.5	0.5	<0.5	<1.5	--	1.6
10/19/17	NP	208.11	--	37.43	0.00	170.68	<29/39[10]	<67/<67[10]	<50	<0.5	0.5	<0.5	<1.5	--	3.2
05/17/18		208.11	--	37.18	0.00	170.93	<28	<66	<50	<0.5	0.5	<0.5	<1.5	--	0.9
MW-10															
05/03/07		207.29	--	36.74	0.00	170.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	--
06/16/09		207.29	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
07/01/09	NP	207.29	--	38.72	0.00	168.57	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	10.9
12/11/09	NP	207.29	--	35.91	0.00	171.38	49	<69	<50	<0.5	<0.5	<0.5	<1.5	--	13.4
06/09/10	NP	207.29	--	37.48	0.00	169.81	50	88	<50	<0.5	<0.5	<0.5	<1.5	--	7.2
11/19/10	NP	207.29	--	37.53	0.00	169.76	<29	74	<50	<0.5	<0.5	<0.5	<1.5	--	**18.8**
06/21/11	NP	207.29	--	36.46	0.00	170.83	<31	180	<50	<0.5	<0.5	<0.5	<1.5	--	5.7
09/22/11	NP	207.29	--	36.60	0.00	170.69	<300	<700	<50	<0.5	<0.5	<0.5	<1.5	--	6.6
12/09/11	NP	207.29	--	35.71	0.00	171.58	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--	2.1
03/30/12	NP	207.29	--	29.80	0.00	177.49	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	**110**
06/20/12	NP	207.29	--	37.35	0.00	169.94	<31	<71	<50	<0.5	<0.5	<0.5	<1.5	--	0.23
10/05/12	NP	207.29	--	37.79	0.00	169.50	45	<70	<50	<0.5	<0.5	<0.5	<1.5	--	3.7
12/27/12	NP	207.29	--	37.84	0.00	169.45	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	2.2
03/28/13	NP	207.29	--	27.36	0.00	179.93	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	<0.073
06/27/13	NP	207.29	--	37.16	0.00	170.13	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	1.8
10/17/13	NP	207.29	--	37.78	0.00	169.51	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	0.34
03/20/14	NP	207.29	--	29.77	0.00	177.52	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	<0.085
06/25/14	NP	207.29	--	35.03	0.00	172.26	<30	<71	<50	<0.5	<0.5	<0.5	<1.5	--	2.5
09/24/14	NP	207.29	--	37.88	0.00	169.41	<30	<70	<50	<0.2	<0.2	<0.2	<0.2	--	0.00095
12/11/14	NP	207.29	--	37.88	0.00	169.41	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	<0.082
03/11/15	NP	207.29	--	29.71	0.00	177.58	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	--	0.0002
10/21/15	NP	207.29	--	38.14	0.00	169.15	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	**20.1**
04/20/16	NP	207.29	--	37.39	0.00	169.90	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	0.0113
10/17/16	NP	207.29	--	37.69	0.00	169.60	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	12
05/17/17	NP	207.29	--	36.78	0.00	170.51	<28/<28[10]	<66/<66[10]	<50	<0.5	<0.5	<0.5	<1.5	--	3.6
10/19/17	NP	207.29	--	36.80	0.00	170.49	<29/<29[10]	<67/<67[10]	<50	<0.5	<0.5	<0.5	<1.5	--	7.6
05/17/18		207.29	--	36.52	0.00	170.77	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	2.2
QA															
12/16/00		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--
03/26/01		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
QA (cont.)															
06/25/01		--	--	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
09/24/01		--	--	--	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
12/13/01		--	--	--	--	--	--	--	<80.0	<0.500	<0.500	<0.500	<1.00	--	--
03/08/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--
05/29/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--
09/16/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--
12/05/02		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--
03/04/03		--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--	--
10/27/03		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/31/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/28/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/29/04		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
01/04/05		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/16/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
07/01/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/11/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/09/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/19/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/21/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/22/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/09/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/30/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/20/12		QA Vials Not Received by the Laboratory													
10/05/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/27/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/28/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/27/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/17/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/20/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/25/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
09/24/14		--	--	--	--	--	--	--	<50	<0.2	<0.2	<0.2	<0.2	--	--
12/11/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
03/11/15		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/23/15		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
04/20/16		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/17/16		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--

leidos

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street
Seattle, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	SPHT (ft.)	GWE[3] (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Lead
QA (cont.)															
05/17/17		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/19/17		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/17/18		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	20	15
Current Method[5]:							NWTPH-Dx + Extended[4]		NWTPH-Gx	USEPA 8021B					USEPA 6020

Abbreviations:

DTP = Depth to Product
DTW = Depth to Water
ft. = Feet
GWE = Groundwater Elevation
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
ND = Not Detected
NP = No Purge
QA = Quality Assurance/Trip Blank
SPH = Separate Phase Hydrocarbon
SPHT = Separate Phase Hydrocarbon Thickness
TOC = Top of Casing
TPH = Total Petroleum Hydrocarbons
TPH-DRO = TPH as Diesel-Range Organics
TPH-GRO = TPH as Gasoline-Range Organics
TPH-HRO = TPH as Heavy Oil-Range Organics
USEPA = United States Environmental Protection Agency
µg/L = Micrograms per liter
-- = Not Measured/Not Analyzed

Notes:

1 Analytical results in bold font indicate concentrations exceed MTCA Method A Cleanup Levels.
2 TOC elevations have been surveyed in feet relative to the 1988 North American Vertical Datum. MW-1 through MW-5 TOC elevations are reference to an arbitrary benchmark of 100 feet.
3 When SPH is present, GWE has been corrected using the following formula: GWE = [(TOC - DTW) + (SPHT x 0.80)].
4 Analyzed without silica-gel cleanup.
5 Laboratory analytical methods for historical data may not be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.
6 Skimmer in well.
7 Interface probe could not detect SPH/Groundwater Interface, unable to gauge hydrocarbon thickness and calculate corrected GWE.
8 Pre-surfactant injection groundwater sample.
9 Post-surfactant extraction groundwater sample.
10 Analyzed without silica-gel cleanup.

Attachment A:
Groundwater Monitoring and Sampling Data Package

GETTLER-RYAN INC.

TRANSMITTAL

May 23, 2018
G-R #17156750

TO: Ms. Ruth A. Otteman
Leidos, Inc.
18912 North Creek Parkway, Suite 101
Bothell, WA 98011

FROM: Deanna L. Harding
Project Manager
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: Former Chevron Service Station #209335
1225 North 45th Street
Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **First Semi Annual Event of May 17, 2018**

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/209335

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	**Chevron #209335** Date: 5/17/18
Address:	**1225 N. 45th Street**
City/St.:	**Seattle, WA**
Status of Site:	Sidewalk, Apt. Parking Garage

DRUMS:

Please list below ALL DRUMS on site:
(i.e., drum description, condition, labeling, contents and location of drums)

#	Description	Condition	Labeling	Contents/Capacity	Location
	NO DRUMS				

WELLS:

Please check the condition of ALL WELLS on site:
(i.e., gaskets, bolts, replaced well plug and/or well lock, well box condition and etc.)

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Replaced Plug Y/N	Replaced Lock Y/N	Well Box Manufacturer/Size/# of Bolts	Other
MW-6	Ok	Ok	N	N	Arms/8"/3	
MW-7	↓	↓	↓	↓	↓	
MW-8						
MW-9						
MW-10	↓	↓	↓	↓	↓	

Additional Comments/Observations: _____

STANDARD OPERATING PROCEDURE, LOW-FLOW PURGING AND SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - *"Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."*

A QED Well Wizard™ (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet. Total well depths are measured annually.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 20 mV).

Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #209335 | Job Number: 17156750
Site Address: 1225 N. 45th Street | Event Date: 5-17-18 (inclusive)
City: Seattle, WA | Sampler: MW

Well ID: MW-6 | Date Monitored: 5-17-18
Well Diameter: 2 in.
Total Depth: 33.10 ft.
Depth to Water: 25.71 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.39 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump	✓	QED Bladder Pump	✓
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0945 | Weather Conditions: Cloudy
Sample Time/Date: 1025 / 5-17-18 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 25.88

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1003	3.6	6.78	276	15.9			25.77
1006	4.3	6.83	289	16.0			25.82
1009	4.8	6.88	294	16.1			25.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	EUROFINS	NWTPH-Dx w/sgc/NWTPG-Dx
	1 x 250ml poly	YES	HNO3	EUROFINS	TOTAL LEAD(6020)

COMMENTS: Depth Pump Set At: ~28.0ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 17156750
Site Address: 1225 N. 45th Street Event Date: 5-17-18 (inclusive)
City: Seattle, WA Sampler: AW

Well ID MW-7 Date Monitored: 5-17-18
Well Diameter 2 in.
Total Depth 33.52 ft.
Depth to Water 26.10 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.42 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	
QED Bladder Pump	✓
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	✓
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1135 Weather Conditions: Sunny
Sample Time/Date: 1215 / 5-17-18 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 26.25

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1153	3.6	7.24	311	16.1			26.18
1156	4.2	7.27	306	16.2			26.21
1159	4.8	7.31	302	16.2			26.25

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	EUROFINS	NWTPH-Dx w/sgc/NWTPG-Dx
	1 x 250ml poly	YES	HNO3	EUROFINS	TOTAL LEAD(6020)

COMMENTS: Depth Pump Set At: ~ 28.0ft

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 17156750
Site Address: 1225 N. 45th Street Event Date: 5-17-18 (inclusive)
City: Seattle, WA Sampler: AW

Well ID MW-8 Date Monitored: 5-17-18
Well Diameter 2 in.
Total Depth 31.90 ft.
Depth to Water 26.17 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump
QED Bladder Pump ✓
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump ✓
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1040 Weather Conditions: Sunny
Sample Time/Date: 1120 / 5-17-18 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 26.35

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1058	3.6	7.11	214	15.9			26.22
1101	4.2	7.14	230	16.0			26.29
1104	4.8	7.17	236	16.1			26.35

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	EUROFINS	NWTPH-Dx w/sgc/NWTPG-Dx
	1 x 250ml poly	YES	HNO3	EUROFINS	TOTAL LEAD(6020)

COMMENTS: Depth Pump Set At: ~29.0ft.

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #209335 | Job Number: 17156750
Site Address: 1225 N. 45th Street | Event Date: 5-17-18 (inclusive)
City: Seattle, WA | Sampler: JW

Well ID: MW-9 | Date Monitored: 5-17-18
Well Diameter: 2 in.
Total Depth: 44.20 ft.
Depth to Water: 37.18 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.02 xVF ~ = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: -

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	✓
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	✓
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1340 | Weather Conditions:
Sample Time/Date: 1420 / 5-17-18 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: - | Volume: - ltrs | DTW @ Sampling: 37.27

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (mS / µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1358	3.6	7.18	276	16.5			37.21
1401	4.2	7.23	281	16.6			37.25
1404	4.8	7.27	288	16.6			37.27

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	EUROFINS	NWTPH-Dx w/sgc/NWTPG-Dx
	1 x 250ml poly	YES	HNO3	EUROFINS	TOTAL LEAD(6020)

COMMENTS: Depth Pump Set At: ~39.0ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #209335 | Job Number: 17156750
Site Address: 1225 N. 45th Street | Event Date: 5-17-18 (inclusive)
City: Seattle, WA | Sampler: AW

Well ID: MW-10 | Date Monitored: 5-17-18
Well Diameter: 2 in.
Total Depth: 40.40 ft.
Depth to Water: 36.52 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

3.88 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump	✓	QED Bladder Pump	✓
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 1245 | Weather Conditions: ___
Sample Time/Date: 1325 / 5-17-18 | Water Color: Cloudy | Odor: Y (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: ___ | Volume: ___ ltrs | DTW @ Sampling: 36.65

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1303	3.6	6.89	291	16.0			36.55
1306	4.2	6.92	295	16.1			36.59
1309	4.8	6.98	304	16.1			36.65

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	3 x voa vial	YES	HCL	EUROFINS	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	EUROFINS	NWTPH-Dx w/sgc/NWTPG-Dx
	1 x 250ml poly	YES	HNO3	EUROFINS	TOTAL LEAD(6020)

COMMENTS: Depth Pump Set At: ~ 38.5 ft.

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

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

1 Client Information

Facility # SS#209335-OML G-R#17156750 WBS
Site Address 4225 N. 45th Street, SEATTLE, WA
Chevron PM MHO LEIDOSRO Lead Consultant Ruth Otteman
Consultant/Office Getter-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler Alex Worg

SCR #: _____

2 Sample Identification / 3 Collected / Grab / Composite / 4 Matrix / Total Number of Containers / 5 Analyses Requested

Sample Identification	Date	Time	Grab	Composite	Soil	Sediment	Water (Ground, Potable, Surface, NPDES)	Oil	Air	Total Containers	BTEX + Naphth / 8021 / 8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead (Total / Diss. / Method)
QA	180517		X				X			2	X			X					
MW-6	180517	1025	X				X			6	X			X		X			X
MW-7	180517	1215	X				X			6	X			X		X			X
MW-8	180517	1120	X				X			6	X			X		X			X
MW-9	180517	1470	X				X			6	X			X		X			X
MW-10	180517	1325	X				X			6	X			X		X			X

Method: KP/MS 6020

- [ ] 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

Please forward the lab results directly to the Lead Consultant and cc: G-R.

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

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

Relinquished by	Date	Time	Received by	Date	Time
	180521	0630	GR Fridge	180521	0630
	5/21/18	1211	A. Talyn 21	MAY18	1211

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

Attachment B:
Laboratory Analysis 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:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

Report Date: June 05, 2018 14:44

Project: 209335

Account #: 11260
Group Number: 1946223
PO Number: 0015274511
Release Number: HORNE
State of Sample Origin: WA

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	Leidos	Attn: Ruth Otteman
Electronic Copy To	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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#
QA-T-180517 NA Water	05/17/2018	9621600
MW-6-W-180517 Grab Groundwater	05/17/2018 10:25	9621601
MW-7-W-180517 Grab Groundwater	05/17/2018 12:15	9621602
MW-8-W-180517 Grab Groundwater	05/17/2018 11:20	9621603
MW-9-W-180517 Grab Groundwater	05/17/2018 14:20	9621604
MW-10-W-180517 Grab Groundwater	05/17/2018 13:25	9621605

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

Sample Description: **QA-T-180517 NA Water**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018

Chevron
ELLE Sample #: WW 9621600
ELLE Group #: 1946223
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18143A94A	05/25/2018 15:26	Marie D Beamenderfer	1
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 15:26	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 15:26	Marie D Beamenderfer	1

Sample Description: **MW-6-W-180517 Grab Groundwater**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018 10:25

Chevron
ELLE Sample #: WW 9621601
ELLE Group #: 1946223
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
Metals	**SW-846 6020B Rev.2, July 2014**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	8.5	0.11	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18143A94A	05/25/2018 15:52	Marie D Beamenderfer	1
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 15:52	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 15:52	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	181500034A	06/01/2018 17:07	Thomas C Wildermuth	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	181500034A	05/31/2018 08:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020B Rev.2, July 2014	1	181431404701A	06/04/2018 15:18	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U5	SW-846 3020A	1	181431404701	05/23/2018 21:30	Annamaria Kuhns	1

Sample Description: **MW-7-W-180517 Grab Groundwater**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018 12:15

Chevron
ELLE Sample #: WW 9621602
ELLE Group #: 1946223
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	140,000	5,000	100
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	10	20
02102	Ethylbenzene	100-41-4	1,200	10	20
02102	Toluene	108-88-3	390	10	20
02102	Total Xylenes	1330-20-7	8,700	30	20
	Reporting limits were raised due to interference from the sample matrix.				
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	12,000	290	10
08271	Heavy Range Organics C24-C40	n.a.	N.D.	670	10
Metals	**SW-846 6020B Rev.2, July 2014**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	78.8	0.11	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18145B53A	05/30/2018 01:17	Jeremy C Giffin	100
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 17:33	Marie D Beamenderfer	20
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 17:33	Marie D Beamenderfer	20
01146	GC VOA Water Prep	SW-846 5030B	2	18145B53A	05/30/2018 01:17	Jeremy C Giffin	100
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	181500034A	06/04/2018 17:39	Thomas C Wildermuth	10
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	181500034A	05/31/2018 08:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020B Rev.2, July 2014	1	181431404701A	06/04/2018 15:29	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U5	SW-846 3020A	1	181431404701	05/23/2018 21:30	Annamaria Kuhns	1

Sample Description: **MW-8-W-180517 Grab Groundwater**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018 11:20

Chevron
ELLE Sample #: WW 9621603
ELLE Group #: 1946223
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	55	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
Metals	**SW-846 6020B Rev.2, July 2014**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.11	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18143A94A	05/25/2018 16:17	Marie D Beamenderfer	1
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 16:17	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 16:17	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	181500034A	06/01/2018 16:02	Thomas C Wildermuth	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	181500034A	05/31/2018 08:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020B Rev.2, July 2014	1	181431404701A	06/04/2018 15:34	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U5	SW-846 3020A	1	181431404701	05/23/2018 21:30	Annamaria Kuhns	1

Sample Description: **MW-9-W-180517 Grab Groundwater**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018 14:20

Chevron
ELLE Sample #: WW 9621604
ELLE Group #: 1946223
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
Metals	**SW-846 6020B Rev.2, July 2014**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.90	0.11	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18143A94A	05/25/2018 16:43	Marie D Beamenderfer	1
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 16:43	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 16:43	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	181500034A	06/01/2018 16:24	Thomas C Wildermuth	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	181500034A	05/31/2018 08:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020B Rev.2, July 2014	1	181431404701A	06/04/2018 15:36	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U5	SW-846 3020A	1	181431404701	05/23/2018 21:30	Annamaria Kuhns	1

Sample Description: **MW-10-W-180517 Grab Groundwater**
1225 N 45th St - Seattle, WA

Project Name: **209335**

Submittal Date/Time: 05/22/2018 10:05
Collection Date/Time: 05/17/2018 13:25

Chevron
ELLE Sample #: WW 9621605
ELLE Group #: 1946223
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
Metals	**SW-846 6020B Rev.2, July 2014**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.2	0.11	1

Sample Comments

State of Washington Lab Certification No. C457

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
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18143A94A	05/25/2018 17:08	Marie D Beamenderfer	1
02102	BTEX (8021)	SW-846 8021B	1	18143A94A	05/25/2018 17:08	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	18143A94A	05/25/2018 17:08	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	181500034A	06/01/2018 16:46	Thomas C Wildermuth	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	181500034A	05/31/2018 08:00	Bradley W VanLeuven	1
06035	Lead	SW-846 6020B Rev.2, July 2014	1	181431404701A	06/04/2018 15:37	Patrick J Engle	1
14047	ICPMS - Water, 3020A - U5	SW-846 3020A	1	181431404701	05/23/2018 21:30	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron
Reported: 06/05/2018 14:44

Group Number: 1946223

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
	ug/l	ug/l
Batch number: 18143A94A	Sample number(s): 9621600-9621605	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
NWTPH-Gx water C7-C12	N.D.	50
Toluene	N.D.	0.2
Total Xylenes	N.D.	0.2
Batch number: 18145B53A	Sample number(s): 9621602	
NWTPH-Gx water C7-C12	N.D.	50
Batch number: 181500034A	Sample number(s): 9621601-9621605	
Diesel Range Organics C12-C24	N.D.	30
Heavy Range Organics C24-C40	N.D.	70
Batch number: 181431404701A	Sample number(s): 9621601-9621605	
Lead	N.D.	0.11

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18143A94A	Sample number(s): 9621600-9621605								
Benzene	20	19.4	20	19.75	97	99	80-120	2	30
Ethylbenzene	20.1	18.43	20.1	18.71	92	93	80-120	1	30
NWTPH-Gx water C7-C12	1100	1351.44	1100	1380.86	123*	126*	80-120	2	30
Toluene	20.1	19.19	20.1	19.42	95	97	80-120	1	30
Total Xylenes	60.2	57.13	60.2	57.83	95	96	80-120	1	30
Batch number: 18145B53A	Sample number(s): 9621602								
NWTPH-Gx water C7-C12	1100	1250.98	1100	1314.51	114	120	80-120	5	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 181500034A	Sample number(s): 9621601-9621605								
Diesel Range Organics C12-C24	1600	1155.31	1600	1257.21	72	79	50-113	8	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 181431404701A	Sample number(s): 9621601-9621605								

*- Outside of specification
(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: Chevron
Reported: 06/05/2018 14:44

Group Number: 1946223

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lead	15	16.1			107		90-110		

MS/MSD

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18143A94A	Sample number(s): 9621600-9621605 UNSPK: P623695									
Benzene	14.37	20	32.51	20	34.06	91	98	80-120	5	30
Ethylbenzene	N.D.	20.1	20.66	20.1	20.61	103	103	80-120	0	30
Toluene	0.371	20.1	20.74	20.1	21.02	101	103	80-120	1	30
Total Xylenes	1.25	60.2	63.93	60.2	63.56	104	104	80-120	1	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 181431404701A	Sample number(s): 9621601-9621605 UNSPK: 9621601									
Lead	8.47	15	40.19	15	42.95	211*	230*	75-125	7	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc ug/l	DUP Conc ug/l	DUP RPD	DUP RPD Max
Batch number: 181431404701A	Sample number(s): 9621601-9621605 BKG: 9621601			
Lead	8.47	23.67	95* (1)	20

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.

Analysis Name: BTEX (8021)
Batch number: 18143A94A

	Trifluorotoluene-P	Trifluorotoluene-F
9621600	82	80

*- Outside of specification
(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: Chevron
Reported: 06/05/2018 14:44

Group Number: 1946223

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.

Analysis Name: BTEX (8021)
Batch number: 18143A94A

	Trifluorotoluene-P	Trifluorotoluene-F
9621601	82	80
9621603	82	80
9621604	83	79
9621605	82	80
Blank	82	81
LCS	81	94
LCSD	81	96
Limits:	51-120	50-150

	Trifluorotoluene-P
9621602	78
MS	97
MSD	98
Limits:	51-120

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 18145B53A

	Trifluorotoluene-F
9621602	91
Blank	106
LCS	107
LCSD	110
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 181500034A

	Orthoterphenyl
9621601	78
9621602	128
9621603	86
9621604	80
9621605	78
Blank	100
LCS	89
LCSD	96
Limits:	50-150

*- Outside of specification
(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 Northwest Region Analysis Request/Chain of Custody

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Ø52118-Ø1

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1946223 Sample # 9621600-05
Instructions on reverse side correspond with circled numbers.

SCR #: ______

① Client Information

Facility # SS#209335-OML G-R#17156750 WBS

Site Address 1225 N. 45th Street, SEATTLE, WA

Chevron PM MHO LEIDOSRO Lead Consultant Ruth Otteman

Consultant/Office Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler Alex Wong

④ Matrix

☐ Sediment ☒ Ground ☐ Surface
☐ Potable ☐ NPDES ☐ Air
☐ Soil, Water, Oil

⑤ Analyses Requested

- BTEX [redacted] ☒ 8021 ☐ 8260 ☐ Naphth
- 8260 full scan
- Oxygenates
- NWTPH-Gx
- ☐ NWTPH-Dx with Silica Gel Cleanup
- ☒ NWTPH-Dx without Silica Gel Cleanup
- ☐ WA VPH
- ☐ WA EPH
- Lead ☒ Total ☐ Diss. ☐ Method ICP/MS 6020

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead
QA	180517	—	X			X		2	X			X					
MW-6	180517	1025	X			X		6	X			X		X			X
MW-7	180517	1215	X			X		6	X			X		X			X
MW-8	180517	1120	X			X		6	X			X		X			X
MW-9	180517	1420	X			X		6	X			X		X			X
MW-10	180517	1325	X			X		6	X			X		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

Please forward the lab results directly to the Lead Consultant and cc: G-R.

⑦ Turnaround Time Requested (TAT) (please circle)

Standard (circled) 5 day 4 day
72 hour 48 hour 24 hour
EDF/EDD

⑧ Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

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

Relinquished by	Date	Time	Received by	Date	Time ⑨
[signature]	180521	0630	GR Fridge	180521	0630
[signature]	5/21/18	1211	[signature] 21	MAY18	1211
Relinquished by ~~Commercial Carrier:~~ [signature] ~~UPS ____ FedEx ____~~ Other 21MAY18-1630-FX			Received by	Date	Time

Temperature Upon Receipt 0.7-1.2 °C
Custody Seals Intact? Yes (circled) No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
Issued by Dept. 40 Management
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.
7051.03

RCB: R [signature] 5/22/18 1005

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Sample Administration Receipt Documentation Log

Doc Log ID: 217026

Group Number(s): 1946223

Client: CA Office

Delivery and Receipt Information

Delivery Method:	BASC	Arrival Timestamp:	05/22/2018 10:05
Number of Packages:	4	Number of Projects:	3
State/Province of Origin:			

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 Kristin Zeigler (2123) at 13:46 on 05/22/2018

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	DT131	1.2	DT	Wet	Y	Bagged	N
2	DT131	0.7	DT	Wet	Y	Bagged	N
3	DT131	0.9	DT	Wet	Y	Bagged	N
4	DT131	1.1	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.

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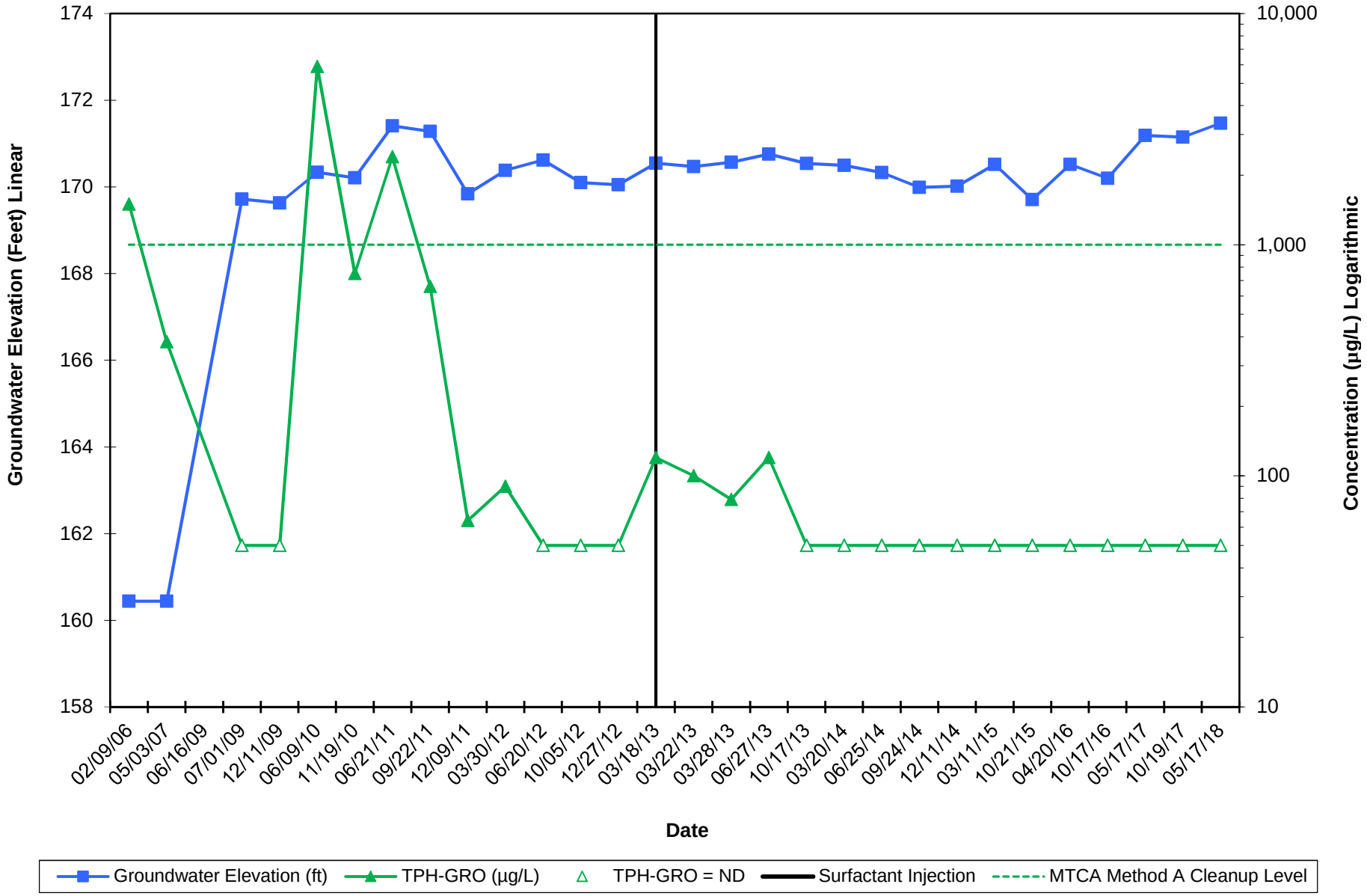
Data Qualifiers

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
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
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.

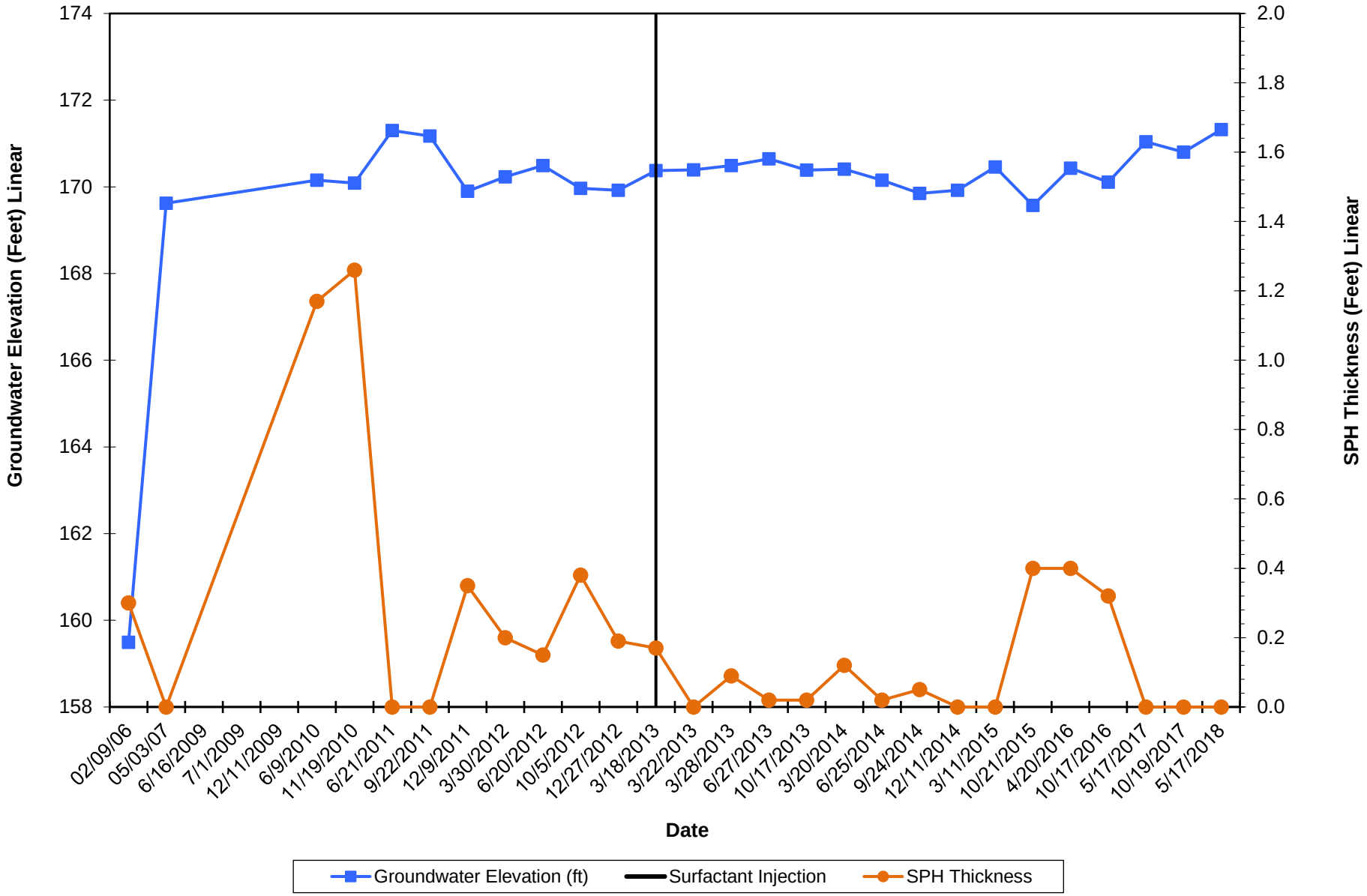
Attachment C:
Hydrographs

Monitoring Well MW-6
Hydrograph - Gasoline-Range Hydrocarbons
Former Standard Oil Service Station, Chevron Site No. 209335
1225 North 45th Street, Seattle, Washington



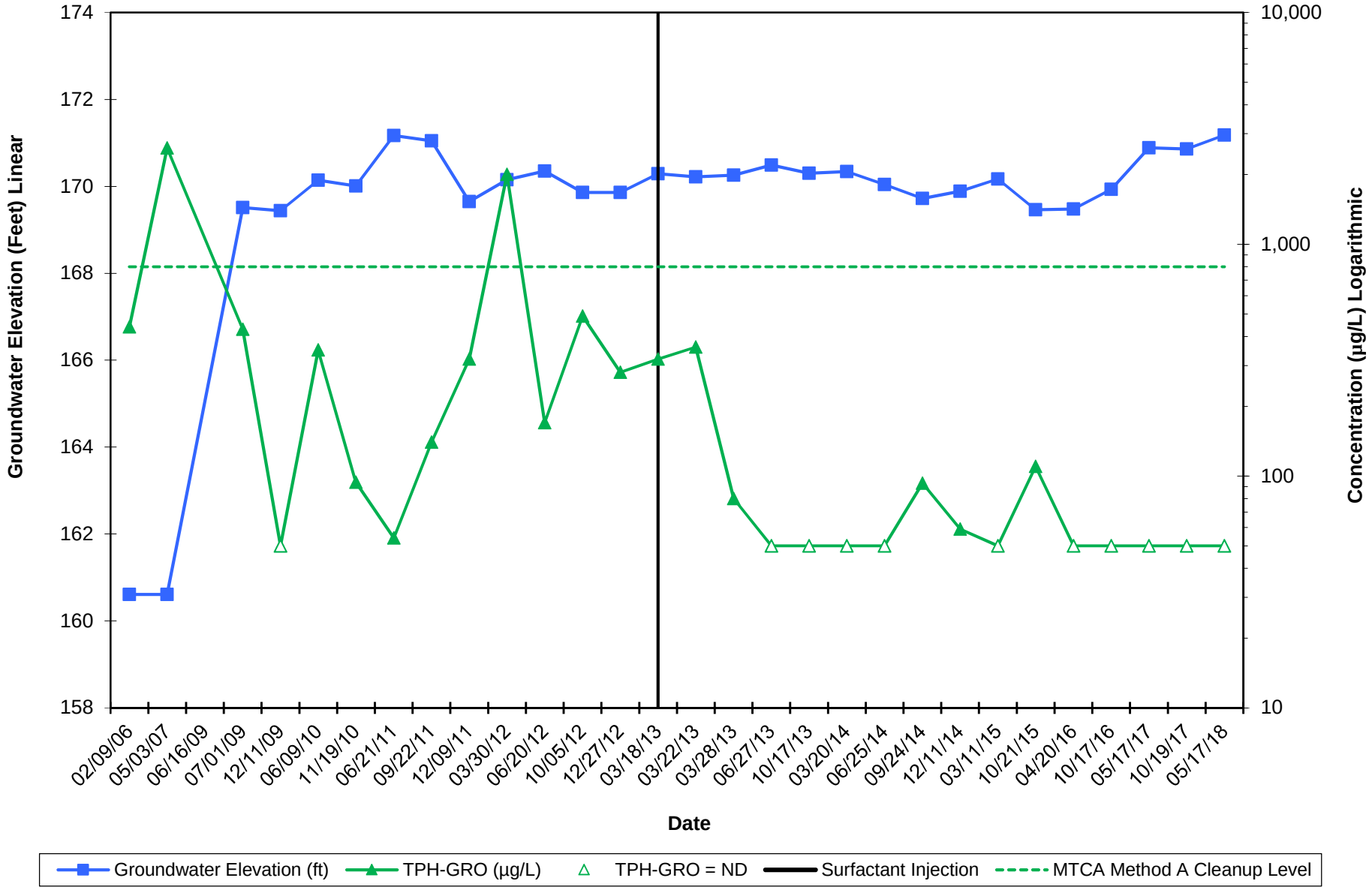
leidos

Monitoring Well MW-7
Hydrograph - SPH Thickness
Former Standard Oil Service Station, Chevron Site No. 209335
1225 North 45th Street, Seattle, Washington



leidos

Monitoring Well MW-8
Hydrograph - Gasoline-Range Hydrocarbons
Former Standard Oil Service Station, Chevron Site No. 209335
1225 North 45th Street, Seattle, Washington



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