

February 1, 2018



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

**Subject: Second Semi-annual 2017 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 second semi-annual 2017 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 October 19, 2017. 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 0.009 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 with and 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 second semi-annual 2017 sampling event indicate that petroleum-hydrocarbon constituent concentrations have been below Model Toxics Control Act (MTCA) Method A cleanup levels for at least four monitoring and sampling events in monitoring wells MW-8, MW-9, and MW-10. Concentrations of lead in monitoring well MW-6 as well as 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.

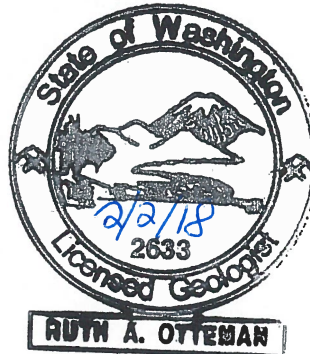
If you have any questions or comments, please contact me at (425) 482-3328 or via email at ottemanr@leidos.com.

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. Mark Horne – Chevron Environmental Management Company
6001 Bollinger Canyon Road, San Ramon, CA 94583
Ms. Veronica Redstone – Bellwether (hard copy & email)
1651 Bellevue Avenue, Seattle, WA 98122-2014
vredstone@bellwetherhousing.org
Project File

REPORT LIMITATIONS

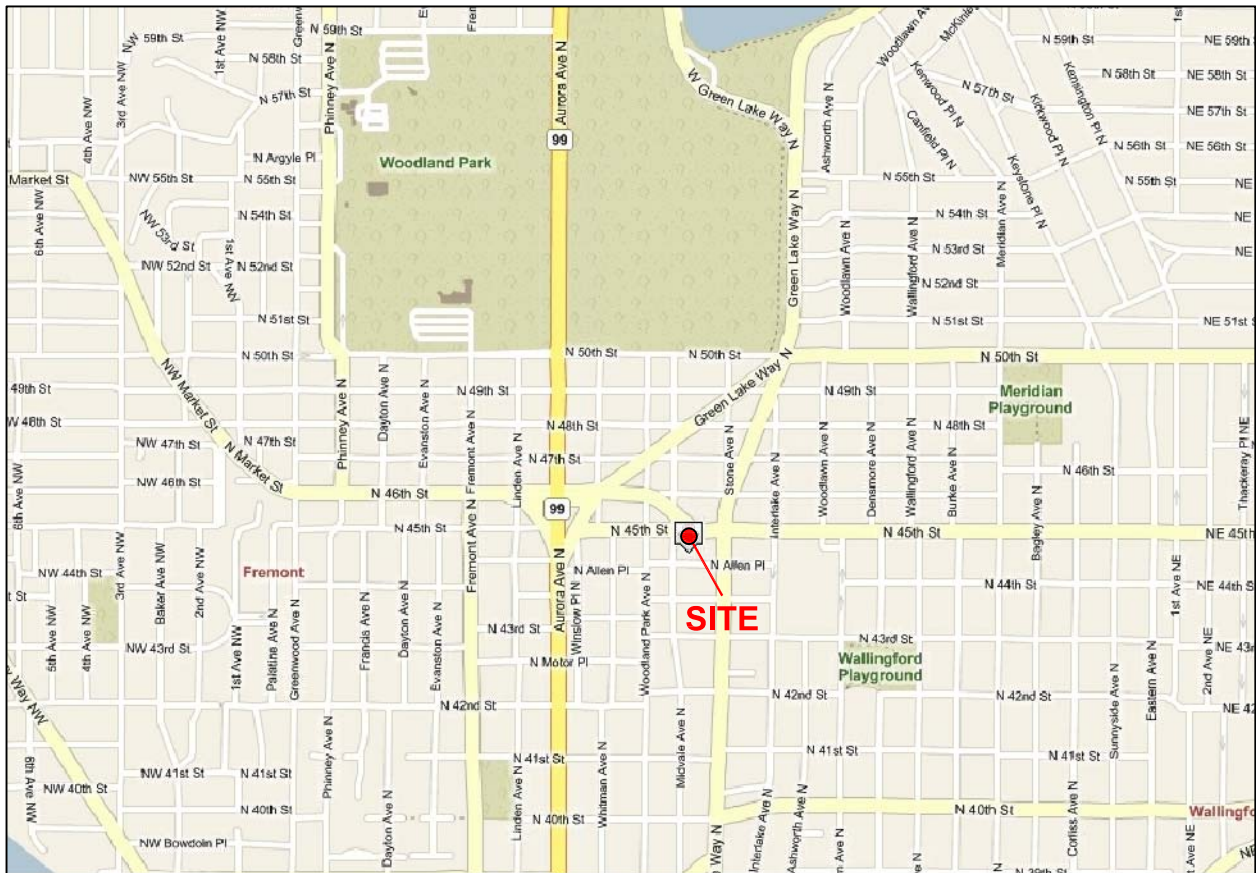
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges 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



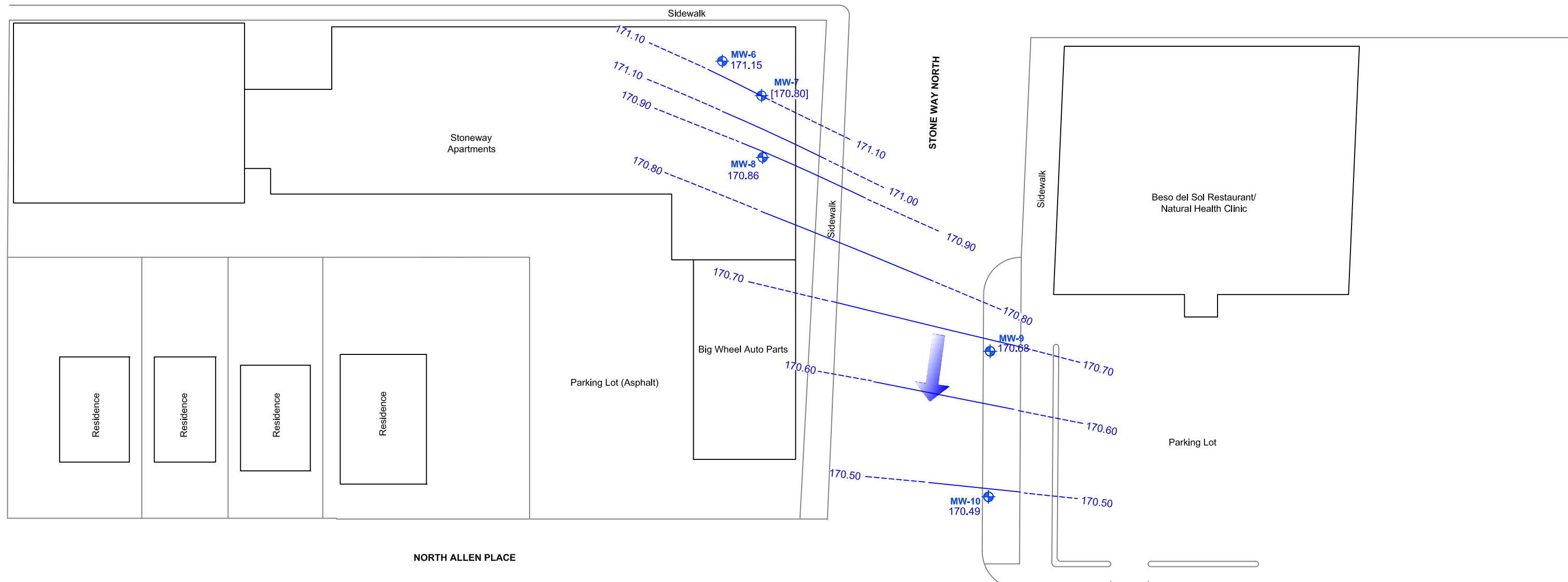
Former Standard Oil Service Station
Chevron No. 209335
1225 North 45th Street
Seattle, Washington

FIGURE 1
Vicinity Map



FILE NAME:
209335 Vicinity Map.dwg

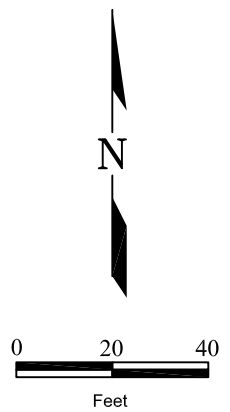
DATE:
8/7/2014

NORTH 45TH STREET



Legend

-  Groundwater Monitoring Well
- 171.15 Groundwater Elevation in Feet
- [171.15] Groundwater Elevation Not Used in Contour
- 170.00 — Groundwater Elevation Contour at an 0.1-Foot Interval (Dashed Where Inferred)
-  Approximate Groundwater Flow Direction at a Gradient of 0.003 to 0.009 feet per foot



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

FIGURE 2
 Potentiometric Map
 October 19, 2017

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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 SEMI-ANNUALLY			--	--	--	--	--	--		
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					--	--	--	--		

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)																
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	--	--	--	--	--	--	--	--	--	
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					--	--	--	--	

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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-3 (cont.)															
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															
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	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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-4 (cont.)															
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					--	--	--	--
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			--	--	--	--	--	--	--	--	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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-5 (cont.)															
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
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	--	2.0
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	--	0.3
03/20/14	NP	197.18	--	26.68	0.00	170.50	<30	<70	<50	<0.5	<0.5	<0.5	<1.5	--	4.0
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	--	33.0
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			--	--	--	--	--	--	--	--	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)															
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				--	--	--	--	
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	29,000/41,000¹⁰	<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	24,000/29,000¹⁰	<1,300/<6,700 ¹⁰	63,000	4.1	190	900	8,100	--	203
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	--	0.30
03/30/12	NP	197.35	--	27.20	0.00	170.15	<30	<70	2,000	3.0	3.9	45	120	--	2.9

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)															
06/20/12	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
06/27/13	NP	197.35	--	26.86	0.00	170.49	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	2.0
10/17/13	NP	197.35	--	27.05	0.00	170.30	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	0.4
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
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

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)															
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	--	0.00020
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
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
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	--	0.00020
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	--	12.0
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
QA															
12/16/00		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--
03/26/01		--	--	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--
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	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)															
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	--	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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.)															
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	--	--
05/17/17		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
10/19/17		--	--	--	--	--	--	--	<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: $GWE = [(TOC - DTW) + (SPHT \times 0.80)]$.

4 Analyzed with 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

October 30, 2017
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 Second Semi Annual Event of October 19, 2017

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.



GETTLER - RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	Chevron #209335	Date:	10/19/17
Address:	1225 N. 45th Street		
City/St.:	Seattle, WA		
Status of Site:	SIDE WALK / 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	no	no	MOXIS / 8 / 3	
MW-7	↓	↓	↓	↓	↓ ↓ ↓	
MW-8	↓	↓	↓	↓	↓ ↓ ↓	
MW-9	↓	↓	↓	↓	↓ ↓ ↓	
MW-10	↓	↓	↓	↓	↓ ↓ ↓	

Additional Comments/Observations: _____

STANDARD OPERATING PROCEDURE GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells. Total well depths are measured annually.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize. Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. 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. 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. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 17156750
 Site Address: 1225 N. 45th Street Event Date: 10/19/17 (inclusive)
 City: Seattle, WA Sampler: GM

Well ID: MW-6 Date Monitored: 10/19/17
 Well Diameter: 2 in.
 Total Depth: 33.10 ft.
 Depth to Water: 26.03 ft. Check if water column is less than 0.50 ft.
7.07 xVF = x3 case volume = Estimated Purge Volume: gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]:

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

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: 0 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): Weather Conditions: RAIN
 Sample Time/Date: 1400/10/19/17 Water Color: BROWN Odor: DN SLIGHT
 Approx. Flow Rate: gpm. Sediment Description: CLAY
 Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 26.03

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

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: _____

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335
 Site Address: 1225 N. 45th Street
 City: Seattle, WA

Job Number: 17156750
 Event Date: 10/19/17 (inclusive)
 Sampler: GM

Well ID: MW-7
 Well Diameter: 2 in.
 Total Depth: 33.52 ft.
 Depth to Water: 26.62 ft.
6.90 xVF = x3 case volume = Estimated Purge Volume: gal.

Date Monitored: 10/19/17

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

Check if water column is less than 0.50 ft.

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 **X**
 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): Weather Conditions: RAIN
 Sample Time/Date: 1440 / 10/19/17 Water Color: GREY Odor: 0 / IN STRONG
 Approx. Flow Rate: gpm. Sediment Description: SLT
 Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 26.62

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

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: SHEEN ON H2O.

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 17156750
 Site Address: 1225 N. 45th Street Event Date: 10/19/17 (inclusive)
 City: Seattle, WA Sampler: GM

Well ID: MW-8 Date Monitored: 10/19/17
 Well Diameter: 2 in.
 Total Depth: 31.92 ft.
 Depth to Water: 26.49 ft.
 Check if water column is less than 0.50 ft.
5.43 xVF = = x3 case volume = Estimated Purge Volume: gal.
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]:

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

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

Sampling Equipment:
 Disposable Bailer X
 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): 10:20 Weather Conditions: RAIN
 Sample Time/Date: 14:20 10/19/17 Water Color: CLEAR Odor: YN SLIGHT
 Approx. Flow Rate: _____ gpm. Sediment Description: SILT
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 26.49

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

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: _____

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335 Job Number: 17156750
 Site Address: 1225 N. 45th Street Event Date: 10/19/17 (inclusive)
 City: Seattle, WA Sampler: GM

Well ID: MW-9 Date Monitored: 10/19/17
 Well Diameter: 2 in.
 Total Depth: 44.21 ft.
 Depth to Water: 37.43 ft. Check if water column is less than 0.50 ft.
6.78 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

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

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 X
 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: 6 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): — Weather Conditions: RAIN
 Sample Time/Date: 1315 / 10/19/17 Water Color: BROWN Odor: Y/CN
 Approx. Flow Rate: — gpm. Sediment Description: SILT/ROCK
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 37.43

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

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: _____

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



GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #209335
 Site Address: 1225 N. 45th Street
 City: Seattle, WA

Job Number: 17156750
 Event Date: 10/19/17 (inclusive)
 Sampler: GM

Well ID: MW-10
 Well Diameter: 2 in.
 Total Depth: 40.40 ft.
 Depth to Water: 36.80 ft.
3.60 xVF = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Date Monitored: 10/19/17

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

Check if water column is less than 0.50 ft.

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 X
 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: 0 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): _____ Weather Conditions: RAIN
 Sample Time/Date: 1335 / 10/19/17 Water Color: BROWN Odor: Y / N
 Approx. Flow Rate: _____ gpm. Sediment Description: SILT / ROOTS
 Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 36.80

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

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:

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

Chevron Northwest Region Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # _____

For Eurofins Lancaster Laboratories use only
Group # _____ Sample # _____

Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix				5 Analyses Requested										6 Remarks										
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 G. Medina			<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/> Total Number of Containers				<input type="checkbox"/> BTEX <input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan <input type="checkbox"/> Oxygenates <input type="checkbox"/> NWTPH-Gx <input checked="" type="checkbox"/> NWTPH-Dx with Silica Gel Cleanup <input checked="" type="checkbox"/> NWTPH-Dx without Silica Gel Cleanup <input type="checkbox"/> WA VPH <input type="checkbox"/> WA EPH <input checked="" type="checkbox"/> Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method 6020										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits										
2 Sample Identification		Collected		3	Composite	Soil	Water	Oil	Total Number of Containers	BTEX	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	Total	Diss.	Method	6 Remarks			
		Date	Time	Grab	Composite																			Please forward the lab results directly to the Lead Consultant and cc: G-R. Please report results for Dx both with and without silica gel cleanup			
QA		171019		X					2	X						X											
MW-6			1400						6								X	X				X					
MW-7			1440																								
MW-8			1420																								
MW-9			1315																								
MW-10			1335																								
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour EDF/EDD 24 hour				Relinquished by <i>[Signature]</i> Date 10/20/17 Time 1235 Received by <i>[Signature]</i> Date 10/20/17 Time				Relinquished by Date Time		Received by Date Time		Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____ Temperature Upon Receipt _____ °C		Received by Date Time		Custody Seals Intact? Yes No											
8 Data Package (circle if required) Type I - Full Type VI (Raw Data)				EDD (circle if required) CVX-RTBU-FL_05 (default) Other: _____				Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____ Temperature Upon Receipt _____ °C		Received by Date Time		Custody Seals Intact? Yes No		9													

Attachment B:
Laboratory Analysis Report



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: November 06, 2017 11:40

Project: 209335

Account #: 11260
Group Number: 1865836
PO Number: 0015246308
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
Electronic Copy To Leidos
Electronic Copy To Gettler-Ryan Inc.

Attn: Ruth Otteman
Attn: Jamalyn Agyei
Attn: Gettler Ryan

Respectfully Submitted,



Amek Carter
Specialist

(717) 556-7252



SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
QA-T-171019 NA Water	10/19/2017	9276845
MW-6-W-171019 Grab Groundwater	10/19/2017 14:00	9276846
MW-7-W-171019 Grab Groundwater	10/19/2017 14:40	9276847
MW-8-W-171019 Grab Groundwater	10/19/2017 14:20	9276848
MW-9-W-171019 Grab Groundwater	10/19/2017 13:15	9276849
MW-10-W-171019 Grab Groundwater	10/19/2017 13:35	9276850

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

Sample Description: QA-T-171019 NA Water
Facility# 209335 **Job#** 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276845
ELLE Group #: 1865836
Matrix: Water

Project Name: 209335

Submission Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles					
	ECY 97-602 NWT PH-Gx		ug/l	ug/l	
08274	NWT PH-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	NWT PH-Gx water C7-C12	ECY 97-602 NWT PH-Gx	1	17297A94A	10/24/2017 14:39	Brett W Kenyon	1
02102	Method 8021 Water Master	SW-846 8021B	1	17297A94A	10/24/2017 14:39	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17297A94A	10/24/2017 14:39	Brett W Kenyon	1

Sample Description: MW-6-W-171019 Grab Groundwater
Facility# 209335 Job# 17156750
1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276846
ELLE Group #: 1865836
Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017 14:00

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.	32	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si					
	ECY 97-602 NWTPH-Dx modified		ug/l	ug/l	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, is present at <1%.					
Metals					
	SW-846 6020		ug/l	ug/l	
06035	Lead	7439-92-1	33.0	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	17297A94A	10/24/2017 22:45	Brett W Kenyon	1
02102	Method 8021 Water Master	SW-846 8021B	1	17297A94A	10/24/2017 22:45	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17297A94A	10/24/2017 22:45	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/31/2017 19:12	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	172990038A	11/01/2017 15:30	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx modified	1	172990038A	10/27/2017 16:02	Christine E Gleim	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/27/2017 16:02	Christine E Gleim	1
06035	Lead	SW-846 6020	1	172950605004A	10/24/2017 08:50	Choon Y Tian	1

Sample Description: MW-6-W-171019 Grab Groundwater
 Facility# 209335 Job# 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
 ELLE Sample #: WW 9276846
 ELLE Group #: 1865836
 Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
 Collection Date/Time: 10/19/2017 14:00

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	172950605004	10/23/2017 16:40	JoElla L Rice	1

Sample Description: MW-7-W-171019 Grab Groundwater
Facility# 209335 Job# 17156750
1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276847
ELLE Group #: 1865836
Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017 14:40

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.	63,000	1,000	20
GC Volatiles					
SW-846 8021B			ug/l	ug/l	
02102	Benzene	71-43-2	4.1	2.5	5
02102	Ethylbenzene	100-41-4	900	2.5	5
02102	Toluene	108-88-3	190	2.5	5
02102	Total Xylenes	1330-20-7	8,100	30	20
GC Petroleum Hydrocarbons					
ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
08271	Diesel Range Organics C12-C24	n.a.	29,000	2,900	100
08271	Heavy Range Organics C24-C40	n.a.	N.D.	6,700	100
GC Petroleum Hydrocarbons w/Si					
ECY 97-602 NWTPH-Dx modified			ug/l	ug/l	
12005	DRO C12-C24 w/Si Gel	n.a.	24,000	570	20
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	1,300	20
The reverse surrogate, capric acid, is present at <1%.					
Metals					
SW-846 6020			ug/l	ug/l	
06035	Lead	7439-92-1	203	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	17298A94A	10/25/2017 15:51	Brett W Kenyon	20
02102	Method 8021 Water Master	SW-846 8021B	1	17298A94A	10/25/2017 15:51	Brett W Kenyon	20
02102	Method 8021 Water Master	SW-846 8021B	1	17299A94A	10/26/2017 20:38	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	17298A94A	10/25/2017 15:51	Brett W Kenyon	20
01146	GC VOA Water Prep	SW-846 5030B	2	17299A94A	10/26/2017 20:38	Brett W Kenyon	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/30/2017 17:40	Thomas C Wildermuth	100
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	172990038A	11/02/2017 23:14	Amy Lehr	20
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	172990038A	10/27/2017 16:02	Christine E Gleim	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	172990039A	10/27/2017 16:02	Christine E Gleim	1

Sample Description: MW-7-W-171019 Grab Groundwater
 Facility# 209335 Job# 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
 ELLE Sample #: WW 9276847
 ELLE Group #: 1865836
 Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
 Collection Date/Time: 10/19/2017 14:40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	172950605004A	10/24/2017 09:41	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	172950605004	10/23/2017 16:40	JoElla L Rice	1

Sample Description: MW-8-W-171019 Grab Groundwater
Facility# 209335 Job# 17156750
1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276848
ELLE Group #: 1865836
Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017 14:20

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 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					
08271	Diesel Range Organics C12-C24	n.a.	N.D.	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si					
ECY 97-602 NWTPH-Dx modified					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, is present at <1%.					
Metals					
SW-846 6020					
06035	Lead	7439-92-1	ug/l 0.31	ug/l 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	17298A94A	10/25/2017 14:09	Brett W Kenyon	1
02102	Method 8021 Water Master	SW-846 8021B	1	17298A94A	10/25/2017 14:09	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17298A94A	10/25/2017 14:09	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/31/2017 18:50	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	172990038A	11/01/2017 16:14	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx modified	1	172990038A	10/27/2017 16:02	Christine E Gleim	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/27/2017 16:02	Christine E Gleim	1
06035	Lead	SW-846 6020	1	172970605006A	10/26/2017 05:35	Choon Y Tian	1

Sample Description: MW-8-W-171019 Grab Groundwater
 Facility# 209335 Job# 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
 ELLE Sample #: WW 9276848
 ELLE Group #: 1865836
 Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
 Collection Date/Time: 10/19/2017 14:20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	172970605006	10/25/2017 15:45	JoElla L Rice	1

Sample Description: MW-9-W-171019 Grab Groundwater
Facility# 209335 Job# 17156750
1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276849
ELLE Group #: 1865836
Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017 13:15

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Volatiles					
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx n.a.	ug/l N.D.	ug/l 50	1
GC Volatiles					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 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					
08271	Diesel Range Organics C12-C24	n.a.	39	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si					
ECY 97-602 NWTPH-Dx modified					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Metals					
SW-846 6020					
06035	Lead	7439-92-1	3.2	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	17298A94A	10/25/2017 14:34	Brett W Kenyon	1
02102	Method 8021 Water Master	SW-846 8021B	1	17298A94A	10/25/2017 14:34	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17298A94A	10/25/2017 14:34	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/31/2017 18:06	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	172990038A	11/01/2017 16:36	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx modified	1	172990038A	10/27/2017 16:02	Christine E Gleim	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/27/2017 16:02	Christine E Gleim	1
06035	Lead	SW-846 6020	1	172970605005A	11/02/2017 03:49	Sarah L Burt	1

Sample Description: MW-9-W-171019 Grab Groundwater
 Facility# 209335 Job# 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
 ELLE Sample #: WW 9276849
 ELLE Group #: 1865836
 Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
 Collection Date/Time: 10/19/2017 13:15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	172970605005	10/26/2017 16:35	JoElla L Rice	1

Sample Description: MW-10-W-171019 Grab Groundwater
Facility# 209335 Job# 17156750
1225 N. 45th Street - Seattle, WA

Chevron
ELLE Sample #: WW 9276850
ELLE Group #: 1865836
Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
Collection Date/Time: 10/19/2017 13:35

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
GC Petroleum Hydrocarbons w/Si		ECY 97-602 NWTPH-Dx modified	ug/l	ug/l	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Metals		SW-846 6020	ug/l	ug/l	
06035	Lead	7439-92-1	7.6	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	17298A94A	10/25/2017 15:00	Brett W Kenyon	1
02102	Method 8021 Water Master	SW-846 8021B	1	17298A94A	10/25/2017 15:00	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17298A94A	10/25/2017 15:00	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/31/2017 18:28	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	172990038A	11/01/2017 19:10	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx modified	1	172990038A	10/27/2017 16:02	Christine E Gleim	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx modified	1	172990039A	10/27/2017 16:02	Christine E Gleim	1
06035	Lead	SW-846 6020	1	172970605005A	11/02/2017 03:51	Sarah L Burt	1

Sample Description: MW-10-W-171019 Grab Groundwater
 Facility# 209335 Job# 17156750
 1225 N. 45th Street - Seattle, WA

Chevron
 ELLE Sample #: WW 9276850
 ELLE Group #: 1865836
 Matrix: Groundwater

Project Name: 209335

Submittal Date/Time: 10/21/2017 09:40
 Collection Date/Time: 10/19/2017 13:35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	172970605005	10/26/2017 16:35	JoElla L Rice	1

Quality Control Summary

Client Name: Chevron
Reported: 11/06/2017 11:40

Group Number: 1865836

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: 17297A94A	Sample number(s): 9276845-9276846	
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: 17298A94A	Sample number(s): 9276847-9276850	
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: 17299A94A	Sample number(s): 9276847	
Benzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Toluene	N.D.	0.2
Batch number: 172990039A	Sample number(s): 9276846-9276850	
Diesel Range Organics C12-C24	N.D.	30
Heavy Range Organics C24-C40	N.D.	70
Batch number: 172990038A	Sample number(s): 9276846-9276850	
DRO C12-C24 w/Si Gel	N.D.	30
HRO C24-C40 w/Si Gel	N.D.	70
Batch number: 172950605004A	Sample number(s): 9276846-9276847	
Lead	N.D.	0.11
Batch number: 172970605005A	Sample number(s): 9276849-9276850	
Lead	N.D.	0.11
Batch number: 172970605006A	Sample number(s): 9276848	
Lead	N.D.	0.11

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
---------------	-----------------	----------	------------------	-----------	----------	-----------	-----------------	-----	---------

*- 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: 11/06/2017 11:40

Group Number: 1865836

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: 17297A94A	Sample number(s): 9276845-9276846								
Benzene	20	20.58	20	20.65	103	103	80-120	0	30
Ethylbenzene	20.1	20.77	20.1	20.98	103	104	80-120	1	30
NWTPH-Gx water C7-C12	1100	1148.68	1100	1146.32	104	104	80-120	0	30
Toluene	20.2	21.05	20.2	21.09	104	104	80-120	0	30
Total Xylenes	60.2	63.68	60.2	64.11	106	106	80-120	1	30
Batch number: 17298A94A	Sample number(s): 9276847-9276850								
Benzene	20	19.89	20	20.06	99	100	80-120	1	30
Ethylbenzene	20.1	20.64	20.1	20.77	103	103	80-120	1	30
NWTPH-Gx water C7-C12	1100	1107.94	1100	1104.24	101	100	80-120	0	30
Toluene	20.2	20.79	20.2	20.84	103	103	80-120	0	30
Total Xylenes	60.2	63.52	60.2	63.91	106	106	80-120	1	30
Batch number: 17299A94A	Sample number(s): 9276847								
Benzene	20	20.54	20	20.87	103	104	80-120	2	30
Ethylbenzene	20.1	21.52	20.1	21.59	107	107	80-120	0	30
Toluene	20.2	21.64	20.2	21.75	107	108	80-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 172990039A	Sample number(s): 9276846-9276850								
Diesel Range Organics C12-C24	1600	865.6	1600	920.22	54	58	50-113	6	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 172990038A	Sample number(s): 9276846-9276850								
DRO C12-C24 w/Si Gel	1600	884.91	1600	914.35	55	57	32-117	3	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 172950605004A	Sample number(s): 9276846-9276847								
Lead	15	14.86			99		80-120		
Batch number: 172970605005A	Sample number(s): 9276849-9276850								
Lead	15	15.16			101		80-120		
Batch number: 172970605006A	Sample number(s): 9276848								
Lead	15	15.13			101		80-120		

MS/MSD

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

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
---------------	---------------	----------------	---------	-----------------	----------	---------	----------	---------------	-----	---------

*- 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: 11/06/2017 11:40

Group Number: 1865836

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: 17299A94A	Sample number(s): 9276847 UNSPK: P275672									
Benzene	N.D.	20	22.32	20	22.36	112	112	80-120	0	30
Ethylbenzene	N.D.	20.1	23.22	20.1	23.34	115	116	80-120	1	30
Toluene	N.D.	20.2	23.32	20.2	23.46	115	116	80-120	1	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 172950605004A	Sample number(s): 9276846-9276847 UNSPK: 9276846									
Lead	33.04	15	55.01	15	55.83	146*	152*	75-125	1	20
Batch number: 172970605005A	Sample number(s): 9276849-9276850 UNSPK: P278764									
Lead	0.763	15	15.44	15	15.99	98	102	75-125	4	20
Batch number: 172970605006A	Sample number(s): 9276848 UNSPK: P276488									
Lead	N.D.	15	15.43	15	15.47	103	103	75-125	0	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: 172950605004A	Sample number(s): 9276846-9276847 BKG: 9276846			
Lead	33.04	36.37	10	20
Batch number: 172970605005A	Sample number(s): 9276849-9276850 BKG: P278764			
Lead	0.763	0.697	9 (1)	20
Batch number: 172970605006A	Sample number(s): 9276848 BKG: P276488			
Lead	N.D.	N.D.	0 (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. 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: Method 8021 Water Master
Batch number: 17297A94A

*- 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: 11/06/2017 11:40

Group Number: 1865836

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: Method 8021 Water Master
Batch number: 17297A94A

	Trifluorotoluene-P	Trifluorotoluene-F
9276845	89	77
9276846	88	77
Blank	89	79
LCS	87	83
LCSD	87	85
Limits:	51-120	63-135

Analysis Name: Method 8021 Water Master
Batch number: 17298A94A

	Trifluorotoluene-P	Trifluorotoluene-F
9276847		81
9276848	88	77
9276849	87	77
9276850	88	78
Blank	88	78
LCS	86	82
LCSD	86	81
Limits:	51-120	63-135

Analysis Name: Method 8021 Water Master
Batch number: 17299A94A

	Trifluorotoluene-P
9276847	79
Blank	88
LCS	86
LCSD	87
MS	86
MSD	86
Limits:	51-120

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 172990038A

	Orthoterphenyl
9276846	59
9276847	143
9276848	75

*- 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: 11/06/2017 11:40

Group Number: 1865836

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: NWTPH-Dx water w/ 10g Si Gel

Batch number: 172990038A

Orthoterphenyl

9276849	76
9276850	63
Blank	74
LCS	65
LCSD	70

Limits: 50-150

Analysis Name: NWTPH-Dx water

Batch number: 172990039A

Orthoterphenyl

9276846	76
9276847	145
9276848	95
9276849	97
9276850	83
Blank	91
LCS	80
LCSD	87

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



Lancaster Laboratories

Acct. # 11260

For Eurofins Lancaster Laboratories use only
 Group # 1865836 Sample # _____
Instructions on reverse side correspond with circled numbers.

9276845-50

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks		
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 G. Medina				<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air				Total Number of Containers _____ <input type="checkbox"/> BTEX <input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 8260 <input type="checkbox"/> Naphth 8260 full scan _____ Oxygenates _____ NWTPH-Gx _____ <input checked="" type="checkbox"/> NWTPH-Dx with Silica Gel Cleanup <input checked="" type="checkbox"/> NWTPH-Dx without Silica Gel Cleanup <input type="checkbox"/> WA VPH <input type="checkbox"/> WA EPH <input checked="" type="checkbox"/> Total <input type="checkbox"/> Diss. Lead Perims 6020 Method										SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits		
2 Sample Identification		Collected		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	Total	Diss.	Lead
QA		171019		X			C		2	X			X							
MW-6		1400		↓			↓		6	↓			↓	X	X					X
MW-7		1440		↓			↓		6	↓			↓	↓	↓					↓
MW-8		1420		↓			↓		6	↓			↓	↓	↓					↓
MW-9		1315		↓			↓		6	↓			↓	↓	↓					↓
MW-10		1335		↓			↓		6	↓			↓	↓	↓					↓
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour EDF/EDD 24 hour				Relinquished by <i>[Signature]</i> Date 10/20/17 Time 12:35 Received by <i>[Signature]</i> Date 10/20/17 Time 12:35				Relinquished by _____ Date _____ Time _____ Received by _____ Date _____ Time _____		Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> FedEx _____ Other _____ Temperature Upon Receipt <u>0.5-1.0</u> °C		Received by <i>[Signature]</i> Date 10/21/17 Time 9:40 Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
8 Data Package (circle if required) Type I - Full Type VI (Raw Data)				EDD (circle if required) CVX-RTBU-FL_05 (default) Other: _____																



Client: Washington Office

Delivery and Receipt Information

Delivery Method: SeaTac Arrival Timestamp: 10/21/2017 9:40
 Number of Packages: 6 Number of Projects: 4
 State/Province of Origin: WA

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:	HCI
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 13:55 on 10/21/2017

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	1.0	DT	Wet	Y	Bagged	N
2	DT42-01	0.8	DT	Wet	Y	Bagged	N
3	DT42-01	0.5	DT	Wet	Y	Bagged	N
4	DT42-01	0.5	DT	Wet	Y	Bagged	N
5	DT42-01	0.5	DT	Wet	Y	Bagged	N
6	DT42-01	0.6	DT	Wet	Y	Bagged	N

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.

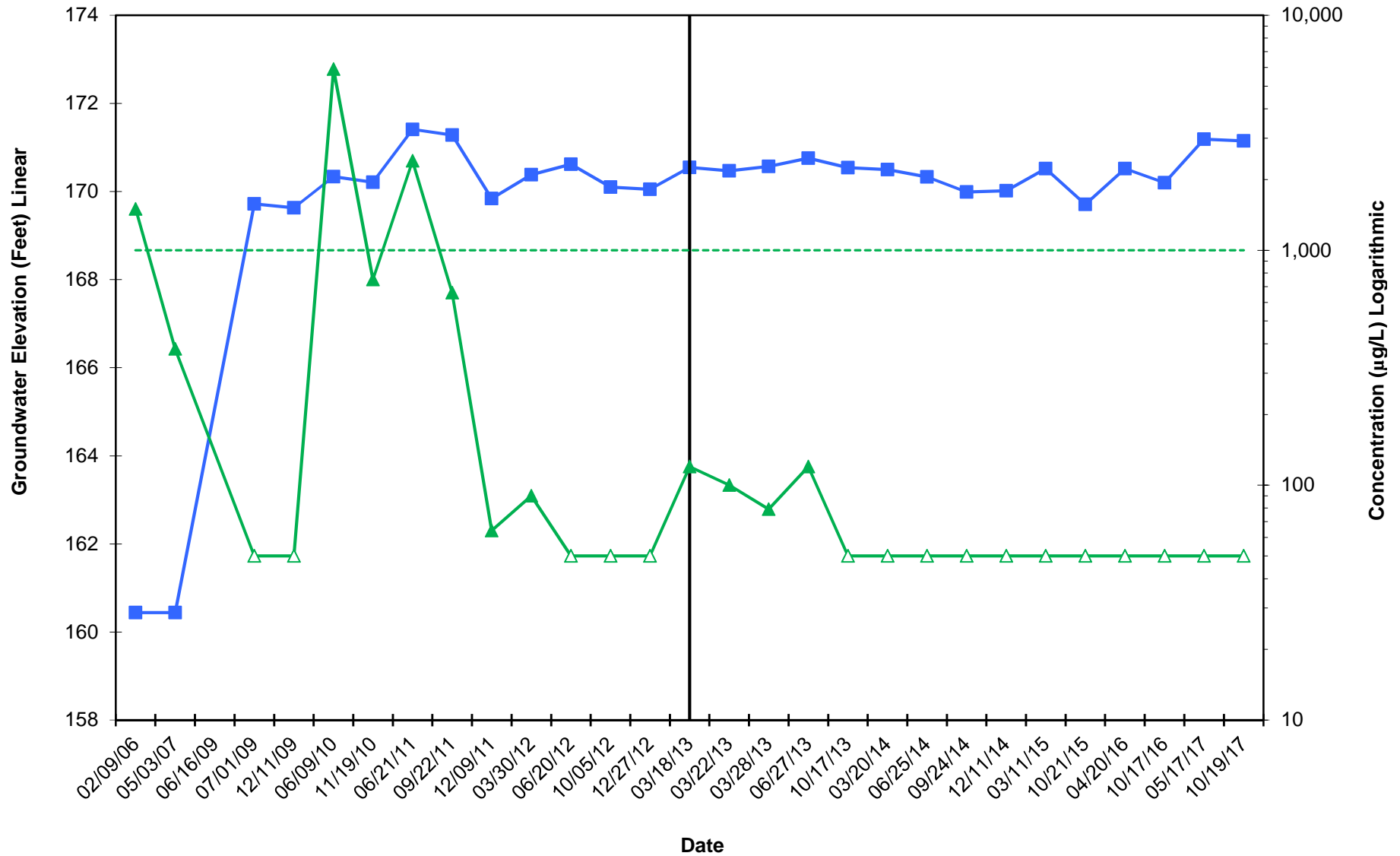
Data Qualifiers

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 \geq 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.

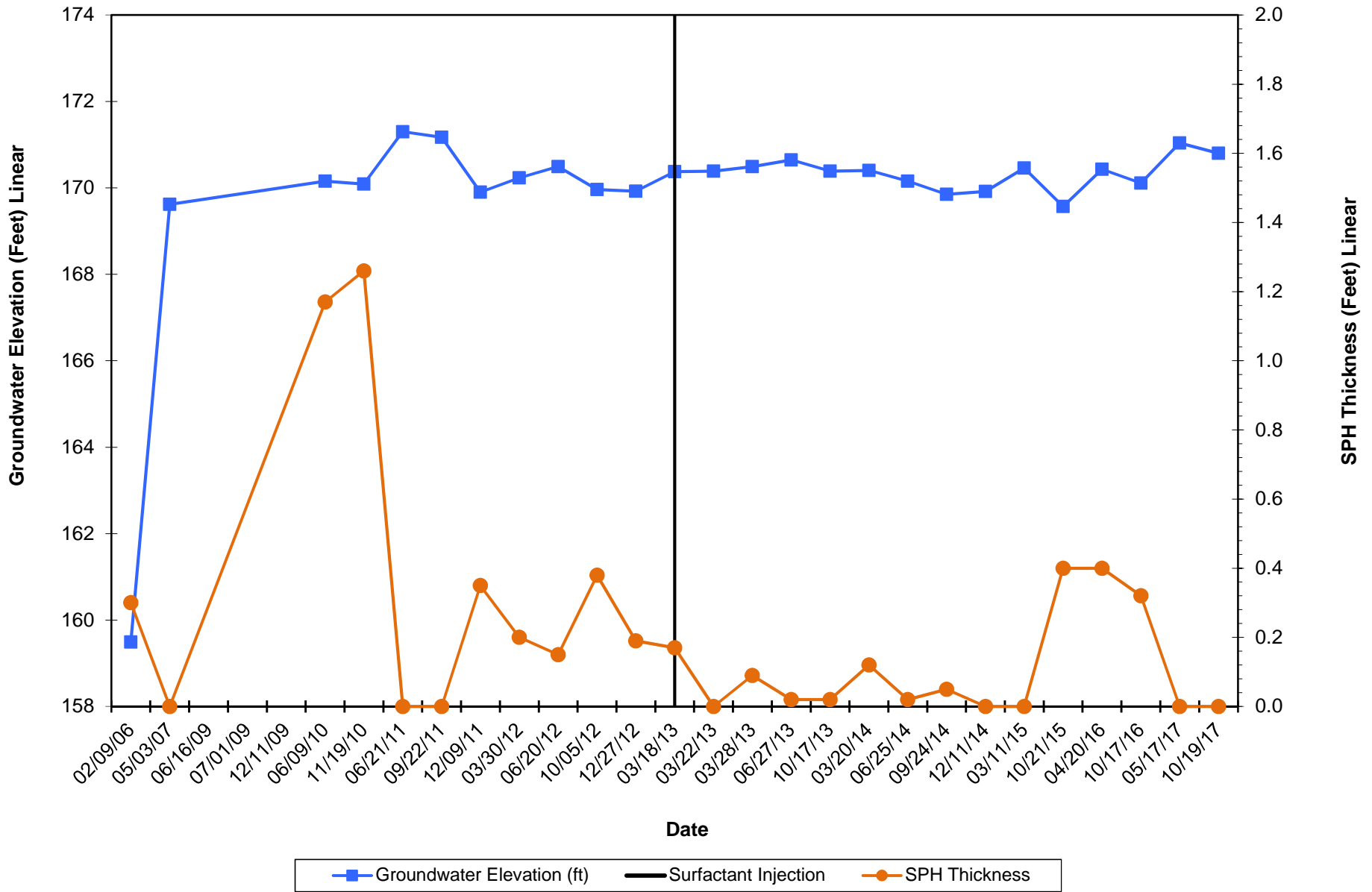
Attachment C:
Hydrographs

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

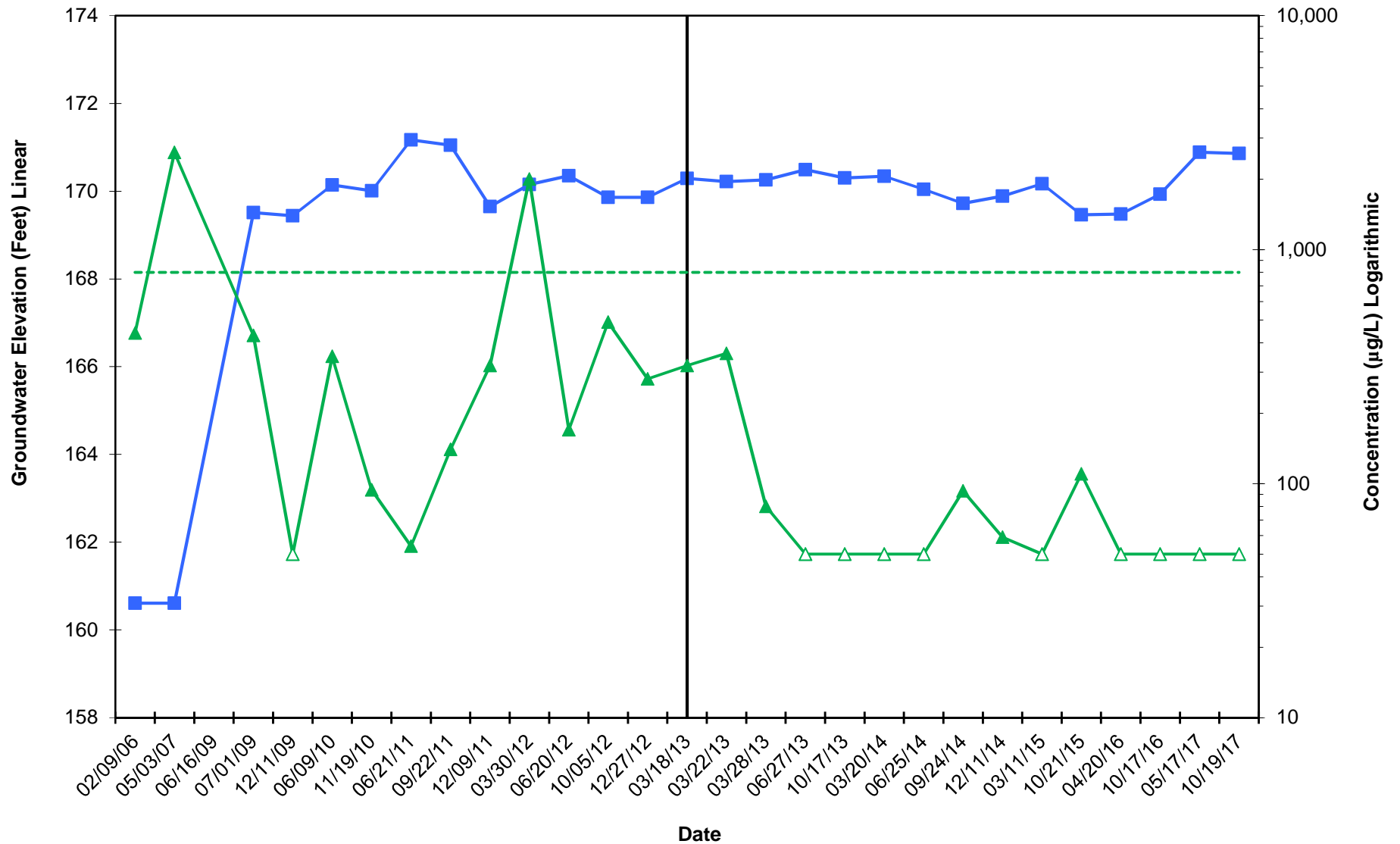


■ Groundwater Elevation (ft)
 ▲ TPH-GRO (µg/L)
 △ TPH-GRO = ND
 Surfactant Injection
 - - - MTCA Method A Cleanup Level

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



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



■ Groundwater Elevation (ft)
 ▲ TPH-GRO (µg/L)
 △ TPH-GRO = ND
 Surfactant Injection
 - - - MTCA Method A Cleanup Level