October 1, 2013

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DEPT OF ECOLOGY
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Mr. Mark Horne
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583

Subject: **Third Quarter 2013 Groundwater Monitoring and Sampling Report**
Former Tidewater Service Station No. 303189
7301 Martin Luther King Jr. Way South
Seattle, Washington

ENTERED

Dear Mr. Horne:

Leidos Engineering, LLC (Leidos; formerly SAIC Energy, Environment & Infrastructure, LLC), on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the third quarter 2013 groundwater monitoring and sampling event at the former Tidewater Service Station No. 303189 (the site) in Seattle, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on August 22, 2013. They collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in three monitoring wells on site. SPH were observed in monitoring well MW-2. A site map is provided as Figure 2.

Groundwater samples were collected from two of the three monitoring wells. Samples were submitted to Eurofins Lancaster Laboratories, Inc. in Lancaster, Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics by Northwest Method NWTPH-Gx;
- TPH as diesel-range organics and TPH as heavy oil-range organics by Northwest Method NWTPH-Dx extended with silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and total xylenes by United States Environmental Protection Agency Method 8021B.

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

RESULTS

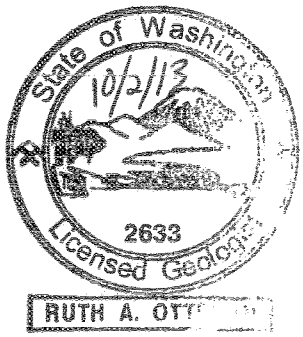
Groundwater elevations are consistent with historical data reported at the site. Petroleum-hydrocarbon constituent concentrations are generally consistent with respect to historical data. SPH thickness in monitoring well MW-2 could not be determined due to heavy viscosity. No analytes were detected at concentrations exceeding the laboratory reporting limits in monitoring wells MW-1 and MW-3.

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.

Gettler-Ryan will continue to perform groundwater monitoring and sampling on a quarterly basis. If you have any questions or comments, please contact me at (425) 482-3328 or via email at ottemanr@leidos.com.

Sincerely,

Leidos Engineering, LLC



Ruth Otteman, LG
Project Manager

Kinga Kozlowska
Environmental Scientist

Enclosures:
Figure 1 – Vicinity Map
Figure 2 – Site Map
Table 1 – Groundwater Monitoring Data and Analytical Results
Attachment A – Groundwater Monitoring and Sampling Data Package
Attachment B – Laboratory Analysis Report

cc: Ms. Donna Musa – Ecology NW Region, Toxics Cleanup Program
3190 160th Avenue SE, Bellevue, WA 98008-5452
Mr. Larry Hard – Seattle Housing Authority
190 Queen Anne Avenue North, P.O Box 19028, Seattle, WA 98109-1028
Project File

REPORT LIMITATIONS

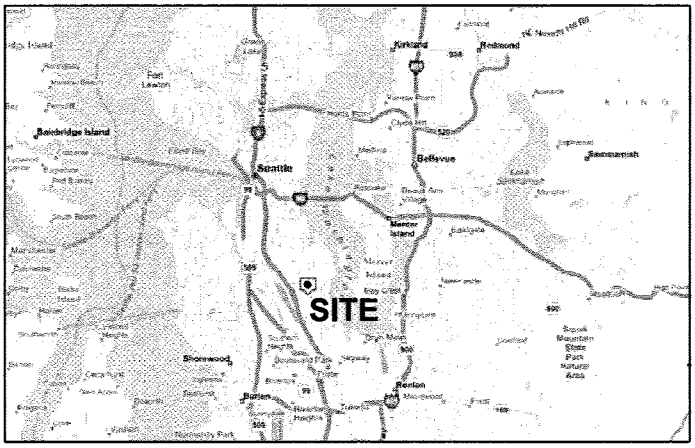
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges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

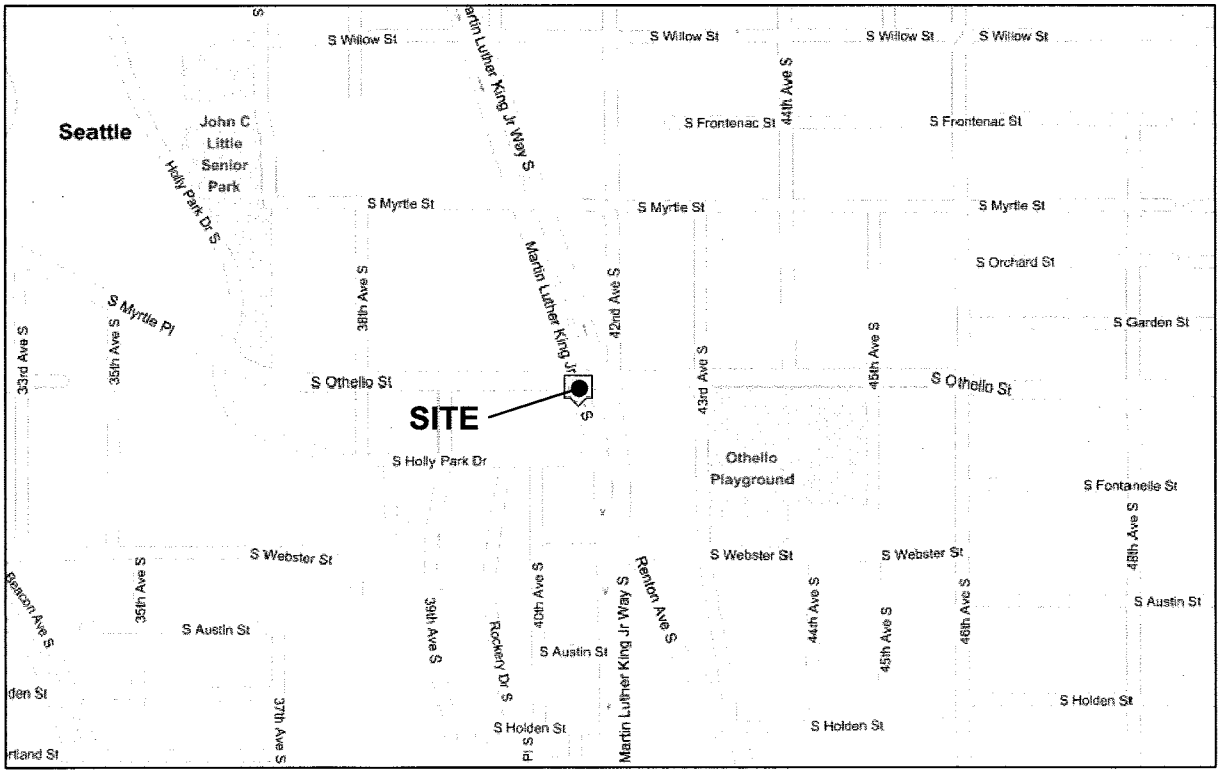
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from 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 SAIC 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 SAIC 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 Tidewater Service Station No. 30-3189 7301 Martin Luther King Jr. Way South Seattle, Washington	FIGURE 1 Vicinity Map	
	FILE NAME: 303189_VM.dwg	DATE: 8/29/2012

South Othello Street

N

0 20'

Feet

MW-2
**

Former USTs

Sidewalk

Martin Luther King Jr. Way South

Former Station Building

Former Canopy / Pump Island

MW-1
96.68

MW-3
96.78

Legend

MW-3	Groundwater Monitoring Wells Installed 2007 (SAIC)
	Property Boundary
96.78	Groundwater Elevation in Feet
**	Unable to Determine Groundwater Elevation Due to the Presence of Separate Phase Hydrocarbons
UST	Underground Storage Tank

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Former Tidewater Service Station No. 303189
7301 Martin Luther King Jr. Way South
Seattle, Washington

FIGURE 2
Site Map
August 22, 2013

FILE NAME:	DATE:
303189 Site Map.dwg	9/10/2013

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 303189
7301 Martin Luther King Jr. Way South
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															
08/31/07		--	--	--	--	--	**930**	190	<50	<0.5	<0.5	<0.5	<1.5	--	0.052
04/24/09	LFP	99.66	--	2.36	--	97.30	**650**	<76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09	LFP	99.66	--	4.24	--	95.42	370	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09	LFP	99.66	--	1.78	--	97.88	270[2]	<68[5]	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10	LFP	99.66	--	1.92	--	97.74	**560**	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10	LFP	99.66	--	2.43	--	97.23	91	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10	LFP	99.66	--	3.62	--	96.04	**520**	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10	LFP	99.66	--	2.00	--	97.66	440	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11	LFP	99.66	--	2.03	--	97.63	**1,000**	270	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11	LFP	99.66	--	2.32	--	97.34	**1,100**	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11	LFP	99.66	--	4.10	--	95.56	**830**	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/22/11	LFP	99.66	--	1.88	--	97.78	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12	LFP	99.66	--	1.60	--	98.06	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12	LFP	99.66	--	1.80	--	97.86	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12	LFP	100.66	--	4.02	--	96.64	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12	LFP	100.66	--	2.18	--	98.48	120	160	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13	LFP	100.66	--	1.84	--	98.82	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13	LFP	100.66	--	1.86	--	98.80	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/22/13	LFP	100.66	--	3.98	--	96.68	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
MW-2															
08/31/07		--	--	--	--	--	**2,100**	**1,200**	**26,000**	**3,200**	190	**1,400**	**3,300**	--	--
04/24/09	PER	99.05	--	7.34	--	91.71	--[4]	--[4]	**16,000**	**4,100**	99	**1,500**	**2,000**	<3	--
08/12/09	PER	99.05	--	8.18	--	90.87	--[4]	--[4]	**27,000**	**4,000**	100	**1,300**	**1,900**	<3	--
11/14/09	PER	99.05	--	5.75	--	93.30	--[4]	--[4]	**19,000**	**2,800**	62	**950**	**1,300**	<3	--
02/11/10	PER	99.05	--	6.98	--	92.07	--[4]	--[4]	**25,000**	**3,400**	97	**1,600**	**2,200**	<0.5	--
05/24/10	PER	99.05	--	7.42	--	91.63	--[4]	--[4]	**19,000**	**2,900**	88	**1,400**	**2,000**	<1	--
08/04/10	PER	99.05	--	7.92	--	91.13	--[4]	--[4]	**16,000**	**3,800**	110	**1,700**	**2,700**	<3	--
11/12/10	PER	99.05	--	6.16	--	92.89	--[4]	--[4]	**16,000**	**1,900**	56	660	680	<1	--
02/23/11	PER	99.05	--	6.09	--	92.96	--[4]	--[4]	**12,000**	**2,800**	60	680	780	<3	--
05/06/11	PER	99.05	--	6.98	--	92.07	--[4]	--[4]	**15,000**	**3,100**	72	**1,300**	**1,400**	<3	--
08/18/11		99.05	8.20	8.30	0.10	90.83	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
11/22/11		99.05	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--	--
02/23/12		99.05	1.55	1.90	0.35	97.43	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
05/25/12		99.05	7.10	7.85	0.75	91.80	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
08/10/12		99.05	8.14	8.34	0.20	90.87	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
11/15/12		99.05	5.92	6.10	0.18	93.09	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
02/14/13		99.05	7.12	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--
06/01/13		99.05	7.06	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--
08/22/13		99.05	UNABLE TO MEASURE DTP, DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--	--
MW-3															
08/31/07		--	--	--	--	--	120	<100	<50	<0.5	<0.5	<0.5	<1.5		0.055
04/24/09	LFP	100.00	--	2.13	--	97.87	58	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

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TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 303189
7301 Martin Luther King Jr. Way South
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)															
08/12/09	LFP	100.00	--	4.47	--	95.53	**620**	170	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09	LFP	100.00	--	1.60	--	98.40	450	370	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10	LFP	100.00	--	1.59	--	98.41	160	130	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10	LFP	100.00	--	1.83	--	98.17	**910**	310	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10	LFP	100.00	--	3.84	--	96.16	55	<74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10	LFP	100.00	--	1.62	--	98.38	67	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11	LFP	100.00	--	1.73	--	98.27	140	<73	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11	LFP	100.00	--	1.85	--	98.15	160	82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11	LFP	100.00	--	4.38	--	95.62	56	<74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/22/11	LFP	100.00	--	1.58	--	98.42	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12	LFP	100.00	--	1.65	--	98.35	<33	<77	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12	LFP	100.00	--	1.30	--	98.70	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12	LFP	101.00	--	4.23	--	96.77	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12	LFP	101.00	--	1.79	--	99.21	75	93	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13	LFP	101.00	--	2.17	--	98.83	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13	LFP	101.00	--	1.66	--	99.34	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/22/13	LFP	101.00	--	4.22	--	96.78	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
B-9[7]															
05/01/02		--	--	--	--	--	0.660	0.310	32	**530**	<100	**1,600**	**4,300**	--	--
B-10[7]															
05/01/02		--	--	--	--	--	5.10	<0.063	26	**240**	110	240	330	--	--
QA/TRIP BLANK															
04/24/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11[6]		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/22/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
Standard Laboratory Reporting Limits:							--	--	50	0.5	0.5	0.5	0.5	0.5	--
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	0.5	15
Current Method[8]:							NWTPH-Dx + Extended		NWTPH-Gx and USEPA 8021B/8260B						USEPA 7421

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 30-3189
7301 Martin Luther King Jr. Way South
Seattle, Washington
Concentrations reported in µg/L

Abbreviations:

BTEX = Benzene, toluene, ethylbenzene, and total xylenes
DTP = Depth to Product
DTW = Depth to Water
(ft.) = Feet
GC/MS = gas chromatography/mas spectrometry
GWE = Groundwater Elevation
LFP = Low Flow Purge
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
ND = Non-detect
PER = Peristaltic Pump
QA = Quality Assurance/Trip Blank
QC = Quality control
SAIC = SAIC Energy, Environment & Infrastructure, LLC
SPH = Separate-phase hydrocarbons
SPHT = SPH 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
< = The analyte was not detected at or above the reported value
-- = Not Measured/Not Analyzed

Analytical Methods:

After April 24, 2009 and prior to August 10, 2012 BTEX analysis by USEPA Method 8260B.
TPH-GRO by Method NWTPH-Gx.
TPH-DRO and TPH-HRO by Method NWTPH-Dx with silica-gel cleanup.
BTEX and MTBE by USEPA Method 8021B.

Notes:

1 Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.
2 TOC elevations are expressed in feet relative to an arbitrary datum.
3 When SPH is present, GWE has been corrected using the following formula: GWE = [(TOC - DTW) + (SPHT x 0.80)].
4 Not sampled due to insufficient water.
5 Laboratory report indicates the surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. The TPH-DRO result for the re-extraction is 610 µg/L; the TPH-HRO result for the re-extraction is ND.
6 The initial analysis for GCMS volatiles could not be reported due to analytical difficulties. Since only one sample vial was submitted, the analysis was repeated using the remaining sample volume which contained headspace.
7 Results for wells B-9 and B-10 were provided by GeoEngineers.
8 Laboratory analytical methods for historical data may no be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.

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Attachment A:
Groundwater Monitoring and Sampling Data Package

GETTLER-RYAN INC.

TRANSMITTAL

August 29, 2013
G-R #385862

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

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron Facility
#303189
(Former Tidewater Service Stn.)
7301 MLK Jr. Way South
Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Third Quarter Event of August 22, 2013**

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/303189

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	Chevron #303189 Date: 8.22.13
Address:	7301 Martin Luther King Jr. Way South
City/St.:	Seattle,WA
Status of Site:	VACANT LOT

DRUMS: Please list below ALL DRUMS @ site: i.e., drum description, condition, labeling, contents, location of drum:

#	Description	Condition	Labeling	Contents	Location
	NO DRUMS				

WELLS: Please check the condition of ALL WELLS @ site: i.e., well box condition, gaskets, bolts, well plug, well lock, etc.:

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Well Plug Y / N	Well Lock Y / N	Well Box Manufacturer/Size/# of Bolts	Other
MW-1	GOOD			→	8" MORRIS x 3	
MW-2	GOOD			→	8" MORRIS x 3	
MW-3	GOOD			→	8" MORRIS x 3	

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.

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 FIELD DATA SHEET

Client/Facility#: Chevron #303189 | Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S | Event Date: 8.22.13 (inclusive)
City: Seattle,WA | Sampler: J.P

Well ID: MW-1 | Date Monitored: 8.22.13
Well Diameter: .75 in.
Total Depth: 11.52 ft.
Depth to Water: 3.98 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 than 0.50 ft.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.48

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ____
- Stack Pump: ____
- Suction Pump: ____
- Grundfos: ____
- 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: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____
Product Transferred to: ____

Start Time (purge): 1010
Sample Time/Date: 1046 8.22.13
Approx. Flow Rate: 100 mlpm
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 6.22

Weather Conditions: SUN
Water Color: CLOUDY Odor: Y / (N)
Sediment Description: GREY SILT

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1010	1.0	6.21	.764	18.9	1.0	76.3	4.46
1034	2.1	6.22	.764	18.9	1.1	80.1	4.81
1042	2.4	6.22	.764	18.8	1.1	80.3	5.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: 10'-11'

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #303189 Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S Event Date: 8.22.13 (inclusive)
City: Seattle,WA Sampler: J.P

Well ID MW-2 Date Monitored: 8.22.13
Well Diameter .75 in.
Total Depth 9.65 ft.
Depth to Water * 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.

____ 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 ____
Suction Pump ____
Grundfos ____
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: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____
Product Transferred to: ____

Start Time (purge): ____ Weather Conditions: ____
Sample Time/Date: / Water Color: ____ Odor: Y / N ____
Approx. Flow Rate: ____ mlpm Sediment Description: ____
Did well de-water? ____ If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: ____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - pS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: * J.P UNABLE TO ACCURATELY GAUGE MW-2 DUE TO PRESENCE OF THICK BLACK OILY SUBSTANCE IN WELL. PHOTO

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #303189 Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S Event Date: 8.22.13 (inclusive)
City: Seattle,WA Sampler: JP

Well ID MW-3 Date Monitored: 8.22.13
Well Diameter .75 in.
Total Depth 9.49 ft.
Depth to Water 4.27 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.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 5.27

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
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: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0912 Weather Conditions: Sun
Sample Time/Date: 0941 / 8.22.13 Water Color: cloudy Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: SLIGHT
Did well de-water? ____ If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 5.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0930	1.0	6.22	.568	18.6	1.0	73.8	4.90
0933	2.1	6.30	.571	18.6	1.1	74.0	5.03
0936	2.4	6.30	.570	18.4	1.1	74.6	5.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: 8-9'

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

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.

SCR #: ________

(1) Client Information

Facility #: CHEVRON # 303189 WBS: CP #3855062
Site Address: 7301 MLK JR WAY S, SEATTLE WA
Chevron PM: MARK HORNE Lead Consultant: RUTH OTEMAN
Consultant/Office: SAIC 18912 N CREEK PKWY STE #101 BOTHELL WA
Consultant Project Mgr.: DEANNA HARDING
Consultant Phone #: 425 551 7055
Sampler: J PAYNE

(4) Matrix: Sediment ☐ Ground ☒ Surface ☐ / Soil ☐ Potable ☐ NPDES ☐ Air ☐ Water / Oil ☐

(5) Analyses Requested: BTEX + ~~MTBE~~ 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

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + 8021	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead
QA	8.22.13		X			X		2	X			X					
MW-1	↓	0840	X			X		5	X			X	X				
MW-3	↓	0941	X			X		5	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

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

(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

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

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8.22.13	1600			

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____ | Received by | Date | Time (9)

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

Attachment B:
Laboratory Analysis Report

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Analysis Report

Sample Description: QA Water
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172653
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013

Submitted: 08/23/2013 09:05
Reported: 09/10/2013 13:27

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 17:28	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 17:28	Catherine J Schwarz	1

Sample Description: MW-1 Grab Groundwater
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172654
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013 08:46 by JP

Submitted: 08/23/2013 09:05
Reported: 09/10/2013 13:27

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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

Reference ID:
1413895100913132631

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 18:18	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 18:18	Catherine J Schwarz	1

Sample Description: MW-3 Grab Groundwater
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172655
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013 09:41 by JP

Submitted: 08/23/2013 09:05
Reported: 09/10/2013 13:27

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 18:43	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 18:43	Catherine J Schwarz	1

Reference ID:
1413895100913132631

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1413895 Sample # 717653-55

Instructions on reverse side correspond with circled numbers.

SCR #:

1 Client Information

Facility # CHEVRON # 303189 WBS OR #385862

Site Address 3301 MLK JR. WAY S. SEATTLE, WA

Chevron PM MARK HORNE Lead Consultant RUTH CHEMAN

Consultant/Office SAIC 18912 N. CREEK PKWY STE #101 BOTHELL WA

Consultant Project Mgr. DEANNA HARDING

Consultant Phone # 425 551 7565

Sampler J. PAYNE

4 Matrix

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

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	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 ☐	Lead Total ☐ Diss. ☐ Method ___
QA	8/22/13		X		1	X			X				
MW-1	↓	0910	X		5	X			X	X			
MW-3	↓	0941	X		5	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

7 Turnaround Time Requested (TAT) (please circle)

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

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: ____

Relinquished by	Date	Time	Received by	Date	Time
	8/22/13	1545			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date 8-23-13 | Time 0905

Temperature Upon Receipt 1.9-3.0 °C

Custody Seals Intact? Yes No

9

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Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> 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.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC 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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Analysis Report

ANALYTICAL RESULTS

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

September 11, 2013

Project: 303189

Submittal Date: 08/23/2013
Group Number: 1413895
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA Water	7172653
MW-1 Grab Groundwater	7172654
MW-3 Grab Groundwater	7172655

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

ELECTRONIC COPY TO	SAIC c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Ruth Otteman

Respectfully Submitted,

Jill M. Parker
Senior Specialist

(717) 556-7262

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2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

Sample Description: QA Water
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172653
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013

Submitted: 08/23/2013 09:05
Reported: 09/11/2013 15:57

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 17:28	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 17:28	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13240A94A	08/28/2013 17:28	Catherine J Schwarz	1

Sample Description: MW-1 Grab Groundwater
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172654
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013 08:46 by JP

Submitted: 08/23/2013 09:05
Reported: 09/11/2013 15:57

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 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%.

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 18:18	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 18:18	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13240A94A	08/28/2013 18:18	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132400019A	09/09/2013 21:26	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132400019A	08/28/2013 21:00	Elaine F Stoltzfus	1

Sample Description: MW-3 Grab Groundwater
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LL Sample # WW 7172655
LL Group # 1413895
Account # 11260

Project Name: 303189

Collected: 08/22/2013 09:41 by JP

Submitted: 08/23/2013 09:05
Reported: 09/11/2013 15:57

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 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%.

General Sample Comments

State of Washington Lab Certification No. C259

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	13240A94A	08/28/2013 18:43	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13240A94A	08/28/2013 18:43	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13240A94A	08/28/2013 18:43	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132400019A	09/09/2013 21:45	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132400019A	08/28/2013 21:00	Elaine F Stoltzfus	1

Quality Control Summary

Client Name: Chevron Group Number: 1413895
Reported: 09/11/13 at 03:57 PM

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.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13240A94A	Sample number(s): 7172653-7172655							
Benzene	N.D.	0.2	ug/l	93	95	80-120	2	30
Ethylbenzene	N.D.	0.2	ug/l	97	99	80-120	2	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	98	101	75-135	3	30
Toluene	N.D.	0.2	ug/l	95	97	80-120	1	30
Total Xylenes	N.D.	0.6	ug/l	98	100	80-120	2	30
Batch number: 132400019A	Sample number(s): 7172654-7172655							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	72	32-117	6	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

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: Method 8021 Water Master
Batch number: 13240A94A

	Trifluorotoluene-P	Trifluorotoluene-F
7172653	92	73
7172654	92	72
7172655	92	72
Blank	92	73
LCS	91	78
LCSD	91	80
Limits:	51-120	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 132400019A

	Orthoterphenyl
7172654	79
7172655	72
Blank	75
LCS	86
LCSD	82

*- 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.

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Quality Control Summary

Client Name: Chevron
Group Number: 1413895
Reported: 09/11/13 at 03:57 PM

Surrogate Quality Control

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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1413895 Sample # 7172653-55
Instructions on reverse side correspond with circled numbers.

SCR #: ______

(1) Client Information

Facility # CHEVRON #303189 WBS 6L #385862
Site Address 7301 MLK Jr. Way S., Seattle, WA
Chevron PM MARK HORNE Lead Consultant RUTH OTEMAN
Consultant/Office SAIC 18912 N. CREEK PKWY STE #101 BOTHELL WA
Consultant Project Mgr. DEANNA HARDING
Consultant Phone # 425 551 7555
Sampler J PAYNE

(4) Matrix: ☐ Sediment ☑ Ground ☐ Surface; ☐ Soil; ☐ Potable ☐ NPDES Water; ☐ Air; Oil

(5) Analyses Requested: BTEX + [illegible] 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

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + [illegible]	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead
QA	8-22-13		X			X		2	X			X				
MW-1	↓	0810	X			X		5	X			X	X			
MW-3	↓	0941	X			X		5	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

(7) Turnaround Time Requested (TAT) (please circle)
(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

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

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8-22-13	1500			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ___ Other ___			Received by [signature]	8-23-13	0905

Temperature Upon Receipt 1.9-3.0 °C
Custody Seals Intact? (Yes) No

(9)

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

Issued by Dept. 40 Management
7051.03

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Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> 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.

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC 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.

Holly Park Seattle LUST
FS 8747316

SAIC

July 16, 2013

Mr. Mark Horne
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583

Subject: **Second Quarter 2013 Groundwater Monitoring and Sampling Report**
Former Tidewater Service Station No. 30-3189
7301 Martin Luther King Jr. Way South
Seattle, Washington

Dear Mr. Horne:

SAIC Energy, Environment & Infrastructure, LLC (SAIC), on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the second quarter 2013 groundwater monitoring and sampling event at the former Tidewater Service Station No. 30-3189 (the site) in Seattle, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on June 1, 2013. They collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in three monitoring wells on site. SPH were observed in monitoring well MW-2. Depth-to-water and SPH thickness in monitoring well MW-2 could not be determined. A site map is provided as Figure 2.

Groundwater samples were collected from two of the three monitoring wells. Samples were submitted to Eurofins Lancaster Laboratories, Inc. in Lancaster, Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics by Northwest Method NWTPH-Gx;
- TPH as diesel-range organics and TPH as heavy oil-range organics by Northwest Method NWTPH-Dx extended with silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and total xylenes by United States Environmental Protection Agency Method 8021B.

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

RESULTS

Groundwater elevations are consistent with historical data reported at the site. Petroleum-hydrocarbon constituent concentrations are generally consistent with respect to historical data. SPH thickness in monitoring well MW-2 could not be determined due to heavy viscosity. No analytes were detected at concentrations exceeding the laboratory reporting limits in monitoring wells MW-1 and MW-3.

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.

Gettler-Ryan will continue to perform groundwater monitoring and sampling on a quarterly basis. If you have any questions or comments, please contact me at (425) 482-3328 or via email at ottemanr@saic.com.

Sincerely,

SAIC Energy, Environment & Infrastructure, LLC

Ruth Otteman, LG
Project Manager

Kinga Kozlowska
Environmental Scientist

Enclosures:
Figure 1 – Vicinity Map
Figure 2 – Site Map
Table 1 – Groundwater Monitoring Data and Analytical Results
Attachment A – Groundwater Monitoring and Sampling Data Package
Attachment B – Laboratory Analysis Report

cc: Ms. Donna Musa – Ecology NW Region, Toxics Cleanup Program
3190 160th Avenue SE, Bellevue, WA 98008-5452
Mr. Larry Hard – Seattle Housing Authority
190 Queen Anne Avenue North, P.O Box 19028, Seattle, WA 98109-1028
Project File

REPORT LIMITATIONS

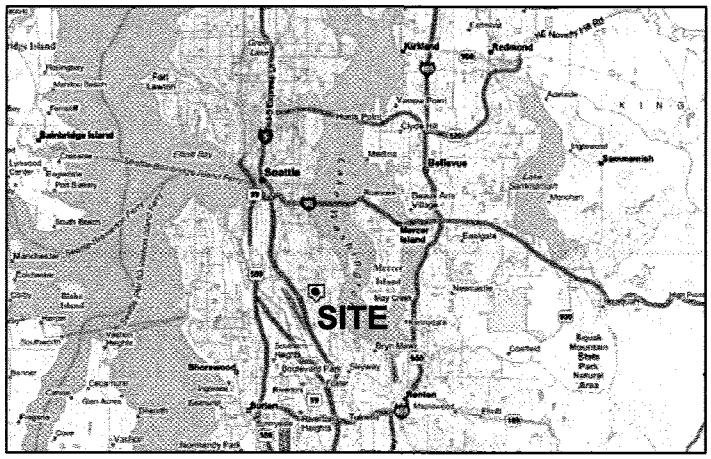
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by SAIC. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges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

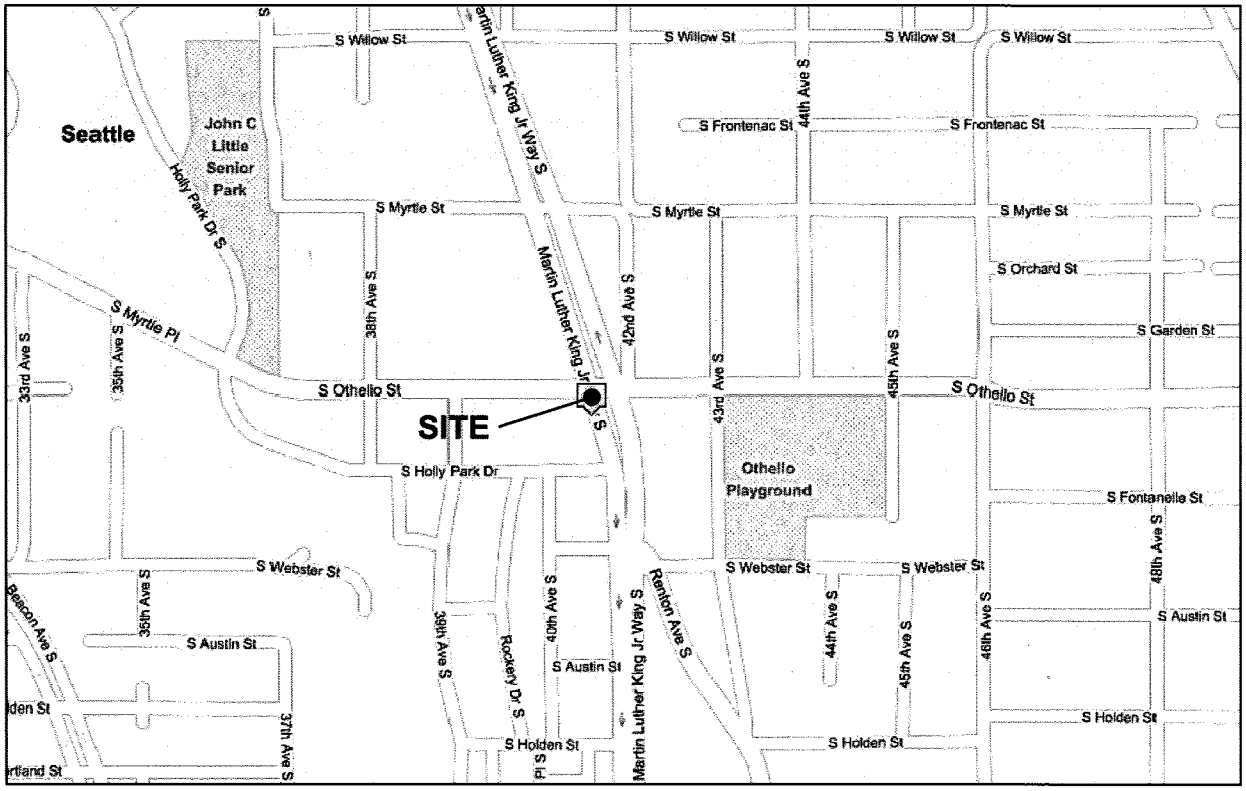
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. SAIC 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 SAIC's site visits or site work and cannot be applied to conditions and features of which SAIC is unaware and has not had the opportunity to evaluate.

All sources of information on which SAIC 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 SAIC 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

SAIC®

Former Tidewater Service Station No. 30-3189 7301 Martin Luther King Jr. Way South Seattle, Washington	FIGURE 1 Vicinity Map	
	FILE NAME: 303189_VM.dwg	DATE: 10/12/2011

South Othello Street

N

0 20'

Feet

MW-2
**

Former USTs

Sidewalk

Martin Luther King Jr. Way South

Former Station Building

Former Canopy / Pump Island

MW-1
98.80

MW-3
99.34

Legend

MW-3 ⊕	Groundwater Monitoring Wells Installed 2007 (SAIC)
— — —	Property Boundary
98.80	Groundwater Elevation in Feet
**	Unable to Determine Groundwater Elevation Due to the Presence of Separate Phase Hydrocarbons
UST	Underground Storage Tank

SAIC®

Former Tidewater Service Station No. 30-3189
7301 Martin Luther King Jr. Way South
Seattle, Washington

FIGURE 2
Site Map
June 1, 2013

FILE NAME:	DATE:
303189 Site Map.dwg	7/1/2013

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 30-3189
7301 Martin Luther King Jr. Way South
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															
08/31/07		--	--	--	--	--	**930**	190	<50	<0.5	<0.5	<0.5	<1.5	--	0.052
04/24/09	LFP	99.66	--	2.36	--	97.30	**650**	<76	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09	LFP	99.66	--	4.24	--	95.42	370	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09	LFP	99.66	--	1.78	--	97.88	270[2]	<68[5]	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10	LFP	99.66	--	1.92	--	97.74	**560**	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10	LFP	99.66	--	2.43	--	97.23	91	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10	LFP	99.66	--	3.62	--	96.04	**520**	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10	LFP	99.66	--	2.00	--	97.66	440	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11	LFP	99.66	--	2.03	--	97.63	**1,000**	270	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11	LFP	99.66	--	2.32	--	97.34	**1,100**	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11	LFP	99.66	--	4.10	--	95.56	**830**	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/22/11	LFP	99.66	--	1.88	--	97.78	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12	LFP	99.66	--	1.60	--	98.06	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12	LFP	99.66	--	1.80	--	97.86	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12	LFP	100.66	--	4.02	--	96.64	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12	LFP	100.66	--	2.18	--	98.48	120	160	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13	LFP	100.66	--	1.84	--	98.82	<29	<68	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13	LFP	100.66	--	1.86	--	98.80	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
MW-2															
08/31/07		--	--	--	--	--	**2,100**	**1,200**	**26,000**	**3,200**	190	**1,400**	**3,300**	--	--
04/24/09	PER	99.05	--	7.34	--	91.71	--[4]	--[4]	**16,000**	**4,100**	99	**1,500**	**2,000**	<3	--
08/12/09	PER	99.05	--	8.18	--	90.87	--[4]	--[4]	**27,000**	**4,000**	100	**1,300**	**1,900**	<3	--
11/14/09	PER	99.05	--	5.75	--	93.30	--[4]	--[4]	**19,000**	**2,800**	62	**950**	**1,300**	<3	--
02/11/10	PER	99.05	--	6.98	--	92.07	--[4]	--[4]	**25,000**	**3,400**	97	**1,600**	**2,200**	<0.5	--
05/24/10	PER	99.05	--	7.42	--	91.63	--[4]	--[4]	**19,000**	**2,900**	88	**1,400**	**2,000**	<1	--
08/04/10	PER	99.05	--	7.92	--	91.13	--[4]	--[4]	**16,000**	**3,800**	110	**1,700**	**2,700**	<3	--
11/12/10	PER	99.05	--	6.16	--	92.89	--[4]	--[4]	**16,000**	**1,900**	56	660	680	<1	--
02/23/11	PER	99.05	--	6.09	--	92.96	--[4]	--[4]	**12,000**	**2,800**	60	680	780	<3	--
05/06/11	PER	99.05	--	6.98	--	92.07	--[4]	--[4]	**15,000**	**3,100**	72	**1,300**	**1,400**	<3	--
08/18/11		99.05	8.20	8.30	0.10	90.83	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
11/22/11		99.05	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--	--
02/23/12		99.05	1.55	1.90	0.35	97.43	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
05/25/12		99.05	7.10	7.85	0.75	91.80	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
08/10/12		99.05	8.14	8.34	0.20	90.87	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
11/15/12		99.05	5.92	6.10	0.18	93.09	UNABLE TO SAMPLE DUE TO PRESENCE OF SPH					--	--	--	--
02/14/13		99.05	7.12	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--
06/01/13		99.05	7.06	UNABLE TO MEASURE DTW OR COLLECT SAMPLE DUE TO PRESENCE OF SPH								--	--	--	--
MW-3															
08/31/07		--	--	--	--	--	120	<100	<50	<0.5	<0.5	<0.5	<1.5		0.055
04/24/09	LFP	100.00	--	2.13	--	97.87	58	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

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TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 30-3189
7301 Martin Luther King Jr. Way South
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)															
08/12/09	LFP	100.00	--	4.47	--	95.53	**620**	170	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09	LFP	100.00	--	1.60	--	98.40	450	370	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10	LFP	100.00	--	1.59	--	98.41	160	130	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10	LFP	100.00	--	1.83	--	98.17	**910**	310	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10	LFP	100.00	--	3.84	--	96.16	55	<74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10	LFP	100.00	--	1.62	--	98.38	67	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11	LFP	100.00	--	1.73	--	98.27	140	<73	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11	LFP	100.00	--	1.85	--	98.15	160	82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11	LFP	100.00	--	4.38	--	95.62	56	<74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/22/11	LFP	100.00	--	1.58	--	98.42	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12	LFP	100.00	--	1.65	--	98.35	<33	<77	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12	LFP	100.00	--	1.30	--	98.70	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12	LFP	101.00	--	4.23	--	96.77	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12	LFP	101.00	--	1.79	--	99.21	75	93	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13	LFP	101.00	--	2.17	--	98.83	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13	LFP	101.00	--	1.66	--	99.34	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	--	--
B-9[7]															
05/01/02		--	--	--	--	--	0.660	0.310	32	**530**	<100	**1,600**	**4,300**	--	--
B-10[7]															
05/01/02		--	--	--	--	--	5.10	<0.063	26	**240**	110	240	330	--	--
QA/TRIP BLANK															
04/24/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/12/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/14/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/11/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/24/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/04/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/12/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/06/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/18/11[6]		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/23/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/25/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/10/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/15/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/14/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
06/01/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
Standard Laboratory Reporting Limits:							--	--	50	0.5	0.5	0.5	0.5	0.5	--
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	0.5	15
Current Method[8]:							NWTPH-Dx + Extended		NWTPH-Gx and USEPA 8021B/8260B						USEPA 7421

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TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
FORMER TIDEWATER SERVICE STATION NO. 30-3189
7301 Martin Luther King Jr. Way South
Seattle, Washington
Concentrations reported in µg/L

Abbreviations:

BTEX = Benzene, toluene, ethylbenzene, and total xylenes
DTP = Depth to Product
DTW = Depth to Water
(ft.) = Feet
GC/MS = gas chromatography/mas spectrometry
GWE = Groundwater Elevation
LFP = Low Flow Purge
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
ND = Non-detect
PER = Peristaltic Pump
QA = Quality Assurance/Trip Blank
QC = Quality control
SAIC = SAIC Energy, Environment & Infrastructure, LLC
SPH = Separate-phase hydrocarbons
SPHT = SPH 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
< = The analyte was not detected at or above the reported value
-- = Not Measured/Not Analyzed

Analytical Methods:

After April 24, 2009 and prior to August 10, 2012 BTEX analysis by USEPA Method 8260B.
TPH-GRO by Method NWTPH-Gx.
TPH-DRO and TPH-HRO by Method NWTPH-Dx with silica-gel cleanup.
BTEX and MTBE by USEPA Method 8021B.

Notes:

1 Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.
2 TOC elevations are expressed in feet relative to an arbitrary datum.
3 When SPH is present, GWE has been corrected using the following formula: GWE = [(TOC - DTW) + (SPHT x 0.80)].
4 Not sampled due to insufficient water.
5 Laboratory report indicates the surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. The TPH-DRO result for the re-extraction is 610 µg/L; the TPH-HRO result for the re-extraction is ND.
6 The initial analysis for GCMS volatiles could not be reported due to analytical difficulties. Since only one sample vial was submitted, the analysis was repeated using the remaining sample volume which contained headspace.
7 Results for wells B-9 and B-10 were provided by GeoEngineers.
8 Laboratory analytical methods for historical data may no be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.

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Attachment A:
Groundwater Monitoring and Sampling Data Package

GETTLER-RYAN INC.

TRANSMITTAL

June 11, 2013
G-R #385862

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

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron Facility
#303189
(Former Tidewater Service Stn.)
7301 MLK Jr. Way South
Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Second Quarter Event of June 1, 2013**

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/303189

GETTLER - RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	Chevron #303189 Date: 6.1.13
Address:	7301 Martin Luther King Jr. Way South
City/St.:	Seattle,WA
Status of Site:	VACANT LOT

DRUMS: Please list below ALL DRUMS @ site: i.e., drum description, condition, labeling, contents, location of drum:

#	Description	Condition	Labeling	Contents	Location
	NO DRUMS				

WELLS: Please check the condition of ALL WELLS @ site: i.e., well box condition, gaskets, bolts, well plug, well lock, etc.:

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Well Plug Y / N	Well Lock Y / N	Well Box Manufacturer/Size/# of Bolts	Other
MW-1	R	GOOD →		→	8" Morrisey x 3	
MW-2	R	GOOD →		→	"	
MW-3	R	GOOD →		→	"	

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.

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 FIELD DATA SHEET

Client/Facility#: Chevron #303189 Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S Event Date: 6.1.13 (inclusive)
City: Seattle,WA Sampler: J.P

Well ID MW-1 Date Monitored: 6.1.13
Well Diameter .75 in.
Total Depth 11.62 ft.
Depth to Water 1.96 ft.
9.66 xVF ~ = ~

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.

x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.79

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
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: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0818 Weather Conditions: SUN
Sample Time/Date: 0840 / 6.1.13 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 3.11

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0836	1.8	6.76	.366	13.8	.90	76.8	2.32
0839	2.1	6.77	.366	13.9	.90	76.3	2.68
0842	2.4	6.77	.366	13.9	.92	77.0	3.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: 6-7'
Replaced Gasket

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #303189 | Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S | Event Date: 6.1.13 (inclusive)
City: Seattle,WA | Sampler: J.P

Well ID: MW-2 | Date Monitored: 6.1.13
Well Diameter: .75 in.
Total Depth: 9.65 ft.
Depth to Water: * 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.

____ 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
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

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

Time Started: 1040 (2400 hrs)
Time Completed: 1043 (2400 hrs)
Depth to Product: 7.00 ft
Depth to Water: * ft
Hydrocarbon Thickness: * ft
Visual Confirmation/Description: BLACK. SHEEN
~~Skimmer / Absorbant Sock (circle one)~~
~~Amt Removed from Skimmer: gal~~
~~Amt Removed from Well: gal~~
~~Water Removed:~~
~~Product Transferred to:~~

Start Time (purge): ____ | Weather Conditions: ____
Sample Time/Date: ____ / ____ | Water Color: ____ Odor: Y / N ____
Approx. ~~Flow~~ Rate: ____ mlpm | Sediment Description: ____
Did well de-water? ____ If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: ____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: * DIFFICULTY GAUGING WATER LEVEL DUE TO THE SRH.
Replaced Gasket

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #303189 Job Number: 385862
Site Address: 7301 Martin Luther King Jr. Way S Event Date: 6.1.13 (inclusive)
City: Seattle,WA Sampler: V.P

Well ID MW-3 Date Monitored: 6.1.13
Well Diameter .75 in.
Total Depth 9.49 ft.
Depth to Water 1.66 ft.
6.83 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

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.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.02

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
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: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0916 Weather Conditions: SUN
Sample Time/Date: 0946 / 6.1.13 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 2.83

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~umhos/cm~~ mS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0934	1.8	6.68	.293	13.8	0	-96.3	2.11
0937	2.1	6.68	.292	13.9	0	-96.9	2.46
0940	2.4	6.68	.292	14.0	0	-96.6	2.83

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc

COMMENTS: Depth Pump Set At: 16-7'
Replaced Gasket

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

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.

SCR #: ______

① Client Information

~~SS#303180 OML~~

Facility # | WBS
7301 Martin Luther King Jr. Way South, SEATTLE, WA

Site Address
MHO SAICRO Ruth Otteman

Chevron PM | Lead Consultant
Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant/Office
Deanna L. Harding, (deanna@grinc.com), (925) 551-7555

Consultant Project Mgr.
(425) 482-3328 x

Consultant Phone #

Sampler
J. PAYNE

④ Matrix
Sediment ☐ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Air ☐ Soil ☐ Water Oil

⑤ Analyses Requested
BTEX + ~~MTBE~~ 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 ___

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	Lead
QA	6.1.13		X			X		2	X			X				
MW-1	↓	0850	X			X		5	X			X	X			
MW-3	↓	0940	X			X		5	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) 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
[signature]	6-5-13 6-4-13	1700			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ___ FedEx ✓ Other ___			Received by	Date	Time

⑨

Temperature Upon Receipt ______ °C | Custody Seals Intact? Yes No

Attachment B:
Laboratory Analysis Report

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

June 19, 2013

Project: 303189

Submittal Date: 06/06/2013
Group Number: 1395172
PO Number: 0015119898
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LLI) #
QA Water	7083887
MW-1 Grab Water	7083888
MW-3 Grab Water	7083889

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

ELECTRONIC COPY TO	SAIC c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Ruth Otteman

Respectfully Submitted,

Jill M. Parker
Senior Specialist

(717) 556-7262

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Analysis Report

Sample Description: QA Water
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LLI Sample # WW 7083887
LLI Group # 1395172
Account # 11260

Project Name: 303189

Collected: 06/01/2013

Submitted: 06/06/2013 09:20
Reported: 06/19/2013 12:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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

General Sample Comments

State of Washington Lab Certification No. C259

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	13162A53A	06/11/2013 16:24	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13162A53A	06/11/2013 16:24	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162A53A	06/11/2013 16:24	Catherine J Schwarz	1

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Analysis Report

Sample Description: MW-1 Grab Water
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LLI Sample # WW 7083888
LLI Group # 1395172
Account # 11260

Project Name: 303189

Collected: 06/01/2013 08:50 by JP

Submitted: 06/06/2013 09:20
Reported: 06/19/2013 12:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 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%.

General Sample Comments

State of Washington Lab Certification No. C259

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	13162A53A	06/12/2013 00:52	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	13162A53A	06/12/2013 00:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13162A53A	06/12/2013 00:52	Marie D John	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	131620006A	06/18/2013 22:50	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	131620006A	06/11/2013 15:50	Seth A Farrier	1

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Analysis Report

Sample Description: MW-3 Grab Water
Facility# 303189 Job# 385862
7301 Martin Luther King Jr Way South - Seattle, WA

LLI Sample # WW 7083889
LLI Group # 1395172
Account # 11260

Project Name: 303189

Collected: 06/01/2013 09:46 by JP

Submitted: 06/06/2013 09:20
Reported: 06/19/2013 12:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
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%.

General Sample Comments

State of Washington Lab Certification No. C259

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	13163A53A	06/13/2013 16:12	Marie D John	1
02102	Method 8021 Water Master	SW-846 8021B	1	13163A53A	06/13/2013 16:12	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	13163A53A	06/13/2013 16:12	Marie D John	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	131620006A	06/18/2013 23:15	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	131620006A	06/11/2013 15:50	Seth A Farrier	1

Quality Control Summary

Client Name: Chevron Group Number: 1395172
Reported: 06/19/13 at 12:51 PM

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.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13162A53A	Sample number(s): 7083887-7083888							
Benzene	N.D.	0.5	ug/l	110	112	80-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	113	113	80-120	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	101	102	75-135	1	30
Toluene	N.D.	0.5	ug/l	113	114	80-120	1	30
Total Xylenes	N.D.	1.5	ug/l	116	117	80-120	0	30
Batch number: 13163A53A	Sample number(s): 7083889							
Benzene	N.D.	0.5	ug/l	110	110	80-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	113	111	80-120	2	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	97	98	75-135	1	30
Toluene	N.D.	0.5	ug/l	112	112	80-120	0	30
Total Xylenes	N.D.	1.5	ug/l	116	114	80-120	1	30
Batch number: 131620006A	Sample number(s): 7083888-7083889							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	67	62	32-117	8	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

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: Method 8021 Water Master
Batch number: 13162A53A

	Trifluorotoluene-P	Trifluorotoluene-F
7083887	91	85
7083888	91	86
Blank	90	85
LCS	89	98
LCSD	90	100
Limits:	51-120	63-135

Analysis Name: Method 8021 Water Master
Batch number: 13163A53A

	Trifluorotoluene-P	Trifluorotoluene-F

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1395172
Reported: 06/19/13 at 12:51 PM

Surrogate Quality Control

7083889	90	86
Blank	90	86
LCS	90	100
LCSD	90	101
Limits:	51-120	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 131620006A

	Orthoterphenyl
7083888	73
7083889	84
Blank	80
LCS	96
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.

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 395172 Sample # 7083887-89

Instructions on reverse side correspond with circled numbers.

1 Client Information

Facility # SS#303189-OML G-R#385862 WBS

7301 Martin Luther King Jr. Way South, SEATTLE, WA

Site Address

MHQ SAICRO Ruth Otteman

Chevron PM Lead Consultant

Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant/Office

Deanna L. Harding, (deanna@grinc.com), (925) 551-7555

Consultant Project Mgr.

(425) 482-3328 x

Consultant Phone #

Sampler J. Payne

4 Matrix

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

5 Analyses Requested

Total Number of Containers

BTEX + ~~MTBE~~ 8021 ☐ 8260 ☐ Naphth ☐

8260 full scan

Oxygenates ____

NWTPH-Gx

NWTPH-Dx with Silica Gel Cleanup ☐

NWTPH-Dx without Silica Gel Cleanup ☐

WA EPH ☐ WA VPH ☐

Lead Total ☐ Diss. ☐ Method ____

SCR #: ____

- ☐ 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.

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Soil	Water	Oil	Total Containers	BTEX + ~~MTBE~~ 8021	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA EPH	WA VPH	Lead	Total	Diss.	Method
RA	6-1-13		X			X		2	X			X								
MW-1	↓	0950	X			X		5	X			X	X							
MW-3	↓	0940	X			X		5	X			X	X							

7 Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day

72 hour 48 hour 24 hour EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
[signature]	6-5-13	1700			
[signature]	6-4-13				
Relinquished by	Date	Time	Received by	Date	Time

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 1.2-2.0 °C

Received by [signature] Date 6/6/13 Time 0920

Custody Seals Intact? (Yes) No

9

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Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

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 of gas 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.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC 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.