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Seattle
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TCP - NWRO

July 17, 2012

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

**Subject: First Quarter 2012 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 first quarter 2012 groundwater monitoring and sampling event at 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 February 23, 2012. 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. Groundwater flow is to the north at a gradient of approximately 0.0125 feet per foot. A potentiometric map is provided as Figure 2.

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

- Total petroleum hydrocarbons (TPH) as gasoline-range organics (TPH-GRO) by Northwest Method NWTPH-Gx;
- TPH as diesel-range organics (TPH-DRO) and TPH as heavy oil-range organics (TPH-HRO) by Northwest Method NWTPH-Dx extended with silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by United States Environmental Protection Agency Method 8260B.



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 were detected in monitoring well MW-2 at a thickness of 0.35 feet. No analytes were detected at concentrations exceeding their respective Model Toxics Control Act (MTCA) Method A cleanup levels in monitoring wells MW-1 and MW-3.

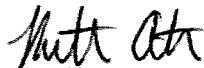
Historical groundwater elevation data, SPH thickness data, and laboratory analytical results are summarized in Table 1. The laboratory analysis report is provided as Attachment B.

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,

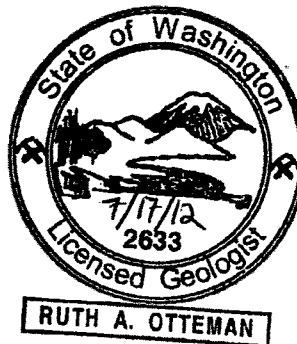
SAIC Energy, Environment & Infrastructure, LLC



Ruth Otteman, LG
Project Manager



Kinga Kozlowska
Environmental Scientist



Enclosures:

Figure 1 – Vicinity Map

Figure 2 – Potentiometric 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, Seattle, WA 98109-4982
Project File

REPORT LIMITATIONS

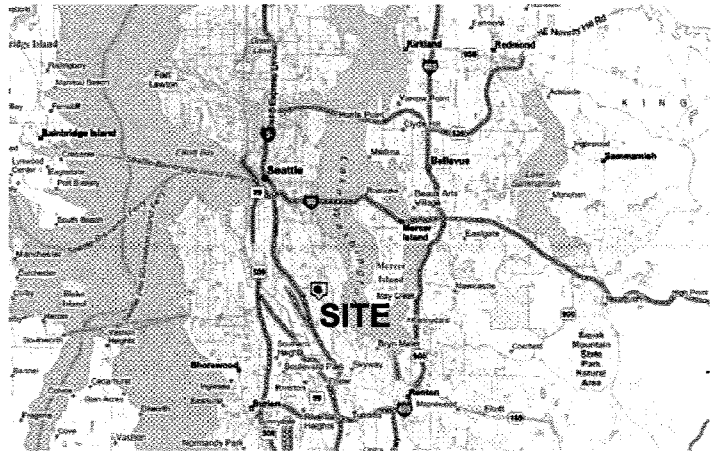
This technical document was prepared on behalf of Chevron and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by SAIC. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges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



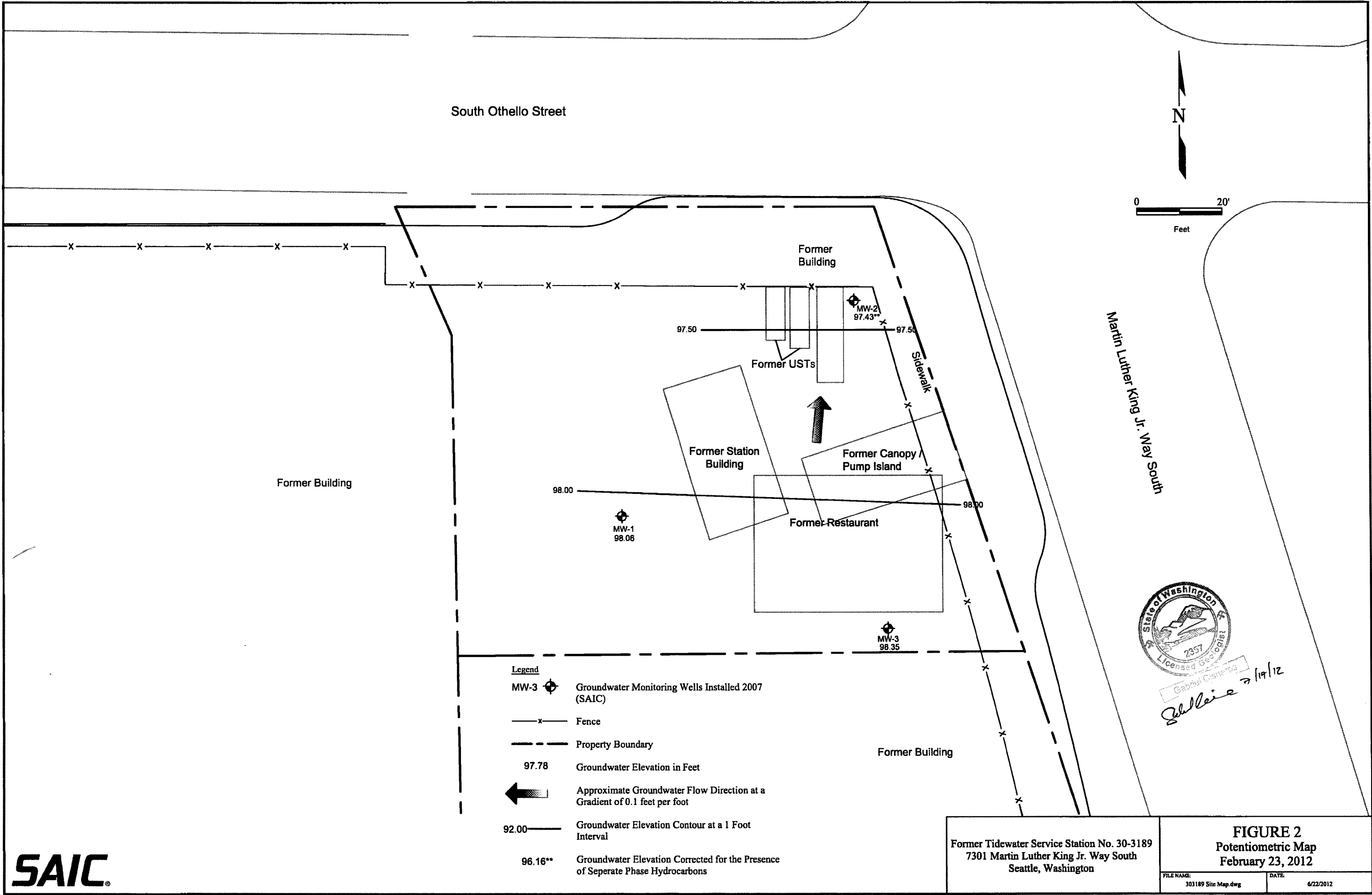
Maps Provided by Seattle.gov



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: 10/05/2011
-----------------------------	---------------------



South Othello Street

N

0 20'
Feet

Former Building

MW-2
97.43**

97.50

Former USTs

Sidewalk

Former Station Building

Former Canopy / Pump Island

Former Building

98.00

MW-1
98.06

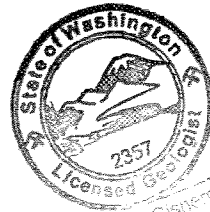
98.00

Former Restaurant

MW-3
98.35

Former Building

- Legend**
- MW-3 Groundwater Monitoring Wells Installed 2007 (SAIC)
 - x— Fence
 - - - Property Boundary
 - 97.78 Groundwater Elevation in Feet
 - Approximate Groundwater Flow Direction at a Gradient of 0.1 feet per foot
 - 92.00 — Groundwater Elevation Contour at a 1 Foot Interval
 - 96.16** Groundwater Elevation Corrected for the Presence of Seperate Phase Hydrocarbons



Gabriel Cisneros 2/19/12

SAIC

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

FIGURE 2
Potentiometric Map
February 23, 2012

FILE NAME: 303189 Site Map.dwg DATE: 6/22/2012

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

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
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)																
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	--	
B-9⁷																
05/01/02		--	--	--	--	--	0.660	0.310	32	530	<100	1,600	4,300	--	--	
B-10⁷																
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	--	
8/18/11 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	--	
Standard Laboratory Reporting Limits:							--	--	50	0.5	0.5	0.5	0.5	1	--	
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	0.5	15	
Current Method:							NWTPH-Dx + Extended							NWTPH-Gx and USEPA 8021B/8260B		USEPA 7421

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

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
FORMER TIDEWATER SERVICE STATION NO. 30-3189
7301 Martin Luther King Jr. Way South
Seattle, Washington
Concentrations reported in µg/L

Analytical Methods:

Prior to April 24, 2009, BTEX analysis by USEPA Method 8021B.

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 8260B.

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: $GWE = [(TOC - DTW) + (SPHT \times 0.80)]$.
- 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 GC.MS 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.



GETTLER-RYAN Inc.



TRANSMITTAL

March 1, 2012
G-R #385862

TO: Mr. Michael Lange
SAIC
18912 North Creek Parkway, Ste. 101
Bothell, Washington 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 First Quarter Event of February 23, 2012

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:	2-23-12
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 DM's				

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	GOOD	GOOD	GOOD	8 Morris x 3	
MW-2	↓	↓	↓	↓	↓	
MW-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. 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 without 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; 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. If the in-line flow cell is to be used, purging is discontinued once the ODR is determined, and the inline flow cell is connected. Purging is then resumed and the ODR is adjusted to allow for the back pressure of the in-line flow cell.

Purging and Water Quality Parameter Measurement

Prior to sampling the well, the SWL will be re-measured and documented and purging will be re-initiated using the ODR. The discharge rate will be confirmed by volumetric discharge measurement and the ODR adjusted as necessary. When the ODR has been re-established, the SWL drawdown has stabilized within the acceptable range and at least 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 ($\pm 10\%$), 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). Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Sample Collection

When water quality parameters have stabilized, and there is no change in the SWL drawdown, groundwater sample collection may begin. 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: 2.23.12 (inclusive)
 City: Seattle, WA Sampler: J.P

Well ID: MW 1 Date Monitored: 2.23.12
 Well Diameter: .75 in.

Total Depth: 11.65 ft.
 Depth to Water: 1.60 ft. Check if water column is less than 0.50 ft.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.53
 xVF = .02 = - x3 case volume = Estimated Purge Volume: - gal.

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: TUBING

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

Start Time (purge): 0800 Weather Conditions: RAIN
 Sample Time/Date: 0830 2.23.12 Water Color: CLEAR Odor: Y (N)
 Approx. Flow Rate: 1.50 mlpm Sediment Description: NONE
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 1.60

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
<u>0810</u>	<u>1.7</u>	<u>6.43</u>	<u>.748</u>	<u>10.1</u>	<u>0</u>	<u>-12.6</u>	<u>1.62</u>
<u>0821</u>	<u>3.2</u>	<u>6.42</u>	<u>.748</u>	<u>10.2</u>	<u>0</u>	<u>-12.5</u>	<u>1.60</u>
<u>0824</u>	<u>3.7</u>	<u>6.42</u>	<u>.748</u>	<u>10.2</u>	<u>0</u>	<u>-12.6</u>	<u>1.60</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW 1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260B)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg

COMMENTS: Depth Pump Set At: 8'

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: 2.23.12 (inclusive)
 City: Seattle, WA Sampler: J.P.

Well ID: MW 2 Date Monitored: 2.23.12
 Well Diameter: .75 in.

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

Total Depth: 9.65 ft.
 Depth to Water: 1.90 ft. Check if water column is less than 0.50 ft.

7.75 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: 0720 (2400 hrs)
 Time Completed: 0740 (2400 hrs)
 Depth to Product: 1.55 ft
 Depth to Water: 1.90 ft
 Hydrocarbon Thickness: 45.35 ft
 Visual Confirmation/Description: THICK BLACK SWOGE
 Skimmer / Absorbent Sock (circle one): NONE
 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
<u>MW</u>	<u>x voa vial</u>	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>NWTPH-Gx/BTEX+MTBE(8260B)</u>
	<u>x 1 liter ambers</u>	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>NWTPH-Dx w/sg</u>

COMMENTS: Depth Pump Set At: 5PH PRESENT
PLD 3ppm

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: 2.23.12 (inclusive)
 City: Seattle, WA Sampler: J.P.

Well ID: MW 3 Date Monitored: 2.23.12
 Well Diameter: .75 in.

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

Total Depth: 9.60 ft.
 Depth to Water: 1.65 ft. Check if water column is less than 0.50 ft.
7.95 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 3.24

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: TURBID

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:	_____ gal
Product Transferred to:	_____

Start Time (purge): 0940 Weather Conditions: Rain
 Sample Time/Date: 0915 / 2.23.12 Water Color: CLEAR Odor: Y / N
 Approx. Flow Rate: 150 mlpm Sediment Description: NONE
 Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 1.76

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ($\mu\text{mhos/cm} - \mu\text{S}$)	Temperature (° F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
<u>0940</u>	<u>2.7</u>	<u>6.48</u>	<u>.517</u>	<u>10.1</u>	<u>0</u>	<u>-13.8</u>	<u>1.79</u>
<u>0941</u>	<u>3.2</u>	<u>6.48</u>	<u>.517</u>	<u>10.2</u>	<u>0</u>	<u>-13.8</u>	<u>1.76</u>
<u>0944</u>	<u>3.7</u>	<u>6.48</u>	<u>.517</u>	<u>10.2</u>	<u>0</u>	<u>-13.8</u>	<u>1.76</u>

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 3</u>	<u>0</u> x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260B)
	<u>2</u> x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg

COMMENTS: Depth Pump Set At: 6'

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

Chevron Northwest Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only

Acct. #: _____ Group #: _____ Sample #: _____

Facility #: SS#305189-DML G-R#383662
 Site Address: 7301 Martin Luther King Jr. Way South, SEATTLE, WA
 WBS: _____
 Chevron PM: MHO SAICML Lange
 Lead Consultant: _____
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
 Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
 Sampler: J. Payne

Sample Identification				Matrix			Total Number of Containers	Analyses Requested										SCR #: _____			
				Soil	Water	Oil		LI	Preservation Codes												
Date Collected	Time Collected	Grab	Composite	<input type="checkbox"/> Potable <input type="checkbox"/> NPDES	<input type="checkbox"/> Air		BTEX + MTBE 8021	8260	8260 Naphth	Oxygenates	NWTPH GX	NWTPH DX	Silica Gel Cleanup	Lead Total	Diss. Method	WAVPH	WAEPH	NWTPH H	HClID	quantification	
<u>QA</u>	<u>1-13-17</u>	<u>X</u>				<u>2</u>	<u>X</u>				<u>X</u>										
<u>RAW-1</u>	<u>9220</u>	<u>X</u>				<u>000</u>	<u>X</u>				<u>X</u>	<u>X</u>									
<u>RAW-3</u>	<u>9215</u>	<u>X</u>				<u>000</u>	<u>X</u>				<u>X</u>	<u>X</u>									

- 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

Comments /Remarks

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

Turnaround Time Requested (TAT) (please circle) STD. TAT: 24-hour, 72 hour, 48 hour, 4 day, 5 day EDF/EDD	Relinquished by: <u>[Signature]</u>	Date: <u>1-14-17</u>	Time: <u>1700</u>	Received by: _____	Date: _____	Time: _____
	Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data)	Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
	Relinquished by Commercial Carrier: UPS <u>[Signature]</u> FedEx _____ Other _____	Temperature Upon Receipt _____ C°		Received by: _____	Date: _____	Time: _____
Custody Seals Intact? Yes No						

Attachment B:
Laboratory Analysis Report



Lancaster
Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

March 12, 2012

Project: 303189

Submittal Date: 02/25/2012

Group Number: 1291697

PO Number: 0015080810

Release Number: BAUHS

State of Sample Origin: WA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
QA Water Sample	6558798
MW-1 Grab Water Sample	6558799
MW-3 Grab Water Sample	6558800

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: Mike Lange
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green



Lancaster
Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Respectfully Submitted,

A handwritten signature in cursive script that reads "Jill M. Parker".

Jill M. Parker
Senior Specialist

(717) 556-7262

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

LLI Sample # WW 6558798
LLI Group # 1291697
Account # 11260

Project Name: 303189

Collected: 02/23/2012

Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Submitted: 02/25/2012 09:30

Reported: 03/12/2012 20:11

MLKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	0.5 ug/l	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50 ug/l	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
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	P120601AA	02/29/2012 11:26	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120601AA	02/29/2012 11:26	Emily R Styer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12059A20A	02/29/2012 12:03	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12059A20A	02/29/2012 12:03	Catherine J Schwarz	1

Sample Description: MW-1 Grab Water Sample **LLI Sample #** WW 6558799
Facility# 303189 **Job#** 385862 **LLI Group #** 1291697
7301 Martin Luther King Jr Way South - Seattle, WA **Account #** 11260

Project Name: 303189

Collected: 02/23/2012 08:30 by JP Chevron
6001 Bollinger Canyon Road
 Submitted: 02/25/2012 09:30 L4310
 Reported: 03/12/2012 20:11 San Ramon CA 94583

MLK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 8260B					
10943	Benzene	71-43-2	N.D.	ug/1 0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTPH-Gx					
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	ug/1 50	1
GC Petroleum Hydrocarbons w/Si modified ECY 97-602 NWTPH-Dx					
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	ug/1 31	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	72	1
The reverse surrogate, capric acid, was 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
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	P120601AA	02/29/2012 12:50	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120601AA	02/29/2012 12:50	Emily R Styer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12059A20A	02/29/2012 15:11	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12059A20A	02/29/2012 15:11	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	120630011A	03/08/2012 07:10	Tracy A Cole	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	120630011A	03/05/2012 09:00	Catherine R Wiker	1

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

LLI Sample # WW 6558800
 LLI Group # 1291697
 Account # 11260

Project Name: 303189

Collected: 02/23/2012 09:15 by JP

Chevron
 6001 Bollinger Canyon Road
 L4310
 San Ramon CA 94583

Submitted: 02/25/2012 09:30
 Reported: 03/12/2012 20:11

MLK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles					
		ECY 97-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si modified					
		ECY 97-602 NWTPH-Dx	ug/l	ug/l	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	33	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	77	1

The reverse surrogate, capric acid, was 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
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	P120601AA	02/29/2012 14:13	Emily R Styer	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120601AA	02/29/2012 14:13	Emily R Styer	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	12068A20A	03/08/2012 11:53	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12068A20A	03/08/2012 11:53	Marie D John	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	120630011A	03/08/2012 07:33	Tracy A Cole	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	120630011A	03/05/2012 09:00	Catherine R Wiker	1

Quality Control Summary

 Client Name: Chevron
 Reported: 03/12/12 at 08:11 PM

Group Number: 1291697

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: P120601AA	Sample number(s): 6558798-6558800							
Benzene	N.D.	0.5	ug/l	103		79-120		
Ethylbenzene	N.D.	0.5	ug/l	104		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	106		76-120		
Toluene	N.D.	0.5	ug/l	106		79-120		
Xylene (Total)	N.D.	0.5	ug/l	103		80-120		
Batch number: 12059A20A	Sample number(s): 6558798-6558799							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	90	90	75-135	0	30
Batch number: 12068A20A	Sample number(s): 6558800							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	91	91	75-135	0	30
Batch number: 120630011A	Sample number(s): 6558799-6558800							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	69	62	50-120	11	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P120601AA	Sample number(s): 6558798-6558800 UNSPK: 6558799								
Benzene	103	101	80-126	2	30				
Ethylbenzene	105	105	71-134	0	30				
Methyl Tertiary Butyl Ether	105	103	72-126	2	30				
Toluene	105	106	80-125	1	30				
Xylene (Total)	103	104	79-125	1	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water

Batch number: P120601AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

*- 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
 Reported: 03/12/12 at 08:11 PM

Group Number: 1291697

Surrogate Quality Control

6558798	95	98	102	99
6558799	95	98	100	98
6558800	94	99	100	97
Blank	95	99	100	98
LCS	94	97	99	97
MS	94	101	100	98
MSD	96	101	101	101
<hr/>				
Limits:	80-116	77-113	80-113	78-113

 Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 12059A20A
 Trifluorotoluene-F

6558798	81
6558799	75
Blank	79
LCS	96
LCSD	98
<hr/>	
Limits:	63-135

 Analysis Name: NWTPH-Gx water C7-C12
 Batch number: 12068A20A
 Trifluorotoluene-F

6558800	86
Blank	88
LCS	107
LCSD	106
<hr/>	
Limits:	63-135

 Analysis Name: NWTPH-Dx water w/ 10g Si Gel
 Batch number: 120630011A
 Orthoterphenyl

6558799	79
6558800	55
Blank	74
LCS	145
LCSD	130
<hr/>	
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



For Lancaster Laboratories use only

Acct. #: 11260 Group # 1291697 Sample #: 6558798-800

Facility #: <u>SS#303189-OML G-R#385862</u> Site Address: <u>7301 Martin Luther King Jr. Way South, SEATTLE, WA</u> Chevron PM: <u>MHO</u> Lead Consultant: <u>SAICML Lange</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>J. FAYNE</u>				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analyses Requested H Preservation Codes BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> Naphth <input type="checkbox"/> 8260 full scan Oxygenates NWTPH GX NWTPH DX <input checked="" type="checkbox"/> Silica Gel Cleanup Lead Total <input type="checkbox"/> Diss. <input type="checkbox"/> Method <input type="checkbox"/> WAPPH <input type="checkbox"/> WAEPPH NWTPH H CID <input type="checkbox"/> quantification										SCR #: <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm MTBE + Naphthalene <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits									
Sample Identification		Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8021	8260 full scan	Oxygenates	NWTPH GX	NWTPH DX <input checked="" type="checkbox"/> Silica Gel Cleanup	Lead Total	Diss. Method	WAPPH	WAEPPH	NWTPH H CID	quantification	Comments /Remarks			
QA		2.23.12		X			X			2	X			X								Please forward the lab results directly to the Lead Consultant and cc: G-R.			
MW:1		↓	0830	X			X			3	X			X	X										
MW:3		↓	0915	X			X			3	X			X	X										
Turnaround Time Requested (TAT) (please circle) STD. TAT <u>24 hour</u> 72 hour 48 hour 4 day 5 day				Relinquished by: <u>[Signature]</u> Date: <u>2/2/12</u> Time: <u>1700</u>				Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Other _____		Received by: _____ Date: <u>2/2/12</u> Time: <u>0930</u>		Temperature Upon Receipt <u>1.5</u> C°		Custody Seals Intact? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Data Package Options (please circle if required) QC Summary Type I - Full Type VI (Raw Data)				ED/EDD		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____		Relinquished by: _____ Date: _____ Time: _____		Received by: _____ Date: _____ Time: _____	

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit
N.D.	none detected
TNTC	Too Numerous To Count
IU	International Units
umhos/cm	micromhos/cm
C	degrees Celsius
meq	milliequivalents
g	gram(s)
µg	microgram(s)
mL	milliliter(s)
m³	cubic meter(s)

BMQL	Below Minimum Quantitation Level
MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units
NTU	nephelometric turbidity units
ng	nanogram(s)
F	degrees Fahrenheit
lb.	pound(s)
kg	kilogram(s)
mg	milligram(s)
L	liter(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 \geq 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 \geq 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.

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