March 10, 2011

Ms. Olivia Skance
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583

Subject: **Second Semiannual 2010 Groundwater Monitoring Report**
Former Chevron Service Station No. 30-5192
9816 271st Street NW
Stanwood, Washington

Dear Ms. Skance:

SAIC Energy, Environment, & Infrastructure, LLC (SAIC) on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the second semiannual 2010 groundwater monitoring and sampling event at Former Chevron Service Station No. 30-5192 (the site) in Stanwood, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on July 20, 2010. They collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in four monitoring wells on site.

Groundwater samples were collected from all four monitoring wells on site and submitted to Lancaster Laboratories, Inc. in Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics (TPH-GRO) by Washington State Department of Ecology (Ecology) Method NWTPH-Gx;
- TPH as diesel-range organics (TPH-DRO) and TPH as heavy oil-range organics by Ecology Method NWTPH-Dx modified with silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and total xylenes, and methyl tert-butyl ether 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).

FINDINGS

At the time of this monitoring event, groundwater elevations ranged from 97.24 feet in monitoring well MW-3 to 95.30 feet in monitoring well MW-1, based on an arbitrary

benchmark of 100.00 feet. Groundwater potentially flows toward the west-northwest at a gradient of approximately 0.0056 to 0.023 feet per foot (Figure 2). Groundwater elevations decreased an average of 0.11 feet since the previous semiannual monitoring event in January 2010.

SPH were not detected in any of the monitoring wells monitored.

The following analytes were detected at concentrations exceeding their respective Model Toxics Control Act Method A cleanup levels:

- TPH-DRO was detected in monitoring wells MW-2 and MW-4; and
- TPH-HRO was detected in monitoring wells MW-2 and MW-4.

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

DISCUSSION

Groundwater elevations and potential flow direction are consistent with historical data reported at the site.

Petroleum-hydrocarbon constituent concentrations are generally consistent with previous events and mainly consist of TPH-DRO and TPH-HRO in monitoring wells MW-2 and MW-4. The detections in MW-2 and MW-4 are most likely associated with the underground storage tanks that were used for waste oil by a previous tenant (not Standard Oil) or a leaking off-property heating oil tank.

Gettler-Ryan will continue to perform groundwater monitoring and sampling on a semiannual basis. The next groundwater monitoring and sampling event is scheduled for January 2011.

If you have any questions or comments, please contact me at (425) 482-3321 or via email at jenkinsme@saic.com.

Sincerely,

SAIC Energy, Environment & Infrastructure, LLC

Michael E. Jenkins, LG, LHG
Senior Project Manager

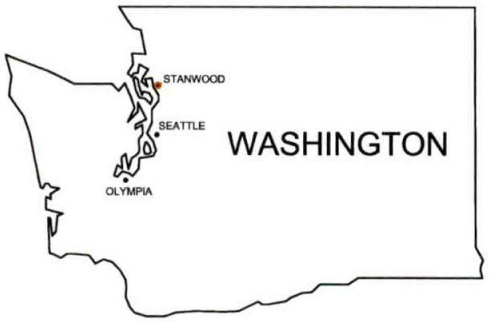
Gabriel Cisneros LG #2357
Geologist

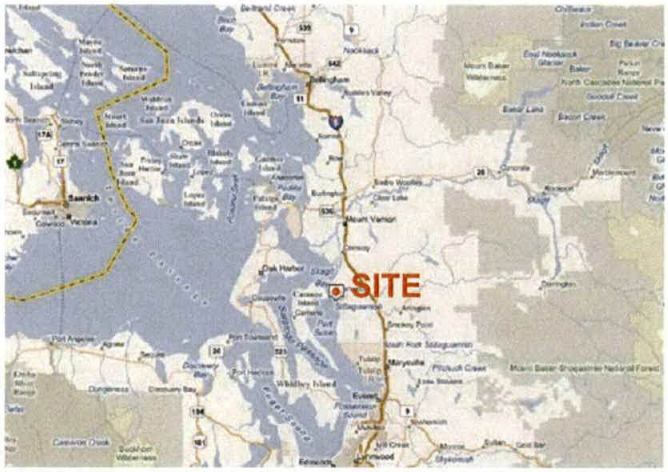
Enclosures:
Figure 1 – Vicinity Map
Figure 2 – Potentiometric Map
Table 1 – Groundwater Monitoring Data and Analytical Results
Attachment A – Groundwater Monitoring and Sampling Data Package
Attachment B – Laboratory Analysis Report

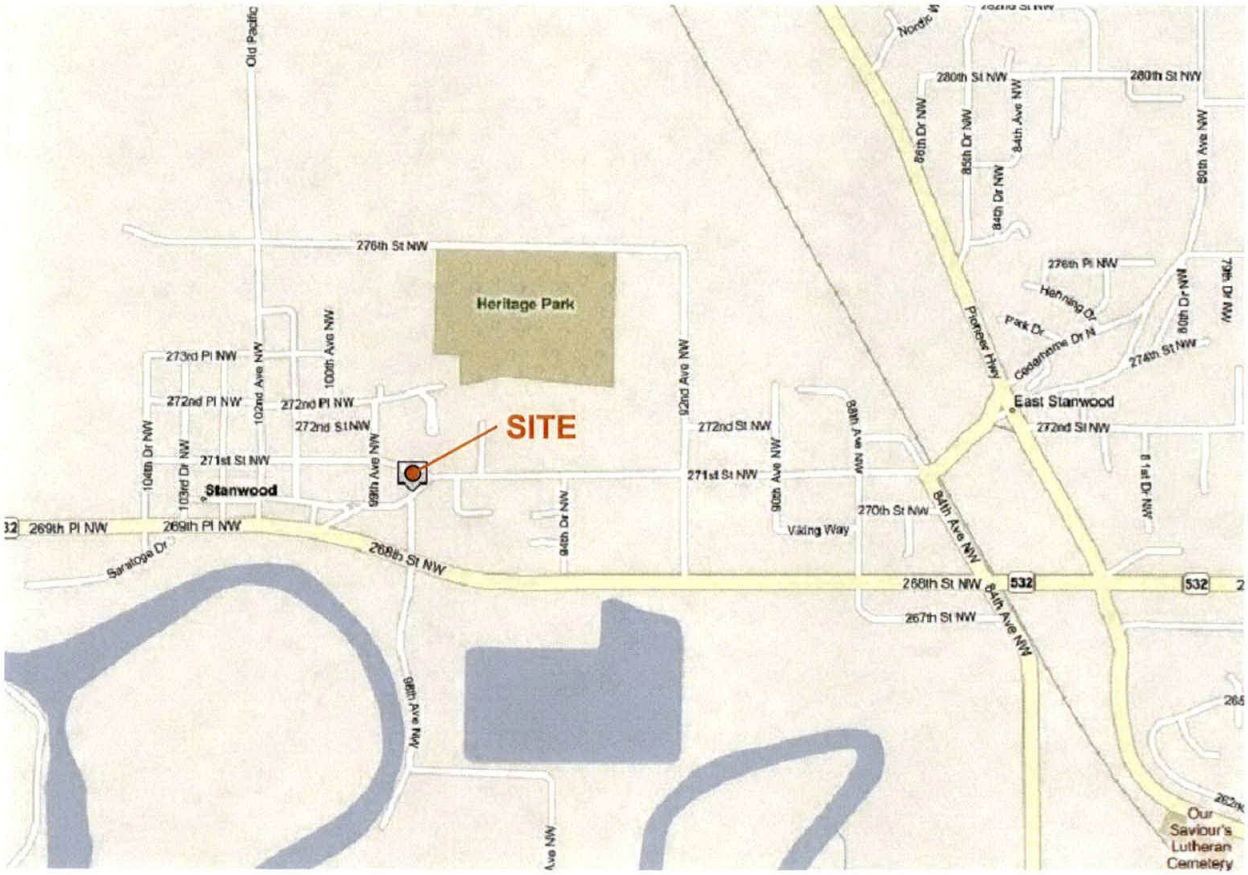
cc: Mr. Joe Hickey – Ecology NW Region, Toxics Cleanup Program
3190 160th Avenue SE, Bellevue, WA 98008-5452
Mr. Wayne Raplee
1411 70th Avenue NE, Stanwood, WA 98292
Mr. Joshua Lipsky – Cascade Law Group PLLC
1201 Third Avenue, Suite 320, Seattle, WA 98101
Project File

PLEASE NOTE: In an effort to adopt practices that reduce negative impacts on the environment, SAIC is in the process of transitioning to an electronic distribution of all Groundwater Monitoring Reports. Please contact me at (425) 482-3321 or via email at jenkinsme@saic.com if you would be willing to accept an electronic copy of this report in lieu of a hard copy; in the absence of a response we will continue to provide you a hard copy.

NORTH







Maps Provided by Seattle.gov

Z:\2004\ChevronTexaco\WA Portfolio\305192 Stanwood\30-5192_VM2010.dwg greenjamal 10/03/11 - 1:11 P

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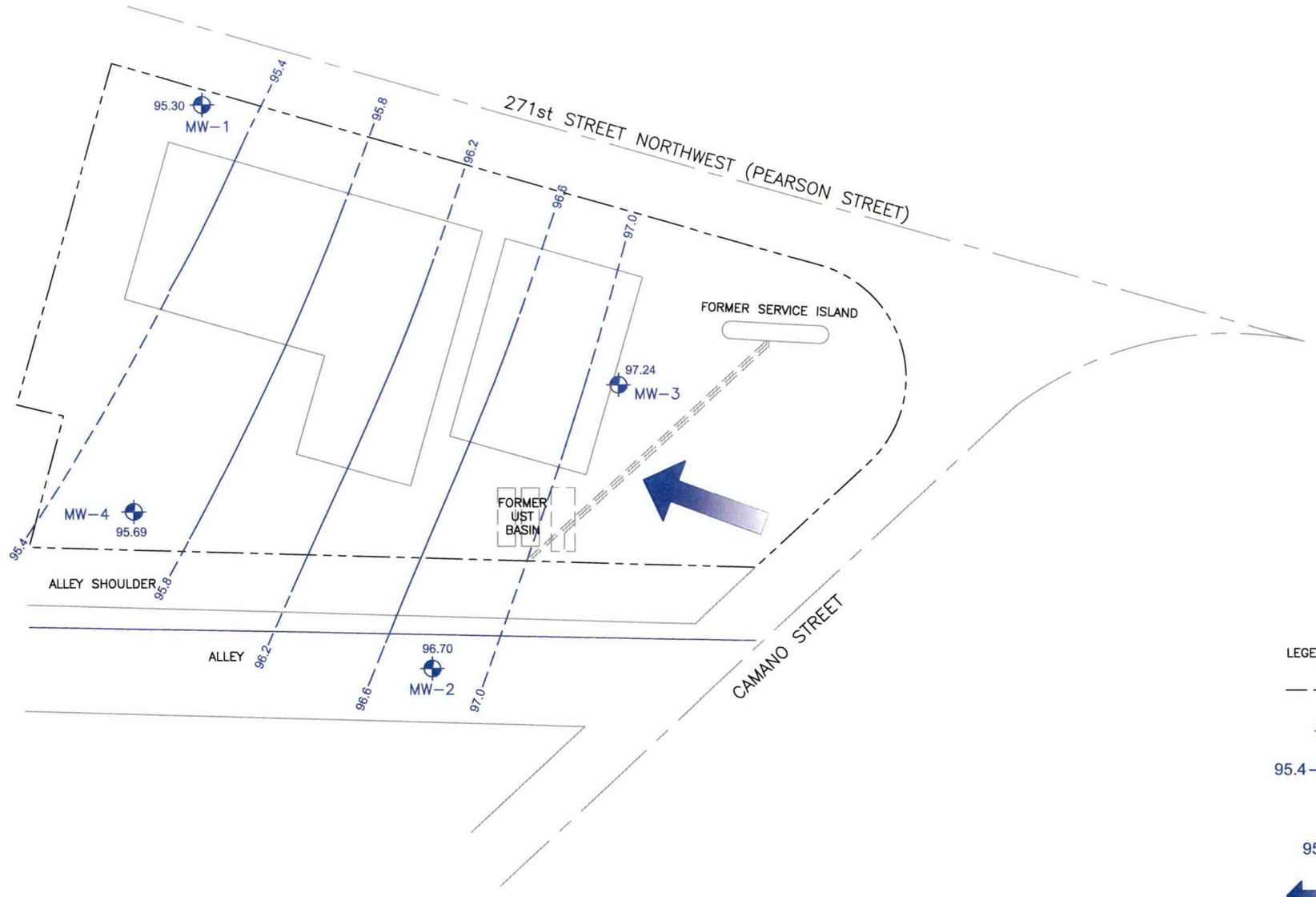
Former Chevron Service Station No. 30-5192
9816 271st Street Northwest
Stanwood, Washington

FIGURE 1
Vicinity Map

FILE NAME:	DATE:
30-5192_VM2010.dwg	02/24/2011



N

0 10 20
Feet

LEGEND

- Property Line
- Monitoring Well Location
- 95.4 Groundwater Table Contours at a 0.4 Foot Interval (Dashed Where Inferred)
- 95.69 Groundwater Elevation in Feet
- Approximate Groundwater Flow Direction at a Gradient of 0.0056 to 0.023 Feet per Foot

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FORMER CHEVRON SERVICE STATION
NO. 30-5192
9816 271ST STREET NORTHWEST
STANWOOD, WASHINGTON

FIGURE 2
Potentiometric Map
July 20, 2010

FILE NAME: 30-5192_PotentiometricMap.dwg

DATE: 03/01/2011

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 30-5192
9816 271st Street Northwest
Stanwood, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Type	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-1													
04/10/06		98.32	1.81	96.51	--	--	--	--	--	--	--	--	--
05/03/06		98.32	--	--	310[1]	120[1]	<240	<2.5	<2.5	4.7	11	<13	<0.87
08/02/06	PER	98.32	2.96	95.36	260[1]	330[1]	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
10/10/06	PER	98.32	2.55	95.77	150[1]	<100[1]	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/15/07	PER	98.32	1.64	96.68	<160[1]	<200[1]	<240	<2.5	<2.5	<2.5	<7.5	<13	--
04/25/07	PER	98.32	1.58	96.74	190[1]	130[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/15/07	PER	98.32	2.58	95.74	<81[1]	<100[1]	<500	<5.0	<5.0	<5.0	<15	<25	--
10/03/07	PER	98.32	3.00	95.32	130[1]	<100[1]	<250	<2.5	<2.5	<2.5	<7.5	<13	--
01/03/08		98.32	2.51	95.81	130[1]	<100[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/28/09	LFP	98.32	3.27	95.05	610[1]	610[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/22/09	LFP	98.32	4.43	93.89	650[1]	720[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/08/10	LFP	98.32	3.32	95.00	350[1]	160[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/20/10	LFP	98.32	3.02	95.30	130[1]	100[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
MW-2													
04/10/06		99.58	2.29	97.29	--	--	--	--	--	--	--	--	--
05/03/06		99.58	--	--	1,400[1]	560[1]	<240	13	<2.5	<2.5	<7.5	<13	<0.87
08/02/06	PER	99.58	2.98	96.60	2,000[1]	1,800[1]	220	20	<0.5	<0.5	1.6	<2.5	--
10/10/06	PER	99.58	3.64	95.94	1,400[1]	790[1]	<240	16	<2.5	<2.5	<7.5	<13	--
01/15/07	PER	99.58	2.08	97.50	810[1]	270[1]	<240	9.3	<2.5	<2.5	<7.5	<13	--
04/25/07	PER	99.58	2.16	97.42	830[1]	480[1]	250	13	<0.5	<0.5	<1.5	<2.5	--
07/15/07	PER	99.58	2.95	96.63	7,800[1,3]	<1,000[1,3]	<500	13	<5.0	<5.0	<15	<25	--
10/03/07	PER	99.58	3.44	96.14	1,600[1]	1,100[1]	<250	4.9	<2.5	<2.5	<7.5	<13	--
01/03/08		99.58	2.32	97.26	1,400[1]	800[1]	460	6.7	1.0	<0.5	<1.5	<2.5	--
02/28/09	LFP	99.58	2.89	96.69	2,700[1]	2,800[1]	450	2.5	0.6	<0.5	<1.5	<2.5	--
07/22/09	LFP	99.58	3.33	96.25	2,500[1]	4,000[1]	360	1.1	0.8	<0.5	1.5	<2.5	--
01/08/10	LFP	99.58	2.90	96.68	1,800[1]	1,400[1]	470	<0.5	0.5	0.7	<1.5	<2.5	--
07/20/10	LFP	99.58	2.88	96.70	2,000[1]	1,600[1]	420	<0.5	0.8	<0.5	<1.5	<2.5	--
MW-3													
04/10/06		99.16	0.40	98.76	--	--	--	--	--	--	--	--	--
05/03/06		99.16	--	--	580[1]	240[1]	<240	<2.5	<2.5	<2.5	<7.5	<13	<0.87
08/02/06	PER	99.16	2.61	96.55	350[1]	380[1]	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
10/10/06	PER	99.16	2.75	96.41	310[1]	140[1]	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--

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TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 30-5192
9816 271st Street Northwest
Stanwood, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Type	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-3 (cont)													
01/15/07	PER	99.16	0.50	98.66	250[1]	<100[1]	<240	<2.5	<2.5	<2.5	<7.5	<13	--
04/25/07	PER	99.16	0.84	98.32	260[1]	110[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/15/07	PER	99.16	2.16	97.00	250[1]	150[1]	<500	<5.0	<5.0	<5.0	<15	<25	--
10/03/07	PER	99.16	2.68	96.48	330[1]	260[1]	<250	<2.5	<2.5	<2.5	<7.5	<13	--
01/03/08		99.16	1.62	97.54	280[1]	210[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/28/09	LFP	99.16	1.56	97.60	290[1]	190[1]	<50	<0.5	<0.5	<0.5	1.6	<2.5	--
07/22/09	LFP	99.16	3.11	96.05	780[1]	830[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/08/10	LFP	99.16	2.83	96.33	680[1]	360[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/20/10	LFP	99.16	1.92	97.24	330[1]	190[1]	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
MW-4													
04/10/06		100.00	2.08	97.92	--	--	--	--	--	--	--	--	--
05/03/06		100.00	--	--	7,900[1]	<1,000[1]	<240	<2.5	<2.5	<2.5	<7.5	<13	<0.87
08/02/06	PER	100.00	3.57	96.43	7,300[1]	<1,000[1]	73	<0.5	<0.5	<0.5	2.8	<2.5	--
10/10/06[2]	PER	100.00	4.28	95.72	7,900[1]	2,200[1]	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/15/07[2]	PER	100.00	2.98	97.02	8,300[1]	3,000[1]	<240	<2.5	<2.5	<2.5	<7.5	<13	--
04/25/07[2]	PER	100.00	4.35	95.65	9,300[1]	2,000[1]	89	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/15/07	PER	100.00	4.06	95.94	850[1,3]	320[1,3]	<500	<5.0	<5.0	<5.0	<15	<25	--
10/03/07	PER	100.00	4.22	95.78	8,500[1]	<2,100[1]	<250	<2.5	<2.5	<2.5	<7.5	<13	--
01/03/08		100.00	3.98	96.02	9,100[1]	2,200[1]	61	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/28/09	LFP	100.00	3.44	96.56	5,400[1]	2,100[1]	56	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/22/09	LFP	100.00	3.30	96.70	14,000[1]	7,600[1]	100	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/08/10	LFP	100.00	3.51	96.49	13,000[1]	18,000[1]	75	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/20/10	LFP	100.00	4.31	95.69	12,000[1]	13,000[1]	69	<0.5	<0.5	<0.5	<1.5	<2.5	--
TRIP BLANK QA													
05/03/06		--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/02/06		--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
10/10/06		--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/15/07		--	--	--	--	--	<48	<0.5	<0.5	<0.5	<1.5	<2.5	--
04/25/07		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/15/07		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
10/03/07		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/03/08		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION NO. 30-5192
9816 271st Street Northwest
Stanwood, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Type	TOC* (ft.)	DTW (ft.)	GWE (ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
TRIP BLANK QA (cont)													
02/28/09		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/22/09		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
01/08/10		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
07/20/10		--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
Standard Laboratory Reporting Limits:					--	--	50	0.5	0.5	0.5	1.5	2.5	0.001
MTCA Method A CULs:					500	500	800/1,000	5	1,000	700	1,000	20	--
Current Method:					NWTPH-Dx + Extended		NWTPH-Gx and USEPA 8021B						USEPA 7421

EXPLANATIONS:

TOC = Top of Casing
(ft.) = Feet
DTW = Depth to Water
GWE = Groundwater Elevation
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
MTBE = Methyl Tertiary Butyl Ether
D. Lead = Dissolved Lead
µg/L = Micrograms per liter
-- = Not Measured/Not Analyzed
LFP = Low Flow Purge
PER = Peristaltic Pump
QA = Quality Assurance/Trip Blank
MTCA = Model Toxics Control Act
CULs = Cleanup levels
USEPA = United States Environmental Protection Agency

* TOC elevations are expressed in feet relative to an arbitrary datum.

1 Analyzed with silica-gel cleanup.
2 Incorrect TOC used to calculate GWE in past reports (99.16). Correct TOC is shown.
3 Current laboratory analytical results do not coincide with historical data, samples may have been switched in the field.
4 Reporting limits were raised due to interference from the sample matrix.

Attachment A:
Groundwater Monitoring and Sampling Data Package

GETTLER-RYAN INC.

TRANSMITTAL

July 21, 2010
G-R #387100

TO: Mr. Peter Catterall
SAIC
18912 North Creek Parkway, Suite 101
Bothell, Washington 98011

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

RE: Former Chevron Service Station
#305192
9816 271st Street Northwest
Stanwood, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
VIA PDF		Groundwater Monitoring and Sampling Data Package **Second Semi-Annual Event of July 20, 2010**

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/305192-OS

GETTLER-RYAN INC.

CHEVRON - SITE CHECK LIST

Facility#:	**Chevron #305192**	Date: 7-20-10
Address:	**9816 271St Street Nw**	
City/St.:	**Stanwood,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, well plug, well lock, etc.:

Well ID	Well Box	Bolts	Well Plug	Well Lock	Other
MW-1	OK	OK	OK	OK	
MW-2	OK	↓	↓	↓	
MW-3	2 BROKEN FLANGES				
MW-4	OK				

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

In each well, the Static Water Level (SWL) is measured prior to the installation of the pump or tubing in the 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 (± 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 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 #305192 | Job Number: 387100
Site Address: 9816 271St Street Nw | Event Date: 7-20-10 (inclusive)
City: Stanwood,WA | Sampler: ML

Well ID: MW- 1 | Date Monitored: 7-20-10
Well Diameter: 1.5 in.
Total Depth: 14.16 ft.
Depth to Water: 3.02 ft. ☐ Check if water column is less then 0.50 ft.

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

11.14 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 X
QED Bladder Pump ____
Other: ____

Sampling Equipment:
Disposable Bailer ____
Pressure Bailer ____
Discrete Bailer ____
Peristaltic Pump X
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): 1000 | Weather Conditions: Cloudy
Sample Time/Date: 1030 7-20-10 | Water Color: Clear | Odor: Y / (N)
Approx. Flow Rate: 200 ml/min. | Sediment Description: None
Did well de-water? No | If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 3.10

Time (2400 hr.)	Volume (Gal./L)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1015	3	6.65	1004	16.3			3.07
1018	3.6	6.68	1009	16.3			3.08
1021	4.2	6.68	1010	16.3			3.10

LABORATORY INFORMATION

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

COMMENTS: ____

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #305192 Job Number: 387100
Site Address: 9816 271St Street Nw Event Date: 7-20-10 (inclusive)
City: Stanwood,WA Sampler: ML

Well ID MW-2 Date Monitored: 7-20-10
Well Diameter 1.5 in.
Total Depth 14.19 ft.
Depth to Water 2.88 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 X
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Discrete Bailer
Peristaltic Pump X
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): 1145 Weather Conditions: Clouds
Sample Time/Date: 1215 7-20-10 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 100 ml/min. Sediment Description: None
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 2.88

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1200	1.5	6.68	916	16.1			2.88
1203	1.8	6.30	921	16.1			2.88
1206	2.1	6.34	922	16.1			2.88

LABORATORY INFORMATION

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

COMMENTS:

Add/Replaced Lock: — Add/Replaced Plug: — Add/Replaced Bolt: —

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #305192 Job Number: 387100
Site Address: 9816 271St Street Nw Event Date: 7-20-10 (inclusive)
City: Stanwood,WA Sampler: ML

Well ID MW-3 Date Monitored: 7-20-10
Well Diameter 1.5 in.
Total Depth 13.60 ft.
Depth to Water 1.92 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	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	X
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): 1055 Weather Conditions: Cloudy
Sample Time/Date: 1125 7-20-10 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 100 ml gpm. Sediment Description: None
Did well de-water? N/O If yes, Time: Volume: gal. DTW @ Sampling: 1.92

Time (2400 hr.)	Volume (~~gal~~ L)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1110	1.5	6.96	1727	16.0			1.92
1113	1.8	7.01	1731	16.0			1.92
1116	2.1	7.00	1732	15.9			1.92

LABORATORY INFORMATION

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

COMMENTS:

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #305192 Job Number: 387100
Site Address: 9816 271St Street Nw Event Date: 7-20-10 (inclusive)
City: Stanwood,WA Sampler: ML

Well ID MW- 4 Date Monitored: 7-20-10
Well Diameter 1.5 in.
Total Depth 13.72 ft.
Depth to Water 4.31 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 X
QED Bladder Pump ____
Other: ____

Sampling Equipment:
Disposable Bailer ____
Pressure Bailer ____
Discrete Bailer ____
Peristaltic Pump X
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): 1245 Weather Conditions: Cloudy
Sample Time/Date: 1315 7-20-10 Water Color: Clear Odor: (Y) / N medium
Approx. Flow Rate: 100 ml gpm. Sediment Description: None
Did well de-water? NO If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: 4.31

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1300	1.5	6.96	1116	16.4			4.31
1303	1.8	6.97	1121	16.4			4.31
1306	2.1	6.99	1120	16.4			4.31

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 4	3 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8021)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg

COMMENTS: THICK OIL PRESENT ON OUTSIDE OF TUBING DURING SAMPLING.

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

Chevron Northwest Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: _____ Sample #: _____ SCR#: _____

Facility #: SS#305192-OML G-R#387100
Site Address: 9816 271st Street NW, STANWOOD, WA
Chevron PM: OS Lead Consultant: SAICPC
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: Mike Lombard
Service Order #: _____ ☐ Non SAR: _____

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ 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

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (Potable ☐ NPDES ☐)	Matrix: Oil ☐ Air ☐	Total Number of Containers	BTEX + MTBE 8021 ☒ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates ___	TPH G	TPH D	Extended Rng. Silica Gel Cleanup ☐ ☒	Lead Total ☐ Diss. ☐ Method ___	VPH/EPH	NWTPH H HCID ☐ quantification
QA	7.20.10		X			X		2	X			X					
MW-1		1030	X			X		5	X			X	X				
MW-2		1215	X			X		5	X			X	X				
MW-3		1125	X			X		5	X			X	X				
MW-4		1315	X			X		5	X			X	X				

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
~~24 hour~~ 4 day 5 day

Data Package Options (please circle if required) **EDF/EDD**
QC Summary Type I - Full
Type VI (Raw Data) Disk / EDD
WIP (RWQCB) Standard Format
Disk _____ Other.

	Relinquished by:	Date	Time	Received by:	Date	Time
1		7.20.10	1630			
2	Relinquished by:	Date	Time	Received by:	Date	Time
3	Relinquished by:	Date	Time	Received by:	Date	Time
4	Relinquished by Commercial Carrier: UPS (FedEx) Other _____			Received by:	Date	Time
	Temperature Upon Receipt _____ C°			Custody Seals Intact? Yes No		

Attachment B:
Laboratory Analysis Report

Lancaster Laboratories

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Analysis Report

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

August 03, 2010

Project: 305192

Submittal Date: 07/21/2010
Group Number: 1204063
PO Number: 0015061199
Release Number: SKANCE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LLI) #
QA Water Sample	6037982
MW-1 Grab Water Sample	6037983
MW-2 Grab Water Sample	6037984
MW-3 Grab Water Sample	6037985
MW-4 Grab Water Sample	6037986

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: Cheryl Hansen
ELECTRONIC COPY TO	SAIC	Attn: Peter Catterall

Lancaster Laboratories

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Analysis Report

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Sarah M. Snyder
Senior Specialist

Lancaster Laboratories

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Analysis Report

Sample Description: QA Water Sample
Facility# 305192 Job# 387100
9816 271st Street NW - Stanwood, WA

LLI Sample # WW 6037982
LLI Group # 1204063
Account # 11260

Project Name: 305192

Collected: 07/20/2010

Submitted: 07/21/2010 09:25
Reported: 08/03/2010 16:42
Discard: 09/03/2010

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

STAQA

CAT No.		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**	
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	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	10203A53A	07/22/2010 18:05	Katrina T Longenecker	1
02159	BTEX, MTBE	SW-846 8021B	1	10203A53A	07/22/2010 18:05	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	10203A53A	07/22/2010 18:05	Katrina T Longenecker	1

Lancaster Laboratories

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Analysis Report

Sample Description: MW-1 Grab Water Sample
Facility# 305192 Job# 387100
9816 271st Street NW - Stanwood, WA

LLI Sample # WW 6037983
LLI Group # 1204063
Account # 11260

Project Name: 305192

Collected: 07/20/2010 10:30 by ML

Submitted: 07/21/2010 09:25
Reported: 08/03/2010 16:42
Discard: 09/03/2010

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

STA01

CAT No.		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	
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	130	29	1
02211	HRO C24-C40 w/Si Gel	n.a.	100	68	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	10203A53A	07/22/2010 19:42	Katrina T Longenecker	1
02159	BTEX, MTBE	SW-846 8021B	1	10203A53A	07/22/2010 19:42	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	10203A53A	07/22/2010 19:42	Katrina T Longenecker	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	102070057A	07/28/2010 00:17	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	102070057A	07/27/2010 03:00	Sherry L Morrow	1

Lancaster Laboratories

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Analysis Report

Sample Description: MW-2 Grab Water Sample
Facility# 305192 Job# 387100
9816 271st Street NW - Stanwood, WA

LLI Sample # WW 6037984
LLI Group # 1204063
Account # 11260

Project Name: 305192

Collected: 07/20/2010 12:15 by ML

Submitted: 07/21/2010 09:25
Reported: 08/03/2010 16:42
Discard: 09/03/2010

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

STA02

CAT No.		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.	420	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	0.8	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	2,000	57	2
02211	HRO C24-C40 w/Si Gel	n.a.	1,600	130	2

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	10203A53A	07/22/2010 20:06	Katrina T Longenecker	1
02159	BTEX, MTBE	SW-846 8021B	1	10203A53A	07/22/2010 20:06	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	10203A53A	07/22/2010 20:06	Katrina T Longenecker	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	102070057A	08/03/2010 12:42	Melissa McDermott	2
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	102070057A	07/27/2010 03:00	Sherry L Morrow	1

Lancaster Laboratories

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Analysis Report

Sample Description: MW-3 Grab Water Sample
Facility# 305192 Job# 387100
9816 271st Street NW - Stanwood, WA

LLI Sample # WW 6037985
LLI Group # 1204063
Account # 11260

Project Name: 305192

Collected: 07/20/2010 11:25 by ML

Submitted: 07/21/2010 09:25
Reported: 08/03/2010 16:42
Discard: 09/03/2010

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

STA03

CAT No.		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	
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		ug/l	ug/l	
02211	DRO C12-C24 w/Si Gel	n.a.	330	31	1
02211	HRO C24-C40 w/Si Gel	n.a.	190	71	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	10203A53A	07/22/2010 20:30	Katrina T Longenecker	1
02159	BTEX, MTBE	SW-846 8021B	1	10203A53A	07/22/2010 20:30	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	10203A53A	07/22/2010 20:30	Katrina T Longenecker	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	102070057A	07/27/2010 23:37	Glorines Suarez-Rivera	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	102070057A	07/27/2010 03:00	Sherry L Morrow	1

Lancaster Laboratories

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Analysis Report

Sample Description: MW-4 Grab Water Sample
Facility# 305192 Job# 387100
9816 271st Street NW - Stanwood, WA

LLI Sample # WW 6037986
LLI Group # 1204063
Account # 11260

Project Name: 305192

Collected: 07/20/2010 13:15 by ML

Submitted: 07/21/2010 09:25
Reported: 08/03/2010 16:42
Discard: 09/03/2010

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

STA04

CAT No.		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.	69	50	1
GC Volatiles	**SW-846 8021B**		**ug/l**	**ug/l**	
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Extractable TPH w/Si Gel	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
02211	DRO C12-C24 w/Si Gel	n.a.	12,000	620	20
02211	HRO C24-C40 w/Si Gel	n.a.	13,000	1,400	20

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	10203A53A	07/22/2010 20:54	Katrina T Longenecker	1
02159	BTEX, MTBE	SW-846 8021B	1	10203A53A	07/22/2010 20:54	Katrina T Longenecker	1
01146	GC VOA Water Prep	SW-846 5030B	1	10203A53A	07/22/2010 20:54	Katrina T Longenecker	1
02211	NWTPH-Dx water w/Si Gel	ECY 97-602 NWTPH-Dx modified	1	102070057A	07/28/2010 14:14	Glorines Suarez-Rivera	20
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	102070057A	07/27/2010 03:00	Sherry L Morrow	1

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Analysis Report

Quality Control Summary

Client Name: Chevron
Group Number: 1204063
Reported: 08/03/10 at 04:42 PM

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10203A53A	Sample number(s): 6037982-6037986							
Benzene	N.D.	0.5	ug/l	105	110	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	110	110	80-120	0	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	105	105	78-125	0	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	109	75-135	0	30
Toluene	N.D.	0.5	ug/l	110	110	80-120	0	30
Total Xylenes	N.D.	1.5	ug/l	110	112	80-120	2	30
Batch number: 102070057A	Sample number(s): 6037983-6037986							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	88	88	50-100	0	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: 10203A53A	Sample number(s): 6037982-6037986 UNSPK: P037414, P037415								
Benzene	113		80-152						
Ethylbenzene	115		80-133						
Methyl tert-Butyl Ether	115		62-145						
NWTPH-Gx water C7-C12	109		57-157						
Toluene	115		80-133						
Total Xylenes	118		80-148						

Surrogate Quality Control

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

Analysis Name: BTEX, MTBE
Batch number: 10203A53A

	Trifluorotoluene-P	Trifluorotoluene-F
6037982	87	79
6037983	89	77
6037984	89	84
6037985	87	77
6037986	88	79

*- 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: 1204063
Reported: 08/03/10 at 04:42 PM

Surrogate Quality Control

Blank	86	79
LCS	88	95
LCSD	88	98
MS	90	88
Limits:	58-146	63-135

Analysis Name: NWTPH-Dx water w/Si Gel
Batch number: 102070057A
Orthoterphenyl

6037983	104
6037984	105
6037985	89
6037986	27*
Blank	102
LCS	114
LCSD	113
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

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11260 Sample #: 6037952-86 SCR#:

G# 1204063

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

Facility #: SS#305192-OML G-R#387100
Site Address: 9816 271st Street NW, STANWOOD, WA
Chevron PM: OS Lead Consultant: SAICPC
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: Mike Lombard
Service Order #: ☐ Non SAR:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (Potable ☐ NPDES ☐)	Matrix: Oil ☐ Air ☐	Total Number of Containers	BTEX + MTBE 8021 ☒ 8260 ☐ Naphth	8260 full scan	Oxygenates ___	TPH G	TPH D	Extended Rng. ☐ Silica Gel Cleanup ☒	Lead Total ☐ Diss. ☐ Method ___	VPH/EPH	NWTPH H HCID ☐ quantification	
QA	7-20-10		X			X		2	X			X						
MW-1	↓	1030	X			X		5	X			X	X					
MW-2		1215	X			X		5	X			X	X					
MW-3		1125	X			X		5	X			X	X					
MW-4	↓	1315	X			X		5	X			X	X					

☐ 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

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required) **EDF/EDD**
QC Summary Type I - Full
Type VI (Raw Data) Disk / EDD
WIP (RWQCB) Standard Format
Disk ____ Other.

	Relinquished by:	Date	Time	Received by:	Date	Time
1		7-20-10	1630			
2						
3						
	Relinquished by Commercial Carrier: UPS FedEx Other ____			Received by: Katie Hartlove	7/21/10	9:25
	Temperature Upon Receipt 4.3 C°			Custody Seals Intact? Yes No		

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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)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< 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.

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