

Mr. Steve Teel Washington State Department of Ecology Southwest Regional Office, Toxics Cleanup Program P.O. Box 47775 Olympia, Washington 98504-7775

Subject: Fourth Quarter 2015 Groundwater Monitoring Report

Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556

101 Mulford Road Toledo, Washington

Dear Mr. Teel:

Leidos, Inc. (Leidos), on behalf of Chevron Environmental Management Company (CEMC), prepared this report summarizing the fourth quarter 2015 groundwater monitoring event at the above-referenced site (the Site) in Toledo, Washington (Figure 1). This report documents the first groundwater monitoring event performed following the completion our natural attenuation assessment for groundwater<sup>1</sup>. Groundwater monitoring at the Site is being performed pursuant to the terms and conditions of Agreed Order No. DE5236.

#### FIELD ACTIVITIES

Gettler-Ryan, Inc. (Gettler-Ryan) conducted the groundwater monitoring field event from November 16-18, 2015. They measured depth-to-groundwater and checked for the presence of light non-aqueous phase liquid (LNAPL) in 17 monitoring wells on the Site. Groundwater samples were collected from the 17 monitoring wells using low-flow purging and sampling techniques. Samples were submitted to Eurofins Lancaster Laboratories, Inc. 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 heavy oil-range organics (TPH-HRO) by Ecology Method NWTPH-Dx extended;

<sup>&</sup>lt;sup>1</sup> Leidos Engineering, LLC, "Natural Attenuation Assessment for Groundwater - Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556", October 29, 105.

- TPH-DRO and TPH-HRO by Ecology Method NWTPH-Dx extended with silicagel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiarybutyl ether (MTBE) by United States Environmental Protection Agency (USEPA) Method 8260B; and
- Dissolved lead by USEPA Method 6020.

Purge water generated during this sampling event was treated at the Site by Gettler-Ryan using an activated carbon filtration system. A sample of the treated water (TPWHD-1) was also collected and analyzed for the presence of petroleum constituents. Following treatment, the purge water was containerized in 55-gallon drums, which are stored in a secondary containment overpack at the Site while awaiting laboratory results and Ecology authorization for disposal by surface discharge.

Field data sheets are provided in the Gettler-Ryan groundwater monitoring and sampling data package, which is included as Attachment A.

#### **FINDINGS**

During this event, the groundwater elevation across the Site ranged from 103.24 feet in monitoring well B-2 to 100.19 feet in monitoring well MW-116 (relative to the North American Vertical Datum of 1988). Groundwater elevation data from this event indicates that groundwater flow is toward the southeast at a gradient of approximately 0.003 to 0.005 feet per foot (Figure 2). Groundwater elevations at the Site increased an average of 3.05 feet since the previous monitoring event in August 2015.

LNAPL was not detected in any of the wells monitored.

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

- TPH-GRO was detected in monitoring wells MW-111, B-3 and B-4;
- TPH-DRO (analyzed without silica-gel cleanup) was detected in monitoring wells B-3 and B-4;
- TPH-HRO (analyzed without silica-gel cleanup) was detected in monitoring well B-4: and
- Dissolved lead was detected in monitoring wells B-3 and B-4.

Current and historical groundwater elevation data, LNAPL thickness data, and laboratory analytical results are summarized in Table 1. Groundwater analytical results for the most recent four quarters of monitoring are also presented on Figure 3. Results of the purgewater sample analysis for sample TPWHD-1 were non-detect for all requested analyses.

Laboratory analysis reports are provided as Attachment B.

#### DISCUSSION

Groundwater monitoring results from this event are consistent with historical data for the Site. Long-term sampling results indicate that groundwater conditions throughout much

of the Site are in compliance with drinking water quality standards. However, dissolved-phase TPH-GRO continues to be detected above the MTCA Method A cleanup level in a small portion of the Site, which is immediately downgradient of the dispenser islands and UST basin. Results of the previously referenced natural attenuation assessment completed by Leidos in 2015 indicate that the dissolved-phase TPH-GRO plume in this area is shrinking due to on-going microbial degradation of the petroleum source in this area.

Based on comparison of results NWTPH-Dx analyses performed with and without silicagel cleanup, detections of TPH-DRO and TPH-HRO at the Site that exceed Method A cleanup levels are believed to result from the presence of polar compounds produced by the biodegradation of TPH-GRO contamination at the Site, and are not indicative of dissolve-phase TPH-DRO or TPH-HRO in groundwater.

As approved by your email on February 9, 2016, the frequency of future groundwater monitoring at the Site has been reduced from quarterly to a semiannual basis, with sampling to be performed during the second and fourth quarters of each year. Gettler-Ryan conducted the second quarter 2016 monitoring event May 13 -14, 2016. Results of that monitoring event will be presented in a future report. The next monitoring event at the Site is currently scheduled for November 2016.

If you have any questions or comments regarding the information presented in this report, please contact me at (425) 482-3323 or via email at <a href="mailto:russell.s.shropshire@leidos.com">russell.s.shropshire@leidos.com</a>.

Sincerely,

Leidos Engineering, LLC

Russell S. Shropshire, PE

Principal Engineer

**Enclosures:** 

Figure 1 – Vicinity Map

Figure 2 – Potentiometric Map

Figure 3 – Groundwater Analytical Results – February 2015 through November 2015

Table 1 – Groundwater Monitoring Data and Analytical Results

Attachment A – Groundwater Monitoring and Sampling Data Package

Attachment B – Laboratory Analysis Report

cc: Mr. Mark Horne – CEMC (electronically via email)

Mr. Charles Vineyard (electronically via email)

Mr. John Houlihan – Houlihan Law (electronically via email)

Project File

#### REPORT LIMITATIONS

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

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

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

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

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





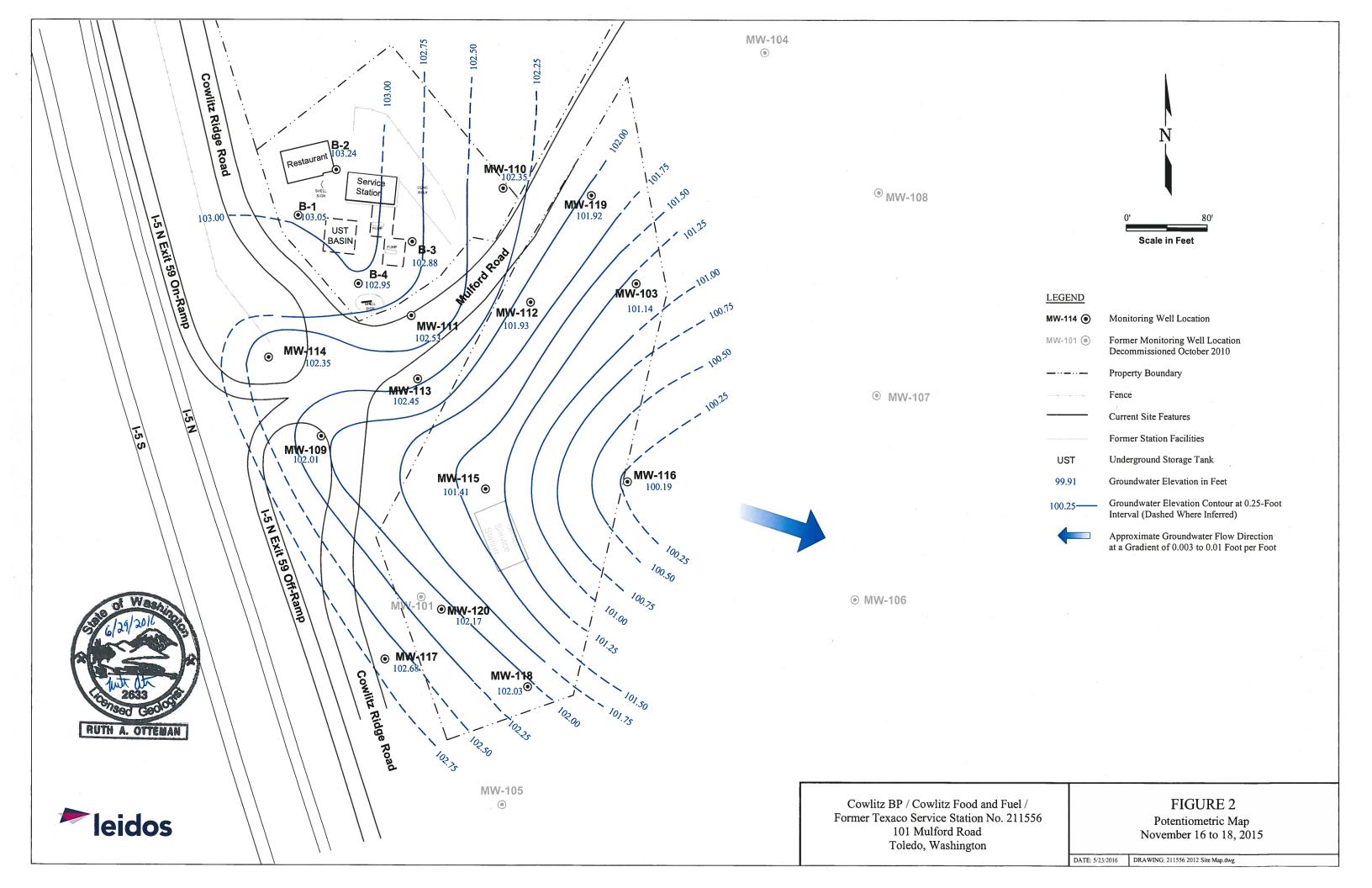


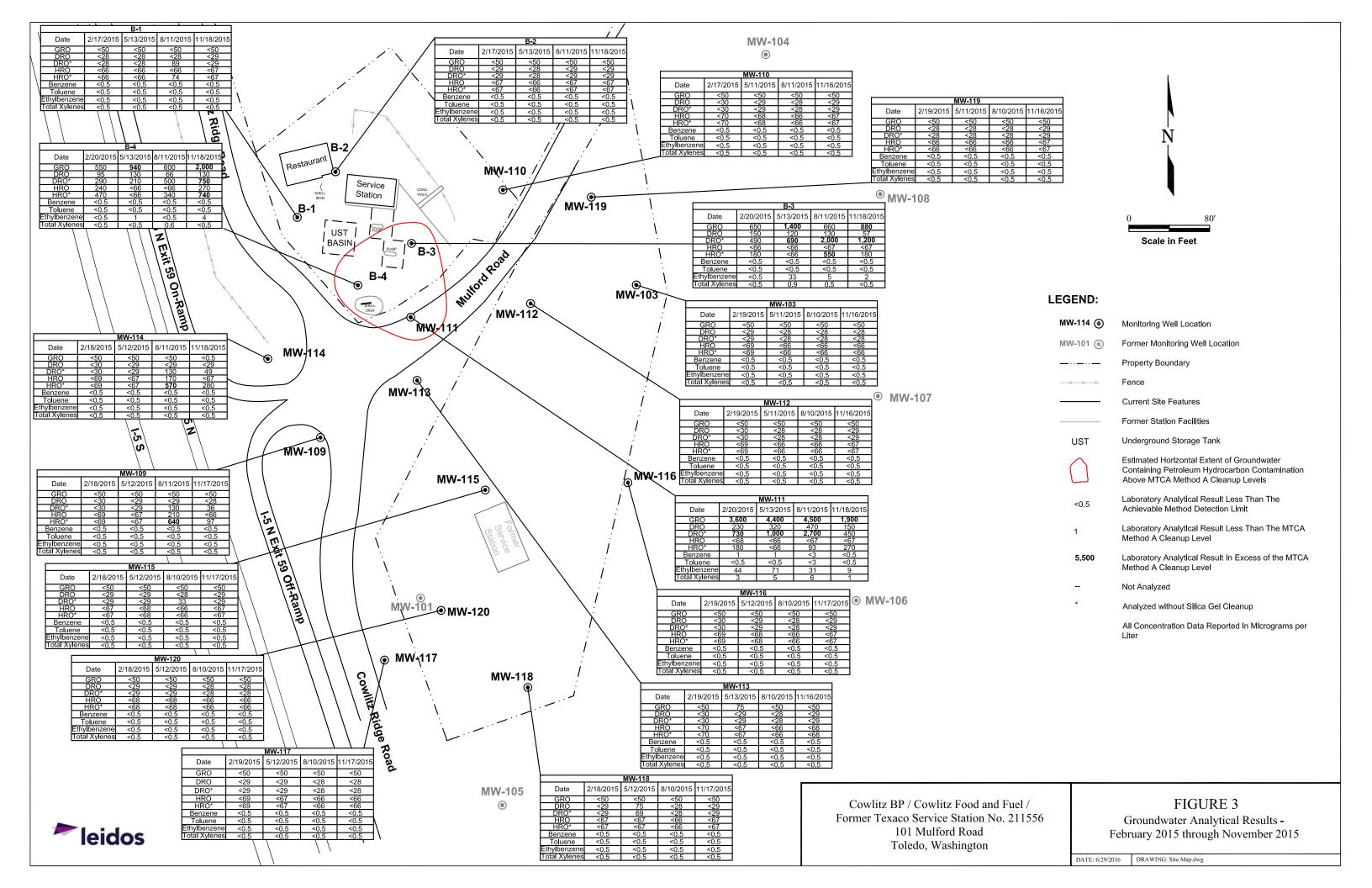


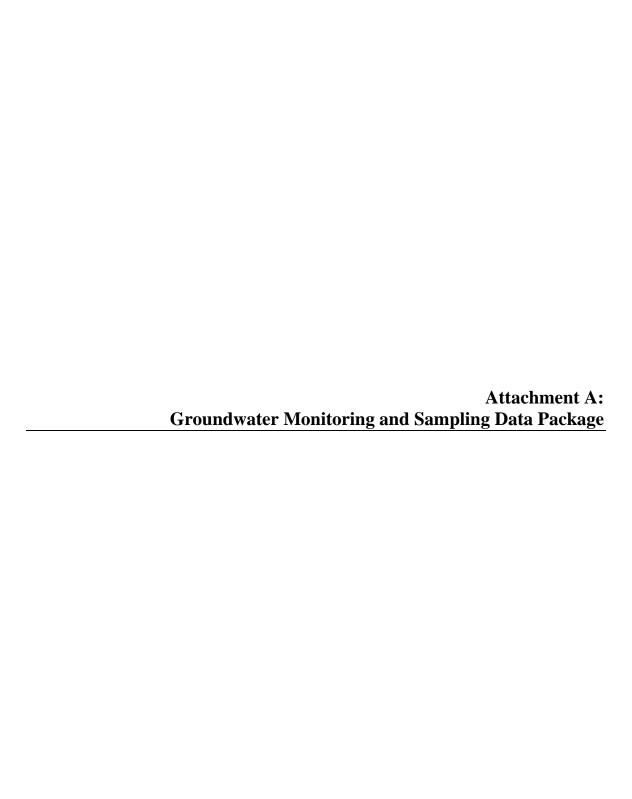
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556 101 Mulford Road Toledo, Washington FIGURE 1 Vicinity Map

DATE: 2/21/2014

DRAWING: 211556\_VM.dwg







## TRANSMITTAL

November 30, 2015 G-R #386773

TO:

Mr. Russell Shropshire

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 RE: Former Texaco Service Station

#211556/Cowlitz BP 101 Mulford Road Toledo, Washington UST Site#10669

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package
	Fourth Quarter Event of November 16, 17 & 18, 2015

#### **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/211556

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

#### Initial Pump Discharge Test Procedures

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

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

#### Purging and Water Quality Parameter Measurement

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

#### Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler,

maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

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

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



Client/Facility#:	Chevron #21	1556		Job Number:	386773		_
Site Address:	101 Mulford	Road		Event Date:	11/14-18/	15	(inclusive)
City:	Toledo, WA			Sampler:	GM		<u> </u>
Well ID Well Diameter Total Depth Depth to Water	MW - 103   2)/4   in   18.35 ft.   (1.4.7 ft.   11.4.8   w/ 80% Recharge	CI xVF Sa [(Height of W Dia Pr Mo Pe	Volume Factor heck if water column	e 3/4"= 0.00 (VF) 4"= 0.60 n is less then 0.50 x3 case volume =	2 1"= 0.04 2"= 0.6 5"= 1.02 6"= 1.00 ft.  Estimated Purge Volum  Time Started:  Time Completed  Depth to Product  Depth to Water:  Hydrocarbon Th  Visual Confirma  Skimmer / Absol  Amt Removed fr  Amt Removed fr	17 3"= 0.38 50 12"= 5.80  ne:	gal. (2400 hrs) ft ft ft ft ft ft
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate	ate: 1355 / ate: 200	u/ıv/i≤ mlpm yes, Time:	Weather Cor Water Color: Sediment De	CUTAL	Water Removed Product Transfe	red to:	4·71
Time (2400 hr.)	Volume (Liters)	pH 6.33	Conductivity  (15)ms  µmnos/cm)	Temperature ( ) / F )	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1357	<u>4.2</u> <u>4.8</u>	6.72	123.4	14.0	1.4	148	6.71
			LABORATOR	Y INFORMATIO	)N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW-103	(ox voa vial		HCL	LANCASTER	NWTPH-Gx/BTEX+M1		
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NW		
	x 250ml poly		NP NP	LANCASTER	DISSOLVED LEAD(60		
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(60	20 ICP/MS)	
	<u> </u>						
							<del></del>
						· · · · · · · · · · · · · · · · · · ·	<del> </del>
COMMENTS:	Depth Pump S	Sat At· IA	12 FATTL				
- J	Popul Lump C	JUL / L. 12	16-17011.				
				<del></del>			
dd/Replaced Gaske	t: Add	d/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Repla	ced Lock:	
				-	•		



Client/Facility#:	cility#: Chevron #211556			Job Number:	386773		
Site Address:	101 Mulford	Road		Event Date:(inclusive)			(inclusive)
City:	Toledo, WA			Sampler:	GM		,
					. 1 7		
Well ID	MW-109	•	D	ate Monitored:	11/16/1	5	
Well Diameter	(2)14 in.	-	Volume			0.17 3"= 0.38	7
Total Depth Depth to Water	12-66 ft. 5.34 ft.		Factor			1.50 12"= 5.80	
Deptil to Water	7.32		heck if water column			rime. —	nal
Depth to Water	w/ 80% Recharge						(2400 hrs)
5	Purge Equipment: Sampling Equipmen				Time Complet	ted:	(2400 hrs)
Purge Equipment: Sampling Equipment  Disposable Bailer Disposable Bailer						uct:	
Stainless Steel Baile			sposable Bailer essure Bailer			er: Thickness:	
Stack Pump			etal Filters			nation/Description:	
Peristaltic Pump	<u>×</u>		eristaltic Pump	<b>上</b>		nation Decomposition.	
QED Bladder Pump			ED Bladder Pump			sorbant Sock (circle	
Other:		Ot	her:			from Skimmer:	
					Water Removed	I from Well:	ltr
					Product Trans		
Start Time (purge	e): <u>1410</u>		Weather Con	ditions:	RAIN		
Sample Time/Da	ite: <u>(505//</u>	1/17/15	Water Color:	CLOUDY	Odor: Y KN		
Approx. Flow Ra	ite: <u>200</u>	mlpm	Sediment De		11 519		
Did well de-wate	r? NO If	yes, Time:	Vol	ume:	Itrs DTW @ :	Sampling:	E.40
Time	Volume		Conductivity	Temperature	D.O.	ORP	Gauge DTW
(2400 hr.)	(Liters)	pН	(μS) mS μmhos/cm)	(C) F)	(mg/L)	(mV)	as parameters
1428	3.6	7.26	241	14.6	0.9	36	are recorded
1431	4.2	2-24	239	1421	1.0	34	5.40
1424	4.8	7.21	238	14-5	1.0	77	5.40
	-						
			LABORATOR	Y INFORMATIC	)N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW-199	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+I		
	2_x 1 liter ambers x 250ml poly	YES YES	HCL NP	LANCASTER LANCASTER	NWTPH-Dx w/sgc/N		
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(		
					5,000=125 22,15(	0020 101 /1110)	
COMMENTS:	Depth Pump S	et Δ+· -	9 ADTL	*****	•		
- Jilling III J	Dopuir unip C	<u>~</u>	. 1,000				
Add/Replaced Gasket	:: Add	/Replaced Bo	olt: Ad	d/Replaced Plug:	Add/Rer	placed Lock:	



Client/Facility#:	acility#: Chevron #211556			Job Number: 386773		
Site Address:	101 Mulford R	load		Event Date:	11/10-18/15	(inclusive)
City:	Γoledo, WA			Sampler:	GM	·
Well ID Well Diameter Total Depth Depth to Water  Depth to Water w/  Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump QED Bladder Pump Other:		Height of Water Sampi Dispos Pressu Metal Perista	Volum Factor  ( if water column  =  Column x 0.20) +  ling Equipment:  table Bailer  tre Bailer  Filters  altic Pump	(VF) 4"= 0.66 n is less then 0.50 x3 case volume =	5 5"= 1.02 6"= 1.50 12":  ft.  Estimated Purge Volume:  Time Started:	ription:
Start Time (purge): Sample Time/Date Approx. Flow Rate: Did well de-water?  Time (2400 hr.)	200 r	nlpm es, Time:	Weather Cor Water Color: Sediment De Vo Correlyctivity (µ8 / mS µmhos/cm) 125 - 8 (29.0	C(541	Odor: Y   N	Gauge DTW as parameters are recorded
SAMPLE ID	(#) CONTAINER			Y INFORMATION LABORATORY		VSES
MW-110	x voa vial x 1 liter ambers x 250ml poly	YES YES YES	HCL HCL NP	LANCASTER LANCASTER LANCASTER	NWTPH-Gx/BTEX+MTBE(8260 NWTPH-Dx w/sgc/NWTPH-Dx DISSOLVED LEAD(6020 ICP/M	) (S)
COMMENTS: D	x 500ml poly	YES  et At: ∞ [	3.00.ft.	LANCASTER	DISSOLVED LEAD(6020 ICP/M	3)
Add/Replaced Gasket: _	Add/I	Replaced Bolt: _	Ac	ld/Replaced Plug: _	Add/Replaced Lock	:



Client/Facility#:	Chevron #21	1556		Job Number:	386773		
Site Address:	101 Mulford	Road		Event Date:	11/1/0-1	8/15	(inclusive)
City:	Toledo, WA			Sampler:	Gon	<u> </u>	(
							···
Well ID	Mw-111	-	D	ate Monitored:	11/16/	15	
Well Diameter		_	Volume	3/4"= 0.0	2 1"= 0.04 2"	= 0.17 3"= 0.38	7
Total Depth		_	Factor			= 1.50 12"= 5.80	
Depth to Water	4.59 ft.	-	heck if water column				_
Depth to Water	w/ 80% Recharge	xVF [(Height of W	/ater Column x 0.20) +		Estimated Purge Vo		gal. (2400 hrs)
	_		·		Time Comple		(2400 hrs)
Purge Equipment:	Purge Equipment: Sampling Equipme				Depth to Pro	duct:	
Disposable Bailer		Di	sposable Bailer		Depth to Wa	ter:	ft
Stainless Steel Baile	er	Pr	essure Bailer		Hydrocarbon	Thickness:	ft .
Stack Pump		Me	etal Filters		Visual Confir	mation/Description:	
Peristaltic Pump	$-\infty$		eristaltic Pump	_&		h	
QED Bladder Pump			ED Bladder Pump		MI .	bsorbant Sock (circled) od from Skimmer:	,
Other:		Ot	her:	<del></del>	ii ii	ed from Well:	
					Water Remo		ltr
					Product Tran	sferred to:	
Start Time (purge	e): 1325		Weather Con	ditions:	Croyo	<u>//</u>	
Sample Time/Da	ate: 1415 /	11/18/15	Water Color:	CLOTON	Odor: Y 🖎	٠ <u></u>	
Approx. Flow Ra	ate: 200	mlpm	Sediment Des	scription:	SL SILT		
Did well de-water	er?	yes, Time:	Vol	ume:		Sampling:	4-5-9
Time	Volume		Conductivity	Tomporeture	D.O.	OPP	Gauge DTW
(2400 hr.)	(Liters)	pН	Tusy ms	Temperature (C)/F)	(mg/L)	ORP (mV)	as parameters
1747	3.6	1 20	µmhos/cm)	,			are recorded
1343		6-15	<u> 359</u>	146	<u> </u>	9_	4.59
1349	4.2	1 20	355	14.7	1.0	- 10	4.59
1397		6.70	33.3	(3.)	1.0	-12	4.59
			LABORATOR	Y INFORMATIO	\M		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
Mw 1/1	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX-	MTBE(8260)	
<del> </del>	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/		
	x 250ml poly	YES	NP NP	LANCASTER	DISSOLVED LEAD		
	x 500ml poly	YES	NP NP	LANCASTER	DISSOLVED LEAD	0(6020 ICP/MS)	
		· · · · · · · · · · · · · · · · · · ·					
··							
					<u> </u>		
COMMENTS:	Depth Pump S	et At: 🗳	11.25+4.				
		334.1					
dd/Replaced Gaske	et: Add	I/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Re	eplaced Lock:	



Client/Facility#:	Chevron #21	1556		Job Number:	386773		
Site Address:	101 Mulford	Road		Event Date:	11/16-18/15 (inclusive)		
City:	Toledo, WA			Sampler:	(2m	<u> </u>	
							-
Well ID	MW-112			Date Monitored:	11/18/1	_	
Well Diameter	(2)/4 in.	•	<del></del>				-
Total Depth	17-29 ft.	•	Volur Facto	ne 3/4"= 0.02 or (VF) 4"= 0.66		0.17 3"= 0.38 1.50 12"= 5.80	
Depth to Water		Пс		nn is less then 0.50			
		Rossons			Estimated Purge Volu	ime.	gal.
Depth to Water	w/ 80% Recharge						
	<b>3</b>				Time Started.		(2400 hrs) (2400 hrs)
Purge Equipment:		Sa	ampling Equipment:	;		uct:	
Disposable Bailer					Depth to Wate		ft
Stainless Steel Baile	er	Pı	essure Bailer		Hydrocarbon 1		_CFft
Stack Pump	- \		etal Filters		Visual Confirm	nation/Description	:´
Peristaltic Pump	<u>~</u>		eristaltic Pump		Skimmer / Ahs	sorbant Sock (circ	de one)
QED Bladder Pump Other:			ED Bladder Pump			from Skimmer:	
Other		O.	her:			from Well:	
					Water Remove		ltr
					Product Trans	ferred to:	
Start Time (purg	je): 1410		Weather Co	anditions:	CLOUD		
	ate: 1505 /11	حراءيا					·
Approx. Flow Ra		mlpm	Sediment D	CLOMD)			
Did well de-wate		yes, Time:		•	L CILT	Samulina.	5.69
Did Well de-Wall	er <u> </u>	yes, rillie.		olume:	ltrs DTW @ 5	sampling:	
Time	Volume	pН	Conductivity (µS) mS	Temperature	D.O.	ORP	Gauge DTW
(2400 hr.)	(Liters)	pri	μmhos/cm)	(C) (F)	(mg/L)	(mV)	as parameters are recorded
1428	7.6	6.64	265	14-6	1.0	20	5.68
1431	4.2	6.62	26 Ý	145	1.1	íB	5.69
1434	<u> 4.8</u> .	6.60	262	14-5	1.0	27	5-69
•		<del> </del>					-
			LABORATO	DV INFORMATIO	NM		
SAMPLE ID	(#) CONTAINER	REFRIG.		RY INFORMATION LABORATORY		ANALYSES	
MW-112	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+N		
	20x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/N		
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(		
	x 500ml poly	YES	NP NP	LANCASTER	DISSOLVED LEAD(	6020 ICP/MS)	
	+			_			
		<del></del>					
<u> </u>					<u> </u>		
COMMENTS:	Depth Pump S	et At: 🥱	=11.50 ft.				
					<del>,</del>		
Add/Replaced Gaske	et: Ada	/Replaced B	olt: A	.dd/Replaced Plug: _	Add/Dan	laced Lock:	
which case		wpiaceu D	r	www.ropiaceu riug	Auu/Nep	1006U LUCK	<del> </del>



Client/Facility#:	Chevron #21		Job Number:	386773			
Site Address:	101 Mulford	Road	,	Event Date:	11/16-18	3/15#	 (inclusive)
City:	Toledo, WA			Sampler:	GM		_ `
							<del>-</del>
Well ID	MW-113		D	ate Monitored:	11/16/1	3	<b></b> -
Well Diameter	<b>2</b> (3) in.	-	Volume	3/4"= 0.02	2 1"= 0.04 2"=	= 0.17 3"= 0.38	
Total Depth	18-11 ft.		Factor			1.50 12"= 5.80	I
Depth to Water	5.49 ft.	xVF C	heck if water column		ft. Estimated Purge Vo	lume:	 gal.
Depth to Water	w/ 80% Recharge	[(Height of W					(2400 hrs)
					Time Comple		(2400 hrs)
Purge Equipment:		Sa	impling Equipment:		Depth to Pro	duct:	ft
Disposable Bailer		Di	sposable Bailer		Depth to Wat	ter:	ft
Stainless Steel Baile	er	Pr	essure Bailer		II *	Thickness:	
Stack Pump			etal Filters		Visual Confin	mation/Description	ń:
Peristaltic Pump	$\overline{}$		eristaltic Pump		Skimmer / Ah	sorbant Sock (cir	cle one)
QED Bladder Pump			ED Bladder Pump			d from Skimmer:_	
Other:		Ot	her:			d from Well:	
					Water Remov	ved:	ltr
					Product Tran	sferred to:	
					75		
Start Time (purge	e): <u>153</u> 6	2	Weather Con	ditions:	+AIN		
Sample Time/Da	ate: <u>【ゆ?ゔ / 1</u>	117K5	Water Color:	CLEAR	Odor Y N	SULGI	HT
Approx. Flow Ra	ite: 200	mlpm	Sediment Des	scription:	NONE		
Did well de-wate	er? No If	yes, Time:	Vol	ume:	Itrs DTW @	Sampling:	6.01
Time	Volume		Conductivity	Temperature	D.O.	ORP	Gauge DTW
(2400 hr.)	(Liters)	pН	(ps/ms	( <b>C</b> / F )	(mg/L)	(mV)	as parameters
1548	3.6	6.25	µmhos/cm)	12-1	(.2	1006	are recorded
1551	<u> </u>	1. 28	1229	(2.D	1.2	134	<u>(e.01</u>
1554	4.8	1 21	120.1	12-0	1-2	149	(0-0)
1559		19-61		12-0		179	
			LABORATOR	Y INFORMATIC	· · · · · · · · · · · · · · · · · · ·		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	l l	ANALYSES	3
WW-113	/ x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+	MTBE(8260)	<del></del>
	2x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/l	NWTPH-Dx	
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD	(6020 ICP/MS)	
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD	(6020 ICP/MS)	
			-				
			0.				
COMMENTS:	Depth Pump S	et At: ☆	12.001+				
	-	<u> </u>		-			
dd/Replaced Gaskel	t: Add	I/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Re	placed Lock:	



Client/Facility#: Site Address: City:	#: Chevron #211556 101 Mulford Road Toledo, WA			Job Number: Event Date: Sampler:	386773 11/16-) Com	8/15	(inclusive)
Well iD Well Diameter Total Depth Depth to Water  Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:		XVF Classification Cl	Volume Factor of	(VF) 4"= 0.66 is less then 0.50 x3 case volume =	ft. Estimated Purge Volution Time Started: Time Complet Depth to Prod Depth to Wate Hydrocarbon Visual Confirm Skimmer / Abs Amt Removed Amt Removed	0.17 3"= 0.38 1.50 12"= 5.80  ume:  ed: uct: per: Thickness: nation/Description/ sorbant Sock (circle from Skimmer: from Well: ed:	ft f
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.) LYSB	te: <u>1530/ 1</u> te: <u>200</u>	1/18/15	Sediment Des	CLOUDY	SLSIL	SCIGH	Gauge DTW as parameters are recorded  4-55 4-56
			LABORATORY	VINEODMATIC	ANI		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	Y INFORMATIC LABORATORY		ANALYSES	
MW-114	2 x 1 liter ambers 3 x 250ml poly x 500ml poly	YES YES YES YES	HCL HCL NP NP	LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	NWTPH-Gx/BTEX+N NWTPH-Dx w/sgc/N DISSOLVED LEAD(6 DISSOLVED LEAD(6	MTBE(8260) WTPH-Dx 6020 ICP/MS)	
COMMENTS:	Depth Pump S	et At: ∕≈	10.50ft.				
Add/Replaced Gasket		I/Replaced Bo		d/Replaced Plug:	Add/Pop	laced Lock:	



Client/Facility#:	Chevron #21	1556	<u></u>	Job Number:	386773		
Site Address:	101 Mulford	Road		Event Date:	11/16-19	/15	(inclusive)
City:	Toledo, WA	· ·		Sampler:	<u>GM</u>		<del>-</del> -
Well ID	MW-115		D	ate Monitored:	11/10/1	5	
Well Diameter	<b>2 /4/</b> in.	•	Volume	3/4"= 0.02	2 1"= 0.04 2"=	0.17 3"= 0.38	
Total Depth	<u> 17.47 ft.</u>	_	Factor			1.50 12"= 5.80	
Depth to Water	6.53 ft.	-	heck if water column				<b>-</b>
Depth to Water	w/ 80% Recharge		ater Column x 0.20) +				gal. (2400 hrs)
Dura Equipment					Time Comple	ted:	(2400 hrs)
Purge Equipment:			impling Equipment:		H .	luct:	
Disposable Bailer			sposable Bailer		Depth to Wat		ft
Stainless Steel Baile	er		essure Bailer		Hydrocarbon		<u></u>
Stack Pump	<u></u>		etal Filters		Visual Confilm	mation/Description:	
Peristaltic Pump ΩED Bladder Pump			ristaltic Pump ED Bladder Pump	X	Skimmer / Ab	sorbant Sock (circle	e one)
Other:			•			from Skimmer:	
Zalei		O.	her:			d from Well:	
						ed:	Itr
					Product Trans	ferred to:	
Time (2400 hr.) 1310 1310	Volume (Liters)	pH (5.56 (6.55 (6.53	Conductivity ((uS))/ mS µmhos/cm) B6 - 9 B6 - 5	Temperature (C) F) (4.2 14-0	D.O. (mg/L)	ORP (mV) 151 149	Gauge DTW as parameters are recorded
				Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	NIMEDIA CHIESE	ANALYSES	
1- m - 112	x voa vial	YES YES	HCL HCL	LANCASTER LANCASTER	NWTPH-Gx/BTEX+		
	1 x 250ml poly	YES	NP	LANCASTER	NWTPH-Dx w/sgc/N DISSOLVED LEAD(		
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD	·	
	<u> </u>				L		
OMMENTS:	Depth Pump S	Set At: ⇐	12,00++				
			1-4001			<u> </u>	
d/Replaced Gaske	t: Ado	I/Replaced Bo	olt∙ Δda	d/Replaced Plug	Add/Rei	nlaced Lock:	



Site Address: City:	Chevron #21 101 Mulford Toledo, WA			Job Number: Event Date: Sampler:	386773 11/16-1	18/15	(inclusive)
Well ID Well Diameter Total Depth Depth to Water Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:	yo.21 w/ 80% Recharge	CI xVF [(Height of W Sa Di: Pr Me Pe QE	Volume Factor neck if water column	(VF) 4"= 0.66 is less then 0.50 x3 case volume =	time Started: Time Started: Time Comple Depth to Proc Depth to Wat Hydrocarbon Visual Confirm Skimmer / Ab Amt Removed Amt Removed Water Remove	ted:duct:	(2400 hrs)ftftft : : le one)ltrltr
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.) 2826 2829 0837	ate: 0900 / 11 ate: 200	mlpm	Weather Con Water Color: Sediment De: Vol Conductivity ISV mS µmhos/cm) 124.1 (23.8	Scription:	D.O. (mg/L)  1-2  1-3	***	Gauge DTW as parameters are recorded 7-40 7-40 7-40
				Y INFORMATIC	N		
SAMPLE ID	(#) CONTAINER  (x voa vial  x 1 liter ambers  x 250ml poly  x 500ml poly	YES YES YES YES YES	PRESERV. TYPE HCL HCL NP NP	LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N DISSOLVED LEADO	WTPH-Dx (6020 ICP/MS)	
COMMENTS:	Depth Pump S	Set At: ❤	12.50+1.				



Client/Facility#:	Chevron #21	1556		Job Number:	386773	····
Site Address:	101 Mulford	Road		Event Date:	11/16-18/15	(inclusive)
City:	Toledo, WA			Sampler:	GM	
Well ID Well Diameter Total Depth Depth to Water  Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:	MW-117 (2) 4 in. 17-63 ft. 3-89 ft. 13-74 w/ 80% Recharge	xVF C xVF [(Height of W Si Pi M Pi	heck if water colur	or (VF) 4"= 0.6 mn is less then 0.50	6 5"= 1.02 6"= 1.50 12"  Oft.  Estimated Purge Volume:	ription ft ck (circle one) mer: ltr ltr
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	te: 1130/11 te: 200	mlpm yes, Time: pH (6.58 (6.53	Sediment D	r: CLOUD	D.O. ORP (mg/L) (mV)	Gauge DTW as parameters are recorded 3 - 89
SAMPLE ID	(#) CONTAINER	REFRIG.	LABORATO PRESERV. TYPE	RY INFORMATION		V0F0
MW-117	(#) CONTAINER  ( x voa vial	YES	HCL	LANCASTER	ANAL' NWTPH-Gx/BTEX+MTBE(8260	
F 144 - 11 - 1	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx	/
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/M	IS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/M	
COMMENTS:	Depth Pump S	Set At: ∽	10.75Pf.			
Add/Replaced Gasket	:: Add	I/Replaced B	olt:	Add/Replaced Plug: _	Add/Replaced Lock	



Client/Facility#:	y#: Chevron #211556			Job Number:	386773		
Site Address:	101 Mulford	Road		Event Date:	11/16-18	15	(inclusive)
City:	Toledo, WA			Sampler:	GM		
Well ID Well Diameter Total Depth Depth to Water	MW-118	xVFCI xVF [(Height of W	Volume Factor of heck if water column	ate Monitored:  3/4"= 0.02 (VF) 4"= 0.66  is less then 0.50  x3 case volume =	time Started:  Time Complete Depth to Produ Depth to Water Hydrocarbon T	0.17 3"= 0.38 1.50 12"= 5.80 me:	ft ft ft
Stack Pump Metal Filters Visual Confirmation/Description:  Peristaltic Pump Visual Confirmation/Description:  QED Bladder Pump Skimmer / Absorbant Sock (circle one)  Other: Other: It							le one) Itr Itr
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate	ate: 1015/10 ate: 200	113/25 mlpm	Weather Con Water Color: Sediment Des	CLEAL scription:	Odor: Y (N) SL SILT  Itrs DTW@S	ampling:	4.69
Time (2400 hr.) 0 9 4 3 0 9 4 9	Volume (Liters)  3 · 6  4 · 2  4 · 8	pH (0.53 (0.53 (0.53)	Conductivity (DS)/mS µmhos/cm) 128.0 (27.4	Temperature (0 / F )	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded  4.69  4.69
			LABORATOR	Y INFORMATIC	)N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW-118	x voa vial x 1 liter ambers x 250ml poly x 500ml poly	YES YES YES YES	HCL HCL NP NP	LANCASTER LANCASTER LANCASTER LANCASTER	NWTPH-Gx/BTEX+M NWTPH-Dx w/sgc/NV DISSOLVED LEAD(6 DISSOLVED LEAD(6	VTPH-Dx 020 ICP/MS)	
			22.00				
COMMENTS:  Add/Replaced Gasket		Set At: 0.00		d/Replaced Plug:	Add/Renl	aced Lock:	



Client/Facility#:	Chevron #21	1556		Job Number:	386773					
Site Address:	101 Mulford		WAY 45	Event Date:	11/16-18	1/15	- (inclusive)			
City:	Toledo, WA			Sampler:	7	GM				
,	,						_			
Well ID	MW-119		D	ate Monitored:	11/6/1	4				
Well Diameter	(2) 4 in.	•					<del>-</del>			
Total Depth	14:69 ft.	•	Volume Factor			0.17 3"= 0.38 1.50 12"= 5.80				
Depth to Water	1.43 ft.	Пс	heck if water column	. ,		1.50 12 - 5.50				
•	10.26	xVF			Estimated Purge Vol	ume:	_ gal.			
Depth to Water	w/ 80% Recharge	[(Height of W	/ater Column x 0.20) +	DTW]:	Time Started:		(2400 hrs)			
Purge Equipment:			manilma Equipment		Time Complet		(2400 hrs)			
			ampling Equipment:		Depth to Prod		ft			
Disposable Bailer Stainless Steel Baile			sposable Bailer		Depth to Wate		ft			
Stack Pump	#		essure Bailer		Hydrocarbon		ft			
Peristaltic Pump			etal Filters	<del></del>	Visuai Confirm	nation/Description	:			
QED Bladder Pump	<del></del>		eristaltic Pump ED Bladder Pump		Skimmer / Abs	sorbant Sock (circ	le one)			
Other:			her:			from Skimmer:_				
Othor.		0.			Amt Removed	from Well:	Itr			
					Water Remov		ltr			
					Product Trans	ferred to:				
Start Time (purge	e): 1150	· · · · · · · · · · · · · · · · · · ·	Weather Con	ditions:	Cloud	<b>&gt;\/</b>				
Sample Time/Da		110/15	Water Color:		Odor: Y / N					
Approx. Flow Ra		mlpm	Sediment De		ا ۱ کا ک	57				
Did well de-water		•		ume:	ltrs DTW @ \$		643			
			Conductivity	_			Gauge DTW			
Time (2400 hr.)	Volume (Liters)	pН	(JS) mS	Temperature	D.O.	ORP	as parameters			
			μπhos/cm)	<b>(C)</b> F)	(mg/L)	(mV)	are recorded			
1508	3.6	6.75	278	14.4	1.2	162	6.43			
1211	$-\frac{9/2}{11.2}$	6.74	277	5-41	<u>1.3</u>	159	<u> </u>			
1214	<u> </u>	6.74	276	14.1	1.2	156	6.47			
SAMPLE ID	(#) CONTAINER	REFRIG.	LABORATOR' PRESERV. TYPE	Y INFORMATIC LABORATORY	N .	ANALVEE				
MW-119	○ x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+I	MTBE(8260)				
	7 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/N					
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(					
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(					
COMMENTS:	Depth Pump S	et At: 🗪	11.50ft.							
d/Replaced Gasket	t: Add	/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Rer	placed Lock:				



Client/Facility#:	Chevron #21	1556		Job Number:	386773		_
Site Address:	101 Mulford	Road		Event Date:	11/16-12	3/15	(inclusive)
City:	Toledo, WA			Sampler:	GM		-
Well ID Well Diameter Total Depth Depth to Water	MW-120 214 in 16.83 ft. 4.94 ft.	<u>-</u> 	Volum Factor heck if water colum	(VF) 4"= 0.60	6 5"= 1.02 6"=	0.17 3"= 0.38	
	11.89	xVF			Estimated Purge Volu	ıme:	_ gal.
Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:		Sa Di Pr M Pe QI	dater Column x 0.20) +  ampling Equipment:  sposable Bailer  essure Bailer  etal Filters  eristaltic Pump  ED Bladder Pump  her:	DTWJ:	Time Complete Depth to Prode Depth to Wate Hydrocarbon T Visual Confirm Skimmer / Abs Amt Removed Amt Removed	ed:	(2400 hrs)ftftftftftftft
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate (2400 hr.)	te: 1235 / 10 te: 200		Sediment De	CLOUDY	D.O. (mg/L)		Gauge DTW as parameters are recorded 4.97 4.97
			LABORATOR	Y INFORMATIO	ON .		····
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
Mw-120			HCL	LANCASTER	NWTPH-Gx/BTEX+N		
	x 1 liter ambers	YES	HCL NB	LANCASTER	NWTPH-Dx w/sgc/N\		
	x 250ml poly x 500ml poly	YES YES	NP NP	LANCASTER LANCASTER	DISSOLVED LEAD(6		
		-					
				<del>                                     </del>			
				<del> </del>	-		
			-				
COMMENTS:	Depth Pump S	Set At: ≈	11.00ft.		•		
	-						
		<del>_</del>					
Add/Replaced Gasket	: Add	d/Replaced Bo	olt: Ad	dd/Replaced Plug: _	Add/Rep	laced Lock:	



Client/Facility#:	Chevron #21	1556		Job Number:	386773		_
Site Address:	101 Mulford	Road		Event Date:	_11/16-1	8/15	_ _(inclusive)
City:	Toledo, WA			Sampler:	GM		-
Well ID Well Diameter	3-) (2)/4 in.			ate Monitored:	11/16/		
Total Depth	19.77 ft.	•	Volume Factor			= 0.17	
Depth to Water	11	CI	heck if water column	is less then 0.50			
•	15.08	xVF	=			lume:	- gal.
Depth to Water	w/ 80% Recharge	[(Height of W					(2400 hrs)
	-					eted:	
Purge Equipment:		Sa	impling Equipment:		Depth to Pro	duct:	ft
Disposable Bailer	-		sposable Bailer		Depth to Wa		ft
Stainless Steel Baile	er		essure Bailer		Hydrocarbon		t f
Stack Pump	<del></del>		etal Filters		Visual Confir	mation/Description	1:
Peristaltic Pump  QED Bladder Pump			eristaltic Pump ED Bladder Pump		Skimmer / Ab	sorbant Sock (cire	cle one)
Other:			her:			d from Skimmer:_	
						d from Well:	
					Product Tran	ved: sferred to:	ltr
					7 Todast Train		
Start Time (purg	e): /055	-	Weather Cor	nditions:	61096	<b>2</b> Y	
Sample Time/Da		1/18/15		croup y	Odor: Y / N	52161	4 5
Approx. Flow Ra			Sediment De		CL SIL		
Did well de-wate		yes, Time:			Itrs DTW @		4-69
		•	Conductivity				
Time	Volume	pН	Conductivity ms	Temperature	D.O.	ORP	Gauge DTW as parameters
(2400 hr.)	(Liters)		µmhos/cm)	(C) / F)	(mg/L)	(mV)	are recorded
1113	<u> 3.6</u>	6.29	257	15.1	1.4	\$ 8	4.69
<u> </u>	<u> 4-2</u>	6.25	275	15.0	1.3	59	4-64
	4-8	6.72	224	14-8	1.2	150	4-69
	<del></del>						
			LABORATOR	Y INFORMATIO	)N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	] 	ANALYSES	
13-1	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+	MTBE(8260)	
	7 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/l		
	x 250ml poly	YES	NP ND	LANCASTER	DISSOLVED LEAD		
	x 500ml poly	YES	NP NP	LANCASTER	DISSOLVED LEAD	(6020 ICP/MS)	<del></del>
		<del></del>		†			<u> </u>
		<u> </u>		<del></del>			
				<u> </u>	<u></u>		
COMMENTS:	Depth Pump S	Set At: 🐟	12.25+1.				
	·····						
Add/Replaced Gaske	et: Add	I/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Re	placed Lock:	
•		•		,			



Client/Facility#:	Chevron #21	1000		Job Number:	386773		<del>-</del>		
Site Address:	101 Mulford	Road		Event Date: $11/16 \sim 18/15$ (inclusive)					
City:	Toledo, WA			Sampler:	GM		-		
Well ID	B-2	-	D	ate Monitored:	11/16/	15			
Well Diameter	<b>2/4</b> in.	<u>.</u>	Volume	3/4"= 0.02	2 1"= 0.04 2"=	= 0.17 3"= 0.38			
Total Depth	19-02 ft.	_	Factor			1.50 12"= 5.80			
Depth to Water	5.75 ft.	c	heck if water column	is less then 0.50	ft.				
	13.27	xVF	=	x3 case volume =	Estimated Purge Vo	lume:	_ gal.		
Depth to Water	w/ 80% Recharge	[(Height of W	ater Column x 0.20) +	DTWJ:	Time Started	:	(2400 hrs)		
					Time Comple	ted:			
Purge Equipment:		Sa	ampling Equipment:		Depth to Prod	duct:	ft		
Disposable Bailer			sposable Bailer		Depth to Wat		ft ft		
Stainless Steel Baile	er		essure Bailer		Hydrocarbon	-	ft		
Stack Pump			etal Filters		Visual Confin	mation/Description	n:		
Peristaltic Pump			eristaltic Pump	大	Skimmer / Ah	sorbant Sock (cire	cle one)		
QED Bladder Pump			ED Bladder Pump			d from Skimmer:_			
Other:		Ot	her:			d from Well:			
					Water Remov		ltr		
					Product Trans	sferred to:			
Start Time (purg	e): 0940	)	Weather Con	ditions:	CLOUD	N			
Sample Time/Da	ate: 103.5 / 1	dialis	Water Color:	CLOUST	Odorx Y)/ N	5216tx			
Approx. Flow Ra		mlpm	Sediment De		SL SILT	-			
Did well de-wate		yes, Time:		ume:	Itrs DTW @	Sampling:	C.78		
		<b>,</b> ,							
Time	Volume	pН	Conductivity (µS)/ mS	Temperature	D.O.	ORP	Gauge DTW as parameters		
(2400 hr.)	(Liters)		μmhos/cm)	( <b>©</b> /F)	(mg/L)	(mV)	are recorded		
0958	3.6	6.74	235	14.0	(·)	148	5.37		
1001	4.2	6.72	133	14-0	1.3	147	€. 77		
1004	4.8	6.30	2 J0	(3.9	1.2,000	145	5.78		
	<del>-</del>								
				Y INFORMATIC	)N				
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES			
12-5	2 x 1 liter ambers		HCL	LANCASTER	NWTPH-Gx/BTEX+				
	x 250ml poly	YES YES	HCL NP	LANCASTER LANCASTER	NWTPH-Dx w/sgc/NDISSOLVED LEAD		<del> </del>		
	x 500ml poly		NP	LANCASTER	DISSOLVED LEAD	<u> </u>			
						****			
COMMENTS	Donth Dume C		12 5051	<u>.                                    </u>	<del></del>				
COMMENTS:	Depth Pump S	bel At: 😂	16-50441						
dd/Replaced Gaske	et: Add	d/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Re	placed Lock:			



Client/Facility#:	Chevron #21	1556		Job Number:	386773			
Site Address:	101 Mulford	Road		Event Date:	11/16-1	8/15	– (inclusive)	
City:	Toledo, WA			Sampler:	(gM		_ (************************************	
							<u>-</u>	
Well ID	B-3		D	ate Monitored:	(1/16/	15	_	
Well Diameter	<b>(2)/4</b> in.		Volume	3/4"= 0.02	2 1"= 0.04 2":	= 0.17 3"= 0.38		
Total Depth	13.51 ft.		Factor			1.50 12"= 5.80		
Depth to Water	- '5.58 ft. 7-9?	- Manageria	heck if water column			lume:	oal.	
Depth to Water	w/ 80% Recharge				Time Started	•	(2400 hrs)	
Purge Equipment:		Sa	impling Equipment:		ll '	eted: duct:		
Disposable Bailer			sposable Bailer		Depth to Wa	***************************************	" ft	
Stainless Steel Baile	er —		essure Bailer		<b>I</b> '	Thickness:	₹ ft	
Stack Pump		Me	etal Filters	_		mation/Description		
Peristaltic Pump	<u> </u>	Pe	ristaltic Pump	<del>V</del>				
QED Bladder Pump		QI	ED Bladder Pump			sorbant Sock (circ		
Other:		Ot	her:			d from Skimmer:_		
					Water Remove	d from Well:	ltr	
					Product Tran			
Start Time (purge	e): 0B3	0	Weather Con	ditions:	CLOUP	<b>Y</b>		
Sample Time/Da		7	Water Color:		Odor (Y) N	SLIGH	·	
Approx. Flow Ra		mlpm	Sediment De		_	3016	[_Y	
Did well de-wate		•		· -	St CILT	0	6/1	
Did well de-wate	#! <u>~~</u>	yes, Time:	VOI	ume:		Sampling:	5.6	
Time	Volume		Conductivity	Temperature	D.O.	ORP	Gauge DTW	
(2400 hr.)	(Liters)	pН	μmhos/cm)	(C) F)	(mg/L)	(mV)	as parameters	
0848	3.6	5.70	428	15.6	. 7	4.3	are recorded	
0851	- <del>3.0</del> .	C (8	410	15.4	113	- " <del>T</del>	5.60	
0854	- <del>U.</del> 2	<u> </u>	476	15:1	- 4	- 11.7	<u> </u>	
	<u> </u>	2.601					5-61	
SAMPLE ID	(#) CONTAINER	REFRIG.	LABORATOR' PRESERV. TYPE	Y INFORMATIC	ON	ANALYSES		
8-2	(a x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+			
	7 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/l			
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD			
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD	<u> </u>		
-						· · · · · · · · · · · · · · · · · · ·		
	<u> </u>		EU	L	<del></del>			
COMMENTS:	Depth Pump S	et At: 4	70					
						<u> </u>		
Add/Replaced Gaske	t: Add	/Replaced Bo	olt: Ad	d/Replaced Plug:	Add/Re	placed Lock:		



Client/Facility#:	Chevron #21	1556		Job Number:	386773	_		
Site Address:	101 Mulford	Road		Event Date:	11/10-1	11/16-18/15		
City:	Toledo, WA			Sampler:	am	<u> </u>	(inclusive)	
				- Campion			-	
Well ID	Buy			Date Monitored:	11/16/	15		
Well Diameter	Q/4 in.	-					¬	
Total Depth	14.66 ft.	-	Volui Facte	me 3/4"= 0.03 or (VF) 4"= 0.66		0.17 3"= 0.38 1.50 12"= 5.80		
Depth to Water	4,73 ft.	1000000	ـــــــ heck if water colur	nn is less then 0.50	) ft.			
·	9,93	xVF	=		Estimated Purge Vol	ume:	gal.	
Depth to Water	w/ 80% Recharge	[(Height of W	ater Column x 0.20)				(2400 hrs)	
	•		•	•		ted:		
Purge Equipment:		Sa	ampling Equipment	:	Depth to Prod	luct:	ft	
Disposable Bailer			sposable Bailer			er:		
Stainless Steel Baile	er		essure Bailer				<b>2</b> 5ft	
Stack Pump Peristaltic Pump	10		etal Filters eristaltic Pump	$\overline{}$	Visual Confin	nation/Description	:	
QED Bladder Pump			ED Bladder Pump		Skimmer / Ab	sorbant Sock (circ	le one)	
Other:			her:			from Skimmer:		
			****			d from Well:		
						ed:sferred to:	ltr	
Start Time (purge	e): 120°	5 .	Weather Co	onditions:	CLOYD	<del>-</del>	**	
Sample Time/Da	ate: 1300/1	1/18/15	Water Colo	r: <u>conoy</u>	<sup>7</sup> Odor;∕Y)/ N ′	MODEX	A 515	
Approx. Flow Ra			Sediment D		SLIGHT			
Did well de-wate		yes, Time:		olume:	itrs DTW @		4.70	
			Conductivity	-			Gauge DTW	
Time (2400 hr.)	Volume (Liters)	pН	(US LANS	Temperature C F )	D.O. (mg/L)	ORP (mV)	as parameters	
	(2.10.0)	. /-	μmhos/cm)	, ,		(1114)	are recorded	
1223	- 7.0	6.65	763	14.5	/.2	<u>- +</u>	4.75	
1276	<u> 4.2</u>	(0.62	<u> 262</u> <u> 260</u>	14.5	1.1	-10	14.71	
100	7.0	<u> </u>	260	14.			4.76	
0.4451.5.15	_ (m 65);-111;-5		LABORATO	RY INFORMATIO	ON			
SAMPLE ID	(#) CONTAINER	REFRIG. YES	HCL	LABORATORY	+	ANALYSES	<del>_</del>	
13.7	2 x 1 liter ambers	YES	HCL	LANCASTER LANCASTER	NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N			
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD			
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD	6020 ICP/MS)		
				<u> </u>				
				<del> </del>	1		<u> </u>	
				1				
COMMENTS:	Depth Pump S	et At: 9	.69					
Add/Replaced Gasket	t. Ado	I/Renlaced R	olt:	Add/Replaced Plug: _	Add/Do	placed Lock:	· · · · · · · · · · · · · · · · · · ·	
radii topidoed Odoke	Add	a replaced Di	, , , , , , , , , , , , , , , , , , ,	www.replaced riug	Auu/Re	praced LUCK		

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins	Lancaster Laboratories	<b>.</b>	A	cot.#				0	Group	o #	pns on re			Sa	mple	#						105	2
1)	Client Inforn			150000000		4	Ma	trix			(5)	C-11		Aı	nalys	ses	Req	uest	ed			SCR #:	
Facility # SS#211556-O	ML G-R#3867	773 WBS																25					
Site Address 01 Mulford F							7		10		Naphth							020gp				☐ Results in Dry We	
Consultant/Officettier-Ryan I Consultant Project Mgr. Deanna L. Ha	LEIDOSR	S Lead Co	onsultant Rus	sell	Shro	pen En	round	Surface		, S					유	i		Method				Must meet lowest	
Consultant/Office Gettier-Ryan I	nc., 6805 Sierr	ra Court, S	uite G, D	ublin,	, CA	9650	<b>e</b> 5	જ		ainer	B260-FZ				Sleant	el Cle		Diss.				compounds 8021 MTBE Confi	mation
Consultant Project Mgr. <b>Deanna L. Ha</b>	rding, (deanna	@grinc.cc	m)			1				Containers			ates		a Gel (	ilica G	표	Dis				Confirm MTBE + N	Naphthalene /
Consultant Phone # (925) 551-744				w (3)			Potable	NPDES	Air	७	8021		Oxygenates	:	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA	Total		1000		Confirm all hits by	8260
Sampler G. McD	un/A			3	Composite		i			Number	+ MTBE	ull scan		H-Gx	H-Dx w	H-Dx w	ī.	Tot				Run oxy's	
② Sample Identification		Date:	ollected e Time	Grab	Comp	Soil	Water	Wate	liö	Total	втех 4	8260 full		NWTPH-Gx	NWTP	NWTP	WA VPH	Lead				(6) Remar	ks
QF	<b>A</b>	11/16	lis -	X			4	7		7	X			X				c				Please report re	esults for
	1.103	1	1355			_	<u> </u>	$\sqcup$	9	8	1				X	×		X				Dx with & with	out sgc.
	1.109		1505		+-	<del> </del>	<del> </del>	1		-	$\vdash$	_		$\perp$	+			+	_	-		Dissolved iron, Manganese, a	
	-110	117	0915		+	├	$\vdash$	+		$\vdash$	$\vdash$			+	+	-				+	-	Alkalinity samp	
	-111	117	1415		+	┢	$\vdash$	+-1		H	H	-		+	+	+						W. C.D. Disson Hold fl	Itered.
	-113	17	<del></del>		+	┢		-	$\vdash \vdash$		$\vdash$			+				+	$\dashv$		$\vdash$	number Containe	191r
f :	- 114	10		$\top$		$\vdash$			$\vdash$	$\vdash$	H								$\dashv$		$\vdash$	Austrill	
M	- 115	1,5	1345						$\square$	1									$\dashv$	+		consum	11111
NV	- 111-		D910E						$\Box$					$\top$		+						is 9. (	1/1/23/
Mw	- 113	,	1170	1					$\Box$													Please forward lab resu	
Wr	1-113	1./	1015				П	$\Box$														the LC and co: G-R. The results should be forward.	
Mw	1-119	1/6	1740							V	V			V	V							to Deanna Harding	ndec anecay
7 Turnaround Time F	lequested (TAT)	(please circle	)	Relin	quishe	d/by					Date	1		Time			Recei	ved/by	0./	1		/ / 1	Time 9
Standard	5 day	4 day EDF/E	בחח	X	71		ř.					9		_	JOF			n	- M	10	UE	. / . / /	14:00
72 hour	48 hour	24 hou		Heim	quishe	з бу					Date			Time			Hecer	ved by				Date	Time
8 Data Package (circle	if required)	EDD (circle	if required)	Reli	nquish	ed by	Com	mercia	al Ca	rrier:				110			Recei	ved by				Date	Time
			UPS FedEx Other																				
Tyne VI (Raw Data)				To	Temperature Upon Receipt°C								 ct?	Yes	No								

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins   Lancaster		<b>A</b>	cct. #	For Eurofins Lancaster Laboratories use orily  # Group # Sample #  Instructions on reverse side correspond with circled numbers.													2 BFZ							
Laboratories  Client Informa	Al on				T.		A-Auly		Instruci	200	· · · · · · · · · · · · · · · · · · ·	erse si	ide con		-							_	ŕ	4012
<u> </u>					4	IVI/	latrix	<del></del>	4	7.	5			—AI	naıy.	/ses l	Req	uest	.ea				SCR #:	
Facility # SS#211556-OML G-R#386773	3 WBS									1,		J				'	'	200		ιJ		1		
Site Address 01 Mulford Road, TOLEDO, V						<u> </u>					Naphth [					. ⊠		Method (ුට 2 ර					☐ Results in Dry We	•
Chevron PMMHO LEIDOSRS  Consultant/Office Gettler-Ryan Inc., 6805 Sierra	Lead Consu	iltant Rus	seli	Shro		TI CO	Surface		١	l r					<b>D</b>	₹ dnub							Must meet lowest limits possible for	detection
	Court, Sui	te G, Du	ıblin,	, CA		480	Š		Containers		8260 🔄				Clean	Sel Cle		Diss.		Sylven			compounds  8021 MTBE Confi	irmation
Consultant Project Mgr. Deanna L. Harding, (deanna@	grinc.com	,)					] [		J on	3 <b> </b> [	8021		nates	1	ca Gel	Silica (	A EPH	ä					Confirm MTBE + N	it by 8260
Consultant Phone # (925) 551-7444 x180				<u></u>		Potable	NPDES	ğ İ	ber of				Oxygenates	'	/ith Silik	/ithout	WA	la I					Confirm all hits by	/ 8260 s on highest hit
Sampler	GIMEDINA			Ιğ		<sup>-</sup>			Total Number	ا ا ا	+ MTBE	8260 full scan		NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	Į,	Total					Run oxy's	on all hits
2	Collected Collected			Ĕ	=		Water	_	<u> </u>	﴿ اِقِ	¥	ố		I de	J E	16	WA VPH	ا ۾ ا		, J	(-)			`\$
Sample Identification	Date	Time	ত	<u>්</u>	Soil		<u>š</u>	ō		نك	ВТЕХ	826		Ž	Ž	Ž	<u>  \$</u> '	Lead					(6) Remar	rks
MM-150	17/13/12	1 1235			$\bot$	1	W	19	1/2	3	Υ .			X	X	X	$\Box'$	X	$\Box$				Please report re	esults for
. B - 1	1181	11712	44	<u>↓</u> ′	1				┵	4	1			4	11,	11'	<b>_</b> '	<del>     </del>	$\coprod$				Dx with & with	hout sgc.
B-2		1035	1	*,	上			$\perp$		4	4			4	11	11'	'	<u> </u>					Dissolved Iron,	
B-3		0920			上			$\perp$						4		'	<u></u> '	$\Box$ '					Manganese, a	
B, 4	111	1300	1		L	L	1	7.	J	4	9		$\square$	J	7	V		J		$\Box$			Alkaiinity samp	ples have
			+	<del> </del>	$\vdash$	+		+	+	+	+	$\rightarrow$			-	<del> </del> '	<u>—</u> ′	₩	1-1	$\square$	H	$\blacksquare$	been field fi	
		+	+	+	$\vdash$	+		+	+	+	+	$\rightarrow$	$\rightarrow$		1	+	-	+-	1-1	$\longrightarrow$	$\longrightarrow$		1122	115
		<del></del>	+	+-	+	+		+	+	+	+	$\rightarrow$	$\rightarrow$		<del></del>	+-	-	+-	+		$\vdash$		11100	,,
			+	+	$\vdash$	+		+	+	十	+	-	1		-	-		-	+		$\square$	$\neg$		
			$\vdash$	$\top$	$\vdash$	+		+	+	+	十	7	1		-	<del>                                      </del>			1	$\rightarrow$			Please forward lab resu	
			$\top$	$\vdash$	$\vdash$			+	+	+	$\top$	$\neg$				<b>—</b>				$\rightarrow$			the LC and co: G-R. The results should be forward	
			1_		<u></u>	1_		1	1	1	T	7								, —			to Deanna Harding	NG00 GHACCA
7) Turnaround Time Requested (TAT) (pl	lease circle)		Relin	nquished	d by		1.		1	Dr	Date			Time	_	_	Recei	eived by	y, , ,	7		-	Date	Time 9
Standard 5 day	4 day EDF/ED	יוו			1		1/	X	,	- 1-		/19/1		_	140	$\overline{}$	Y	1.0	M.	16	Ell	5	11/19/15	14:00
72 hour 48 hour 24 hour				†uispe	d by					Da	Date			Time			Recen	eived by	;				Date	Time
Box Package (circle if required)     Box Package (circle if required)     Relinquise					ned b	у Сог	mmerc	cial C	arrier	/r:		_		_			Recei	eived by	y		e de la composición della comp		Date	Time
CVA-H1BO-FI_05 (default)					UPS FedEx Other																			
Type VI (Raw Data)		Temperature Upon Receipt°C Custody Seals Intact?							:t?	Yes	No													



## Analysis Report

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

Report Date: March 31, 2016

**Project: 211556** 

Submittal Date: 11/20/2015 Group Number: 1611170 PO Number: 0015201727 Release Number: HORNE State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	8144042
MW-103 Grab Groundwater	8144043
MW-103 Filtered Grab Groundwater	8144044
MW-109 Grab Groundwater	8144045
MW-109 Filtered Grab Groundwater	8144046
MW-110 Grab Groundwater	8144047
MW-110 Filtered Grab Groundwater	8144048
MW-111 Grab Groundwater	8144049
MW-111 Filtered Grab Groundwater	8144050
MW-112 Grab Groundwater	8144051
MW-112 Filtered Grab Groundwater	8144052
MW-113 Grab Groundwater	8144053
MW-113 Filtered Grab Groundwater	8144054
MW-114 Grab Groundwater	8144055
MW-114 Filtered Grab Groundwater	8144056
MW-115 Grab Groundwater	8144057
MW-115 Filtered Grab Groundwater	8144058
MW-116 Grab Groundwater	8144059
MW-116 Filtered Grab Groundwater	8144060
MW-117 Grab Groundwater	8144061
MW-117 Filtered Grab Groundwater	8144062
MW-118 Grab Groundwater	8144063
MW-118 Filtered Grab Groundwater	8144064
MW-119 Grab Groundwater	8144065
MW-119 Filtered Grab Groundwater	8144066
MW-120 Grab Groundwater	8144067
MW-120 Filtered Grab Groundwater	8144068
B-1 Grab Groundwater	8144069
B-1 Filtered Grab Groundwater	8144070
B-2 Grab Groundwater	8144071

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B-2 Filtered Grab Groundwater	8144072
B-3 Grab Groundwater	8144073
B-3 Filtered Grab Groundwater	8144074
B-4 Grab Groundwater	8144075
B-4 Filtered Grab Groundwater	8144076

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

Electronic Copy To Leidos Attn: Russ Shropshire Electronic Copy To Leidos Attn: Jamalyn Agyei Electronic Copy To Gettler-Ryan Inc. Attn: Gettler Ryan

Respectfully Submitted,

mek Casts

Amek Carter Specialist

(717) 556-7252



### Lancaster Laboratories Environmental

## Analysis Report

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Sample Description: QA NA Water

QA NA Water LL Sample # WW 8144042 Facility# 211556 Job# 386773 LL Group # 1611170 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Collected: 11/16/2015 Chevron

6001 Bollinger Canyon Road

L4310

Reported: 03/31/2016 13:32 San Ramon CA 94583

#### MRTQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97	7-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z153322AA	11/28/2015 12:46	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z153322AA	11/28/2015 12:46	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/23/2015 23:53	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/23/2015 23:53	Jeremy C Giffin	1



#### Lancaster Laboratories Environmental

## Analysis Report

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Sample Description: MW-103 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144043 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/16/2015 13:55 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT103

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor		
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l			
10945	Benzene		71-43-2	N.D.	0.5	1		
10945	Ethylbenzene		100-41-4	N.D.	0.5	1		
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1		
10945	Toluene		108-88-3	N.D.	0.5	1		
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1		
GC Volatiles ECY 97-602 NWT			NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1		
GC Petroleum ECY 97-602 NWTPH-			NWTPH-Dx	ug/l	ug/l			
Hydrod	arbons	modified						
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1		
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	66	1		
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l			
Hydrocarbons w/Si modified								
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1		
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	66	1		
The reverse surrogate, capric acid, is present at <1%.								

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z153322AA	11/28/2015	13:34	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z153322AA	11/28/2015	13:34	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	06:46	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	06:46	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	01:51	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	18:48	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



#### **Lancaster Laboratories Environmental**

## Analysis Report

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Sample Description: MW-103 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

Account

Detection Limit

LL Group # 1611170 # 11260

LL Sample # WW 8144044

Factor

Project Name: 211556

No.

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/16/2015 13:55 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Dilution CAT Method Analysis Name CAS Number

Result

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.00038 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

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 Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:35	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# **Analysis Report**

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

Sample Description: MW-109 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144045 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 15:05 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT109

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor			
GC/MS	Volatiles SW	-846 826	0в	ug/l	ug/l				
10945	Benzene		71-43-2	N.D.	0.5	1			
10945	Ethylbenzene		100-41-4	N.D.	0.5	1			
10945	Methyl Tertiary Butyl H	Ether	1634-04-4	N.D.	0.5	1			
10945	Toluene		108-88-3	N.D.	0.5	1			
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1			
GC Vol	latiles EC	Y 97-602	NWTPH-Gx	ug/l	ug/l				
08273	NWTPH-Gx water C7-C12		n.a.	N.D.	50	1			
GC Pet	roleum EC	Y 97-602	NWTPH-Dx	ug/l	ug/l				
Hydrod	arbons mo	dified							
08271	Diesel Range Organics (	C12-C24	n.a.	36	28	1			
08271	Heavy Range Organics C2	24-C40	n.a.	97	66	1			
GC Pet	roleum EC	Y 97-602	NWTPH-Dx	ug/l	ug/l				
Hydrocarbons w/Si modified									
12005	DRO C12-C24 w/Si Gel		n.a.	N.D.	28	1			
12005	HRO C24-C40 w/Si Gel		n.a.	N.D.	66	1			
The :	The reverse surrogate, capric acid, is present at <1%.								

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P153342AA	11/30/2015	12:53	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P153342AA	11/30/2015	12:53	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	07:13	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	07:13	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	04:22	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	19:09	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-109 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144046

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 15:05 by GM Chevron

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San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.0028 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015 01:40	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015 08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-110 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144047 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 08:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT110

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
GC Pe	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	67	1
GC Pe	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
12005			n.a.	N.D.	29	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	67	1
	reverse surrogate, ca				0 /	1
me	reverse surrogate, Co	apric aciu, is	breseur ar (1	. 0 .		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	21:53	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	21:53	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	04:50	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	04:50	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	02:12	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	19:31	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-110 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144048

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 08:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Dilution CAT Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved 06035 Lead 7439-92-1 0.0013 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:41	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-111 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144049 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 14:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

### MT111

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	9	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	1	0.5	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	1,900	50	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	450	29	1
	Heavy Range Organic			270	67	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	150	29	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	67	1
	reverse surrogate, ca		present at <1	⋄.		
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#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	22:15	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	22:15	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	05:16	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	05:16	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	04:43	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	21:40	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

Account

LL Sample # WW 8144050

# 11260

LL Group # 1611170

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

Sample Description: MW-111 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 14:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved 06035 Lead 7439-92-1 0.0078 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:43	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-112 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144051 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/16/2015 15:05 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT112

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
	GC Petroleum ECY 97-602 NWTPH-Dx Hydrocarbons modified				ug/l	
08271		cs C12-C24	n.a.	N.D.	29	1
08271	5 5		n.a.	N.D.	67	1
	troleum carbons w/Si	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
-	•					-
12005	DRO C12-C24 w/Si Ge		n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge		n.a.	N.D.	67	1
The	reverse surrogate, ca	apric acid, is	present at <1	16.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z153322AA	11/28/2015	13:58	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z153322AA	11/28/2015	13:58	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	07:40	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	07:40	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	02:34	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	19:52	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

Account

LL Sample # WW 8144052

# 11260

LL Group # 1611170

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

Sample Description: MW-112 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/16/2015 15:05 by GM Chevron

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San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.0014 0.00013

### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:45	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-113 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144053 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 16:20 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT113

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor		
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l			
10945	Benzene		71-43-2	N.D.	0.5	1		
10945	Ethylbenzene		100-41-4	N.D.	0.5	1		
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1		
10945	Toluene		108-88-3	N.D.	0.5	1		
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1		
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1		
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l			
Hydrod	carbons	modified						
08271	Diesel Range Organio	cs C12-C24	n.a.	N.D.	29	1		
08271	Heavy Range Organic	S C24-C40	n.a.	N.D.	68	1		
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l			
Hydrod	Hydrocarbons w/Si modified							
12005	DRO C12-C24 w/Si Ge	l	n.a.	N.D.	29	1		
12005	HRO C24-C40 w/Si Ge	l	n.a.	N.D.	68	1		
	reverse surrogate, ca		present at <1	. 8 <b>.</b>				
08271 08271 GC Pet Hydrod 12005 12005	Diesel Range Organics Heavy Range Organics Croleum Carbons w/Si DRO C12-C24 w/Si Ge: HRO C24-C40 w/Si Ge:	es C12-C24 c C24-C40 ECY 97-602 modified	n.a.  NWTPH-Dx  n.a. n.a.	N.D.  ug/l  N.D.  N.D.	68 <b>ug/1</b> 29	1		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P153342AA	11/30/2015	13:19	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P153342AA	11/30/2015	13:19	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	08:08	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	08:08	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	02:56	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	20:14	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# **Analysis Report**

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

Sample Description: MW-113 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Group # 1611170 Account # 11260

LL Sample # WW 8144054

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 16:20 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

CAT Method Dilution Analysis Name CAS Number Result Detection Limit Factor

 Metals Dissolved
 SW-846
 6020
 mg/l
 mg/l

 06035
 Lead
 7439-92-1
 0.00019
 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:47	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-114 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144055 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 15:30 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT114

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
	croleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
08271	Diesel Range Organi	cs C12-C24	n.a.	49	29	1
08271	Heavy Range Organic	s C24-C40	n.a.	280	67	1
		ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	67	1
The	reverse surrogate, ca	apric acid, is	present at <	1%.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	22:37	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	22:37	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	05:42	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	05:42	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	05:05	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	22:01	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-114 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

LL Sample # WW 8144056 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 15:30 by GM Chevron

6001 Bollinger Canyon Road

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San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved 06035 Lead 7439-92-1 0.0145 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:48	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-115 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144057 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 13:45 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT115

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor		
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l			
10945	Benzene		71-43-2	N.D.	0.5	1		
10945	Ethylbenzene		100-41-4	N.D.	0.5	1		
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1		
10945	Toluene		108-88-3	N.D.	0.5	1		
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1		
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l			
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1		
		ECY 97-602	NWTPH-Dx	ug/l	ug/l			
-		modified						
08271			n.a.	N.D.	29	1		
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	67	1		
GC Pe	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l			
Hydro	Hydrocarbons w/Si modified							
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1		
12005	HRO C24-C40 w/Si Ge	l	n.a.	N.D.	67	1		
The	reverse surrogate, ca	pric acid, is	present at <1	L%.				

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P153342AA	11/30/2015	13:45	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P153342AA	11/30/2015	13:45	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	09:03	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	09:03	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	03:17	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	20:35	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-115 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Group # 1611170 Account # 11260

LL Sample # WW 8144058

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 13:45 by GM Chevron

6001 Bollinger Canyon Road

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San Ramon CA 94583

CAT No. Analysis Name CAS Number Result Method Dilution Factor

 Metals Dissolved
 SW-846
 6020
 mg/l
 mg/l

 06035
 Lead
 7439-92-1
 0.0014
 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153316050004A	12/08/2015	01:50	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153316050004	12/02/2015	08:20	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-116 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144059 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 09:00 by GM Chevron

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L4310

San Ramon CA 94583

### MT116

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
		ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
-	Diesel Range Organio	cs C12-C24	n.a.	N.D.	29	1
	Heavy Range Organic			N.D.	67	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge	l	n.a.	N.D.	67	1
The 1	reverse surrogate, ca	pric acid, is	present at <1	%.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P153342AA	11/30/2015	14:12	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P153342AA	11/30/2015	14:12	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	09:30	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	09:30	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	03:39	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	20:57	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-116 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144060

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 09:00 by GM Chevron

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L4310

San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.0062 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 12:08	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:42	Katlin N Cataldi	1



# Analysis Report

LL Sample # WW 8144061

LL Group # 1611170

Account # 11260

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

Sample Description: MW-117 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 11:30 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT117

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTF		NWTPH-Gx	ug/l	ug/l		
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
	roleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
-	Diesel Range Organi		n a	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	arbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	_ 1
	reverse surrogate, ca					_

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P153342AA	11/30/2015	14:38	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P153342AA	11/30/2015	14:38	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	09:58	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	09:58	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320009A	12/01/2015	04:00	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320010A	12/04/2015	21:18	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320010A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320009A	11/30/2015	09:30	David S Schrum	1



# **Analysis Report**

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

Sample Description: MW-117 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Group # 1611170 Account # 11260

LL Sample # WW 8144062

Project Name: 211556

Collected: 11/17/2015 11:30 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Submitted: 11/20/2015 10:00 Reported: 03/31/2016 13:32

Reported: 03/31/2016 13:32

CAT Method Dilution No. Analysis Name CAS Number Result Detection Limit Factor

Metals Dissolved SW-846 6020 mg/1 mg/1 06035 Lead 7439-92-1 0.0021 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 12:09	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:42	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-118 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144063 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 10:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT118

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor			
GC/MS	Volatiles	SW-846 826	0в	ug/l	ug/l				
10945	Benzene		71-43-2	N.D.	0.5	1			
10945	Ethylbenzene		100-41-4	N.D.	0.5	1			
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1			
10945	Toluene		108-88-3	N.D.	0.5	1			
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1			
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l				
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1			
	troleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l				
-	Diesel Range Organi		n.a.	N.D.	29	1			
	Heavy Range Organic		n.a.	N.D.	67	1			
GC Pe	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l				
Hydro	carbons w/Si	modified							
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1			
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	67	1			
A ta stan corr The veri is w beca	12005 HRO C24-C40 w/Si Gel n.a. N.D. 67  The reverse surrogate, capric acid, is present at <1%.  A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:  The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is within specification. The first trial result is reported because it was analyzed within the holding time. Similar results were obtained.								

### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153342AA	11/30/2015	11:25	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153342AA	11/30/2015	11:25	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	06:07	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	06:07	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	06:52	Thomas C Wildermuth	1



# **Analysis Report**

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

Sample Description: MW-118 Grab Groundwater

LL Group # 1611170 Account # 11260

David S Schrum

LL Sample # WW 8144063

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

11197 WA DRO NW DX Ext (Non SG) ECY 97-602

Collected: 11/17/2015 10:15 by GM Chevron

NWTPH-Dx 06/97

6001 Bollinger Canyon Road

11/30/2015 09:30

L4310

San Ramon CA 94583

MT118

#### Laboratory Sample Analysis Record Method CAT Analysis Name Trial# Batch# Analyst Dilution No. Date and Time Factor 12005 NWTPH-Dx water w/ 10g Si ECY 97-602 153320012A 12/03/2015 16:08 Christine E Dolman 1 NWTPH-Dx modified Gel 12007 NW Dx water w/ 10g column ECY 97-602 1 153320012A 11/30/2015 09:30 David S Schrum NWTPH-Dx 06/97

153320011A



Submitted: 11/20/2015 10:00

## **Lancaster Laboratories Environmental**

# Analysis Report

Account

LL Sample # WW 8144064

# 11260

LL Group # 1611170

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

Sample Description: MW-118 Filtered Grab Groundwater

Facility# 211556 Job# 386773

101 Mulford Rd - Toledo, WA

Project Name: 211556 Collected: 11/17/2015 10:15 by GM

6001 Bollinger Canyon Road

L4310

Chevron

San Ramon CA 94583 Reported: 03/31/2016 13:32

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.00067 0.00013

### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 12:11	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:42	Katlin N Cataldi	1



# **Analysis Report**

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

Sample Description: MW-119 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144065 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/16/2015 12:40 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT119

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Volatiles ECY 97-602 NWTP			NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
GC Pet	GC Petroleum ECY 97-602 NWTPH-Dx				ug/l	
Hydrod	arbons	modified				
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	67	1
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	67	1
	reverse surrogate, ca		present at <1	%.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z153322AA	11/28/2015	14:23	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z153322AA	11/28/2015	14:23	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A20A	11/24/2015	10:25	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A20A	11/24/2015	10:25	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	07:13	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	00:10	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: MW-119 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144066

Project Name: 211556

Collected: 11/16/2015 12:40 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Submitted: 11/20/2015 10:00 Reported: 03/31/2016 13:32

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.0041 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 11:45	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:42	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: MW-120 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144067 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 12:35 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MT120

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
	roleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
-	Diesel Range Organi		n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
00271	neavy name organic	5 621 610	11.4.	и.в.	00	_
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	66	1
The :	reverse surrogate, ca	apric acid, is	present at <1	%.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153342AA	11/30/2015	11:47	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153342AA	11/30/2015	11:47	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	06:33	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	06:33	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	07:35	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	00:31	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# **Analysis Report**

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

Sample Description: MW-120 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Group # 1611170 Account # 11260

LL Sample # WW 8144068

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/17/2015 12:35 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

CAT Method Dilution No. Analysis Name CAS Number Result Detection Limit Factor

 Metals Dissolved
 SW-846
 6020
 mg/l
 mg/l

 06035
 Lead
 7439-92-1
 0.0019
 0.00013

### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 12:13	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:42	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: B-1 Grab Groundwater

LL Sample # WW 8144069 LL Group # 1611170 Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 11:45 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MTB1-

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0в	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GG 17-1	a+:1aa	EGY 07 600	MWIEDII G	ug/l	ug/l	
		ECY 97-602		_		
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
	roleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
-					0.0	-
	Diesel Range Organi		n.a.	N.D.	28	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	66	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	66	1
The :	reverse surrogate, ca	apric acid, is	present at <1	8.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	22:59	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	22:59	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	06:58	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	06:58	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	07:56	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	00:53	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# **Analysis Report**

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

Sample Description: B-1 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144070

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 11:45 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

CAT No. Analysis Name CAS Number Result Method Dilution Factor

Metals Dissolved SW-846 6020 mg/l mg/l

06035 Lead 7439-92-1 0.00063 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015 12:1	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015 07:43	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: B-2 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144071 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 10:35 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MTB2-

Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor				
Volatiles	SW-846 826	0B	ug/l	ug/l					
Benzene		71-43-2	N.D.	0.5	1				
Ethylbenzene		100-41-4	N.D.	0.5	1				
Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1				
Toluene		108-88-3	N.D.	0.5	1				
Xylene (Total)		1330-20-7	N.D.	0.5	1				
latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l					
NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1				
troleum		NWTPH-Dx	ug/l	ug/l					
					1				
Heavy Range Organic	s C24-C40	n.a.	N.D.	6.7	1				
troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l					
carbons w/Si	modified								
DRO C12-C24 w/Si Ge	:1	n.a.	N.D.	29	1				
HRO C24-C40 w/Si Ge	:1	n.a.	N.D.	67	1				
12005 HRO C24-C40 w/Si Gel n.a. N.D. 67  The reverse surrogate, capric acid, is present at <1%.  A target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken:  The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is within specification. The first trial result is reported because it was analyzed within the holding time. Similar results were obtained.									
	Volatiles Benzene Ethylbenzene Methyl Tertiary But Toluene Xylene (Total)  latiles NWTPH-Gx water C7-C  troleum carbons Diesel Range Organic Heavy Range Organic troleum carbons w/Si DRO C12-C24 w/Si Ge HRO C24-C40 w/Si Ge reverse surrogate, c rget analyte(s) in t dard is outside the ective action was ta analysis was repeate fication standard br ithin specification. use it was analyzed	Volatiles SW-846 826  Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)  latiles ECY 97-602 NWTPH-Gx water C7-C12  troleum ECY 97-602 darbons modified Diesel Range Organics C12-C24 Heavy Range Organics C24-C40  troleum ECY 97-602 troleum ECY 97-602 garbons w/Si modified DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel HRO C24-C40 w/Si Gel reverse surrogate, capric acid, is reget analyte(s) in the continuing dard is outside the QC acceptance ective action was taken: analysis was repeated and the cont fication standard bracketing the sithin specification. The first truse it was analyzed within the hol	Volatiles SW-846 8260B  Benzene 71-43-2  Ethylbenzene 100-41-4  Methyl Tertiary Butyl Ether 1634-04-4  Toluene 108-88-3  Xylene (Total) 1330-20-7  latiles ECY 97-602 NWTPH-Gx  NWTPH-Gx water C7-C12 n.a.  troleum ECY 97-602 NWTPH-Dx  carbons modified  Diesel Range Organics C12-C24 n.a.  Heavy Range Organics C24-C40 n.a.  troleum ECY 97-602 NWTPH-Dx  carbons w/Si modified  DRO C12-C24 w/Si Gel n.a.  reverse surrogate, capric acid, is present at <1  reget analyte(s) in the continuing calibration ved dard is outside the QC acceptance limits. The fective action was taken: analysis was repeated and the continuing calibration fication standard bracketing the sample on the sithin specification. The first trial result is use it was analyzed within the holding time. Si	Volatiles SW-846 8260B ug/l  Benzene 71-43-2 N.D. Ethylbenzene 100-41-4 N.D. Methyl Tertiary Butyl Ether 1634-04-4 N.D. Toluene 108-88-3 N.D. Xylene (Total) 1330-20-7 N.D.  latiles ECY 97-602 NWTPH-Gx ug/l NWTPH-Gx water C7-C12 n.a. N.D.  troleum ECY 97-602 NWTPH-Dx ug/l carbons modified  Diesel Range Organics C12-C24 n.a. N.D. Heavy Range Organics C24-C40 n.a. N.D.  troleum ECY 97-602 NWTPH-Dx ug/l carbons w/Si modified  DRO C12-C24 w/Si Gel n.a. N.D. reverse surrogate, capric acid, is present at <1%. rget analyte(s) in the continuing calibration verification dard is outside the QC acceptance limits. The following ective action was taken: analysis was repeated and the continuing calibration fication standard bracketing the sample on the second trial ithin specification. The first trial result is reported use it was analyzed within the holding time. Similar results	Volatiles SW-846 8260B ug/1 ug/1  Benzene 71-43-2 N.D. 0.5  Ethylbenzene 100-41-4 N.D. 0.5  Methyl Tertiary Butyl Ether 1634-04-4 N.D. 0.5  Toluene 108-88-3 N.D. 0.5  Xylene (Total) 1330-20-7 N.D. 0.5  latiles ECY 97-602 NWTPH-Gx ug/1 ug/1  NWTPH-Gx water C7-C12 n.a. N.D. 50  troleum ECY 97-602 NWTPH-Dx ug/1 ug/1  carbons modified  Diesel Range Organics C12-C24 n.a. N.D. 29  Heavy Range Organics C24-C40 n.a. N.D. 67  troleum ECY 97-602 NWTPH-Dx ug/1 ug/1  carbons w/Si modified  DRO C12-C24 w/Si Gel n.a. N.D. 67  HRO C24-C40 w/Si Gel n.a. N.D. 67  reverse surrogate, capric acid, is present at <1%.  rget analyte(s) in the continuing calibration dard is outside the QC acceptance limits. The following ective action was taken: analysis was repeated and the continuing calibration fication standard bracketing the sample on the second trial ithin specification. The first trial result is reported use it was analyzed within the holding time. Similar results				

### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	23:21	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	23:21	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	07:24	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	07:24	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	08:18	Thomas C Wildermuth	1



# **Analysis Report**

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

Sample Description: B-2 Grab Groundwater

LL Sample # WW 8144071 LL Group # 1611170 Account # 11260 Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 10:35 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MTB2-

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/03/2015 17:34	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015 09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015 09:30	David S Schrum	1



# Analysis Report

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

Sample Description: B-2 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144072

Factor

Project Name: 211556

No.

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 10:35 by GM Chevron

6001 Bollinger Canyon Road

Detection Limit

L4310

San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number

Result

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.00060 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015	12:16	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015	07:42	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: B-3 Grab Groundwater

LL Sample # WW 8144073 LL Group # 1611170 Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 09:20 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MTB3-

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	2	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	880	50	1
	roleum carbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	
-	Diesel Range Organi		n a	1,200	29	1
	Heavy Range Organic			180	67	1
00271	neavy kange Organic	5 C24-C40	n.a.	100	67	1
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	57	29	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	67	1
The :	reverse surrogate, ca	apric acid, is	present at <1	ું.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	23:43	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	23:43	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	08:16	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	08:16	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	09:01	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	01:35	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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Sample Description: B-3 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

Account # 11260

LL Sample # WW 8144074 LL Group # 1611170

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 09:20 by GM Chevron

6001 Bollinger Canyon Road

Detection Limit

L4310

San Ramon CA 94583

CAT Dilution Method Analysis Name CAS Number No. Result Factor

mg/l mg/l SW-846 6020 Metals Dissolved

06035 Lead 7439-92-1 0.0185 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015	12:18	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015	07:42	Katlin N Cataldi	1



# Analysis Report

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

Sample Description: B-4 Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA LL Sample # WW 8144075 LL Group # 1611170 Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 13:00 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MTB4-

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	3260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	4	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vo	latiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	2,000	50	1
GC Pe	troleum ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons modified	i			
08271	Diesel Range Organics C12-C24	n.a.	750	29	1
08271	Heavy Range Organics C24-C40	n.a.	740	67	1
GC Pe	troleum ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
Hvdro	carbons w/Si modified	i.			
12005	DRO C12-C24 w/Si Gel	n.a.	130	29	1
12005		n.a.	270	67	1
	reverse surrogate, capric acid,			<i>5 .</i>	-
1110		F	<del></del>		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/02/2015	00:04	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/02/2015	00:04	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15326A94A	11/24/2015	08:42	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15326A94A	11/24/2015	08:42	Jeremy C Giffin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	09:23	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	02:18	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: B-4 Filtered Grab Groundwater

Facility# 211556 Job# 386773 101 Mulford Rd - Toledo, WA

LL Group # 1611170 Account # 11260

LL Sample # WW 8144076

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 13:00 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

CAT Method Dilution No. Analysis Name CAS Number Result Detection Limit Factor

 Metals Dissolved
 SW-846
 6020
 mg/l
 mg/l

 06035
 Lead
 7439-92-1
 0.0171
 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method Trial:		Batch#	Analysis Date and Time		Analyst	Dilution Factor	
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015	12:23	Deborah A Krady	1	
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015	07:42	Katlin N Cataldi	1	



# Analysis Report

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

## Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

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

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

#### Method Blank

Analysis Name	Result MDL	
	1g/1 ug/1	
Batch number: F153342AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number(s): 8144063,8144067  N.D. 0.5  N.D. 0.5  N.D. 0.5  N.D. 0.5  N.D. 0.5  N.D. 0.5	
Batch number: F153353AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number(s): 8144047,8144049,8144055,8144069,8144071,8144073,83 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5	_44075
Batch number: P153342AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number(s): 8144045,8144053,8144057,8144059,8144061 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5	
Batch number: Z153322AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number(s): 8144042-8144043,8144051,8144065 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5 N.D. 0.5	
Batch number: 15326A20A  NWTPH-Gx water C7-C12	Sample number(s): 3144042-8144043,8144045,8144051,8144053,8144057,8144059,8144061,8144 N.D. 50	1065
Batch number: 15326A94A NWTPH-Gx water C7-C12	Sample number(s): 3144047,8144049,8144055,8144063,8144067,8144069,8144071,8144073,8144 N.D. 50	1075
Batch number: 153320009A  Diesel Range Organics C12-C24	Sample number(s): 3144043,8144045,8144047,8144049,8144051,8144053,8144055,8144057,8144 N.D. 30 N.D. 70	1059,8144
Heavy Range Organics C24-C40  Batch number: 153320011A  Diesel Range Organics C12-C24  Heavy Range Organics C24-C40	N.D. 70  Sample number(s): 8144063,8144065,8144067,8144069,8144071,8144073,83  N.D. 30  N.D. 70	L44075
Batch number: 153320010A	Sample number(s): 3144043,8144045,8144047,8144049,8144051,8144053,8144055,8144057,8144	1059,8144

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# **Analysis Report**

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## Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

Analysis Name	Result	MDL				
	ug/l	ug/l				
DRO C12-C24 w/Si Gel	N.D.	30				
HRO C24-C40 w/Si Gel	N.D.	70				
Batch number: 153320012A	Sample number(s):	8144063,8144065,8144067,8144069,8144071,8144073,8144075				
DRO C12-C24 w/Si Gel	N.D.	30				
HRO C24-C40 w/Si Gel	N.D.	70				
	mg/l	mg/l				
Batch number: 153316050004A	Sample number(s):	8144044,8144046,8144048,8144050,8144052,8144054,8144056,8144058				
Lead	N.D.	0.00013				
Batch number: 153346050003A	Sample number(s):					
	8144060,8144062,8144064,8144066,8144068,8144070,8144072,8144074,8144076					
Lead	0.00020	0.00013				

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max		
Batch number: F153342AA	Sample number(s): 8144063,8144067										
Benzene	20	17.76	20	18.84	89	94	78-120	6	30		
Ethylbenzene	20	17.82	20	18.47	89	92	78-120	4	30		
Methyl Tertiary Butyl Ether	20	16.81	20	17.63	84	88	75-120	5	30		
Toluene	20	18.67	20	19.05	93	95	80-120	2	30		
Xylene (Total)	60	54.73	60	57.35	91	96	80-120	5	30		
Batch number: F153353AA	Sample number(s): 8144047,8144049,8144055,8144069,8144071,8144073,8144075										
Benzene	20	19.24	20	18.51	96	93	78-120	4	30		
Ethylbenzene	20	18.75	20	18.46	94	92	78-120	2	30		
Methyl Tertiary Butyl Ether	20	17.28	20	17.46	86	87	75-120	1	30		
Toluene	20	19.44	20	18.98	97	95	80-120	2	30		
Xylene (Total)	60	56.55	60	56.04	94	93	80-120	1	30		
Batch number: P153342AA	Sample numbe	r(s): 81440	045,8144053,814	14057,8144	059,8144	061					
Benzene	20	22.15	20	22.44	111	112	78-120	1	30		
Ethylbenzene	20	18.1	20	18.65	90	93	78-120	3	30		
Methyl Tertiary Butyl Ether	20	21.79	20	22.39	109	112	75-120	3	30		
Toluene	20	18.68	20	19	93	95	80-120	2	30		
Xylene (Total)	60	56.03	60	57.37	93	96	80-120	2	30		
Batch number: Z153322AA	Sample number(s): 8144042-8144043,8144051,8144065										
Benzene	20	18.47	20	19.15	92	96	78-120	4	30		
Ethylbenzene	20	19	20	19.67	95	98	78-120	4	30		
Methyl Tertiary Butyl Ether	20	20.95	20	21.09	105	105	75-120	1	30		
Toluene	20	18.88	20	19.66	94	98	80-120	4	30		
Xylene (Total)	60	58.56	60	60.09	98	100	80-120	3	30		
	ug/l	ug/l	ug/l	ug/l							
Batch number: 15326A20A	Sample numbe 8144042-8144		5,8144051,81440	053,814405	7,814405	9,814406	1,8144065				

8144042-8144043,8144045,8144051,8144053,8144057,8144059,8144061,8144065 NWTPH-Gx water C7-C12 1100 1011.65 92 80-123

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# **Analysis Report**

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# Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15326A94A	Sample numbe		,8144063,8144	067 814406	9 814407	1 814407	3 8144075		
NWTPH-Gx water C7-C12	1100	1026.74	1100	1040.07	93	95	80-123	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 153320009A	Sample numbe		,8144049,8144	051 014405	2 014405	E 01440E	7 0144050 01	11061	
Diesel Range Organics C12-C24	1610	1030.38	1610	988.46	64	61	50-113	4	20
Batch number: 153320011A Diesel Range Organics C12-C24	Sample numbe	r(s): 81440 961.52	63,8144065,81 1610	44067,8144 995.79	069,8144 60	071,8144 62	073,8144075 50-113	4	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 153320010A	Sample numbe		,8144049,8144	051 014405	2 91//05	E 91440E	7 01////50 01	11061	
DRO C12-C24 w/Si Gel	1610	1001.68	1610	1188.71	62	74	32-117	17	20
Batch number: 153320012A DRO C12-C24 w/Si Gel	Sample numbe	r(s): 81440 694.91	63,8144065,81 1610	44067,8144 815.45	069,8144 43	071,8144 51	073,8144075 32-117	16	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 153316050004A Lead	Sample numbe 0.0150	r(s): 81440 0.0154	44,8144046,81	44048,8144	050,8144 102	052,8144	054,8144056, 80-120	8144058	3
Batch number: 153346050003A	Sample numbe 8144060,8144 0.0150		,8144066,8144	068,814407	0,814407 107	2,814407	4,8144076 80-120		

#### MS/MSD

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 15326A20A	Sample numb 8144042-814		45,814405	1,8144053,8	144057,814	4059,814	4061,814	14065 UNSPK	: P141	372
NWTPH-Gx water C7-C12	8683.2	5500	14206.5	5500	14926.36	100	114	80-123	5	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 153316050004A	Sample numb		4044,8144	046,8144048	,8144050,8	144052,8	3144054,8	3144056,814	4058	
Lead	0.000393	0.0150	0.0162	0.0150	0.0161	105	105	75-125	1	20
Batch number: 153346050003A	Sample numb 8144060,814		64,814406	6,8144068,8	144070,814	4072,814	4074,814	14076 UNSPK	: 8144	066
Lead	0.00411	0.0150	0.0200	0.0150	0.0193	106	101	75-125	3	20

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



# Analysis Report

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### Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

#### Laboratory Duplicate

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

Analysis Name BKG Conc DUP Conc DUP RPD DUP RPD Max

mg/l mg/l

Batch number: 153316050004A Sample number(s): 8144044,8144046,8144048,8144050,8144052,8144054,8144056,8144058 BKG:

P144041

Lead 0.000393 0.000809 69\* (1) 20

Batch number: 153346050003A Sample number(s):

8144060,8144062,8144064,8144066,8144068,8144070,8144072,8144074,8144076 BKG: 8144066

Lead 0.00411 0.00419 2 (1) 20

#### Surrogate Quality Control

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

Analysis Name: BTEX/MTBE Batch number: F153342AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8144063	97	102	103	91
8144067	99	101	103	91
Blank	97	100	104	91
LCS	96	101	105	97
LCSD	98	109	104	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE Batch number: F153353AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	l oluene-d8	4-Bromofluorobenzene
8144047	97	100	104	90
8144049	95	97	105	93
8144055	98	103	106	92
8144069	97	103	106	89
8144071	98	101	106	92
8144073	96	100	105	95
8144075	94	96	105	96
Blank	98	99	105	92
LCS	97	100	105	94
LCSD	97	100	105	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE Batch number: P153342AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8144045	108	103	89	96
8144053	108	102	90	97
8144057	107	101	89	98

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



# Analysis Report

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# Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8144059	109	105	88	96
8144061	109	102	88	98
Blank	104	100	91	96
LCS	106	102	91	97
LCSD	106	105	90	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE Batch number: Z153322AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8144042	107	99	98	94
8144043	107	99	98	95
8144051	106	100	98	94
8144065	106	98	99	94
Blank	107	101	98	96
LCS	106	100	98	98
LCSD	105	99	99	100

Limits: 80-116 77-113 80-113 78-113

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 15326A20A

	Trifluorotoluene-F
8144042	88
8144043	87
8144045	87
8144051	89
8144053	88
8144057	87
8144059	88
8144061	88
8144065	89
Blank	89
LCS	100
MS	99
MSD	99

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 15326A94A
Trifluorotoluene-F

8144047 70
8144049 91
8144055 73

8144047	70	
8144049	91	
8144055	73	
8144063	72	
8144067	85	
8144069	74	
8144071	74	
8144073	82	
8144075	92	
Blank	81	

- \*- 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.



# Analysis Report

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

# Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

	Trifluorotoluene-F
LCS	95
LCSD	95
Limits:	63-135
	ame: NWTPH-Dx water
Batch number	er: 153320009A
	Orthoterphenyl
8144043	93
8144045	90
8144047	92
8144049	98
8144051	95
8144053	93
8144055	93
8144057	95

Limits: 50-150

8144059

8144061

Blank

LCS

LCSD

Analysis Name: NWTPH-Dx water w/ 10g Si Gel

Batch number: 153320010A

91

91

90

96

95

	Orthoterphenyl
8144043	87
8144045	88
8144047	92
8144049	86
8144051	101
8144053	85
8144055	91
8144057	88
8144059	92
8144061	84
Blank	70
LCS	83
LCSD	103

Limits: 50-150

Analysis Name: NWTPH-Dx water Batch number: 153320011A

	Orthoterphenyl
8144063	92
8144065	92
8144067	93
8144069	89
8144071	95
8144073	94
8144075	95

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



# **Analysis Report**

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

# Quality Control Summary

Client Name: Chevron Group Number: 1611170

Reported: 03/31/2016 13:32

	Orthoterphenyl
Blank	90
LCS	97
LCSD	95
Limits.	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel

Batch number: 153320012A

	Orthoterphenyl
8144063	79
8144065	61
8144067	72
8144069	66
8144071	71
8144073	62
8144075	59
Blank	50
LCS	64
LCSD	70
Limits:	50-150

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody

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Consultant/Office Gettler-Ryan Inc.	., 6805 Sierra Co	urt, Suit	te G, Duk	olin, (	CA	3456		"  _ _	Containers	8260-8				Clear	Gel C		Diss.					8021 MTBE Confirm Confirm MTBE + N	
Consultant Project Mgr. <b>Deanna L. Hardi</b>	ng, (deanna@gri	inc.com)						2   F	of Cor	8021		Oxygenates		lica Ge	t Silica	<b>WA ЕРН</b>			1			Confirm highest hit	by 8260
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MW-1		181	0815										4				$\Box$		_			Manganese, as	
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# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins |

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# Sample Administration Receipt Documentation Log

Doc Log ID:

126277

Group Number(s): | 6 11170

Client: CHEVRON

Environmental

#### SS#211556-OML G-R#386773

**Delivery and Receipt Information** 

Delivery Method:

SeaTac

Arrival Timestamp:

11/20/2015 10:00

Number of Packages:

7

Number of Projects:

2

State/Province of Origin:

WA

**Arrival Condition Summary** 

Shipping Container Sealed:

Discrepancy in Container Qty on COC:

Yes

Sample IDs on COC match Containers:

Yes

**Custody Seal Present:** 

Yes

Sample Date/Times match COC:

Yes

**Custody Seal Intact:** 

No

VOA Vial Headspace ≥ 6mm:

No

Samples Chilled:

Yes

Total Trip Blank Qty:

4 HCL

Paperwork Enclosed: Samples Intact:

Yes Yes Trip Blank Type: Air Quality Samples Present:

No

Missing Samples:

No

Extra Samples:

No Yes

Unpacked by Corey Eshleman (3647) at 11:40 on 11/20/2015

#### Samples Chilled Details: SS#211556-OML G-R#386773

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler#	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.3	DT	Wet	Υ	Bagged	N
2	DT121	0.8	DT	Wet	Υ	Bagged	N
3	DT121	0.3	DT	Wet	Υ	Bagged	N
4	DT121	0.3	DT	Wet	Υ	Bagged	N
5	DT121	0.5	DT	Wet	Υ	Bagged	N
6	DT121	0.1	DT	Wet	Υ	Bagged	N
7	DT121	0.1	DT	Wet	Υ	Bagged	N

# Container Quantity Discrepancy Details: SS#211556-OML G-R#386773

Sample ID on COC

Container Qty. Received

Container Qty. on COC

Comments

All samples (except QA)

8



# **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)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mĹ	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Analysis Report

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

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

Report Date: March 31, 2016

**Project: 211556** 

Submittal Date: 11/20/2015 Group Number: 1611177 PO Number: 0015201727 Release Number: HORNE State of Sample Origin: WA

Client Sample Description Lancaster Labs (LL) #

QA NA Water 8144083
TDWHD-1 Grab Groundwater 8144084
TDWHD-1 Filtered Grab Groundwater 8144085

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

Electronic Copy To Leidos
Electronic Copy To Leidos
Electronic Copy To Gettler-Ryan Inc.

Attn: Russ Shropshire Attn: Jamalyn Agyei Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



# Analysis Report

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

Sample Description: QA NA Water

QA NA Water LL Sample # WW 8144083 Facility# 211556 Job# 386773 LL Group # 1611177 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

QAMRT

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/01/2015	21:32	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/01/2015	21:32	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15328A94A	11/25/2015	12:09	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15328A94A	11/25/2015	12:09	Marie D Beamenderfer	1



# Analysis Report

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

Sample Description: TDWHD-1 Grab Groundwater

LL Sample # WW 8144084 Facility# 211556 Job# 386773 LL Group # 1611177 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Reported: 03/31/2016 13:32

Collected: 11/18/2015 16:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MRTT1

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0В	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
aa 17-	1-1-1	HGW 07 600	Mampii G		ug/l	
		ECY 97-602		ug/l	<del>-</del> -	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
		ECY 97-602	NWTPH-Dx	ug/l	ug/l	
-	carbons	modified				
	Diesel Range Organi		n.a.	N.D.	29	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	67	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	67	1
The	reverse surrogate, ca	apric acid, is	present at <1	%.		

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F153353AA	12/02/2015	00:26	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F153353AA	12/02/2015	00:26	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15328A94A	11/25/2015	13:00	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15328A94A	11/25/2015	13:00	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153320011A	12/01/2015	08:39	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153320012A	12/05/2015	01:57	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153320012A	11/30/2015	09:30	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153320011A	11/30/2015	09:30	David S Schrum	1



# Analysis Report

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

Sample Description: TDWHD-1 Filtered Grab Groundwater

LL Sample # WW 8144085 Facility# 211556 Job# 386773 LL Group # 1611177 101 Mulford Rd - Toledo, WA Account # 11260

Project Name: 211556

Submitted: 11/20/2015 10:00

Collected: 11/18/2015 16:15 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583 Reported: 03/31/2016 13:32

CAT Dilution Method Analysis Name CAS Number No. Result Factor Detection Limit

mg/1 mg/l SW-846 6020 Metals Dissolved 06035 Lead 7439-92-1 N.D. 0.00013

#### General Sample Comments

State of Washington Lab Certification No. C457 This sample was field filtered for dissolved metals.

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 Tir	me	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	153346050003A	12/04/2015	12:25	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	153346050003	12/02/2015	07:42	Katlin N Cataldi	1

# Analysis Report

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

### Quality Control Summary

Client Name: Chevron Group Number: 1611177

Reported: 03/31/2016 13:32

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

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

#### Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F153353AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	<pre>Sample number(s): N.D. N.D. N.D. N.D. N.D.</pre>	8144083-8144084 0.5 0.5 0.5 0.5 0.5
Batch number: 15328A94A NWTPH-Gx water C7-C12	<pre>Sample number(s): N.D.</pre>	8144083-8144084 50
Batch number: 153320011A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40		8144084 30 70
Batch number: 153320012A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	<pre>Sample number(s): N.D. N.D.</pre>	8144084 30 70
	mg/l	mg/l
Batch number: 153346050003A Lead	Sample number(s): 0.00020	8144085 0.00013

#### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F153353AA	Sample numbe	r(s): 8144	083-8144084						
Benzene	20	19.24	20	18.51	96	93	78-120	4	30
Ethylbenzene	20	18.75	20	18.46	94	92	78-120	2	30
Methyl Tertiary Butyl Ether	20	17.28	20	17.46	86	87	75-120	1	30
Toluene	20	19.44	20	18.98	97	95	80-120	2	30
Xylene (Total)	60	56.55	60	56.04	94	93	80-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 15328A94A	Sample numbe	r(s): 8144	083-8144084						
NWTPH-Gx water C7-C12	1100	986.79	1100	1027	90	93	80-123	4	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 153320011A	Sample numbe	r(s): 8144	084						
Diesel Range Organics C12-C24	1610	961.52	1610	995.79	60	62	50-113	4	20

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



# Analysis Report

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

### Quality Control Summary

Client Name: Chevron Group Number: 1611177

Reported: 03/31/2016 13:32

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 153320012A DRO C12-C24 w/Si Gel	Sample number	r(s): 81440 694.91	)84 1610	815.45	43	51	32-117	16	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 153346050003A Lead	Sample number	r(s): 81440 0.0160	085		107		80-120		

#### MS/MSD

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

Analysis Name		Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number:	153346050003A	Sample number(s): 8144085 UNSPK: P144066									
Lead		0.00411	0.0150	0.0200	0.0150	0.0193	106	101	75-125	3	20

#### Laboratory Duplicate

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

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Batch number: 153346050003A	Sample number(s):	8144085 BKG: P144066		
Lead	0.00411	0.00419	2 (1)	20

#### Surrogate Quality Control

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

Analysis Name: BTEX/MTBE Batch number: F153353AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8144083	98	103	104	88
8144084	98	98	105	93
Blank	98	99	105	92
LCS	97	100	105	94
LCSD	97	100	105	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 15328A94A

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



# Analysis Report

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

# Quality Control Summary

Client Name: Chevron Group Number: 1611177

Reported: 03/31/2016 13:32

	Trifluorotoluene-F
8144083	74
8144084	74
Blank	76
LCS	93
LCSD	93
Timita.	62 125

Limits: 63-135

Analysis Name: NWTPH-Dx water
Batch number: 153320011A

Orthoterphenyl

8144084 92
Blank 90
LCS 97
LCSD 95
Limits: 50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel

Batch number: 153320012A Orthoterphenyl

	or anotor priority.	
8144084	55	
Blank	50	
LCS	64	
LCSD	70	
Limits:	50-150	

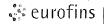
\*- Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody

n eurofins	Lancaster Laboratories	s	Ac	cct. #	115	<u>26</u>	0	Gr	Foup Ins	or Eu # <u>\t</u> struction	rofins Old ons on re	Lanc	aster	Laboi Sai respond	ratorie mple : d with c	es use #	e only Stumbers	140	08	<u>3 -</u>	- 8	5	(60)
(1)	Client Inform					(4)	Matr	rix			(5)			Ar	nalys	ses l	Requ	uest	ed				SCR #:
Facility # SS#211556-O	ML G-R#3867	<b>773</b> WBS																TE PAR					JOIN #1.
Site Address 101 Mulford R	load, TOLEDO			bles all and an annual annual and an annual			<b>X</b>		ADDITION OF THE PROPERTY OF TH		Naphth 🔲					攻		Method 6020 1cg					☐ Results in Dry Weight ☐ J value reporting needed
Chevron PM <b>MHO</b>	LEIDOSR		Kus:	sell S	shrd	pen	DE SO	Surface			N N							Metho					Must meet lowest detection limits possible for 8260
Consultant/Office Gettler-Ryan I	nc., 6805 Sierr	ra Court, Suif	te G, Du	blin,	CA	9456	38° (			Containers	8260-12				NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup		Diss_F					compounds  B021 MTBE Confirmation
	irding, (deanna	@grinc.com	)								21		ıates		ia Gel	Silica (	Л ЕРН □	Ö					☐ Confirm MTBE + Naphthalene ☐ Confirm highest hit by 8260
Consultant Phone # <b>(925) 551-744</b> 4	4 x180						Potable	NPDES	Air	oer of	≡ 8021		Oxygenates		ith Silic	ithout (	WA	tal 🗆					Confirm all hits by 8260
Sampler G. MEOLA	v A			3	Composite		1	-		Total Number	+ MTBE	8260 full scan		H-Gx	H-Dx w	H-Dx w	WA VPH	Total					Run oxy's on all hits
② Sample Identification		Colle Date	ected Time	Grab	Somp	Soil	Water	;	iö	otal	втех +	260 ft		NWTPH-Gx	WTP	WTP	/A VP	Lead					(6) Remarks
QV	PV-SWIMPHIANE TO BE COMMUNICATED AND COMPANION AND AND AND AND AND AND AND AND AND AN	11/18/15		X		(0)	>   W			2	X	80		z X	_Z	Z	<u> </u>						
	JH0 7		1615				V	工		8				Ĭ	X	X		X					Please report results for Dx with & without sgc.
			-	<u> </u>			<u> </u>	_			Ľ							7					Dissolved Iron, Lead, and
			<b></b>				<del> </del>	_	-		$\blacksquare$							$\vdash$					Manganese, as well as Alkalinity samples have
	NAME OF THE PARTY		<b></b>	+			<del></del>	+	$\dashv$							$\dashv$		$\vdash$	-				been field filtered.
				1	$\neg$			$\dashv$						$\dashv$		_		$\Box$	$\vdash$	$\dashv$			
					$\neg$			十															
	Control of the Contro				J																		
			ļ				<b></b>		_					_	_						Щ		Please forward lab results directly to
			<b></b>										_	_	$\dashv$			лэлээсэнных					the LC and cc: G-R. The TPW sample results should be forwarded directly
7) Turnaround Time R	Paguagted (TAT)	(rlacco circle)	<u>/</u>	Relingu	uishec	d by /					Date	]		Time			Pecej	ved by		unun unkandenk	land plans purchas grantes, the	TOWNS TO SERVICE STATES	to Deanna Harding
Standard Standard	5 day	4 day	- MISSIN	X	A,	M	<u>L</u>	-			u	19/1	5	1	401	0	7/	Pu	T,	h /	/EL	LE.	11/19/15 /4:00
Aprilogi	48 hour	EDF/ED 24 hour		Relinqu	,		\	<u> </u>			Date			Time			Réceiv	red by	•				Date Time
8 Data Package (circle	if required)	EDD (circle if re	equired)	1		-	Comme									1	Receiv	ved by		1			Date / Time
Type I - Full		CVX-RTBU-FI_05	(default)	UF				Fed					ner_a			(		<u> </u>	sh	/U		_	11/20/15 1000
Type VI (Raw Data)		Other:			Te	∍mp∈	erature	e Upr	on I	Rece	eipt 🤇	<u> 1:1-</u>	· 0 1	80	С		Cu	ıstod	dy Se	als I	Intac	t?	(Yes) No



# Sample Administration Receipt Documentation Log

Doc Log ID:

126277

Group Number(s): 611177

Client: CHEVRON

SS#211556-OML G-R#386773

**Delivery and Receipt Information** 

Delivery Method:

<u>SeaTac</u>

Arrival Timestamp:

11/20/2015 10:00

Number of Packages:

7

Number of Projects:

2

State/Province of Origin:

WA

**Arrival Condition Summary** 

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

**Custody Seal Present:** 

Yes

Sample Date/Times match COC:

Yes

**Custody Seal Intact:** 

No

VOA Vial Headspace ≥ 6mm:

No

Samples Chilled:

Yes Yes Total Trip Blank Qty:

HCL

Paperwork Enclosed: Samples Intact:

Yes

Trip Blank Type: Air Quality Samples Present:

No

Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC: Yes

Unpacked by Corey Eshleman (3647) at 11:40 on 11/20/2015

Samples Chilled Details: SS#211556-OML G-R#386773

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler#	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT121	0.3	DT	Wet	Υ	Bagged	N
2	DT121	0.8	DT	Wet	Υ	Bagged	N
3	DT121	0.3	DT	Wet	Υ	Bagged	N
4	DT121	0.3	DT	Wet	· Y	Bagged	N
5	DT121	0.5	DT	Wet	Υ	Bagged	N
6	DT121	0.1	DT	Wet	Υ	Bagged	N ·
7	DT121	0.1	DT	Wet	Υ	Bagged	N

Container Quantity Discrepancy Details: SS#211556-OML G-R#386773

Sample ID on COC

Container Qty. Received

Container Qty. on COC

Comments

All samples (except QA)

8



# **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)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mĹ	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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