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Fourth Quarter 2016 Groundwater Monitoring Report

Chevron Facility No. 376584 RO0000379 670 98th Avenue, Oakland, California 94603



Submitted to:
Ms. Karel Detterman
Alameda County Environmental Health Department
1131 Harbor Bay Parkway
Alameda, California 94602

Prepared for: Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, California 94583

Prepared by: Stantec Consulting Services Inc. 15575 Los Gatos Blvd., Building C Los Gatos, California 95032



Carryl MacLeod
Project Manager
Marketing Business Unit

Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 842-3201 cmacleod@chevron.com

March 30, 2017

Ms. Karel Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 Dear Mr. Awwad:

Attached for your review is the *Fourth Quarter 2016 Groundwater Monitoring Report* for 670 98th Avenue, Oakland, California 94603 (RO0000379). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached report submitted on my behalf to Alameda County Environmental Health's FTP server and the State Water Resources Control Board's GeoTracker™ Website.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 827-3876 or travis.flora@stantec.com.

Sincerely,

Carryl MacLeod Project Manager



March 30, 2017

Attention: Ms. Karel Detterman

Alameda County Environmental Health Department

1131 Harbor Bay Parkway Alameda, California 94602

Reference: Fourth Quarter 2017 Groundwater Monitoring Report

670 98th Avenue

Oakland, California 94603

Dear Ms. Detterman:

On behalf of Chevron Environmental Management Company (CEMC), Stantec Consulting Services Inc. (Stantec) is pleased to submit the Fourth Quarter 2016 Groundwater Monitoring Report for 670 98th Avenue, Oakland, California (Site shown on **Figure 1**). This report is presented in three sections: Site Background, Fourth Quarter 2016 Groundwater Monitoring and Sampling Program, and Conclusions.

SITE BACKGROUND

The Site is located on the northeast corner at the intersection of 98th Avenue and Edes Avenue (**Figure 1**). The site was occupied by Union 76 service station from approximately 1947 through 1983. An old station building and an underground tank that occupied the site were removed in 1966. During that same year, a new station building, two 10,000-gallon underground gasoline tanks, and one 230-gallon waste oil tank were installed at the site. The station building was demolished and the underground storage tanks were removed in 1983.

In addition to the on-site source, an additional potential source of contamination at the site was identified at 692 98th Avenue, located northeast of the site. This property was occupied by a Richfield service station from approximately 1949 to 1963. In 1970, four 1,000-gallon underground fuel storage tanks were removed; the contents and former tank locations are not known.

FOURTH QUARTER 2016 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Gettler-Ryan, Inc. (G-R) performed the Fourth Quarter 2016 groundwater monitoring and sampling event on December 21, 2016. G-R's standard operating procedures (SOPs) and field data sheets are included in **Attachment A**. G-R gauged depth-to-groundwater (DTW) in 6 Site wells (MW-1 through MW-5 and Well-18) prior to collecting groundwater samples for laboratory analysis. Groundwater monitoring wells MW-1 through MW-5 and Well-18 were purged and sampled.

Investigation-derived waste (IDW) generated during the Fourth quarter 2016 groundwater monitoring and sampling event was transported by Clean Harbors Environmental Services to Seaport Environmental in Redwood City, California.

Groundwater Elevation and Gradient

A groundwater elevation contour map (based on Fourth Quarter 2016 data) is shown on **Figure 2**. The direction of groundwater flow at the time of sampling was west-northwest at an average hydraulic gradient of approximately 0.002 feet per foot (ft/ft).

FOURTH QUARTER 2016 GROUNDWATER MONITORING REPORT

Chevron Facility No. 376584 March 30, 2017 Page 2 of 4

Schedule of Laboratory Analysis

Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline range organics (TPH-GRO), TPH as diesel range organics (TPH-DRO), and TPH-DRO with silica gel cleanup using United States Environmental Protection Agency (US EPA) Method 8015B. Additionally, samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) and methyl tertiary-butyl ether (MtBE) by US EPA Method 8260B.

Groundwater Analytical Results

During fourth quarter 2016, groundwater samples were collected from six Site wells (MW-1 through MW-5 and Well-18). Current groundwater analytical results are included in **Table 1**. Historical groundwater analytical results are included in **Table 2**. A figure showing the latest groundwater analytical data plotted on a Site map is included as **Figure 3**. A TPH-GRO isoconcentration map is shown on **Figure 4**, and a TPH-DRO isoconcentration map is shown on **Figure 5**. Isoconcentration maps for BTEX compounds and MtBE were not created, because there were no detections above laboratory method detection limits (MDL) or environmental screening levels. Certified laboratory analysis reports and chain-of-custody documents are presented as **Attachment B**.

Additional VOCs, including n-butylbenzene, sec-butylbenzene, cis-1,2-eichloroethene, isopropylbenzene, naphthalene, n-propylbenzene, tetrachloroethene, and trichloroethene were detected in Site wells as noted in **Table 1**. Laboratory notes indicate the reverse surrogate, capric acid, for the analysis for TPH-DRO with silica gel cleanup is present at <1%.

CONCLUSIONS AND RECOMMENDATIONS

Maximum concentrations were observed in well MW-1. TPH-GRO and TPH-DRO were both reported above their respective ESLs in well MW-1, and TPH-GRO was reported above its ESL in Well-18. BTEX compounds and MtBE were not detected above laboratory MDLs or ESLs.

Stantec reviewed a historical as-built drawing, a historical maintenance log, and historical correspondence and found that diesel was not dispensed at this Site. Two gasoline underground storage tanks (USTs) and one waste oil UST were noted. The TPH-DRO detected may be associated with weathered gasoline or from a separate, nearby diesel source. A historical ARCO station was located adjacent to this Site. Chevron has requested historical files from ARCO to evaluate if their station dispensed diesel.

Alameda County Environmental Health Department requested that a Site Conceptual Model (SCM) and Data Gap Work Plan be submitted in October 2016; however, the data set was insufficient, so a SCM was not prepared at that time. The current data set is limited to only two round of groundwater sampling. Stantec recommends additional groundwater sampling prior to preparation of the SCM. This will also allow additional time to evaluate the TPH-DRO detections using available historical files and laboratory chromatograms. In addition, Stantec recommends using a low-flow sampling procedure at wells MW-1, MW-3, and MW-18 due to the silt observed in samples collected using a standard sampling procedure with a bailer. Groundwater monitoring and sampling events are planned for Second and Fourth Quarters 2017.



FOURTH QUARTER 2016 GROUNDWATER MONITORING REPORT

Chevron Facility No. 376584 March 30, 2017 Page 3 of 4

LIMITATIONS

This document entitled Fourth Quarter 2016 Groundwater Monitoring Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Chevron Environmental Management Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by

(signature)

Ruthie Chhoeun

Project Scientist

Reviewed by

(signature)

Travis L. Flora

Senior Project Manager

Licensed Approver

(signature)

Jaff Auchterlonie, P.G.

Managing Principal Geologist

cc:

Ms. Carryl MacLeod, EMC (via electronic copy)

Ms. Linda Hothem, Linda Hothem Trust, 104 Caledonia Street, #C, Sausalito, CA 94965-1952 Ms. Roslyn Danforth, c/o Rocklin Industries, 11120 Queensland St., #H51, Los Angeles, CA 90034 City of Oakland Dept. of Public Works, c/o Mr. Mark Johannes Arniola, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland, CA 94612 (via email)

11.30.16



FOURTH QUARTER 2016 GROUNDWATER MONITORING REPORT

Chevron Facility No. 376584 March 30, 2017 Page 4 of 4

Attachments:

Table 1 – Current Groundwater Monitoring Data & Analytical Data Table 2 – Historical Groundwater Monitoring Data & Analytical Data

Figure 1 – Site Location

Figure 2 – Site Plan and Groundwater Elevation Contour Map – December 21, 2016

Figure 3 – Groundwater Concentration Map – December 21, 2016

Figure 4 – GRO Groundwater Isoconcentration Map - December 21, 2016

Figure 5 – DRO Groundwater with Silica Gel Cleanup Isoconcentration Map - December 21, 2016

Attachment A – Gettler-Ryan Inc.'s Groundwater Monitoring and Sampling Data Package Second Semi-Annual Event of December 21, 2016.

Attachment B – Certified Laboratory Analysis Reports and Chain-of-Custody Documents





TABLE 1 Current Groundwater Monitoring & Analytical Data Chevron Facility No. 376584 (Former Union Oil Service Station) 670 98th Avenue, Oakland, California

Well No.	Date	Notes	TOC (ft-MSL)	DTW (ft)	SPH (ft)	GWE (ft-MSL)	TPH- GRO (µg/L)	TPH-DRO (µg/L)	TPH-DRO w/ SG (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	TBA (µg/L)	BTBZN (µg/L)	BTBZS (µg/L)	Chloroform (μg/L)	DCE12C (µg/L)	IPBZ (μg/L)	NAPH (µg/L)	PBZN (µg/L)	PCE (μg/L)	TCE (µg/L)	Comments
MW-1	12/21/16		16.18	7.32	0.00	8.86	2,100	1,100	770	<0.5	<0.5	<0.5	<0.5	<0.5	<5	18	13	<0.5	<0.5	10	5	34	<0.5	<0.5	
MW-2	12/21/16		16.50	7.25	0.00	9.25	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	0.6	<1	<1	<1	3	2	
MW-3	12/21/16		16.54	7.60	0.00	8.94	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	0.5	<0.5	<1	<1	<1	1	8.0	
MW-4	12/21/16		18.40	9.20	0.00	9.20	51	<50	180	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	<1	<1	140	1	
MW-5	12/21/16		17.35	8.05	0.00	9.30	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	
Well-18	12/21/16	•	15.97	6.98	0.00	8.99	180	66	93	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	2	<1	1	1	
QA	12/21/16			-			<50			<0.5	<0.5	<0.5	<0.5	<0.5		-									

Notes:

TPH-GRO = Total petroleum hydrocarbons as gasoline

TPH-DRO = Total petroleum hydrocarbons as diesel

TPH-DRO w/ SG = Total petroleum hydrocarbons as diesel with Silica Gel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MTBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

BTBZN = n-Butylbenzene

BTBZS = sec-Butylbenzene

DCE12C = cis-1,2-Dichloroethene

IPBZ = Isopropylbenzene

TABLE 2
Historical Groundwater Monitoring & Analytical Data
Chevron Facility No. 376584 (Former Union Oil Service Station)
670 98th Avenue, Oakland, California

Well No.	Date	Notes	TOC (ft-MSL)	DTW (ft)	SPH (ft)	GWE (ft-MSL)	TPH- GRO (µg/L)	TPH- DRO (µg/L)	TPH- DRO w/ SG (µg/L)	Β (μg/L)	T (µg/L)	E (µg/L)	Χ (μg/L)	MTBE (µg/L)	TBA (μg/L)	BTBZN (µg/L)	BTBZS (µg/L)	Chlorof orm (µg/L)	DCE12C (µg/L)	IPBZ (µg/L)	NAPH (µg/L)	PBZN (μg/L)	PCE (µg/L)	TCE (µg/L)	Comments
MW-1	06/17/16	NSP	16.18	8.43	0.00	7.75							-	-		-								-	Well re-developed
	06/24/16			8.48	Sheen	7.70	3400	480	920	<0.5	<0.5	8.0	<0.5	<0.5	<5	27	18	<0.5	<0.5	15	7	55	<0.5	<0.5	
	12/21/16			7.32	0.00	8.86	2,100	1,100	770	<0.5	<0.5	<0.5	<0.5	<0.5	<5	18	13	<0.5	<0.5	10	5	34	<0.5	<0.5	
MW-2	06/17/16	NSP	16.50	8.28	0.00	8.22	-						-	-								-			Well re-developed
	06/24/16			8.32	0.00	8.18	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	<1	<1	2	2	
	12/21/16			7.25	0.00	9.25	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	0.6	<1	<1	<1	3	2	
MW-3	06/17/16	NSP	16.54	8.62	0.00	7.92																			Well re-developed
	06/24/16			8.68	0.00	7.86	<50	<50	<50	<0.5	<0.5	< 0.5	<0.5	<0.5	<5	<1	<1	0.5	<0.5	<1	<1	<1	1	1	
	12/21/16			7.60	0.00	8.94	<50	<50	<50	<0.5	<0.5	< 0.5	<0.5	<0.5	<5	<1	<1	0.5	<0.5	<1	<1	<1	1	0.8	
MW-4	06/17/16	NSP	18.40	10.18	0.00	8.22																			Well re-developed
	06/24/16			10.25	0.00	8.15	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	< 0.5	<0.5	<1	<1	<1	140	1	
	12/21/16			9.20	0.00	9.20	51	<50	180	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	< 0.5	<0.5	<1	<1	<1	140	1	
MW-5	06/17/16	NSP	17.35	9.08	0.00	8.27																			Well re-developed
	06/24/16			9.12	0.00	8.23	<50	<50	95	<0.5	<0.5	< 0.5	<0.5	<0.5	<5	<1	<1	< 0.5	<0.5	<1	<1	<1	<0.5	<0.5	
	12/21/16			8.05	0.00	9.30	<50	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	
Well-18	06/17/16	NSP	15.97	8.03	0.00	7.94						-	-	-	-	-	-	-		-	-	-		-	Well re-developed
	06/24/16			8.05	0.00	7.92	890	120	96	<0.5	<0.5	1	<0.5	<0.5	<5	1	<1	<0.5	0.6	4	5	5	2	2	
	12/21/16			6.98	0.00	8.99	180	66	93	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<1	<1	<0.5	<0.5	<1	2	<1	1	1	
QA	06/24/16						<50			<0.5	<0.5	<0.5	<0.5	<0.5											
	12/21/16				-		<50			<0.5	<0.5	<0.5	<0.5	<0.5								-			

TABLE 2

Historical Groundwater Monitoring & Analytical Data Chevron Facility No. 376584 (Former Union Oil Service Station) 670 98th Avenue, Oakland, California

Notes:

TPH-GRO = Total petroleum hydrocarbons as gasoline

TPH-DRO = Total petroleum hydrocarbons as diesel

TPH-DRO w/ SG = Total petroleum hydrocarbons as diesel with Silica Gel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total xylenes

MTBE = Methyl tert-butyl ether

TBA = Tert-butyl alcohol

BTBZN = n-Butylbenzene

BTBZS = sec-Butylbenzene

DCE12C = cis-1,2-Dichloroethene

IPBZ = Isopropylbenzene

NAPH = Naphthalene

PBZN = n-Propylbenzene

PCE = Tetrachloroethene

TCE = Trichloroethene

SPH = Separate-phase hydrocarbons

TOC = Top of casing (surveyed)

Calc. GW Elev. = Calculated groundwater elevation = TOC - Depth to Water + 0.75*(Measured SPH Thickness); assuming a specific gravity of 0.75 for SPH

ft-MSL = feet above mean sea level

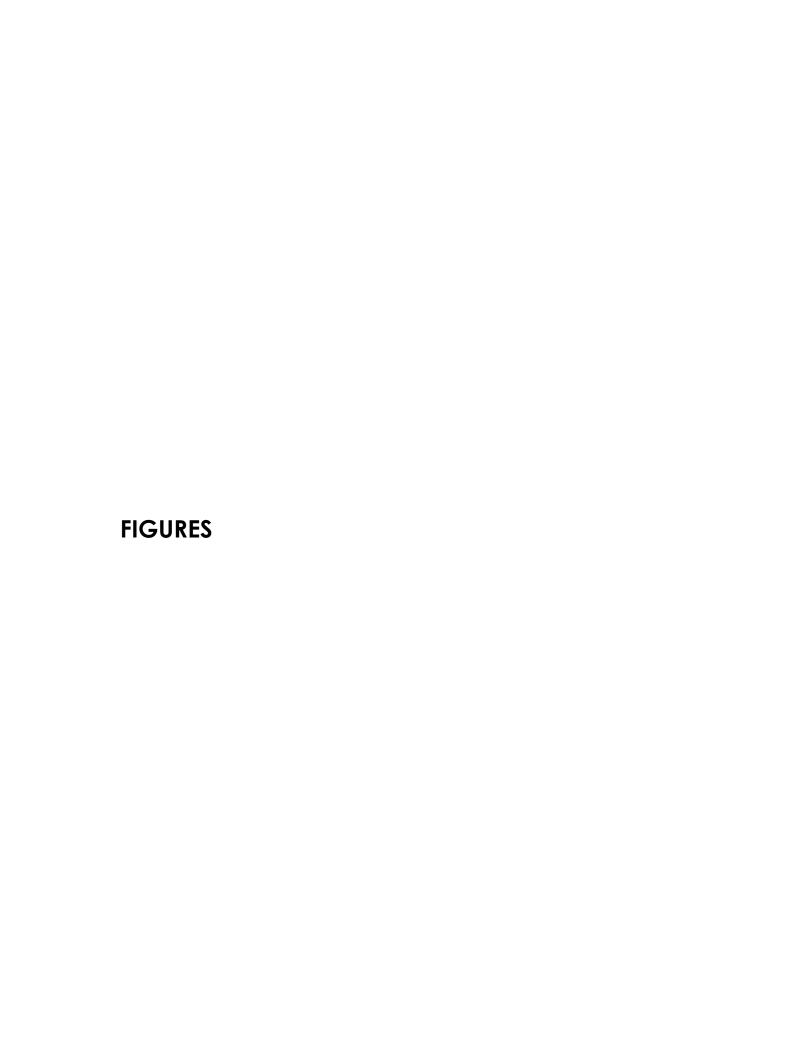
ft = feet

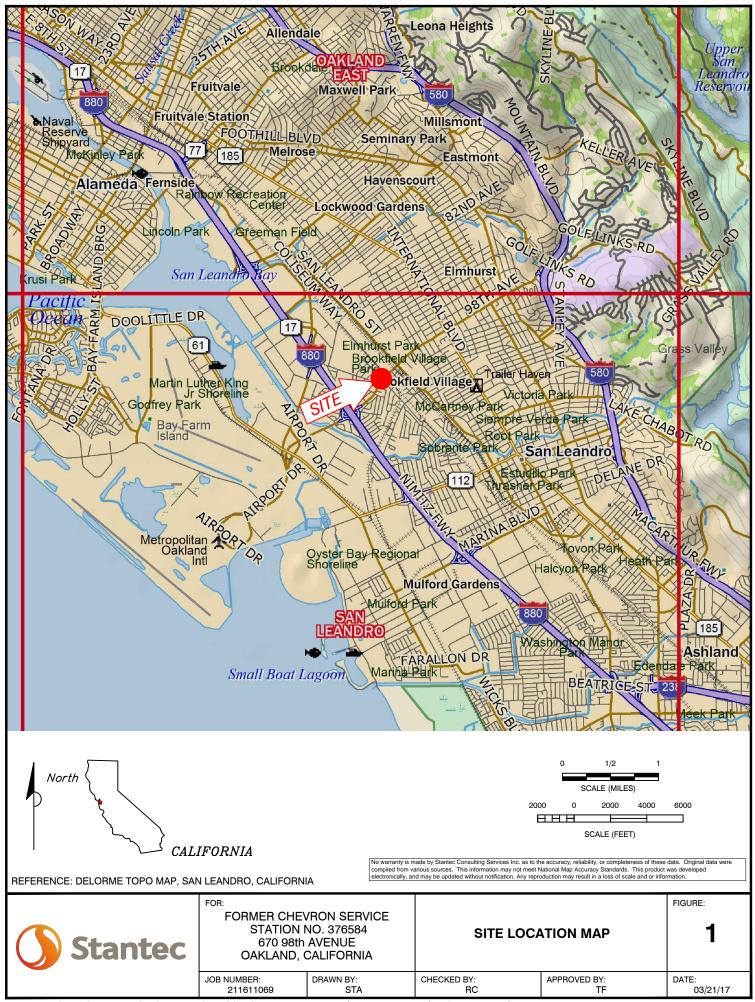
μg/L = Micrograms per liter

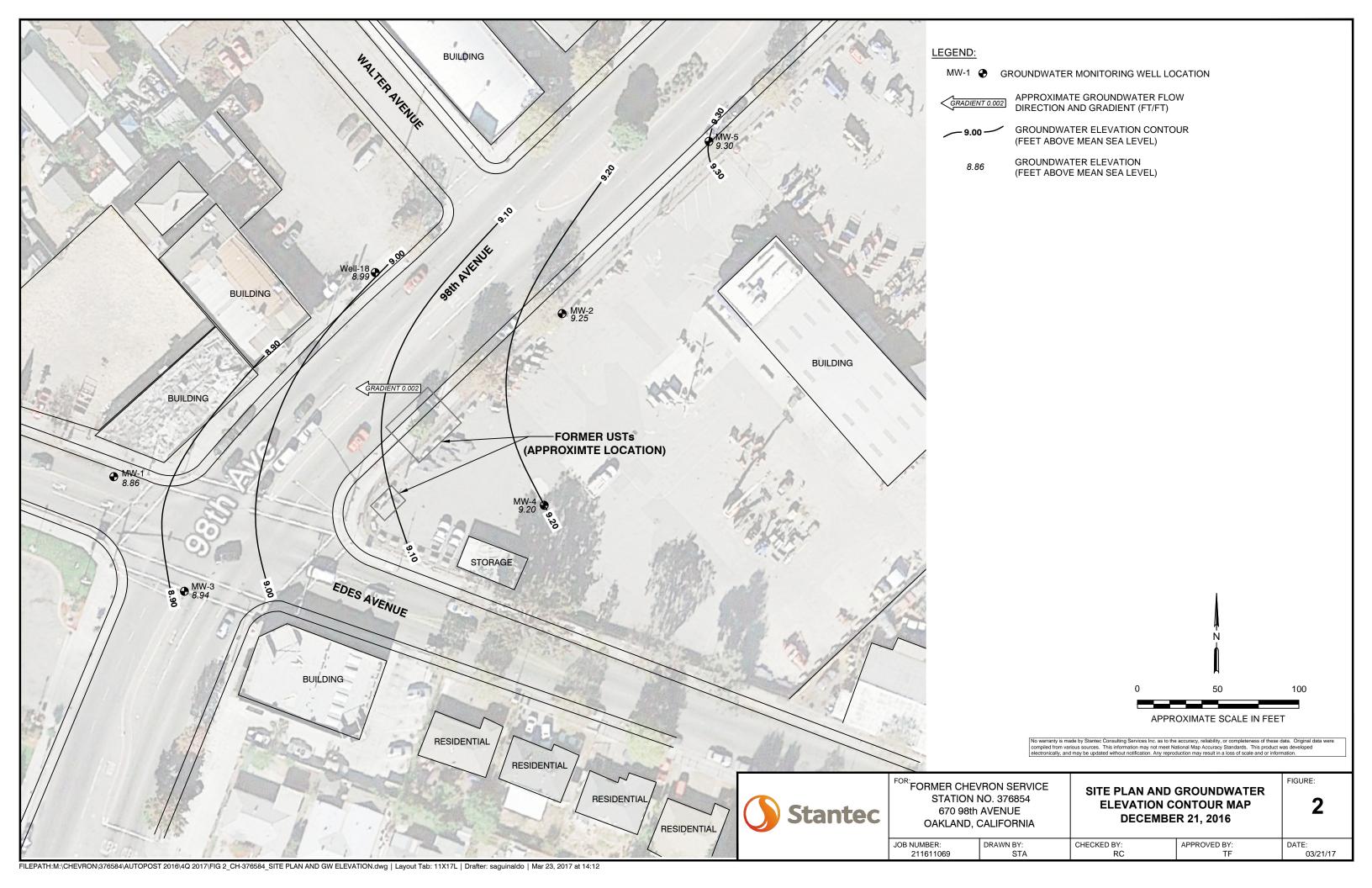
< = Analyte was not detected above the specified method reporting limit

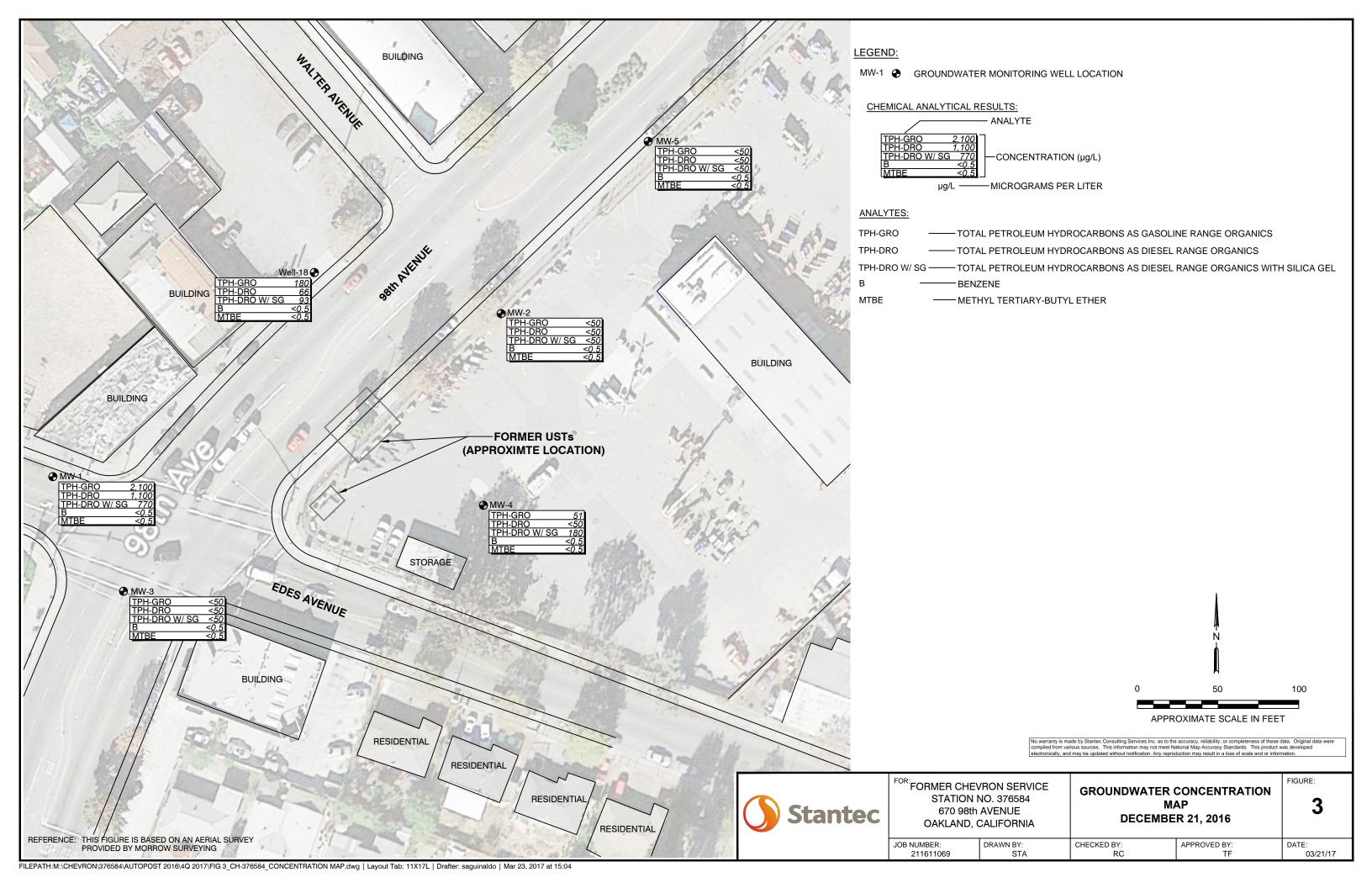
-- = Not measured or analyzed

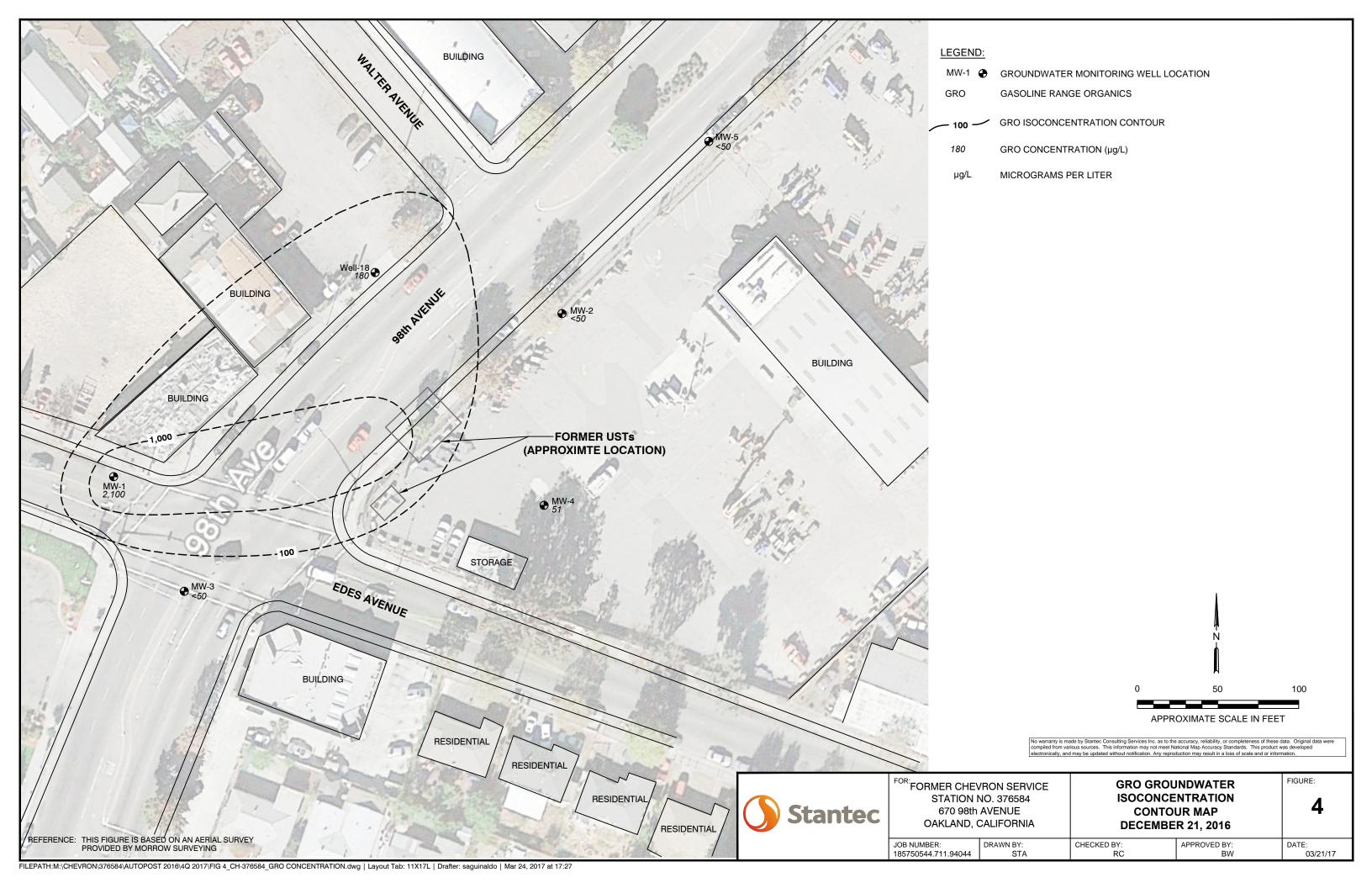
NSP = Well not sampled this event, in accordance with groundwater sampling schedule.

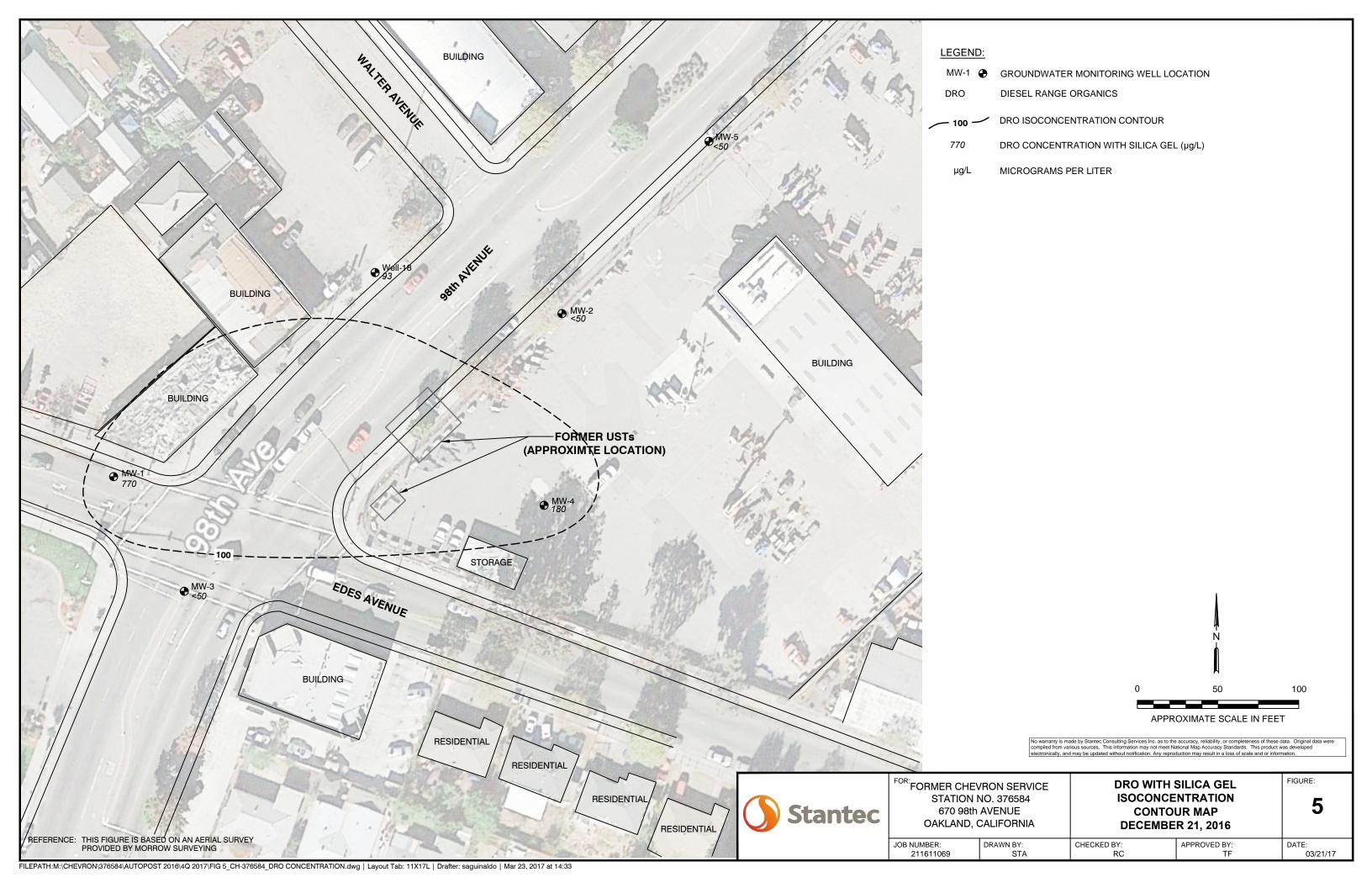












ATTACHMENT

Gettler-Ryan Inc.'s Groundwater Monitoring and Sampling Data Package Second Semi-Annual Event of December 21, 2016

TRANSMITTAL

December 30, 2016 G-R #385903

TO:

Mr. Travis Flora

Stantec

15575 Los Gatos Blvd, Bldg C Los Gatos, California 95032

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 RE:

Chevron Facility #376584

Former Union Oil Service Station

670 98th Avenue Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Second Semi-Annual Event of December 21, 2016

COMMENTS:

Pursuant to your request, we are providing you with a copy 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/376584

WELL CONDITION STATUS SHEET

Client/								· ·			
Facility #:	Chevror	#376584					Job #:	385903			
Site Address:	670 98T	h Avenue				-	Event Date:		12-21-16		
City:	Oakland	l, CA				-	Sampler:			gm	
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
mw-2	or	NA		->	OK			N	N	Christy	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
mr-5	OK						-	1		Bun hal	
m-5 m-4	Broke	M	M	ß	C	01-	OK	1		Christy Emco/121/2	
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											_
Comments											

WELL CONDITION STATUS SHEET

							NO IAI	00 01			
Client/ Facility #:	Chevror	#376584					Job#:	385903			
Site Address:	670 98T	h Avenue				-	Event Date:		21/16		
City:	Oakland					-	Sampler:			_ \ _	_
			<u> </u>			<u>-</u>	oampier.		BERT	MEDINA	
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-1	OK	AU		7	DK			NO	SA	CHRISTY/12/0	
MW. 3		NA-		<u>~</u>	OK						
MER-18	V	NA-		7	DK		>				
	N .										
Comments											

STANDARD OPERATING PROCEDURE GROUNDWATER SAMPLING

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

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

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

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

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

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



Client/Facility#: Site Address: City:	Chevron #376 670 98Th Ave Oakland, CA			Job Number: Event Date: Sampler:	385903 12/2/16 (included)	usive)
Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump QED Bladder Pump Other:	w/ 80% Recharge [d	(Height of W Sa Di Pr Mo Pe Qt	Volument Factor Notice Factor Notice Factor	or (VF) 4"= 0. n is less then 0.50 x3 case volume =	ft. Estimated Purge Volume:	
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	ate: 0925/12 ate:	22) 16 gpm. If yes, Tin pH 7.25 7.22	Weather Con Water Color: Sediment Dene: Conductivity DS/mS pmhos/cm) UTTT	BROWN	Odor N SUCHT SICT gal. DTW @ Sampling: 7. D.O. ORP (mg/L) (mV)	69
			ABORATORY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
MW-	(x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/	
	7 x 500ml ambers YE		NP NP	LANCASTER	FULL SCAN(8260)/NAPHTHALENE(8260) TPH-DRO w/sgc/TPH-DRO(8015)	
COMMENTS: Add/Replaced Ga		.dd/Replace		Add/Replaced Loc	k: Add/Replaced Plug:	



Client/Facility#: Site Address: City:	Chevron #3 670 98Th Av Oakland, CA	enue		Job Number: Event Date: Sampler:	385903 12-21-16 BW	(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 .1.7 (Height of V	Check if water column	+ DTW]: 11.45	0.02 1"= 0.04 2"= 0.17 0.66 5"= 1.02 6"= 1.50 0 ft. = Estimated Purge Volume:	
Start Time (purge Sample Time/Da Approx. Flow Rat Did well de-water (2400 hr.)	te: 0630 / te: 1.0				, ,,	ng: _10.16 RP nV)
			LABORATORY I	NEODMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE		ANA	LYSES
MW-2	SAMPLE ID (#) CONTAINER REF WW-2			LANCASTER	TPH-GRO(8015)/BTEX+MTE FULL SCAN(8260)/NAPHTH TPH-DRO w/sgc/TPH-DRO(8	ALENE(8260)
COMMENTS:						
Add/Replaced Gas	ket:	Add/Replaced	d Bolt:	Add/Replaced Loc	k Add/Reniac	ed Plug



Client/Facility#:	Chevron #37	6584		Job Number:	385903	
Site Address:	670 98Th Ave	enue		Event Date:	12/21/10 (inclu	usive)
City:	Oakland, CA			Sampler:	GM	,
Well ID	MW-3		[ate Monitored:	12/21/110	
Well Diameter	2 in.		Volu	me 3/4"= 0.	.02 1"= 0.04 2"= 0.17 3"= 0.38	7
Total Depth	22.80 ft.			or (VF) 4"= 0.		į
Depth to Water	7.60 ft.	c	heck if water colum	n is less then 0.50) ft.	1:
	15.20				Estimated Purge Volume: 8 gal.	
Depth to Water	w/ 80% Recharge	[(Height of W	/ater Column x 0.20) +	DTW]: 10.6	4 Time Stantadi	24001
Purge Equipment:		6	ampling Equipment.		1	2400 hrs) (2400 hrs)
Disposable Bailer	×		ampling Equipment:		Depth to Product:	
Stainless Steel Baile	er		isposable Bailer ressure Bailer		Depth to Water:	ft
Stack Pump	VI		etal Filters		Hydrocarbon Thickness:	ft
Peristaltic Pump	<u> </u>		eristaltic Pump		Visual Confirmation/Description:	
QED Bladder Pump			ED Bladder Pump	·	Skimmer / Absorbant Sock (circle one)	,——
Other:		Of	ther:		Amt Removed from Skimmer:	
					Amt Removed from Well:	
					Water Removed:	ltr
Start Time (purge	e): 0735	-	Weather Cor	ditions:	CLOUDY	
	ate: 0915/1	-		BROWN	Odor: Y (N)	
Approx. Flow Ra		gpm.	Sediment De		SILT	
Did well de-wate			ne: Vo	· —	gal. DTW @ Sampling:	
	-,	,,				м,
Time	Volume (gal.)	ρH	Conductivity (µS) mS	Temperature	D.O. ORP	
(2400 hr.)	•		µmhos/cm)	(C) F)	(mg/L) (mV)	
0740		7.30	624	17-9		
037V	<u> 5.5</u> .	7.26	612	17.7		
0755	<u> </u>	7.77		18.1		
	 -					
			ABORATORY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES	
Mw-3	(x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/	
	O v 500ml ambara	VEC	ND	LANGAGTED	FULL SCAN(8260)/NAPHTHALENE(8260)	
	2 x 500ml ambers	YES	NP NP	LANCASTER	TPH-DRO w/sgc/TPH-DRO(8015)	
			<u> </u>	 		
				L		
COMMENTS:						
Add/Replaced Ga	asket:	Add/Replace	d Bolt:	Add/Replaced Loc	ck: Add/Replaced Plug:	
-		•		•		



Client/Facility#:	Chevron #3	76584		Job Numb	er: <u>38</u>	5903		_
Site Address:	670 98Th Av	enue		Event Date	e :	12-21-11	, 0	(inclusive)
City:	Oakland, CA	1		— Sampler:		AW	<u> </u>	
Well ID	mw-4	_		Date Monitor	ed:	12-21-	16	
Well Diameter	2 ir	<u>1.</u>	ſ	Volume 3/4	4"= 0.02	1"= 0.04 2":	= 0.17 3"= 0	20
Total Depth	22-75 ft				4"= 0.66		1.50 12"= 5	
Depth to Water	9.20 ft		heck if water co	lumn is less then	0.50 ft.			
	13.55	xVF	7 = 2.3	x3 case volui	me = Estim	ated Purge Volu	ime: 7.0	gal.
Depth to Water	w/ 80% Recharge	E [(Height of V				Time Started:		
Purge Equipment:		s	ampling Equipme	ent [.]			ed:	(2400 hrs) (2400 hrs)
Disposable Bailer	V		isposable Bailer	./			uct:	
Stainless Steel Baile			ressure Bailer		_		er:	
Stack Pump			letal Filters		_		Thickness:	
Peristaltic Pump			eristaltic Pump		_	Visual Confirm	nation/Description	on:
QED Bladder Pump			ED Bladder Pump)		Claimannan / Aba		
Other:		0	ther:	9.	_		orbant Sock (ci from Skimmer:	
							from Well:	
							ed:	
Start Time (purge	e): 0740		Weather	Conditions:		Sumy		
Sample Time/Da		12-21-16		olor: Cloudy	Odo	r: Y / //		
Approx. Flow Ra		gpm.		Description:		Cloud		
Did well de-wate		_gpm. _ If yes, Tin		Volume:				0.00
Did Well de-Wate	A:	_ ir yes, i ii		volume	gai.	DTW@S	ampling:	0.98
Time	Volume (gal.)	рH	Conductivity (Temperature	•	D.O.	ORP	
(2400 hr.)		Pi''	µmhos/cm)	(② / F)) ((mg/L)	(mV)	
0747	2.5	7,52	30	3 16.3				
0754	5.0	7.48	340	16.5				-
0801	7.0	7.45	366	16.9				•
								•
				/ INFORMATIO				
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TY				ANALYSES	
1-100-7	6 x voa vial	YES	HCL	LANCASTE		GRO(8015)/BTE SCAN(8260)/N/		
	2 x 500ml ambers	YES	NP	LANCASTE		ORO w/sgc/TPH		8260)
						in the time go in the	-DICO(0010)	
COMMENTS:								



Client/Facility#:	Chevron #3765	584	Job Number:	385903	
Site Address:	670 98Th Aven	ue	Event Date:	12-21-16	(inclusive)
City:	Oakland, CA		Sampler:	AU	
Well ID Well Diameter	<u>M</u> w~5 2 in.		Date Monitored:	12-21-16	
Total Depth	2258 ft.	_	Volume 3/4"= 0 Factor (VF) 4"= 0		
Depth to Water	8.05 ft. 14.53 x\	Check if water o	olumn is less then 0.50 7 x3 case volume =		e: 7:5 gal.
Depth to Water		leight of Water Column x 0			(2400 hrs)
Purge Equipment:		Sampling Equipm	nent:	Time Completed	l:(2400 hrs) t:ft
Disposable Bailer		Disposable Bailer			ft
Stainless Steel Baile	<u></u>	Pressure Bailer		Hydrocarbon Th	
Stack Pump		Metal Filters		a ·	tion/Description:
Peristaltic Pump		Peristaltic Pump			
QED Bladder Pump		QED Bladder Pum	np	Skimmer / Absor	rbant Sock (circle one)
Other:		Other:		II	om Skimmer: Itr
					om Well: Itr
				Water Removed	:ltr
Start Time (purge	e): <u>0645</u>	Weather	r Conditions:	Clear	
Sample Time/Da	ate: 0720 / 12	-건-16 Water C	color: Couly	Odor: Y / 🚯	
Approx. Flow Ra			nt Description:	Cloud	4
Did well de-wate		_	Volume:	gal. DTW @ San	
Time (2400 hr.) <i>0</i> 651	Volume (gal.) 2.5 7	Conductivity pH (PS/mS pmhos/cm) 116 308	Temperature	D.O. (mg/L)	ORP (mV)
0657	50	1.42 339	16.6		···
0705	- 7.5 -	7.36 380	16.8		
					
		LABORATOR	RY INFORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG. PRESERV. T			ANALYSES
Mm 5	x voa vial	YES HCL	LANCASTER	TPH-GRO(8015)/BTEX	+MTBE(8260)/
	Zx 500ml ambers	YES NP	LANCASTER	TPH-DRO w/sgc/TPH-I	·
		.20	D IIIO/IO/IEIX	TITI DICO Wago II II-	5110(0010)
COMMENTS:				Sam	10/13/2
				· · · · · · · · · · · · · · · · · · ·	
Add/Replaced Ga	asket: Ad	d/Replaced Bolt:	_ Add/Replaced Loc	ck: Add/F	teplaced Plug:



Client/Facility#:	Chevron #37	6584		Job Number:	385903	
Site Address:	670 98Th Av	enue		Event Date:	12/21/110	(inclusive)
City:	Oakland, CA			Sampler:	GM	
				•		
Well ID	ME -18		[Date Monitored:	12/2/11/	
Well Diameter	2 in	<u>-</u>	Volu	ime 3/4"= 0.	.02 1"= 0.04 2"= 0.17 3"=	0.38
Total Depth	16.69 ft.			or (VF) 4"= 0.	· · · · · · · · · · · · · · · · · · ·	5.80
Depth to Water	6.98 ft.		heck if water colum	n is less then 0.50	ft.	
	9.71				Estimated Purge Volume:	gal.
Depth to Water	w/ 80% Recharge	[(Height of W	/ater Column x 0.20) +	• DTW]: <u>8.92</u>		(0.400.1)
Purge Equipment:		e.	amalias Esciament		Time Started: Time Completed:	
Disposable Bailer	~		ampling Equipment: isposable Bailer		Depth to Product:	
Stainless Steel Baile	er ——		ressure Bailer		Depth to Water:	ft
Stack Pump			etal Filters		Hydrocarbon Thickness:	ft
Peristaltic Pump			eristaltic Pump		Visual Confirmation/Descrip	tion:
QED Bladder Pump			ED Bladder Pump		Skimmer / Absorbant Sock	(circle one)
Other:		0	ther:		Amt Removed from Skimme	
					Amt Removed from Well:	
					Water Removed:	
Start Time (purge	e): 0(010		Weather Cor	nditions:	COLD	
	ate: 0650/1		Water Color:	BROWN	Odor: Y N	
Approx. Flow Ra	•	gpm.	Sediment De		SILT	
Did well de-wate			ne: Vo	· · · · · · · · · · · · · · · · · · ·	gal. DTW @ Sampling:	8.19
	/··	, 11 ,00, 1111		Julii	_ gai. D144 @ Sampling	0.11
Time	Volume (gal.)	рН	Conductivity (µS/ mS	Temperature	D.O. ORP	
(2400 hr.)	(34)		µmhos/cm)	(O/F)	(mg/L) (mV)	
0613	1.5	7.29	720	17.9		
0617	3_	7.22	+110	17.8		-
0622	5	7.17	+14	17.1		_
SAMPLE ID	(#) CONTAINER	REFRIG.	LABORATORY IN PRESERV. TYPE		ANALYOF	
WELL-18	x voa vial	YES	HCL	LANCASTER	ANALYSE TPH-GRO(8015)/BTEX+MTBE(820	
WO15	X Tou Viai		1102	EANOAGIER	FULL SCAN(8260)/NAPHTHALEN	50)/ E(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc/TPH-DRO(8015)	_(0200)
					·	
1	1					
					I .	
COMMENTS						
COMMENTS:						
COMMENTS:			3			
COMMENTS:			3			

Chevron California Region Analysis Request/Chain of Custody

eurofins Lancaster Labor Environmental	Lancaster Laboratories Acct. # Environmental Client Information								roup	#			aborat	Sar	mple #	#			nly						_	
							Ma	trix						An	alys	es	Requ	ıest	ed				SCR#:			
FSS#376584-OML G-R#385903	3 Global	ID#T06	0010144	12																		-		- *-		_
SIE/6 98th AVENUE, OAKLAND	, CA						[X]						딦	Ď									Results i		a particular and a second	
CEWI ^{N PM} STANTECTF		Leed Consu				Sediment	Ground	Surface		, s	8260 🔯	8260	Gel Cleanup	Gel Cleanup									Must me	et lowest	detection	
Getter-Ryan Inc., 6805 Sierra (Court, Si	uite G, D	ublin, C	A 945	568	Sec	์ (5	S		iner	82	82		sel Cl					(092				compour 8021 MT		irmation	
Consultant Project Mar Deanna L. Harding, deanna@c	grinc.co	n			\neg					Conta	Ĺ	22 [X]	out Silic	with Silica ((n	Method	Method	8)				☐ Confirm	highest h	it by 8260	
Consultant Phone # (925) 551-7444 x180							Potable	NPDES	Ąi	er of	8021	8015	5 witho	5 with	_	Oxygenates			LENE				Run	oxy's	s on highest	hit
Sampler Alay W., (Fillbe		Composite					Total Number of Containers	+ MTBE	<u>۾</u>	TPH-DRO 8015 without Silica	TPH-DRO 8015	8260 Full Scan	Öxò	ead	Dissolved Lead	NAPHTHA										
Sample Identification	Soil Collected				ĕ	Soil	1	water	ē	otal	BIEX	TPH-GRO	무.	PH-D	260) F		Total Lead	issolv	VAP					Remar	rks	
QA	CA 161221)			2	Ž	X		-	.80									toman	NO .	
mw-			mzs							g	X	X	X	X	X				X							
1NW-2			0630	Ш	_					Ĭ	Ĺ	1	4		1				1			\Box				
M11 - 3			0815	Ш	_				_	oxdapprox	$oxed{\bot}$	μ	Ш						\perp			4				
mw-4			0815	\square	\dashv					H	H	Н-	Ш		\perp							-				
mw-5			0720	++	\dashv					₩	H	Н-	H		+							\dashv				
18 Well 18		4	0650	4	\dashv				_		4	4	v	J/	J.				7			\dashv				
April grant and appril			<u> </u>		\dashv					\vdash	┢	-										\dashv				
Company No. 1																										
Turnaround Time Requested ((TAT) (plea	ase circle)	J.	Relinqu	ished	by					Date			Time			Receiv	red by			/		Date /	,	Time	
Standard 5 day		4 day		Relingu	ished	by					1-6 Daté	127	4	Time			Receiv	zed by	<u> </u>		te	ن	Date	1/16	Time	D
72 hour 48 hour 24 hour						.,					2							li i								
Data Package (circle if required) EDF/EDD Relinquis				ished	by					Date			Time			Receiv	ed by		•			Date		Time		
Type I - Full Type VI (Raw Data)					vuia b	od b		ww	oie! C	ا ماساره							Receiv	rod b					Data		Time	
EDD (circle if required) Relinq UF						ea b	-			zamei (Otl	her				KACAI,	r e u by					Date		Time	
EDD (circle if required) EDFFLAT (default) Other:										Red		_		19.	°C		Cu	stoc	dy Se	als	Intac	 ct?	Ye	 es	No	,

ATTACHMENT B
Certified Laboratory Analysis Reports and
Chain-of-Custody Documents



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 Rd L4310 San Ramon CA 94583

Report Date: March 13, 2017

Project: 376584

Submittal Date: 12/22/2016 Group Number: 1747732 PO Number: 0015235605 Release Number: CMACLEOD State of Sample Origin: CA

	Lancaster Labs
Client Sample Description	<u>(LL) #</u>
QA-T-161221 NA Water	8759448
MW-1-W-161221 Grab Groundwater	8759449
MW-2-W-161221 Grab Groundwater	8759450
MW-3-W-161221 Grab Groundwater	8759451
MW-4-W-161221 Grab Groundwater	8759452
MW-5-W-161221 Grab Groundwater	8759453
Well_18-W-161221 Grab Groundwater	8759454

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 current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To	Stantec	Attn: Erin O'Malley
Electronic Copy To	Stantec	Attn: Marisa Kaffenberger
Electronic Copy To	Stantec International	Attn: Travis Flora
Electronic Copy To	Stantec	Attn: Laura Viesselman
Electronic Copy To	Gettler-Ryan Inc.	Attn: Gettler Ryan

Analysis Report

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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-T-161221 NA Water

QA-T-161221 NA Water LL Sample # WW 8759448
Facility# 376584 Job# 385903 GRD LL Group # 1747732
670 98th Ave-Oakland T0600101442 Account # 10906

Project Name: 376584

Collected: 12/21/2016 Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980QA

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 SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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	D170031AA	01/03/2017 11:	38 Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D170031AA	01/03/2017 11:	38 Anita M Dale	1
01728	TPH-GRO N. CA water	SW-846 8015B	1	16363A53A	12/28/2016 12:	06 Brett W Kenyon	1
	C6-C12						
01146	GC VOA Water Prep	SW-846 5030B	1	16363A53A	12/28/2016 12:	06 Brett W Kenyon	1



Analysis Report

LL Sample # WW 8759449 LL Group # 1747732 Account # 10906

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

Sample Description: MW-1-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 09:25 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M1

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
•	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	Acetone		67-64-1	N.D.	6	1
10335	t-Amyl methyl ether		994-05-8	N.D.	0.5	1
10335	Benzene		71-43-2	N.D.	0.5	1
10335	Bromobenzene		108-86-1	N.D.	1	1
10335	Bromochloromethane		74-97-5	N.D.	1	1
10335	Bromodichloromethane	9	75-27-4	N.D.	0.5	1
10335	Bromoform		75-25-2	N.D.	0.5	1
10335	Bromomethane		74-83-9	N.D.	0.5	1
10335	2-Butanone		78-93-3	N.D.	3	1
10335	t-Butyl alcohol		75-65-0	N.D.	5	1
10335	n-Butylbenzene		104-51-8	18	1	1
10335	sec-Butylbenzene		135-98-8	13	1	1
10335	tert-Butylbenzene		98-06-6	N.D.	1	1
10335	Carbon Disulfide		75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	е	56-23-5	N.D.	0.5	1
10335	Chlorobenzene		108-90-7	N.D.	0.5	1
10335	Chloroethane		75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl	Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl	ether may	not be recovered	d if acid was	used to	
	preserve this sample	e.				
10335	Chloroform		67-66-3	N.D.	0.5	1
10335	Chloromethane		74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene		95-49-8	N.D.	1	1
10335	4-Chlorotoluene		106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chlore	opropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	e	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane		106-93-4	N.D.	0.5	1
10335	Dibromomethane		74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene		95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene		541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene		106-46-7	N.D.	1	1
10335	Dichlorodifluorometh	nane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane		75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene		75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethe	ene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroet	thene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane		78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane		142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane		594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene		563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropro	oene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichlorop	•	10061-02-6	N.D.	0.5	1
10335	Ethanol	-	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether		637-92-3	N.D.	0.5	1
10335	Ethylbenzene		100-41-4	N.D.	0.5	1
10335	Freon 113		76-13-1	N.D.	2	1
10335	Hexachlorobutadiene		87-68-3	N.D.	2	1
10335	2-Hexanone		591-78-6	N.D.	3	1



Analysis Report

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

Sample Description: MW-1-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759449

Project Name: 376584

Collected: 12/21/2016 09:25 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M1

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10335	Isopropylbenzene		98-82-8	10	1	1
10335	p-Isopropyltoluene		99-87-6	N.D.	1	1
	Methyl Tertiary But		1634-04-4	N.D.	0.5	1
	4-Methyl-2-pentanon	e	108-10-1	N.D.	3	1
	Methylene Chloride		75-09-2	N.D.	2	1
	Naphthalene		91-20-3	5	1	1
	n-Propylbenzene		103-65-1	34	1	1
10335	Styrene		100-42-5	N.D.	1	1
	1,1,1,2-Tetrachloro		630-20-6	N.D.	0.5	1
	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene		127-18-4	N.D.	0.5	1
	Toluene		108-88-3	N.D.	0.5	1
	1,2,3-Trichlorobenze		87-61-6	N.D.	1	1
	1,2,4-Trichlorobenze		120-82-1	N.D.	1	1
	1,1,1-Trichloroetha		71-55-6	N.D.	0.5	1
	1,1,2-Trichloroetha	ne	79-00-5	N.D.	0.5	1
	Trichloroethene		79-01-6	N.D.	0.5	1
	Trichlorofluorometh		75-69-4	N.D.	0.5	1
	1,2,3-Trichloropropa		96-18-4	N.D.	1	1
	1,2,4-Trimethylbenz		95-63-6	N.D.	1	1
	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	1
	Vinyl Chloride		75-01-4	N.D.	0.5	1
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1
10335	o-Xylene		95-47-6	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	2,100	50	1
	croleum carbons	SW-846	8015B	ug/l	ug/l	
06609	TPH-DRO CA C10-C28		n.a.	1,100	50	1
	croleum carbons w/Si	SW-846	8015B	ug/l	ug/l	
06610		,	n.a. c acid, is present	770 at <1%.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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



Analysis Report

LL Sample # WW 8759449 LL Group # 1747732 Account # 10906

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

Sample Description: MW-1-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 09:25 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M1

Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N170041AA	01/04/2017	13:01	Nicole S Lamoreaux	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N170041AA	01/04/2017	13:01	Nicole S Lamoreaux	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16363A53A	12/28/2016	13:02	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16363A53A	12/28/2016	13:02	Brett W Kenyon	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	163590018A	12/28/2016	21:05	Thomas C Wildermuth	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	163590019A	12/30/2016	13:34	Thomas C Wildermuth	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	163590018A	12/28/2016	09:30	David S Schrum	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	163590019A	12/28/2016	09:30	David S Schrum	1



Analysis Report

LL Sample # WW 8759450 LL Group # 1747732 Account # 10906

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

Sample Description: MW-2-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 06:30 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M2

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	260B	ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may	not be recovered	l if acid was used to		
	preserve this sample.				
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	0.6	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethanol	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1



Analysis Report

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

Sample Description: MW-2-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759450

Project Name: 376584

Collected: 12/21/2016 06:30 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M2

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor			
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l				
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1			
10335	Isopropylbenzene		98-82-8	N.D.	1	1			
10335	p-Isopropyltoluene		99-87-6	N.D.	1	1			
10335	Methyl Tertiary Buty	/l Ether	1634-04-4	N.D.	0.5	1			
10335	4-Methyl-2-pentanone	9	108-10-1	N.D.	3	1			
10335	Methylene Chloride		75-09-2	N.D.	2	1			
10335	Naphthalene		91-20-3	N.D.	1	1			
10335	n-Propylbenzene		103-65-1	N.D.	1	1			
10335	Styrene		100-42-5	N.D.	1	1			
10335	1,1,1,2-Tetrachloro	ethane	630-20-6	N.D.	0.5	1			
10335	1,1,2,2-Tetrachloroe	ethane	79-34-5	N.D.	0.5	1			
10335	Tetrachloroethene		127-18-4	3	0.5	1			
10335	Toluene		108-88-3	N.D.	0.5	1			
10335	1,2,3-Trichlorobenze	ene	87-61-6	N.D.	1	1			
10335	1,2,4-Trichlorobenze	ene	120-82-1	N.D.	1	1			
10335	1,1,1-Trichloroethan	ne	71-55-6	N.D.	0.5	1			
10335	1,1,2-Trichloroethan	ne	79-00-5	N.D.	0.5	1			
10335	Trichloroethene		79-01-6	2	0.5	1			
10335	Trichlorofluorometha	ane	75-69-4	N.D.	0.5	1			
	1,2,3-Trichloropropa		96-18-4	N.D.	1	1			
	1,2,4-Trimethylbenze		95-63-6	N.D.	1	1			
	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	1	1			
10335	Vinyl Chloride		75-01-4	N.D.	0.5	1			
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1			
10335	o-Xylene		95-47-6	N.D.	0.5	1			
GC Vol	latiles	SW-846	8015B	ug/l	ug/l				
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1			
	roleum carbons	SW-846	8015B	ug/l	ug/l				
06609	TPH-DRO CA C10-C28		n.a.	N.D.	50	1			
GC Pet	croleum	SW-846	8015B	ug/l	ug/l				
Hydrod	Hydrocarbons w/Si								
06610	TPH-DRO CA C10-C28 v	v/ Si Gel	n.a.	N.D.	50	1			
	The reverse surrogat	ce, caprio	c acid, is present	at <1%.					

Sample Comments

CA ELAP Lab Certification No. 2792

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



Analysis Report

LL Sample # WW 8759450 LL Group # 1747732 Account # 10906

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

Sample Description: MW-2-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 06:30 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M2

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
10335	8260 Full List w/ Sep. Xylenes	SW-846 82	60B 1	N170041AA	01/04/2017	13:24	Nicole S Lamoreaux	1			
01163	GC/MS VOA Water Prep	SW-846 50	30B 1	N170041AA	01/04/2017	13:24	Nicole S Lamoreaux	1			
01728	TPH-GRO N. CA water C6-C12	SW-846 80	15B 1	16363A53A	12/28/2016	13:30	Brett W Kenyon	1			
01146	GC VOA Water Prep	SW-846 50	30B 1	16363A53A	12/28/2016	13:30	Brett W Kenyon	1			
06609	TPH-DRO CA C10-C28	SW-846 80	15B 1	163590018A	12/28/2016	21:26	Thomas C Wildermuth	1			
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 80	15B 1	163590019A	12/29/2016	19:24	Thomas C Wildermuth	1			
02376	Extraction - Fuel/TPH (Waters)	SW-846 35	10C 1	163590018A	12/28/2016	09:30	David S Schrum	1			
11180	Low Vol Ext(W) w/SG	SW-846 35	10C 1	163590019A	12/28/2016	09:30	David S Schrum	1			



Analysis Report

LL Sample # WW 8759451 LL Group # 1747732 Account # 10906

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

Sample Description: MW-3-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M3

CAT No.	Analysis Name	CAS Number	Result	Method	Dilution Factor
1.0.			NODULO	Detection Limit	140001
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether ma			_	_
	preserve this sample.	, 1100 20 1000,0100	a ii acia mab abca co		
10335	Chloroform	67-66-3	0.5	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethanol	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10333	2 Hendrione	371 10 0	н.р.	3	±



Analysis Report

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

Sample Description: MW-3-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759451

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M3

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10335	Isopropylbenzene		98-82-8	N.D.	1	1
	p-Isopropyltoluene		99-87-6	N.D.	1	1
	Methyl Tertiary But		1634-04-4	N.D.	0.5	1
	4-Methyl-2-pentanon	9	108-10-1	N.D.	3	1
	Methylene Chloride		75-09-2	N.D.	2	1
	Naphthalene		91-20-3	N.D.	1	1
	n-Propylbenzene		103-65-1	N.D.	1	1
10335	Styrene		100-42-5	N.D.	1	1
	1,1,1,2-Tetrachloro		630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene		127-18-4	1	0.5	1
	Toluene		108-88-3	N.D.	0.5	1
	1,2,3-Trichlorobenz		87-61-6	N.D.	1	1
	1,2,4-Trichlorobenz		120-82-1	N.D.	1	1
	1,1,1-Trichloroetha		71-55-6	N.D.	0.5	1
	1,1,2-Trichloroetha	ne	79-00-5	N.D.	0.5	1
	Trichloroethene		79-01-6	0.8	0.5	1
10335	Trichlorofluorometh	ane	75-69-4	N.D.	0.5	1
	1,2,3-Trichloroprop		96-18-4	N.D.	1	1
	1,2,4-Trimethylbenz		95-63-6	N.D.	1	1
	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	1
10335	Vinyl Chloride		75-01-4	N.D.	0.5	1
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1
10335	o-Xylene		95-47-6	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
	roleum carbons	SW-846	8015B	ug/l	ug/l	
06609	TPH-DRO CA C10-C28		n.a.	N.D.	50	1
	croleum carbons w/Si	SW-846	8015B	ug/l	ug/l	
06610	TPH-DRO CA C10-C28 The reverse surroga	,	n.a. c acid, is present	N.D. at <1%.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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



Analysis Report

LL Sample # WW 8759451 LL Group # 1747732 Account # 10906

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

Sample Description: MW-3-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M3

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N170041AA	01/04/2017	13:48	Nicole S Lamoreaux	: 1		
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N170041AA	01/04/2017	13:48	Nicole S Lamoreaux	: 1		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16363A53A	12/28/2016	13:57	Brett W Kenyon	1		
01146	GC VOA Water Prep	SW-846 5030B	1	16363A53A	12/28/2016	13:57	Brett W Kenyon	1		
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	163590018A	12/28/2016	21:48	Thomas C Wildermuth	1		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	163590019A	12/29/2016	19:46	Thomas C Wildermuth	1		
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	163590018A	12/28/2016	09:30	David S Schrum	1		
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	163590019A	12/28/2016	09:30	David S Schrum	1		



Analysis Report

LL Sample # WW 8759452 LL Group # 1747732 Account # 10906

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

Sample Description: MW-4-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

98OM4

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	Acetone		67-64-1	N.D.	6	1
10335	t-Amyl methyl ether		994-05-8	N.D.	0.5	1
10335	Benzene		71-43-2	N.D.	0.5	1
10335	Bromobenzene		108-86-1	N.D.	1	1
10335	Bromochloromethane		74-97-5	N.D.	1	1
10335	Bromodichloromethane	2	75-27-4	N.D.	0.5	1
10335	Bromoform		75-25-2	N.D.	0.5	1
10335	Bromomethane		74-83-9	N.D.	0.5	1
10335	2-Butanone		78-93-3	N.D.	3	1
10335	t-Butyl alcohol		75-65-0	N.D.	5	1
10335	n-Butylbenzene		104-51-8	N.D.	1	1
10335	sec-Butylbenzene		135-98-8	N.D.	1	1
10335	tert-Butylbenzene		98-06-6	N.D.	1	1
10335	Carbon Disulfide		75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	2	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	-	108-90-7	N.D.	0.5	1
10335	Chloroethane		75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl	Ether	110-75-8	N.D.	2	1
10000	2-Chloroethyl vinyl				=	-
	preserve this sample		y not be recovered	i ii acia was	useu co	
10335	Chloroform	-•	67-66-3	N.D.	0.5	1
10335	Chloromethane		74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene		95-49-8	N.D.	1	1
10335	4-Chlorotoluene		106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloro	nronane	96-12-8	N.D.	2	1
10335	Dibromochloromethane		124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	-	106-93-4	N.D.	0.5	1
10335	Dibromomethane		74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene		95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene		541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene		106-46-7	N.D.	1	1
10335	Dichlorodifluorometh	nane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	lane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene		75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethe	ane	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroet		156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	LIICIIC	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane		142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane		594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene		563-58-6	N.D.	1	1
10335	cis-1,3-Dichloroprop	nene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropi		10061-02-6	N.D.	0.5	1
10335	Ethanol	Lopeire	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether		637-92-3	N.D.	0.5	1
10335	Ethylbenzene		100-41-4	N.D.	0.5	1
10335	Freon 113		76-13-1	N.D.	2	1
10335	Hexachlorobutadiene		87-68-3	N.D.	2 2	1
10335	2-Hexanone		591-78-6	N.D.	3	1
10333	2 IICAGIIOIIC		331 70 0	11.1.	5	±



Analysis Report

LL Sample # WW 8759452

LL Group # 1747732

Account # 10906

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

Sample Description: MW-4-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M4

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10335	Isopropylbenzene		98-82-8	N.D.	1	1
10335	p-Isopropyltoluene		99-87-6	N.D.	1	1
	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanon	e	108-10-1	N.D.	3	1
10335	Methylene Chloride		75-09-2	N.D.	2	1
10335	Naphthalene		91-20-3	N.D.	1	1
10335	n-Propylbenzene		103-65-1	N.D.	1	1
10335	Styrene		100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloro	ethane	630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene		127-18-4	140	0.5	1
10335	Toluene		108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenz	ene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenz	ene	120-82-1	N.D.	1	1
	1,1,1-Trichloroetha		71-55-6	N.D.	0.5	1
	1,1,2-Trichloroetha	ne	79-00-5	N.D.	0.5	1
10335	Trichloroethene		79-01-6	1	0.5	1
10335	Trichlorofluorometh	ane	75-69-4	N.D.	0.5	1
	1,2,3-Trichloroprop		96-18-4	N.D.	1	1
	1,2,4-Trimethylbenz		95-63-6	N.D.	1	1
	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	1
	Vinyl Chloride		75-01-4	N.D.	0.5	1
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1
10335	o-Xylene		95-47-6	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	51	50	1
	roleum carbons	SW-846	8015B	ug/l	ug/l	
06609	TPH-DRO CA C10-C28		n.a.	N.D.	50	1
	croleum carbons w/Si	SW-846	8015B	ug/l	ug/1	
-	TPH-DRO CA C10-C28 The reverse surroga		n.a. c acid, is present	180 at <1%.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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



Analysis Report

LL Sample # WW 8759452 LL Group # 1747732 Account # 10906

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

Sample Description: MW-4-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 08:15 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

98OM4

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N170041AA	01/04/2017	14:12	Nicole S Lamoreaux	: 1		
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N170041AA	01/04/2017	14:12	Nicole S Lamoreaux	: 1		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16363A53A	12/28/2016	14:25	Brett W Kenyon	1		
01146	GC VOA Water Prep	SW-846 5030B	1	16363A53A	12/28/2016	14:25	Brett W Kenyon	1		
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	163590018A	12/28/2016	22:09	Thomas C Wildermuth	1		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	163590019A	12/29/2016	20:07	Thomas C Wildermuth	1		
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	163590018A	12/28/2016	09:30	David S Schrum	1		
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	163590019A	12/28/2016	09:30	David S Schrum	1		



Analysis Report

LL Sample # WW 8759453

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Sample Description: MW-5-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD LL Group # 1747732 670 98th Ave-Oakland T0600101442 Account # 10906

Project Name: 376584

Collected: 12/21/2016 07:20 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M5

CAT No.	Analysis Name		CAS Number	Result		Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l		ug/l	
10335	Acetone		67-64-1	N.D.		6	1
10335	t-Amyl methyl ether		994-05-8	N.D.		0.5	1
10335	Benzene		71-43-2	N.D.		0.5	1
10335	Bromobenzene		108-86-1	N.D.		1	1
10335	Bromochloromethane		74-97-5	N.D.		1	1
10335	Bromodichloromethane	!	75-27-4	N.D.		0.5	1
10335	Bromoform		75-25-2	N.D.		0.5	1
10335	Bromomethane		74-83-9	N.D.		0.5	1
10335	2-Butanone		78-93-3	N.D.		3	1
10335	t-Butyl alcohol		75-65-0	N.D.		5	1
10335	n-Butylbenzene		104-51-8	N.D.		1	1
10335	sec-Butylbenzene		135-98-8	N.D.		1	1
10335	tert-Butylbenzene		98-06-6	N.D.		1	1
10335	Carbon Disulfide		75-15-0	N.D.		1	1
10335	Carbon Tetrachloride	:	56-23-5	N.D.		0.5	1
10335	Chlorobenzene		108-90-7	N.D.		0.5	1
10335	Chloroethane		75-00-3	N.D.		0.5	1
10335	2-Chloroethyl Vinyl	Ether	110-75-8	N.D.		2	1
	2-Chloroethyl vinyl	ether may	not be recovered	l if acid was	used to		
	preserve this sample						
10335	Chloroform		67-66-3	N.D.		0.5	1
10335	Chloromethane		74-87-3	N.D.		0.5	1
10335	2-Chlorotoluene		95-49-8	N.D.		1	1
10335	4-Chlorotoluene		106-43-4	N.D.		1	1
10335	1,2-Dibromo-3-chloro		96-12-8	N.D.		2	1
10335	Dibromochloromethane	:	124-48-1	N.D.		0.5	1
10335	1,2-Dibromoethane		106-93-4	N.D.		0.5	1
10335	Dibromomethane		74-95-3	N.D.		0.5	1
10335	1,2-Dichlorobenzene		95-50-1	N.D.		1	1
10335	1,3-Dichlorobenzene		541-73-1	N.D.		1	1
10335	1,4-Dichlorobenzene		106-46-7	N.D.		1	1
10335	Dichlorodifluorometh	ane	75-71-8	N.D.		0.5	1
10335	1,1-Dichloroethane		75-34-3	N.D.		0.5	1
10335	1,2-Dichloroethane		107-06-2	N.D.		0.5	1
10335	1,1-Dichloroethene		75-35-4	N.D.		0.5	1
10335	cis-1,2-Dichloroethe		156-59-2	N.D.		0.5	1
10335	trans-1,2-Dichloroet	nene	156-60-5	N.D.		0.5	1
10335	1,2-Dichloropropane		78-87-5	N.D.		0.5	1
10335	1,3-Dichloropropane		142-28-9	N.D.		0.5	1 1
10335	2,2-Dichloropropane		594-20-7	N.D.		0.5	
10335	1,1-Dichloropropene		563-58-6	N.D.		1 0.5	1 1
10335 10335	cis-1,3-Dichloroprop		10061-01-5 10061-02-6	N.D. N.D.		0.5	1
10335	trans-1,3-Dichloropr Ethanol	oberre	64-17-5	N.D.		50	1
10335	Ethyl t-butyl ether		64-17-5	N.D. N.D.		0.5	1
10335	Ethylbenzene		100-41-4	N.D.		0.5	1
10335	Freon 113		76-13-1	N.D.		2	1
10335	Hexachlorobutadiene		87-68-3	N.D.		2	1
10335	2-Hexanone		591-78-6	N.D.		3	1
10333	2 mexamone		391-10-0	14.D.		5	Δ.



Analysis Report

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

Sample Description: MW-5-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759453

Project Name: 376584

Collected: 12/21/2016 07:20 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M5

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10335	Isopropylbenzene		98-82-8	N.D.	1	1
	p-Isopropyltoluene		99-87-6	N.D.	1	1
	Methyl Tertiary But		1634-04-4	N.D.	0.5	1
	4-Methyl-2-pentanon	9	108-10-1	N.D.	3	1
	Methylene Chloride		75-09-2	N.D.	2	1
	Naphthalene		91-20-3	N.D.	1	1
	n-Propylbenzene		103-65-1	N.D.	1	1
10335	Styrene		100-42-5	N.D.	1	1
	1,1,1,2-Tetrachloro		630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene		127-18-4	N.D.	0.5	1
	Toluene		108-88-3	N.D.	0.5	1
	1,2,3-Trichlorobenze		87-61-6	N.D.	1	1
	1,2,4-Trichlorobenze		120-82-1	N.D.	1	1
	1,1,1-Trichloroetha		71-55-6	N.D.	0.5	1
	1,1,2-Trichloroetha	ne	79-00-5	N.D.	0.5	1
	Trichloroethene		79-01-6	N.D.	0.5	1
10335	Trichlorofluorometh	ane	75-69-4	N.D.	0.5	1
	1,2,3-Trichloropropa		96-18-4	N.D.	1	1
	1,2,4-Trimethylbenze		95-63-6	N.D.	1	1
	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	1	1
	Vinyl Chloride		75-01-4	N.D.	0.5	1
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1
10335	o-Xylene		95-47-6	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
	croleum carbons	SW-846	8015B	ug/l	ug/l	
06609	TPH-DRO CA C10-C28		n.a.	N.D.	50	1
	croleum carbons w/Si	SW-846	8015B	ug/l	ug/l	
06610	TPH-DRO CA C10-C28 The reverse surroga	,	n.a. c acid, is present	N.D. at <1%.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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



Project Name: 376584

Lancaster Laboratories Environmental

Analysis Report

LL Sample # WW 8759453 LL Group # 1747732 Account # 10906

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

Sample Description: MW-5-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Collected: 12/21/2016 07:20 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

980M5

	Laboratory Sample Analysis Record									
CAT	Analysis Name	Method	-	Batch#	Analysis		Analyst	Dilution		
No.					Date and Ti	me		Factor		
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N170041AA	01/04/2017	14:36	Nicole S Lamoreaux	: 1		
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N170041AA	01/04/2017	14:36	Nicole S Lamoreaux	: 1		
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16363A53A	12/28/2016	14:53	Brett W Kenyon	1		
01146	GC VOA Water Prep	SW-846 5030B	1	16363A53A	12/28/2016	14:53	Brett W Kenyon	1		
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	163630025A	12/30/2016	12:16	Thomas C Wildermuth	1		
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	163630026A	01/09/2017	19:56	Amy Lehr	1		
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	163630025A	12/28/2016	23:45	Sherry L Morrow	1		
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	163630026A	12/28/2016	23:45	Sherry L Morrow	1		



Analysis Report

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

Sample Description: Well 18-W-161221 Grab Groundwater

LL Sample # WW 8759454 LL Group # 1747732 Account # 10906 Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

Project Name: 376584

Collected: 12/21/2016 06:50 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

98018

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
•	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	Acetone		67-64-1	N.D.	6	1
10335	t-Amyl methyl ether		994-05-8	N.D.	0.5	1
10335	Benzene		71-43-2	N.D.	0.5	1
10335	Bromobenzene		108-86-1	N.D.	1	1
10335	Bromochloromethane		74-97-5	N.D.	1	1
10335	Bromodichloromethan	9	75-27-4	N.D.	0.5	1
10335	Bromoform		75-25-2	N.D.	0.5	1
10335	Bromomethane		74-83-9	N.D.	0.5	1
10335	2-Butanone		78-93-3	N.D.	3	1
10335	t-Butyl alcohol		75-65-0	N.D.	5	1
10335	n-Butylbenzene		104-51-8	N.D.	1	1
10335	sec-Butylbenzene		135-98-8	N.D.	1	1
10335	tert-Butylbenzene		98-06-6	N.D.	1	1
10335	Carbon Disulfide		75-15-0	N.D.	1	1
10335	Carbon Tetrachlorid	е	56-23-5	N.D.	0.5	1
10335	Chlorobenzene		108-90-7	N.D.	0.5	1
10335	Chloroethane		75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl	Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl	ether may	y not be recovered	l if acid was	used to	
	preserve this sample	e.				
10335	Chloroform		67-66-3	N.D.	0.5	1
10335	Chloromethane		74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene		95-49-8	N.D.	1	1
10335	4-Chlorotoluene		106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chlore	opropane	96-12-8	N.D.	2	1
10335	Dibromochloromethan	e	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane		106-93-4	N.D.	0.5	1
10335	Dibromomethane		74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene		95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene		541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene		106-46-7	N.D.	1	1
10335	Dichlorodifluoromet	nane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane		75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene		75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroeth	ene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroe	thene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane		78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane		142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane		594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene		563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropro	oene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichlorop	•	10061-02-6	N.D.	0.5	1
10335	Ethanol	-	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether		637-92-3	N.D.	0.5	1
10335	Ethylbenzene		100-41-4	N.D.	0.5	1
10335	Freon 113		76-13-1	N.D.	2	1
10335	Hexachlorobutadiene		87-68-3	N.D.	2	1
10335	2-Hexanone		591-78-6	N.D.	3	1



Analysis Report

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

Sample Description: Well 18-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759454

Project Name: 376584

Collected: 12/21/2016 06:50 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

98018

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10335	di-Isopropyl ether		108-20-3	N.D.	0.5	1
10335	Isopropylbenzene		98-82-8	N.D.	1	1
10335	p-Isopropyltoluene		99-87-6	N.D.	1	1
10335	Methyl Tertiary But		1634-04-4	N.D.	0.5	1
10335	2 1	e	108-10-1	N.D.	3	1
10335	Methylene Chloride		75-09-2	N.D.	2	1
10335	Naphthalene		91-20-3	2	1	1
10335	n-Propylbenzene		103-65-1	N.D.	1	1
10335	Styrene		100-42-5	N.D.	1	1
	1,1,1,2-Tetrachloro		630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloro	ethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene		127-18-4	1	0.5	1
	Toluene		108-88-3	N.D.	0.5	1
	1,2,3-Trichlorobenz		87-61-6	N.D.	1	1
	1,2,4-Trichlorobenz		120-82-1	N.D.	1	1
	1,1,1-Trichloroetha		71-55-6	N.D.	0.5	1
	1,1,2-Trichloroetha	ne	79-00-5	N.D.	0.5	1
10335	Trichloroethene		79-01-6	1	0.5	1
	Trichlorofluorometh		75-69-4	N.D.	0.5	1
	1,2,3-Trichloroprop		96-18-4	N.D.	1	1
	1,2,4-Trimethylbenz		95-63-6	N.D.	1	1
	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	1
	Vinyl Chloride		75-01-4	N.D.	0.5	1
10335	m+p-Xylene		179601-23-1	N.D.	0.5	1
10335	o-Xylene		95-47-6	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	180	50	1
	croleum	SW-846	8015B	ug/l	ug/l	
-	carbons					
06609	TPH-DRO CA C10-C28		n.a.	66	50	1
	croleum	SW-846	8015B	ug/l	ug/l	
Hydrod	carbons w/Si					
06610	TPH-DRO CA C10-C28 The reverse surroga	,	n.a.	93	50	1
	ine reverse surroga	ce, caprio	s aciu, is present	at <16.		

Sample Comments

CA ELAP Lab Certification No. 2792

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



Analysis Report

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

Sample Description: Well 18-W-161221 Grab Groundwater

Facility# 376584 Job# 385903 GRD 670 98th Ave-Oakland T0600101442

LL Group # 1747732 Account # 10906

LL Sample # WW 8759454

Project Name: 376584

Collected: 12/21/2016 06:50 by AW Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 12/22/2016 12:00 Reported: 03/13/2017 14:40

98018

		Labo	ratory Sa	ample Analys	sis Record			
CAT	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N170041AA	01/04/2017	14:59	Nicole S Lamoreaux	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N170041AA	01/04/2017	14:59	Nicole S Lamoreaux	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16364B20A	12/29/2016	15:10	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16364B20A	12/29/2016	15:10	Brett W Kenyon	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	163590018A	12/28/2016	22:31	Thomas C Wildermuth	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	163590019A	12/29/2016	20:29	Thomas C Wildermuth	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	163590018A	12/28/2016	09:30	David S Schrum	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	163590019A	12/28/2016	09:30	David S Schrum	1

Analysis Report

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Quality Control Summary

Client Name: Chevron Group Number: 1747732

Reported: 03/13/2017 14:40

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: D170031AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample N.D. N.D. N.D. N.D.	number(s): 0.5 0.5 0.5 0.5 0.5	8759448
Xylene (Total) Batch number: N170041AA Acetone t-Amyl methyl ether Benzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone t-Butyl alcohol n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene 1,2-Dibromo-3-chloropropane Dibromomethane Dibromomethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene			8759449-8759454
1,4-Dichlorobenzene	N.D.	1	
Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene	N.D. N.D. N.D.	0.5 0.5 0.5	
cis-1,2-Dichloroethene	N.D.	0.5	

^{*-} 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

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Quality Control Summary

Client Name: Chevron Group Number: 1747732

Reported: 03/13/2017 14:40

Method Blank (continued)

Analysis Name	Result	MDL	
-	ug/l	ug/	1
trans-1,2-Dichloroethene	N.D.	0.5	
1,2-Dichloropropane	N.D.	0.5	
1,3-Dichloropropane	N.D.	0.5	
2,2-Dichloropropane	N.D.	0.5	
1,1-Dichloropropene	N.D.	1	
cis-1,3-Dichloropropene	N.D.	0.5	
trans-1,3-Dichloropropene	N.D.	0.5	
Ethanol	N.D.	50	
Ethyl t-butyl ether	N.D.	0.5	
Ethylbenzene	N.D.	0.5	
Freon 113	N.D.	2	
Hexachlorobutadiene	N.D.	2	
2-Hexanone	N.D.	3	
di-Isopropyl ether	N.D.	0.5	
Isopropylbenzene	N.D.	1	
p-Isopropyltoluene	N.D.	1	
Methyl Tertiary Butyl Ether	N.D.	0.5	
4-Methyl-2-pentanone	N.D.	3	
Methylene Chloride	N.D.	2	
Naphthalene	N.D.	1	
n-Propylbenzene	N.D.	1	
Styrene	N.D.	1	
1,1,1,2-Tetrachloroethane	N.D.	0.5	
1,1,2,2-Tetrachloroethane	N.D.	0.5	
Tetrachloroethene	N.D.	0.5	
Toluene	N.D.	0.5	
1,2,3-Trichlorobenzene	N.D.	1	
1,2,4-Trichlorobenzene	N.D.	1	
1,1,1-Trichloroethane	N.D.	0.5	
1,1,2-Trichloroethane	N.D.	0.5	
Trichloroethene	N.D.	0.5	
Trichlorofluoromethane	N.D.	0.5	
1,2,3-Trichloropropane	N.D.	1	
1,2,4-Trimethylbenzene	N.D.	1	
1,3,5-Trimethylbenzene	N.D.	1	
Vinyl Chloride	N.D.	0.5	
m+p-Xylene	N.D.	0.5	
o-Xylene	N.D.	0.5	
Database 162627527	Q]	()	0750440 0750453
Batch number: 16363A53A			8759448-8759453
TPH-GRO N. CA water C6-C12	N.D.	50	
Batch number: 16364B20A	Sample numb	er(s):	8759454
TPH-GRO N. CA water C6-C12	N.D.	50	
		, ,	
Batch number: 163590018A	_		8759449-8759452,8759454
TPH-DRO CA C10-C28	N.D.	32	
Batch number: 163630025A	Sample numb	er(s):	8759453
TPH-DRO CA C10-C28	N.D.	32	

*- 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

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Quality Control Summary

Client Name: Chevron Group Number: 1747732

Reported: 03/13/2017 14:40

Method Blank (continued)

Analysis Name Result MDL ug/l ug/l

Batch number: 163590019A Sample number(s): 8759449-8759452,8759454

TPH-DRO CA C10-C28 w/ Si Gel N.D. 32

Batch number: 163630026A Sample number(s): 8759453

TPH-DRO CA C10-C28 w/ Si Gel 41 32

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: D170031AA	Sample numbe	r(s): 87594	148						
Benzene	20	20.88			104		78-120		
Ethylbenzene	20	20.25			101		78-120		
Methyl Tertiary Butyl Ether	20	21.11			106		75-120		
Toluene	20	20.93			105		80-120		
Xylene (Total)	60	61.43			102		80-120		
Batch number: N170041AA	Sample numbe	r(s): 87594	149-8759454						
Acetone	150	129.61	150	128.41	86	86	50-168	1	30
t-Amyl methyl ether	20	18.11	20	18.23	91	91	67-120	1	30
Benzene	20	19.76	20	19.63	99	98	78-120	1	30
Bromobenzene	20	19.53	20	19.35	98	97	80-120	1	30
Bromochloromethane	20	20.55	20	20.6	103	103	80-125	0	30
Bromodichloromethane	20	17.45	20	17.29	87	86	80-120	1	30
Bromoform	20	15.08	20	15.1	75	75	59-120	0	30
Bromomethane	20	16.01	20	15.39	80	77	55-123	4	30
2-Butanone	150	123.07	150	122.03	82	81	57-145	1	30
t-Butyl alcohol	200	183.43	200	182.71	92	91	70-128	0	30
n-Butylbenzene	20	19.39	20	18.98	97	95	68-120	2	30
sec-Butylbenzene	20	20.77	20	20.56	104	103	77-120	1	30
tert-Butylbenzene	20	19.96	20	19.63	100	98	74-121	2	30
Carbon Disulfide	20	18.05	20	18	90	90	58-120	0	30
Carbon Tetrachloride	20	18.46	20	18.22	92	91	74-130	1	30
Chlorobenzene	20	20.22	20	20.11	101	101	80-120	1	30
Chloroethane	20	14.77	20	14.97	74	75	56-120	1	30
2-Chloroethyl Vinyl Ether	20	16.57	20	16.35	83	82	65-120	1	30
Chloroform	20	18.37	20	18.11	92	91	80-120	1	30
Chloromethane	20	15.28	20	15.16	76	76	59-127	1	30
2-Chlorotoluene	20	20.27	20	20	101	100	80-120	1	30
4-Chlorotoluene	20	20	20	19.6	100	98	80-120	2	30
1,2-Dibromo-3-chloropropane	20	15.1	20	14.8	75	74	59-120	2	30
Dibromochloromethane	20	16.56	20	16.54	83	83	78-120	0	30
1,2-Dibromoethane	20	19.34	20	19.56	97	98	80-120	1	30
Dibromomethane	20	18.85	20	18.94	94	95	80-120	0	30
1,2-Dichlorobenzene	20	19.79	20	19.5	99	98	80-120	1	30

^{*-} 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

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Quality Control Summary

Client Name: Chevron Group Number: 1747732

Reported: 03/13/2017 14:40

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
1,3-Dichlorobenzene	20	19.4	20	19.29	97	96	80-120	1	30
1,4-Dichlorobenzene	20	19.65	20	19.47	98	97	80-120	1	30
Dichlorodifluoromethane	20	15.47	20	15.54	77	78	49-134	0	30
1,1-Dichloroethane	20	17.71	20	17.62	89	88	80-120	0	30
1,2-Dichloroethane	20	15.57	20	15.71	78	79	66-128	1	30
1,1-Dichloroethene	20	20.62	20	20.27	103	101	76-124	2	30
cis-1,2-Dichloroethene	20	20.47	20	20.46	102	102	80-120	0	30
trans-1,2-Dichloroethene	20	20.72	20	20.85	104	104	80-120	1	30
1,2-Dichloropropane	20	18.39	20	18.26	92	91	80-120	1	30
1,3-Dichloropropane	20	17.81	20	18.06	89	90	80-120	1	30
2,2-Dichloropropane	20	17.5	20	17.42	87	87	66-128	0	30
1,1-Dichloropropene	20	17.66	20	17.58	88	88	78-120	0	30
cis-1,3-Dichloropropene	20	18.59	20	18.57	93	93	80-120	0	30
trans-1,3-Dichloropropene	20	17.49	20	17.64	87	88	76-120	1	30
Ethanol	500	430.08	500	448.98	86	90	47-155	4	30
Ethyl t-butyl ether	20	17.02	20	16.91	85	85	69-120	1	30
Ethylbenzene	20	19.56	20	19.71	98	99	78-120	1	30
Freon 113	20	20.34	20	20.05	102	100	64-136	1	30
Hexachlorobutadiene	20	17.43	20	15.94	87	80	61-127	9	30
2-Hexanone	100	77.2	100	77.28	77	77	49-146	0	30
di-Isopropyl ether	20	15.55	20	15.5	78	78	70-124	0	30
Isopropylbenzene	20	20.61	20	20.51	103	103	80-120	0	30
p-Isopropyltoluene	20	20.21	20	19.94	101	100	76-120	1	30
Methyl Tertiary Butyl Ether	20	18.01	20	18.14	90	91	75-120	1	30
4-Methyl-2-pentanone	100	79.24	100	79.6	79	80	55-141	0	30
Methylene Chloride	20	19.55	20	19.38	98	97	80-120	1	30
Naphthalene	20	17.05	20	16.51	85	83	59-120	3	30
n-Propylbenzene	20	20.1	20	19.88	100	99	79-121	1	30
Styrene	20	19.67	20	19.78	98	99	80-120	1	30
1,1,1,2-Tetrachloroethane	20	17.68	20	17.81	88	89	80-120	1	30
1,1,2,2-Tetrachloroethane	20	18.87	20	18.45	94	92	72-120	2	30
Tetrachloroethene	2.0	20.09	20	19.53	100	98	80-129	3	3.0
Toluene	20	20.06	20	20.09	100	100	80-120	0	30
1,2,3-Trichlorobenzene	20	17.02	20	16.32	85	82	69-120	4	30
1,2,4-Trichlorobenzene	20	18.06	20	17.58	90	88	72-120	3	30
1,1,1-Trichloroethane	20	18.54	20	18.4	93	92	66-126	1	30
1,1,2-Trichloroethane	20	19.22	20	19.23	96	96	80-120	0	3.0
Trichloroethene	20	20.21	20	19.73	101	99	80-120	2	30
Trichlorofluoromethane	20	15.68	20	15.58	78	78	67-129	1	30
1,2,3-Trichloropropane	20	19.01	20	19.09	95	95	80-120	0	30
1,2,4-Trimethylbenzene	20	19.9	20	19.73	99	99	75-120	1	30
1,3,5-Trimethylbenzene	20	19.99	20	19.73	100	99	75-120	0	30
Vinyl Chloride	20	17.36	20	17.54	87	88	63-121	1	30
m+p-Xylene	40	40.48	40	40.66	101	102	80-120	0	30
o-Xylene	20	19.96	20	19.86	100	99	80-120	0	30
	ug/l	ug/l	ug/l	ug/l					

Batch number: 16363A53A Sample number(s): 8759448-8759453

^{*-} 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.



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Environmental

Quality Control Summary

Client Name: Chevron Group Number: 1747732

Reported: 03/13/2017 14:40

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
TPH-GRO N. CA water C6-C12	1100	1044.61	1100	1076.22	95	98	77-120	3	30
Batch number: 16364B20A	Sample number	r(s): 87594	54						
TPH-GRO N. CA water C6-C12	1100	1067.91	1100	1050.06	97	95	77-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163590018A	Sample number	r(s): 87594	49-8759452,87	59454					
TPH-DRO CA C10-C28	1600	1411.92	1600	1401.99	88	88	53-115	1	20
Batch number: 163630025A	Sample number	r(s): 87594	53						
TPH-DRO CA C10-C28	1600	1239.83	1600	1251.47	77	78	53-115	1	20
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163590019A	Sample number	r(s): 87594	49-8759452,87	59454					
TPH-DRO CA C10-C28 w/ Si Gel	1600	1278.61	1600	1112.76	80	70	40-105	14	20
Batch number: 163630026A	Sample number	r(s): 87594	53						
TPH-DRO CA C10-C28 w/ Si Gel	1600	1093.01	1600	1122.18	68	70	40-105	3	20

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: D170031AA	Sample numb	er(s): 8759	9448 UNSP	K: P759444						
Benzene	1.12	20	20.78	20	21.88	98	104	78-120	5	30
Ethylbenzene	2.22	20	21.91	20	23.7	98	107	78-120	8	30
Methyl Tertiary Butyl Ether	N.D.	20	17.5	20	19.14	87	96	75-120	9	30
Toluene	1.18	20	20.56	20	21.88	97	104	80-120	6	30
Xylene (Total)	0.755	60	59.97	60	64.01	99	105	80-120	7	30
Batch number: N170041AA	Sample numb	er(s): 8759	9449-8759	454 UNSPK:	P767564					
Acetone	N.D.	150	118.25	150	112.45	79	75	50-168	5	30
t-Amyl methyl ether	N.D.	20	18.6	20	18.36	93	92	67-120	1	30
Benzene	N.D.	20	21.04	20	20.92	105	105	78-120	1	30
Bromobenzene	N.D.	20	20.49	20	20.27	102	101	80-120	1	30
Bromochloromethane	N.D.	20	21.52	20	21.32	108	107	80-125	1	30
Bromodichloromethane	N.D.	20	18.36	20	17.99	92	90	80-120	2	30
Bromoform	N.D.	20	15.53	20	15.18	78	76	59-120	2	30
Bromomethane	N.D.	20	15.38	20	12.75	77	64	55-123	19	30
2-Butanone	N.D.	150	122.36	150	120.64	82	80	57-145	1	30
t-Butyl alcohol	N.D.	200	186.68	200	184.82	93	92	70-128	1	30
n-Butylbenzene	N.D.	20	20.91	20	20.38	105	102	68-120	3	30

^{*-} 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: 1747732

Reported: 03/13/2017 14:40

MS/MSD (continued)

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
sec-Butylbenzene	N.D.	20	22.46	20	22.04	112	110	77-120	2	30
tert-Butylbenzene	N.D.	20	23.44	20	22.94	117	115	74-121	2	30
Carbon Disulfide	N.D.	20	20	20	19.55	100	98	58-120	2	30
Carbon Tetrachloride	N.D.	20	20.4	20	20.13	102	101	74-130	1	30
Chlorobenzene	N.D.	20	21.4	20	21.13	107	106	80-120	1	30
Chloroethane	N.D.	20	16.55	20	13.85	83	69	56-120	18	30
2-Chloroethyl Vinyl Ether	N.D.	20	N.D.	20	N.D.	0*	0*	65-120	0	30
Chloroform	N.D.	20	19.61	20	19.32	98	97	80-120	1	30
Chloromethane	N.D.	20	16.46	20	16.88	82	84	59-127	3	30
2-Chlorotoluene	N.D.	20	21.41	20	21.26	107	106	80-120	1	30
4-Chlorotoluene	N.D.	20	21.21	20	20.78	106	104	80-120	2	3.0
1,2-Dibromo-3-chloropropane	N.D.	20	15.15	20	14.64	76	73	59-120	3	30
Dibromochloromethane	N.D.	20	17.09	20	16.94	85	85	78-120	1	30
1,2-Dibromoethane	N.D.	20	19.98	20	19.69	100	98	80-120	1	30
Dibromomethane	N.D.	20	19.35	20	19.34	97	97	80-120	0	30
1,2-Dichlorobenzene	N.D.	20	20.41	20	20.17	102	101	80-120	1	30
1,3-Dichlorobenzene	N.D.	20	20.51	20	20.3	103	101	80-120	1	30
1,4-Dichlorobenzene	N.D.	20	20.55	20	20.11	103	101	80-120	2	30
Dichlorodifluoromethane	N.D.	20	17.83	20	17.53	89	88	49-134	2	30
1,1-Dichloroethane	N.D.	20	19.06	20	18.83	95	94	80-120	1	30
1,2-Dichloroethane	N.D.	20	16.52	20	16.39	83	82	66-128	1	30
1,1-Dichloroethene	N.D.	20	22.91	20	22.02	115	110	76-124	4	30
cis-1,2-Dichloroethene	N.D.	20	21.97	20	21.53	110	108	80-120	2	30
trans-1,2-Dichloroethene	N.D.	20	22.82	20	22.13	114	111	80-120	3	30
1,2-Dichloropropane	N.D.	20	19.11	20	19.04	96	95	80-120	0	30
1,3-Dichloropropane	N.D.	20	18.6	20	18.21	93	91	80-120	2	30
2,2-Dichloropropane	N.D.	20	19.28	20	18.95	96	95	66-128	2	30
1,1-Dichloropropene	N.D.	20	19.57	20	19.41	98	97	78-120	1	30
cis-1,3-Dichloropropene	N.D.	20	19.07	20	19.03	95	95	80-120	0	30
trans-1,3-Dichloropropene	N.D.	20	18.17	20	17.92	91	90	76-120	1	30
Ethanol	N.D.	500	477.27	500	538.48	95	108	47-155	12	30
Ethyl t-butyl ether	N.D.	20	17.65	20	17.29	88	86	69-120	2	30
Ethylbenzene	N.D.	20	21.26	20	20.99	106	105	78-120	1	30
Freon 113	N.D.	20	22.89	20	22.21	114	111	64-136	3	30
Hexachlorobutadiene	N.D.	20	16.76	20	17.06	84	85	61-127	2	30
2-Hexanone	N.D.	100	79.56	100	78.62	80	79	49-146	1	30
di-Isopropyl ether	N.D.	20	16.24	20	16.06	81	80	70-124	1	30
Isopropylbenzene	N.D.	20	22.41	20	21.82	112	109	80-120	3	30
p-Isopropyltoluene	N.D.	20	21.75	20	21.22	109	106	76-120	2	30
Methyl Tertiary Butyl Ether	N.D.	20	18.58	20	18.22	93	91	75-120	2	30
4-Methyl-2-pentanone	N.D.	100	82.05	100	80.74	82	81	55-141	2	30
Methylene Chloride	N.D.	20	20.81	20	20.27	104	101	80-120	3	30
Naphthalene	2.94	20	16.67	20	16.65	69	69	59-120	0	30
n-Propylbenzene	N.D.	20	21.63	20	21.23	108	106	79-121	2	30
Styrene	N.D.	20	21.13	20	20.66	106	103	80-120	2	30
1,1,1,2-Tetrachloroethane	N.D.	20	19.19	20	18.69	96	93	80-120	3	30

^{*-} 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: 1747732

Reported: 03/13/2017 14:40

MS/MSD (continued)

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
1,1,2,2-Tetrachloroethane	N.D.	20	19.29	20	18.85	96	94	72-120	2	30
Tetrachloroethene	N.D.	20	21.89	20	21.41	109	107	80-129	2	30
Toluene	N.D.	20	21.7	20	21.38	109	107	80-120	1	30
1,2,3-Trichlorobenzene	1.16	20	16.69	20	16.83	78	78	69-120	1	30
1,2,4-Trichlorobenzene	N.D.	20	17.94	20	18.11	90	91	72-120	1	30
1,1,1-Trichloroethane	N.D.	20	20.7	20	20.35	104	102	66-126	2	30
1,1,2-Trichloroethane	N.D.	20	19.89	20	19.62	99	98	80-120	1	30
Trichloroethene	N.D.	20	21.52	20	21.31	108	107	80-120	1	30
Trichlorofluoromethane	N.D.	20	17.79	20	17.59	89	88	67-129	1	30
1,2,3-Trichloropropane	N.D.	20	19.32	20	19.25	97	96	80-120	0	30
1,2,4-Trimethylbenzene	N.D.	20	21.15	20	20.75	106	104	75-120	2	30
1,3,5-Trimethylbenzene	N.D.	20	21.48	20	21.06	107	105	75-120	2	30
Vinyl Chloride	N.D.	20	19.86	20	19.77	99	99	63-121	0	30
m+p-Xylene	N.D.	40	43.71	40	43.07	109	108	80-120	1	30
o-Xylene	N.D.	20	21.3	20	20.93	107	105	80-120	2	30

Surrogate Quality Control

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

Analysis Name: BTEX/MTBE Batch number: D170031AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8759448	102	99	101	96
Blank	105	98	97	96
LCS	104	99	98	96
MS	102	99	99	102
MSD	103	101	98	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Full List w/ Sep. Xylenes

Batch number: N170041AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8759449	96	104	96	95
8759450	96	103	96	94
8759451	96	104	95	93
8759452	97	103	96	94
8759453	95	103	97	95
8759454	96	104	97	95
Blank	96	104	97	94
LCS	96	103	97	94

^{*-} 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: 1747732

Reported: 03/13/2017 14:40

Surrogate Quality Control (continued)

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

Analysis Name: 8260 Full List w/ Sep. Xylenes

Batch number: N170041AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene					
LCSD	96	102	98	95					
MS	96	103	98	94					
MSD	95	101	97	95					
Limits:	80-116	77-113	80-113	78-113					

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 16363A53A

	Trifluorotoluene-F
8759448	125
8759449	94
8759450	98
8759451	99
8759452	99
8759453	98
Blank	117
LCS	104
LCSD	106
- 1 1 1	

Limits: 63-135

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 16364B20A

	minuorotoluene-r	
8759454	91	
Blank	90	
LCS	101	
LCSD	99	
Limits:	63-135	

Analysis Name: TPH-DRO CA C10-C28

Batch number: 163590018A

	Orthoterphenyl								
8759449	100								
8759450	94								
8759451	94								
8759452	93								
8759454	92								
Blank	91								
LCS	105								
LCSD	101								
Limits:	50-124								

*- 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: 1747732

Reported: 03/13/2017 14:40

Surrogate Quality Control (continued)

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

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel

Batch number: 163590019A

	Orthoterphenyl
8759449	91
8759450	75
8759451	83
8759452	74
8759454	77
Blank	91
LCS	94
LCSD	83
Timita.	42 126

Limits: 42-126

Analysis Name: TPH-DRO CA C10-C28

Batch number: 163630025A

	Orthoterphenyl
8759453	91
Blank	82
LCS	93
LCSD	93
Limits:	50-124

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel

Batch number: 163630026A

	Orthoterphenyl	
8759453	74	
Blank	64	
LCS	77	
LCSD	80	
Limits	42-126	

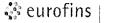
^{*-} Outside of specification

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

⁽²⁾ The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

** eurofins Lancaster Laboratories Acct. # 10906 For Eurofins Lancaster Laboratories Environmental use only Group # 1747732 Sample # 3759448 - 54 Instructions on reverse side correspond with circled numbers.																								
Client Information								Ma	atrix			Ĭ <u></u>			NEW COMMON PROPERTY.			Requested					SCR #:	
Facility# SS#376584-OML	_ G-R#385903	Global	WBS I ID#T060	0010144	12						1												30N #.	
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Consultant Project Mgr. Deanna L. Hardi	ng, deanna@g	jrinc.con	n				'				Cont	21	8015 🔯	out Silica	Silica		ျွ	Method	Method	3):			☐ Confirm highest hi☐ Confirm all hits by	-
Consultant Phone # (925) 551-7444 x	(180							Potable	NPDES	Air				15 without	15 with	١	Oxygenates			FE			☐ Runoxy's ☐ Runoxy's	
Sampler Alex	W., Gilber					osite					Total Number	+ MTBE	ا ا	RO 8015	TPH-DRO 8015 with Silica	8260)Full Scan	8	ead	Dissolved Lead	NAPHTHALENE				
Sample Ider	Sample Identification Soil Collected Depth Date Time				Composite	Soil	1	Water	Oii	Total	BTEX +	TPH-GRO	TPH-DRO	TPH-DI	3260)F		Total Lead	Dissolv	MAP			Remar	·ks	
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Data Package (circle if required) EDF/EDD Relinquished					J by		V			Date	_		Time			Received by					Date	Time		
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EDD (circle if req	ıuired)				1	JPS_	-	,		edEx		1	Ot	her				1	0	1/4			12/22/16	
EDEELAT (default) Other:					Temperature Upon Receipt°C									 t?	Yes	No No								



Sample Administration Receipt Documentation Log

Doc Log ID:

171543

Group Number(s): 1747732

Client: Chevron

Delivery and Receipt Information

Delivery Method:

BASC

Arrival Timestamp:

12/22/2016 12:00

Number of Packages:

1

Number of Projects:

1

State/Province of Origin:

CA

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Yes

Sample Date/Times match COC:

Yes

Custody Seal Intact:

Yes

VOA Vial Headspace ≥ 6mm:

Air Quality Samples Present:

No

No

Samples Chilled:

Yes

Total Trip Blank Qty:

2

Paperwork Enclosed:

Yes

Trip Blank Type:

hcl

Samples Intact: Missing Samples: Yes

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Porsha Hill (12046) at 13:52 on 12/22/2016

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler# Thermometer ID

Corrected Temp

Therm. Type

Ice Type

Ice Present?

Ice Container

Elevated Temp?

DT121

0.4

DT

Wet

Bagged

Ν

Page 32 of 33



Explanation of Symbols and Abbreviations

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

BMQL Below Minimum Quantitation Level mq milligram(s) degrees Celsius mĹ milliliter(s) cfu colony forming units MPN Most Probable Number **CP Units** cobalt-chloroplatinate units N.D. none detected F degrees Fahrenheit ng nanogram(s) nephelometric turbidity units gram(s) NTU g IÚ International Units pg/L picogram/liter kilogram(s) RLReporting Limit kg **TNTC** liter(s) Too Numerous To Count lb. pound(s) microgram(s) μg μĹ microliter(s) m3 cubic meter(s) milliequivalents umhos/cm micromhos/cm meg

< 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:

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...

W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

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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