



Mark Horne
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
6001 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 842-0973
markhorne@chevron.com

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

By Alameda County Environmental Health 11:35 am, Feb 07, 2017

Re: Former Texaco Service Station No. 359766
2700 23rd Avenue
Oakland, California
ACEH Case RO0003098

I have reviewed the attached report titled *Fourth Quarter 2016 Groundwater Monitoring and Sampling Report*

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by GHD Services Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in blue ink that reads "Mark E. Horne".

Mark Horne
Project Manager

Attachment: *Fourth Quarter 2016 Groundwater Monitoring and Sampling Report*



February 2, 2017

Reference No. 062086

Ms. Karel Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**Re: Fourth Quarter 2016 Groundwater Monitoring and Sampling Report
Former Texaco Service Station 359766
2700 23rd Avenue
Oakland, California
ACEH Case RO0003098**

Dear Ms. Detterman:

GHD is submitting this *Fourth Quarter 2016 Groundwater Monitoring and Sampling Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company. Groundwater monitoring and sampling was performed by Blaine Tech Services (Blaine Tech) of San Jose, California and their *Fourth Quarter 2016 Monitoring Report* is included as Attachment A. Current and historical groundwater monitoring and sampling data are summarized in Table 1 and presented on Figure 2. Eurofins Lancaster Laboratory Environmental, LLCs' of Lancaster, Pennsylvania, *Analytical Results* report is included as Attachment B.

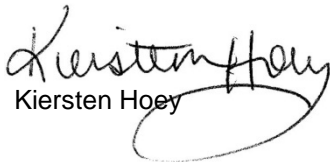
Well MW-5 has been sampled quarterly for two years; therefore, in alignment with the California State Water Resources Control Board Resolution No. 2009-0042, GHD recommends this well be reduced to semi-annual sampling during the second and fourth quarters.



Please contact Kiersten Hoey (510) 420 3347 if you have any questions or require additional information.

Cordially,

GHD


Kiersten Hoey


Brandon S. Wilken, PG 7564



KH/cw/12
Encl.

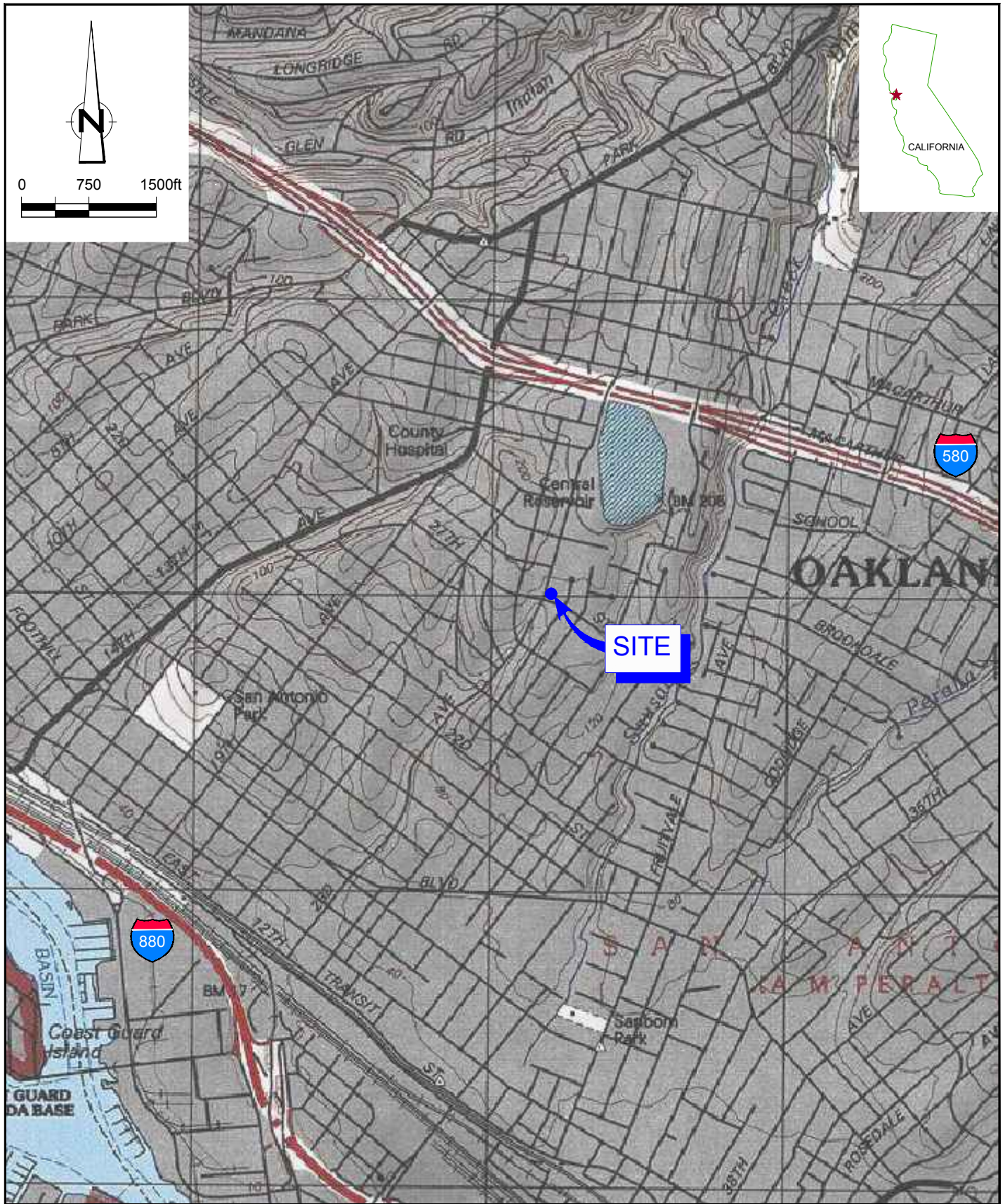
- Figure 1 Vicinity Map
- Figure 2 Groundwater Elevation Contour and Hydrocarbon Concentration Map

- Table 1 Groundwater Monitoring and Sampling Data

- Attachment A Monitoring Data Package
- Attachment B Laboratory Analytical Report

cc: Mr. Mark Horne, Chevron EMC (*electronic copy*)
Pedro and Maria Pulildo, Property Owner

Figures



SOURCE: TOPO! MAPS

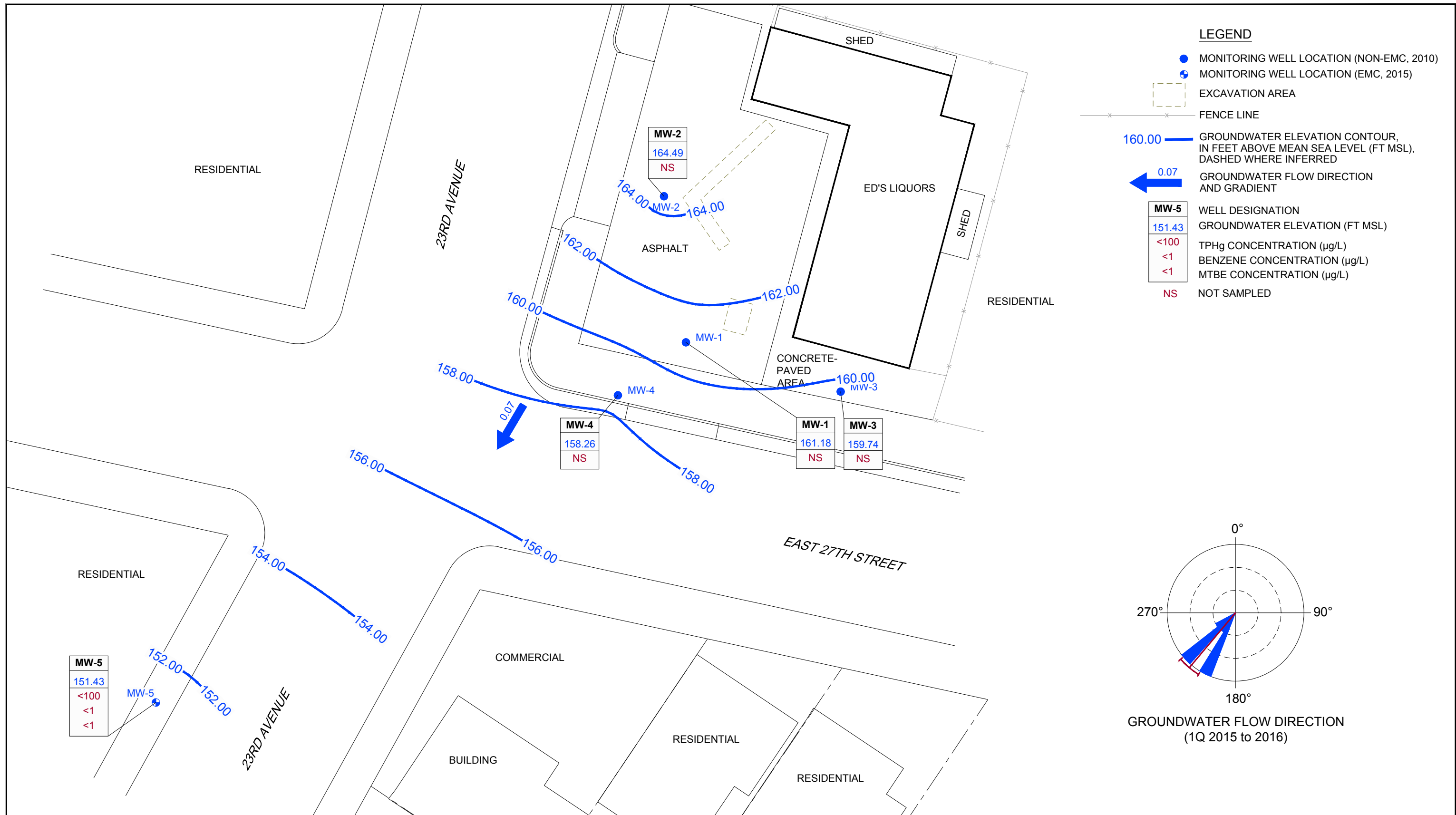


FORMER TEXACO STATION 359766
 2700 23rd AVENUE
 OAKLAND, CALIFORNIA

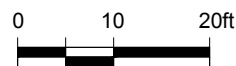
62086-95
 Jan 12, 2017

VICINITY MAP

FIGURE 1



SOURCE: WELL LOCATIONS BASED ON GEO COORDINATES CONVERTED TO US SURVEY FEET STATE PLAN CA ZONE 3, BY MORROW SURVEYING IN FEB 24, 2015



FORMER TEXACO STATION 359766
 2700 23rd AVENUE
 OAKLAND, CALIFORNIA

62086-95
 Feb 1, 2017

GROUNDWATER ELEVATION CONTOUR AND
 HYDROCARBON CONCENTRATION MAP - DECEMBER 16, 2016 **FIGURE 2**

Table

Table 1
Groundwater Monitoring and Sampling Data
Former Texaco Service Station 359766 (Ed's Liquors)
2700 23rd Avenue
Oakland, California

Location	Date	TOC ^a	DTW	GWE	HYDROCARBONS			VOCS													ADDITIONAL
					TPH-MO	TPH-DRO	TPH-GRO	B	T	E	X	MTBE by SW6260	Naphthalene	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB		
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	11/18/2010 ¹	168.84	7.93	160.91	<250	<50	--	--	--	--	--	1.3	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	02/14/2012 ¹	168.84	7.31	161.53	--	<50	<50	<0.50	<0.50	<0.50	<0.50	1.2	--	--	--	--	--	--	--	--	--
	03/13/2015	168.90	12.11	156.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2015	168.90	11.31	157.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/2015	168.90	10.83	158.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/2015	168.90	6.44	162.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/28/2016	168.90	6.08	162.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2016	168.90	5.41	163.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/08/2016	168.90	5.79	163.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/16/2016	168.90	7.72	161.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	11/18/2010 ¹	170.33	7.52	162.81	<250	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	02/14/2012 ¹	170.33	6.37	163.96	--	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--
	03/13/2015	170.41	8.10	162.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2015	170.41	6.92	163.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/2015	170.41	7.95	162.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/2015	170.41	4.49	165.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/28/2016	170.41	3.83	166.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2016	170.41	3.71	166.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/08/2016	170.41	4.77	165.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/16/2016	170.41	5.92	164.49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	11/18/2010 ¹	168.67	5.14	161.15	<250	2,100	3,700	<0.5	<0.5	<0.5	0.84	<0.5	<0.5	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.0 ^a 0.68 ^b 2.0 ^c 2.2 ^b 6.6 ^d
	02/14/2012 ¹	168.67	4.98	163.69	--	<1,500	3,400	<0.50	<0.50	1.2	<0.50	<0.50	--	--	--	--	--	--	--	--	--
	03/13/2015	168.71	6.50	162.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2015	168.71	5.93	162.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/2015	168.71	6.98	161.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/2015	168.71	8.01	160.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/28/2016	168.71	7.04	161.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2016	168.71	7.14	161.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/08/2016	168.71	9.81	158.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/16/2016	168.71	8.97	159.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 1
Groundwater Monitoring and Sampling Data
Former Texaco Service Station 359766 (Ed's Liquors)
2700 23rd Avenue
Oakland, California

Location	Date	TOC ^a	DTW	GWE	HYDROCARBONS			VOCS													ADDITIONAL
					TPH-MO	TPH-DRO	TPH-GRO	B	T	E	X	MTBE by SW6260	Naphthalene	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB		
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-4	11/18/2010 ¹	168.40	--	--	<250	2,800	26,000	2,800	1,500	550	3,100	<0.5	210	<200	<50	<50	<50	<50	<50		790 ¹ 210 ^j
	02/14/2012 ¹	168.40	6.45	161.95	--	<3,000	27,000	1,500	660	520	1,500	<5.0	--	--	--	--	--	--	--	--	--
	03/13/2015	168.47	10.70	157.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2015	168.47	9.63	158.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/29/2015	168.47	11.04	157.43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/2015	168.47	10.31	158.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	03/28/2016	168.47	9.32	159.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2016	168.47	8.38	160.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	09/08/2016	168.47	8.60	159.87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/2016	168.47	10.21	158.26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	02/26/2015 ²	162.42	17.81	144.61	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
	03/13/2015	162.42	16.48	145.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	06/19/2015	162.42	10.92	151.50	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
	09/29/2015	162.42	12.29	150.13	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
	12/22/2015	162.42	13.46	148.96	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--
	03/28/2016	162.42	8.22	154.20	--	--	<100	<1	<1	<1	<1	<1	--	--	--	--	--	--	--	--	--
	06/19/2016	162.42	9.18	153.24	--	--	<100	<1	<1	<1	<1	<1	--	--	--	--	--	--	--	--	--
	09/08/2016	162.42	10.78	151.64	--	--	<100	<1	<1	<1	<1	<1	--	--	--	--	--	--	--	--	--
		12/16/2016	162.42	10.99	151.43	--	--	<100	<1	<1	<1	<1	<1	--	--	--	--	--	--	--	--

Table 1
Groundwater Monitoring and Sampling Data
Former Texaco Service Station 359766 (Ed's Liquors)
2700 23rd Avenue
Oakland, California

Location	Date	TOC ^a	DTW	GWE	HYDROCARBONS			VOCS												
					TPH-MO	TPH-DRO	TPH-GRO	B	T	E	X	MTBE by SW8260	Naphthalene	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB	ADDITIONAL
Units		ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

Abbreviations and Notes:

-- = Not analyzed

<x and ND = Not detected above the method detection limit x.

Total purgeable petroleum hydrocarbons (TPPH) by EPA Method 8260B

Total petroleum hydrocarbons as motor oil (TPHmo), TPH as diesel (TPHd), and TPH as gasoline (TPHg) by modified EPA Method 8015B

Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8260B

Methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), 1,2 dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), tertiary butyl alcohol (TBA), naphthalene by EPA Method 8260B

Volatile organic copounds (VOCs) by EPA Method 8260B

a = Top of casing elevation was surveyed by Morrow Surveying on February 24, 2015; coordinates are California State Plan Zone 3, from GPS observation using CSDS virtual survey network, coordinate datum is NAD 83, reference geoid is GEOID03, and vertical datus is NAVD 88 from GPS observations. Prior to 2015, a survey was completed by licensed surveyor Ty Hawkins on December 20, 2010; based on California Coordinate System NAD 83, Zone III (2002.00), and elevations based on NAVD 88.

b = n-butyl benzene

c = 4-isopropyl toluene

d = Sec-butyl benzene

e = Isopropylbenzene

f = n-propyl benzene

g = 2-butanone

h = 4-methyl-2-pentanone

i = 1,2,4-trimethylbenzene

j = 1,3,5-trimethylbenzene

1 = Sampled by previous consultant

2 = Well development

Attachment A Monitoring Data Package



January 5, 2017

Chevron Environmental Management Company
Mark Horne
6101 Bollinger Canyon Rd.
San Ramon, CA 94583

Fourth Quarter 2016 Monitoring at
Former Chevron Service Station 359766
2700 23rd Avenue
Oakland, CA

Monitoring performed on December 16, 2016

Blaine Tech Services, Inc. Groundwater Monitoring Event 161216-MM3

This submission covers the routine monitoring of groundwater wells conducted on December 16, 2016 at this location. Five monitoring wells were measured for depth to groundwater (DTW). One monitoring well was sampled. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels measurements were collected using an electronic slope indicator. All sampled wells were purged using low flow methodology until water temperature, pH, conductivity, dissolved oxygen and oxidation reduction potential were stabilized. Purging was accomplished using Geotech Peri Pumps. Subsequent sample collection and sample handling was performed in accordance with EPA protocols. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

Samples were delivered under chain-of-custody to Lancaster Laboratories, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill-of-lading to Blaine Tech of San Jose, California.

Fourth Quarter Groundwater Monitoring at Chevron 359766, 2700 23rd Ave., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1680 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

www.blainetech.com

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Sincerely,



Dustin Becker
Blaine Tech Services, Inc.
Senior Project Manager

attachments: SOP
Well Gauging Sheet
Individual Well Monitoring Data Sheets
Wellhead Inspection Form
Bill of Lading
Calibration Log

cc: GHD
Attn: Kiersten Hoey
5900 Hollis St., Suite A
Emeryville, CA 94608

Fourth Quarter Groundwater Monitoring at Chevron 359766, 2700 23rd Ave., Oakland, CA

SAN JOSE

SACRAMENTO

LOS ANGELES

SAN DIEGO

1680 ROGERS AVENUE

SAN JOSE, CA 95112-1105

(408) 573-0555

FAX (408) 573-7771

LIC. 746684

www.blainetech.com

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS AT CHEVRON SITES

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. We specialize in groundwater monitoring assignments and intentionally limit the scope of our services to those centered on the generation of objective information.

To avoid conflicts of interest, Blaine Tech Services, Inc. personnel do not evaluate or interpret the information we collect. As a state licensed contractor (C-57 well drilling –water – 746684) performing strictly technical services, we do not make any professional recommendations and perform no consulting of any kind.

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for Chevron comply with Chevron's safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40-hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any Chevron site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic water level indicators that are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of immiscibles. When free product is suspected, its presence is confirmed using an electronic interface probe (e.g. GeoTech). No samples are collected from a well containing product.

TRADITIONAL PURGING & SAMPLING

Evacuation

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well.

Parameter Stabilization

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

Sample Collection

All samples are collected using disposable bailers.

Sample Containers

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory that will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

Dewatered Wells

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not immediately recharge.

Measuring Recharge

Upon completion of well purging, a depth to water measurement is collected and notated to ensure that the well has recharged to within 80% of its static, pre-purge level prior to sampling.

Wells that do not immediately show 80% recharge or dewatered wells will be allowed approximately 2 hours to recharge prior to sampling or will be sampled at site departure. All wells requiring off-site traffic control in the public right-of-way, the 80% recharge rule may be disregarded in the interests of Health and Safety. The sample may be collected as soon as there is sufficient water. The water level at time of sampling will be noted.

Dissolved Oxygen Measurements

Dissolved Oxygen readings are taken pre- and/or post-purge using YSI meters (e.g. YSI Model 550) or HACH field test kits.

The YSI meters are able to collect accurate in-situ readings. The probe allows downhole measurements to be taken from wells with diameters as small as two inches. The probe and reel is decontaminated between wells as described above. The meter is calibrated

as per the instructions in the operating manual. The probe is lowered into the water column and the reading is allowed to stabilize prior to collection.

Oxidation Reduction Potential Measurements (ORP)

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual.

LOW FLOW SAMPLING USING SAMPLE-PRO BLADDER PUMP

Calibration

Calibrate YSI Flow Cell as per manufacturer's specifications. Thoroughly rinse probe and cup between parameters. Calibration order as follows:

1. pH (use 3-point calibration of 7, 4, 10)
2. Oxygen Reduction Potential (ORP)
3. Specific Conductance
4. Dissolved Oxygen (DO) (calibrate simulating 100% oxygen saturation)

Purging & Sampling Collection

1. Insert new bladder into Sample-Pro pump housing.
2. Remove dedicated PE tubing from the well or start with new PE tubing cut to the required length.
3. Attach the PE tubing to the Sample-Pro Bladder Pump.
4. Gently lower the Sample-Pro Bladder Pump, and PE tubing into the well, placing the Sample-Pro Bladder Pump intake at the center of the screened interval. Take care to minimize disturbance to the water column.
5. Direct effluent line into YSI 556 Flow Cell.
6. Set Sample-Pro Bladder Pump speed at 100 - 500 ml/min.
7. Collect water quality parameter measurements for temperature, pH, conductivity, turbidity, DO and ORP every 3-5 minutes.
8. Monitor drawdown during purging with electronic water level meter. Record water level with each parameter measurement. **MAXIMUM DRAWDOWN IS 0.33 FEET.**
9. Collect parameter measurements until stability is achieved. Stability is defined as three consecutive measurements where:

Temp	± 1 ° Celsius
pH	± 0.1
Conductivity	± 3%
Turbidity	± 10% NTU
DO	± 0.3 mg/l
ORP	± 10 Mv

10. Sample may be collected once stability is achieved and at least one system volume of water removed from the well.
11. Disconnect effluent line from YSI 556 Flow Cell.
12. Sample through effluent line while maintaining constant flow rate.
13. Remove Sample-Pro Bladder Pump, and PE tubing from well.
14. Detach and reinstall dedicated PE tubing in well.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non-hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous Waste Manifest to a Blaine Tech Services, Inc. facility before being transported to a Chevron approved disposal facility

TRIP BLANKS

Trip Blanks, if requested, are taken to the site and kept inside the sample cooler for the duration of the event. They are turned over to the laboratory for analysis with the samples from that site.

DUPLICATES

Duplicates, if requested, may be collected at a site.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the designated analytical laboratory. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

A label must be affixed to all sample containers. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time and date of sample collection along with the initials of the person who collects the sample are handwritten onto the label. Field documentation is contemporaneous.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment such as hose reels, pumps and bailers is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer that is then operated with high quality deionized water that is produced at our facility and stored onboard our sampling vehicle. Cleaning is

facilitated by the use of proprietary fixtures and devices included in the patented workstation (U.S. Patent 5,535,775) that is incorporated in each sampling vehicle.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, water level indicator, etc.) that cannot be washed using the high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

FERROUS IRON MEASUREMENTS

All field measurements are collected at time of sampling with a HACH test kit.

LOW FLOW WELL MONITORING DATA SHEET

Project #: 161216-MM3	Client: GAD
Sampler: MM	Start Date: 12-16-16
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8
Total Well Depth: 19.81	Depth to Water Pre: 10.99 Post: 11.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: YSLPR6 PLUS

Purge Method: 2" Grundfos Pump Watterra Peristaltic Pump Bladder Pump Other _____
 Sampling Method: (Dedicated Tubing) Disp Bailer New Tubing Other _____
 Flow Rate: 200-100 mL/min START PURGE 1310 Pump Depth: 18'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	DTW / Observations
1313	62.3	7.83	1325	24	0.73	-128	600	11.19 clear
1316	63.4	7.45	1281	17	0.61	-110	900	11.22
1319	64.5	7.36	1173	12	0.51	-111	1200	11.24
1322	64.2	7.34	1140	11	0.48	-107	1500	11.26
1325	64.0	7.36	1128	10	0.45	-108	1800	11.27
1328	63.8	7.37	1119	10	0.43	-104	2100	11.28 ↓

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 2100 gals. or mL
Sampling Time: 1329	Sampling Date: 12-16-16
Sample I.D.: MW-5-W-161612	Laboratory: Lancaster
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: see coc
Equipment Blank I.D.: @ A-T-161612 Time 1300	Duplicate I.D.:

SOURCE RECORD **BILL OF LADING**

FOR PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT CHEVRON FACILITIES IN THE STATE OF CALIFORNIA. THE PURGE-WATER WHICH HAS BEEN RECOVERED FROM GROUND-WATER WELLS IS COLLECTED BY THE CONTRACTOR AND HAULED TO THEIR FACILITY IN SAN JOSE, CALIFORNIA FOR TEMPORARILY HOLDING PENDING TRANSPORT BY OTHERS TO FINAL DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 1680 Rogers Ave. San Jose CA (408) 573-0555). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

35-9766
CHEVRON #

Mark Heine
Chevron Engineer

2700 23rd Ave
street number street name

Oakland CA
city state

WELL I.D.	GALS.	WELL I.D.	GALS.
<u>MW-5</u>	<u>2100 MC</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>

added equip. _____
rinse water 1 / 1

any other adjustments /

TOTAL GALS. RECOVERED 2
161216-0003

loaded onto
BTS vehicle # 94

BTS event # _____ time _____ date _____
1345 12/16/76

Transporter signature _____

REC'D AT _____ time _____ date _____

Unloaded/received by
signature _____

Attachment B Laboratory Analytical Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Report Date: December 30, 2016

Project: 359766

Submittal Date: 12/17/2016
Group Number: 1746102
PO Number: 0015195463
Release Number: HORNE
State of Sample Origin: CA

Client Sample Description

QA-T-161216 NA Water
MW-5-W-161216 NA Water

Lancaster Labs

(LL) #

8752116
8752117

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 GHD
Electronic Copy To Chevron
Electronic Copy To Blaine Tech Services, Inc.
Electronic Copy To Chevron

Attn: Kiersten Hoey
Attn: Anna Avina
Attn: Dustin Becker
Attn: Report Contact

Respectfully Submitted,



Amek Carter
Specialist

(717) 556-7252

Sample Description: QA-T-161216 NA Water
Facility# 359766 BTST
2700 23rd Ave-Oakland T10000004218

LL Sample # WW 8752116
LL Group # 1746102
Account # 10991

Project Name: 359766

Collected: 12/16/2016 13:00

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 12/17/2016 11:10

Reported: 12/30/2016 20:23

230QA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10945	Benzene	71-43-2	N.D.	ug/l 0.5	ug/l 1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles SW-846 8015B						
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	ug/l 50	ug/l 100	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	F163581AA	12/23/2016 14:31	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163581AA	12/23/2016 14:31	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16355A20A	12/20/2016 13:06	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16355A20A	12/20/2016 13:06	Brett W Kenyon	1

*=This limit was used in the evaluation of the final result

Sample Description: MW-5-W-161216 NA Water
Facility# 359766 BTST
2700 23rd Ave-Oakland T10000004218

LL Sample # WW 8752117
LL Group # 1746102
Account # 10991

Project Name: 359766

Collected: 12/16/2016 13:29 by MM

Chevron

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 12/17/2016 11:10

Reported: 12/30/2016 20:23

230M5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10945	Benzene	71-43-2	N.D.	ug/l 0.5	ug/l 1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles SW-846 8015B						
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	ug/l 50	ug/l 100	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	F163581AA	12/23/2016 19:36	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163581AA	12/23/2016 19:36	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16355A20A	12/20/2016 20:41	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	16355A20A	12/20/2016 20:41	Brett W Kenyon	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Chevron
Reported: 12/30/2016 20:23

Group Number: 1746102

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**	LOQ
	ug/l	ug/l	ug/l
Batch number: F163581AA	Sample number(s): 8752116-8752117		
Benzene	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: 16355A20A	Sample number(s): 8752116-8752117		
TPH-GRO N. CA water C6-C12	N.D.	50	100

LCS/LCSD

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					
Batch number: F163581AA	Sample number(s): 8752116-8752117								
Benzene	20	18.02			90		78-120		
Ethylbenzene	20	18.42			92		78-120		
Methyl Tertiary Butyl Ether	20	18.05			90		75-120		
Toluene	20	18.52			93		80-120		
Xylene (Total)	60	55.42			92		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16355A20A	Sample number(s): 8752116-8752117								
TPH-GRO N. CA water C6-C12	1100	995.94	1100	983.19	91	89	77-120	1	30

MS/MSD

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

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: F163581AA	Sample number(s): 8752116-8752117 UNSPK: P751542									
Benzene	N.D.	20	20.11	20	19.68	101	98	78-120	2	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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

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

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

Quality Control Summary

Client Name: Chevron
Reported: 12/30/2016 20:23

Group Number: 1746102

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
Ethylbenzene	N.D.	20	20.19	20	19.8	101	99	78-120	2	30
Methyl Tertiary Butyl Ether	N.D.	20	18.75	20	18.69	94	93	75-120	0	30
Toluene	N.D.	20	20.61	20	20.16	103	101	80-120	2	30
Xylene (Total)	N.D.	60	61.43	60	60.27	102	100	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: F163581AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8752116	96	98	100	94
8752117	96	97	99	92
Blank	96	97	99	93
LCS	96	100	99	95
MS	97	100	100	95
MSD	94	100	99	94
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 16355A20A

	Trifluorotoluene-F
8752116	88
8752117	88
Blank	88
LCS	95
LCSD	95
Limits:	63-135

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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

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

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

Client: Chevron

Delivery and Receipt Information

Delivery Method: UPS Arrival Timestamp: 12/17/2016 11:10
 Number of Packages: 1 Number of Projects: 1

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 \geq 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	4
Paperwork Enclosed:	Yes	Trip Blank Type:	N/A
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Porsha Hill (12046) at 11:39 on 12/17/2016

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?
1	DT146	1.0	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

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

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	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)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	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 \geq 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.

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