RECEIVED

2:56 pm, Nov 15, 2012

Alameda County
Environmental Health

Third Quarter 2012 Semi-Annual Groundwater Monitoring Report

Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California

Submitted to:
Mr. Mark Detterman
Alameda County Health Care Services Agency
Department of Environmental Health Services, Environmental Protection Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Prepared for:
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

Submitted by:
Stantec Consulting Services Inc.
15575 Los Gatos Blvd., Building C
Los Gatos, CA 95032

November 26, 2012

Carryl MacLeod
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6506
CMacleod@chevron.com

November 26, 2012

Mr. Mark Detterman
Alameda County Health Care Services Agency
Department of Environmental Health Services,
Environmental Protection Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Dear Mr. Detterman:

Attached for your review is the *Third Quarter 2012 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 91723, located at 9757 San Leandro Street in Oakland, California. This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 356-6124 ext. 238, or travis.flora@stantec.com.

Sincerely,

Carryl MacLeod

Carryl MacLeod
Project Manager

Stantec Consulting Services Inc.
15575 Los Gatos Boulevard, Building C
Los Gatos, CA 95032
Tel: (408) 356-6124
Fax: (408) 356-6138

November 26, 2012

Mr. Mark Detterman
Alameda County Health Care Services Agency
Department of Environmental Health Services, Environmental Protection Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RE: **Third Quarter 2012 Semi-Annual Groundwater Monitoring Report**
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *Third Quarter 2012 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 91723, which was located at 9757 San Leandro Street, Oakland, Alameda County, California (the Site - shown on ***Figure 1***). This report is presented in three sections: Site Background, Third Quarter 2012 Groundwater Monitoring and Sampling Program, and Conclusions and Recommendations.

SITE BACKGROUND

The Site is a former Chevron-branded service station located on the western corner at the intersection of San Leandro Street and 98th Avenue in Oakland, California. The Site is currently a large parking area staging semi-trucks for a distribution company. A former Chevron-branded service station operated at the Site from approximately 1946 to 1978. Prior to 1966, three fuel underground storage tanks (USTs) and one fuel dispenser island (first generation) located in the eastern portion of the Site were removed. Second-generation fuel structures (installed between 1966 and 1968) included three fuel USTs located in the north central portion of the Site, one waste oil UST located in the western portion of the Site, and five fuel dispenser islands (four located in the central portion of the Site and one located in the southern portion of the Site). In 1978, the service station was closed and the second-generation fuel structures were removed from the Site. Land use near the Site consists primarily of commercial and industrial properties. The Site is bounded on the northwest and southwest by a former food processing plant, on the northeast by San Leandro Street, and on the southeast by 98th Avenue. A Thrifty-branded service station was formerly located southeast of the Site at 9801 San Leandro Street (Case No.: RO0000894) and was granted closure on April 2, 1997.

THIRD QUARTER 2012 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Blaine Tech Services, Inc. (Blaine Tech) performed the Third Quarter 2012 groundwater monitoring and sampling event on September 27, 2012. Blaine Tech's standard operating

procedures (SOPs) and field data sheets are included in ***Attachment A***. Blaine Tech gauged depth-to-groundwater in five Site wells (MW-2, MW-5, MW-6, MW-8, and MW-9) prior to collecting groundwater samples for laboratory analysis. All five Site wells were sampled this quarter.

Investigation-derived waste (IDW) generated during the Third Quarter 2012 groundwater monitoring and sampling event was collected by Blaine Tech and transported under bill-of-lading to Integrated Wastestream Management, Inc. (IWM) facilities in San Jose, California.

Groundwater Elevation and Gradient

Well construction details and an assessment of whether groundwater samples were collected when groundwater elevations were measured across the well screen intervals are presented in ***Table 1***. All wells are currently screened across the prevailing water table, with the exception of well MW-2 where the screen interval is submerged. Groundwater elevation data from Third Quarter 2011 to the present are included in ***Table 2***. A groundwater elevation contour map (based on Third Quarter 2012 data) is shown on ***Figure 2***. The direction of groundwater flow at the time of sampling was generally towards the west at an approximate hydraulic gradient ranging from 0.001 to 0.003 feet per foot (ft/ft). This is consistent with the historical direction of groundwater flow, as shown by the Rose Diagram on ***Figure 3*** illustrating the direction of groundwater flow from Third Quarter 2011 to the present.

Schedule of Laboratory Analysis

Groundwater samples were collected and analyzed for the presence of total petroleum hydrocarbons as gasoline range organics (TPH-GRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), and methyl *tertiary*-butyl ether (MtBE) using United States Environmental Protection Agency (US EPA) Method 8260B (SW-846).

In addition, groundwater samples were analyzed for sulfate (SO_4^{2-}) and nitrate (NO_3^-) by US EPA Method 300.0, alkalinity to pH 4.5 (also known as total alkalinity) and alkalinity to pH 8.3 (also known as phenolphthalein alkalinity) by SM20 2320-B, methane (CH_4) by US EPA Method 8015B modified (SW-846), ferrous iron (Fe^{2+}) by SM20 3500-Fe B modified, and sulfide by SM20 4500-S2 D to further evaluate if Site conditions are suitable for monitored natural attenuation (MNA). Field measurements of post-purge dissolved oxygen (DO) and oxidation-reduction potential (ORP) were collected using an in-line flow-through cell.

Groundwater Analytical Results

During Third Quarter 2012, groundwater samples were collected from five Site wells (MW-2, MW-5, MW-6, MW-8, and MW-9). Groundwater analytical results from Third Quarter 2011 to the present are included in ***Table 2***. Parameters used to evaluate MNA are presented in ***Table 3***. A figure showing the latest groundwater analytical data plotted on a Site map is included as ***Figure 4***. A TPH-GRO isoconcentration map is shown on ***Figure 5***. A benzene isoconcentration map is shown on ***Figure 6***. An isoconcentration map was not developed for MtBE as concentrations in all Site wells were below the laboratory reporting limit (LRL) of 0.5 micrograms per liter (µg/L).

Certified laboratory analysis reports and chain-of-custody documents are presented as ***Attachment B***. Hydrographs based on groundwater elevations and analytical results from Third Quarter 2011 to the present are included in ***Attachment C***. A summary of Third Quarter 2012 groundwater analytical results follows:

- **TPH-GRO** was detected in four Site wells this quarter, at concentrations ranging from 27 µg/L (well MW-6) to 1,900 µg/L (well MW-8). TPH-GRO concentrations are within historical limits for each respective well with the exception of well MW-2 (93 µg/L), which is a historical low.

- **Benzene** was detected in one Site well this quarter, at a concentration of 43 µg/L (well MW-8), which is within historical limits for this well.

- **Toluene** was detected in one Site well this quarter, at a concentration of 2 µg/L (well MW-8), which is within historical limits for this well.

- **Ethylbenzene** was detected in one Site well this quarter, at a concentration of 10 µg/L (well MW-8), which is within historical limits for this well.

- **Total Xylenes** were detected in one Site well this quarter, at a concentration of 8 µg/L (well MW-8), which is within historical limits for this well.

- **MtBE** was not detected above the LRL (0.5 µg/L) in any Site well sampled this quarter.

Monitored Natural Attenuation Analytical Results

An evaluation of MNA involves assessing a variety of physical, chemical, and biological processes that, under favorable conditions, may effectively reduce the mass, toxicity, mobility, volume, or concentration of constituents in soil or groundwater. For petroleum hydrocarbons, intrinsic biodegradation is typically the most important natural attenuation mechanism for the reduction of concentrations in groundwater. Intrinsic biodegradation involves the transfer of energy in the form of electrons by microorganisms in the subsurface. Bacteria use petroleum hydrocarbon constituents such as TPH, BTEX compounds, and MtBE as electron donors while DO, NO_3^-, ferric iron (Fe^{3+}), SO_4^{2-}, and carbon dioxide (CO_2), in order of preference, act as electron acceptors.

The geochemical parameters measured at the Site include DO; Fe^{2+}, a metabolite of Fe^{3+} reduction; NO_3^-; SO_4^{2-}; CH_4, a metabolite of CO_2 reduction; alkalinity; sulfide, a metabolite of SO_4^{2-} reduction; and ORP. These parameters provide lines of evidence for evaluating MNA and determining the most likely biodegradation mechanisms utilized within the plume (e.g., Fe^{3+} reduction, SO_4^{2-} reduction, etc.). MNA parameters are summarized in ***Table 3***.

During Third Quarter 2012, DO levels (post-purge) in Site wells ranged between 0.91 milligrams per liter (mg/L; well MW-2) and 1.21 mg/L (well MW-8). The DO levels indicate an anaerobic environment is generally present in the Site wells. Consequently, alternative electron acceptors will be used for degradation.

ORP levels (post-purge) ranged between 50 millivolts (mV; well MW-8) and 141 mV (well MW-9). ORP values indicate oxidizing conditions. Values in this range are generally associated with aerobic respiration, NO_3^- reduction, and moving into the range of Fe^{3+} reduction.

Concentrations of NO_3^- ranged from 420 µg/L (well MW-8) to 1,700 µg/L (well MW-9). Concentrations of SO_4^{2-} ranged from 7,900 µg/L (well MW-8) to 32,200 µg/L (well MW-9). Lower NO_3^- and SO_4^{2-} concentrations were generally found in wells with higher petroleum hydrocarbon concentrations such as well MW-8 (and vice versa; e.g., well MW-9), indicating that NO_3^- and SO_4^{2-} are likely being utilized as electron acceptors for bioremediation of dissolved-phase petroleum hydrocarbons by indigenous microbes. The lower levels of NO_3^- in wells MW-6 and MW-8 is an indicator that the natural supply of NO_3^- at the Site may be nearly exhausted.

Concentrations of Fe^{2+} ranged from 53 µg/L (well MW-9) to 35,600 µg/L (well MW-8). Concentrations of CH_4 ranged from below the LRL of 5.0 µg/L (well MW-9) to 1,900 µg/L (well MW-8). Higher concentrations of metabolic by-products Fe^{2+} and CH_4 were generally found in wells with higher petroleum hydrocarbon concentrations such as well MW-8 (and vice versa; e.g., well MW-9). This indicates that Fe^{3+} and CO_2 reduction may be occurring.

Concentrations of sulfide were below the LRLs of 54 µg/L, 110 µg/L, and 270 µg/L in all Site wells except MW-2, where a sulfide concentration of 99 µg/L was detected. Though it is difficult to draw conclusions with limited detections, this may indicate that SO_4^{2-} reduction has just begun to occur at the Site.

Total alkalinity measurements ranged from 370,000 µg/L as calcium carbonate ($CaCO_3$; well MW-5) to 448,000 µg/L as $CaCO_3$ (well MW-2). The enrichment of alkalinity in wells MW-2, MW-6, and MW-8 suggests biodegradation is occurring.

In general, the subsurface is becoming oxygen depleted and it appears that the natural supply of NO_3^- may be nearly exhausted. Bioactivity appears to be occurring within Site wells, and Site conditions are currently becoming favorable for petroleum hydrocarbon degradation to occur via Fe^{3+} reduction. As Site conditions become more reducing, degradation rates may slow due to the lower levels of electron acceptors identified by groundwater sampling.

CONCLUSIONS AND RECOMMENDATIONS

Concentrations of TPH-GRO and benzene were observed above California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) for groundwater that is a current or potential source of drinking water as follows:

- TPH-GRO concentrations exceed the ESL of 100 µg/L in wells MW-5 and MW-8; and
- The benzene concentration exceeds the ESL of 1 µg/L in well MW-8.

Maximum concentrations of TPH-GRO and BTEX compounds were observed in well MW-8, which is located in the northern portion of the Site near the former second-generation USTs. TPH-GRO was also detected above the ESL in well MW-5, near the former first-generation dispenser island. Due to TPH-GRO below the ESL and BTEX compounds below LRLs in well MW-6 (cross-gradient of well MW-8) and the potential for two distinct source areas, TPH-GRO has been represented as two distinct plumes at this time. A historical low

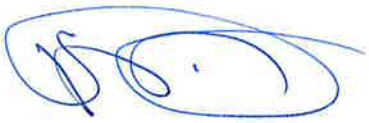
concentration of TPH-GRO was observed in down-gradient well MW-2. MtBE was not detected above LRLs in any Site well sampled this quarter.

MNA parameters were collected during the Third Quarter 2012 groundwater monitoring and sampling event. In general, the subsurface is becoming oxygen depleted and it appears that the natural supply of NO_3^- may be nearly exhausted. Bioactivity appears to be occurring within Site wells, and Site conditions are currently becoming favorable for petroleum hydrocarbon degradation to occur via Fe^{3+} reduction. As Site conditions become more reducing, degradation rates may slow due to the lower levels of electron acceptors identified by groundwater sampling.

Based on concentrations of TPH-GRO and benzene exceeding ESLs, Stantec recommends that the groundwater monitoring and sampling program continue; however, in the *Second Quarter 2012 Quarterly Groundwater Monitoring Report*, dated July 25, 2012, it was recommended that the groundwater monitoring and sampling frequency be reduced to semi-annual (during First and Third Quarter groundwater monitoring and sampling events). As a result, the next groundwater sampling event is planned for First Quarter 2013. Additionally, MNA parameters are recommended to be sampled during First Quarter 2013 to further evaluate biodegradation trends. Reports will continue to be submitted to Alameda County Environmental Health (ACEH) within 60 days following groundwater monitoring and sampling events.

If you have any questions regarding the contents of this report, please contact the Stantec project manager, Travis Flora, at (408) 356-6124 or travis.flora@stantec.com.

Sincerely,
Stantec Consulting Services Inc.



Travis L. Flora
Project Manager

Attachments:

Table 1 – Well Details / Screen Interval Assessment – Third Quarter 2012
Table 2 – Groundwater Monitoring Data and Analytical Results
Table 3 – Monitored Natural Attenuation Parameters

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map – Third Quarter 2012
Figure 3 – Rose Diagram – Third Quarter 2012
Figure 4 – Site Plan Showing Groundwater Concentrations – Third Quarter 2012
Figure 5 – TPH-GRO Isoconcentration Map – Third Quarter 2012
Figure 6 – Benzene Isoconcentration Map – Third Quarter 2012

Attachment A – Blaine Tech Groundwater Monitoring Report – Third Quarter 2012
Attachment B – Certified Laboratory Analysis Reports and Chain-of-Custody Documents
Attachment C – Hydrographs

cc:

Ms. Carryl MacLeod, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Linda Hothem Trust c/o Mr. Jan Greben, Greben & Associates, 1332 Anacapa Street, Suite 110, Santa Barbara, CA 93101

Ms. Gene Kida, Gerber Products, 12 Vreeland Road, Florham Park, NJ 07932

LIMITATIONS AND CERTIFICATION

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of Chevron for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Erin O'Malley
Engineering Project Specialist

Reviewed by:

Marisa Kaffenberger
Associate Engineer

All information, conclusions, and recommendations provided by Stantec in this document regarding the Subject Property have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

Licensed Approver:

Name: James May, P.G.

Date: 26 NOV 2012

Signature:

Stamp:

PROFESSIONAL GEOLOGIST
JAMES PATRICK MAY
NO. 8021
STATE OF CALIFORNIA

Tables

Table 1
Well Details / Screen Interval Assessment
Third Quarter 2012
Former Chevron-Branded Service Station 91723
9757 San Leandro Street, Oakland, California

Well ID	Date Installed	Well Type	Casing Diameter (inches)	Top of Casing (feet above msl)	Construction Well Depth (feet bgs)	Current Well Depth[1] (feet bgs)	Current Depth to Groundwater[1] (feet below TOC)	Screen Interval (feet bgs)	Screen Interval Assessment
MW-2	4/18/1987	Monitoring	2	21.31	22.00	21.50	9.81	12-22	Depth-to-groundwater above screen interval.
MW-5	5/18/1988	Monitoring	2	21.84	20.00	17.53	9.83	7-20	Depth-to-groundwater within screen interval.
MW-6	5/18/1988	Monitoring	2	21.71	20.00	19.58	9.93	7-20	Depth-to-groundwater within screen interval.
MW-8	5/19/1988	Monitoring	2	21.84	20.00	18.10	10.12	7-20	Depth-to-groundwater within screen interval.
MW-9	8/4/1989	Monitoring	4	20.55	20.00	20.11	9.24	5.5-20	Depth-to-groundwater within screen interval.

Notes:
bgs = below ground surface
msl = mean sea level
TOC = top of casing
[1] = As measured prior to groundwater sampling on September 27, 2012.

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 91723

9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (ft.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
MW-2									
09/23/11	21.31	9.78	11.53	180	<0.5	<0.5	0.6	0.6	0.6
12/29/11	21.31	9.73	11.58	100	<0.5	<0.5	0.7	0.9	<0.5
03/30/12	21.31	8.02	13.29	180	<0.5	<0.5	2	4	<0.5
06/12/12	21.31	9.58	11.73	99	<0.5	<0.5	<0.5	<0.5	<0.5
09/27/12	**21.31**	**9.81**	**11.50**	**93**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-5									
09/23/11	21.84	9.85	11.99	190	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/11	21.84	9.91	11.93	180	<0.5	<0.5	<0.5	<0.5	<0.5
03/30/12	21.84	7.92	13.92	190	<0.5	<0.5	<0.5	<0.5	<0.5
06/12/12	21.84	9.65	12.19	260	<0.5	<0.5	<0.5	<0.5	<0.5
09/27/12	**21.84**	**9.83**	**12.01**	**230**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-6									
09/23/11	21.71	9.99	11.72	<22	<0.5	<0.5	<0.5	<0.5	0.7
12/29/11	21.71	9.93	11.78	<22	<0.5	<0.5	<0.5	<0.5	0.6
03/30/12	21.71	8.00	13.71	<22	<0.5	<0.5	<0.5	<0.5	<0.5
06/12/12	21.71	9.76	11.95	66	<0.5	<0.5	<0.5	<0.5	<0.5
09/27/12	**21.71**	**9.93**	**11.78**	**27**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-8									
09/23/11	21.84	10.15	11.69	1,900	55	2	10	8	<0.5
12/29/11	21.84	10.10	11.74	1,300	31	1	5	5	<0.5
03/30/12	21.84	8.12	13.72	2,200	65	3	20	14	<0.5
06/12/12	21.84	9.90	11.94	2,300	49	2	14	14	<0.5
09/27/12	**21.84**	**10.12**	**11.72**	**1,900**	**43**	**2**	**10**	**8**	**<0.5**
MW-9									
09/23/11	20.55	9.30	11.25	<22	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/11	20.55	9.51	11.04	<22	<0.5	<0.5	<0.5	<0.5	<0.5
03/30/12	20.55	7.52	13.03	<22	<0.5	<0.5	<0.5	<0.5	<0.5
06/12/12	20.55	9.14	11.41	<22	<0.5	<0.5	<0.5	<0.5	<0.5
09/27/12	**20.55**	**9.24**	**11.31**	**<22**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 91723

9757 San Leandro Street, Oakland, California

WELL ID/ DATE	TOC (ft.)	DTW (ft.)	GWE (msl)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
TRIP BLANK									
QA									
09/23/11	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/11	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5
03/30/12	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5
06/12/12	--	--	--	<22	<0.5	<0.5	<0.5	<0.5	<0.5
09/27/12	**--**	**--**	**--**	**<22**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 91723

9757 San Leandro Street, Oakland, California

EXPLANATIONS:

Current groundwater monitoring data provided by Blaine Tech Services, Inc. Current laboratory analytical results provided by Lancaster Laboratories.

TOC = Top of Casing
(ft.) = Feet
DTW = Depth to Water
GWE = Groundwater Elevation
(msl) = Mean Sea Level

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes

MtBE = Methyl tertiary-butyl ether
(µg/L) = Micrograms per liter
-- = Not Measured/Not Analyzed
QA = Quality Assurance/Trip Blank

Table 3

Monitored Natural Attenuation Parameters

Former Chevron-Branded Service Station 91723

9757 San Leandro Street, Oakland, California

WELL ID/ DATE	METHANE (µg/L)	NITRATE (µg/L)	SULFATE (µg/L)	ALKALINITY TO pH 4.5 (µg/L as $CaCO_3$)	ALKALINITY TO pH 8.3 (µg/L as $CaCO_3$)	FERROUS IRON (µg/L)	SULFIDE (µg/L)	POST-PURGE DO (mg/L)	POST-PURGE ORP (mV)
MW-2									
03/30/12	330	320	10,600	545,000	<460	2,200	<270[1]	1.08	219
06/12/12	300	290	12,900	460,000	<700	1,400	<220[1]	0.86	135
09/27/12	**250**	**710**	**14,200**	**448,000**	**<700**	**450**	**99**	**0.91**	**138**
MW-5									
03/30/12	110	440	30,200	370,000	<460	300	<270[1]	1.11	222
06/12/12	120	890	44,800	387,000	<700	7,300	<220[1]	0.87	124
09/27/12	**110**	**980**	**30,200**	**370,000**	**<700**	**7,400**	**<110[1]**	**0.98**	**136**
MW-6									
03/30/12	62	<250	5,600	455,000	<460	210	<54	1.12	223
06/12/12	190	<250	6,300	458,000	<700	4,700	<110[1]	0.84	115
09/27/12	**170**	**640**	**8,500**	**434,000**	**<700**	**8,800**	**<110[1]**	**0.96**	**133**
MW-8									
03/30/12	2,100	2,300	32,200	454,000	<460	29,300	780[1]	1.15	230
06/12/12	1,700	<250	9,200	441,000	<700	43,200	<220[1]	0.98	47
09/27/12	**1,900**	**420**	**7,900**	**444,000**	**<700**	**35,600**	**<270[1]**	**1.21**	**50**
MW-9									
03/30/12	<5.0	<250	7,400	381,000	<460	31	<54	1.34	179
06/12/12	<5.0	2,900	32,900	397,000	<700	340	<54	0.92	128
09/27/12	**<5.0**	**1,700**	**32,200**	**398,000**	**<700**	**53**	**<54**	**1.10**	**141**

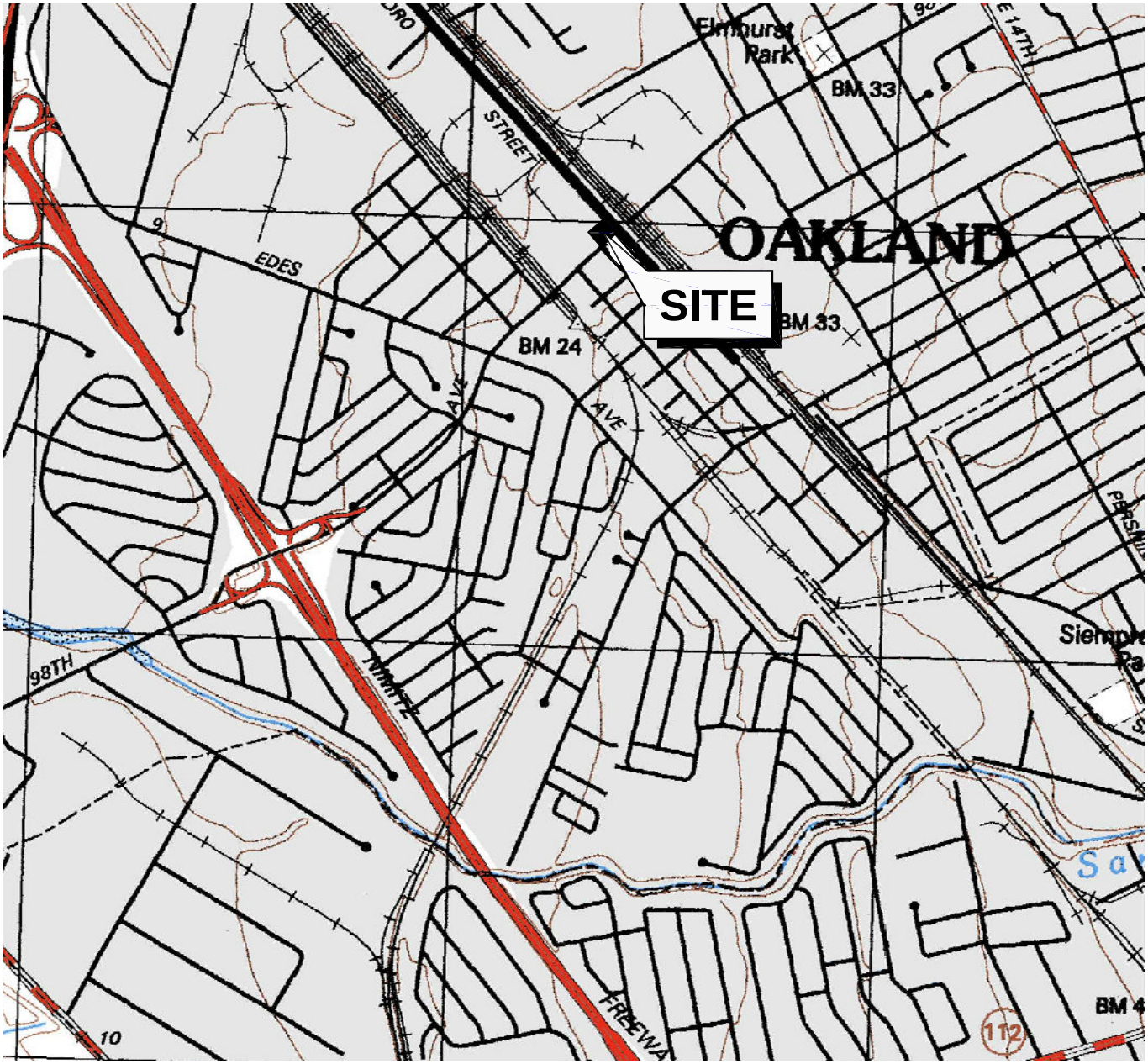
EXPLANATIONS:

Current groundwater monitoring data provided by Blaine Tech Services, Inc. Current laboratory analytical results provided by Lancaster Laboratories.

(µg/L) = Micrograms per liter
(µg/L as $CaCO_3$) = Micrograms per liter as calcium carbonate
DO = Dissolved Oxygen
(mg/L) = Milligrams per liter
ORP = Oxidation Reduction Potential
(mV) = Millivolts

[1] Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

Figures



N

CALIFORNIA

1 1/2 0 1

SCALE IN MILES

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE IN FEET

REFERENCE: USGS QUADRANGLE MAP : SAN LEANDRO, CA 1993

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

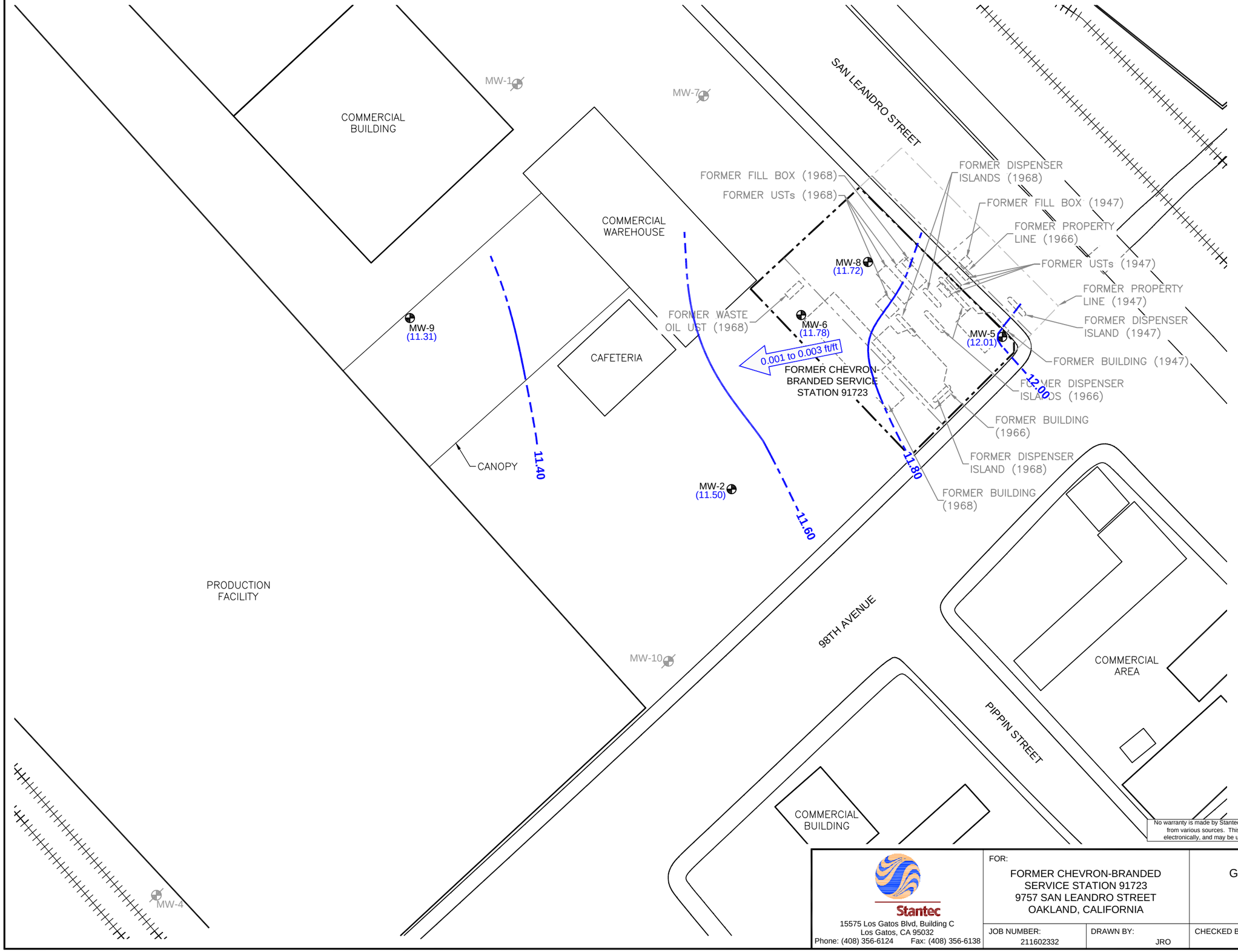
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602332	JRO	MRK	TLF	10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg|jopalekopsahl|Oct 11, 2012 at 8:21|Layout: Fig 1_SLM



LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD LOCATION
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- (11.50) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW. HYDRAULIC GRADIENT RANGES FROM 0.001 TO 0.003 FEET PER FOOT (ft/ft).

NOTES

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

GROUNDWATER ELEVATION DATA WERE COLLECTED ON SEPTEMBER 27, 2012

GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 8.0

No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

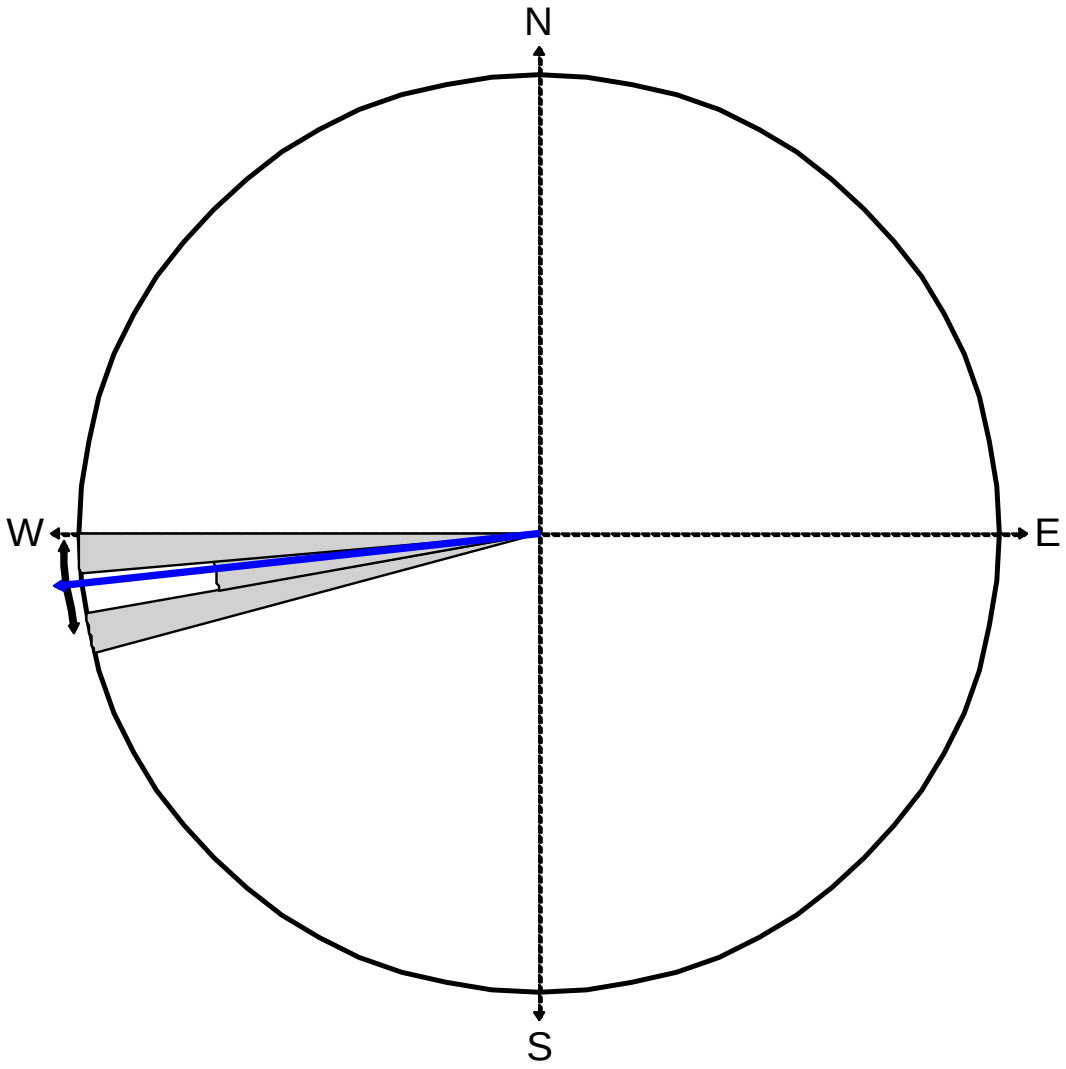
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP - THIRD QUARTER 2012

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602332	JRO	MRK	TLF	10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg|jopalekopsahl|Oct 11, 2012 at 8:19|Layout: Fig 2_GWE



Equal Area Plot

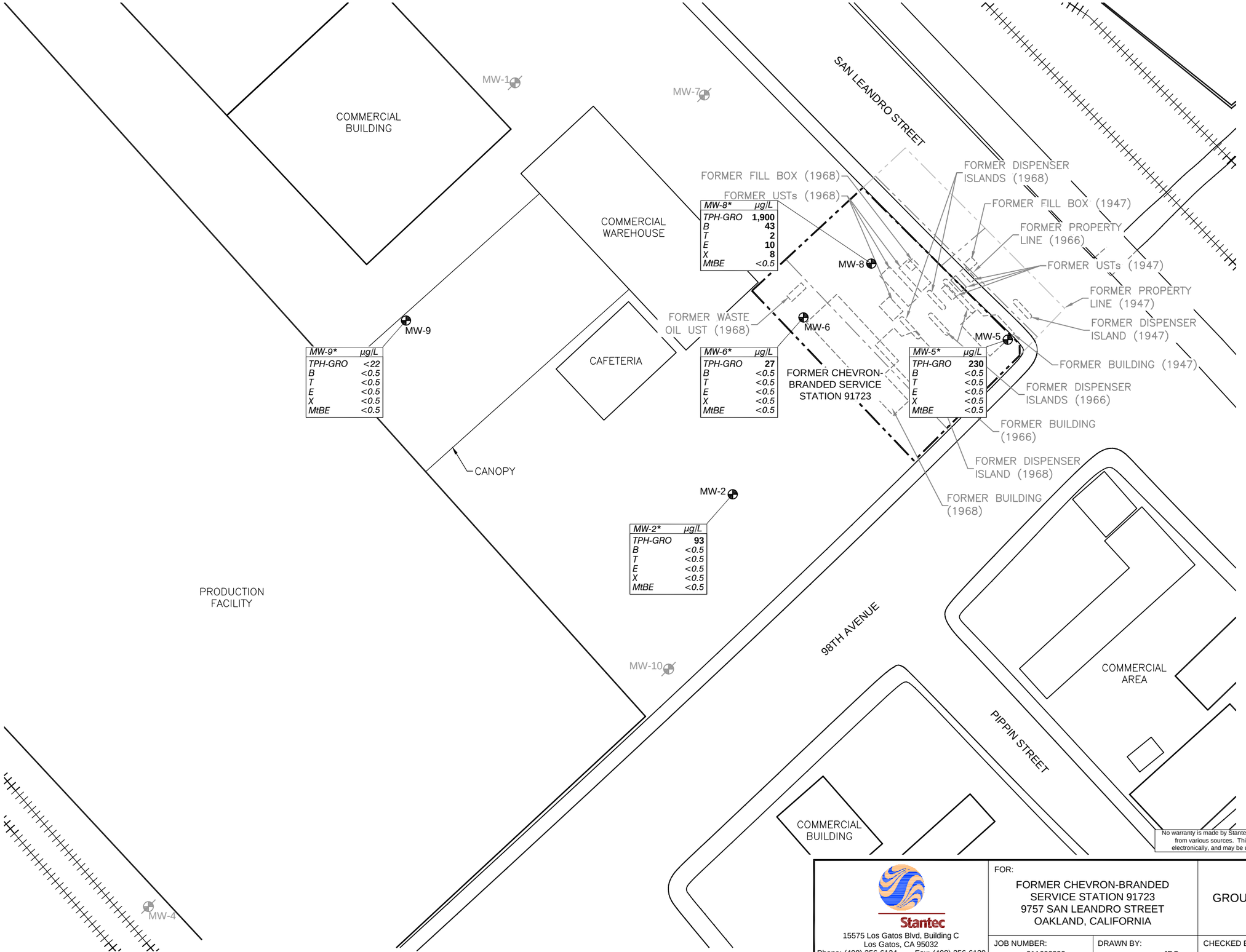
Number of Points	5
Class Size	5
Vector Mean	263.80
Vector Magnitude	4.98
Consistency Ratio	1.00

NOTE: ROSE DIAGRAM IS BASED ON THE DIRECTION OF GROUNDWATER FLOW BEGINNING THIRD QUARTER 2011.

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

FOR:			FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 91723 9757 SAN LEANDRO STREET OAKLAND, CALIFORNIA		ROSE DIAGRAM - THIRD QUARTER 2012	3
JOB NUMBER: 211602332	DRAWN BY: JRO	CHECKED BY: MRK	APPROVED BY: TLF	DATE: 10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg||jopalekopsahl|Oct 11, 2012 at 8:19|Layout: Fig 3_Rose



LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD LOCATION
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL

ANALYTES

TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
MtBE	METHYL TERTIARY-BUTYL ETHER

* = ADDITIONAL ANALYSES WERE RUN AND COMPLETE RESULTS ARE PRESENTED IN TABLE 3 AND ATTACHMENT B

µg/L = MICROGRAMS PER LITER

No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

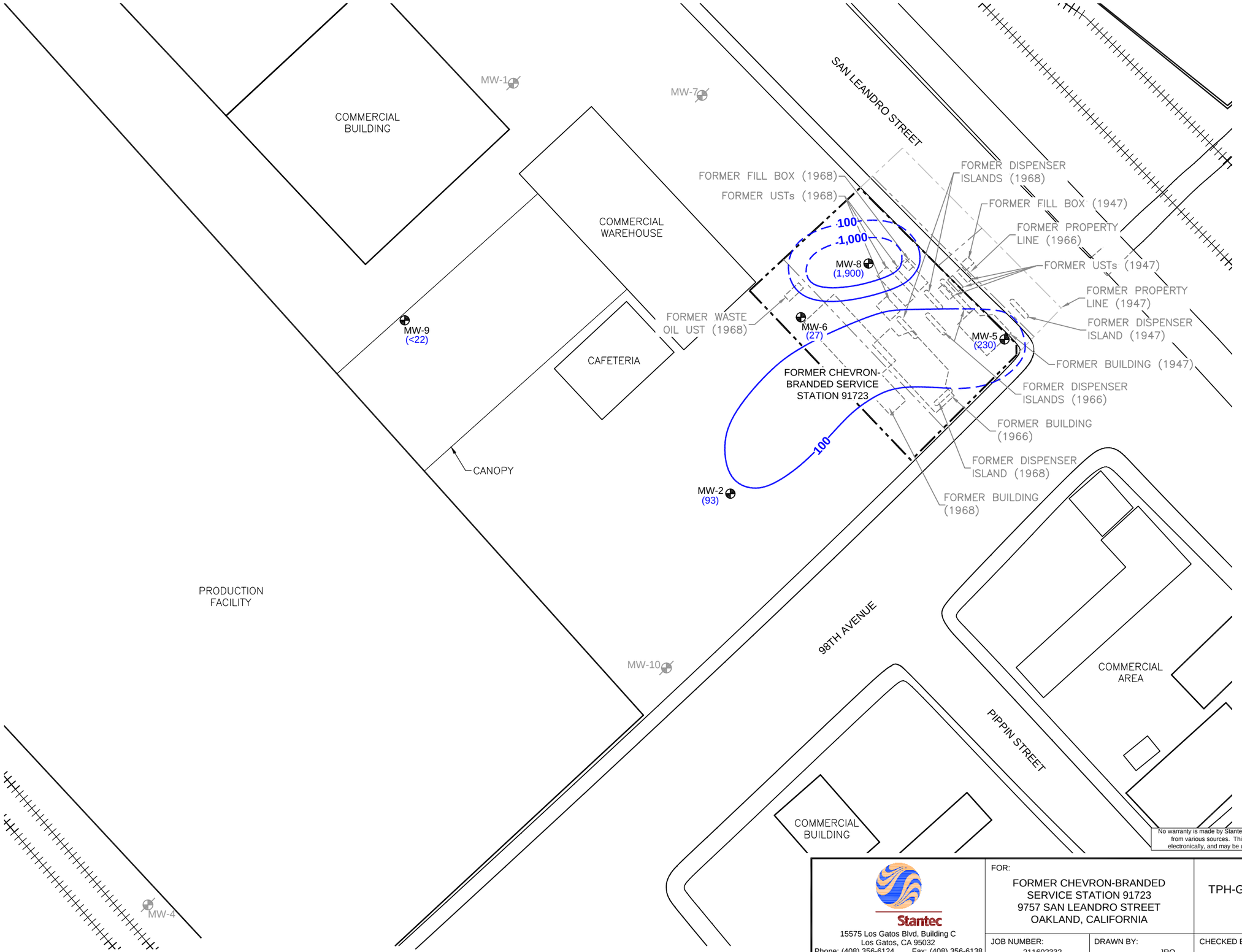
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

SITE PLAN SHOWING GROUNDWATER CONCENTRATIONS - THIRD QUARTER 2012

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602332	JRO	MRK	TLF	10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg|jopalekopsahl|Oct 11, 2012 at 8:19|Layout: Fig 4_GWC



No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

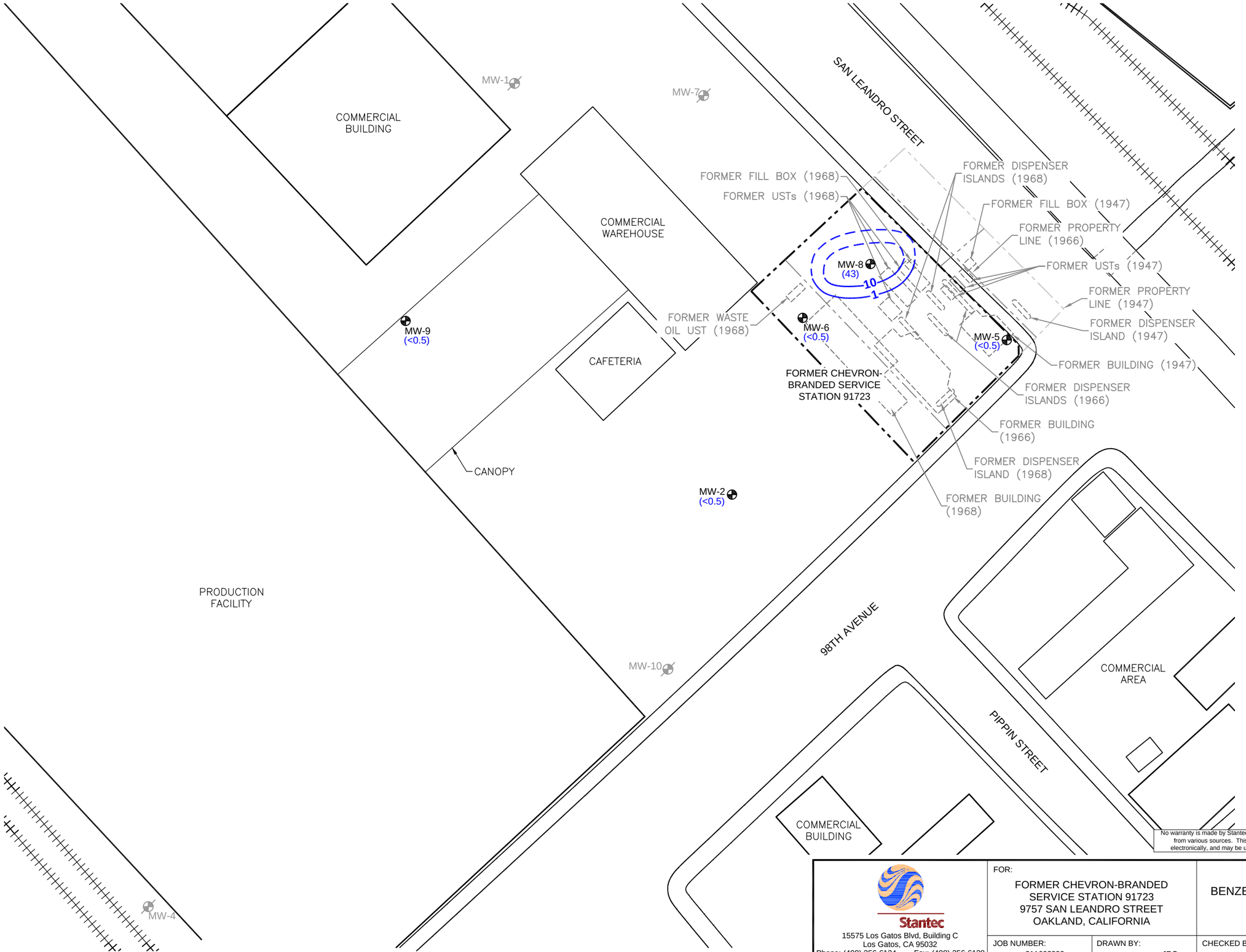
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

TPH-GRO ISOCONCENTRATION MAP - THIRD QUARTER 2012

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602332	JRO	MRK	TLF	10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg|jopalekopsahl|Nov 06, 2012 at 9:06|Layout: Fig 5_TPHg



No warranty is made by Stantec, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
Phone: (408) 356-6124 Fax: (408) 356-6138

FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 91723
9757 SAN LEANDRO STREET
OAKLAND, CALIFORNIA

BENZENE ISOCONCENTRATION MAP - THIRD QUARTER 2012

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602332	JRO	MRK	TLF	10/12/12

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\91723\GWM\2012\3Q12\Figures\CAD\91723_3Q12.dwg|jopalekopsahl|Nov 06, 2012 at 9:03|Layout: Fig 6_BNZ

Attachment A

Blaine Tech Groundwater Monitoring Report – Third Quarter 2012

BLAINE™
TECH SERVICES

October 2, 2012

Chevron Environmental Management Company
Carryl MacLeod
6111 Bollinger Canyon Rd.
San Ramon, CA 94583

Third Quarter 2012 Monitoring at
Chevron Service Station 91723
9757 San Leandro Blvd.
Oakland, CA

Monitoring performed on September 27, 2012

Blaine Tech Services, Inc. Groundwater Monitoring Event 120927-BW1

This submission covers the routine monitoring of groundwater wells conducted on September 27, 2012 at this location. Five monitoring wells were measured for depth to groundwater (DTW). Five monitoring wells were 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 of three case volumes, depending on well recovery, or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air displacement pumps or stainless steel, Teflon, or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols using disposable bailers. 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.

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

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

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
Chain of Custody
Wellhead Inspection Form
Bill of Lading
Calibration Log

cc: Stantec
Attn: Travis Flora
15575 Los Gatos Blvd Building C
Los Gatos, CA 95032

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 dewaters 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.

WELL GAUGING DATA

Project # 120927-BW1 Date 9/27/12 Client Chevron

Site 9757 San Leandro St. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or (TOC)	Notes
MW-2	1229	2					9.81	21.50		
MW-5	1238	2					9.83	17.53		
MW-6	1233	2					9.93	19.58		
MW-8	1242	2					10.12	18.10		
MW-9	1225	4					9.24	20.11	↓	

CHEVRON WELL MONITORING DATA SHEET

Project #: 120927-BW1	Station #: 9-1723
Sampler: BW	Date: 9/27/12
Weather: Clear	Ambient Air Temperature: 72
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 21.50	Depth to Water: 9.81
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.15	

Purge Method:

- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: Bailer

- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

1.9 (Gals.) X 3 = 5.7 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1330	69.1	7.48	807	>1000	2.0	
1334	68.6	7.09	841	>1000	4.0	
1338	68.8	7.06	858	>1000	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 9/27/12 Sampling Time: 1345 Depth to Water: 10.02

Sample I.D.: MW-2 Laboratory: (Lancaster) Other_____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.91 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	138 mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 120927-BW1	Station #: 9-1723
Sampler: BW	Date: 9/27/12
Weather: Clear	Ambient Air Temperature: 76
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 17.53	Depth to Water: 9.83
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.37	

Purge Method:

- Bailer
- (Disposable Bailer)
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other____

Sampling Method: Bailer

- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

1.2 (Gals.) X 3 = 3.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1425	68.1	7.51	815	>1000	1.5	
1427	67.9	7.38	814	>1000	2.5	
1430	67.4	7.36	814	>1000	4.0	

Did well dewater? Yes (No) Gallons actually evacuated: 4.0

Sampling Date: 9/27/12 Sampling Time: 1440 Depth to Water:

Sample I.D.: MW-5 Laboratory: (Lancaster) Other____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.98 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	136 mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 120927-BW1	Station #: 9-1723
Sampler: BW	Date: 9/27/12
Weather: Clear	Ambient Air Temperature: 74
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.58	Depth to Water: 9.93
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.86	

Purge Method:

- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: Bailer

- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

1.5 (Gals.) X 3 = 4.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1358	69.1	7.48	911	>1000	1.5	
1400	68.5	7.21	875	>1000	3.0	
1403	68.4	7.22	868	>1000	4.5	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 9/27/12 Sampling Time: 1410 Depth to Water: 10.12

Sample I.D.: MW-6 Laboratory: (Lancaster) Other_____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.96	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	133	mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 120927-BW1	Station #: 9-1723
Sampler: BW	Date: 9/27/12
Weather: Clear	Ambient Air Temperature: 76
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 18.10	Depth to Water: 10.12
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.72	

Purge Method:

- Bailer
- (X) Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other____

Sampling Method: Bailer

- (X) Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: ____

1.3 (Gals.) X 3 = 3.9 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1455	68.4	7.58	912	71000	1.5	
1458	67.9	7.42	898	>1000	3.0	
1501	67.7	7.31	902	>1000	4.0	

Did well dewater? Yes (No) Gallons actually evacuated:

Sampling Date: 9/27/12 Sampling Time: 1510 Depth to Water: 10.31

Sample I.D.: MW-8 Laboratory: (Lancaster) Other____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.21 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	50 mV

CHEVRON WELL MONITORING DATA SHEET

Project #: 120927-BW1	Station #: 9-1723
Sampler: BW	Date: 9/27/12
Weather: Clear	Ambient Air Temperature: 72
Well I.D.: MW-9	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 20.11	Depth to Water: 9.24
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.41	

Purge Method:

- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: Bailer

- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

7.1 (Gals.) X 3 = 21.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1255	65.9	6.52	1170	77	7.0	
1302	65.5	6.57	916	71	14.0	
1309	65.3	6.55	910	68	21.5	

Did well dewater? Yes (No) Gallons actually evacuated: 21.5

Sampling Date: 9/27/12 Sampling Time: 1320 Depth to Water: 9.46

Sample I.D.: MW-9 Laboratory: (Lancaster) Other_____

Analyzed for: TPH-G BTEX MTBE OXYS Other: See COC

Duplicate I.D.: Analyzed for: TPH-G BTEX MTBE OXYS Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.10 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	141 mV

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6111 Bollinger Canyon Rd.■ San Ramon, CA 94583 COC 1 of 1

Chevron Site Number: 91723

Chevron Site Global ID: T0600101789

Chevron Site Address: 9757 San Leandro St.,

Oakland, CA

Chevron PM: DAVE PATTEN

Chevron PM Phone No.: (925)543-1740

☒ Retail and Terminal Business Unit (RTBU) Job
☒ Construction/Retail Job

Chevron Consultant: STANTEC

Address: 15575 Los Gatos Blvd., Bldg. C Los Gatos,

CA Consultant Contact: Travis Flora

Consultant Phone No. 408-356-6124

Consultant Project No. 120927 - BW1

Sampling Company: Blaine Tech Services

Sampled By (Print): Brian Weeks

Sampler Signature:

Charge Code:
NWRTB 00SITE NUMBER-0-WBS
(WBS ELEMENTS:
SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L
SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L

THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT CORRECTLY AND COMPLETELY.

Lancaster Laboratories

☒ Lancaster, PA
Lab Contact: Jill Parker

2425 New Holland Pike,
Lancaster, PA 17601
Phone No:
(717)656-2300

Other Lab

Temp. Blank Check

Time	Temp.
1300	1°C
1500	1°C
1700	1°C

ANALYSES REQUIRED

SAMPLE ID: Field Point Name	Matrix	Top Depth	Date (yymmdd)	Sample Time	# of Containers	Container Type	EPA 8260B/GC/MS TPH-G☒ BTEX☒ MTBE☒ OXYGENATES☐ HVOC☐	EPA 8015B GRO☐ DRO☐ ORO☐ HC SCREEN☐	EPA 8021B BTEX☐ MTBE☐	EPA 6010 Ca, Fe, K, Mg, Mn, Na	EPA6010/7000 TITLE 22 METALS☐ TTLC☐ STLC☐	EPA 150.1 PH☐	EPA 310.1 ALKALINITY☒	SM2510B SPECIFIC CONDUCTIVITY •	EPA 418.1 TRPH☐	EPA 413.1 OIL & GREASE☐	EPA 8260 ETHANOL	EPA 8015 TPH-D☐	Sulfate, Nitrate, Ferrous Iron, Methane, Sulfide	Notes/Comments
MW-2			120927	1345	13	Mix	X					X	X						X	
MW-5				1440	13		X					X	X						X	
MW-6				1410	13		X					X	X						X	
MW-8				1510	13		X					X	X						X	
MW-9				1320	13		X					X	X						X	
QA			120927	1210	2	VOA	X													

Special Instructions
Must meet lowest detection limits possible for 8260 Compounds

Preservation Codes

H =HCL T= Thiosulfate

N =HNO_3 B = NaOH

S = H_2SO_4 O = Other

Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time
	BTS	9/27/12 1720		CET	9/27/12 1720
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time

Turnaround Time:
Standard☒ 24 Hours☐ 48 hours☐ 72 Hours☐ Other☐

Sample Integrity: (Check by lab on arrival)

Intact: ____ On Ice: ____ Temp: ____

COC #

WELLHEAD INSPECTION CHECKLIST

Client Chevron Date 9/27/12

Site Address 9757 San Leandro St. Oakland

Job Number 120927-BW1 Technician BW

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS CLEARLY MARKED WITH THE WORDS "MONITORING WELL" (12"or less)	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-2		X	X	2/2	bolts	missing				
MW-5		Christy								
MW-6		Christy								
MW-8		X	X	1/2	tabs broken, Lid broken					
MW-9		X	X	2/2	bolts missing					

NOTES: No locks on all.

CHEVRON-NORTHERN CALIFORNIA TYPE **A** BILL OF LADING BILL OF LADING No. BTS019

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:

Carryl MacLeod

9-1723 ~~Dave Potter~~

CHEVRON # Chevron Engineer

9757 San Leandro St. Oakland CA

street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-2	6		
MW-5	4		
MW-6	5		
MW-8	4		
MW-9	22		
added equip. rinse water	4	any other adjustments	

TOTAL GALS. RECOVERED 47

loaded onto BTS vehicle # 29

BTS event # 120927-BW1 time 1600 date 9/27/12

Transporter signature

****

REC'D AT BTS-SS time 1800 date 9/27/12

Unloaded/received by signature

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 9757 San Leandro St. Oakland				PROJECT NUMBER 120927-BW1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron-L Ultrameter II	62030998	9/27/12 @0630	pH 7, 10, 4 Cond 3900 ms/cm ORP	7.0, 10.0, 4.0 3900 ms/cm 241 mv	ok ✓	16.5°C	✓
Hach 2100Q Turbidimeter	12010C015213	9/27/12 @0640	800 ntu	807 ntu	ok ✓	N/A	✓
YSI 550A	08B100951	9/27/12 @0642	100%	100%	ok ✓	N/A	✓

Attachment B

Certified Laboratory Analysis Reports and Chain-of-Custody Documents

eurofins | Lancaster Laboratories

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

Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

October 09, 2012

Project: 91723

Submittal Date: 09/28/2012
Group Number: 1338631
PO Number: 0015101071
Release Number: HORNE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-2-W-120927 NA Water	6804862
MW-5-W-120927 NA Water	6804863
MW-6-W-120927 NA Water	6804864
MW-8-W-120927 NA Water	6804865
MW-9-W-120927 NA Water	6804866
QA-T-120927 NA Water	6804867

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

ELECTRONIC COPY TO	Stantec	Attn: Laura Viesselman
ELECTRONIC COPY TO	Stantec	Attn: Erin O'Malley
ELECTRONIC COPY TO	Stantec	Attn: Marisa Kaffenberger
ELECTRONIC COPY TO	Stantec	Attn: Travis Flora

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

Respectfully Submitted,

Jill M. Parker
Senior Specialist

(717) 556-7262

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: MW-2-W-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-2

LLI Sample # WW 6804862
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 13:45 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	93	22	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 Miscellaneous	**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	250	5.0	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	710	250	5
00228	Sulfate	14808-79-8	14,200	1,500	5
	SM20 2320 B		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	448,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	450	10	1
	SM20 4500 S2 D		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	99	54	1

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 14:49	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 14:49	Daniel H Heller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122790018A	10/05/2012 11:38	Elizabeth J Marin	1
00368	Nitrate Nitrogen	EPA 300.0	1	12272987602A	09/28/2012 17:34	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	12272987602A	09/28/2012 17:34	Clinton M Wilson	5
12150	Total Alkalinity	SM20 2320 B	1	12276004101A	10/02/2012 23:29	Clayton C Litchmore	1

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: **MW-2-W-120927 NA Water**
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-2

LLI Sample # WW 6804862
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 13:45 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12276004101A	10/02/2012 23:29	Clayton C Litchmore	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12273834401A	09/29/2012 20:30	Daniel S Smith	1
00230	Sulfide	SM20 4500 S2 D	1	12276023002A	10/02/2012 16:05	Susan E Hibner	1

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: MW-5-W-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-5

LLI Sample # WW 6804863
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 14:40 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	230	22	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 Miscellaneous	**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	110	5.0	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	980	250	5
00228	Sulfate	14808-79-8	30,200	1,500	5
	SM20 2320 B		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	370,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	7,400	250	25
	SM20 4500 S2 D		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	110	2

Reporting limits were raised due to interference from the sample matrix.

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 16:01	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 16:01	Daniel H Heller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122790018A	10/05/2012 11:58	Elizabeth J Marin	1
00368	Nitrate Nitrogen	EPA 300.0	1	12272987602A	09/28/2012 17:18	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	12272987602A	09/28/2012 17:18	Clinton M Wilson	5

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: **MW-5-W-120927 NA Water**
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-5

LLI Sample # WW 6804863
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 14:40 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM5

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12150	Total Alkalinity	SM20 2320 B	1	12276004101A	10/02/2012 23:35	Clayton C Litchmore	1
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12276004101A	10/02/2012 23:35	Clayton C Litchmore	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12273834401A	09/29/2012 20:30	Daniel S Smith	25
00230	Sulfide	SM20 4500 S2 D	1	12276023002A	10/02/2012 16:05	Susan E Hibner	2

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: MW-6-W-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-6

LLI Sample # WW 6804864
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 14:10 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	27	22	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 Miscellaneous	**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	170	5.0	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	640	250	5
00228	Sulfate	14808-79-8	8,500	1,500	5
	SM20 2320 B		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	434,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	8,800	250	25
	SM20 4500 S2 D		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	110	2

Reporting limits were raised due to interference from the sample matrix.

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 16:25	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 16:25	Daniel H Heller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122790018A	10/05/2012 12:18	Elizabeth J Marin	1
00368	Nitrate Nitrogen	EPA 300.0	1	12272987602A	09/28/2012 17:49	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	12272987602A	09/28/2012 17:49	Clinton M Wilson	5

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: **MW-6-W-120927 NA Water**
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-6

LLI Sample # WW 6804864
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 14:10 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM6

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12150	Total Alkalinity	SM20 2320 B	1	12276004102A	10/02/2012 23:52	Clayton C Litchmore	1
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12276004102A	10/02/2012 23:52	Clayton C Litchmore	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12273834401A	09/29/2012 20:30	Daniel S Smith	25
00230	Sulfide	SM20 4500 S2 D	1	12277023003A	10/03/2012 09:05	Susan E Hibner	2

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: MW-8-W-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-8

LLI Sample # WW 6804865
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 15:10 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	43	0.5	1
10945	C6-C12-TPH-GRO	n.a.	1,900	22	1
10945	Ethylbenzene	100-41-4	10	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	2	0.5	1
10945	Xylene (Total)	1330-20-7	8	0.5	1
GC Miscellaneous	**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	1,900	100	20
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	420	250	5
00228	Sulfate	14808-79-8	7,900	1,500	5
	SM20 2320 B		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	444,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	35,600	1,000	100
	SM20 4500 S2 D		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	270	5

Reporting limits were raised due to interference from the sample matrix.

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 16:49	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 16:49	Daniel H Heller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122790018A	10/05/2012 17:17	Elizabeth J Marin	20
00368	Nitrate Nitrogen	EPA 300.0	1	12272987602A	09/28/2012 18:04	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	12272987602A	09/28/2012 18:04	Clinton M Wilson	5

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: **MW-8-W-120927 NA Water**
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-8

LLI Sample # WW 6804865
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 15:10 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM8

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12150	Total Alkalinity	SM20 2320 B	1	12276004102A	10/03/2012 00:04	Clayton C Litchmore	1
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12276004102A	10/03/2012 00:04	Clayton C Litchmore	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12273834401A	09/29/2012 20:30	Daniel S Smith	100
00230	Sulfide	SM20 4500 S2 D	1	12277023004A	10/03/2012 12:15	Susan E Hibner	5

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: MW-9-W-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-9

LLI Sample # WW 6804866
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 13:20 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	N.D.	22	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 Miscellaneous	**SW-846 8015B modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	5.0	1
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,700	250	5
00228	Sulfate	14808-79-8	32,200	1,500	5
	SM20 2320 B		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	398,000	700	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	700	1
	SM20 3500 Fe B modified		**ug/l**	**ug/l**	
08344	Ferrous Iron	n.a.	53	10	1
	SM20 4500 S2 D		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 17:13	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 17:13	Daniel H Heller	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122790018A	10/05/2012 12:56	Elizabeth J Marin	1
00368	Nitrate Nitrogen	EPA 300.0	1	12272987602A	09/28/2012 18:49	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	12272987602A	09/28/2012 18:49	Clinton M Wilson	5
12150	Total Alkalinity	SM20 2320 B	1	12276004102A	10/03/2012 00:09	Clayton C Litchmore	1

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: **MW-9-W-120927 NA Water**
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 MW-9

LLI Sample # WW 6804866
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 13:20 by BW

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOM9

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12276004102A	10/03/2012 00:09	Clayton C Litchmore	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12273834401A	09/29/2012 20:30	Daniel S Smith	1
00230	Sulfide	SM20 4500 S2 D	1	12277023004A	10/03/2012 12:15	Susan E Hibner	1

eurofins | Lancaster Laboratories

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

Analysis Report

Sample Description: QA-T-120927 NA Water
Facility# 91723 BTST
9757 San Leandro-Oakland T0600101789 QA

LLI Sample # WW 6804867
LLI Group # 1338631
Account # 10869

Project Name: 91723

Collected: 09/27/2012 12:10

Submitted: 09/28/2012 09:40
Reported: 10/09/2012 10:15

ChevronTexaco
L4310
6001 Bollinger Canyon Rd.
San Ramon CA 94583

SLOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	C6-C12-TPH-GRO	n.a.	N.D.	22	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

General Sample Comments

State of California Lab Certification No. 2501

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	GRO/BTEX/MTBE 8260 Water	SW-846 8260B	1	Z122772AA	10/03/2012 17:37	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z122772AA	10/03/2012 17:37	Daniel H Heller	1

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

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1338631
Reported: 10/09/12 at 10:15 AM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z122772AA	Sample number(s): 6804862-6804867							
Benzene	N.D.	0.5	ug/l	91		77-121		
C6-C12-TPH-GRO	N.D.	22.	ug/l	133	128	80-160	4	30
Ethylbenzene	N.D.	0.5	ug/l	98		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	88		68-121		
Toluene	N.D.	0.5	ug/l	94		79-120		
Xylene (Total)	N.D.	0.5	ug/l	94		77-120		
Batch number: 122790018A	Sample number(s): 6804862-6804866							
Methane	N.D.	5.0	ug/l	95		80-120		
Batch number: 12272987602A	Sample number(s): 6804862-6804866							
Nitrate Nitrogen	N.D.	50.	ug/l	103		90-110		
Sulfate	N.D.	300.	ug/l	104		90-110		
Batch number: 12273834401A	Sample number(s): 6804862-6804866							
Ferrous Iron	N.D.	10.	ug/l	101		93-105		
Batch number: 12276004101A	Sample number(s): 6804862-6804863							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 12276004102A	Sample number(s): 6804864-6804866							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 12276023002A	Sample number(s): 6804862-6804863							
Sulfide	N.D.	54.	ug/l	93		90-110		
Batch number: 12277023003A	Sample number(s): 6804864							
Sulfide	N.D.	54.	ug/l	96		90-110		
Batch number: 12277023004A	Sample number(s): 6804865-6804866							
Sulfide	N.D.	54.	ug/l	97		90-110		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

*- 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.

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

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1338631
Reported: 10/09/12 at 10:15 AM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: Z122772AA	Sample number(s): 6804862-6804867 UNSPK: 6804862								
Benzene	107	109	72-134	1	30				
Ethylbenzene	114	113	71-134	0	30				
Methyl Tertiary Butyl Ether	103	103	72-126	1	30				
Toluene	111	112	80-125	1	30				
Xylene (Total)	109	109	79-125	0	30				
Batch number: 122790018A	Sample number(s): 6804862-6804866 UNSPK: P805055								
Methane	55	50	35-157	5	20				
Batch number: 12272987602A	Sample number(s): 6804862-6804866 UNSPK: P805046 BKG: P805046								
Nitrate Nitrogen	103		90-110			N.D.	N.D.	0 (1)	20
Sulfate	106		90-110			62,600	65,600	5	20
Batch number: 12273834401A	Sample number(s): 6804862-6804866 UNSPK: P804790 BKG: P804790								
Ferrous Iron	96	98	81-112	1	6	3,100	3,100	1 (1)	5
Batch number: 12276004101A	Sample number(s): 6804862-6804863 UNSPK: P804645 BKG: P804645								
Total Alkalinity	75		73-121			241,000	243,000	1	5
Phenolphthalein Alkalinity						N.D.	N.D.	0 (1)	5
Batch number: 12276004102A	Sample number(s): 6804864-6804866 UNSPK: P805046 BKG: 6804864								
Total Alkalinity	7*	6*	73-121	1	5	434,000	438,000	1	5
Phenolphthalein Alkalinity						N.D.	N.D.	0 (1)	5
Batch number: 12276023002A	Sample number(s): 6804862-6804863 UNSPK: P803774 BKG: P803774								
Sulfide	99	99	43-137	0	16	N.D.	N.D.	0 (1)	5
Batch number: 12277023003A	Sample number(s): 6804864 UNSPK: P804802 BKG: P804802								
Sulfide	82	84	43-137	2	16	N.D.	N.D.	0 (1)	5
Batch number: 12277023004A	Sample number(s): 6804865-6804866 UNSPK: P804839 BKG: P804839								
Sulfide	95	88	43-137	7	16	120	130	4 (1)	5

Surrogate Quality Control

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

Analysis Name: UST VOCs + GRO by 8260B-Water
Batch number: Z122772AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6804862	104	98	103	93
6804863	103	96	103	92
6804864	107	100	103	93
6804865	101	93	103	100
6804866	105	98	101	92
6804867	107	99	102	92
Blank	107	98	103	92

*- 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.

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

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1338631
Reported: 10/09/12 at 10:15 AM

Surrogate Quality Control

LCS	103	104	100	98
LCSD	104	98	104	95
MS	101	96	102	99
MSD	102	100	104	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 122790018A

	Propene
6804862	54
6804863	58
6804864	53
6804865	85
6804866	52
Blank	103
LCS	112
MS	56
MSD	52
Limits:	42-131

*- 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.

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ▪ 6111 Bollinger Canyon Rd.▪ San Ramon, CA 94583 COC 1 of 1

Chevron Site Number: 91723
Chevron Site Global ID: T0600101789
Chevron Site Address: 9757 San Leandro St., Oakland, CA
Chevron PM: DAVE PATTEN
Chevron PM Phone No.: (925)543-1740
☒ Retail and Terminal Business Unit (RTBU) Job
☒ Construction/Retail Job

Chevron Consultant: STANTEC
Address: 15575 Los Gatos Blvd., Bldg. C Los Gatos, CA
Consultant Contact: Travis Flora
Consultant Phone No. 408-356-6124
Consultant Project No. 120927 - BW1
Sampling Company: Blaine Tech Services
Sampled By (Print): Brian Weeks
Sampler Signature:

Charge Code:
NWRTB 00SITE NUMBER-0- WBS
(WBS ELEMENTS:
SITE ASSESSMENT: **A1L** REMEDIATION IMPLEMENTATION: **R5L**
SITE MONITORING: **OML** OPERATION MAINTENANCE & MONITORING: **M1L**

THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT CORRECTLY AND COMPLETELY.

Lancaster Laboratories
☒ Lancaster, PA
Lab Contact: Jill Parker
2425 New Holland Pike, Lancaster, PA 17601
Phone No: (717)656-2300

Other Lab

Temp. Blank Check

Time	Temp.
1300	1°C
1500	1°C
1700	1°C

ANALYSES REQUIRED

SAMPLE ID							EPA 8260B/GC/MS TPH-G ☒ BTEX ☒ MTBE ☒ OXYGENATES ☐ HVOC ☐	EPA 8015B GRO ☐ DRO ☐ ORO ☐ HC SCREEN ☐	EPA 8021B BTEX ☐ MTBE ☐	EPA 6010 Ca, Fe, K, Mg, Mn, Na	EPA6010/7000 TITLE 22 METALS ☐ TTLC ☐ STLC ☐	EPA150.1 PH ☐	EPA 310.1 ALKALINITY ☒	SM2510B SPECIFIC CONDUCTIVITY •	EPA 418.1 TRPH ☐	EPA 413.1 OIL & GREASE ☐	EPA 8260 ETHANOL	EPA 8015 TPH-D ☐	Sulfate, Nitrate, Ferrous Iron, Methane, Sulfide	Preservation Codes
Field Point Name	Matrix	Top Depth	Date (yymmdd)	Sample Time	# of Containers	Container Type														Notes/Comments
MW-2			120927	1345	13	mix	X					X						X	X	
MW-5				1440	13		X					X						X	X	
MW-6				1410	13		X					X						X	X	
MW-8				1510	13		X					X						X	X	
MW-9				1320	13		X					X						X	X	
QA			120927	1210	2	VOA	X													

Acct# 10869
Grp# 1338631
Sample # 6804862-67

Special Instructions
Must meet lowest detection limits possible for 8260 Compounds

Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time
	BTS	9/27/12 1720		CLT	9/27/12 1720
		9/27/12	FE		
				CLT	9/28/12 0940

Turnaround Time:
Standard ☒ 24 Hours ☐ 48 hours ☐ 72 Hours ☐ Other ☐

Sample Integrity: (Check by lab on arrival)
Intact: X On Ice: X Temp: 0.5-5.4°C

COC #

eurofins | Lancaster Laboratories

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	Pesticide result confirmed by GC/MS	**M**	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	**N**	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

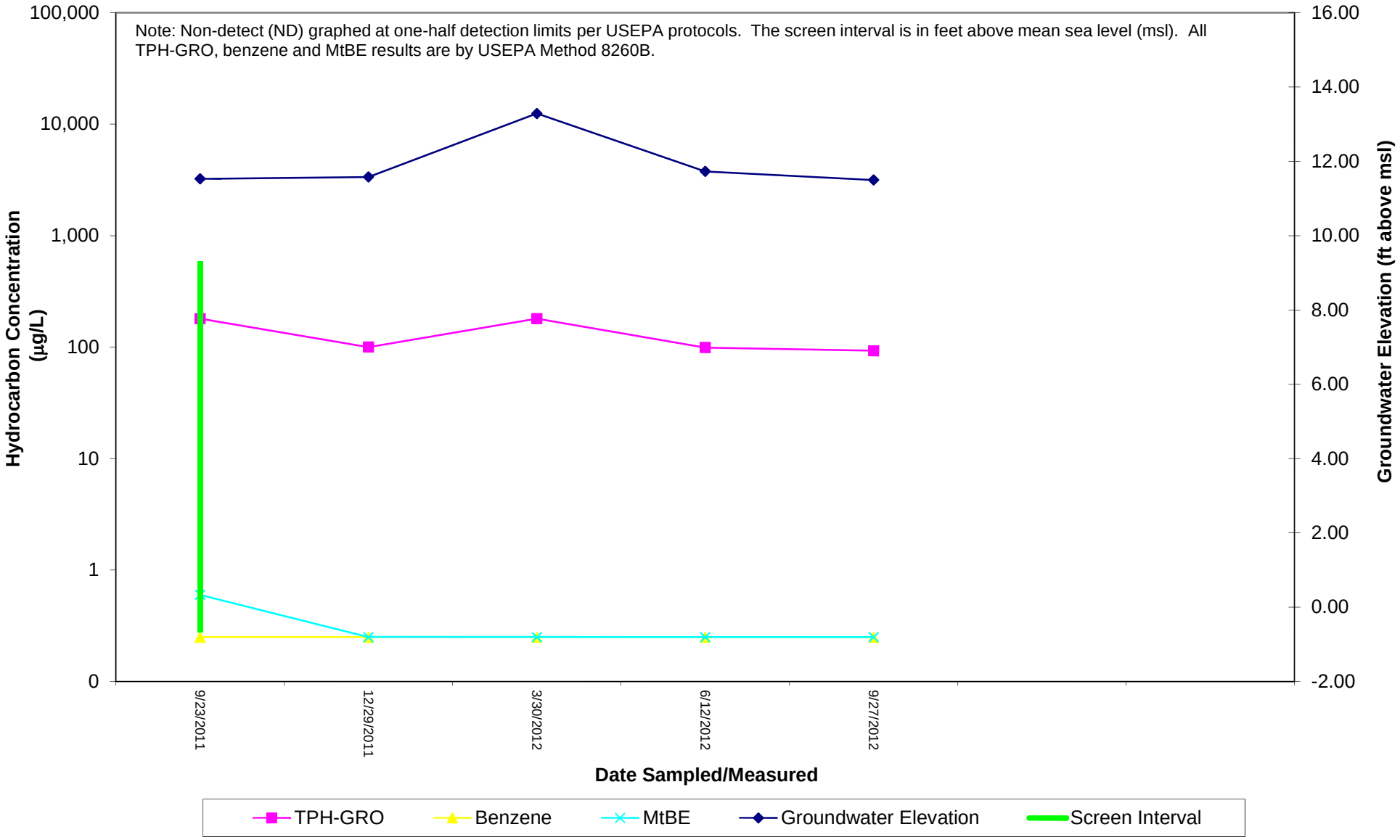
Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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 LANCASTER LABORATORIES 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 LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES 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 Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Attachment C

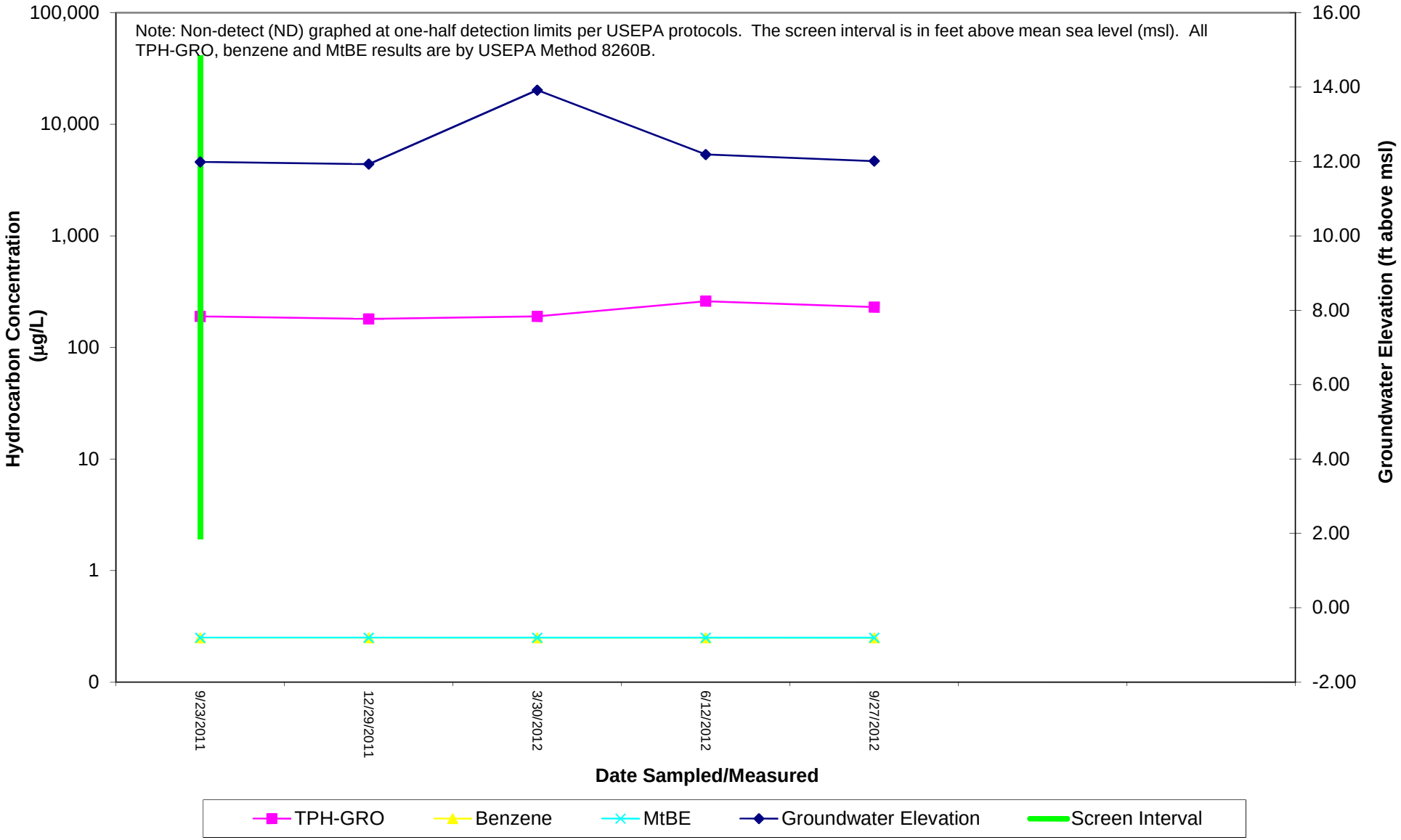
Hydrographs

MW-2 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California

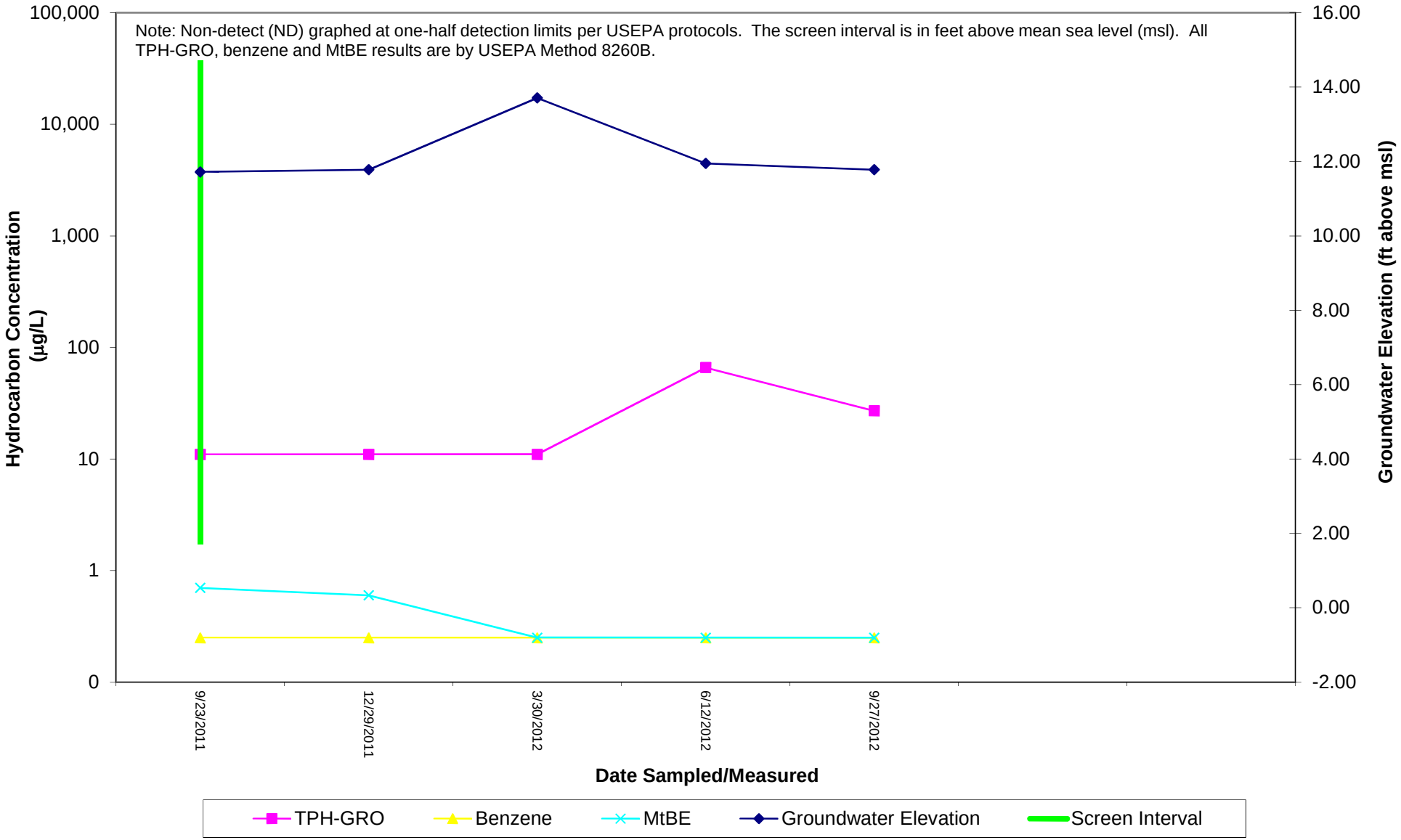


MW-5 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

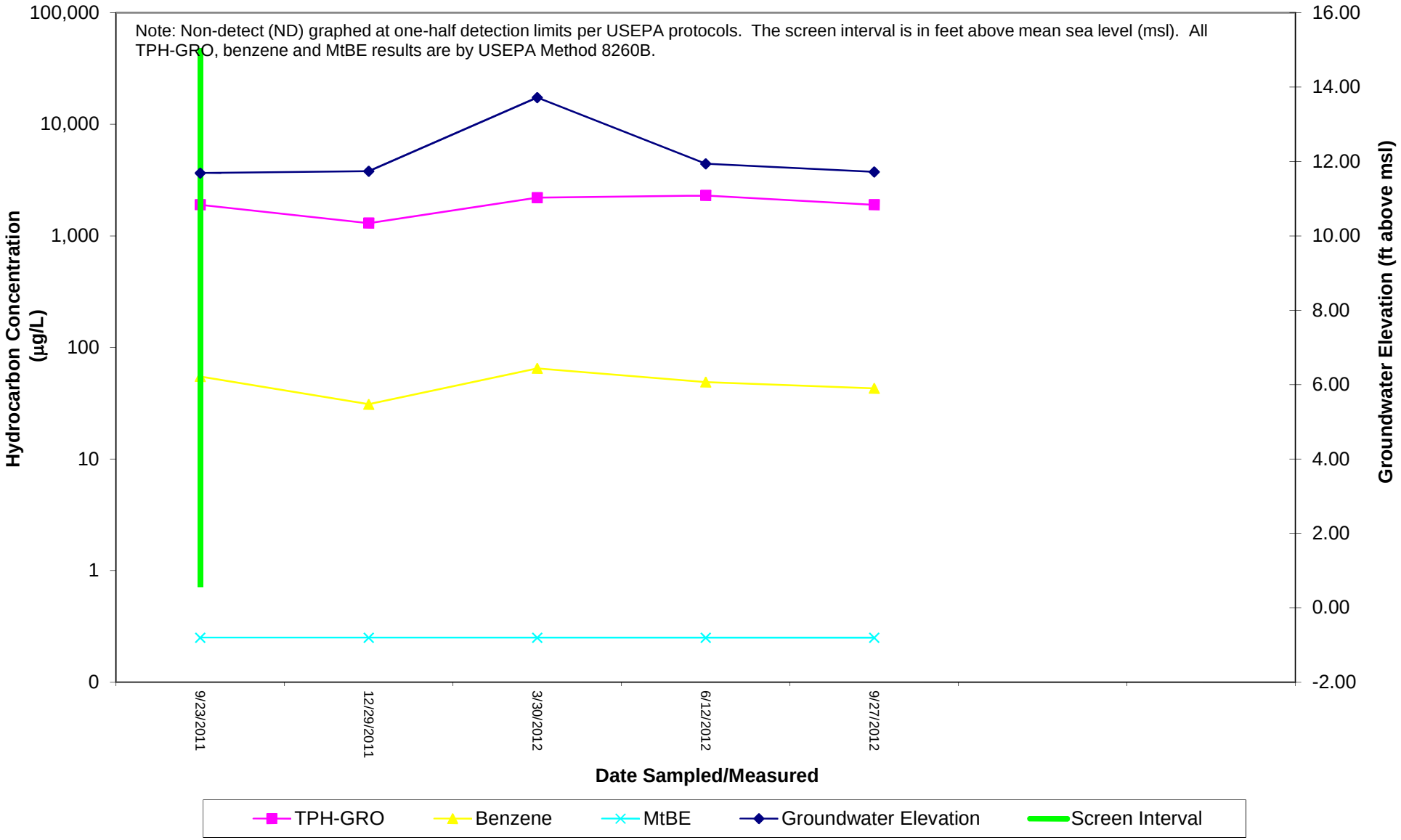
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California



MW-6 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California



MW-8 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California



MW-9 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time
Former Chevron-branded Service Station 91723
9757 San Leandro Street
Oakland, California