RECEIVED
By Alameda County Environmental Health at 11:50 am, Jul 14, 2014

Second Quarter 2014 Semi-Annual Groundwater Monitoring Report

Former Chevron-branded
Service Station 92029
890 West MacArthur Boulevard
Oakland, California
Case #: RO0002438

Stantec

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

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

July 11, 2014

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

July 11, 2014

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Dear Mr. Detterman:

Attached for your review is the *Second Quarter 2014 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 92029, located at 890 West MacArthur Boulevard in Oakland, California (**Case #:** RO0002438**)**. 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

July 11, 2014

Attention: **Mr. Mark Detterman**
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502

Reference: **Second Quarter 2014 Semi-Annual Groundwater Monitoring Report**
Former Chevron-branded Service Station 92029
890 West MacArthur Boulevard, Oakland, California
Case #: RO0002438

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *Second Quarter 2014 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 92029, which was located at 890 West MacArthur Boulevard, Oakland, Alameda County, California (the Site - shown on **Figure 1**). This report is presented in three sections: Site Background, Second Quarter 2014 Groundwater Monitoring and Sampling Program, and Conclusions and Recommendations.

SITE BACKGROUND

The Site is a former Chevron-branded service station located on the northeast corner at the intersection of West MacArthur Boulevard and Market Street in Oakland, California. The Site is currently a fenced vacant lot. A former Chevron-branded service station operated at the Site from approximately 1956 to 2004. Prior to 1970, Site features consisted of two 5,000-gallon and one 3,000-gallon gasoline underground storage tanks (USTs) located in the eastern portion of the Site, three fuel dispenser islands (one located in the northwestern portion of the Site and two located in the central portion of the Site), associated product piping, a station building with two hydraulic hoists, and a waste oil UST (unknown size) located in the northern portion of the Site. The product piping was replaced in 1970, and the 3,000-gallon UST was replaced with a 10,000-gallon UST sometime before 1978. In 1982, the two 5,000-gallon and one 10,000-gallon USTs were replaced with three 10,000-gallon fiberglass USTs.

In 1984, the service station building was demolished, the hydraulic hoists were removed, and a kiosk was installed near the center of the Site. In addition, the three fuel dispenser islands were removed from the Site and replaced with five fuel dispenser islands (two located in the north-central portion of the Site and three located in the south-central portion of the Site). The fuel dispenser islands were replaced and the USTs were upgraded in 1997. The waste oil UST was removed from the Site sometime between 1984 and 1997. In 2005, the service station was closed and all Site structures, including the three 10,000-gallon fiberglass USTs and fuel dispenser islands, were removed. According to the *Well Installation Report*, prepared by Conestoga-Rovers & Associates (CRA) and dated November 18, 2008, extensive over-excavation was performed at this time and approximately 5,135 tons of impacted soil and 25,500 gallons of groundwater were removed and disposed off Site.

Land use near the Site consists of a mixture of commercial and residential properties. The Site is bounded to the north by a residential area, on the west by Market Street followed by a small grocery store and associated parking, on the south by West MacArthur Boulevard followed by a tire sales and service shop, and to the east by a small hotel.

In a letter dated December 18, 2013, Alameda County Environmental Health (ACEH) requested, at a minimum, a one-time sampling of Site wells for tetrachloroethene (PCE) to eliminate the waste oil UST as a potential source for a larger groundwater plume. PCE was added to the groundwater sampling program at all Site wells for Second Quarter 2014.

SECOND QUARTER 2014 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Gettler-Ryan Inc. (G-R) performed the Second Quarter 2014 groundwater monitoring and sampling event on May 14, 2014. G-R's standard operating procedures (SOPs) and field data sheets are included in **Attachment A**. G-R gauged depth-to-groundwater in four Site wells (MW-5, MW-6, MW-7, and MW-8) prior to collecting groundwater samples for laboratory analysis. All four wells, which are located down-gradient of the Site, were sampled this quarter.

Investigation-derived waste (IDW) generated during the Second Quarter 2014 groundwater monitoring and sampling event was transported by Clean Harbors Environmental Services to Seaport Environmental in Redwood City, California.

Groundwater Elevation and Gradient

Well construction details and a screen interval assessment for each Site well are presented in **Table 1**. All four Site wells are currently screened across the prevailing groundwater table. Current and historical groundwater elevation data are presented in **Table 2**. A groundwater elevation contour map (based on Second Quarter 2014 data) is shown on **Figure 2**. The direction of groundwater flow at the time of sampling was generally towards the southwest at an approximate hydraulic gradient of 0.036 feet per foot (ft/ft). This is generally consistent with the historical direction of groundwater flow, as shown by the Rose Diagram on **Figure 3** illustrating the direction of groundwater flow from Second Quarter 2011 to present.

Schedule of Laboratory Analysis

Groundwater samples were collected and analyzed for total petroleum hydrocarbons as gasoline range organics (TPH-GRO) using United States Environmental Protection Agency (US EPA) Method 8015B (SW-846). Benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), fuel oxygenates including methyl *tertiary*-butyl ether (MtBE), di-isopropyl ether (DIPE), ethyl *tertiary*-butyl ether (EtBE), *tertiary*-amyl methyl ether (TAME), and *tertiary*-butyl alcohol (TBA), and PCE were analyzed using US EPA Method 8260B (SW-846).

Groundwater Analytical Results

During Second Quarter 2014, groundwater samples were collected from four Site wells (MW-5, MW-6, MW-7, and MW-8). Current and historical groundwater analytical results are included in **Table 2** and **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**. A MtBE isoconcentration map is shown on **Figure 7**.

Certified laboratory analysis reports and chain-of-custody documents are presented as **Attachment B**. Hydrographs based on current and historical groundwater elevations and analytical results are included in **Attachment C**. A summary of Second Quarter 2014 groundwater analytical results follows. Historical trends were not analyzed for PCE as it was only analyzed during Second Quarter 2014.

- **TPH-GRO** was detected in three Site wells this quarter, at concentrations of 3,500 micrograms per liter (µg/L; well MW-5), 5,000 µg/L (well MW-6), and 8,200 µg/L (well MW-7), which are within historical limits for each respective well.

- **Benzene** was detected in three Site wells this quarter, at concentrations of 1 µg/L (well MW-5), 140 µg/L (well MW-6), and 380 µg/L (well MW-7), which are within historical limits for each respective well.

- **Toluene** was detected in two Site wells this quarter, at concentrations of 2 µg/L (well MW-5) and 6 µg/L (well MW-6), which are within historical limits for each respective well.

- **Ethylbenzene** was detected in three Site wells this quarter, at concentrations of 4 µg/L (well MW-5), 46 µg/L (well MW-6), and 460 µg/L (well MW-7), which are within historical limits for each respective well.

- **Total Xylenes** were detected in two Site wells this quarter, at concentrations of 2 µg/L (well MW-6) and 34 µg/L (well MW-7), which are within historical limits for each respective well.

- **MtBE** was detected in two Site wells this quarter, at concentrations of 4 µg/L (well MW-7) and 10 µg/L (well MW-6). The concentration in well MW-6 is within historical limits, while the concentration in well MW-7 is equal to the lowest detected concentration for the well.

- **DIPE** was not detected above the laboratory reporting limits (LRLs; 0.5 µg/L and 1 µg/L) in any Site well sampled this quarter.

- **EtBE** was not detected above the LRLs (0.5 µg/L and 1 µg/L) in any Site well sampled this quarter.

- **TAME** was not detected above the LRLs (0.5 µg/L and 1 µg/L) in any Site well sampled this quarter.

- **TBA** was detected in one Site well this quarter, at a concentration of 8 µg/L (well MW-6), which is within historical limits for this well.

- **PCE** was not detected above the LRLs (0.5 µg/L and 1 µg/L) in any Site well sampled this quarter.

CONCLUSIONS AND RECOMMENDATIONS

Concentrations were conservatively compared to California Regional Water Quality Control Board – San Francisco Bay Region Environmental Screening Levels (ESLs) for groundwater that is a current or potential source of drinking water and concentrations of TPH-GRO, benzene,

ethylbenzene, total xylenes, and MtBE were observed equal to or above ESLs in select wells as follows:

- TPH-GRO concentrations exceed the ESL of 100 µg/L in wells MW-5, MW-6, and MW-7;
- Benzene concentrations equal or exceed the ESL of 1 µg/L in wells MW-5, MW-6, and MW-7;
- Ethylbenzene concentrations exceed the ESL of 30 µg/L in wells MW-6 and MW-7;
- The total xylenes concentration exceeds the ESL of 20 µg/L in well MW-7; and
- The MtBE concentration exceeds the ESL of 5 µg/L in well MW-6.

During Second Quarter 2014, maximum concentrations of petroleum hydrocarbons were observed in well MW-6, located down-gradient of former service station features (fuel dispenser islands and gasoline USTs) situated in the southern and eastern portions of the Site, and well MW-7, which is located approximately 95 feet down-gradient of well MW-6. TPH-GRO and benzene were also detected above or equal to the ESL in well MW-5, located down-gradient of former service station features (fuel dispenser islands, hydraulic hoists, and waste oil UST) situated in the northern portion of the Site. The dissolved-phase petroleum hydrocarbon plume does not appear to extend to the furthest down-gradient well MW-8, which is approximately 190 feet southwest of the Site.

Current and historical groundwater quality data indicate that the dissolved-phase petroleum hydrocarbon plume is generally stable or decreasing in overall size and concentration. However, the dissolved-phase petroleum hydrocarbon plume remains undefined off Site, and therefore current Site conditions do not satisfy any of the groundwater-specific criteria scenarios set forth in the Low-Threat UST Case Closure Policy (LTCP).

Based on concentrations of TPH-GRO, benzene, ethylbenzene, total xylenes, and MtBE equal to or above ESLs, Stantec recommends continuation of the semi-annual groundwater monitoring and sampling program; however, as PCE was not detected in any Site well, PCE analysis will be discontinued. Reports will continue to be submitted to ACEH within 60 days following groundwater monitoring and sampling events.

In a letter dated December 18, 2013, ACEH responded to the *Site Conceptual Model and Data Gap Work Plan*, dated August 16, 2013, with technical comments and requested a meeting to discuss an efficient strategy for collecting data at the Site in an effort to progress the Site towards closure and redevelopment as residential. The correspondence requested a work plan addendum based on the strategy decided upon during the meeting and that addressed ACEH's technical comments. The strategy meeting was held on May 8, 2014, a summary of the conclusions from that meeting was provided by ACEH in a letter dated May 14, 2014, and the *Work Plan Addendum* was submitted on June 11, 2014. The scope of the work plan addendum includes the advancement of five on-site soil borings (SB-11 through SB-15) and six off-site soil borings (SB-16 through SB-21) and collection of shallow soil and groundwater samples to evaluate the lateral extent of petroleum hydrocarbons in soil and groundwater and determine if the Site meets the groundwater-specific and vapor intrusion to indoor air criteria set forth in the LTCP. Should soil and groundwater results from sampling of the on- and off-site soil borings indicate potential vapor intrusion risk, soil vapor probes may be installed and sampled.
In addition, updated sensitive receptor and water supply well surveys were proposed. ACEH approved of the *Work Plan Addendum* in a letter dated July 9, 2014 and Stantec will begin planning and scheduling the proposed activities.

Please feel free to contact me if you have any questions regarding the contents of this report.

Sincerely,
Stantec Consulting Services Inc.

Travis L. Flora
Associate Project Manager
Phone: (408) 356-6124
Travis.Flora@stantec.com

Attachments:

Table 1 – Well Details / Screen Interval Assessment – Second Quarter 2014
Table 2 – Groundwater Monitoring Data and Analytical Results
Table 3 – Groundwater Analytical Results – Oxygenate Compounds

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map – Second Quarter 2014
Figure 3 – Groundwater Flow Direction Rose Diagram – Second Quarter 2014
Figure 4 – Site Plan Showing Groundwater Concentrations – Second Quarter 2014
Figure 5 – TPH-GRO Isoconcentration Map – Second Quarter 2014
Figure 6 – Benzene Isoconcentration Map – Second Quarter 2014
Figure 7 – MtBE Isoconcentration Map – Second Quarter 2014

Attachment A – Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2014
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

Mr. Buyandalai Itgel, 787 Marlesta Road, Pinole, CA 94564 – Electronic Copy

This document entitled Second Quarter 2014 Semi-Annual Groundwater Monitoring Report was prepared by Stantec Consulting Services Inc. for the account of Chevron Environmental Management Company. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec Consulting Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Prepared by Erin O'Malley
(signature)

Erin O'Malley
Project Engineer

Reviewed by
(signature)
FOR:

Marisa Kaffenberger
Senior Engineer

Reviewed by
(signature)

Travis L. Flora
Associate Project Manager

Reviewed by
(signature)

PROFESSIONAL GEOLOGIST
Mark Paul Bare
No. 8435
6-30-16
STATE OF CALIFORNIA

Mark Bare, P.G.
Senior Geologist

TABLES

Table 1
Well Details / Screen Interval Assessment
Second Quarter 2014
Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard, 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-5	07/24/08	Monitoring	2	49.39	25.00	24.99	6.74	5-25	Depth-to-groundwater within screen interval.
MW-6	07/24/08	Monitoring	2	49.07	25.00	24.95	6.29	5-25	Depth-to-groundwater within screen interval.
MW-7	07/24/08	Monitoring	2	48.74	25.00	24.89	8.73	5-25	Depth-to-groundwater within screen interval.
MW-8	07/24/08	Monitoring	2	47.61	25.00	24.99	11.69	5-25	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 May 14, 2014.

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

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)
	Groundwater ESL			**100**	**5**	**40**	**30**	**20**	**5**
MW-5									
08/22/08[1]	49.39	9.97	39.42	--	--	--	--	--	--
08/27/08[3]	49.39	10.03	39.36	54	0.5	0.8	<0.5	0.7	10
11/21/08[3]	49.39	8.42	40.97	6,000	93	6	37	6	8
02/13/09[3]	49.39	7.11	42.28	5,100	31	5	20	3	6
05/08/09[3]	49.39	7.21	42.18	3,600	18	4	14	2	2
08/07/09[3]	49.39	9.60	39.79	520	0.7	<0.5	<0.5	<0.5	2
11/05/09[3]	49.39	7.08	42.31	7,400	16	5	18	4	0.9
05/06/10[3]	49.39	6.08	43.31	3,500	4	2	3	0.9	0.9
11/03/10[5]	49.39	9.05	40.34	5,000	13	4	8	3	0.9
05/10/11[5]	49.39	7.26	42.13	3,200	6	4	7	0.9	<0.5
11/10/11[5]	49.39	7.60	41.79	2,600	6	3	10	2	<0.5
05/11/12[5]	49.39	6.48	42.91	3,300	<3	<3	<3	<3	<3
11/14/12[3]	49.39	8.89	40.50	2,100	3	2	3	0.6	<0.5
05/08/13[3]	49.39	8.41	40.98	2,100	2	0.9	2	<0.5	<0.5
11/06/13[3]	49.39	9.81	39.58	160	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14[3]	**49.39**	**6.74**	**42.65**	**3,500**	**1**	**2**	**4**	**<0.5**	**<0.5**
MW-6									
08/22/08[1]	49.07	8.98	40.09	--	--	--	--	--	--
08/27/08[3]	49.07	8.98	40.09	6,000	990	4	350	530	440
11/21/08[3]	49.07	8.12	40.95	14,000	1,000	15	1,300	550	300
02/13/09[3]	49.07	5.84	43.23	9,700	630	4	510	36	180
05/08/09[3]	49.07	5.77	43.30	7,600	240	4	470	67	38
08/07/09[3]	49.07	8.49	40.58	14,000	1,500	12	1,400	180	330
11/05/09[3]	49.07	6.72	42.35	22,000	870	8	1,300	130	160
05/06/10[3]	49.07	4.89	44.18	5,200	110	2	160	23	9
11/03/10[5]	49.07	8.05	41.02	13,000	1,100	8	670	58	160
05/10/11[4,5]	49.07	8.56	40.51	<50	0.6	<0.5	<0.5	<0.5	<0.5
11/10/11[5]	49.07	7.59	41.48	5,700	260	7	180	13	37
05/11/12[5]	49.07	5.68	43.39	1,200	36	0.6	0.8	<0.5	1
11/14/12[3]	49.07	9.83	39.24	6,400	290	9	180	6	36
05/08/13[3]	49.07	7.21	41.86	2,000	77	1	9	<0.5	6
11/06/13[3]	49.07	9.27	39.80	5,300	330[6]	3[6]	8[6]	1[6]	78[6]
05/14/14[3]	**49.07**	**6.29**	**42.78**	**5,000**	**140**	**6**	**46**	**2**	**10**

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

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)
	Groundwater ESL			**100**	**5**	**40**	**30**	**20**	**5**
MW-7									
08/22/08[1]	48.74	10.20	38.54	--	--	--	--	--	--
08/27/08[3]	48.74	10.19	38.55	<50	<0.5	0.6	<0.5	0.7	6
11/21/08[3]	48.74	9.51	39.23	1,100	80	<0.5	65	0.7	6
02/13/09[3]	48.74	7.95	40.79	630	30	<0.5	38	0.9	7
05/08/09[3]	48.74	8.04	40.70	1,200	83	<0.5	190	2	8
08/07/09[3]	48.74	9.88	38.86	8,900	240	0.7	770	5	5
11/05/09[3]	48.74	9.03	39.71	12,000	630	<1	1,300	420	5
05/06/10[3]	48.74	7.88	40.86	4,000	190	<0.5	270	7	6
11/03/10[5]	48.74	9.48	39.26	5,700	150	0.7	45	2	4
05/10/11[5]	48.74	8.82	39.92	3,500	180	<0.5	150	2	5
11/10/11[5]	48.74	9.68	39.06	1,500	2	<0.5	2	<0.5	5
05/11/12[5]	48.74	8.37	40.37	9,200	440	<5	1,000	33	<5
11/14/12[3]	48.74	9.79	38.95	5,000	<3	<3	6	<3	4
05/08/13[3]	48.74	9.54	39.20	2,200	10	<0.5	2	<0.5	5
11/06/13[3]	48.74	10.60	38.14	790	<0.5	<0.5	<0.5	<0.5	4
05/14/14[3]	**48.74**	**8.73**	**40.01**	**8,200**	**380[6]**	**<1[6]**	**460[6]**	**34[6]**	**4[6]**
MW-8									
08/22/08[1]	47.61	12.41	35.20	--	--	--	--	--	--
08/27/08[3]	47.61	12.42	35.19	<50	<0.5	0.7	<0.5	0.6	<0.5
11/21/08[3]	47.61	11.42	36.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/13/09[3]	47.61	8.87	38.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/09[3]	47.61	10.79	36.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09[3]	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/05/09[3]	47.61	11.23	36.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/06/10[3]	47.61	10.28	37.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/03/10[5]	47.61	11.37	36.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/10/11[5]	47.61	11.55	36.06	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/10/11[5]	47.61	11.49	36.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/11/12[5]	47.61	10.89	36.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/14/12[3]	47.61	11.73	35.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13[3]	47.61	12.03	35.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13[3]	47.61	12.63	34.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14[3]	**47.61**	**11.69**	**35.92**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

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)
	Groundwater ESL			**100**	**5**	**40**	**30**	**20**	**5**
MW-1									
03/12/02[1]	50.71	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
06/07/02	50.71	8.69	42.02	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
09/13/02	50.71	9.28	41.43	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
12/13/02	50.71	8.48	42.23	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
03/01/03	50.71	7.34	43.37	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5[2]
06/27/03[3]	50.71	9.29	41.42	<50	<0.5	0.6	<0.5	<0.5	<0.5
09/30/03[3]	50.71	10.17	40.54	<50	<0.5	0.6	<0.5	<0.5	<0.5
12/03/03[3]	50.71	7.82	42.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04[3]	50.71	6.57	44.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04[3]	50.71	9.78	40.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04[3]	50.71	9.91	40.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04[3]	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05[3]	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05[3]	50.71	8.59	42.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05[3]	50.71	9.38	41.33	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	50.71	8.44	42.27	--	--	--	--	--	--
03/20/06	50.71	3.05	47.66	--	--	--	--	--	--
06/01/06	50.71	6.77	43.94	--	--	--	--	--	--
09/11/06	50.71	9.18	41.53	--	--	--	--	--	--
DESTROYED									
MW-2									
03/12/02[1]	52.57	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3[2]
06/07/02	52.57	8.65	43.92	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
09/13/02	52.57	9.58	42.99	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
12/13/02	52.57	8.50	44.07	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2[2]
03/01/03	52.57	7.00	45.57	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5[2]
06/27/03[3]	52.57	9.59	42.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03[3]	52.57	10.64	41.93	<50	<0.5	<0.5	<0.5	<0.5	0.7
12/03/03[3]	52.57	7.54	45.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04[3]	52.57	6.05	46.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04[3]	52.57	10.15	42.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04[3]	52.57	10.14	42.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04[3]	52.57	2.29	50.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05[3]	52.57	2.44	50.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05[3]	52.57	8.99	43.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05[3]	52.57	10.17	42.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	52.57	8.99	43.58	--	--	--	--	--	--

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
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)
	Groundwater ESL			**100**	**5**	**40**	**30**	**20**	**5**
MW-2 (cont)									
03/20/06	52.57	2.70	49.87	--	--	--	--	--	--
06/01/06	51.57	6.51	45.06	--	--	--	--	--	--
09/11/06	51.57	10.06	41.51	--	--	--	--	--	--
DESTROYED									
MW-3									
03/12/02[1]	50.31	6.50	43.81	12,000	600	8.5	1,100	370	700/650[2]
06/07/02	50.31	7.74	42.57	14,000	630	8.8	1,200	160	520/490[2]
09/13/02	50.31	9.73	40.58	3,000	270	3.2	200	11	600/640[2]
12/13/02	50.31	8.60	41.71	24,000	1,100	14	2,400	220	650/540[2]
03/01/03	50.31	6.75	43.56	16,000	500	9.0	1,200	130	460/330[2]
06/27/03[3]	50.31	9.25	41.06	9,500	390	6	450	30	470
09/30/03[3]	50.31	10.31	40.00	2,000	110	1	100	3	710
12/03/03[3]	50.31	8.18	42.13	19,000	970	8	2,100	85	420
03/10/04[3]	50.31	6.10	44.21	15,000	550	6	960	95	220
06/30/04[3]	50.31	9.80	40.51	3,200	150	1	100	3	660
09/30/04[3]	50.31	10.18	40.13	1,900	66	0.8	84	4	690
12/29/04[3]	50.31	4.58	45.73	16,000	470	7	820	47	170
03/23/05[3]	50.31	5.07	45.24	18,000	380	6	960	58	140
06/22/05[3]	50.31	8.12	42.19	16,000	700	6	950	62	300
09/02/05[3]	50.31	9.41	40.90	8,400	380	4	510	41	440
12/02/05[3]	50.31	7.97	42.34	16,000	490	6	1,200	32	170
03/20/06[3]	50.31	5.32	44.99	4,200	79	0.8	2	10	34
06/01/06[3]	50.31	7.07	43.24	5,400	67	1	26	3	28
09/11/06[3]	50.31	9.07	41.24	14,000	270	5	240	38	97
DESTROYED									
MW-4									
03/12/02[1]	49.93	5.34	44.59	9,700	360	5.3	1,100	150	170/170[2]
06/07/02	49.93	8.52	41.41	7,300	170	2.7	280	21	200/120[2]
09/13/02	49.93	9.86	40.07	5,800	92	4.5	80	14	190/160[2]
12/13/02	49.93	9.42	40.51	10,000	250	2.2	330	19	170/200[2]
03/01/03	49.93	7.33	42.60	12,000	300	4.6	900	110	160/100[2]
06/27/03[3]	49.93	9.62	40.31	7,500	110	2	200	58	130
09/30/03[3]	49.93	11.13	38.80	3,600	18	<1	16	7	520
12/03/03[3]	49.93	7.80	42.13	16,000	1,000	6	720	52	73
03/10/04[3]	49.93	6.69	43.24	2,200	230	3	610	71	55

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
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)
	Groundwater ESL			100	5	40	30	20	5
MW-4 (cont)									
06/30/04[3]	49.93	10.33	39.60	7,700	59	<1	78	17	110
09/30/04[3]	49.93	10.75	39.18	4,800	100	1	33	10	400
12/29/04[3]	49.93	3.34	46.59	13,000	250	3	480	27	42
03/23/05[3]	49.93	4.24	45.69	12,000	130	2	280	16	24
06/22/05[3]	49.93	7.95	41.98	6,400	290	2	11	11	18
09/02/05[3]	49.93	9.46	40.47	3,700	180	1	13	7	18
12/02/05[3]	49.93	7.60	42.33	11,000	840	5	480	24	34
03/20/06[3]	49.93	4.50	45.43	790	14	<0.5	1	0.6	2
06/01/06[3]	49.93	7.30	42.63	5,100	48	0.8	42	4	2
09/11/06[3]	49.93	9.38	40.55	6,700	64	3	44	3	4
DESTROYED									
TRIP BLANK									
QA									
03/12/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/07/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
09/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
12/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
03/01/03	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/27/03[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/03/03[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04[3]	--	--	--	<50	<0.5	<0.7	<0.8	<0.8	<0.5
12/29/04[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05[3]	--	--	--	<50	<0.5	1[4]	<0.5	1[4]	<0.5
12/02/05[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/20/06[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/11/06[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/27/08[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/08[5]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/13/09[5]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
05/08/09[5]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
08/07/09[5]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
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)
	Groundwater ESL			**100**	**5**	**40**	**30**	**20**	**5**
QA (cont)									
11/14/12[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14[3]	**--**	**--**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 2

Groundwater Monitoring Data and Analytical Results

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing
(ft.) = Feet
DTW = Depth to Water
GWE = Groundwater Elevation
(msl) = Mean sea level
(µg/L) = Micrograms per liter

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MtBE = Methyl tertiary-butyl ether

-- = Not Measured/Not Analyzed
QA = Quality Assurance/Trip Blank
EPA = Environmental Protection Agency

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

* Current TOC elevations were surveyed on October 1, 2008, by CRA. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).

[1] Well development performed.

[2] MtBE by EPA Method 8260.

[3] BTEX and MtBE by EPA Method 8260.

[4] Laboratory confirmed analytical result.

[5] BTEX by EPA Method 8260.

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

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
Groundwater ESL	**NE**	**12**	**5**	**NE**	**NE**	**NE**	**0.5**	**0.05**	**5**
MW-5									
08/27/08	--	2	10	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	4	8	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	3	6	<0.5	<0.5	<0.5	--	--	--
05/08/09	--	7	2	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	<2	2	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	2	0.9	<0.5	<0.5	<0.5	--	--	--
05/06/10	--	<2	0.9	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	<2	0.9	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<10	<3	<3	<3	<3	--	--	--
11/14/12	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/08/13	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/14/14	**--**	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**	**--**	**<0.5**
MW-6									
08/27/08	--	390	440	<0.5	<0.5	6	--	--	--
11/21/08	--	320	300	<13	<13	<13	--	--	--
02/13/09	--	100	180	<1	<1	4	--	--	--
05/08/09	--	16	38	<0.5	<0.5	0.9	--	--	--
08/07/09	--	190	330	<3	<3	5	--	--	--
11/05/09	--	86	160	<1	<1	4	--	--	--
05/06/10	--	2	9	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	98	160	<3	<3	3	--	--	--
05/10/11[1]	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	19	37	<1	<1	<1	--	--	--
05/11/12	--	<2	1	<0.5	<0.5	<0.5	--	--	--
11/14/12	--	16	36	<0.5	<0.5	0.7	--	--	--
05/08/13	--	5	6	<0.5	<0.5	<0.5	--	--	--
11/06/13[2]	--	60	78	<1	<1	2	--	--	--
05/14/14	**--**	**8**	**10**	**<0.5**	**<0.5**	**<0.5**	**--**	**--**	**<0.5**
MW-7									
08/27/08	--	<2	6	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	5	6	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	<2	7	<0.5	<0.5	<0.5	--	--	--

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
Groundwater ESL	**NE**	**12**	**5**	**NE**	**NE**	**NE**	**0.5**	**0.05**	**5**
MW-7 (cont)									
05/08/09	--	<2	8	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	4	5	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	9	5	<1	<1	<1	--	--	--
05/06/10	--	3	6	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	6	4	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	3	5	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	4	5	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<20	<5	<5	<5	<5	--	--	--
11/14/12	--	<10	4	<3	<3	<3	--	--	--
05/08/13	--	<2	5	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	4	<0.5	<0.5	<0.5	--	--	--
05/14/14[2]	**--**	**<10**	**4**	**<1**	**<1**	**<1**	**--**	**--**	**<1**
MW-8									
08/27/08	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/08/09	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/06/10	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/14/12	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/08/13	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	<0.5	<0.5	<0.5	<0.5	--	--	--
05/14/14	**--**	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**--**	**--**	**<0.5**
MW-1									
03/12/02	--	<100	<2	<2	<2	<2	<2	<2	--
06/07/02	--	<100	<2	<2	<2	<2	<2	<2	--
09/13/02	--	<100	<2	<2	<2	<2	<2	<2	--
12/13/02	--	<100	<2	<2	<2	<2	<2	<2	--
03/01/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/27/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
Groundwater ESL	**NE**	**12**	**5**	**NE**	**NE**	**NE**	**0.5**	**0.05**	**5**
MW-1 (cont)									
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED									
MW-2									
03/12/02	--	<100	3	<2	<2	<2	<2	<2	--
06/07/02	--	<100	<2	<2	<2	<2	<2	<2	--
09/13/02	--	<100	<2	<2	<2	<2	<2	<2	--
12/13/02	--	<100	<2	<2	<2	<2	<2	<2	--
03/01/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/27/03	--	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/30/03	<50	<5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED									
MW-3									
03/12/02	--	<100	650	<2	<2	18	<2	<2	--
06/07/02	--	230	490	<5.0	<5.0	11	<5.0	<5.0	--
09/13/02	--	170	640	<2	<2	8	<2	<2	--
12/13/02	--	240	540	<2	<2	29	31	<2	--
03/01/03	--	160	330	<0.5	<0.5	10	<0.5	<0.5	--
06/27/03	--	200	470	<0.5	<0.5	11	<0.5	<0.5	--
09/30/03	<50	120	710	<0.5	<0.5	6	0.7	<0.5	--
12/03/03	<250	200	420	<3	<3	14	<3	<3	--
03/10/04	<50	140	220	<0.5	<0.5	5	<0.5	<0.5	--
06/30/04	<50	100	660	<0.5	<0.5	5	<0.5	<0.5	--
09/30/04	<50	72	690	<0.5	<0.5	4	0.5	<0.5	--

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
Groundwater ESL	**NE**	**12**	**5**	**NE**	**NE**	**NE**	**0.5**	**0.05**	**5**
MW-3 (cont)									
12/31/04	<50	77	170	<0.5	<0.5	5	<0.5	<0.5	--
03/23/05	<50	<5	140	<0.5	<0.5	4	<0.5	3	--
06/22/05	<250	150	300	<3	<3	6	<3	<3	--
09/02/05	<100	99	440	<1	<1	<1	<1	<1	--
12/02/05	<100	66	170	<1	<1	5	<1	<1	--
03/20/06	<50	14	34	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/01/06	<50	12	28	<0.5	<0.5	0.8	<0.5	<0.5	--
09/11/06	<50	47	97	<0.5	<0.5	2	<0.5	<0.5	--
DESTROYED									
MW-4									
03/12/02	--	<100	170	<2	<2	13	<2	<2	--
06/07/02	--	<100	120	<2	<2	14	<2	<2	--
09/13/02	--	<100	160	<2	<2	14	<2	<2	--
12/13/02	--	<100	200	<2	<2	17	<2	<2	--
03/01/03	--	19	100	<0.5	<0.5	8	<0.5	<0.5	--
06/27/03	--	22	130	<0.5	<0.5	11	<0.5	<0.5	--
09/30/03	<100	<10	520	<1	<1	9	<1	<1	--
12/03/03	<50	18	73	<0.5	<0.5	5	<0.5	<0.5	--
03/10/04	<50	11	55	<0.5	<0.5	4	<0.5	<0.5	--
06/30/04	<100	<10	110	<1	<1	6	<1	<1	--
09/30/04	<50	17	400	<0.5	<0.5	7	<0.5	<0.5	--
12/31/04	<50	11	42	<0.5	<0.5	2	<0.5	<0.5	--
03/23/05	<50	<5	24	<0.5	<0.5	1	<0.5	0.9	--
06/22/05	<50	15	18	<0.5	<0.5	1	<0.5	<0.5	--
09/02/05	<50	6	18	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/02/05	<50	11	34	<0.5	<0.5	1	<0.5	<0.5	--
03/20/06	<50	<5	2	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/01/06	<50	<5	2	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/11/06	<50	<5	4	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED									

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Former Chevron-Branded Service Station 92029
890 West MacArthur Boulevard,
Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TBA = Tertiary-Butyl Alcohol
MtBE = Methyl tertiary-butyl ether
DIPE = Di-Isopropyl Ether
EtBE = Ethyl Tertiary-Butyl Ether
TAME = Tertiary-Amyl Methyl Ether
1,2-DCA = 1,2-Dichloroethane
1,2-DBA = 1,2-Dibromoethane
PCE = Tetrachloroethene
(µg/L) = Micrograms per liter
-- = Not Analyzed
EPA = Environmental Protection Agency
ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water
NE = ESL not established

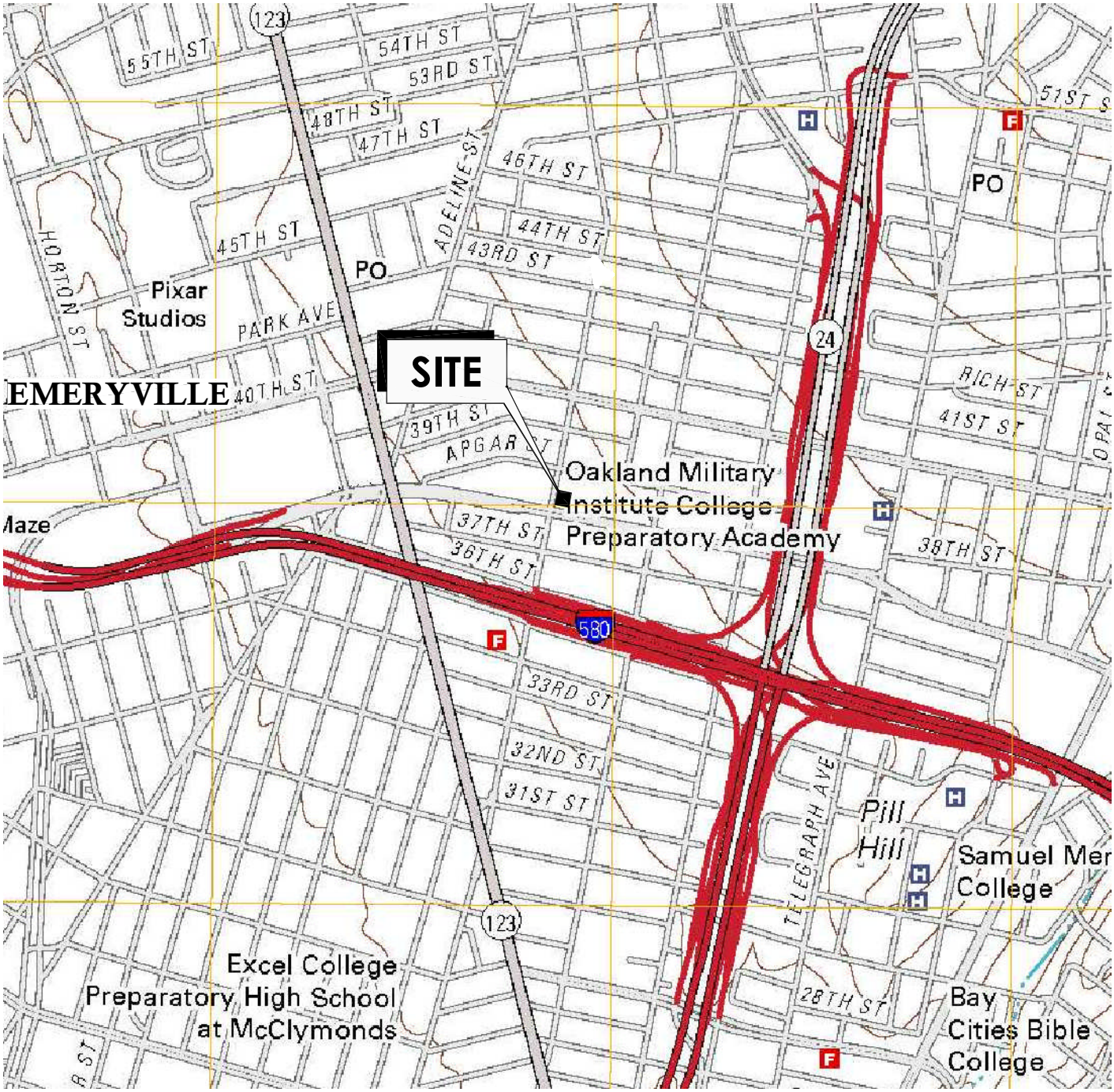
ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

[1] Laboratory confirmed analytical result.

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

FIGURES



CALIFORNIA

1 1/2 0 1

SCALE IN MILES

1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE IN FEET

REFERENCE: USGS 7.5 MINUTE QUADRANGLE; OAKLAND WEST, CALIFORNIA; 2012

Stantec

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

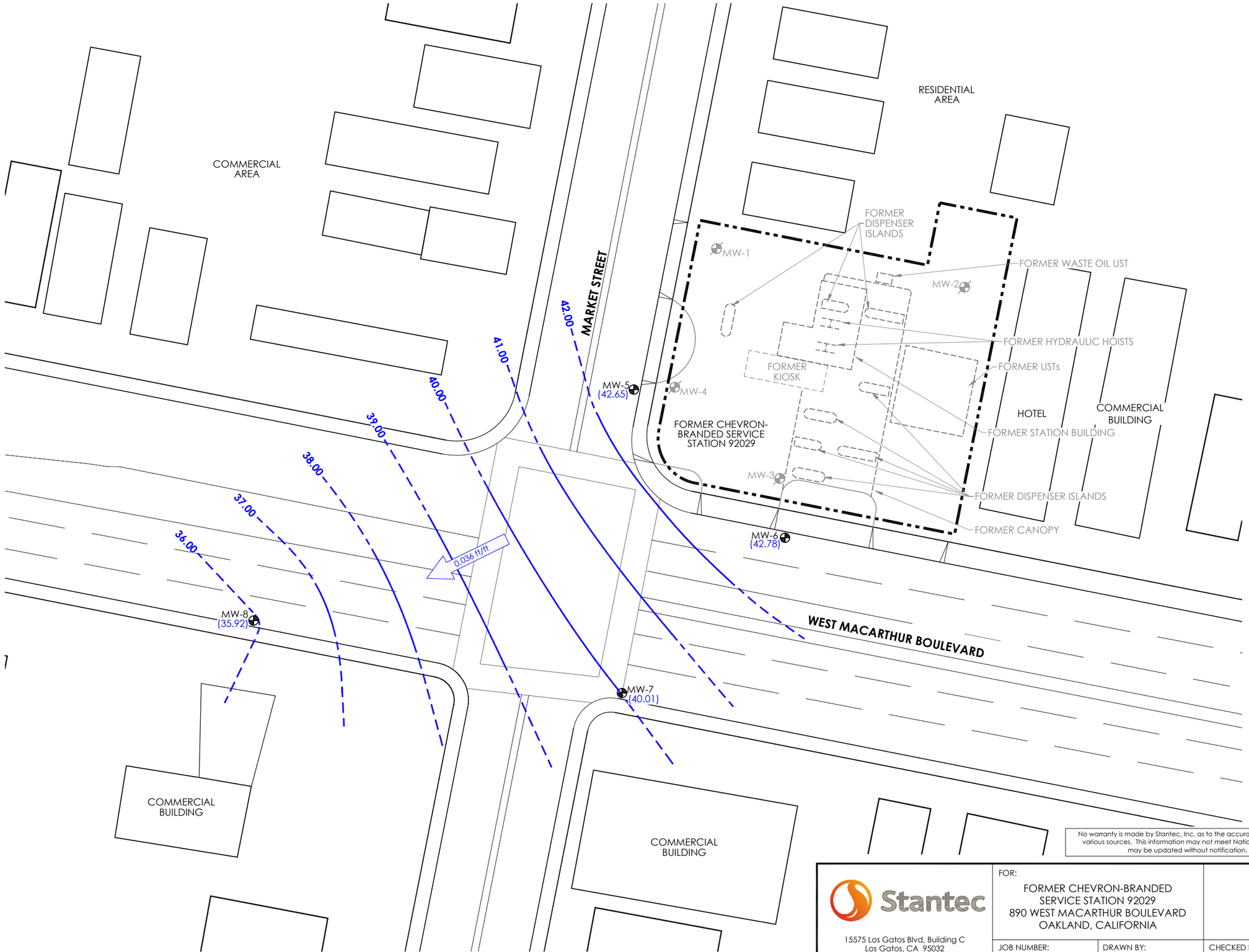
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 92029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 8:35 | Layout: Fig 1_SLM



LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- (42.65) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW. HYDRAULIC GRADIENT IS 0.036 FEET PER FOOT (ft/ft).

NOTES

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

GROUNDWATER ELEVATION DATA WERE COLLECTED ON MAY 14, 2014

GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 8.0

N

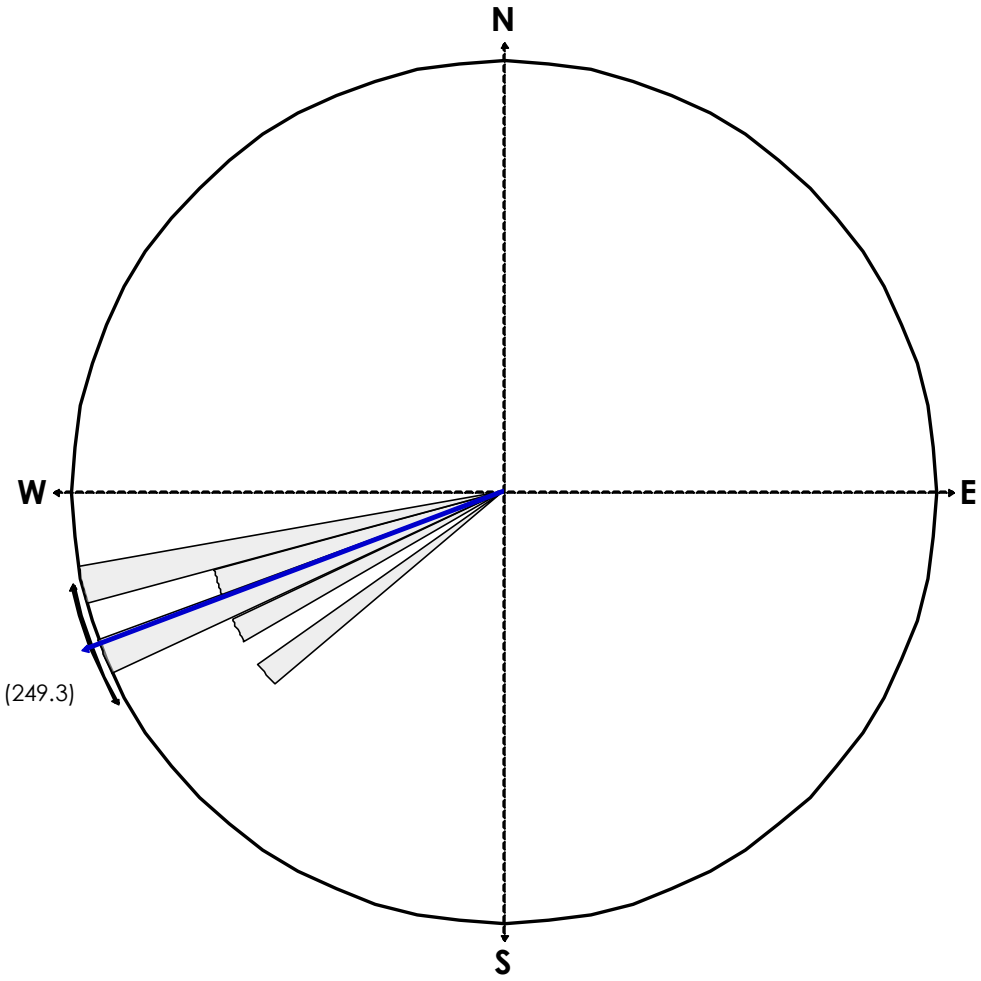
0 40 80

APPROXIMATE SCALE IN FEET

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 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA		GROUNDWATER ELEVATION CONTOUR MAP - SECOND QUARTER 2014		2
JOB NUMBER: 211602398	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 8:38 | Layout: Fig 2_GWE



EQUAL AREA PLOT

Number of Points	7
Class Size	5
Vector Mean	249.29
Vector Magnitude	6.92
Consistency Ratio	0.99

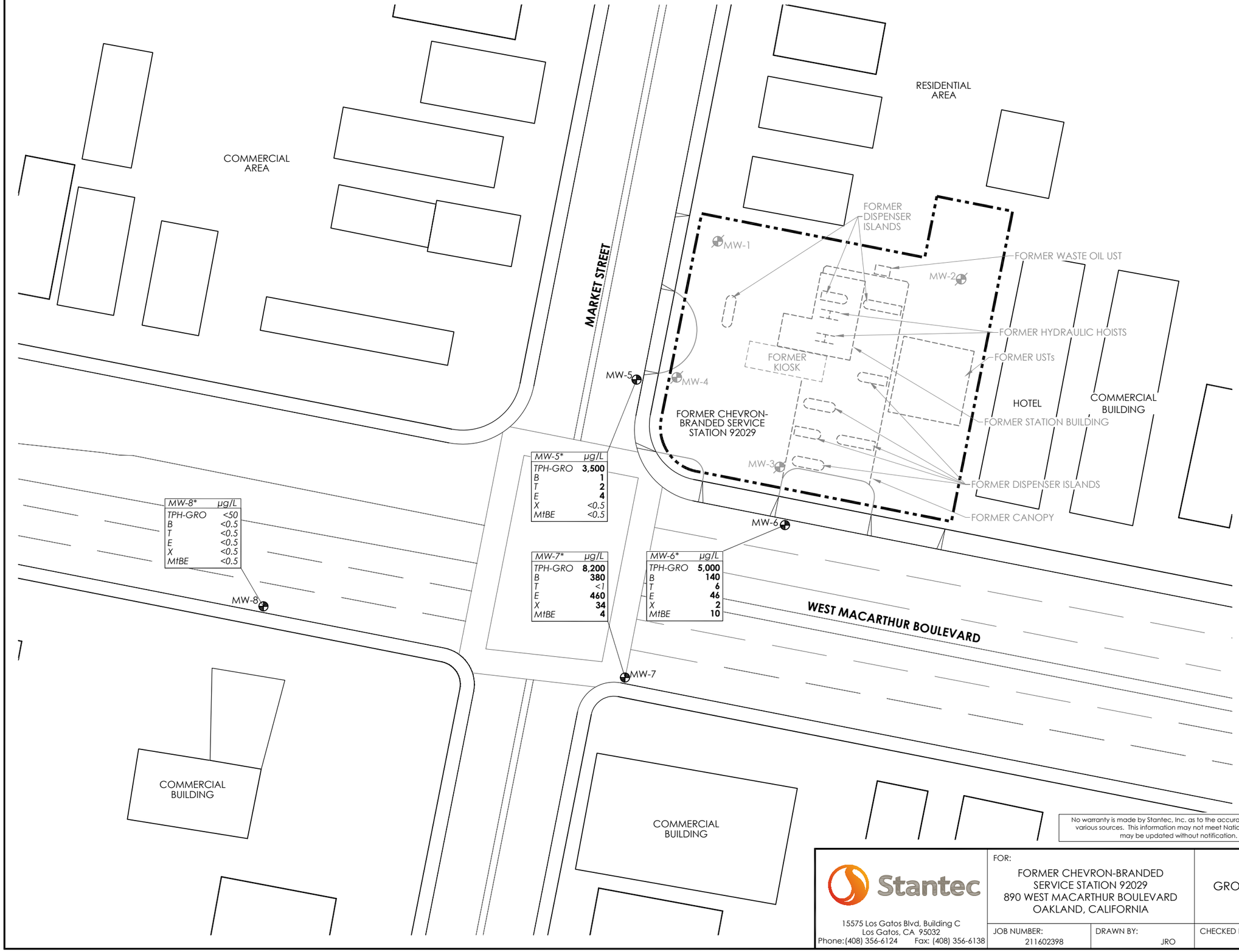
NOTE: ROSE DIAGRAM IS BASED ON THE DIRECTION OF GROUNDWATER FLOW BEGINNING SECOND QUARTER 2011.

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 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	GROUNDWATER FLOW DIRECTION ROSE DIAGRAM - SECOND QUARTER 2014	3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 26, 2014 at 8:39 | Layout: Fig 3_Rose



LEGEND

- APPROXIMATE SITE BOUNDARY
- 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

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

N

0 40 80

APPROXIMATE SCALE IN FEET

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

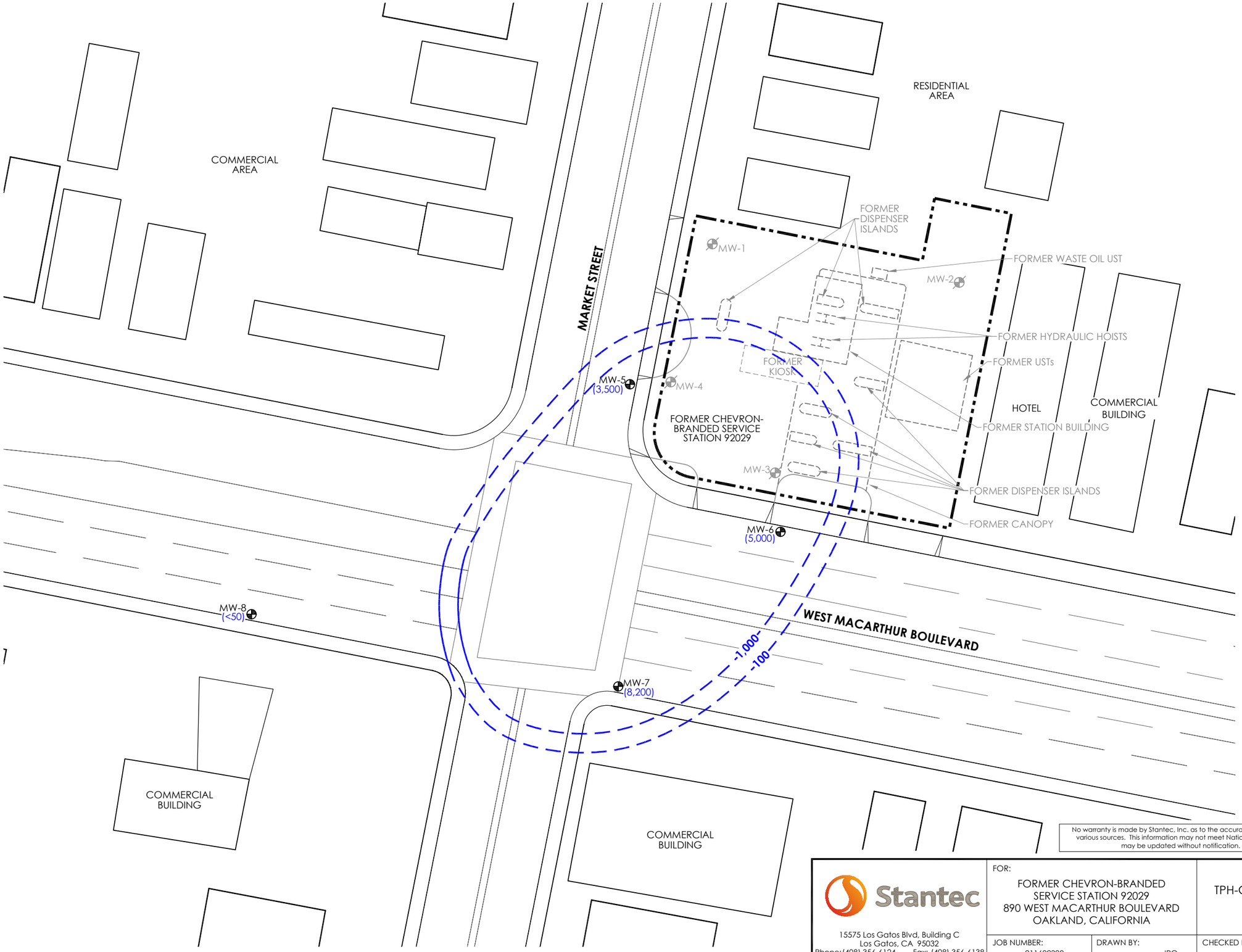
FOR: FORMER CHEVRON-BRANDED SERVICE STATION 92029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE PLAN SHOWING GROUNDWATER CONCENTRATIONS - SECOND QUARTER 2014

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 8:39 | Layout: Fig 4_GWC



LEGEND

— - — - —	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
⊕	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(3,500)	TPH-GRO CONCENTRATION (µg/L)
———	TPH-GRO CONTOUR; DASHED WHERE INFERRED
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
(µg/L)	MICROGRAMS PER LITER

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

N

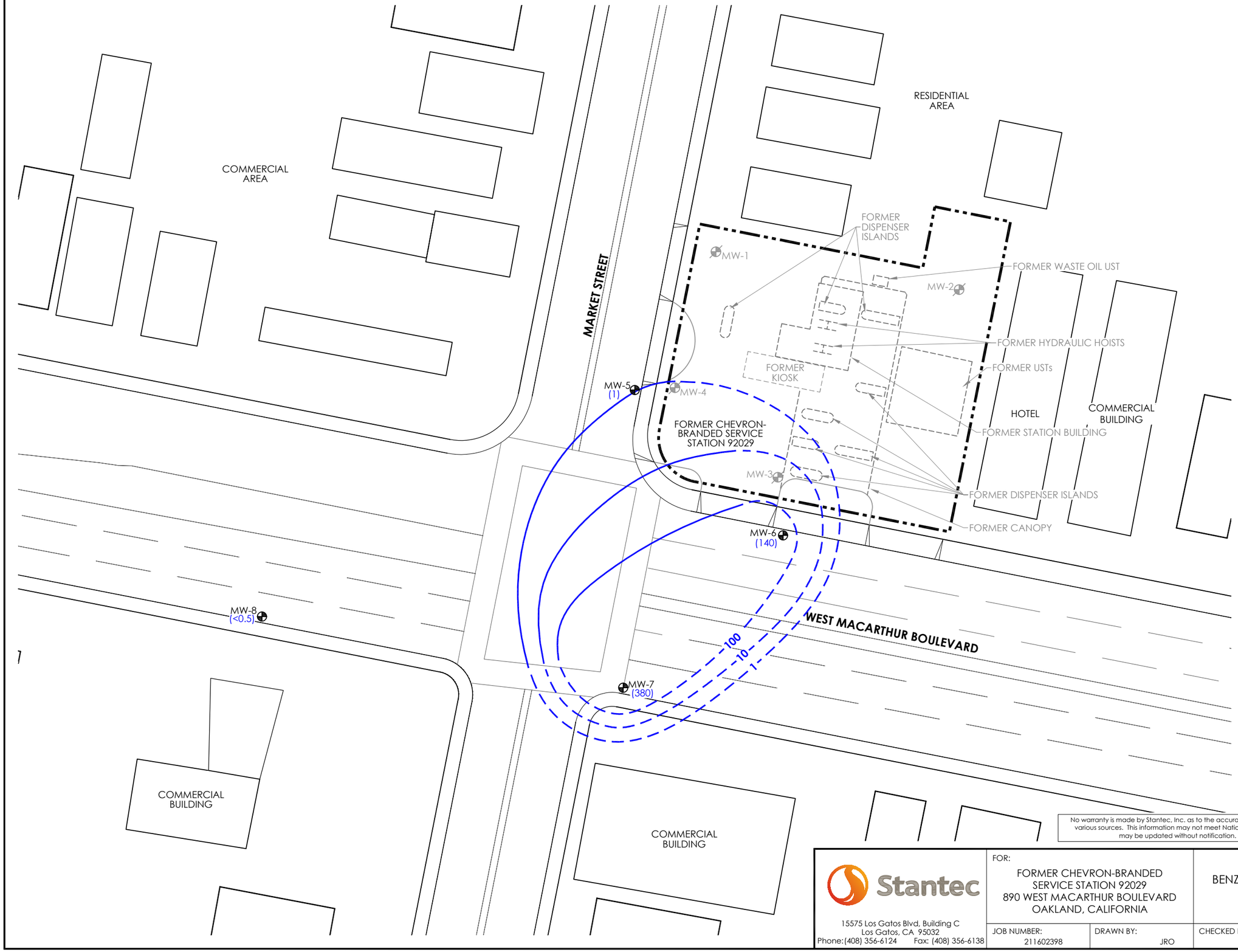
0 40 80

APPROXIMATE SCALE IN FEET

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 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA		TPH-GRO ISOCONCENTRATION MAP - SECOND QUARTER 2014		5
JOB NUMBER: 211602398	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 9:47 | Layout: Fig 5_TPHg



LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- (1) — BENZENE CONCENTRATION (µg/L)
- BENZENE CONTOUR; DASHED WHERE INFERRED
- (µg/L) — MICROGRAMS PER LITER

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

N

0 40 80

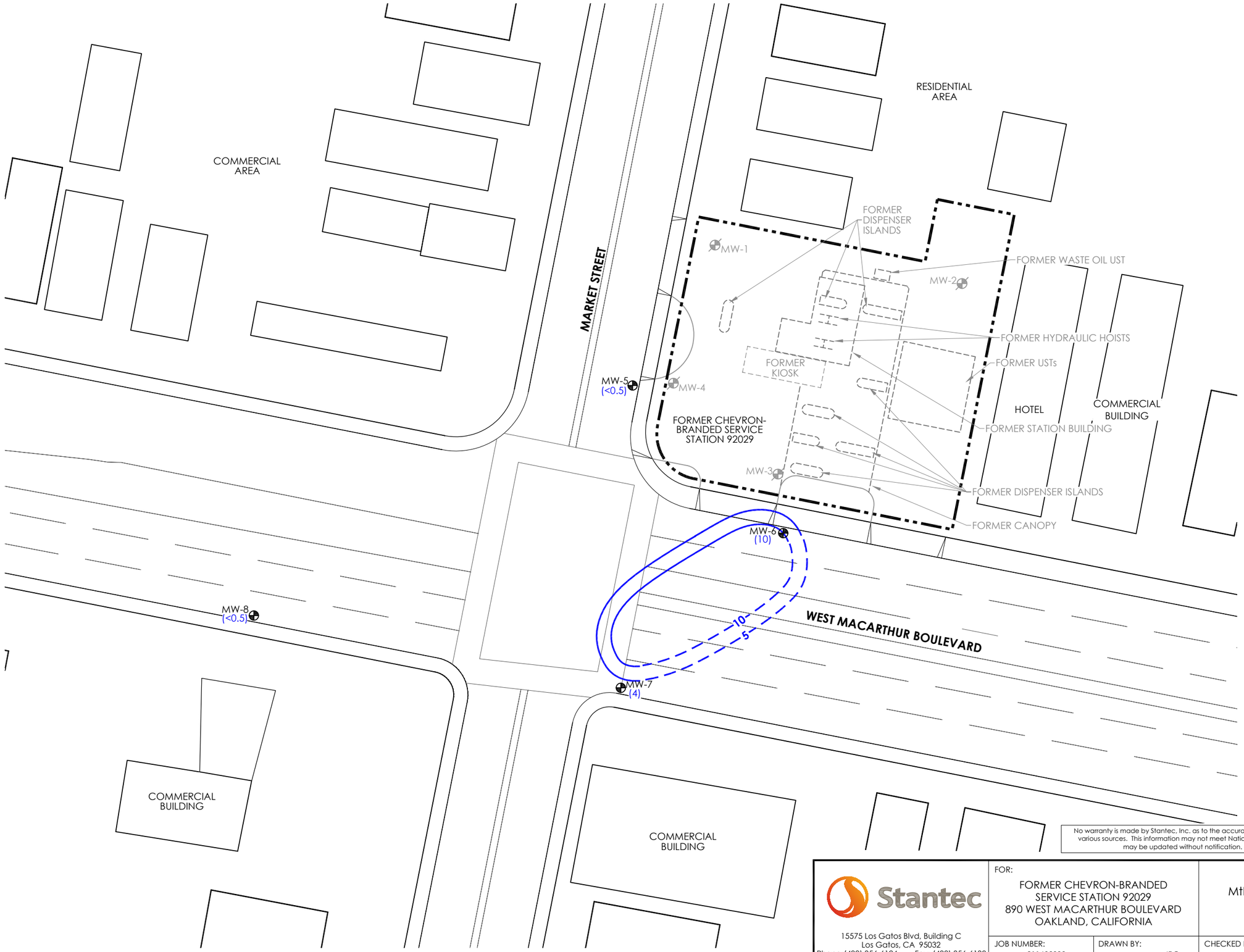
APPROXIMATE SCALE IN FEET

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 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	BENZENE ISOCONCENTRATION MAP - SECOND QUARTER 2014	6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 9:08 | Layout: Fig 6_BNZ



LEGEND

— - — - —	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
⊕	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(10)	MtBE CONCENTRATION (µg/L)
———	MtBE CONTOUR; DASHED WHERE INFERRED
MtBE	METHYL TERTIARY-BUTYL ETHER
(µg/L)	MICROGRAMS PER LITER

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

N

0 40 80

APPROXIMATE SCALE IN FEET

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 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA		MtBE ISOCONCENTRATION MAP - SECOND QUARTER 2014		7
JOB NUMBER: 211602398	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 06/02/14

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\92029\GWM\2014\2Q14\Figures\92029_2Q14.dwg | jopalekopsahl | Jun 03, 2014 at 9:09 | Layout: Fig 7_MtBE

ATTACHMENT A
Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2014

GETTLER-RYAN INC.

TRANSMITTAL

May 23, 2014
G-R #386911

TO: Mr. Travis Flora
Stantec
15575 Los Gatos Blvd., Building C
Los Gatos, California 95032

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6805 Sierra Court, Suite G
Dublin, California 94568

RE: Former Chevron Service Station #9-2029
890 West MacArthur Blvd.
Oakland, California
RO 0002438

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **First Semi-Annual Event of May 14, 2014**

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/9-2029

WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #9-2029
Site Address: 890 West Macarthur Blvd.
City: Oakland, CA

Job # 386911
Event Date: 5.14.14
Sampler: FR

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y (N)	REPLACE CAP Y (N)	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes (No)
MW-5	OK									MORRISON/6"/2	
MW-6	OK										
MW-7	OK										
MW-8	OK										

Comments

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

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

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 | Job Number: 386911
Site Address: 890 West Macarthur Blvd. | Event Date: 5.14.14 (inclusive)
City: Oakland, CA | Sampler: FT

Well ID: MW-5 | Date Monitored: 5.14.14
Well Diameter: 2 in.
Total Depth: 24.99 ft.
Depth to Water: 6.74 ft.

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

☐ Check if water column is less then 0.50 ft.

18.25 xVF .17 = 3.10 x3 case volume = Estimated Purge Volume: 9.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: [redacted] 10.39

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1115 | Weather Conditions: SUNNY
Sample Time/Date: 1145 / 5.14.14 | Water Color: CLEAR Odor: (Y) / N SLIGHT
Approx. Flow Rate: ✓ gpm. | Sediment Description: NONE
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 10.36

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1121	3.0	7.12	792	19.0		
1127	6.0	7.09	787	19.6		
1133	9.0	7.06	782	20.1	✓	✓

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/5 OXYS(8260)/ PCE(8260)
	x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

COMMENTS:

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 | Job Number: 386911
Site Address: 890 West Macarthur Blvd. | Event Date: 5.14.14 (inclusive)
City: Oakland, CA | Sampler: FT

Well ID: MW-6 | Date Monitored: 5.14.14
Well Diameter: 2 in.
Total Depth: 29.95 ft.
Depth to Water: 6.29 ft. ☐ Check if water column is less then 0.50 ft.

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

18.66 xVF .17 = 3.17 x3 case volume = Estimated Purge Volume: 10.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.02

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1200 | Weather Conditions: SUNNY
Sample Time/Date: 1235 / 5.14.14 | Water Color: CLEAR Odor: Ⓨ / N MODERATE
Approx. Flow Rate: ~ gpm. | Sediment Description: NONE
Did well de-water? No | If yes, Time: | Volume: gal. DTW @ Sampling: 9.95

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (Ⓒ / F)	D.O. (mg/L)	ORP (mV)
1207	3.5	7.25	875	19.8		
1214	7.0	7.21	870	20.1		
1221	10.0	7.18	864	20.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/5 OXYS(8260)/ PCE(8260)
	2 x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

COMMENTS: CHEVRON SAMPLES TAKEN

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 Job Number: 386911
Site Address: 890 West Macarthur Blvd. Event Date: 5.14.14 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-7 Date Monitored: 5.14.14
Well Diameter 2 in.
Total Depth 24.89 ft.
Depth to Water 8.73 ft.

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

☐ Check if water column is less then 0.50 ft.

16.16 xVF .17 = 2.74 x3 case volume = Estimated Purge Volume: 8.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.96

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1255 Weather Conditions: SUNNY
Sample Time/Date: 1315 / 5.14.14 Water Color: CLEAR Odor: (Y) / N SLIGHT
Approx. Flow Rate: ✓ gpm. Sediment Description: NONE
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 11.89

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1300	2.5	7.29	773	20.0		
1305	5.0	7.25	768	20.7		
1311	8.0	7.22	761	21.1	✓	✓

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/5 OXYS(8260)/ PCE(8260)
	x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

COMMENTS:

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #9-2029 Job Number: 386911
Site Address: 890 West Macarthur Blvd. Event Date: 5.14.14 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW- 8 Date Monitored: 5.14.14
Well Diameter 2 in.
Total Depth 24.99 ft.
Depth to Water 11.69 ft.

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

☐ Check if water column is less then 0.50 ft.

13.30 xVF .17 = 2.26 x3 case volume = Estimated Purge Volume: 7.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.35

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump		Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1335 Weather Conditions: SUNNY
Sample Time/Date: 1405 / 5.14.14 Water Color: BRN. Odor: Y / (N)
Approx. Flow Rate: / gpm. Sediment Description: SILTY
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 14.32

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1340	2.5	7.18	655	21.1		
1345	5.0	7.15	651	21.5		
1350	7.0	7.13	646	21.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- 8	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/5 OXYS(8260)/ PCE(8260)
	x voa vial	YES	NP	CHEVRON RTC	CHEVRON STUDY SAMPLES

COMMENTS:

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

Chevron California Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 051414-04 | Group # _____ | Sample # _____

For Eurofins Lancaster Laboratories use only

Instructions on reverse side correspond with circled numbers.

1 of 1

SCR #: _____

1 Client Information

Facility # SS#9-2029-OML G-R#386911 GlobalID#T0600173887 WPS

Site Address 600 WEST MACARTHUR BLVD., OAKLAND, CA

Chevron PM CM STANTECTF Lead Consultant Flora

Consultant/Office Getter-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, deanna@grinc.com

Consultant Phone # (925) 551-7444 x180

Sampler FRANK TENNYSON

2 Sample Identification

Sample Identification	Soil Depth	Collected Date	Collected Time	3 Grab	3 Composite	4 Matrix: Soil	Water	Oil	Total Number of Containers	5 Analyses Requested: BTEX 8260	BTEX 8021	TPH-GRO 8260	TPH-GRO 8015	TPH-DRO 8015 without Silica Gel Cleanup	TPH-DRO 8015 with Silica Gel Cleanup	8260 Full Scan	Oxygenates (8260)	Total Lead Method	Dissolved Lead Method	PCE (8260)	BTEX + MTBE (8260)
QA		5.14.14					W		2			X									X
MW-5			1145	X					6	X		X					X			X	
MW-6			1235	X					6	X		X					X			X	
MW-7			1315	X					6	X		X					X			X	
MW-8			1405	X					6	X		X					X			X	

Oxygenates (8260): 5

6 Remarks

- [ ] Results in Dry Weight
- [ ] J value reporting needed
- [x] Must meet lowest detection limits possible for 8260 compounds
- [ ] 8021 MTBE Confirmation
- [ ] Confirm highest hit by 8260
- [ ] Confirm all hits by 8260
- [ ] Run _____ oxy's on highest hit
- [ ] Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

EDFFLAT (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5.14.14	1500	[signature]	14MAY14	1500
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

☐ Yes
☐ No

Chain-of-Custody-Record

CHEVRON RTC SAMPLES

Chevron Facility #: 9-2029 Global ID#: T0600173887
Facility Address: 890 West MacArthur Blvd., Oakland CA
Consultant Project #: 15-386911
Consultant Name: GETTLER-RYAN INC.
Address: 6805 SIERRA COURT, SUITE G, DUBLIN, CA 94568
Project Contact: (Name) DEANNA L. HARDING (deanna@grinc.com)
(Phone) 925-551-7555 (Fax) 925-551-7888

Chevron Contact: (Name) Rachel Molher
(Phone) 510-242-4939
Laboratory Name: Chevron RTC
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by: (Name) FRANK TERMINDI
Signature:

State Method: ☑ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT ☐ ID

Sample Number	Number of Containers	Matrix S= Soil A=Air W=Water C=Charcoal	Sample Preservation	Date/Time	CHEVRON STUDY (NON-PRESERVED)																	Remarks / Lab Sample No.
MW-6	2	W	NP	5.14.14 1235	X																	

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
	Gettler-Ryan	5.15.14 1101	Daniel Alvarez		5/15/14 11:01	
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced (Y/N)
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced (Y/N)

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
~~10 Days~~
(As Contracted)

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

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

May 29, 2014

Project: 92029

Submittal Date: 05/16/2014
Group Number: 1474946
PO Number: 0015141332
Release Number: CMACLEOD

State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
QA-T-140514 NA Water	7466572
MW-5-W-140514 Grab Groundwater	7466573
MW-6-W-140514 Grab Groundwater	7466574
MW-7-W-140514 Grab Groundwater	7466575
MW-8-W-140514 Grab Groundwater	7466576

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
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 International	Attn: Travis Flora

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA-T-140514 NA Water
Facility# 92029 Job# 386911 GRD
890 W MacArthur-Oakland T0600173887

LL Sample # WW 7466572
LL Group # 1474946
Account # 10906

Project Name: 92029

Collected: 05/14/2014

Submitted: 05/16/2014 09:25
Reported: 05/29/2014 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOQA

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**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141431AA	05/23/2014 12:28	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141431AA	05/23/2014 12:28	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14140A20A	05/22/2014 13:04	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14140A20A	05/22/2014 13:04	Miranda P Tillinghast	1

Sample Description: MW-5-W-140514 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W MacArthur-Oakland T0600173887

LL Sample # WW 7466573
LL Group # 1474946
Account # 10906

Project Name: 92029

Collected: 05/14/2014 11:45 by FT

Submitted: 05/16/2014 09:25
Reported: 05/29/2014 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMO05

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**	
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	1	0.5	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	4	0.5	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	2	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,500	50	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10335	VOCs 8260 BTEX, PCE + 5 Oxys	SW-846 8260B	1	T141432AA	05/23/2014 22:55	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T141432AA	05/23/2014 22:55	Sara E Johnson	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14140A20A	05/22/2014 15:39	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14140A20A	05/22/2014 15:39	Miranda P Tillinghast	1

Sample Description: MW-6-W-140514 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W MacArthur-Oakland T0600173887

LL Sample # WW 7466574
LL Group # 1474946
Account # 10906

Project Name: 92029

Collected: 05/14/2014 12:35 by FT

Submitted: 05/16/2014 09:25
Reported: 05/29/2014 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMO06

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**	
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	140	0.5	1
10335	t-Butyl alcohol	75-65-0	8	5	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	46	0.5	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	10	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	6	0.5	1
10335	Xylene (Total)	1330-20-7	2	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	5,000	250	5

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10335	VOCs 8260 BTEX, PCE + 5 Oxys	SW-846 8260B	1	T141461AA	05/26/2014 21:35	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T141461AA	05/26/2014 21:35	Amanda K Richards	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14140A20A	05/22/2014 16:23	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	14140A20A	05/22/2014 16:23	Laura M Krieger	5

Sample Description: MW-7-W-140514 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W MacArthur-Oakland T0600173887

LL Sample # WW 7466575
LL Group # 1474946
Account # 10906

Project Name: 92029

Collected: 05/14/2014 13:15 by FT

Submitted: 05/16/2014 09:25
Reported: 05/29/2014 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMO07

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**	
10335	t-Amyl methyl ether	994-05-8	N.D.	1	2
10335	Benzene	71-43-2	380	1	2
10335	t-Butyl alcohol	75-65-0	N.D.	10	2
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	2
10335	Ethylbenzene	100-41-4	460	1	2
10335	di-Isopropyl ether	108-20-3	N.D.	1	2
10335	Methyl Tertiary Butyl Ether	1634-04-4	4	1	2
10335	Tetrachloroethene	127-18-4	N.D.	1	2
10335	Toluene	108-88-3	N.D.	1	2
10335	Xylene (Total)	1330-20-7	34	1	2
	Reporting limits were raised due to interference from the sample matrix.				
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	8,200	250	5

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10335	VOCs 8260 BTEX, PCE + 5 Oxys	SW-846 8260B	1	T141432AA	05/24/2014 00:07	Sara E Johnson	2
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T141432AA	05/24/2014 00:07	Sara E Johnson	2
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14140A20A	05/22/2014 16:45	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	14140A20A	05/22/2014 16:45	Laura M Krieger	5

Sample Description: MW-8-W-140514 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W MacArthur-Oakland T0600173887

LL Sample # WW 7466576
LL Group # 1474946
Account # 10906

Project Name: 92029

Collected: 05/14/2014 14:05 by FT

Submitted: 05/16/2014 09:25
Reported: 05/29/2014 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMO08

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**	
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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
10335	VOCs 8260 BTEX, PCE + 5 Oxys	SW-846 8260B	1	T141432AA	05/24/2014 00:55	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	T141432AA	05/24/2014 00:55	Sara E Johnson	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14140A20A	05/22/2014 14:55	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14140A20A	05/22/2014 14:55	Miranda P Tillinghast	1

Quality Control Summary

Client Name: Chevron Group Number: 1474946
Reported: 05/29/14 at 02:02 PM

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: F141431AA	Sample number(s): 7466572							
Benzene	N.D.	0.5	ug/l	96		78-120		
Ethylbenzene	N.D.	0.5	ug/l	97		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		75-120		
Toluene	N.D.	0.5	ug/l	98		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: T141432AA	Sample number(s): 7466573,7466575-7466576							
t-Amyl methyl ether	N.D.	0.5	ug/l	98	98	75-120	0	30
Benzene	N.D.	0.5	ug/l	107	107	78-120	0	30
t-Butyl alcohol	N.D.	5.	ug/l	102	101	75-120	1	30
Ethyl t-butyl ether	N.D.	0.5	ug/l	101	102	74-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	105	111	79-120	5	30
di-Isopropyl ether	N.D.	0.5	ug/l	104	105	65-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95	97	75-120	2	30
Tetrachloroethene	N.D.	0.5	ug/l	106	107	80-120	1	30
Toluene	N.D.	0.5	ug/l	107	110	80-120	3	30
Xylene (Total)	N.D.	0.5	ug/l	94	98	80-120	4	30
Batch number: T141461AA	Sample number(s): 7466574							
t-Amyl methyl ether	N.D.	0.5	ug/l	97	101	75-120	4	30
Benzene	N.D.	0.5	ug/l	112	115	78-120	3	30
t-Butyl alcohol	N.D.	5.	ug/l	105	106	75-120	1	30
Ethyl t-butyl ether	N.D.	0.5	ug/l	104	108	74-120	4	30
Ethylbenzene	N.D.	0.5	ug/l	104	107	79-120	3	30
di-Isopropyl ether	N.D.	0.5	ug/l	105	109	65-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96	97	75-120	2	30
Tetrachloroethene	N.D.	0.5	ug/l	107	108	80-120	0	30
Toluene	N.D.	0.5	ug/l	106	108	80-120	2	30
Xylene (Total)	N.D.	0.5	ug/l	93	96	80-120	3	30
Batch number: 14140A20A	Sample number(s): 7466572-7466576							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	112	114	80-139	2	30

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.

Quality Control Summary

Client Name: Chevron Group Number: 1474946
Reported: 05/29/14 at 02:02 PM

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: F141431AA	Sample number(s): 7466572 UNSPK: P466443								
Benzene	100	100	72-134	1	30				
Ethylbenzene	99	101	71-134	2	30				
Methyl Tertiary Butyl Ether	98	99	72-126	1	30				
Toluene	99	100	80-125	0	30				
Xylene (Total)	98	100	79-125	2	30				

Surrogate Quality Control

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

Analysis Name: UST VOCs by 8260B - Water
Batch number: F141431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466572	101	101	101	100
Blank	99	100	101	100
LCS	99	101	101	101
MS	100	102	101	100
MSD	100	100	101	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Ext. Water Master w/GRO
Batch number: T141432AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466573	101	99	101	104
7466575	101	98	101	101
7466576	102	102	98	98
Blank	99	99	100	98
LCS	98	98	100	100
LCSD	99	96	104	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Ext. Water Master w/GRO
Batch number: T141461AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7466574	103	96	92	98
Blank	105	100	93	96
LCS	101	95	94	99
LCSD	103	97	98	103
Limits:	80-116	77-113	80-113	78-113

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

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

Quality Control Summary

Client Name: Chevron
Group Number: 1474946
Reported: 05/29/14 at 02:02 PM

Surrogate Quality Control

Batch number: 14140A20A

	Trifluorotoluene-F
7466572	83
7466573	109
7466574	82
7466575	85
7466576	82
Blank	77
LCS	82
LCSD	87
Limits:	63-135

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

Chevron California Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Ø51414-Ø4

For Eurofins Lancaster Laboratories use only
Acct. # 10906 Group # 1474946 Sample # 7466572-76
Instructions on reverse side correspond with circled numbers.

1 of 1

SCR #: ____________

① Client Information

Facility # SS#9-2029-OML G-R#386911 WBS Global ID#T0600173887

Site Address 890 WEST MACARTHUR BLVD., OAKLAND, CA

Chevron PM CM STANTECTF Lead Consultant Flora

Consultant/Office Getter-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, deanna@grinc.com

Consultant Phone # (925) 551-7444 x180

Sampler Frank Terminoni

④ Matrix: ☐ Sediment ☐ Soil; ☒ Ground ☐ Potable Water; ☐ Surface ☐ NPDES; ☐ Air ☐ Oil

⑤ Analyses Requested: BTEX [redacted] ☐ 8021 ☒ 8260; TPH-GRO ☒ 8015 ☐ 8260; ☐ TPH-DRO 8015 without Silica Gel Cleanup; ☐ TPH-DRO 8015 with Silica Gel Cleanup; 8260 Full Scan; 5 Oxygenates (8260); Total Lead Method ____; Dissolved Lead Method ____; PCE (8260); BTEX + MTBE (8260)

② Sample Identification	Soil Depth	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX	TPH-GRO	TPH-DRO 8015 without Silica Gel Cleanup	TPH-DRO 8015 with Silica Gel Cleanup	8260 Full Scan	5 Oxygenates (8260)	Total Lead	Dissolved Lead	PCE (8260)	BTEX + MTBE (8260)		
QA		5.14.14					W		2	[redacted]	X								X		
MW-5		↓	1145	X			↓		6	X	X				X			X			
MW-6		↓	1235	X			↓		6	X	X				X			X			
MW-7		↓	1315	X			↓		6	X	X				X			X			
MW-8		↓	1405	X			↓		6	X	X				X			X			

☐ Results in Dry Weight
☐ J value reporting needed
☒ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

⑥ Remarks

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour EDF/EDD

⑧ Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
EDFFLAT (default)
Other: ________

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5.14.14	1500	A. Aguilar [signature]	14MAY14	1500
A. Aguilar [signature]	15MAY14	1630	UPS		
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			[signature]	5/16/14	925

Temperature Upon Receipt 0.3-1.9 °C Custody Seals Intact? (Yes) No ⑨

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7050.03

eurofins | Lancaster Laboratories Environmental

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 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.

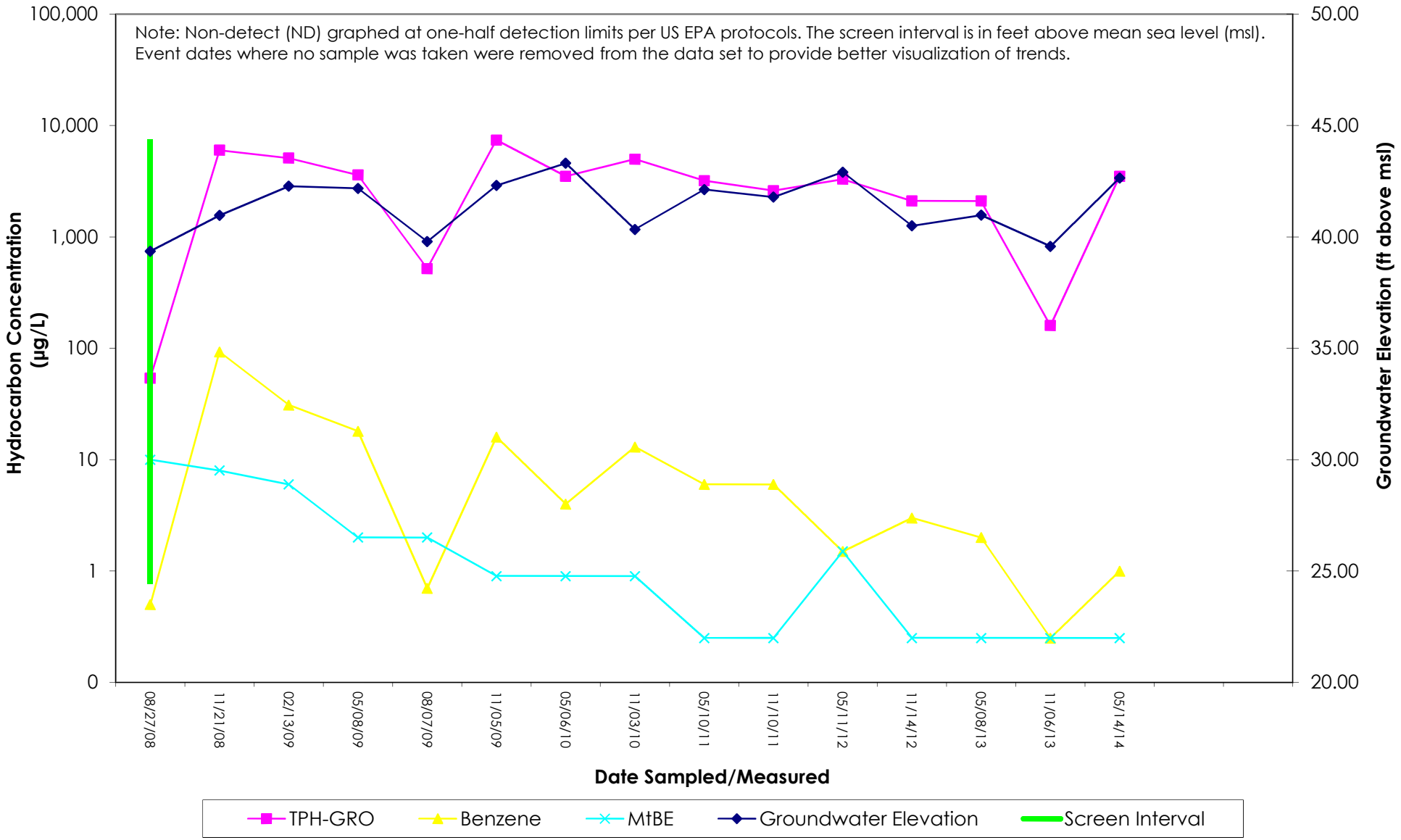
ATTACHMENT C
Hydrographs

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

Former Chevron-branded Service Station 92029

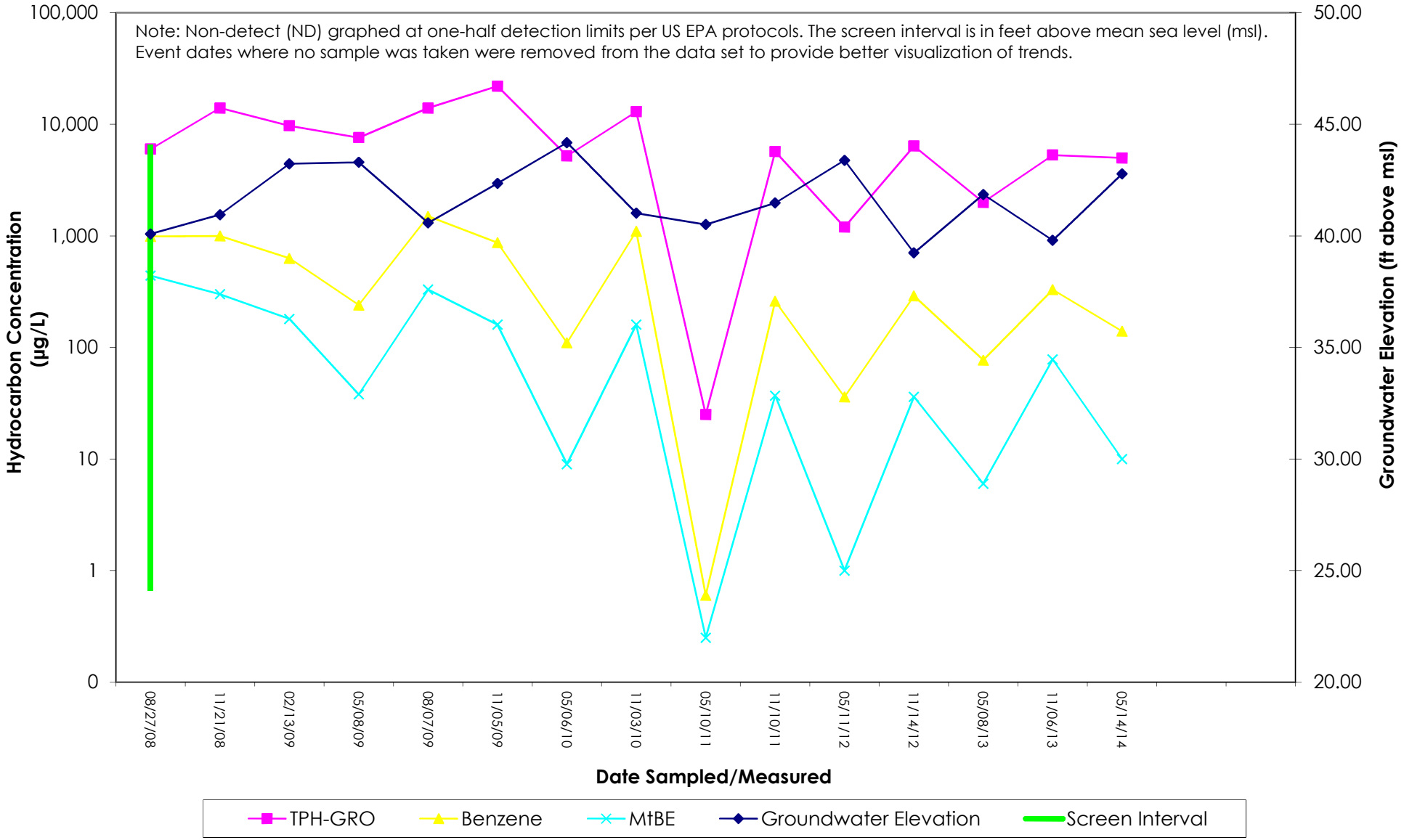
890 West MacArthur Boulevard

Oakland, California



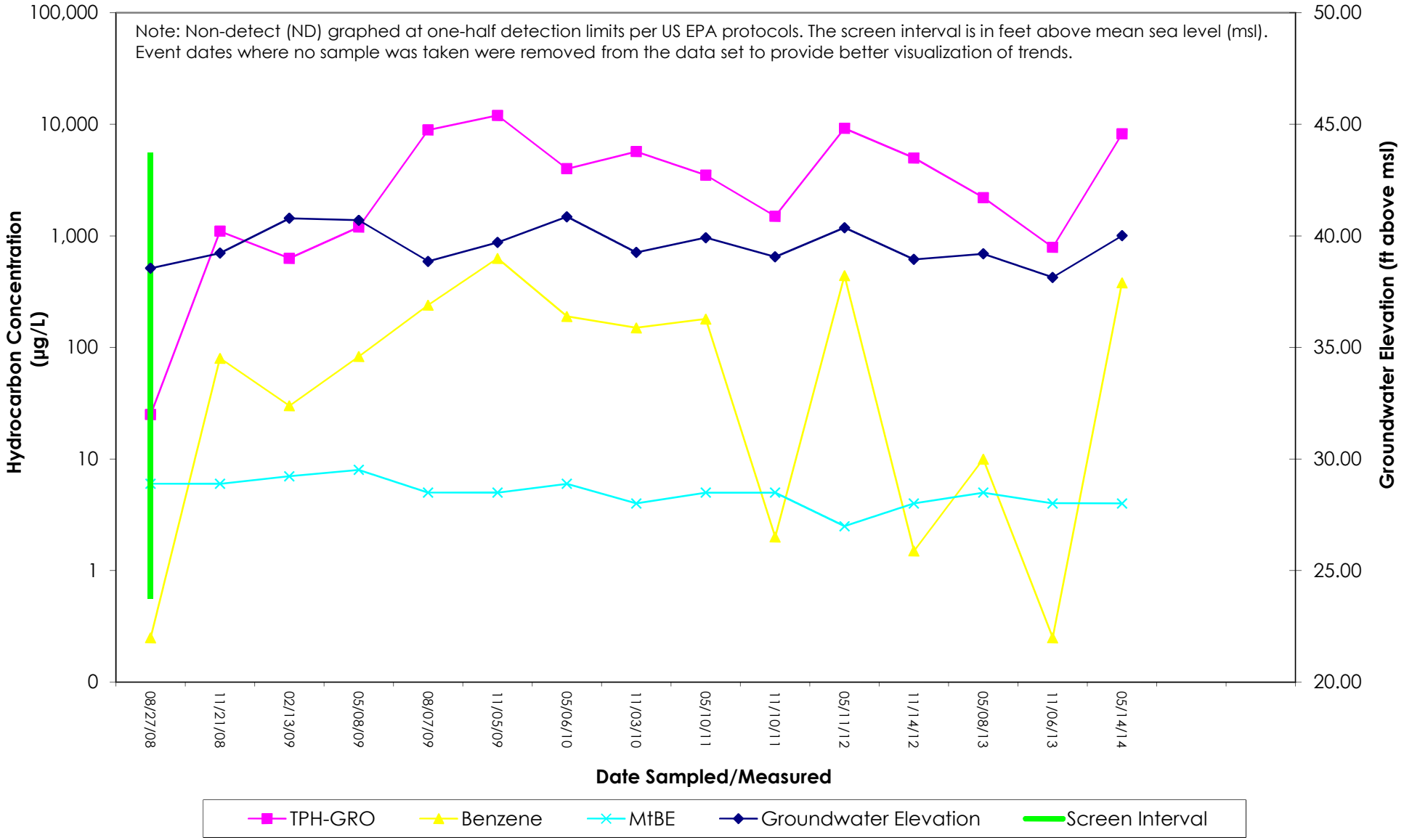
MW-6 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 92029
890 West MacArthur Boulevard
Oakland, California



MW-7 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 92029
890 West MacArthur Boulevard
Oakland, California



MW-8 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 92029
890 West MacArthur Boulevard
Oakland, California