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Second Quarter 2016 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
6001 Bollinger Canyon Road
San Ramon, CA 94583

Prepared by:
Stantec Consulting Services Inc.
15575 Los Gatos Blvd., Building C
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July 7, 2016

Carryl MacLeod
Project Manager
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Chevron Environmental Management Company
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July 7, 2016

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 2016 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
Project Manager

July 7, 2016

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

Reference: **Second Quarter 2016 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 (CEMC), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *Second Quarter 2016 Semi-Annual Groundwater Monitoring Report* for former Chevron-branded service station 92029, located at 890 West MacArthur Boulevard, Oakland, Alameda County, California (Site - shown on **Figure 1**). This report is presented in three sections: Site Background, Second Quarter 2016 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 motel.

SECOND QUARTER 2016 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Gettler-Ryan Inc. (G-R) performed the Second Quarter 2016 groundwater monitoring and sampling event on May 18, 2016. G-R's standard operating procedures (SOPs) and field data sheets are included in **Attachment A**. G-R gauged depth-to-groundwater (DTW) in four Site wells (MW-5 through MW-8) prior to collecting groundwater samples for laboratory analysis. All four wells, which are located down-gradient of the Site, were sampled.

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

Groundwater Elevation and Gradient

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 2016 data) is shown on **Figure 2**. The direction of groundwater flow at the time of sampling was generally toward the southwest at an average hydraulic gradient of approximately 0.031 feet per foot (ft/ft). This is generally consistent with the historical direction of groundwater flow, as shown by the groundwater flow direction rose diagram on **Figure 3** illustrating the direction of groundwater flow from First Quarter 2002 to present.

Schedule of Laboratory Analysis

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline range organics (TPH-GRO) using United States Environmental Protection Agency (US EPA) Method 8015B (SW-846) and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) and methyl *tertiary*-butyl ether (MtBE) using US EPA Method 8260B (SW-846).

Groundwater Analytical Results

During Second Quarter 2016, groundwater samples were collected from four Site wells (MW-5 through 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 2016 groundwater analytical results follows:

- **TPH-GRO** was detected in three Site wells, at concentrations of 1,600 micrograms per liter (µg/L; well MW-5), 4,500 µg/L (well MW-6), and 8,000 µg/L (well MW-7).

- **Benzene** was detected in two Site wells, at concentrations of 85 µg/L (well MW-7) and 150 µg/L (well MW-6).

- **Toluene** was detected in one Site well, at a concentration of 4 µg/L (well MW-6).

- **Ethylbenzene** was detected in two Site wells, at concentrations of 23 µg/L (well MW-6) and 190 µg/L (well MW-7).

- **Total Xylenes** were detected in two Site wells, at concentrations of 1 µg/L (well MW-6) and 3 µg/L (well MW-7).

- **MtBE** was detected in two Site wells, at concentrations of 3 µg/L (well MW-7) and 12 µg/L (well MW-6).

CONCLUSIONS AND RECOMMENDATIONS

During Second Quarter 2016, maximum concentrations of petroleum hydrocarbons were observed in well MW-6, located down-gradient of the former service station features (fuel dispenser islands and gasoline USTs) situated in the southern and eastern portions of the Site, and in well MW-7, which is located approximately 95 feet down-gradient of well MW-6. TPH-GRO was also detected in well MW-5, which is located down-gradient of the 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 furthest down-gradient well MW-8, which is approximately 190 feet southwest of the Site.

Per Alameda County Environmental Health (ACEH) correspondence dated October 29, 2015, the Site meets Low-Threat UST Case Closure Policy (LTCP) groundwater-specific criteria, and the current dissolved concentrations do not pose a significant threat to human health, safety, or the environment; therefore, effective immediately, CEMC will cease groundwater monitoring and sampling.

A *Site Redevelopment Analysis and Request for Closure* was submitted to ACEH under separate cover on July 7, 2016.

If you have any questions, please contact the Stantec Project Manager, Travis Flora, at (408) 356-6124 or Travis.Flora@stantec.com.

LIMITATIONS

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

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Attachments:

Table 1 – Well Details / Screen Interval Assessment – Second Quarter 2016
Table 2 – Groundwater Monitoring Data and Analytical Results
Table 3 – Additional Groundwater Analytical Results

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map – Second Quarter 2016
Figure 3 – Groundwater Flow Direction Rose Diagram – Second Quarter 2016
Figure 4 – Site Plan Showing Groundwater Concentrations – Second Quarter 2016
Figure 5 – TPH-GRO Isoconcentration Map – Second Quarter 2016
Figure 6 – Benzene Isoconcentration Map – Second Quarter 2016
Figure 7 – MtBE Isoconcentration Map – Second Quarter 2016

Attachment A – Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2016
Attachment B – Certified Laboratory Analysis Reports and Chain-of-Custody Documents
Attachment C – Hydrographs

cc:

Ms. Carryl MacLeod, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

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

TABLES

Table 1
Well Details / Screen Interval Assessment
Second Quarter 2016
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 below TOC)	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	24.98	7.48	5-25	Depth-to-groundwater within screen interval.
MW-6	07/24/08	Monitoring	2	49.07	25.00	24.96	6.78	5-25	Depth-to-groundwater within screen interval.
MW-7	07/24/08	Monitoring	2	48.74	25.00	24.87	9.00	5-25	Depth-to-groundwater within screen interval.
MW-8	07/24/08	Monitoring	2	47.61	25.00	25.01	11.72	5-25	Depth-to-groundwater within screen interval.

Notes:
bgs = below ground surface
msl = mean sea level
TOC = top of casing
[1] = As measured on May 18, 2016.

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)
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
11/19/14	49.39	INACCESSIBLE; FLOODED WITH SURFACE WATER				--	--	--	--
05/07/15[3]	49.39	7.08	42.31	2,800	1	1	2	<0.5	<0.5
12/29/15[3]	49.39	7.13	42.26	4,500	3	2	3	2	<0.5
05/18/16[3]	**49.39**	**7.48**	**41.91**	**1,600**	**<0.5**	**<0.5**	**<0.5**	**<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

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)
MW-6 (cont)									
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
11/19/14	49.07	INACCESSIBLE; FLOODED WITH SURFACE WATER				--	--	--	--
05/07/15[3]	49.07	7.20	41.87	3,600	19	2	7	<0.5	2
12/29/15[3]	49.07	6.21	42.86	7,700	170	4	22	1	15
05/18/16[3]	**49.07**	**6.78**	**42.29**	**4,500**	**150**	**4**	**23**	**1**	**12**
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]
11/19/14[3]	48.74	10.33	38.41	1,200	0.6	<0.5	1	<0.5	5
05/07/15[3]	48.74	9.33	39.41	5,000	24	0.8	19	1	3
12/29/15[3]	48.74	7.68	41.06	6,000	88	0.5	120	2	3
05/18/16[3]	**48.74**	**9.00**	**39.74**	**8,000**	**85**	**<3**	**190**	**3**	**3**
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

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)
MW-8 (cont)									
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
11/19/14[3]	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15[3]	47.61	11.79	35.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/15[3]	47.61	9.58	38.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/18/16[3]	**47.61**	**11.72**	**35.89**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
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									

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)
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	--	--	--	--	--	--
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

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)
MW-3 (cont)									
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
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

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)
QA (cont)									
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	--
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
11/19/14[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/15[3]	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/18/16[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

* 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

Additional Groundwater Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
MW-5								
08/27/08	--	2	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	4	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	3	<0.5	<0.5	<0.5	--	--	--
05/08/09	--	7	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	<2	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	2	<0.5	<0.5	<0.5	--	--	--
05/06/10	--	<2	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	<2	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	<2	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	<2	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<10	<3	<3	<3	--	--	--
11/14/12	--	<2	<0.5	<0.5	<0.5	--	--	--
05/08/13	--	<2	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	<0.5	<0.5	<0.5	--	--	--
05/14/14	--	<5	<0.5	<0.5	<0.5	--	--	<0.5
05/07/15	--	<2	<0.5	<0.5	<0.5	--	--	--
MW-6								
08/27/08	--	390	<0.5	<0.5	6	--	--	--
11/21/08	--	320	<13	<13	<13	--	--	--
02/13/09	--	100	<1	<1	4	--	--	--
05/08/09	--	16	<0.5	<0.5	0.9	--	--	--
08/07/09	--	190	<3	<3	5	--	--	--
11/05/09	--	86	<1	<1	4	--	--	--
05/06/10	--	2	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	98	<3	<3	3	--	--	--
05/10/11[1]	--	<2	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	19	<1	<1	<1	--	--	--
05/11/12	--	<2	<0.5	<0.5	<0.5	--	--	--
11/14/12	--	16	<0.5	<0.5	0.7	--	--	--
05/08/13	--	5	<0.5	<0.5	<0.5	--	--	--
11/06/13[2]	--	60	<1	<1	2	--	--	--
05/14/14	--	8	<0.5	<0.5	<0.5	--	--	<0.5
05/07/15	--	3	<0.5	<0.5	<0.5	--	--	--

Table 3

Additional Groundwater Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
MW-7								
08/27/08	--	<2	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	5	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	<2	<0.5	<0.5	<0.5	--	--	--
05/08/09	--	<2	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	4	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	9	<1	<1	<1	--	--	--
05/06/10	--	3	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	6	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	3	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	4	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<20	<5	<5	<5	--	--	--
11/14/12	--	<10	<3	<3	<3	--	--	--
05/08/13	--	<2	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	<0.5	<0.5	<0.5	--	--	--
05/14/14[2]	--	<10	<1	<1	<1	--	--	<1
11/19/14	--	<2	<0.5	<0.5	<0.5	--	--	--
05/07/15	--	2	<0.5	<0.5	<0.5	--	--	--
MW-8								
08/27/08	--	<2	<0.5	<0.5	<0.5	--	--	--
11/21/08	--	<2	<0.5	<0.5	<0.5	--	--	--
02/13/09	--	<2	<0.5	<0.5	<0.5	--	--	--
05/08/09	--	<2	<0.5	<0.5	<0.5	--	--	--
08/07/09	--	<2	<0.5	<0.5	<0.5	--	--	--
11/05/09	--	<2	<0.5	<0.5	<0.5	--	--	--
05/06/10	--	<2	<0.5	<0.5	<0.5	--	--	--
11/03/10	--	<2	<0.5	<0.5	<0.5	--	--	--
05/10/11	--	<2	<0.5	<0.5	<0.5	--	--	--
11/10/11	--	<2	<0.5	<0.5	<0.5	--	--	--
05/11/12	--	<2	<0.5	<0.5	<0.5	--	--	--
11/14/12	--	<2	<0.5	<0.5	<0.5	--	--	--
05/08/13	--	<2	<0.5	<0.5	<0.5	--	--	--
11/06/13	--	<2	<0.5	<0.5	<0.5	--	--	--
05/14/14	--	<5	<0.5	<0.5	<0.5	--	--	<0.5
11/19/14	--	<2	<0.5	<0.5	<0.5	--	--	--
05/07/15	--	<2	<0.5	<0.5	<0.5	--	--	--

Table 3

Additional Groundwater Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
MW-1								
03/12/02	--	<100	<2	<2	<2	<2	<2	--
06/07/02	--	<100	<2	<2	<2	<2	<2	--
09/13/02	--	<100	<2	<2	<2	<2	<2	--
12/13/02	--	<100	<2	<2	<2	<2	<2	--
03/01/03	--	<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	--
09/30/03	<50	<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	--
03/10/04	<50	<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	--
09/30/04	<50	<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	--
03/23/05	<50	<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	--
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED								
MW-2								
03/12/02	--	<100	<2	<2	<2	<2	<2	--
06/07/02	--	<100	<2	<2	<2	<2	<2	--
09/13/02	--	<100	<2	<2	<2	<2	<2	--
12/13/02	--	<100	<2	<2	<2	<2	<2	--
03/01/03	--	<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	--
09/30/03	<50	<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	--
03/10/04	<50	<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	--
09/30/04	<50	<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	--
03/23/05	<50	<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	--
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED								

Table 3

Additional Groundwater Analytical Results

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

Oakland, California

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
MW-3								
03/12/02	--	<100	<2	<2	18	<2	<2	--
06/07/02	--	230	<5.0	<5.0	11	<5.0	<5.0	--
09/13/02	--	170	<2	<2	8	<2	<2	--
12/13/02	--	240	<2	<2	29	31	<2	--
03/01/03	--	160	<0.5	<0.5	10	<0.5	<0.5	--
06/27/03	--	200	<0.5	<0.5	11	<0.5	<0.5	--
09/30/03	<50	120	<0.5	<0.5	6	0.7	<0.5	--
12/03/03	<250	200	<3	<3	14	<3	<3	--
03/10/04	<50	140	<0.5	<0.5	5	<0.5	<0.5	--
06/30/04	<50	100	<0.5	<0.5	5	<0.5	<0.5	--
09/30/04	<50	72	<0.5	<0.5	4	0.5	<0.5	--
12/31/04	<50	77	<0.5	<0.5	5	<0.5	<0.5	--
03/23/05	<50	<5	<0.5	<0.5	4	<0.5	3	--
06/22/05	<250	150	<3	<3	6	<3	<3	--
09/02/05	<100	99	<1	<1	<1	<1	<1	--
12/02/05	<100	66	<1	<1	5	<1	<1	--
03/20/06	<50	14	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/01/06	<50	12	<0.5	<0.5	0.8	<0.5	<0.5	--
09/11/06	<50	47	<0.5	<0.5	2	<0.5	<0.5	--
DESTROYED								
MW-4								
03/12/02	--	<100	<2	<2	13	<2	<2	--
06/07/02	--	<100	<2	<2	14	<2	<2	--
09/13/02	--	<100	<2	<2	14	<2	<2	--
12/13/02	--	<100	<2	<2	17	<2	<2	--
03/01/03	--	19	<0.5	<0.5	8	<0.5	<0.5	--
06/27/03	--	22	<0.5	<0.5	11	<0.5	<0.5	--
09/30/03	<100	<10	<1	<1	9	<1	<1	--
12/03/03	<50	18	<0.5	<0.5	5	<0.5	<0.5	--
03/10/04	<50	11	<0.5	<0.5	4	<0.5	<0.5	--
06/30/04	<100	<10	<1	<1	6	<1	<1	--
09/30/04	<50	17	<0.5	<0.5	7	<0.5	<0.5	--
12/31/04	<50	11	<0.5	<0.5	2	<0.5	<0.5	--
03/23/05	<50	<5	<0.5	<0.5	1	<0.5	0.9	--
06/22/05	<50	15	<0.5	<0.5	1	<0.5	<0.5	--
09/02/05	<50	6	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/02/05	<50	11	<0.5	<0.5	1	<0.5	<0.5	--

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

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (µg/L)	PCE (µg/L)
MW-4 (cont)								
03/20/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/01/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/11/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	--
DESTROYED								

Table 3

Additional Groundwater 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

TBA = Tertiary-Butyl Alcohol
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

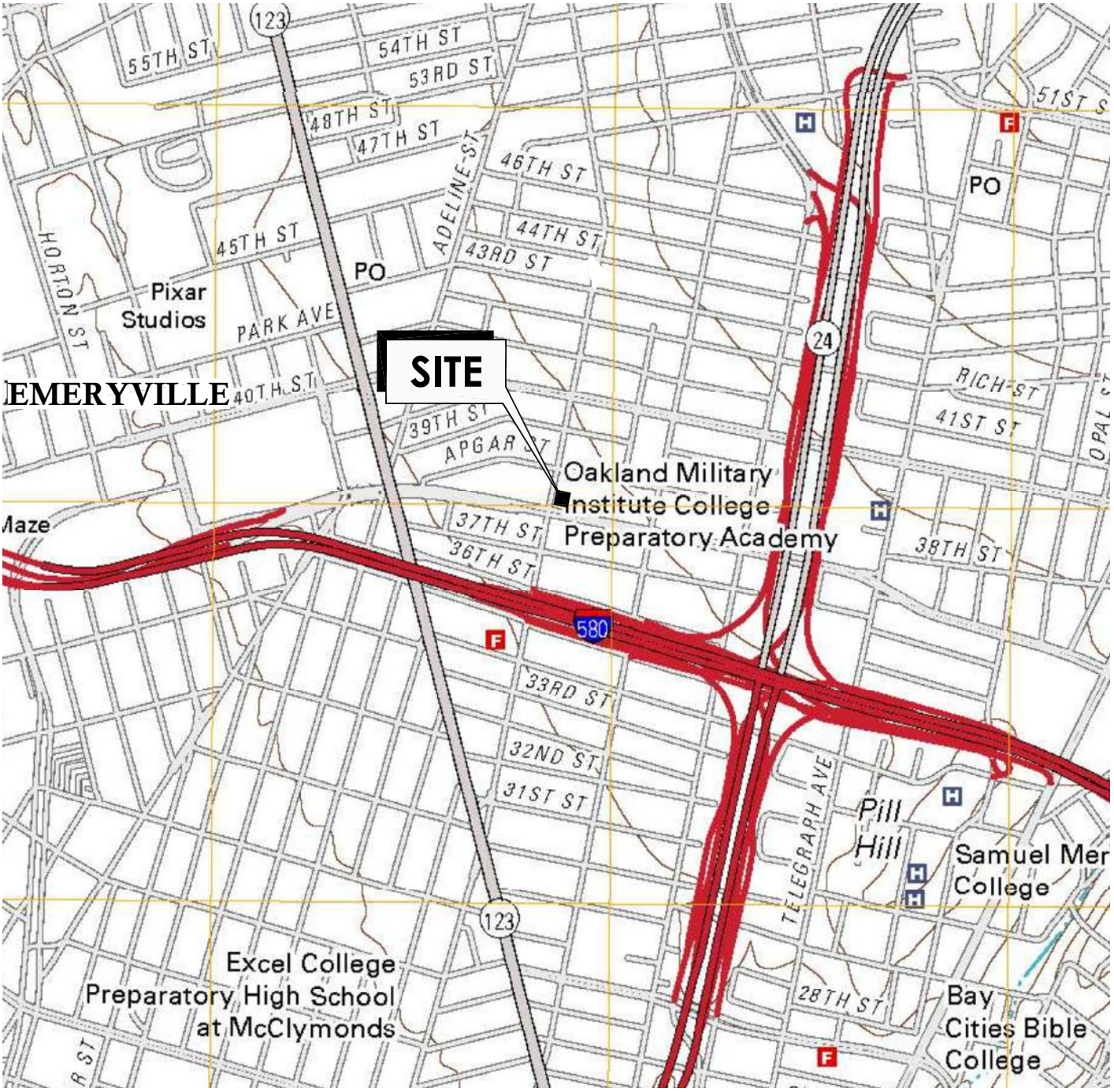
ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

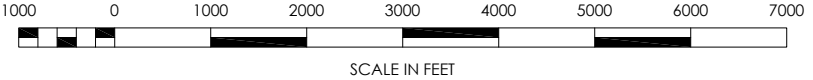
[1] Laboratory confirmed analytical result.

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

FIGURES



CALIFORNIA



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:			FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA		SITE LOCATION MAP	1
JOB NUMBER: 211602398	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 06/16/16

FILEPATH:C:\Users\jopalekopsahl\Documents\0_travel_cad\0_okemos\2q16\211602398_92029\211602398_92029_allfigs_2q16.dwg | JOpalekOpsahl | Jun 16, 2016 at 11:25 | Layout: fig1_slm

LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
- (41.91) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW. AVERAGE HYDRAULIC GRADIENT IS APPROXIMATELY 0.031 FEET PER FOOT (ft/ft).

NOTES

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

GROUNDWATER ELEVATION DATA WERE COLLECTED ON MAY 18, 2016

GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 11.6

COMMERCIAL AREA

RESIDENTIAL AREA

MARKET STREET

WEST MACARTHUR BOULEVARD

FORMER CHEVRON-BRANDED SERVICE STATION 92029

FORMER DISPENSER ISLANDS

FORMER WASTE OIL UST

FORMER HYDRAULIC HOISTS

FORMER USTs

FORMER KIOSK

FORMER STATION BUILDING

FORMER CANOPY

HOTEL

COMMERCIAL BUILDING

COMMERCIAL BUILDING

COMMERCIAL BUILDING

MW-1

MW-2

MW-3

MW-4

MW-5 (41.91)

MW-6 (42.29)

MW-7 (39.74)

MW-8 (35.89)

42.00

41.00

40.00

39.00

38.00

37.00

36.00

0.031 ft/ft

N

0 40 80

APPROXIMATE SCALE IN FEET

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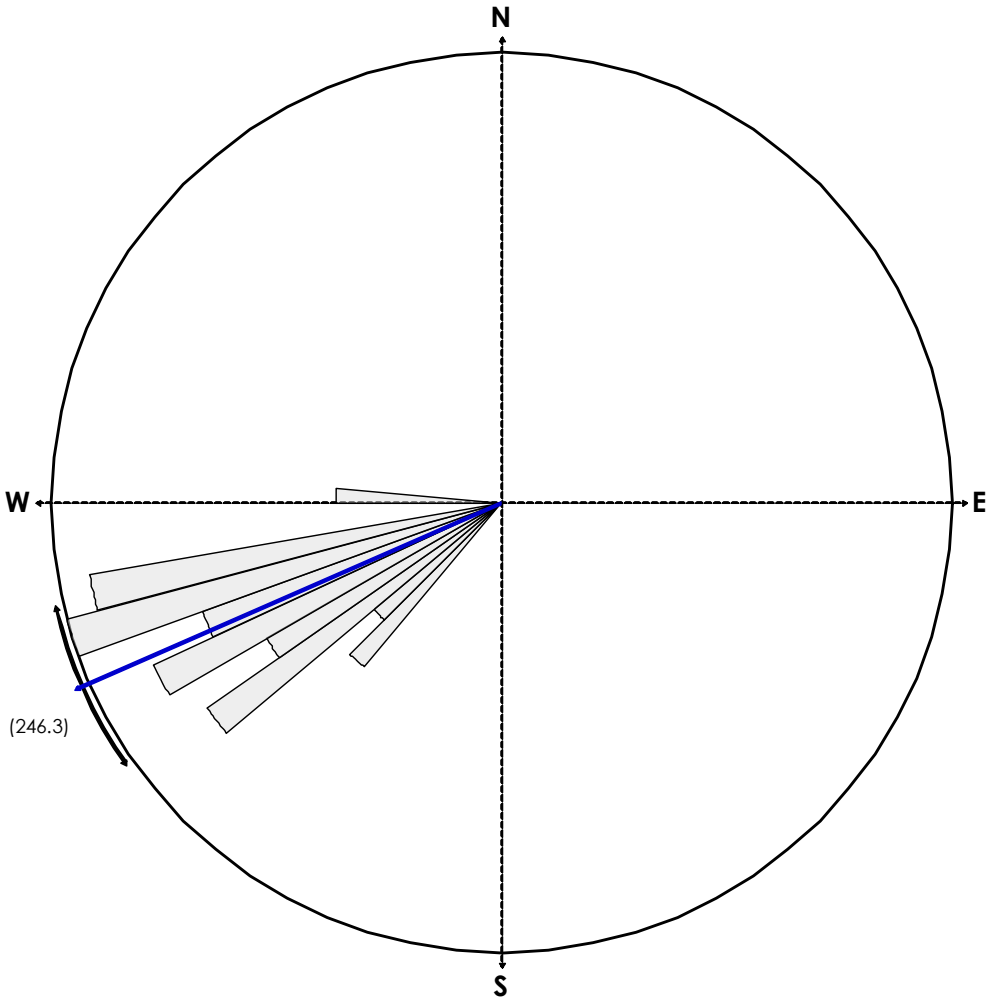
FOR: FORMER CHEVRON-BRANDED SERVICE STATION 92029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP - SECOND QUARTER 2016

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/16/16

FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q16_gwr\figures\211602398_92029_allfigs_2q16.dwg | jopalekopsahl | Jun 21, 2016 at 14:41 | Layout: fig2_gwe



EQUAL AREA PLOT

Number of Points	37
Class Size	5
Vector Mean	246.29
Vector Magnitude	36.29
Consistency Ratio	0.98

NOTE: ROSE DIAGRAM IS BASED ON THE DIRECTION OF GROUNDWATER FLOW BEGINNING FIRST QUARTER 2002.

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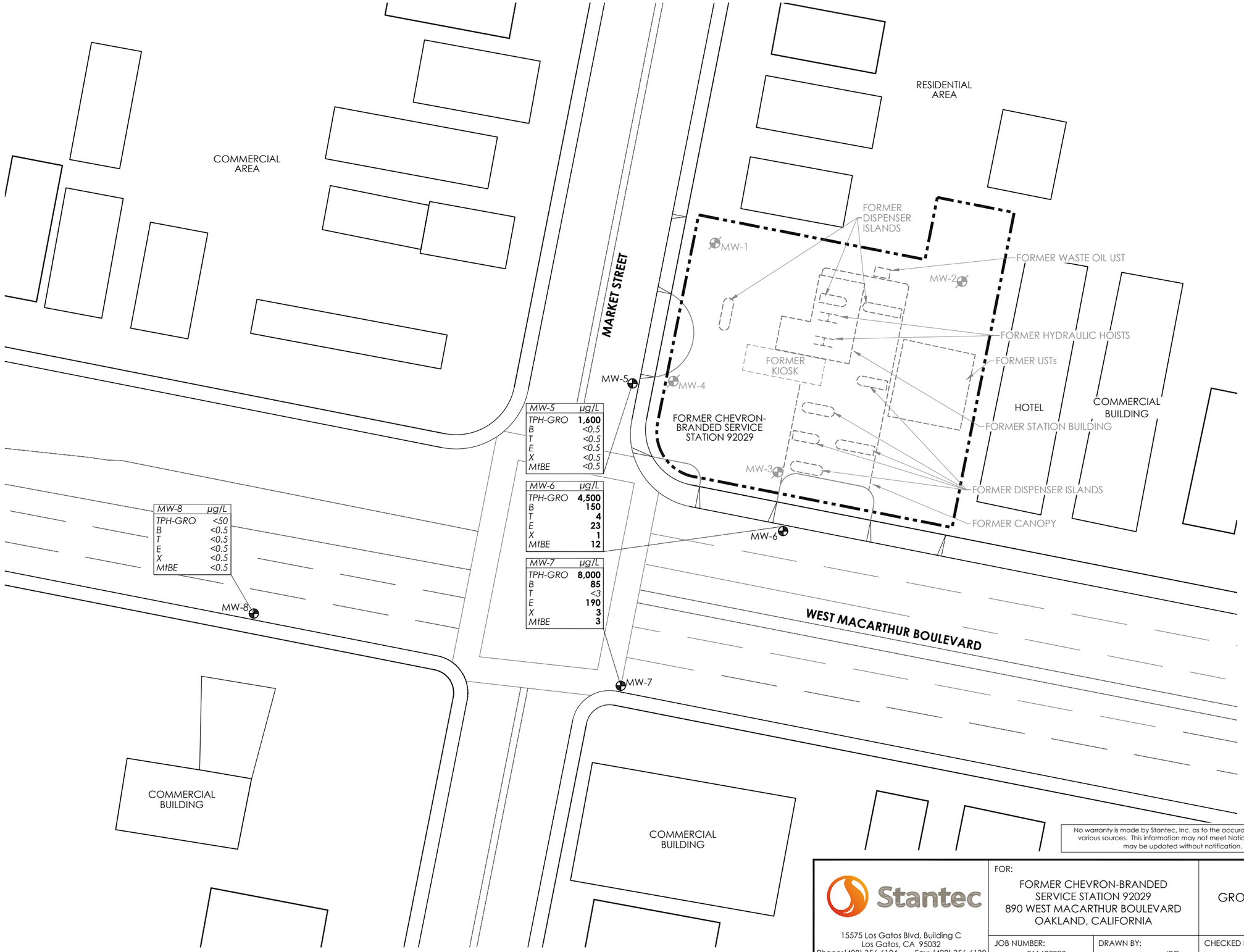
FOR:		FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	GROUNDWATER FLOW DIRECTION ROSE DIAGRAM - SECOND QUARTER 2016	3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO	TLF	06/16/16

FILEPATH:C:\Users\jopalekopsahl\Documents\0_travel_cad\0_okemos\2q16\211602398_92029\211602398_92029_allfigs_2q16.dwg | JOpalekOpsahl | Jun 16, 2016 at 11:23 | Layout: fig3_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

µg/L = MICROGRAMS PER LITER

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

N

0 40 80

APPROXIMATE SCALE IN FEET

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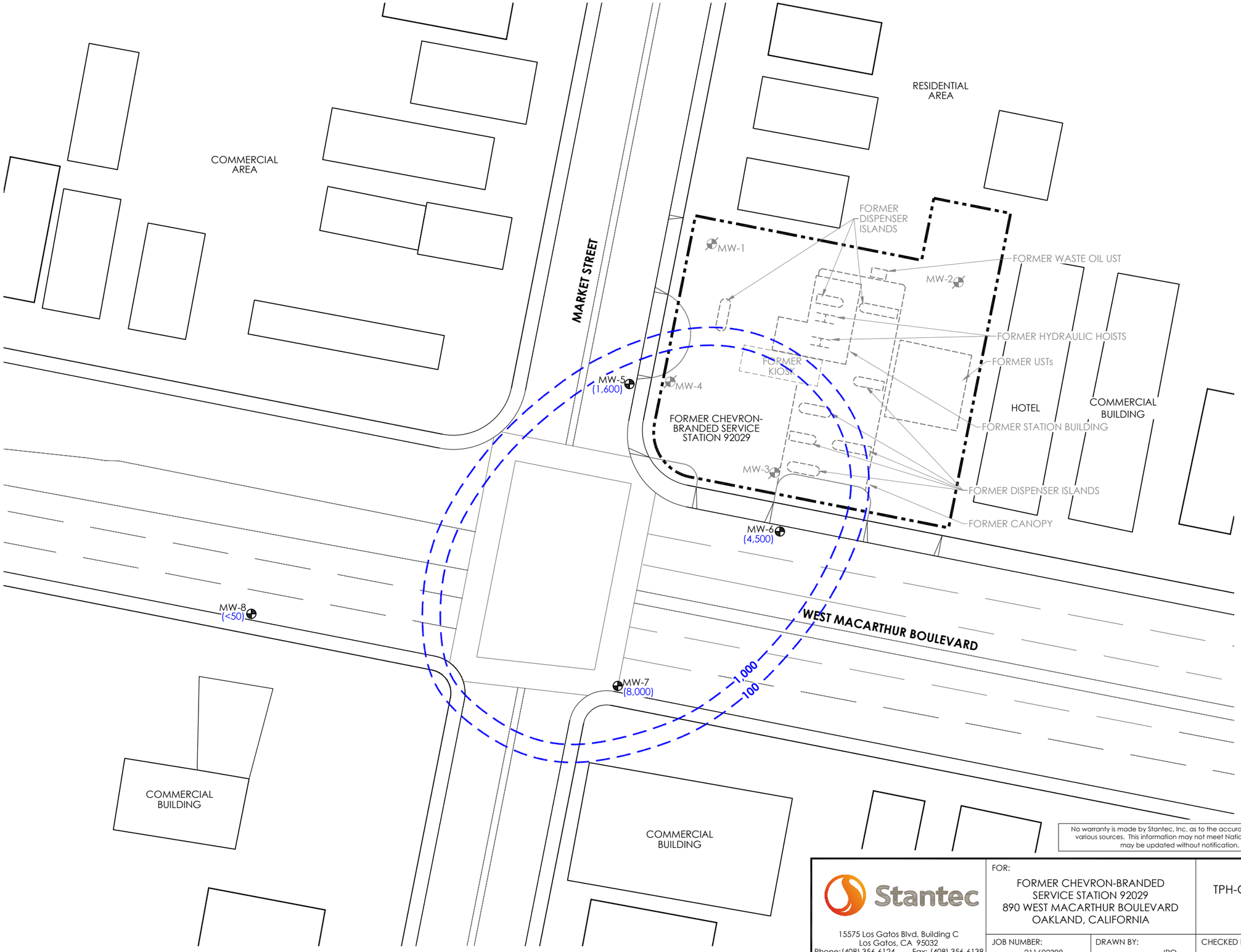
FOR: FORMER CHEVRON-BRANDED SERVICE STATION 92029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

SITE PLAN SHOWING GROUNDWATER CONCENTRATIONS - SECOND QUARTER 2016

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/16/16

FILEPATH:C:\Users\jopalekopsahl\Documents\0_travel_cad\0_okemos\2q16\211602398_92029\211602398_92029_allfigs_2q16.dwg | JOpalekOpsahl | Jun 16, 2016 at 10:45 | Layout: fig4_gwc



LEGEND

▬ ▬ ▬	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
⊗	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(1,600)	TPH-GRO CONCENTRATION (µg/L)
- - -	INFERRED TPH-GRO CONTOUR
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

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FOR:			FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 92029 890 WEST MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	TPH-GRO ISOCONCENTRATION MAP - SECOND QUARTER 2016		5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/16/16

FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q16_gwr\figures\211602398_92029_allfigs_2q16.dwg | jopalekopsahl | Jun 21, 2016 at 14:44 | Layout: fig5_tphg

LEGEND

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

NOTE

FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

COMMERCIAL AREA

RESIDENTIAL AREA

MARKET STREET

FORMER DISPENSER ISLANDS

MW-1

FORMER WASTE OIL UST

MW-2

FORMER HYDRAULIC HOISTS

FORMER USTs

FORMER KIOSK

MW-5 (<0.5)

MW-4

HOTEL

COMMERCIAL BUILDING

FORMER CHEVRON-BRANDED SERVICE STATION 92029

FORMER STATION BUILDING

MW-3

FORMER DISPENSER ISLANDS

FORMER CANOPY

MW-6 (150)

100

10

1

WEST MACARTHUR BOULEVARD

MW-8 (<0.5)

MW-7 (85)

COMMERCIAL BUILDING

COMMERCIAL BUILDING

N

0 40 80

APPROXIMATE SCALE IN FEET

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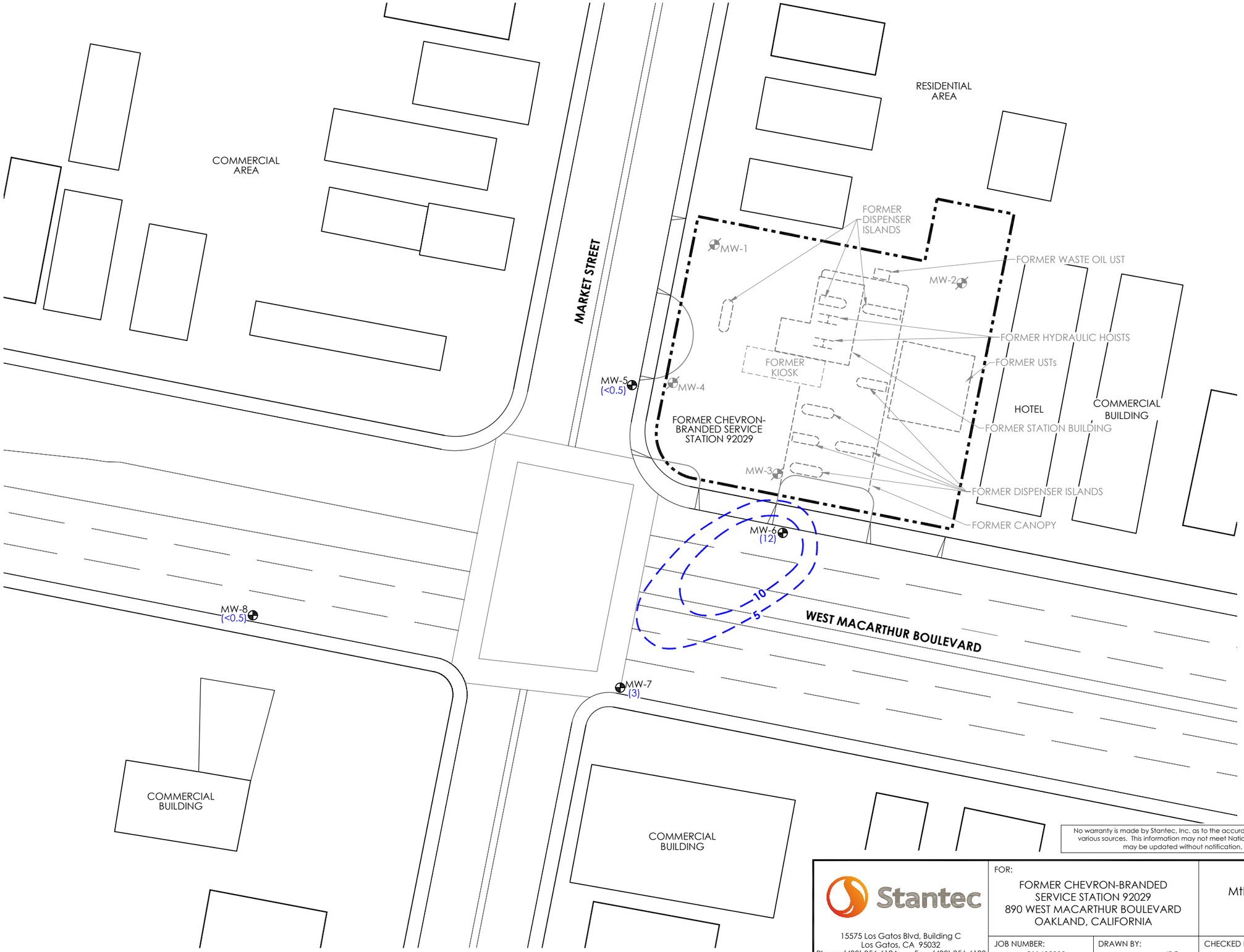
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 92029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

BENZENE ISOCONCENTRATION MAP - SECOND QUARTER 2016

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/16/16

FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q16_gwr\figures\211602398_92029_allfigs_2q16.dwg | jopalekopsahl | Jun 21, 2016 at 14:44 | Layout: fig6_bnz



LEGEND

———	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
⊗	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(12)	MtBE CONCENTRATION (µg/L)
- - -	INFERRED MtBE CONTOUR
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

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

MtBE ISOCONCENTRATION MAP - SECOND QUARTER 2016

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602398	JRO	EEO/MRK	TLF	06/16/16

FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q16_gwr\figures\211602398_92029_allfigs_2q16.dwg | jopalekopsahl | Jun 21, 2016 at 14:45 | Layout: fig7_mtbe

ATTACHMENT A
Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2016

GETTLER-RYAN INC.

TRANSMITTAL

May 27, 2016
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 18, 2016**

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: 5.18.16

Sampler: FT

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/(N)	REPLACE CAP Y/(N)	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/(N)
MW5	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: 5.18.16 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-5 Date Monitored: 5.18.16
Well Diameter 2 in.
Total Depth 24.98 ft.
Depth to Water 7.48 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

17.50 xVF .17 = 2.97 x3 case volume = Estimated Purge Volume: 9.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.98

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): 1045 Weather Conditions: Sunny
Sample Time/Date: 1113 / 5.18.16 Water Color: Clear Odor: Y / N Strong
Approx. Flow Rate: ✓ gpm. Sediment Description: None
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 10.81

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1051	3.0	6.68	459	18.8		
1057	6.0	6.71	466	19.1		
1103	9.0	6.74	473	19.5		

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)

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: 5.18.16 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-6 Date Monitored: 5.18.16
Well Diameter 2 in.
Total Depth 24.96 ft.
Depth to Water 6.78 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

18.18 xVF .17 = 3.09 x3 case volume = Estimated Purge Volume: 9.27 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.41

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): 1120 Weather Conditions: SUNNY
Sample Time/Date: 1148 / 5.18.16 Water Color: CLEAR Odor: (Y) / N STRONG
Approx. Flow Rate: ~ gpm. Sediment Description: NONE
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 8.56

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1126	3.0	6.60	462	19.8		
1132	6.0	6.62	470	20.0		
1138	9.0	6.65	479	20.3		

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)

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: 5.18.16 (inclusive)
City: Oakland, CA | Sampler: FT

Well ID: MW-7 | Date Monitored: 5.18.16
Well Diameter: 2 in.
Total Depth: 24.87 ft.
Depth to Water: 9.00 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

15.87 xVF .17 = 2.69 x3 case volume = Estimated Purge Volume: 8.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.17

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): 1205 | Weather Conditions: Sunny
Sample Time/Date: 1231 / 5.18.16 | Water Color: CLEAR | Odor: (Y) / N | STRONG
Approx. Flow Rate: ✓ gpm. | Sediment Description: NONE
Did well de-water? NO | If yes, Time: _____ | Volume: _____ gal. | DTW @ Sampling: 11.12

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS) mS µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1210	2.5	6.43	566	20.3		
1215	5.0	6.46	574	20.5		
1221	8.0	6.50	581	20.8	✓	✓

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)

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: 5.18.16 (inclusive)
City: Oakland, CA Sampler: FT

Well ID MW-8 Date Monitored: 5.18.16
Well Diameter 2 in.
Total Depth 25.01 ft.
Depth to Water 11.72 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.

13.29 xVF .17 = 2.25 x3 case volume = Estimated Purge Volume: 7.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.37

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): 1250 Weather Conditions: SUNNY
Sample Time/Date: 1314 / 5.18.16 Water Color: LT. BRN. Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: [redacted] S. SILTY
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 14.24

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1255	2.5	6.64	435	20.4		
1300	5.0	6.68	442	20.7		
1304	7.0	6.72	445	21.0		

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)

COMMENTS:

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

Chevron California Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: 1 of 1

1 Client Information

Facility # SS#9-2029-OML G-R#386911 Global ID#T0600173887 WBS
Site Address 890 WEST MACARTHUR BLVD., OAKLAND, CA
Chevron PM CM
Lead Consultant STANTECTF 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 TELLINONI

4 Matrix

Soil ☐ Sediment ☐ | Water ☒ Ground ☐ Potable ☐ NPDES ☐ Surface ☐ | Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Soil Depth	Collected Date	Collected Time	3 Grab	3 Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ / 8021 ☐	TPH-GRO 8260 ☐ / 8015 ☒	TPH-DRO 8015 without Silica Gel Cleanup ☐	TPH-DRO 8015 with Silica Gel Cleanup ☐	8260 Full Scan	Oxygenates	Total Lead Method	Dissolved Lead Method
QA		5.18.16				W 2	X	X						
MW-5			1113	X		6								
MW-6			1148	X		6								
MW-7			1231	X		6								
MW-8		↓	1314	X		6	↓	↓						

- ☐ 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

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5.18.16		[signature]	MAY 16	1440

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

EDFFLAT (default)
Other: _____

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature Upon Receipt _____ °C

Received by | Date | Time

Custody Seals Intact? Yes No

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

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Report Date: May 31, 2016

Project: 92029

Submittal Date: 05/19/2016
Group Number: 1663482
PO Number: 0015188594
Release Number: CMACLEOD
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
QA-T-160518 NA Water	8389455
MW-5-W-160518 Grab Groundwater	8389456
MW-6-W-160518 Grab Groundwater	8389457
MW-7-W-160518 Grab Groundwater	8389458
MW-8-W-160518 Grab Groundwater	8389459

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

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

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

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

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Analysis Report

Sample Description: QA-T-160518 NA Water
Facility# 92029 Job# 386911 GRD
890 W Macarthur-Oakland T0600173887

LL Sample # WW 8389455
LL Group # 1663482
Account # 10906

Project Name: 92029

Collected: 05/18/2016

Submitted: 05/19/2016 09:05
Reported: 05/31/2016 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z161412AA	05/20/2016 20:48	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z161412AA	05/20/2016 20:48	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16143B20A	05/24/2016 15:18	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	16143B20A	05/24/2016 15:18	Jeremy C Giffin	1

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Analysis Report

Sample Description: MW-5-W-160518 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W Macarthur-Oakland T0600173887

LL Sample # WW 8389456
LL Group # 1663482
Account # 10906

Project Name: 92029

Collected: 05/18/2016 11:13 by FT

Submitted: 05/19/2016 09:05
Reported: 05/31/2016 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOM5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	1,600	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z161414AA	05/20/2016 19:47	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z161414AA	05/20/2016 19:47	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16147B20A	05/27/2016 13:19	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	16147B20A	05/27/2016 13:19	Marie D Beamenderfer	1

Sample Description: MW-6-W-160518 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W Macarthur-Oakland T0600173887

LL Sample # WW 8389457
LL Group # 1663482
Account # 10906

Project Name: 92029

Collected: 05/18/2016 11:48 by FT

Submitted: 05/19/2016 09:05
Reported: 05/31/2016 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOM6

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	150	0.5	1
10945	Ethylbenzene	100-41-4	23	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	12	0.5	1
10945	Toluene	108-88-3	4	0.5	1
10945	Xylene (Total)	1330-20-7	1	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	4,500	250	5

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z161414AA	05/20/2016 20:11	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z161414AA	05/20/2016 20:11	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16150A20A	05/30/2016 04:17	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	16150A20A	05/30/2016 04:17	Brett W Kenyon	5

Sample Description: MW-7-W-160518 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W Macarthur-Oakland T0600173887

LL Sample # WW 8389458
LL Group # 1663482
Account # 10906

Project Name: 92029

Collected: 05/18/2016 12:31 by FT

Submitted: 05/19/2016 09:05
Reported: 05/31/2016 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOM7

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	85	3	5
10945	Ethylbenzene	100-41-4	190	3	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	3	5
10945	Toluene	108-88-3	N.D.	3	5
10945	Xylene (Total)	1330-20-7	3	3	5
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	8,000	500	10

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z161414AA	05/21/2016 03:00	Hu Yang	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z161414AA	05/21/2016 03:00	Hu Yang	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16150A20A	05/30/2016 04:44	Brett W Kenyon	10
01146	GC VOA Water Prep	SW-846 5030B	1	16150A20A	05/30/2016 04:44	Brett W Kenyon	10

Sample Description: MW-8-W-160518 Grab Groundwater
Facility# 92029 Job# 386911 GRD
890 W Macarthur-Oakland T0600173887

LL Sample # WW 8389459
LL Group # 1663482
Account # 10906

Project Name: 92029

Collected: 05/18/2016 13:14 by FT

Submitted: 05/19/2016 09:05
Reported: 05/31/2016 14:02

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

WMOM8

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z161414AA	05/20/2016 20:35	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z161414AA	05/20/2016 20:35	Hu Yang	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	16147B20A	05/27/2016 14:43	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	16147B20A	05/27/2016 14:43	Marie D Beamenderfer	1

Quality Control Summary

Client Name: Chevron
Reported: 05/31/2016 14:02

Group Number: 1663482

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

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

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: Z161412AA	Sample number(s): 8389455	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Methyl Tertiary Butyl Ether	N.D.	0.5
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: Z161414AA	Sample number(s): 8389456-8389459	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Methyl Tertiary Butyl Ether	N.D.	0.5
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 16143B20A	Sample number(s): 8389455	
TPH-GRO N. CA water C6-C12	N.D.	50
Batch number: 16147B20A	Sample number(s): 8389456,8389459	
TPH-GRO N. CA water C6-C12	N.D.	50
Batch number: 16150A20A	Sample number(s): 8389457-8389458	
TPH-GRO N. CA water C6-C12	N.D.	50

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Z161412AA	Sample number(s): 8389455								
Benzene	20	18.45	20	18.76	92	94	78-120	2	30
Ethylbenzene	20	18.31	20	18.35	92	92	78-120	0	30
Methyl Tertiary Butyl Ether	20	18.13	20	18.29	91	91	75-120	1	30
Toluene	20	19.17	20	19.16	96	96	80-120	0	30
Xylene (Total)	60	56.56	60	57.11	94	95	80-120	1	30
Batch number: Z161414AA	Sample number(s): 8389456-8389459								
Benzene	20	18.55	20	18.82	93	94	78-120	1	30
Ethylbenzene	20	18.45	20	18.48	92	92	78-120	0	30
Methyl Tertiary Butyl Ether	20	19.6	20	19.88	98	99	75-120	1	30
Toluene	20	19.69	20	19.89	98	99	80-120	1	30
Xylene (Total)	60	57.59	60	58.77	96	98	80-120	2	30

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 05/31/2016 14:02

Group Number: 1663482

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 16143B20A	Sample number(s): 8389455								
TPH-GRO N. CA water C6-C12	1100	1016.31	1100	1016.03	92	92	77-120	0	30
Batch number: 16147B20A	Sample number(s): 8389456,8389459								
TPH-GRO N. CA water C6-C12	1100	1023.12	1100	1032.61	93	94	77-120	1	30
Batch number: 16150A20A	Sample number(s): 8389457-8389458								
TPH-GRO N. CA water C6-C12	1100	994.64			90		77-120		

MS/MSD

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16150A20A	Sample number(s): 8389457-8389458 UNSPK: P398661									
TPH-GRO N. CA water C6-C12	196	1100	1360.33	1100	1364.33	106	106	77-120	0	30

Surrogate Quality Control

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

Analysis Name: BTEX/MTBE
Batch number: Z161412AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8389455	100	98	96	89
Blank	99	100	96	90
LCS	97	98	97	98
LCSD	97	98	98	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: Z161414AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8389456	95	95	98	99
8389457	95	93	98	96
8389458	98	94	97	95
8389459	100	99	96	89
Blank	101	97	96	89
LCS	97	98	97	98
LCSD	96	100	98	97

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Chevron
Reported: 05/31/2016 14:02

Group Number: 1663482

Surrogate Quality Control (continued)

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

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

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 16143B20A

	Trifluorotoluene-F
8389455	89
Blank	78
LCS	97
LCSD	97
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 16147B20A

	Trifluorotoluene-F
8389456	109
8389459	89
Blank	77
LCS	86
LCSD	82
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 16150A20A

	Trifluorotoluene-F
8389457	97
8389458	92
Blank	88
LCS	96
MS	97
MSD	100
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.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Chevron California Region Analysis Request/Chain of Custody

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Q518 16-02

Acct. # 10906

For Eurofins Lancaster Laboratories use only
Group # 1663482 Sample # 838455-59
Instructions on reverse side correspond with circled numbers.

SCR #: 1 of 1

1 Client Information

Facility # SS#9-2029-OML G-R#386911 Global ID#T0600173887 WBS
Site Address 890 WEST MACARTHUR BLVD., OAKLAND, CA
Chevron PM CM
Lead Consultant STANTECTF
Consultant/Office Flora
Consultant Project Mgr. Getter-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Phone # Deanna L. Harding, deanna@grinc.com
Sampler (925) 551-7444 x180
FRANK TENNINONI

4 Matrix

Soil ☐ Sediment ☐ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ Oil ☐ Air ☐ Water

5 Analyses Requested

Total Number of Containers
BTEX + MTBE 8260 ☒ 8021 ☐
TPH-GRO 8260 ☐ 8015 ☒
TPH-DRO 8015 without Silica Gel Cleanup ☐
TPH-DRO 8015 with Silica Gel Cleanup ☐
8260 Full Scan
Oxygenates ____
Total Lead Method ____
Dissolved Lead Method ____

☐ 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

2 Sample Identification | Soil Depth | Collected Date | Time | 3 Grab | Composite

Sample Identification	Soil Depth	Date	Time	Grab	Composite	Soil	Water	Oil	Total Containers	BTEX+MTBE 8260	TPH-GRO 8260	TPH-DRO 8015 w/o SGC	TPH-DRO 8015 w/ SGC	8260 Full Scan	Oxygenates	Total Lead	Dissolved Lead
QA		5.18.16					W		2	X	X						
MW-5			1113	X					6								
MW-6			1148	X					6								
MW-7			1231	X					6								
MW-8			1314	X					6								

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
1		5.18.16				
2		MAY 16	1638	FX		
3	Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____			Received by	5.19.16	905

Temperature Upon Receipt 0.5-2.2 °C

Custody Seals Intact? Yes No

9

	Received by	Date	Time
1		MAY 16	1446

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Sample Administration Receipt Documentation Log

Doc Log ID: 147220

Group Number(s): 1663482

Client: CA Office

Delivery and Receipt Information

Delivery Method:	BASC	Arrival Timestamp:	05/19/2016 9:05
Number of Packages:	5	Number of Projects:	2
State/Province of Origin:	CA		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	HCL
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Timothy Cubberley (6520) at 13:39 on 05/19/2016

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	2.2	DT	Wet	Y	Bagged	N
2	DT131	0.5	DT	Wet	Y	Bagged	N
3	DT131	1.5	DT	Wet	Y	Bagged	N
4	DT131	1.4	DT	Wet	Y	Bagged	N
5	DT131	1.8	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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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
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…

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

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

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

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

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

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

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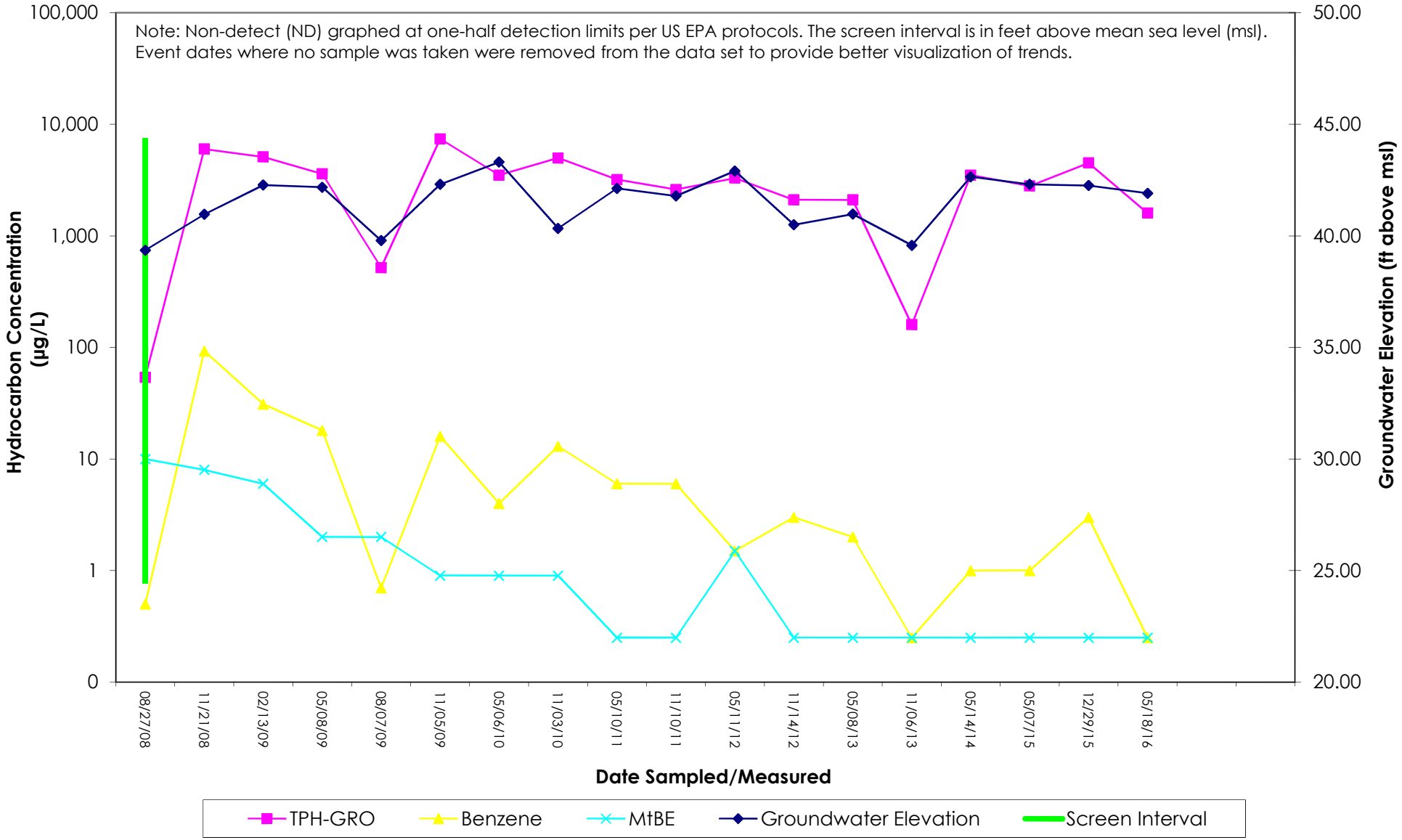
ATTACHMENT C
Hydrographs

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

Former Chevron-branded Service Station 92029

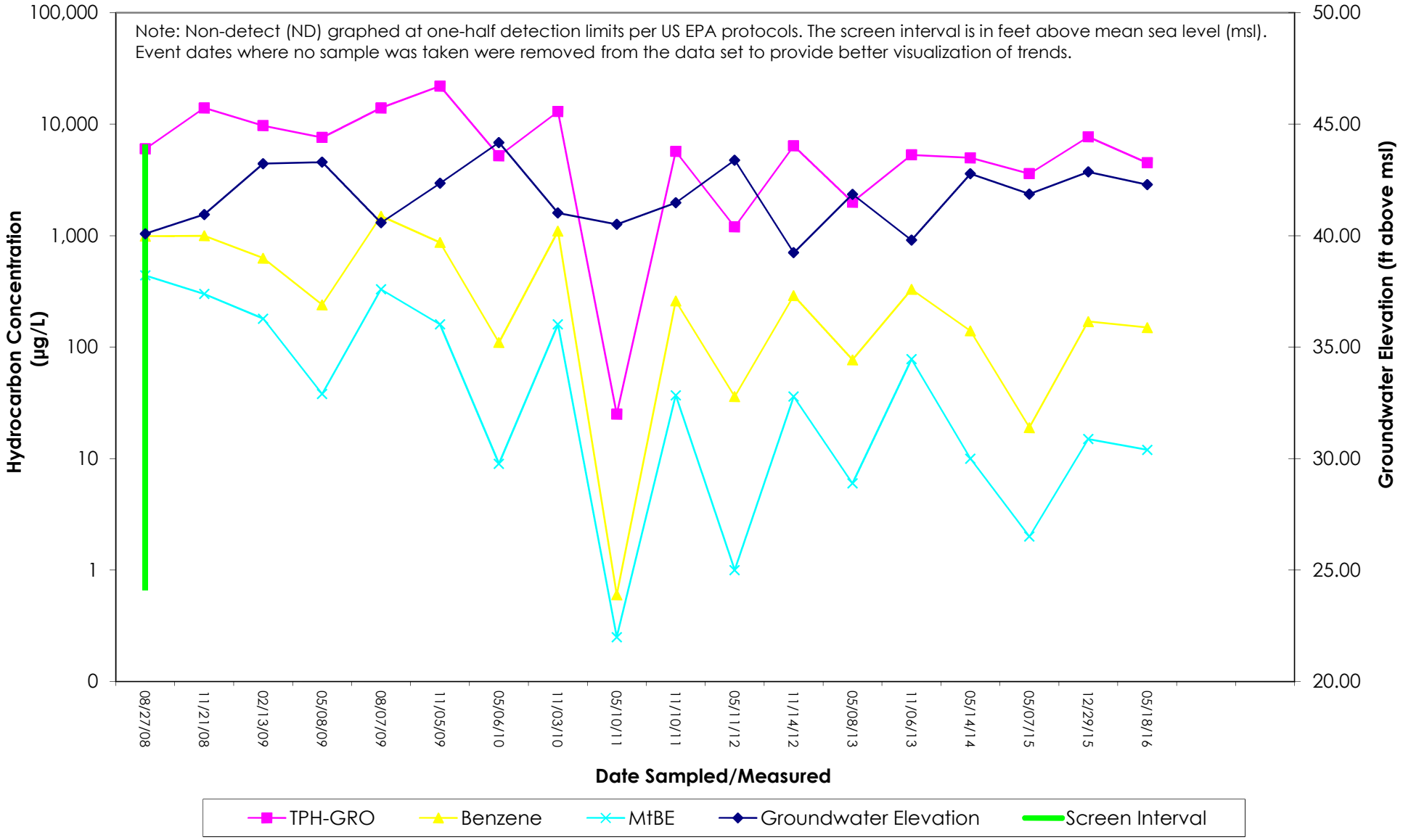
890 West MacArthur Boulevard

Oakland, California



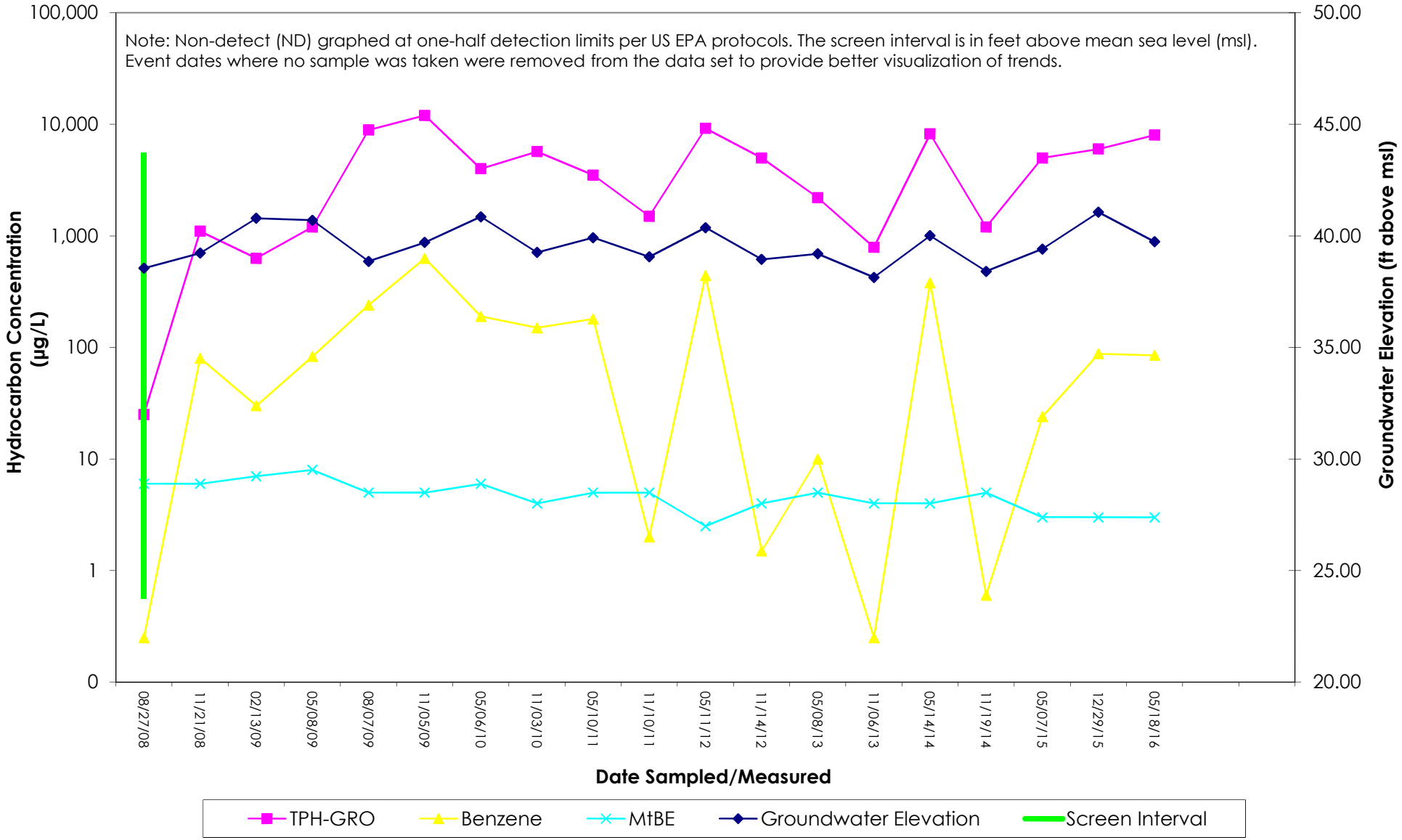
MW-6 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

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