

April 15, 2015



Mr. Dave Bjostad
California Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

**Subject: First Quarter 2015 Semi-Annual Groundwater Monitoring
and Progress Report
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California
LARWQCB Case No. 902920116A**

Dear Mr. Bjostad:

On behalf of Chevron Environmental Management Company (EMC), Leidos Engineering, LLC (hereafter, Leidos), is pleased to submit this Semi-annual Groundwater Monitoring and Progress Report for the above-mentioned site. Work performed this quarter included groundwater monitoring by Blaine Tech Services, Inc. Electronic Deliverable Format (EDF) files have been uploaded to the State Water Resources Control Board GeoTracker website. This site is monitored during the first and third quarters only.

If you have any questions, please contact Ms. Amy Mora, the Leidos Project Manager, at (714) 257-6415, or Mr. Eugene Francisco, the EMC Project Manager, at (714) 671-3230.

Respectfully submitted,

Leidos Engineering, LLC

A handwritten signature in blue ink, appearing to read "Cory Davis".

Cory Davis
Staff Geologist

A handwritten signature in blue ink, appearing to read "James M. Haslett".

James M. Haslett
Professional Geologist No. 5641



Attachment 1 – First Quarter 2015 Semi-Annual Progress Report
Attachment 2 – First Quarter 2015 Semi-Annual Groundwater Summary
Attachment 3 – Tables
Attachment 4 – Figures
Attachment 5 – Hydrographs
Attachment 6 – Groundwater Sampling Procedures and Field Sheets
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cc: Mr. Eugene Francisco, EMC
Mr. Bhupinder Mac, Marina Lincoln, Inc.
Leidos Project File

ATTACHMENT 1

FIRST QUARTER 2015 SEMI-ANNUAL PROGRESS REPORT

1. SITE INFORMATION:

- Site Case No. 902920116A
- Site Name Chevron Service Station No. 9-3910
- Address 4680 Lincoln Boulevard
- City Marina Del Rey, California

2. RESPONSIBLE PARTY INFORMATION:

- Contact Mr. Eugene Francisco
- Company Chevron Environmental Management Company
- Address P.O. Box 2292
- City / Zip Brea, California 92822-2292
- Phone (714) 671-3230

3. CONSULTANT INFORMATION:

- Contact Ms. Amy Mora
- Company Leidos Engineering, LLC
- Address 590 West Central Avenue, Suite I
- City / Zip Brea, California 92821
- Phone (714) 257-6415

4. WORK PERFORMED THIS PERIOD:

- Groundwater monitoring

5. WORK PROPOSED FOR NEXT PERIOD:

- Groundwater monitoring
- Evaluate groundwater conditions and propose Low Threat Closure

6. CURRENT PHASE OF PROJECT (Initial Assessment, Additional Assessment, Corrective Action Plan (CAP), Remediation, Post-Remediation Monitoring, etc.):

- Groundwater monitoring

7. DESCRIBE CORRECTIVE AND REMEDIAL TECHNIQUES TO BE IMPLEMENTED IN THE FUTURE AND INCLUDE TIME SCHEDULE FOR THE INITIATION OF THE ASSOCIATED ACTIVITIES (NAPL Removal, Pump and Treat, Vapor Extraction System (VES), Excavation, etc.):

- None at this time

8. CURRENTLY MONITORING (Soil, Groundwater, None):

- Groundwater

9. MONITORING FREQUENCY (Quarterly, Monthly, etc.):

- Semi-annually (First and Third Quarters)

10. DESCRIBE CORRECTIVE AND REMEDIAL TECHNIQUES, INCLUDING INVESTIGATIONS IMPLEMENTED TO DATE, WHICH WERE UNDERTAKEN TO DETERMINE THE NATURE AND EXTENT OF SOIL, GROUNDWATER, OR SURFACE WATER CONTAMINATION (NAPL Removal, Pump and Treat, VES, Excavation, etc.):

- Product lines replaced due to suspected leak - 1978
- Monitoring wells 1 through 6 installed near the UST pit near the east corner of the site – 1981
- Wells 1 through 6 were bailed to remove free product 3 times per week for a period of 10 weeks - 1981
- Four new 10,000 gallon USTs were installed in the southern corner of the site – 1981
- Two of the former USTs were removed and 1 was left in place as an extraction storage tank – 1981
- Seven groundwater monitoring wells were installed (MDR-1 through MDR-7) – 1982
- UST used as an extraction storage tanks was removed – 1989
- Monitoring wells MDR-1 through MDR-7 were destroyed - 1990.
- Monitoring wells GTW-1 through GTW-7 and GTW-9 were installed – 1990
- Groundwater monitoring was conducted between 1991 and 1996.
- One 1000 gallon UST and three 10,000 gallon USTs were removed – 1996
- Three soil borings were drilled in CalTrans right-of-way that was deeded to CalTrans to widen Lincoln Boulevard - 2005
- Baseline Site Assessment – 2008
- Groundwater monitoring well installation – March – April 2011
- Groundwater monitoring (since April 2011)

11. CUMULATIVE SOIL REMOVED TO DATE:

- Excavation and sampling conducted during removal of a 4000 gallon UST. Volume of soil removed was not reported. - 1989
- 3,235.6 tons during station upgrade activities in 1996

12. SOIL REMOVED THIS QUARTER (cubic yards):

- None

13. ARE CONTAMINATED SOILS OR LIQUIDS GENERATED FROM INVESTIGATIONS OR CLEANUPS CURRENTLY STORED ONSITE?

- No

ATTACHMENT 2

FIRST QUARTER 2015 SEMI-ANNUAL GROUNDWATER SUMMARY

GROUNDWATER MONITORING SUMMARY

CURRENT FIELD ACTIVITIES

Groundwater monitoring frequency:	Semi-annually
Activity date:	1/2/2015
Field subcontractor:	Blaine Tech Services, Inc. (BTS)
Purging method:	Submersible Pump
Purging subcontractor:	BTS
Transporter/disposal facility:	BTS and Nieto & Sons / Siemens Water Tech
Gallons of groundwater purged:	Approximately 137
Number of groundwater wells total:	6
Number of groundwater wells offsite:	0
Number of wells sampled this period:	6
Number of wells with NAPL ¹ :	0
Cumulative NAPL recovered to date (gallons):	None
NAPL recovered this quarter (gallons):	None

SITE HYDROLOGY

Average groundwater elevation (of wells gauged):	3.94 feet above mean sea level (msl)
Groundwater elevation change from previous quarter:	+0.07 foot
Approximate groundwater flow direction:	Variable (north and west)
Approximate hydraulic gradient:	<0.001 ft/ft

GROUNDWATER CONDITIONS

Maximum benzene concentration:	58 micrograms per liter (µg/L) – MW-04
Minimum benzene concentration:	0.99 µg/L – MW-03 and MW-06
Historical maximum benzene concentration:	160 µg/L – MW-05 (4/26/11)
Maximum MtBE ² concentration:	17 µg/L – MW-03
Minimum MtBE concentration:	4.2 µg/L – MW-06
Historical maximum MtBE concentration:	240 µg/L – MW-03 (1/9/14)
Maximum TBA concentration:	450 µg/L – MW-03
Minimum TBA concentration:	7.5 J µg/L – MW-05
Historical maximum TBA concentration:	2,500 µg/L – MW-03 (4/26/11)

1 = Non-aqueous phase liquid

2 = Methyl tertiary-butyl ether

3 = Tertiary-butyl alcohol

GROUNDWATER TREND AND OBSERVATIONS

- Concentrations of total petroleum hydrocarbons as gasoline, TPHd, BTEX, MTBE, and TBA are present on site. The first quarter sampling shows concentrations to be stable.
- It appears that the dissolved-phase hydrocarbon concentrations (TPHg and TPHd) are highest in the southern corner of the site, and are primarily in the general vicinity of the former UST's monitored by well MW-4.
- Compared to historical values overall, benzene and MTBE levels have diminished. The current highest benzene value is 58 µg/L in well MW-04, while the maximum MTBE concentration is 17 µg/L in MW-03.
- The groundwater gradient at this site is variable and may have some tidal influence, but always has a very low gradient that is less than 0.001 ft/ft.
- Concentrations of benzene and MTBE are below the levels detailed in the Low Threat Closure requirements and the site should be evaluated for Low Threat Closure.

REPORT LIMITATIONS

- This technical document was prepared on behalf of Chevron and is intended for its sole use and for use by the local, state or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and that Leidos Engineering, LLC (Leidos) shall have no responsibility or liability for the consequences thereof.
- Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from EMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.
- Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.
- Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos's site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.
- All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied upon by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

ATTACHMENT 3

TABLES

Table 1. Current Groundwater Analytical and Gauging Data
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPH _g (µg/L)	TPH _d (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-01	1/2/2015	11.63	5-25	7.74	3.89	24.43	150	72 HD	11	0.33 J	0.68 J	3.6 JA	11	50	ND<0.33	ND<0.22	32	150	--
MW-02	1/2/2015	11.77	5-25	7.75	4.02	24.35	230	120 HD	18	0.92 J	2.9	6.5 JA	6.0	13	ND<0.33	ND<0.22	12	56 J	--
MW-03	1/2/2015	11.64	5-25	7.71	3.93	24.40	150	67 HD	0.99	ND<0.24	ND<0.14	2.2 JA	17	150	0.54 J	0.29 J	450	ND<50	--
MW-04	1/2/2015	11.19	5-25	7.29	3.90	25.10	11,000	5,200 HD	58	3.3 J	28	4.6 JA	11	5.2 J	ND<1.7	ND<1.1	120	ND<250	--
MW-05	1/2/2015	11.15	4.5-24.5	7.24	3.91	24.47	61	80 HD	4.8	0.3 J	0.51 J	0.45 JA	8.1	ND<0.44	ND<0.33	ND<0.22	7.5 J	ND<50	--
MW-06	1/2/2015	11.82	4.5-24.5	7.85	3.97	24.42	45	52 HD	0.99	ND<0.24	1.1	ND<0.23	4.2	ND<0.44	ND<0.33	ND<0.22	42	ND<50	--
Trip Blank	1/2/2015	--	--	--	--	--	ND<31	ND<11	ND<0.14	ND<0.24	ND<0.14	ND<0.23	ND<0.31	ND<0.44	ND<0.33	ND<0.22	ND<4.6	ND<50	--

Notes:

ft MSL = feet above mean sea level
ft bgs = feet below ground surface
EPA = U.S. Environmental Protection Agency
µg/L = micrograms per liter
Detected concentrations are shown in **BOLD**
-- = Not sampled or not analyzed
< = not detected above the method detection limits (MDL); value shown is the MDL
J = denotes value between method detection limit and detection limit for reporting purposes
JA = Analyte positively identified but quantitation is an estimate
HD = the chromatographic pattern was inconsistent with the profile of the reference fuel standard
Benzene, toluene, ethylbenzene, and total xylenes (collectively termed BTEX) analyzed by EPA Method 8260B
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B
MtBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
EtBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B



Table 2. Historical Groundwater Analytical and Gauging Data
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
GTW-1	10/1/1990	10.00	--	--	--	--	2,300	--		680	150	67	230	--	--	--	--	--	--	
GTW-1	12/6/1991	10.00	--	9.36	0.64	--	ND	--		280	7	220	29	--	--	--	--	--	--	EPA 8020
GTW-1	12/9/1992	10.00	--	9.20	0.80	20.10	ND	--		220	7.1	10	21	--	--	--	--	--	--	EPA 8020
GTW-1	2/24/1993	10.00	--	7.78	2.22	20.14	ND	--		190	2.9	6.6	8.2	--	--	--	--	--	--	EPA 8020
GTW-1	6/14/1993	10.00	--	8.43	1.57	20.12	ND	--		150	1.3	1.8	2.9	--	--	--	--	--	--	EPA 8020
GTW-1	9/8/1993	10.00	--	8.46	1.54	20.10	ND	--		190	3.6	4.2	7.7	--	--	--	--	--	--	EPA 8020
GTW-1	10/19/1993	10.00	--	8.64	1.36	20.11	ND	--		180	3.1	5.7	8.2	--	--	--	--	--	--	EPA 8020
GTW-1	3/24/1994	10.00	--	8.80	1.20	20.04	ND	--		120	0.5	3.8	2.3	--	--	--	--	--	--	EPA 8020
GTW-1	5/31/1994	10.00	--	9.04	0.96	20.10	ND	--		84.7	0.61	3.5	2.6	--	--	--	--	--	--	EPA 8020
GTW-1	9/8/1994	10.00	--	9.08	0.92	--	ND	--		350	6.4	6	7.4	--	--	--	--	--	--	EPA 8020
GTW-1	12/8/1994	10.00	--	9.08	0.92	20.10	ND	--		49	1	1.9	3.3	--	--	--	--	--	--	EPA 8020
GTW-1	3/8/1995	10.00	--	7.95	2.05	20.10	ND	--		160	1.3	10	8.5	--	--	--	--	--	--	EPA 8020
GTW-1	6/8/1995	10.00	--	8.51	1.49	20.10	ND	--		550	1.8	51	11	--	--	--	--	--	--	EPA 8020
GTW-1	9/8/1995	10.00	--	8.51	1.49	20.10	ND	--		680	ND	30	3	--	--	--	--	--	--	EPA 8020
GTW-1	12/11/1995	10.00	--	8.80	1.20	20.10	ND	--		40	0.6	1	ND	--	--	--	--	--	--	EPA 8020
GTW-1	3/14/1996	10.00	--	8.48	1.52	20.10	ND	--		0.93	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-1	6/14/1996	10.00	--	8.90	1.10	20.10	ND	--		56	30	8.3	27	890	--	--	--	--	--	EPA 8020
GTW-2	10/1/1990	8.78	--	--	--	--	900	--		43	37	31	84	--	--	--	--	--	--	
GTW-2	12/6/1991	8.78	--	8.13	0.65	--	3,000	--		590	12	120	80	--	--	--	--	--	--	EPA 8020
GTW-2	12/9/1992	8.78	--	7.80	0.98	19.53	ND	--		2.1	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	2/24/1993	8.78	--	6.56	2.22	19.59	ND	--		0.4	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	6/14/1993	8.78	--	7.36	1.42	19.56	ND	--		3.6	0.6	ND	0.8	--	--	--	--	--	--	EPA 8020
GTW-2	9/8/1993	8.78	--	7.56	1.22	19.41	ND	--		17	0.7	1.2	5	--	--	--	--	--	--	EPA 8020
GTW-2	10/19/1993	8.78	--	7.41	1.37	18.85	ND	--		4.3	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	3/24/1994	8.78	--	7.62	1.16	19.54	ND	--		2.8	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	5/31/1994	8.78	--	7.60	1.18	19.58	ND	--		1.6	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	9/8/1994	8.78	--	7.88	0.90	--	250	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	12/8/1994	8.78	--	7.92	0.86	19.58	180	--		6	ND	ND	1.6	--	--	--	--	--	--	EPA 8020
GTW-2	3/8/1995	8.78	--	6.77	2.01	19.58	200	--		6.3	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	6/8/1995	8.78	--	7.36	1.42	19.58	450	--		1.9	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-2	9/8/1995	8.78	--	7.31	1.47	19.58	4,930	--		1,140	70	240	780	--	--	--	--	--	--	EPA 8020
GTW-2	12/11/1995	8.78	--	7.45	1.33	19.58	6,400	--		710	9	310	16	--	--	--	--	--	--	EPA 8020
GTW-2	3/14/1996	8.78	--	7.57	1.21	19.58	480	--		6.9	0.42	1.1	ND	--	--	--	--	--	--	EPA 8020
GTW-2	6/14/1996	8.78	--	8.10	0.68	19.58	73	--		3.5	0.58	ND	1.4	730	--	--	--	--	--	EPA 8020
GTW-3	10/1/1990	9.76	--	--	--	--	1,000	--		170	230	38	100	--	--	--	--	--	--	ND<1 ppm (418.1)
GTW-3	12/6/1991	9.76	--	9.13	0.63	--	210	--		12	1	6.4	6.9	--	--	--	--	--	--	EPA 8020
GTW-3	12/9/1992	9.76	--	8.91	0.85	19.93	ND	--		57	ND	17	17	--	--	--	--	--	--	EPA 8020
GTW-3	2/24/1993	9.76	--	7.05	2.71	19.96	700	--		210	4	46	13	--	--	--	--	--	--	EPA 8020
GTW-3	6/14/1993	9.76	--	8.24	1.52	19.94	620	--		170	1.7	8.6	17	--	--	--	--	--	--	EPA 8020
GTW-3	9/8/1993	9.76	--	8.32	1.44	19.90	ND	--		150	1.3	21	3.6	--	--	--	--	--	--	EPA 8020
GTW-3	10/19/1993	9.76	--	8.40	1.36	19.22	560	--		200	2.2	41	22	--	--	--	--	--	--	EPA 8020
GTW-3	3/24/1994	9.76	--	8.58	1.18	19.93	39,000	--		260	3.9	72	25	--	--	--	--	--	--	EPA 8020
GTW-3	5/31/1994	9.76	--	8.86	0.90	19.95	320	--		68.1	1.7	13	5.5	--	--	--	--	--	--	EPA 8020
GTW-3	9/8/1994	9.76	--	8.91	0.85	--	ND	--		8.9	ND	0.87	ND	--	--	--	--	--	--	EPA 8020
GTW-3	12/8/1994	9.76	--	8.91	0.85	19.88	ND	--		16	0.63	3.6	4.2	--	--	--	--	--	--	EPA 8020
GTW-3	3/8/1995	9.76	--	7.79	1.97	19.95	140	--		66	1	3.5	4.4	--	--	--	--	--	--	EPA 8020
GTW-3	6/8/1995	9.76	--	8.31	1.45	19.88	ND	--		5.8	ND	0.73	ND	--	--	--	--	--	--	EPA 8020

Table 2. Historical Groundwater Analytical and Gauging Data
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
GTW-3	9/8/1995	9.76	--	8.28	1.48	19.88	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-3	12/11/1995	9.76	--	8.65	1.11	19.88	ND	--		2	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-3	3/14/1996	9.76	--	8.33	1.43	19.88	87	--		20	ND	4.8	0.95	--	--	--	--	--	--	EPA 8020
GTW-3	6/14/1996	9.76	--	8.79	0.97	19.88	ND	--		ND	ND	ND	ND	26	--	--	--	--	--	EPA 8020
GTW-4	10/1/1990	9.82	--	--	--	--	ND<100	--		1.4	4.9	0.7	7.6	--	--	--	--	--	--	ND<1 ppm (418.1)
GTW-4	12/6/1991	9.82	--	9.26	0.56	--	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	12/9/1992	9.82	--	9.11	0.71	20.10	ND	--		ND	ND	ND	1	--	--	--	--	--	--	EPA 8020
GTW-4	2/24/1993	9.82	--	7.57	2.25	20.14	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	6/14/1993	9.82	--	8.29	1.53	20.12	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	9/8/1993	9.82	--	8.41	1.41	19.66	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	10/19/1993	9.82	--	8.51	1.31	19.41	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	3/24/1994	9.82	--	8.69	1.13	20.15	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	5/31/1994	9.82	--	8.98	0.84	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	9/8/1994	9.82	--	8.93	0.89	--	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	12/8/1994	9.82	--	9.05	0.77	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	3/8/1995	9.82	--	7.78	2.04	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	6/8/1995	9.82	--	8.30	1.52	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	9/8/1995	9.82	--	8.39	1.43	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	12/11/1995	9.82	--	8.73	1.09	20.21	ND	--		0.6	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	3/14/1996	9.82	--	8.37	1.45	20.21	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-4	6/14/1996	9.82	--	8.85	0.97	20.21	ND	--		ND	ND	ND	ND	11	--	--	--	--	--	EPA 8020
GTW-5	10/1/1990	8.63	--	--	--	--	ND<100	--		3.3	1.9	0.3	4.4	--	--	--	--	--	--	
GTW-5	12/6/1991	8.63	--	7.98	0.65	--	230	--		68	0.5	2.2	5	--	--	--	--	--	--	EPA 8020
GTW-5	12/9/1992	8.63	--	7.65	0.98	19.73	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	2/24/1993	8.63	--	6.33	2.30	19.78	ND	--		4	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	6/14/1993	8.63	--	7.00	1.63	19.77	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	9/8/1993	8.63	--	7.11	1.52	19.36	ND	--		1.3	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	10/19/1993	8.63	--	7.20	1.43	19.95	ND	--		4.4	ND	ND	0.8	--	--	--	--	--	--	EPA 8020
GTW-5	3/24/1994	8.63	--	7.41	1.22	19.75	ND	--		12	ND	ND	0.7	--	--	--	--	--	--	EPA 8020
GTW-5	5/31/1994	8.63	--	7.67	0.96	0.25	ND	--		23	ND	1.6	2.7	--	--	--	--	--	--	EPA 8020
GTW-5	9/8/1994	8.63	--	7.65	0.98	--	ND	--		18	ND	1.4	4.5	--	--	--	--	--	--	EPA 8020
GTW-5	12/8/1994	8.63	--	7.71	0.92	19.76	ND	--		3	ND	ND	1.4	--	--	--	--	--	--	EPA 8020
GTW-5	3/8/1995	8.63	--	6.53	2.10	19.76	ND	--		49	0.73	4.3	8.7	--	--	--	--	--	--	EPA 8020
GTW-5	6/8/1995	8.63	--	7.08	1.55	19.76	ND	--		51	ND	4.4	7.4	--	--	--	--	--	--	EPA 8020
GTW-5	9/8/1995	8.63	--	7.12	1.51	19.76	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	12/11/1995	8.63	--	7.55	1.08	19.76	ND	--		0.6	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	3/14/1996	8.63	--	7.11	1.52	19.76	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-5	6/14/1996	8.63	--	7.56	1.07	19.76	ND	--		ND	ND	ND	ND	ND	--	--	--	--	--	EPA 8020
GTW-6	10/1/1990	9.75	--	--	--	--	530	--		100	78	14	65	--	--	--	--	--	--	
GTW-6	12/6/1991	9.75	--	9.07	0.68	--	2,300	--		370	52	39	54	--	--	--	--	--	--	EPA 8020
GTW-6	12/9/1992	9.75	--	8.91	0.84	20.27	ND	--		14	ND	1.9	1.7	--	--	--	--	--	--	EPA 8020
GTW-6	2/24/1993	9.75	--	7.45	2.30	20.30	740	--		240	9.2	11	10	--	--	--	--	--	--	EPA 8020
GTW-6	6/14/1993	9.75	--	8.14	1.61	20.30	880	--		330	17	10	28	--	--	--	--	--	--	EPA 8020
GTW-6	9/8/1993	9.75	--	8.25	1.50	20.25	ND	--		260	11	8.1	25	--	--	--	--	--	--	EPA 8020
GTW-6	10/19/1993	9.75	--	8.37	1.38	20.32	ND	--		110	2.4	1.8	4.7	--	--	--	--	--	--	EPA 8020
GTW-6	3/24/1994	9.75	--	8.54	1.21	20.27	ND	--		17	2.7	0.3	2.9	--	--	--	--	--	--	EPA 8020
GTW-6	5/31/1994	9.75	--	7.86	1.89	20.31	ND	--		27	3.1	0.7	3.3	--	--	--	--	--	--	EPA 8020



Table 2. Historical Groundwater Analytical and Gauging Data
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
GTW-6	9/8/1994	9.75	--	8.41	1.34	--	ND	--		4.4	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-6	12/8/1994	9.75	--	8.84	0.91	20.34	ND	--		3.3	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-6	3/8/1995	9.75	--	7.63	2.12	20.52	ND	--		5.9	0.44	0.5	ND	--	--	--	--	--	--	EPA 8020
GTW-6	6/8/1995	9.75	--	8.21	1.54	20.34	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-6	9/8/1995	9.75	--	8.60	1.15	20.34	ND	--		80	1	3	4	--	--	--	--	--	--	EPA 8020
GTW-6	12/11/1995	9.75	--	8.63	1.12	20.34	ND	--		ND	ND	2	ND	--	--	--	--	--	--	EPA 8020
GTW-6	3/14/1996	9.75	--	8.21	1.54	20.34	ND	--		51	ND	0.73	2.2	--	--	--	--	--	--	EPA 8020
GTW-6	6/14/1996	9.75	--	8.65	1.10	20.34	290	--		57	4.1	5.3	24	310	--	--	--	--	--	EPA 8020
GTW-7	1/19/1991	7.81	--	--	--	--	750	--		14	61	23	130	--	--	--	--	--	--	
GTW-7	12/6/1991	7.81	--	7.16	0.65	--	160	--		2.9	1	2.4	160	--	--	--	--	--	--	EPA 8020
GTW-7	12/9/1992	7.81	--	6.93	0.88	20.08	ND	--		4.6	ND	2.5	ND	--	--	--	--	--	--	EPA 8020
GTW-7	2/24/1993	7.81	--	5.60	2.21	20.10	3,300	--		970	29	200	3,300	--	--	--	--	--	--	EPA 8020
GTW-7	6/14/1993	7.81	--	6.30	1.51	20.09	ND	--		12	1.1	1.5	ND	--	--	--	--	--	--	EPA 8020
GTW-7	9/8/1993	7.81	--	6.35	1.46	20.59	ND	--		6.9	ND	1.2	ND	--	--	--	--	--	--	EPA 8020
GTW-7	10/19/1993	7.81	--	6.50	1.31	19.40	ND	--		1.9	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	3/24/1994	7.81	--	6.67	1.14	20.07	ND	--		11	0.4	4.1	ND	--	--	--	--	--	--	EPA 8020
GTW-7	5/31/1994	7.81	--	6.95	0.86	20.10	410	--		21	3.1	14	410	--	--	--	--	--	--	EPA 8020
GTW-7	9/8/1994	7.81	--	6.85	0.96	--	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	12/8/1994	7.81	--	7.06	0.75	20.10	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	3/8/1995	7.81	--	5.52	2.29	20.10	1,100	--		180	3.7	37	1,100	--	--	--	--	--	--	EPA 8020
GTW-7	6/8/1995	7.81	--	6.38	1.43	20.10	320	--		33	2.8	29	320	--	--	--	--	--	--	EPA 8020
GTW-7	9/8/1995	7.81	--	6.34	1.47	20.10	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	12/11/1995	7.81	--	6.73	1.08	20.10	ND	--		0.5	2	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	3/14/1996	7.81	--	6.37	1.44	20.10	ND	--		2.2	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-7	6/14/1996	7.81	--	6.85	0.96	20.10	54	--		1.3	ND	ND	ND	ND	--	--	--	--	--	EPA 8020
GTW-9	1/19/1991	9.60	--	--	--	--	2,000	--		54	64	63	250	--	--	--	--	--	--	
GTW-9	12/6/1991	9.60	--	9.00	0.60	--	260	--		19	3.6	7.2	16	--	--	--	--	--	--	EPA 8020
GTW-9	12/9/1992	9.60	--	8.78	0.82	19.85	ND	--		5.2	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	2/24/1993	9.60	--	7.33	2.27	19.87	ND	--		17	ND	1.3	3.7	--	--	--	--	--	--	EPA 8020
GTW-9	6/14/1993	9.60	--	8.40	1.20	19.85	ND	--		5.4	0.9	1	0.7	--	--	--	--	--	--	EPA 8020
GTW-9	9/8/1993	9.60	--	8.13	1.47	19.81	ND	--		1	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	10/19/1993	9.60	--	8.30	1.30	19.18	ND	--		0.6	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	3/24/1994	9.60	--	8.40	1.20	19.85	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	5/31/1994	9.60	--	8.67	0.93	19.88	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	9/8/1994	9.60	--	8.75	0.85	--	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	12/8/1994	9.60	--	8.76	0.84	19.88	ND	--		2.1	ND	0.91	ND	--	--	--	--	--	--	EPA 8020
GTW-9	3/8/1995	9.60	--	7.57	2.03	19.88	450	--		5.8	ND	1.5	ND	--	--	--	--	--	--	EPA 8020
GTW-9	6/8/1995	9.60	--	8.03	1.57	19.88	ND	--		0.84	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	9/8/1995	9.60	--	8.12	1.48	19.88	ND	--		ND	ND	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	12/11/1995	9.60	--	8.47	1.13	19.88	ND	--		1	1	ND	ND	--	--	--	--	--	--	EPA 8020
GTW-9	3/14/1996	9.60	--	8.04	1.56	19.88	1,300	--		200	16	3.2	20	--	--	--	--	--	--	EPA 8020
GTW-9	6/14/1996	9.60	--	8.58	1.02	19.88	93	--		0.36	ND	ND	ND	27	--	--	--	--	--	EPA 8020
BA-1	10/29/2008	--	--	--	--	--	2,100	4,500	4,800	3	4	28	116	6	2	ND<1	ND<1	60	ND<250	Grab Sample
BA-2	10/29/2008	--	--	--	--	--	1,700	ND<500	ND<2000	3	ND<0.5	5	3.7	1	ND<1	ND<1	ND<1	ND<10	ND<250	Grab Sample
BA-3	10/30/2008	--	--	--	--	--	67	ND<500	ND<2000	2	ND<0.5	ND<0.5	0.6	16	3	ND<1	ND<1	30	ND<250	Grab Sample



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4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
BA-4	10/31/2008	--	--	--	--	--	50,000	ND<500	ND<2000	12,000	5,400	2,600	11,700	47	ND<10	ND<10	ND<10	180	ND<1000	Grab Sample
BA-5	10/30/2008	--	--	--	--	--	340	530	ND<200	220	43	110	340	29	ND<1	3	ND<1	41	ND<250	Grab Sample
BA-6	10/30/2008	--	--	--	--	--	2,700	ND<500	ND<2000	140	150	120	550	31	79	ND<1	ND<1	69	ND<250	Grab Sample
BA-7	10/31/2008	--	--	--	--	--	860	1,200	ND<2000	3	ND<0.5	ND<0.5	0.5	6	ND<1	3	ND<1	5,100	ND<250	Grab Sample
BA-8	10/31/2008	--	--	--	--	--	5,300	ND<500	ND<2000	52	ND<3	21	53	30	1,000	5	ND<3	52,000	ND<250	Grab Sample
BA-9	10/31/2008	--	--	--	--	--	290	ND<500	ND<2000	6	ND<0.5	10	21	41	ND<1	ND<1	ND<1	ND<10	ND<250	Grab Sample
MW-01	4/26/2011	11.63	5-25	8.15	3.48	24.76	3,900	100 J		55	21	170	370	6	100	ND<0.5	ND<0.5	3 J	--	Well Development
MW-01	7/7/2011	11.63	5-25	7.80	3.83	24.54	1,700	72 J		57	3	61	15	18	120	ND<0.5	ND<0.5	9	ND<50	--
MW-01	1/17/2012	11.63	5-25	8.01	3.62	24.66	620	ND<87		16	ND<0.5	12	ND<0.5	19	180	ND<0.5	ND<0.5	5	ND<50	--
MW-01	7/3/2012	11.63	5-25	7.76	3.87	24.85	200	180		2	ND<0.5	ND<0.5	ND<0.5	16	160	ND<0.5	ND<0.5	ND<2	ND<50	--
MW-01	1/4/2013	11.63	5-25	7.62	4.01	24.80	300	240		0.9 J	ND<0.5	ND<0.5	ND<0.5	34	140	ND<0.5	0.5 J	4 J	ND<50	--
MW-01	7/18/2013	11.63	5-25	7.73	3.90	24.61	210	98		4.1	0.47 J	1.5	4.2	11	120	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-01	1/9/2014	11.63	5-25	7.63	4.00	24.62	350	220		8.8	ND<0.29	ND<0.38	1.77 J	46	83	ND<0.30	0.82 J	32	110	--
MW-01	7/15/2014	11.63	5-25	7.88	3.75	24.42	450	120		75	1.2	3.1	31	22	67	ND<0.33	0.37 J	11	ND<50	--
MW-01	1/2/2015	11.63	5-25	7.74	3.89	24.43	150	72 HD		11	0.33 J	0.68 J	3.6 JA	11	50	ND<0.33	ND<0.22	32	150	--
MW-02	4/26/2011	11.77	5-25	8.45	3.32	24.25	480	63 J		43	9	33	45	4	21	ND<0.5	ND<0.5	ND<2	--	Well Development
MW-02	7/7/2011	11.77	5-25	8.01	3.76	24.31	340	50 J		43	2	29	11	6	17	ND<0.5	ND<0.5	ND<2	ND<50	--
MW-02	1/17/2012	11.77	5-25	8.25	3.52	24.43	440	ND<88		19	3	10	9	9	25	ND<0.5	ND<0.5	3 J	ND<50	--
MW-02	7/3/2012	11.77	5-25	7.84	3.93	24.70	240	ND<50		9	1	4	5	8	29	ND<0.5	ND<0.5	ND<2	ND<50	--
MW-02	1/4/2013	11.77	5-25	7.77	4.00	24.65	430	180		48	1	3	4	13	18	ND<0.5	ND<0.5	6	ND<50	--
MW-02	7/18/2013	11.77	5-25	7.87	3.90	24.37	150	97		4.4	0.34 J	0.51 J	2.41	6.8	31	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-02	1/9/2014	11.77	5-25	7.89	3.88	24.36	170	110		11	0.67 J	1.7	4.23 J	6.8	28	ND<0.30	0.30 J	ND<9.6	44 J	--
MW-02	7/15/2014	11.77	5-25	8.00	3.77	24.44	290	77		7.0	0.40 J	0.55 J	3.3 J	6.5	15	ND<0.33	0.30 J	ND<4.6	ND<50	--
MW-02	1/2/2015	11.77	5-25	7.75	4.02	24.35	230	120 HD		18	0.92 J	2.9	6.5 JA	6.0	13	ND<0.33	ND<0.22	12	56 J	--
MW-03	4/26/2011	11.64	5-25	8.16	3.48	24.65	2,500	370		150	38	84	219	67	170	0.9 J	1 J	2,500	ND<50	Well Development
MW-03	7/7/2011	11.64	5-25	8.00	3.64	24.30	1,200	110		91	4	45	12	78	54	ND<0.5	1	410	ND<50	--
MW-03	1/17/2012	11.64	5-25	8.76	2.88	24.48	150	99 J		13	5	7	12	33	43	ND<0.5	ND<0.5	140	ND<50	--
MW-03	7/3/2012	11.64	5-25	7.78	3.86	24.66	150	64 J		11	2	1	5	52	48	ND<0.5	ND<0.5	220	ND<50	--
MW-03	1/4/2013	11.64	5-25	7.75	3.89	24.60	570	260		25	ND<0.5	1 J	2	42	150	1 J	0.6 J	1,600	ND<50	--
MW-03	7/18/2013	11.64	5-25	7.75	3.89	24.46	320	120		9.6	ND<1.4	ND<1.9	ND<1.8	31	160	ND<1.5	ND<1.3	1,700	ND<210	--
MW-03	1/9/2014	11.64	5-25	7.94	3.70	24.44	390	220		5.1	0.67 J	0.46 J	2.07 J	240	42	0.48 J	3.5	540	ND<42	--
MW-03	7/15/2014	11.64	5-25	7.30	4.34	24.42	250	93		1.0	0.30 J	0.19 J	1.6 J	19	150	0.64 J	0.36 J	570	85	--
MW-03	1/2/2015	11.64	5-25	7.71	3.93	24.40	150	67 HD		0.99	ND<0.24	ND<0.14	2.2 JA	17	150	0.54 J	0.29 J	450	ND<50	--
MW-04	4/26/2011	11.19	5-25	7.74	3.45	25.00	9,200	1,500		96	7	350	15	13	8	ND<1	5	260	--	Well Development
MW-04	7/7/2011	11.19	5-25	7.41	3.78	25.13	8,700	1,200		54	3	82	8	12	6	ND<1	3	250	ND<100	--
MW-04	1/17/2012	11.19	5-25	7.63	3.56	25.16	8,700	1,600		44	2	64	8	27	13	ND<1	6	240	ND<100	--
MW-04	7/3/2012	11.19	5-25	7.20	3.99	25.42	6,100	2,400		57	ND<3	47	4 J	15	6	ND<3	ND<3	200	ND<250	--
MW-04	1/4/2013	11.19	5-25	7.18	4.01	25.15	6,800	1,400		72	6 J	40	11	26	8 J	ND<5	ND<5	170	ND<500	--
MW-04	7/18/2013	11.19	5-25	7.18	4.01	25.15	12,000	5,400		57	2.6	44	6.0	13	6.7	ND<0.30	2.3	170	ND<42	--
MW-04	1/9/2014	11.19	5-25	7.43	3.76	24.98	9,100	7,200		69	2.9	41	6.8	14	7.3	ND<0.30	2.7	140	ND<42	--



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Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-04	7/15/2014	11.19	5-25	7.35	3.84	25.10	11,000	4,500		53	2.7	40	2.9	11	7.0	ND<0.33	2.5	230	ND<50	--
MW-04	1/2/2015	11.19	5-25	7.29	3.90	25.10	11,000	5,200 HD		58	3.3 J	28	4.6 JA	11	5.2 J	ND<1.7	ND<1.1	120	ND<250	--
MW-05	4/26/2011	11.15	4.5-24.5	7.81	3.34	24.42	1,600	94 J		160	68	59	310	3	ND<0.5	ND<0.5	ND<0.5	3 J	--	Well Development
MW-05	7/7/2011	11.15	4.5-24.5	7.44	3.71	24.50	360	50 J		86	5	20	26	4	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<50	--
MW-05	1/17/2012	11.15	4.5-24.5	7.62	3.53	24.55	330	ND<85		18	0.6 J	25	1	5	ND<0.5	ND<0.5	ND<0.5	4 J	ND<50	--
MW-05	7/3/2012	11.15	4.5-24.5	7.38	3.77	24.80	290	240		19	ND<0.5	9	0.9 J	6	ND<0.5	ND<0.5	ND<0.5	5 J	ND<50	--
MW-05	1/4/2013	11.15	4.5-24.5	7.17	3.98	24.88	390	790		14	ND<0.5	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5	ND<0.5	41	ND<50	--
MW-05	7/18/2013	11.15	4.5-24.5	7.21	3.94	24.54	93	130		4.1	ND<0.29	1.3	ND<0.36	6.6	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-05	1/9/2014	11.15	4.5-24.5	7.22	3.93	24.54	200	350		15	0.35 J	2.3	0.91 J	8.9	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-05	7/15/2014	11.15	4.5-24.5	7.33	3.82	24.40	160	62		1.0	ND<0.24	0.39 J	0.48 J	6.4	ND<0.44	ND<0.33	ND<0.22	7.5 J	ND<50	--
MW-05	1/2/2015	11.15	4.5-24.5	7.24	3.91	24.47	61	80 HD		4.8	0.3 J	0.51 J	0.45 JA	8.1	ND<0.44	ND<0.33	ND<0.22	7.5 J	ND<50	--
MW-06	4/26/2011	11.82	4.5-24.5	8.85	2.97	24.33	840	62 J		7	ND<0.5	45	26	12	ND<0.5	ND<0.5	0.9 J	ND<2	--	Well Development
MW-06	7/7/2011	11.82	4.5-24.5	8.11	3.71	24.42	680	65 J		17	ND<0.5	36	ND<0.5	15	ND<0.5	ND<0.5	1	ND<2	ND<50	--
MW-06	1/17/2012	11.82	4.5-24.5	8.23	3.59	24.50	180	ND<87		2	ND<0.5	1	ND<0.5	16	ND<0.5	ND<0.5	0.9 J	ND<2	ND<50	--
MW-06	7/3/2012	11.82	4.5-24.5	7.90	3.92	24.72	280	180		ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	0.8 J	ND<2	ND<50	--
MW-06	1/4/2013	11.82	4.5-24.5	7.82	4.00	24.70	370	350		1 J	ND<0.5	ND<0.5	ND<0.5	15	ND<0.5	ND<0.5	1	7	ND<50	--
MW-06	7/18/2013	11.82	4.5-24.5	7.88	3.94	24.46	52	130		1.5	ND<0.29	1.7	ND<0.36	4.8	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-06	1/9/2014	11.82	4.5-24.5	7.88	3.94	24.46	61	160		1.3	ND<0.29	1.3	ND<0.36	5.6	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
MW-06	7/15/2014	11.82	4.5-24.5	8.14	3.68	24.21	61	55		0.49 J	ND<0.24	0.69 J	ND<0.23	4.9	ND<0.44	ND<0.33	0.35 J	ND<4.6	ND<50	--
MW-06	1/2/2015	11.82	4.5-24.5	7.85	3.97	24.42	45	52 HD		0.99	ND<0.24	1.1	ND<0.23	4.2	ND<0.44	ND<0.33	ND<0.22	42	ND<50	--
Trip Blank	4/26/2011	--	--	--	--	--	ND<20	--		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	--	Well Development
Trip Blank	7/7/2011	--	--	--	--	--	ND<22	--		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	--	--
Trip Blank	1/17/2012	--	--	--	--	--	ND<22	--		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<50	--
Trip Blank	7/3/2012	--	--	--	--	--	ND<22	--		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<50	--
Trip Blank	1/4/2013	--	--	--	--	--	ND<22	--		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	--	--
Trip Blank	7/18/2013	--	--	--	--	--	ND<43	--		ND<0.27	ND<0.29	ND<0.38	ND<0.36	ND<0.27	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
Trip Blank	1/9/2014	--	--	--	--	--	ND<43	--		ND<0.27	ND<0.29	ND<0.38	ND<0.36	ND<0.27	ND<0.24	ND<0.30	ND<0.25	ND<9.6	ND<42	--
Trip Blank	7/15/2014	--	--	--	--	--	ND<31	--		ND<0.14	ND<0.24	ND<0.14	ND<0.23	ND<0.31	ND<0.44	ND<0.33	ND<0.22	ND<4.6	--	--
Trip Blank	1/2/2015	--	--	--	--	--	ND<31	--		ND<0.14	ND<0.24	ND<0.14	ND<0.23	ND<0.31	ND<0.44	ND<0.33	ND<0.22	ND<4.6	--	--

Notes:

ft MSL = feet above mean sea level

ft bgs = feet below ground surface

EPA = U.S. Environmental Protection Agency

µg/L = micrograms per liter

Detected concentrations are shown in **BOLD**

-- = Not sampled or not analyzed

< = not detected above the method detection limits (MDL); value shown is the MDL

J = denotes value between method detection limit and detection limit for reporting purposes

Benzene, toluene, ethylbenzene, and total xylenes (collectively termed BTEX) analyzed by EPA Method 8260B

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B

TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B

MtBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

EtBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B



Table 2. Historical Groundwater Analytical and Gauging Data
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	Date Sampled	Top of Casing (ft MSL)	Screen Interval (ft bgs)	Depth to GW (ft bgs)	GW Elevation (ft MSL)	Depth of Well (ft bgs)	TPHg (µg/L)	TPHd (µg/L)	TPHo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260B (µg/L)	ETBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
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TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B



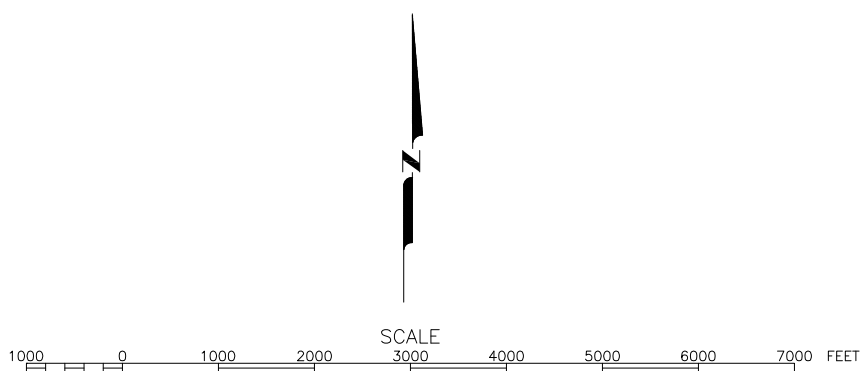
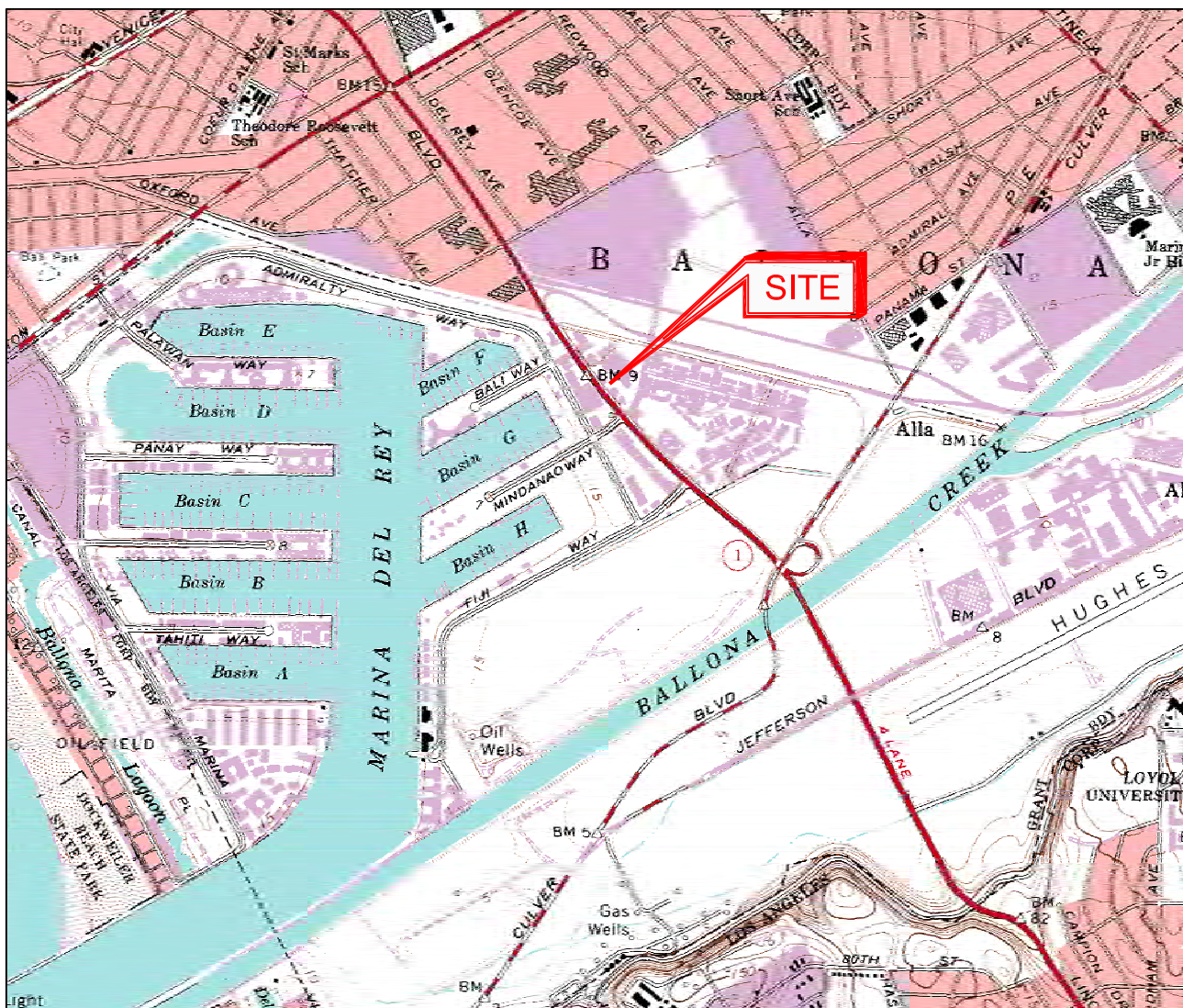
Table 3. Well Sampling Schedule
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California

Well ID	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Comments
MW-1	X		X		
MW-2	X		X		
MW-3	X		X		
MW-4	X		X		
MW-5	X		X		
MW-6	X		X		

NOTE: Sampling schedule as of first quarter 2015.

ATTACHMENT 4

FIGURES



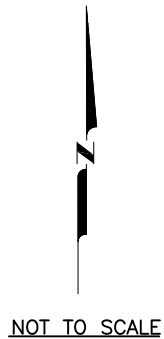
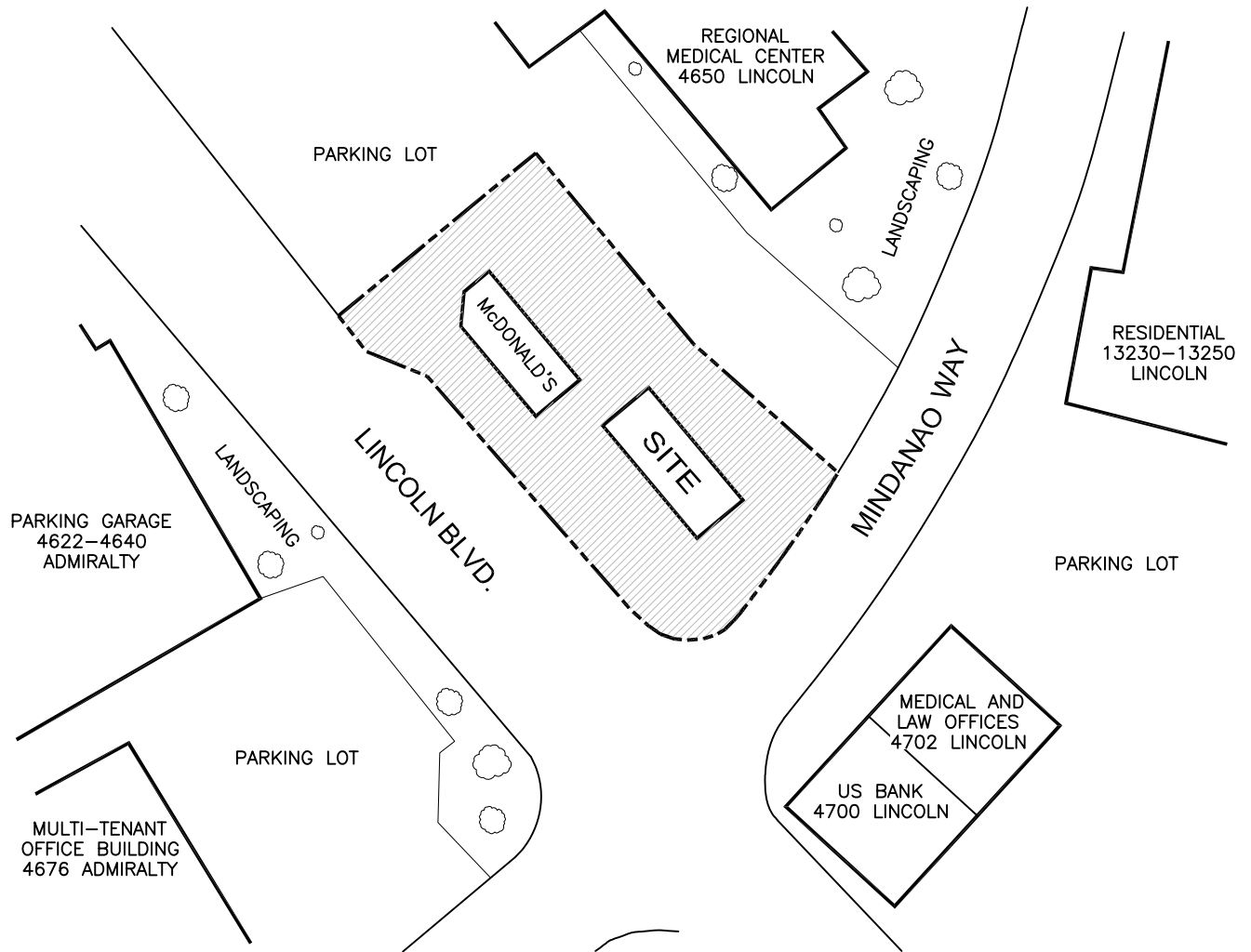
Chevron Environmental Management Company
CHEVRON SERVICE STATION NO. 9-3910
4680 LINCOLN BOULEVARD
MARINA DEL REY, CALIFORNIA

SITE LOCATION MAP

drawn	HDS	checked	approved	FIGURE NO. 1
date	3/15	date	date	
job no.	312539.01.15.B.089A		file no.	



REFERENCE: USGS 7.5-MINUTE QUADRANGLES, VENICE, CALIFORNIA
DATED: 1964; PHOTOREVISED: 1981



Chevron Environmental Management Company
CHEVRON SERVICE STATION NO. 9-3910
4680 LINCOLN BOULEVARD
MARINA DEL REY, CALIFORNIA

SITE VICINITY MAP

drawn	HDS	checked	approved	FIGURE NO. 2
date	3/15	date	date	
job no.	312539.01.15.B.089A	file no.	SITE VICINITY MAP	



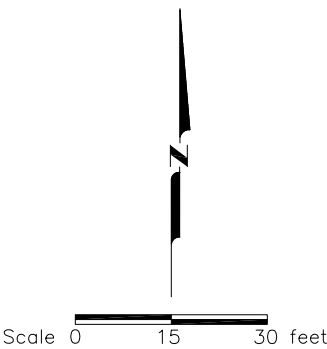
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EXPLANATION

- GROUNDWATER MONITORING WELL
- FORMER GROUNDWATER MONITORING WELL (DESTROYED 1996)
- APPROXIMATE SOIL BORING LOCATION (2008)
- GROUNDWATER ELEVATION IN FEET MEAN SEA LEVEL
- GROUNDWATER ELEVATION CONTOUR IN FEET MEAN SEA LEVEL
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW (APPROXIMATE HYDRAULIC GRADIENT = VARIABLE)
- EXISTING STRUCTURES
- EXISTING STRUCTURES (1966 TO 1996)
- PREVIOUS STRUCTURES 1966 TO 1981/89)

NOTE:
ALL CONTOUR LINES ARE AN INTERPRETATION BASED ON THE RESULTS OF THE WELL GAUGING DATA FOR THIS QUARTER.

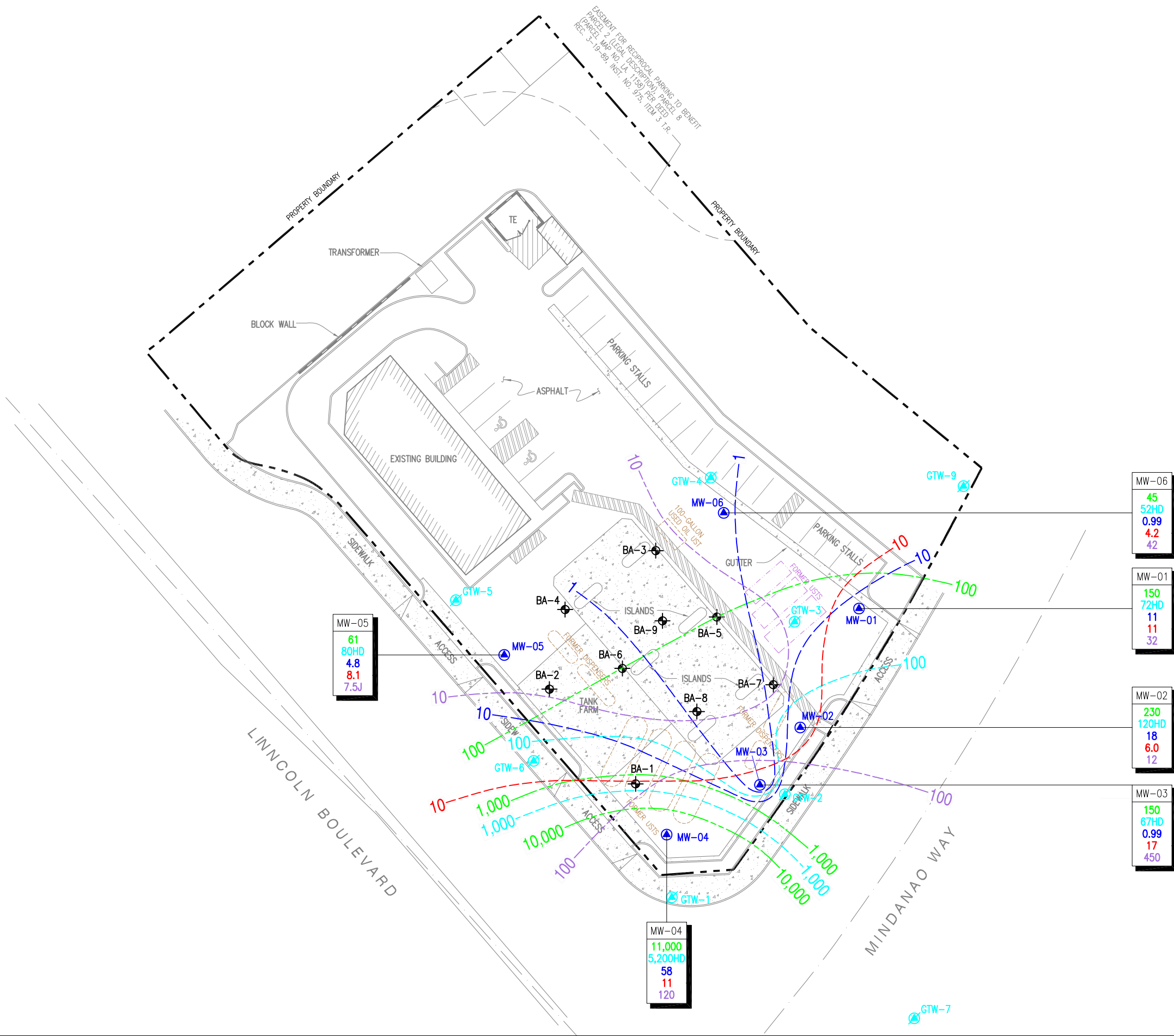


Chevron Environmental Management Company
CHEVRON SERVICE STATION NO. 9-3910
4680 LINCOLN BOULEVARD
MARINA DEL REY, CALIFORNIA

GROUNDWATER CONTOUR MAP
JANUARY 2, 2015

DRAWN	HDS	CHECKED	APPROVED	FIGURE NO.
DATE	3/15	DATE	DATE	3
JOB NO.	312539.01.15.B.089A.9404.0100		FILE NO.	

leidos



EXPLANATION

- GROUNDWATER MONITORING WELL
- FORMER GROUNDWATER MONITORING WELL (DESTROYED 1996)
- APPROXIMATE SOIL BORING LOCATION (2008)

MW-01	150
	72HD
	11
	11
	32

- TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (TPHg) [8015B]
- TOTAL PETROLEUM HYDROCARBONS AS DIESEL (TPHd) [8015B]
- BENZENE [8260B]
- METHYL TERTIARY-BUTYL ETHER (MTBE) [8260B]
- TERTIARY-BUTYL ALCOHOL (TBA) [8260B]

ISOCONCENTRATION CONTOUR LINES

- TPHg CONCENTRATION CONTOUR IN ug/L
- TPHd CONCENTRATION CONTOUR IN ug/L
- BENZENE CONCENTRATION CONTOUR IN ug/L
- MTBE CONCENTRATION CONTOUR IN ug/L
- TBA CONCENTRATION CONTOUR IN ug/L

- EXISTING STRUCTURES
- EXISTING STRUCTURES (1966 TO 1996)
- PREVIOUS STRUCTURES 1966 TO 1981/89

NOTES:

- "J" DENOTES VALUE BETWEEN METHOD DETECTION LIMIT AND DETECTION LIMIT FOR REPORTING.
- "HD" DENOTES THE CHROMATOGRAPHIC PATTERN WAS INCONSISTENT WITH THE PROFILE OF THE REFERENCE FUEL STANDARD.
- ALL UNITS IN MICROGRAMS PER LITER (ug/L).
- ALL CONTOUR LINES ARE AN INTERPRETATION BASED ON THE RESULTS OF WATER SAMPLES COLLECTED FOR THIS QUARTER.

Scale 0 15 30 feet

Chevron Environmental Management Company
CHEVRON SERVICE STATION NO. 9-3910
4680 LINCOLN BOULEVARD
MARINA DEL REY, CALIFORNIA

DISSOLVED HYDORCARBON CONCENTRATION MAP
FOR GROUNDWATER SAMPLES
JANUARY 2, 2015

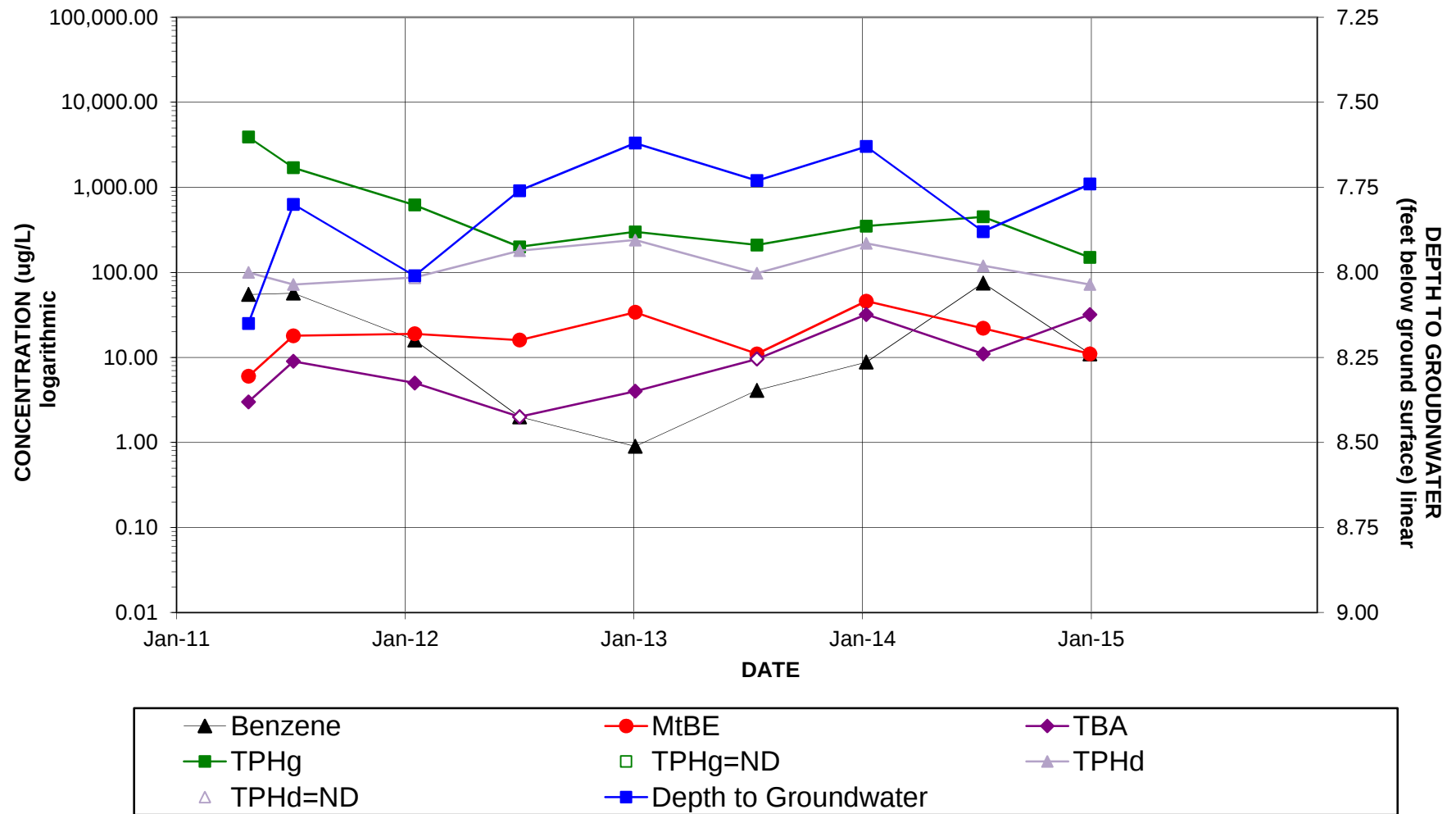
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DATE	3/15	DATE	DATE	4
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ATTACHMENT 5

HYDROGRAPHS

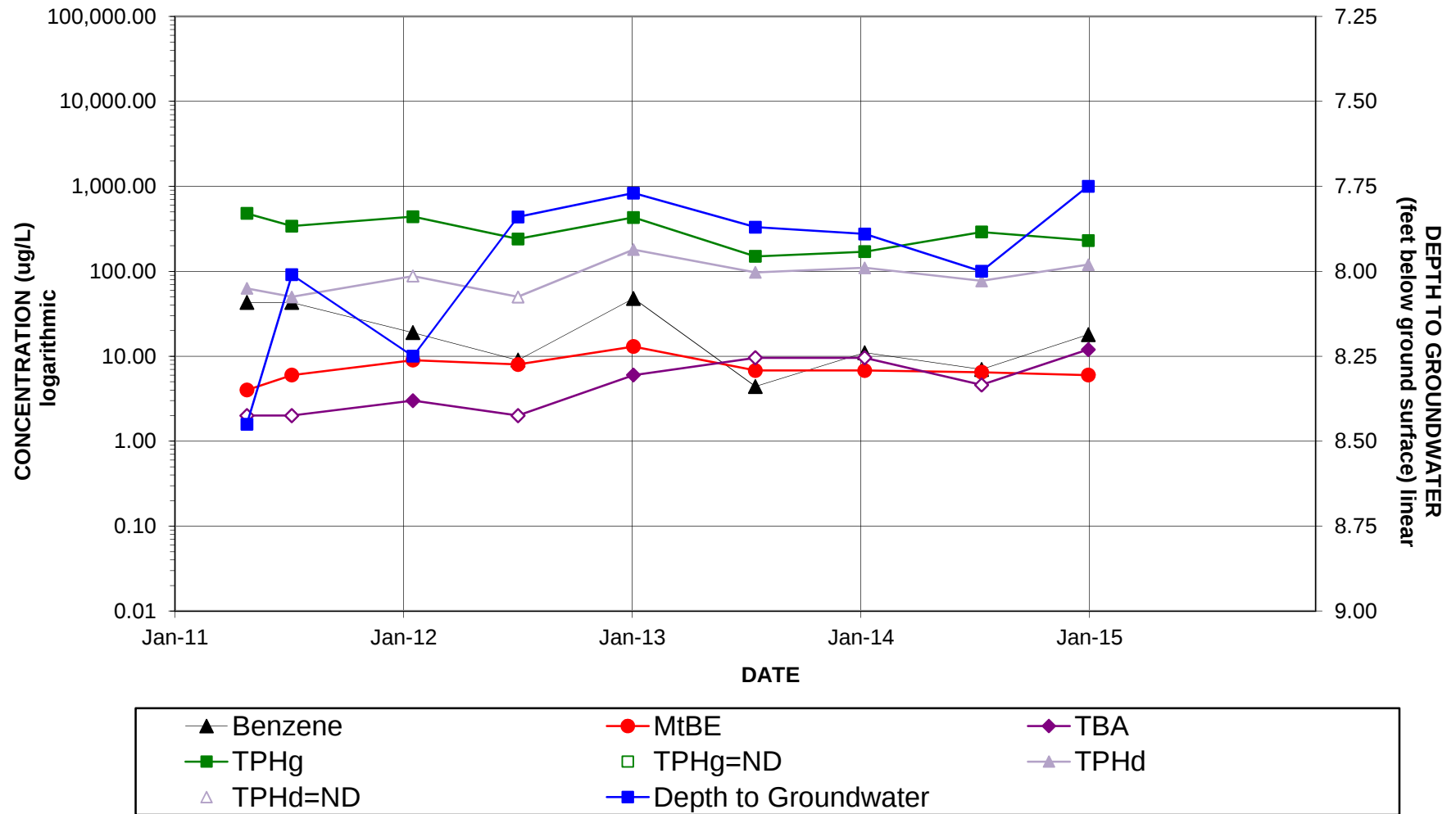
Chevron Environmental Management Company
 Chevron Service Station No. 9-3910
 4680 Lincoln Boulevard, Marina Del Rey, California
 Well MW-01

**TPHg, TPHd, BENZENE, MTBE AND TBA
 CONCENTRATIONS AND DEPTH TO GROUNDWATER VS. TIME**



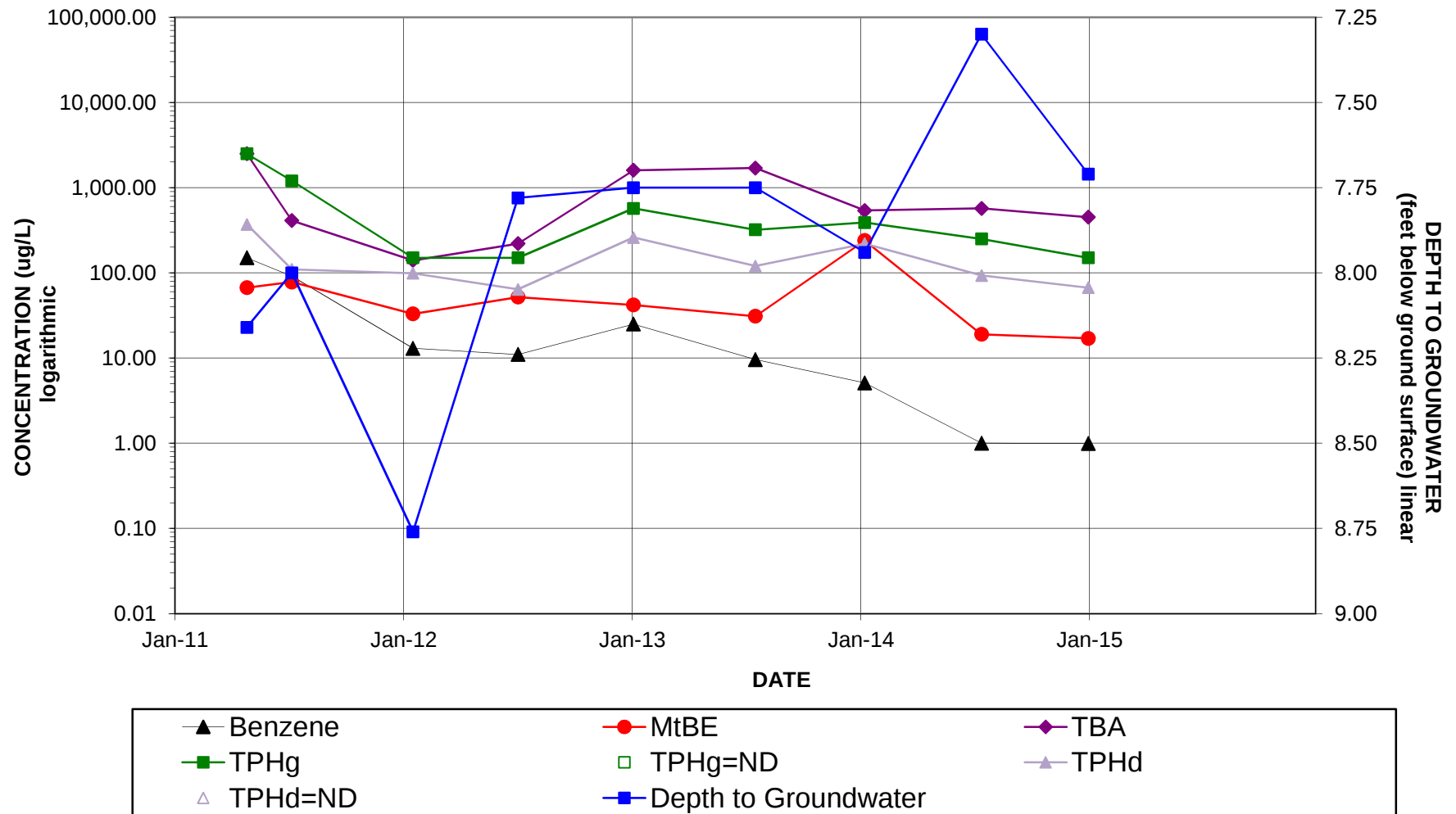
Chevron Environmental Management Company
 Chevron Service Station No. 9-3910
 4680 Lincoln Boulevard, Marina Del Rey, California
 Well MW-02

**TPHg, TPHd, BENZENE, MTBE AND TBA
 CONCENTRATIONS AND DEPTH TO GROUNDWATER VS. TIME**



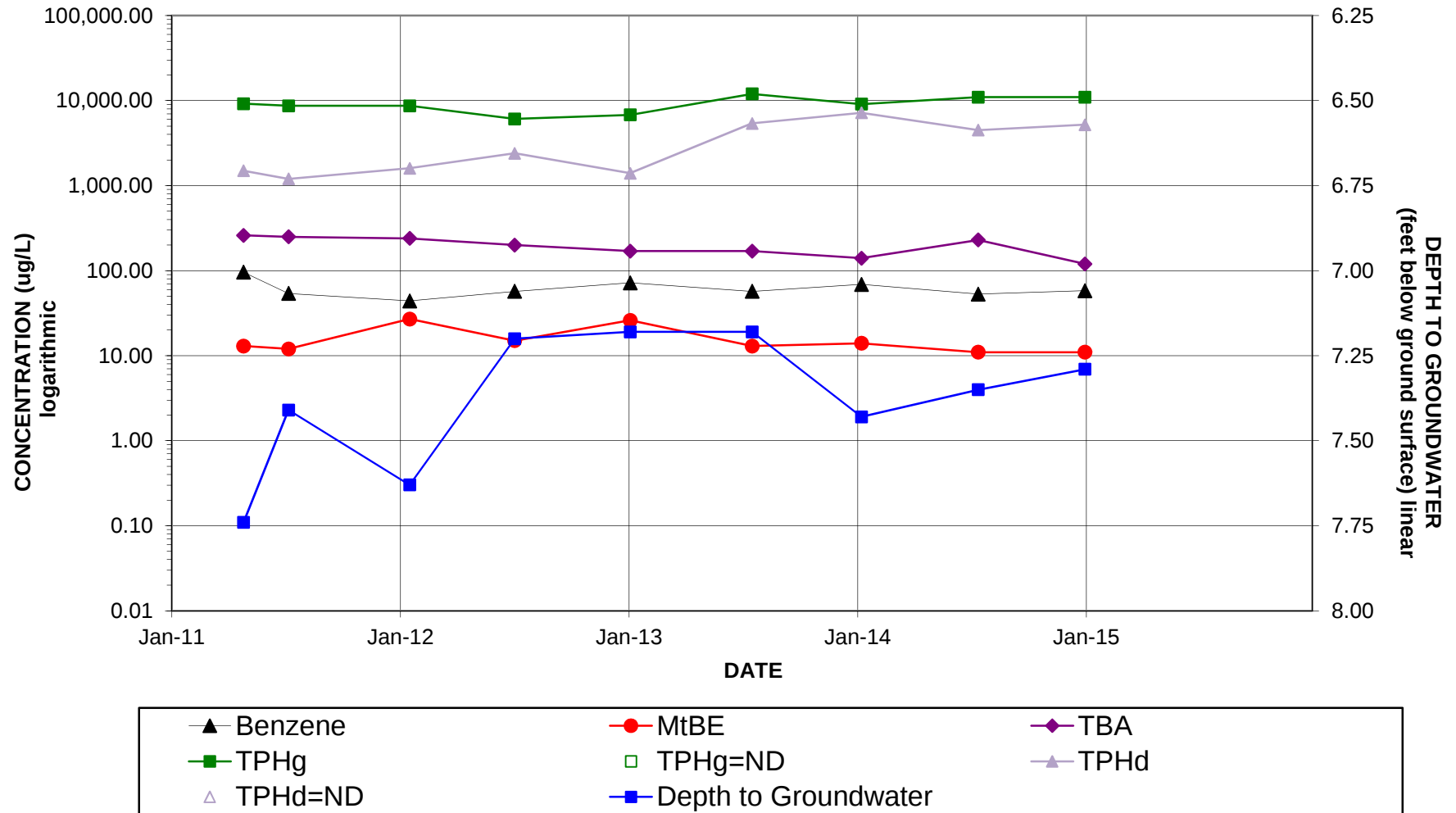
Chevron Environmental Management Company
 Chevron Service Station No. 9-3910
 4680 Lincoln Boulevard, Marina Del Rey, California
 Well MW-03

**TPHg, TPHd, BENZENE, MTBE AND TBA
 CONCENTRATIONS AND DEPTH TO GROUNDWATER VS. TIME**



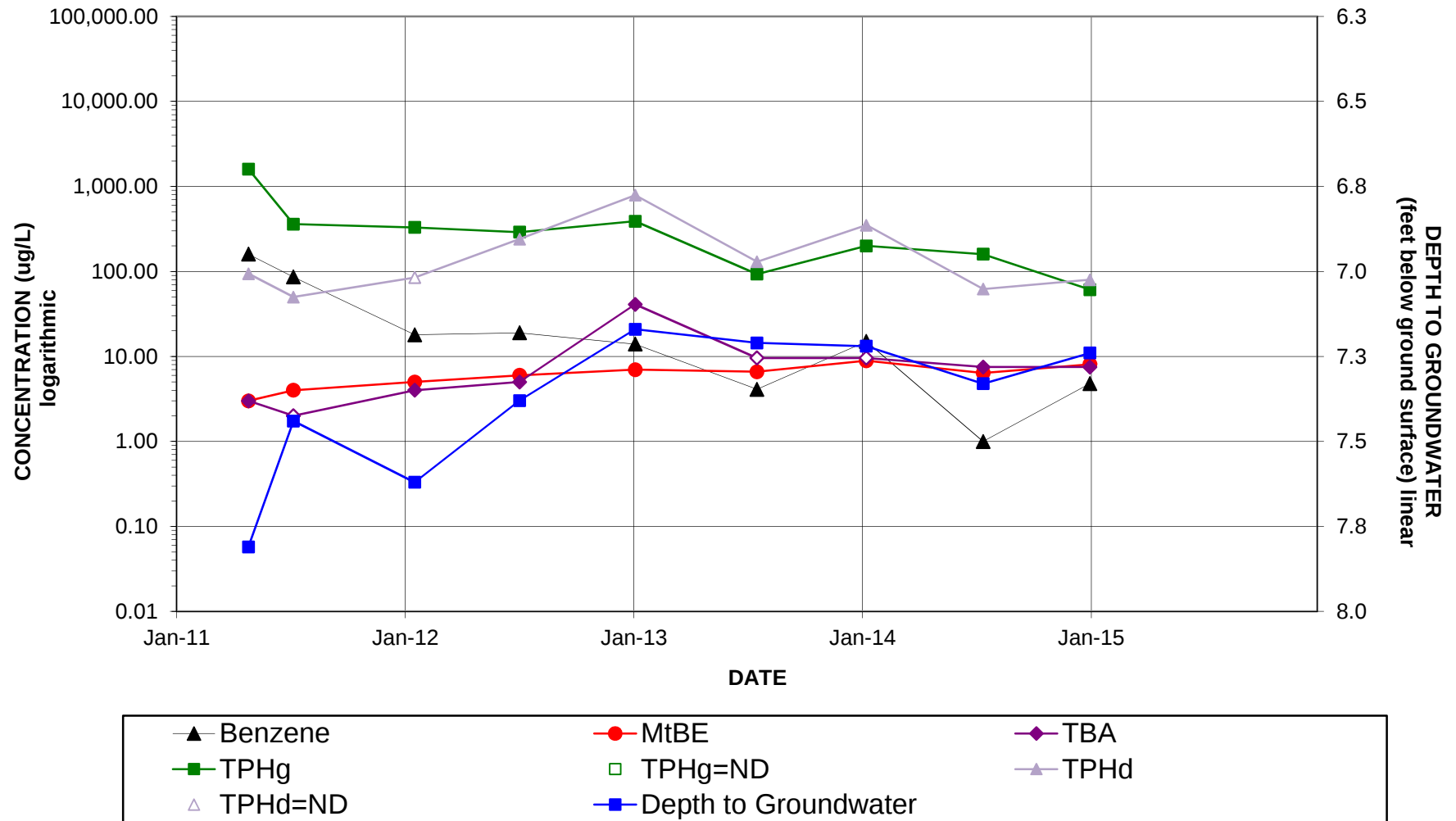
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California
Well MW-04

**TPHg, TPHd, BENZENE, MTBE AND TBA
CONCENTRATIONS AND DEPTH TO GROUNDWATER VS. TIME**



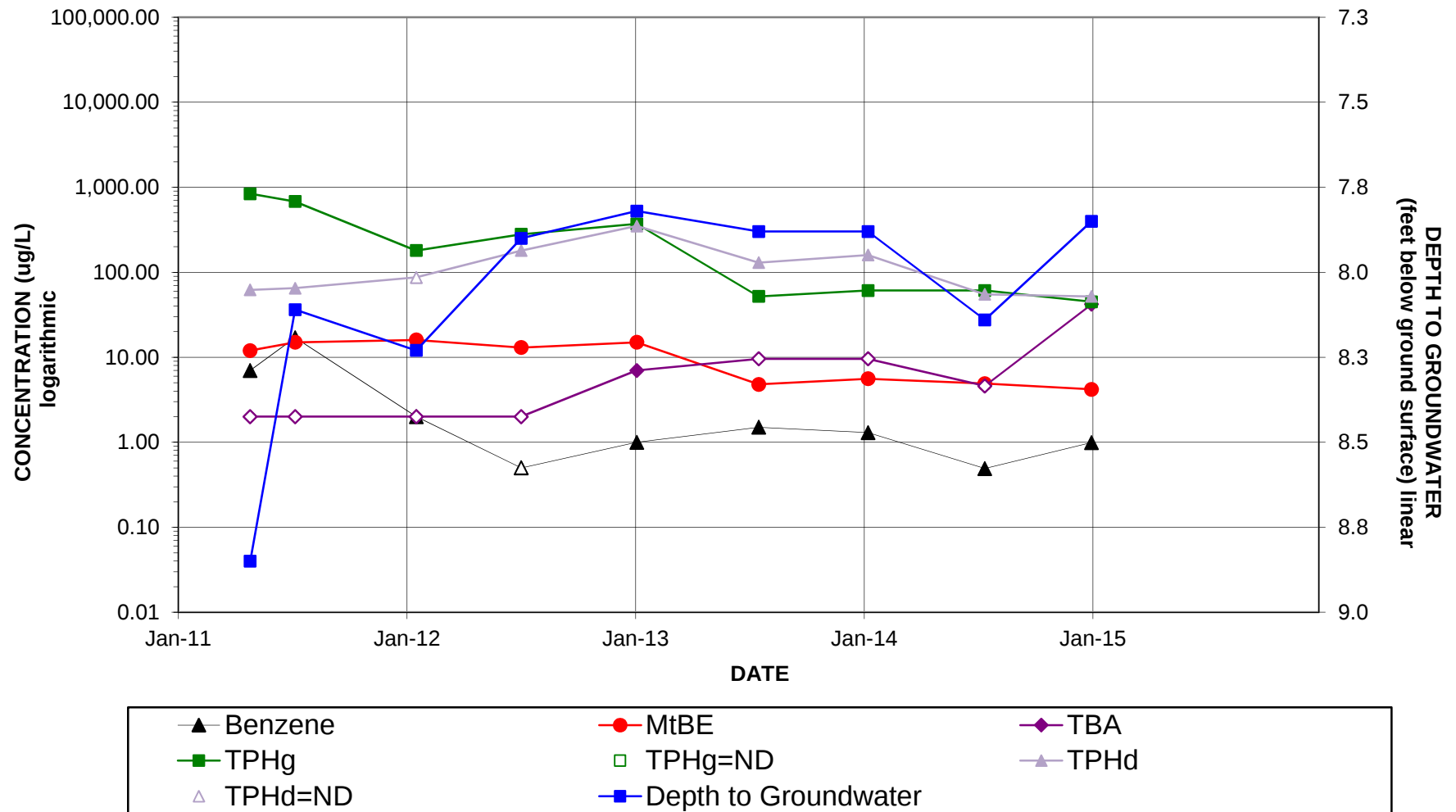
Chevron Environmental Management Company
Chevron Service Station No. 9-3910
4680 Lincoln Boulevard, Marina Del Rey, California
Well MW-05

**TPHg, TPHd, BENZENE, MTBE AND TBA
CONCENTRATIONS AND DEPTH TO GROUNDWATER VS. TIME**



Chevron Environmental Management Company
 Chevron Service Station No. 9-3910
 4680 Lincoln Boulevard, Marina Del Rey, California
 Well MW-06

**TPHg, TPHd, BENZENE, MTBE AND TBA
 CONCENTRATIONS AND DEPTH TO GROUNDWATERSVS. TIME**



ATTACHMENT 6

GROUNDWATER SAMPLING PROCEDURES AND FIELD SHEETS



GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

January 12, 2015

Chevron Environmental Management Company
Eugene Francisco
145 S. State College Blvd
Brea, CA 92821

First Quarter 2015 Monitoring at
Site Number 93910
4680 Lincoln Blvd
Marina Del Rey, CA

Monitoring performed on January 2, 2015

Blaine Tech Services, Inc. Groundwater Monitoring Event 150102BB-1

This submission covers the routine monitoring of groundwater wells conducted on January 2, 2015 at this location. Six monitoring wells were measured for depth to groundwater (DTW) and presence of separate-phase hydrocarbons (SPH). Six monitoring wells were sampled. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels and separate-phase measurements were collected using an electronic water or oil-water interface detector. All sampled wells were purged of three case volumes or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air-displacement pumps or stainless steel, Teflon or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols using disposable bailers. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

Samples were delivered under chain-of-custody to Calscience Laboratories, California, for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under

First Quarter 2015 Groundwater Monitoring at Chevron 93910, 4680 Lincoln Blvd, Marina Del Rey, CA

SAN JOSE	SACRAMENTO	LOS ANGELES	SAN DIEGO	SEATTLE
1680 ROGERS AVENUE	SAN JOSE, CA	(408) 573-0555	FAX (408) 573-7771	LIC. 746684
				WWW.BLAINETECH.COM

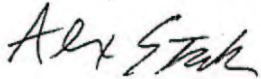
bill of lading to Blaine Tech Services, Inc.'s yard in Carson, California, and bulked for future transportation under non-hazardous manifest for disposal at a licensed facility.

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

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

Please call if you have any questions.

Thank you,



Alex Stack
Blaine Tech Services, Inc.
Senior Project Manager

attachments: Well Gauging Sheet
Individual Well Monitoring Data Sheets
Chain of Custody Forms
Bill of Lading
Wellhead Inspection Form

cc: Leidos
Attn: Mike Pendergrass
590 West Central Ave., Suite 1
Brea, CA 92821

First Quarter 2015 Groundwater Monitoring at Chevron 93910, 4680 Lincoln Blvd, Marina Del Rey, CA

SAN JOSE	SACRAMENTO	LOS ANGELES	SAN DIEGO	SEATTLE
1680 ROGERS AVENUE	SAN JOSE, CA	(408) 573-0555	FAX (408) 573-7771	LIC. 746684
				WWW.BLAINETECH.COM

WELL GAUGING DATA

Project # 150102-881 Date 01/02/15 Client Cherion

Site 4680 Lincoln Blvd., Marina Del Rey

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-01	1025	4	Odor				7.74	24.43	↓	
MW-02	1015	4	Odor				7.75	24.35		
MW-03	1028	4	Odor				7.71	24.40		
MW-04	⁰⁸ 22 1024	4	Odor				⁰⁸ 7 7.29	25.10		
MW-05	1035	4	Odor				7.24	24.47		
MW-06	1020	4	Odor				7.85	24.42		

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 1/01/02
Weather: Sunny	Ambient Air Temperature:
Well I.D.: MW-01	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 24.43	Depth to Water: 7.74
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.08	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other:

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing

Other: 16.69

10.85 (Gals.) X	3	=	32.55	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

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

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1201	73.0	6.68	5817	71000	11	
1203	—	De-aerated		@	16	—
1315	72.2	6.77	6506	127	—	

Did well dewater? Yes No Gallons actually evacuated: 16

Sampling Date: 01/02/15 Sampling Time: 08:13:16 Depth to Water: 08.15

Sample I.D.: MW-01 Laboratory: Lancaster Other: BC

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 11/01/02
Weather: Sunny	Ambient Air Temperature:
Well I.D.: MW-02	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 24.35	Depth to Water: 7.75
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.07	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other:

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing

16.6 Other:

10.79 (Gals.) X 3 = 32.37 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1107	72.2	6.82	3297	71000	11	odor
1109	—	Dewatered	—	—	18	—
1404	71.0	6.91	3406	88	—	

Did well dewater? Yes No Gallons actually evacuated: 78

Sampling Date: 01/02/15 Sampling Time: 1405 Depth to Water: 8.05

Sample I.D.: MW-02 Laboratory: Lancaster Other: BC

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 11/01/02
Weather: Sunny	Ambient Air Temperature: 60.5
Well I.D.: MW-03	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 24.40	Depth to Water: 7.71
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.05	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other:

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing

16.69 Other:

10.85 (Gals.) X 3 = 32.55 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1147	72.1	6.78	2564	201	11	
1148	—	De-aerated		@	20	—
1419	70.6	6.83	2666	97	—	

Did well dewater? Yes No Gallons actually evacuated: 20

Sampling Date: 01/02/15 Sampling Time: 1420 Depth to Water: 7.85

Sample I.D.: MW-03 Laboratory: Lancaster Other: BL

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 1/01/02
Weather: Sunny	Ambient Air Temperature:
Well I.D.: MW-04	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 25.10	Depth to Water: 7.29
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.85	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other:

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other:

11.58 (Gals.) X 3 = 34.74 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1337	71.8	7.01	1203	319	12	
1339	73.0	6.96	1165	207	24	
1341	73.5	6.91	1173	247	35	

Did well dewater? Yes No Gallons actually evacuated: 75

Sampling Date: 01/02/15 Sampling Time: 1350 Depth to Water: 7.33

Sample I.D.: MW-04 Laboratory: Lancaster Other: BC

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 1/01/02
Weather: Sunny	Ambient Air Temperature: 60°S
Well I.D.: MW-05	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 24.47	Depth to Water: 7.24
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.68	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

17.23

11.20	(Gals.) X	3	=	33.60	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1040	72.1	6.53	2870	73	11.5	
1042	—	Permeated	②		21	—
1439	70.5	6.91	2615	30 44.08	—	

Did well dewater? Yes No Gallons actually evacuated: 21

Sampling Date: 01/02/15 Sampling Time: 1440 Depth to Water: 7.53

Sample I.D.: MW-05 Laboratory: Lancaster Other BC

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

CHEVRON (SO. CAL) WELL MONITORING DATA SHEET

Project #: 150102-BB1	Station #: 9-3910
Sampler: BB	Date: 1/01/02
Weather: Sunny	Ambient Air Temperature:
Well I.D.: MW-06	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 24.42	Depth to Water: 7.85
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.16	

Purge Method:

Bailer
 Disposable Bailer
 Positive Air Displacement
Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other:

Sampling Method:

Bailer
Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other:

16.57

10.77 (Gals.) X 3 = 32.31 Gals.
 1 Case Volume Specified Volumes Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1118	71.7	6.96	4053	110	11	
1120	72.7	6.92	4113	937	22	
1121	—	De-watered		②	27	—
1136	71.2	6.98	3882	326		

Did well dewater? Yes No Gallons actually evacuated: 27

Sampling Date: 01/02/15 Sampling Time: 1137 Depth to Water: 8.80

Sample I.D.: MW-06 Laboratory: Lancaster Other: BC

Analyzed for: TPH-G BTEX MTBE OXYS Other: TPH-D Ethanol

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

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

Page 1 of 1

Job Number 15 01 02 - BB1 Technician BB

[illegible]

NOTES:

BILL OF LADING

BILL OF LADING No.

BILL OF LADING

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 20735 Belshaw Ave, Carson (310) 885-4455). BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

9-3910 Eugene Francisco
CHEVRON # Chevron Project Manager
4680 Lincoln Blvd, Marina Del Rey CA
street number street name city state

WELL I.D. GALS.

_____ /

_____ /

_____ / _____

any other
adjustments /

loaded onto
BTS vehicle # 52

Transporter signature 

* * * * *

Unloaded/received by _____
signature

ATTACHMENT 7

LABORATORY ANALYSES AND CHAIN OF CUSTODY FORMS

**WORK ORDER NUMBER: 15-01-0027***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Leidos**Client Project Name:** Chevron 93910**Attention:** Mike Pendergrass
590 West Central Avenue, Suite I
Brea, CA 92821-3019

A handwritten signature in black ink that reads "Vikas Patel".

Approved for release on 01/13/2015 by:
Vikas Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 15-01-0027

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/02/15. They were assigned to Work Order 15-01-0027.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Detections Summary

Client: Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Work Order: 15-01-0027
Project Name: Chevron 93910
Received: 01/02/15

Attn: Mike Pendergrass

Page 1 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-01-W-150102 (15-01-0027-2)						
TPH as Diesel	72	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	11		0.50	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethylbenzene	0.68	J	0.14*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Toluene	0.33	J	0.24*	ug/L	GC/MS / EPA 8260B	EPA 5030C
p/m-Xylene	3.1		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
o-Xylene	0.52	J	0.23*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Xylenes (total)	3.6	JA	1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	11		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	32		10	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethyl-t-Butyl Ether (ETBE)	50		2.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethanol	150		100	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	150		50	ug/L	GC/MS / EPA 8260B	EPA 5030C
MW-02-W-150102 (15-01-0027-3)						
TPH as Diesel	120	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	18		0.50	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethylbenzene	2.9		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Toluene	0.92	J	0.24*	ug/L	GC/MS / EPA 8260B	EPA 5030C
p/m-Xylene	5.6		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
o-Xylene	0.95	J	0.23*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Xylenes (total)	6.5	JA	1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	6.0		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	12		10	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethyl-t-Butyl Ether (ETBE)	13		2.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethanol	56	J	50*	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	230		50	ug/L	GC/MS / EPA 8260B	EPA 5030C
MW-03-W-150102 (15-01-0027-4)						
TPH as Diesel	67	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	0.99		0.50	ug/L	GC/MS / EPA 8260B	EPA 5030C
p/m-Xylene	1.9		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
o-Xylene	0.27	J	0.23*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Xylenes (total)	2.2	JA	1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	17		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	450		10	ug/L	GC/MS / EPA 8260B	EPA 5030C
Diisopropyl Ether (DIPE)	0.54	J	0.33*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethyl-t-Butyl Ether (ETBE)	150		2.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Amyl-Methyl Ether (TAME)	0.29	J	0.22*	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	150		50	ug/L	GC/MS / EPA 8260B	EPA 5030C

* MDL is shown

Detections Summary

Client: Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Work Order: 15-01-0027
Project Name: Chevron 93910
Received: 01/02/15

Attn: Mike Pendergrass

Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MW-04-W-150102 (15-01-0027-5)						
TPH as Diesel	5200	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	58		2.5	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethylbenzene	28		5.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Toluene	3.3	J	1.2*	ug/L	GC/MS / EPA 8260B	EPA 5030C
p/m-Xylene	4.6	J	1.2*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Xylenes (total)	4.6	JA	5.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	11		5.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	120		50	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethyl-t-Butyl Ether (ETBE)	5.2	J	2.2*	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	11000		250	ug/L	GC/MS / EPA 8260B	EPA 5030C
MW-05-W-150102 (15-01-0027-6)						
TPH as Diesel	80	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	4.8		0.50	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethylbenzene	0.51	J	0.14*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Toluene	0.30	J	0.24*	ug/L	GC/MS / EPA 8260B	EPA 5030C
p/m-Xylene	0.45	J	0.24*	ug/L	GC/MS / EPA 8260B	EPA 5030C
Xylenes (total)	0.45	JA	1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	8.1		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	7.5	J	4.6*	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	61		50	ug/L	GC/MS / EPA 8260B	EPA 5030C
MW-06-W-150102 (15-01-0027-7)						
TPH as Diesel	52	HD	50	ug/L	EPA 8015B (M)	EPA 3510C
Benzene	0.99		0.50	ug/L	GC/MS / EPA 8260B	EPA 5030C
Ethylbenzene	1.1		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Methyl-t-Butyl Ether (MTBE)	4.2		1.0	ug/L	GC/MS / EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	42		10	ug/L	GC/MS / EPA 8260B	EPA 5030C
TPPH	45	J	31*	ug/L	GC/MS / EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: Chevron 93910

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-W-150102	15-01-0027-2-G	01/02/15 13:16	Aqueous	GC 47	01/05/15	01/06/15 17:14	150105B06

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	72	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	91	68-140	

MW-02-W-150102	15-01-0027-3-G	01/02/15 14:05	Aqueous	GC 47	01/05/15	01/06/15 17:32	150105B06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	120	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	94	68-140	

MW-03-W-150102	15-01-0027-4-G	01/02/15 14:20	Aqueous	GC 47	01/05/15	01/06/15 17:49	150105B06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	67	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	92	68-140	

MW-04-W-150102	15-01-0027-5-G	01/02/15 13:50	Aqueous	GC 47	01/05/15	01/06/15 18:06	150105B06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	5200	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	91	68-140	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: Chevron 93910

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-W-150102	15-01-0027-6-G	01/02/15 14:40	Aqueous	GC 47	01/05/15	01/06/15 18:23	150105B06

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	80	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	86	68-140	

MW-06-W-150102	15-01-0027-7-G	01/02/15 11:37	Aqueous	GC 47	01/05/15	01/06/15 18:40	150105B06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	52	50	11	1.00	HD

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	72	68-140	

Method Blank	099-15-304-915	N/A	Aqueous	GC 47	01/05/15	01/06/15 16:23	150105B06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
TPH as Diesel	ND	50	11	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
n-Octacosane	105	68-140	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-01-W-150102	15-01-0027-2-A	01/02/15 13:16	Aqueous	GC/MS T	01/07/15	01/08/15 10:28	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	11	0.50	0.14	1.00	
Ethylbenzene	0.68	1.0	0.14	1.00	J
Toluene	0.33	1.0	0.24	1.00	J
p/m-Xylene	3.1	1.0	0.24	1.00	
o-Xylene	0.52	1.0	0.23	1.00	J
Xylenes (total)	3.6	1.0	0.23	1.00	JA
Methyl-t-Butyl Ether (MTBE)	11	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	32	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	50	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	150	100	50	1.00	
TPPH	150	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	92	75-135	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	99	88-112	
1,4-Bromofluorobenzene	92	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-02-W-150102	15-01-0027-3-A	01/02/15 14:05	Aqueous	GC/MS T	01/07/15	01/08/15 10:55	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	18	0.50	0.14	1.00	
Ethylbenzene	2.9	1.0	0.14	1.00	
Toluene	0.92	1.0	0.24	1.00	J
p/m-Xylene	5.6	1.0	0.24	1.00	
o-Xylene	0.95	1.0	0.23	1.00	J
Xylenes (total)	6.5	1.0	0.23	1.00	JA
Methyl-t-Butyl Ether (MTBE)	6.0	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	12	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	13	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	56	100	50	1.00	J
TPPH	230	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	96	75-135	
Toluene-d8	101	80-120	
Toluene-d8-TPPH	102	88-112	
1,4-Bromofluorobenzene	92	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-03-W-150102	15-01-0027-4-B	01/02/15 14:20	Aqueous	GC/MS R	01/08/15	01/08/15 20:18	150108L038

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	0.99	0.50	0.14	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	1.9	1.0	0.24	1.00	
o-Xylene	0.27	1.0	0.23	1.00	J
Xylenes (total)	2.2	1.0	0.23	1.00	JA
Methyl-t-Butyl Ether (MTBE)	17	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	450	10	4.6	1.00	
Diisopropyl Ether (DIPE)	0.54	2.0	0.33	1.00	J
Ethyl-t-Butyl Ether (ETBE)	150	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	0.29	2.0	0.22	1.00	J
Ethanol	ND	100	50	1.00	
TPPH	150	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	113	75-135	
Toluene-d8	97	80-120	
Toluene-d8-TPPH	93	88-112	
1,4-Bromofluorobenzene	90	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-04-W-150102	15-01-0027-5-A	01/02/15 13:50	Aqueous	GC/MS T	01/07/15	01/08/15 11:50	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	58	2.5	0.71	5.00	
Ethylbenzene	28	5.0	0.69	5.00	
Toluene	3.3	5.0	1.2	5.00	J
p/m-Xylene	4.6	5.0	1.2	5.00	J
o-Xylene	ND	5.0	1.1	5.00	
Xylenes (total)	4.6	5.0	1.1	1.00	JA
Methyl-t-Butyl Ether (MTBE)	11	5.0	1.5	5.00	
Tert-Butyl Alcohol (TBA)	120	50	23	5.00	
Diisopropyl Ether (DIPE)	ND	10	1.7	5.00	
Ethyl-t-Butyl Ether (ETBE)	5.2	10	2.2	5.00	J
Tert-Amyl-Methyl Ether (TAME)	ND	10	1.1	5.00	
Ethanol	ND	500	250	5.00	
TPPH	11000	250	150	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	93	75-135	
Toluene-d8	101	80-120	
Toluene-d8-TPPH	102	88-112	
1,4-Bromofluorobenzene	94	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-05-W-150102	15-01-0027-6-A	01/02/15 14:40	Aqueous	GC/MS R	01/08/15	01/08/15 20:45	150108L038

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	4.8	0.50	0.14	1.00	
Ethylbenzene	0.51	1.0	0.14	1.00	J
Toluene	0.30	1.0	0.24	1.00	J
p/m-Xylene	0.45	1.0	0.24	1.00	J
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	0.45	1.0	0.23	1.00	JA
Methyl-t-Butyl Ether (MTBE)	8.1	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	7.5	10	4.6	1.00	J
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	ND	100	50	1.00	
TPPH	61	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	113	75-135	
Toluene-d8	97	80-120	
Toluene-d8-TPPH	93	88-112	
1,4-Bromofluorobenzene	88	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-06-W-150102	15-01-0027-7-A	01/02/15 11:37	Aqueous	GC/MS R	01/08/15	01/08/15 21:12	150108L038

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	0.99	0.50	0.14	1.00	
Ethylbenzene	1.1	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	ND	1.0	0.24	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	4.2	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	42	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	ND	100	50	1.00	
TPPH	45	50	31	1.00	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	106	78-126	
1,2-Dichloroethane-d4	119	75-135	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	94	88-112	
1,4-Bromofluorobenzene	91	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-246-1918	N/A	Aqueous	GC/MS T	01/07/15	01/08/15 04:32	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.14	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	ND	1.0	0.24	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	ND	100	50	1.00	
TPPH	ND	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	97	75-135	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	100	88-112	
1,4-Bromofluorobenzene	86	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-246-1919	N/A	Aqueous	GC/MS R	01/08/15	01/08/15 14:42	150108L038

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.14	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	ND	1.0	0.24	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
Ethanol	ND	100	50	1.00	
TPPH	ND	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	108	75-135	
Toluene-d8	96	80-120	
Toluene-d8-TPPH	92	88-112	
1,4-Bromofluorobenzene	92	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
QA-T-150102	15-01-0027-1-A	01/02/15 09:00	Aqueous	GC/MS T	01/07/15	01/08/15 05:00	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.14	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	ND	1.0	0.24	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
TPPH	ND	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	98	75-135	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	99	88-112	
1,4-Bromofluorobenzene	86	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B
Units: ug/L

Project: Chevron 93910

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-246-1918	N/A	Aqueous	GC/MS T	01/07/15	01/08/15 04:32	150107L041

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Benzene	ND	0.50	0.14	1.00	
Ethylbenzene	ND	1.0	0.14	1.00	
Toluene	ND	1.0	0.24	1.00	
p/m-Xylene	ND	1.0	0.24	1.00	
o-Xylene	ND	1.0	0.23	1.00	
Xylenes (total)	ND	1.0	0.23	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1.00	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1.00	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1.00	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1.00	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1.00	
TPPH	ND	50	31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibromofluoromethane	102	78-126	
1,2-Dichloroethane-d4	97	75-135	
Toluene-d8	98	80-120	
Toluene-d8-TPPH	100	88-112	
1,4-Bromofluorobenzene	86	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project: Chevron 93910

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
15-01-0343-1	Sample	Aqueous	GC/MS R	01/08/15	01/08/15 16:13	150108S011				
15-01-0343-1	Matrix Spike	Aqueous	GC/MS R	01/08/15	01/08/15 17:09	150108S011				
15-01-0343-1	Matrix Spike Duplicate	Aqueous	GC/MS R	01/08/15	01/08/15 17:36	150108S011				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	54.42	109	51.10	102	74-122	6	0-21	
Ethylbenzene	1.541	50.00	56.53	110	52.31	102	77-125	8	0-24	
Toluene	2.406	50.00	57.11	109	52.89	101	72-126	8	0-23	
p/m-Xylene	7.163	100.0	122.2	115	111.1	104	63-129	10	0-25	
o-Xylene	3.673	50.00	63.28	119	57.55	108	62-128	9	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	49.25	99	48.97	98	68-134	1	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	266.1	106	245.9	98	65-143	8	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	55.18	110	49.23	98	61-139	11	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	51.31	103	46.79	94	64-136	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	52.73	105	48.45	97	67-133	8	0-20	
Ethanol	ND	500.0	568.1	114	516.1	103	34-178	10	0-58	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project: Chevron 93910

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-12-2492-5	Sample	Aqueous	GC/MS T	01/07/15	01/08/15 05:27	150107S028
14-12-2492-5	Matrix Spike	Aqueous	GC/MS T	01/07/15	01/08/15 05:54	150107S028
14-12-2492-5	Matrix Spike Duplicate	Aqueous	GC/MS T	01/07/15	01/08/15 06:22	150107S028

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	59.49	50.00	105.3	92	106.0	93	74-122	1	0-21	
Ethylbenzene	193.5	50.00	233.1	79	228.5	70	77-125	2	0-24	3
Toluene	6.818	50.00	58.18	103	56.50	99	72-126	3	0-23	
p/m-Xylene	7.415	100.0	118.4	111	114.6	107	63-129	3	0-25	
o-Xylene	ND	50.00	54.88	110	53.62	107	62-128	2	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.96	90	47.80	96	68-134	6	0-21	
Tert-Butyl Alcohol (TBA)	ND	250.0	187.0	75	202.5	81	65-143	8	0-30	
Diisopropyl Ether (DIPE)	ND	50.00	42.31	85	44.57	89	61-139	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	48.67	97	52.42	105	64-136	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	52.21	104	54.19	108	67-133	4	0-20	
Ethanol	ND	500.0	333.1	67	397.0	79	34-178	18	0-58	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 3510C
Method: EPA 8015B (M)

Project: Chevron 93910

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-304-915	LCS	Aqueous	GC 47	01/05/15	01/06/15 16:40	150105B06
099-15-304-915	LCSD	Aqueous	GC 47	01/05/15	01/06/15 16:57	150105B06

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	2000	2209	110	2166	108	75-117	2	0-13	

Quality Control - LCS/LCSD

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project: Chevron 93910

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-246-1919	LCS	Aqueous	GC/MS R	01/08/15	01/08/15 13:48	150108L038
099-14-246-1919	LCSD	Aqueous	GC/MS R	01/08/15	01/08/15 14:15	150108L038

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	44.06	88	N/A	N/A	80-120	73-127	N/A	0-20	
Ethylbenzene	50.00	45.90	92	N/A	N/A	80-123	73-130	N/A	0-20	
Toluene	50.00	44.53	89	N/A	N/A	80-120	73-127	N/A	0-20	
p/m-Xylene	100.0	95.33	95	N/A	N/A	75-123	67-131	N/A	0-20	
o-Xylene	50.00	48.71	97	N/A	N/A	74-122	66-130	N/A	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	41.10	82	N/A	N/A	69-129	59-139	N/A	0-20	
Tert-Butyl Alcohol (TBA)	250.0	217.5	87	N/A	N/A	69-129	59-139	N/A	0-20	
Diisopropyl Ether (DIPE)	50.00	44.86	90	N/A	N/A	68-128	58-138	N/A	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	40.91	82	N/A	N/A	63-135	51-147	N/A	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	42.94	86	N/A	N/A	67-133	56-144	N/A	0-20	
Ethanol	500.0	466.8	93	N/A	N/A	42-168	21-189	N/A	0-20	
TPPH	1000	819.0	82	798.2	80	65-135	53-147	3	0-30	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

Leidos
590 West Central Avenue, Suite I
Brea, CA 92821-3019

Date Received: 01/02/15
Work Order: 15-01-0027
Preparation: EPA 5030C
Method: GC/MS / EPA 8260B

Project: Chevron 93910

Page 3 of 3

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-246-1918	LCS	Aqueous		GC/MS T	01/07/15	01/08/15 03:10	150107L041			
099-14-246-1918	LCSD	Aqueous		GC/MS T	01/07/15	01/08/15 03:37	150107L041			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	49.12	98	N/A	N/A	80-120	73-127	N/A	0-20	
Ethylbenzene	50.00	54.87	110	N/A	N/A	80-123	73-130	N/A	0-20	
Toluene	50.00	52.50	105	N/A	N/A	80-120	73-127	N/A	0-20	
p/m-Xylene	100.0	112.2	112	N/A	N/A	75-123	67-131	N/A	0-20	
o-Xylene	50.00	55.83	112	N/A	N/A	74-122	66-130	N/A	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	43.79	88	N/A	N/A	69-129	59-139	N/A	0-20	
Tert-Butyl Alcohol (TBA)	250.0	246.4	99	N/A	N/A	69-129	59-139	N/A	0-20	
Diisopropyl Ether (DIPE)	50.00	41.00	82	N/A	N/A	68-128	58-138	N/A	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	44.61	89	N/A	N/A	63-135	51-147	N/A	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.53	99	N/A	N/A	67-133	56-144	N/A	0-20	
Ethanol	500.0	455.5	91	N/A	N/A	42-168	21-189	N/A	0-20	
TPPH	1000	974.2	97	961.2	96	65-135	53-147	1	0-30	

Total number of LCS compounds: 12

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Sample Analysis Summary Report

Work Order: 15-01-0027

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8015B (M)	EPA 3510C	500	GC 47	1
GC/MS / EPA 8260B	EPA 5030C	626	GC/MS R	2
GC/MS / EPA 8260B	EPA 5030C	867	GC/MS T	2


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 15-01-0027

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 145 S. State College Boulevard ■ Brea, CA 92822-2292

COC 1 of 1

Chevron Site Number: <u>93910</u> Chevron Site Global ID: Chevron Site Address: <u>4680 Lincoln Blvd.,</u> <u>Marina del Rey, CA</u> Chevron PM: <u>Eugene Francisco</u> Chevron PM Phone No.: <u>714-671-3347</u> ☒ Marketing Business Unit Job ☒ Construction/Retail Job				Calscience Laboratories 7441 Lincoln Way, Garden Grove, CA 92841-1427 Consultant Project No. <u>150102-BR1</u> Sampling Company: <u>Blaine Tech Services</u> Sampled By (Print): <u>Brett Balkin</u> Sampler Signature: <u>[Signature]</u>				ANALYSES REQUIRED 15-01-0027 EPA 8260B/GC/MS ETHANOL ☒ EDB/EDC ☐ FULL SCAN VOC ☐ EPA 8260B/GC/MS BTEX ☒ MTBE ☐ OXYGEN ☐ EPA 8015B TPH-G ☐ TPH-D ☒ ORO ☐ HC SCREEN ☐ TPH-D WITH SILICA GEL CLEAN UP ACETONE ☐ FORMALDEHYDE ☐ TOTAL BORON ☐ CHLORIDE ☐ TOTAL LEAD ☐ TOTAL NICKEL ☐ TOTAL MANGANESE ☐ TOTAL CHROMIUM ☐ HEXAVALENT CHROMIUM ☐ NITRATE ☐ SULFATE ☐ TDS ☐ BROMIDE ☐ PH ☐ DISSOLVED OXYGEN ☐ FERROUS IRON ☐ METHANE ☐ NAPHTHALENE BY 8260 ☐ 1,2,4 AND 1,3,5 TMB 8260 ☐ EPA 8015B TPH-G ☒ <u>Blaine Tech Services</u> EPA 8260B/GC/MS TPH-G ☒											
Charge Code: NWENV-0202018-O-0802 (WBS ELEMENTS: SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L THIS IS A LEGAL DOCUMENT. ALL FIELDS MUST BE FILLED OUT CORRECTLY AND COMPLETELY.				Chevron Consultant: <u>Leidos</u> Address: <u>590 W. Central Ave., Suite</u> <u>1, Brea, CA 92821</u> Consultant Contact: <u>MIKE PENDERGRASS</u> Consultant Phone No. (714)257-6415				Temp. Blank Check Time Temp. <u>0800</u> <u>360</u> <u>1000</u> <u>350</u> <u>1200</u> <u>350</u> <u>1400</u> <u>350</u> _____ _____ _____ _____				Preservation Codes H = HCL T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other Special Instructions All 8260 analyses must conform to LARWQCB mandated detection limit. Numerically quantify results detected between the MDL and PQL and "I" flag them.							
SAMPLE ID				Sample Time	# of Containers	Container Type	EPA 8260B/GC/MS ETHANOL ☒ EDB/EDC ☐ FULL SCAN VOC ☐ EPA 8260B/GC/MS BTEX ☒ MTBE ☐ OXYGEN ☐ EPA 8015B TPH-G ☐ TPH-D ☒ ORO ☐ HC SCREEN ☐ TPH-D WITH SILICA GEL CLEAN UP ACETONE ☐ FORMALDEHYDE ☐ TOTAL BORON ☐ CHLORIDE ☐ TOTAL LEAD ☐ TOTAL NICKEL ☐ TOTAL MANGANESE ☐ TOTAL CHROMIUM ☐ HEXAVALENT CHROMIUM ☐ NITRATE ☐ SULFATE ☐ TDS ☐ BROMIDE ☐ PH ☐ DISSOLVED OXYGEN ☐ FERROUS IRON ☐ METHANE ☐ NAPHTHALENE BY 8260 ☐ 1,2,4 AND 1,3,5 TMB 8260 ☐ EPA 8015B TPH-G ☒ <u>Blaine Tech Services</u> EPA 8260B/GC/MS TPH-G ☒												
Field Point Name	Matrix	Top Depth	Date (yyymmdd)																
QA	T		150102	0900	2	VDA	EPA 8260B/GC/MS ETHANOL ☒ EDB/EDC ☐ FULL SCAN VOC ☐ EPA 8260B/GC/MS BTEX ☒ MTBE ☐ OXYGEN ☐ EPA 8015B TPH-G ☐ TPH-D ☒ ORO ☐ HC SCREEN ☐ TPH-D WITH SILICA GEL CLEAN UP ACETONE ☐ FORMALDEHYDE ☐ TOTAL BORON ☐ CHLORIDE ☐ TOTAL LEAD ☐ TOTAL NICKEL ☐ TOTAL MANGANESE ☐ TOTAL CHROMIUM ☐ HEXAVALENT CHROMIUM ☐ NITRATE ☐ SULFATE ☐ TDS ☐ BROMIDE ☐ PH ☐ DISSOLVED OXYGEN ☐ FERROUS IRON ☐ METHANE ☐ NAPHTHALENE BY 8260 ☐ 1,2,4 AND 1,3,5 TMB 8260 ☐ EPA 8015B TPH-G ☒ <u>Blaine Tech Services</u> EPA 8260B/GC/MS TPH-G ☒												
MW-01	W			1316	8	VDA, Amber													
MW-02	W			1405															
MW-03	W			1420															
MW-04	W			1350															
MW-05	W			1440															
MW-06	W			1137															
Relinquished By: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1605</u> Relinquished By: <u>Nicole</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1605</u> Relinquished By: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1700</u> Relinquished By: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1700</u> Relinquished To: <u>Nicole</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1605</u> Relinquished To: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1700</u> Relinquished To: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1700</u> Relinquished To: <u>[Signature]</u> Company: <u>BTS</u> Date/Time: <u>1/2/15 1700</u>							Turnaround Time: Standard ☒ 24 Hours ☐ 48 hours ☐ 72 Hours ☐ Other ☐ Sample Integrity: (Check by lab on arrival) Intact: _____ On Ice: _____ Temp: _____ COC # _____												

Calscience

WORK ORDER #: 15-01-0027

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Leidos

DATE: 01/02/15

TEMPERATURE: Thermometer ID: SC4 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 3.4°C + 0.2°C (CF) = 3.6°C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: bry

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: bry

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: qbs

SAMPLE CONDITION:

Yes

No

N/A

Chain-Of-Custody (COC) document(s) received with samples..... ☒
☐
☐

COC document(s) received complete..... ☒
☐
☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☒
☐
☐

Sample container label(s) consistent with COC..... ☒
☐
☐

Sample container(s) intact and good condition..... ☒
☐
☐

Proper containers and sufficient volume for analyses requested..... ☒
☐
☐

Analyses received within holding time..... ☒
☐
☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐
☐
☒

Proper preservation noted on COC or sample container..... ☒
☐
☐
☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☒
☐
☐

Tedlar bag(s) free of condensation..... ☐
☐
☒

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☒ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: 14078A Labeled/Checked by: qbs

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: bry

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: bry