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November 22, 2016

Mr. Mark E. Detterman, PG, CEG Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Freedom Food and Gas (Formerly Freedom ARCO Mini-Mart) Site Address: 15101 Freedom Avenue, San Leandro, California STID 4473/RO0000473

Dear Mr. Detterman:

SOMA's "Corrective Action Evaluation and Data Gap Work Plan" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

Mansour Sepehr, Ph.D.,PE Principal Hydrogeologist

cc: Mr. Mohammad Pazdel



Corrective Action Evaluation and Data Gap Work Plan

Freedom Gas and Food 15101 Freedom Avenue San Leandro, California

November 22, 2016

Project 2550

Prepared for

Mohammad Pazdel **1770 Pistacia Court** Fairfield, California



PERJURY STATEMENT

Site Location: 15101 Freedom Avenue, San Leandro, California

"I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".

an

Mohammad Pazdel 1770 Pistacia Court Fairfield, California 94533 Responsible Party

CERTIFICATION

SOMA Environmental Engineering, Inc. submits this workplan on behalf of Mr. Mohammad Pazdel, owner of the property located at 15101 Freedom Avenue, San Leandro, California. This workplan has been prepared pursuant to the request of Alameda County Health Care Services – Environmental Health Services contained in correspondence dated November 1, 2016.

Mansour Sepehr, PhD, PE Principal Hydrogeologist



Corrective Action Evaluation and data Gap Work Plan

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1. INTRODUCTION

1.1 Overview

SOMA Environmental Engineering, Inc. (SOMA) has prepared this workplan for the site located at 15101 Freedom Avenue, San Leandro, California. In a correspondence of November 1, 2016 to Mr. Mohammad Pazdel, property owner, Alameda County Health Care Services – Department of Environmental Health (ACDEH) requested a corrective action evaluation and data gap work plan with a focused site conceptual model.

1.2 Site Location and Description

The site is located at the foot of the San Leandro Hills, along the west side of San Leandro Valley (Figure 1). It is bounded on the north by Freedom Avenue, on the east by Fairmont Avenue, on the south by residential properties and on the west by 151st Avenue. It currently operates as a Texaco gasoline service station with mini-mart, and retails Texaco-branded gasoline and diesel fuel. No automotive repair facility is on the site. There are three canopied product dispenser islands and three underground storage tanks (USTs) on-site: one 6,000-gallon diesel UST, one 8,000-gallon gasoline UST, and one 10,000-gallon gasoline UST. Figure 2 illustrates site features.

The site has operated as a gasoline service station since the 1960s. Mr. Pazdel, the responsible party, sold the property to Farrokh Hosseinyoun in 2010. Mr. Hosseinyoun subsequently sold the property to Mohammad Mashhoon in 2010. The station currently operates under the business name Freedom Gas and Food (formerly Freedom ARCO Mini-Mart). Previous site activities are summarized in Appendix A.

2. CORRECTVE ACTION EVALUATION

Several MPE events have been conducted at the since the pilot event in November 2007. The MPE operation is performed using a self-contained mobile treatment system (MTS), equipped with an electrical generator, propane tank, liquid ring vacuum pump rated at 25-horsepower and 428-actual cubic feet per minute (acfm), electrical submersible pumps, air/water separator vessel, discharge hoses and traffic-rated hose ramps, downhole stingers, and a thermal oxidizer for vapor abatement. The oxidizer operates under a valid various locations BAAQMD permit. Both soil vapor and groundwater are extracted from the subsurface. The overall estimated total mass of VOCs extracted by all MPE events conducted at the site is 3,629 pounds (calculated as hexane).

Figure 3 shows a graph of VOC mass removal rates along with groundwater levels observed during the MPE events conducted at the site. As illustrated in this figure, the mass removal rates were higher during periods of low groundwater levels.

3. DATA GAPS

Based on results of the most recent groundwater monitoring event and the technical comments listed in the ACDEH directive dated November 1, 2016, the following data gaps have been recognized for the site in the evaluation of Low Threat Closure Policy (LTCP).

3.1 Presence of Free-product

According to the LTCP, for a site to qualify the general & groundwater media specific criteria, no free-product should be present. According to 'Technical Justification for Media Specific Criteria' (March 2012), if TPH-g concentration is greater than 20,000 μ g/L or benzene concentration is greater than 3,000 μ g/L, this could indicate the presence of free-product. During the previous groundwater monitoring event (Third Quarter 2016), the highest TPH-g concentration was observed in MW-3 at 12,000 μ g/L and benzene in MPE-2 at 630 μ g/L (Table 1). Currently, these concentrations do not present an indication of free-product.

However, due to the presence of sheen in MW-3 and an increase of TPH-g and benzene concentrations since the Second Quarter 2016 groundwater monitoring event, further sampling is being proposed for confirmation purposes.

3.2 Plume Stability

The off-site well MW-10 was installed in August 2014, south of MW-6, downgradient of the site. This well showed the highest TPH-g concentrations during groundwater monitoring events until the second quarter 2016. MW-10 was reconstructed as a remediation well (MW-10R) in April 2016. An MPE event was conducted utilizing this well in August 2016. Groundwater samples collected immediately after the MPE event showed significant decrease in contaminant concentrations. However, there was slight increase in TPH-g and BTEX concentrations during third quarter 2016 monitoring event.

Therefore, further sampling is being proposed to confirm if concentrations are rebounding in this well.

3.3 Plume length

In an attempt to define the plume length south of MW-6, SOMA proposes to conduct a door-to door well survey as requested by the ACDEH in their directive dated November 1, 2016. SOMA field staff will conduct this survey in search of existing domestic or irrigation wells. If any such well(s) are located, SOMA field staff will request the occupants to allow sample collection. Sample analysis results will present an evidence of the extent of contaminant plume and assist in LTCP evaluation for Groundwater Media Specific Criteria.

4. SCOPE OF WORK

The scope of work has been organized into the following tasks. Table 2 includes a focused SCM which relates to data collection for each LTCP criteria.

4.1 Door-to-Door Well Survey

SOMA's field staff will conduct a door-to-door well survey in the southerly and southeasterly downgradient direction of the site along 153rd Avenue, Fairmont Drive, Oriole Avenue, Lark St, and a few houses on Plaza Dr within 1,000 ft of the site (Figure 4). During this well survey, as suggested by the ACDEH, special attention will be paid to single family homes with two utility hookup boxes at the curb. If any wells are located, the field staff will be prepared with sampling supplies and equipment so that groundwater samples can be collected. Groundwater samples will be inspected for presence of sheen. The observations will be noted on the field notes. Groundwater samples will then be placed on ice and delivered to a state certified laboratory under proper chain-of custody protocol.

4.2 Groundwater Sampling

SOMA proposes to conduct three rounds of groundwater sample collection from MW-3 and off-site well MW-10R, once each month in order to verify rebounding concentrations. During the month of December 2016, this sample collection will be scheduled to be combined with the Fourth Quarter groundwater monitoring event for cost saving purposes.

4.3 Laboratory Analysis

Groundwater samples will be submitted to a state certified analytical laboratory for the analysis of:

• Total petroleum hydrocarbons as gasoline (TPH-g)

- Benzene, toluene, ethylbenzene, total xylenes (collectively termed BTEX)
- Fuel oxygenates, additives and lead scavengers including methyl tertiarybutyl ether (MtBE), tertiary-butyl alcohol (TBA), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), 1,2-dibromomethane (EDB), and ethanol.

All analyses will be conducted using USEPA Method 8260B.

4.4 Report Preparation

At the end of three rounds of groundwater sampling and a door-to-door well survey, SOMA will document field activities, laboratory analytical results, findings, and recommendations in a report and submit to the ACDEH for review.

5. SCHEDULE

The workplan will be implemented upon receipt of written authorization from ACDEH. SOMA anticipates that the proposed work will be completed in six to eight weeks following receipt of written authorization. Field activities will be scheduled according to availability of necessary equipment and field personnel. The report will be submitted within 30 days of completing the field activities.

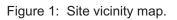
FIGURES

Corrective Action Evaluation and Data Gap Work Plan

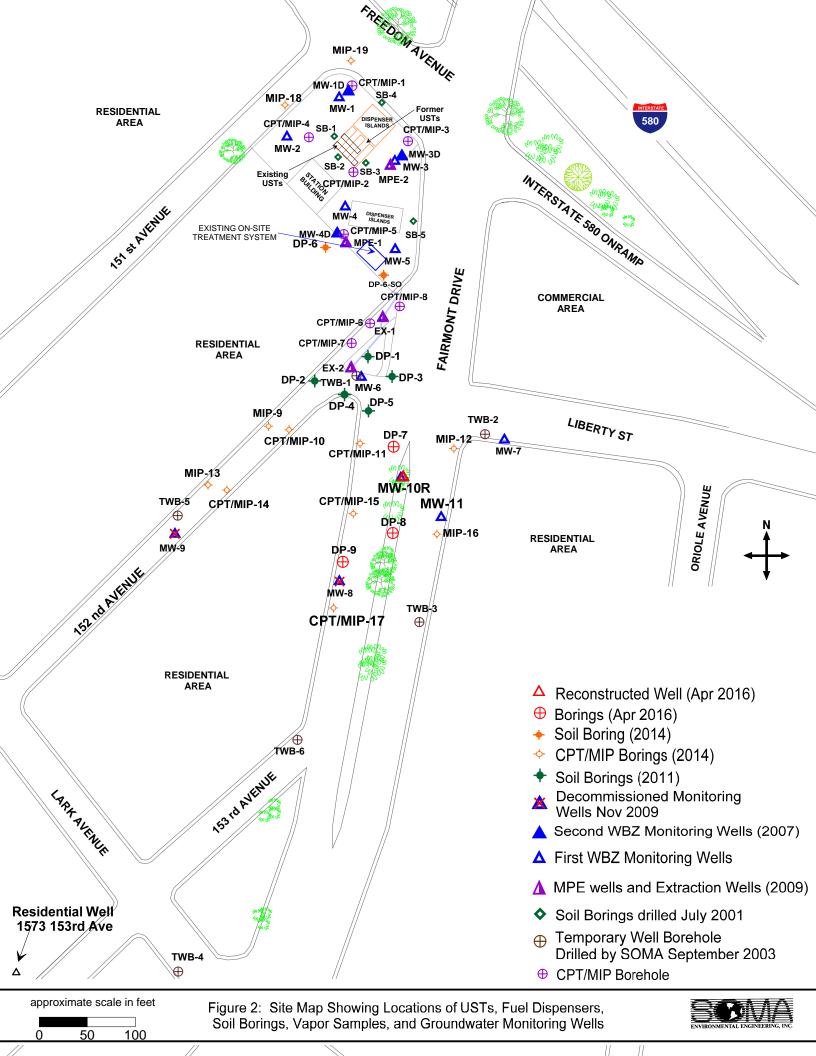


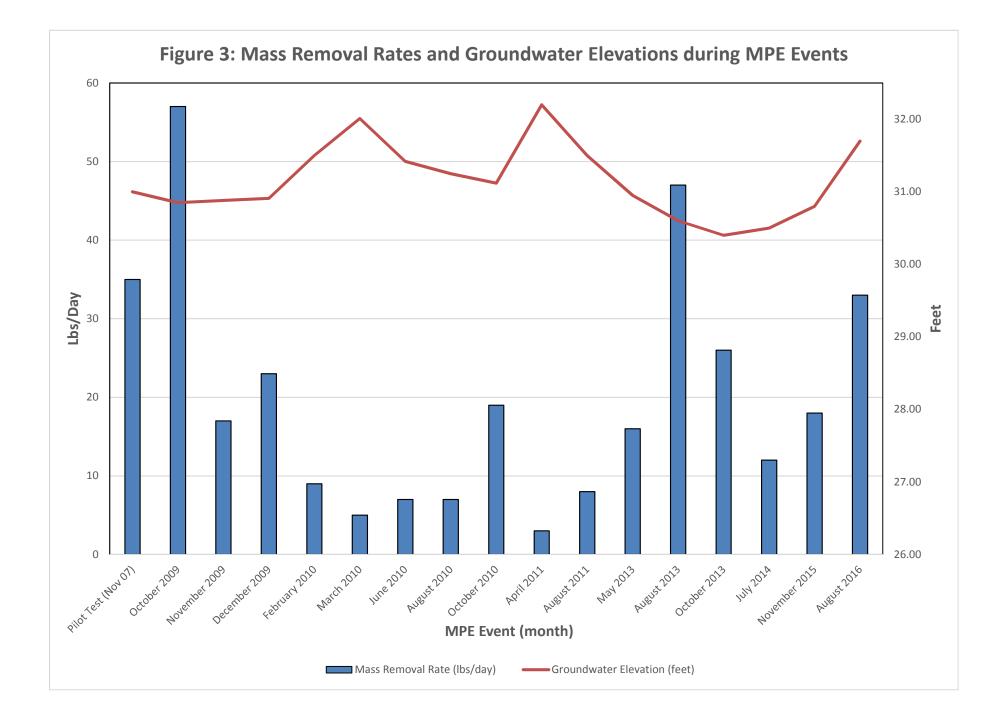


	approximate scale	in feet
0	150	300









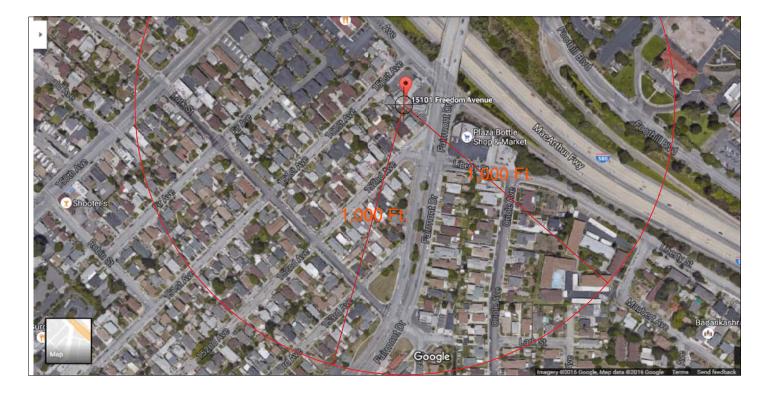


Figure 4: Site Map Showing Location of Door-to-Door Survey



TABLES

Corrective Action Evaluation and Data Gap Work Plan

Table 1
Historical Groundwater Elevation Data and Analytical Results
15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
					1st WBZ						
MW-1	5/10/2002	51.71	22.85	-	28.86	5,700	360	4.5	340	450	2
	8/8/2002	51.71	23.31	-	28.40	9,100	590	2.6	830	362	<1.3
	11/8/2002	51.71	23.58	-	28.13	7,900	570	3.1	680	392	< 1.0
	2/21/2003	51.71	22.62	-	29.09	2,900	160	1.6 C	170	211	<0.5
	5/28/2003	51.71	22.43	-	29.28	1,700	55	<0.5	90	115	2.00
	8/12/2003	51.71	21.30	-	30.41	2,600	2.5	<0.5	190	130	<0.5
	10/9/2003	51.71	23.49	-	28.22	9,200	560.0	2.7 C	670	648	<1.0
	1/15/2004	51.71	22.43	-	29.28	5,500	190	<1.0	220	124.4	<0.5
	5/25/2004	51.71	22.94	-	28.77	8,000	400	1.50	420	393	3.40
	9/21/2004	54.46	23.49	-	30.97	9,300	580	9.30	690	683	4.60
	12/14/2004	54.46	23.01	-	31.45	7,360	337	<4.3	731	633	<4.3
	3/11/2005	54.46	21.48	-	32.98	2,510	45.2	<0.5	23.2	39.63	2.80
	6/15/2005	54.46	22.42	-	32.04	1,690	36.3	<2.0	59.5	28.73	2.01
	8/26/2005	54.46	23.00	-	31.46	7,310	318	<8.60	475	316	5.15
	11/11/2005	54.46	21.40	-	33.06	9,640	341	<8.6	467	329.7	6.04
	2/9/2006	54.46	21.81	-	32.65	775	14	<2.0	12.6	10.32	4.01
	5/9/2006	54.46	21.68	-	32.78	444	7.80	<2.0	12.1	6.31	1.75
	8/10/2006	54.46	22.79	-	31.67	5,090	324	<8.60	108	59.9	8.24
	10/26/2006	54.46	23.19	-	31.27	6,950	556	<4.0	190	136.09	8.61
	1/25/2007	54.46	22.82	-	31.64	2,640	196	<2.0	105	25.5	7.92
	4/26/2007	54.46	22.67	-	31.79	861	95.5	<2.0	17	6.36	4.00
	7/25/2007	54.46	23.25	-	31.21	4,520	412	<4.0	182	77.9	7.48
	10/23/2007	54.46	23.42	-	31.04	3,900	117	<2.0	87.1	23.87	4.54

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-1 cont.	1/22/2008	54.46	22.59	-	31.87	2,260	81.3	<2.0	17.5	<2.0	4.23
	4/16/2008	54.46	22.89	-	31.57	2,320	248	<2.0	54.1	37.3	<0.5
	7/3/2008	54.46	23.33	-	31.13	5,240	414	<2.0	168	94	6.56
	10/15/2008	54.46	23.76	-	30.70	4,500 ^Y	260	<1.0	150	130	3.40
	1/7/2009	54.46	23.25	-	31.21	4,800	140	<1.3	48	32	1.70
	4/14/2009	54.46	22.52	-	31.94	1,800 ^Y	78	<0.5	35	18	2.50
	8/27/2009	54.46	23.6	-	30.86	4,500	330	<2.0	97	42	4.60
	12/2/2009	54.46	23.43	-	31.03	3,800 ^Y	250	<2.0	110	25	2.50
	3/17/2010	54.46	22.32	-	32.14	1,100	33	<0.50	46	18	1.70
	6/3/2010	54.46	22.88	-	31.58	10,000	330	4.3	680	841.5	5.20
	9/2/2010	54.46	23.28	-	31.18	8,900	440	<5.0	510	310	<5.0
	12/2/2010	54.46	23.21	-	31.25	7,400	250	<3.1	390	180	<3.1
	3/4/2011	54.46	21.95	Ν	32.51	2,400	67	<0.5	45	8.4	2.20
	5/20/2011	54.46	22.8	Ν	31.66	9,500	260	6.2	970	480	<3.6
	9/9/2011	54.46	22.81	Ν	31.65	6,400	220	<1.3	380	160	2.30
	12/2/2011	54.46	21.97	Ν	32.49	4,700 [×]	96	<1.7	310	200	<3.3
	3/2/2012	54.46	22.82	Ν	31.64	6,800	320	<2.5	430	120	<2.5
	6/7/2012	54.46	22.92	Ν	31.54	5,600	130	<2.5	360	160	2.9
	9/21/2012	54.46	23.56	Ν	30.90	8,000	300	<2.5	410	340	2.6
	12/14/2012	54.46	22.77	Ν	31.69	5,900	130	<2.5	320	97	<2.5
	3/28/2013	54.46	23.15	Ν	31.31	5,100	230	<2.5	280	48	3.6
	6/11/2013	54.46	23.48	Ν	30.98	6,800	200	<2.5	300	120	<2.5
	9/17/2013	54.46	23.84	Ν	30.62	7,500	120	<2.5	410	260	<2.5
	12/6/2013	54.46	24.16	Ν	30.30	5,300	71	<1.7	240	84	<1.7

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-1 cont.	3/13/2014	54.46	23.47	N	30.99	2,800	16	<0.5	74	15	1.4
	6/6/2014	54.46	23.46	Ν	31.00	5,000	47	<0.5	240	58	0.9
	9/23/2014	54.46	24.49	Ν	29.97	6,700	44	<1.7	200	71	<1.7
	12/23/2014	54.46	21.52	N	32.94	730	2.2	<0.5	0.84	<0.5	<0.5
	3/20/2015	54.46	22.83	N	31.63	1,200	8.6	1.9	17	<0.5	0.59
	6/4/2015	54.46	23.22	N	31.24	5,100	23	<0.71	110	3.6	0.73
	9/11/2015	54.46	23.76	Ν	30.70	4,200	3.3	<1.7	18	<1.7	<1.7
	12/28/2015	54.46	23.39	Ν	31.07	590	<0.5	<0.5	1.4	0.55	<0.5
[[3/23/2016	54.46	21.38	Ν	33.08	98	<0.5	<0.5	<0.5	<0.5	<0.5
	6/15/2016	54.46	21.41	Ν	33.05	1,300	37	<0.5	99	9.3	0.79
	9/21/2016	54.46	23.53	N	30.93	4,800	47	0.57	74	0.62	<0.5
MW-2	5/10/2002	49.66	22.83	-	26.83 *	3,100	67	8	250	215	56
	8/8/2002	49.66	21.41	-	28.25	2,700	4.6	<0.5	310	140	<0.5
	11/8/2002	49.66	21.79	-	27.87	3,400	4.6	< 0.5	310	160	< 0.5
	2/21/2003	49.66	20.51	-	29.15	890	1.7 C	0.80 C	68	38.92 C	<0.5
	5/28/2003	49.66	20.33	-	29.33	2,700	5.2 C	<0.5	120	140	1.2
	8/12/2003	49.66	23.18	-	26.48*	8,500	640	<2.5	560	659	<0.8
	10/9/2003	49.66	21.71	-	27.95	3100 H	4.3 C	<0.5	210	160	<0.5
	1/15/2004	49.66	20.31	-	29.35	660 H	1.5 C	<0.5	8.9	25	<0.5
	5/25/2004	49.66	21.09	-	28.57	4,500	5.1 C	<0.5	190	230	0.70
	9/21/2004	52.41	21.71	-	30.70	370	0.76 C	<0.5	25	16	0.50
	12/14/2004	52.41	21.20	-	31.21	880	1.0	<0.5	66	52	<0.5
[3/11/2005	52.41	19.15	-	33.26	564	<0.5	<0.5	21	11.9	<0.5
	6/15/2005	52.41	20.30	-	32.11	2,040	1.2	<2.0	78.2	22	<0.5
	8/26/2005	52.41	20.97	-	31.44	1,500	0.930	<2.00	87.6	21	0.86
	11/11/2005	52.41	25.30	-	27.11	2,140	1.08	<2.0	104	29	0.79
[2/9/2006	52.41	19.41	-	33.00	1,410	<0.5	<2.0	99.6	21.4	0.72
	5/9/2006	52.41	19.41	-	33.00	1,100	<0.5	<2.0	86.5	17	<0.5
	8/10/2006	52.41	20.8	-	31.61	3,180	2.87	<2.0	88.9	24.8	<0.50
	10/26/2006	52.41	21.22	-	31.19	1,200	<0.5	<2.0	23.5	4.79	0.6

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-2 cont.	1/25/2007	52.41	20.89	-	31.52	623	0.64	<2.0	42.4	4.37	0.66
	4/26/2007	52.41	20.65	-	31.76	169	<0.5	<2.0	15.2	2.3	<0.5
	7/25/2007	52.41	21.43	-	30.98	276	0.78	<2.0	22.1	4.04	<0.5
	10/23/2007	52.41	21.59	-	30.82	535	<0.5	<2.0	18	5.11	<0.5
	1/22/2008	52.31	20.45	-	31.86	132	<0.5	<2.0	12.2	<2.0	<0.5
	4/15/2008	52.41	20.89	-	31.52	852	<0.5	<2.0	27.2	4.78	<0.5
	7/2/2008	52.41	21.5	-	30.91	98.3	<0.5	<2.0	2.76	<2.0	<0.5
	10/15/2008	52.41	22.06	-	30.35	1,400 ^Y	<0.5	<0.5	60	17	<0.5
	1/7/2009	52.41	21.35	-	31.06	93	<0.5	<0.5	2.1	0.74	<0.5
	4/13/2009	52.41	20.52	-	31.89	480 ^Y	<0.5	<0.5	20	5.5	<0.5
	8/27/2009	52.41	21.85	-	30.56	130	<0.5	<0.5	2.5	0.61	<0.5
	12/1/2009	52.41	21.59	-	30.82	760 ^Y	<0.5	<0.5	14	1.5	<0.5
	3/17/2010	52.41	20.11	-	32.30	480	<0.5	<0.5	30	6.9	<0.5
	6/3/2010	52.41	21	-	31.41	690	<0.5	<0.5	14	2.6	<0.5
	9/2/2010	52.41	21.42	-	30.99	470	<0.5	<0.5	7.6	1	<0.5
	12/2/2010	52.41	21.44	-	30.97	470	<0.5	<0.5	7.6	3.3	<0.5
	3/4/2011	52.41	19.65	Ν	32.76	240	<0.5	<0.5	6.6	0.8	<0.5
	5/20/2011	52.41	20.75	Ν	31.66	310	<0.5	<0.5	4.8	<0.5	<0.5
	9/9/2011	52.41	21.05	Ν	31.36	1,000	<0.5	<0.5	12	0.76	<0.5
	12/2/2011	52.41	20.14	Ν	32.27	900 [×]	<2.9	<1.7	14	1.9	<3.3
	3/2/2012	52.41	19.98	Ν	32.43	880	<0.5	<0.5	5.3	0.58	<0.5
	6/7/2012	52.41	21.04	Ν	31.37	720	<0.5	<0.5	7.9	0.79	<0.5
	9/21/2012	52.41	21.78	Ν	30.63	1,400	<0.5	<0.5	11	<0.5	<0.5
	12/14/2012	52.41	20.71	Ν	31.70	760	<0.5	<0.5	10	1.5	<0.5

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-2 cont.	3/28/2013	52.41	21.24	N	31.17	890	<0.5	<0.5	4.3	<0.5	<0.5
	6/11/2013	52.41	21.67	Ν	30.74	510	150	<0.5	15	12.3	3.1
	9/16/2013	52.41	22.15	Ν	30.26	210	<0.5	<0.5	1.1	<0.5	<0.5
	12/6/2013	52.41	22.52	N	29.89	290	1.4	<0.5	1.1	<0.5	<0.5
	3/13/2014	52.41	21.56	Ν	30.85	190	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2014	52.41	21.7	Ν	30.71	97	<0.5	<0.5	<0.5	<0.5	<0.5
	9/23/2014	52.41	22.95	Ν	29.46	80	<0.5	<0.5	<0.5	<0.5	<0.5
	12/23/2014	52.41	18.91	Ν	33.50	140	<0.5	0.7	1.8	<0.5	<0.5
	3/20/2015	52.41	20.76	Ν	31.65	380	<0.5	0.8	0.86	<0.5	<0.5
	6/4/2015	52.41	21.3	Ν	31.11	700	<0.5	<0.5	0.72	<0.5	<0.5
	9/11/2015	52.41	21.95	N	30.46	1,900	<1.0	<1.0	2.3	<1.0	<1.0
	12/28/2015	52.41	21.38	N	31.03	170	<0.5	<0.5	0.51	<0.5	<0.5
	3/23/2016	52.41	18.88	N	33.53	170	<0.5	<0.5	<0.5	<0.5	<0.5
	6/15/2016	52.41	18.91	N	33.50	380	<0.5	<0.5	<0.5	<0.5	<0.5
	9/21/2016	52.41	21.71	N	30.70	680	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	5/10/2002	51.16	22.28	-	28.88	44,000	6,000	900	1,500	6,200	2,400
	8/8/2002	51.16	22.88	-	28.28	40,000	5,800	1,100	1,600	6,500	1,300
	11/8/2002	51.16	23.19	-	27.97	47,000	5,300	1,200	2,200	8,600	1,000
	2/21/2003	51.16	22.02	-	29.14	39,000	5,500	1,500	2,000	8,600	1,300
	5/28/2003	51.16	21.89	-	29.27	52,000	7,300	3,000	2,800	12,700	2,100
	8/12/2003	51.16	22.66	-	28.50	31,000	6,100	860	1,500	6,900	1,200
	10/9/2003	51.16	23.06	-	28.10	41,000	6,100	1,100	2,200	10,200	960
	1/15/2004	51.16	21.85	-	29.31	51,000	4,100	1,100	2,000	8,400	590
	5/25/2004	51.16	22.55	-	28.61	65,000	4,300	1,300	2,500	10,500	720
	9/21/2004	53.91	23.08	-	30.83	42,000	4,900	890	2,200	8,700	480
	12/14/2004	53.91	22.52	-	31.39	35,151	4,066	972	2,942	13,032	491
	3/11/2005	53.91	20.90	-	33.01	42,600	3,040	1,100	1,530	6,670	968
	6/15/2005	53.91	21.85	-	32.06	84,100	5,110	2,160	3,030	8,800	2,670
	8/26/2005	53.91	22.49	-	31.42	43,500	3,630	1,080	2,500	6,830	1,440
	11/11/2005	53.91	22.81	-	31.10	47,700	4,240	520	2,170	6,320	1,390

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-3 cont.	2/9/2006	53.91	21.12	-	32.79	44,500	5,070	1360	1,920	4,840	3,280
	5/9/2006	53.91	21.09	-	32.82	48,100	2,510	1,140	1,950	5,030	2,210
	8/10/2006	53.91	22.26	-	31.65	42,100	3,450	869	1,760	5,650	3,570
	10/26/2006	53.91	22.73	-	31.18	33,400	4,800	331	1,170	3,510	4,790
	1/25/2007	53.91	22.34	-	31.57	19,300	4,820	167	1,540	3,740	3,430
	4/26/2007	53.91	22.24	-	31.67	30,700	2,350	158	1,470	4,320	1,330
	7/25/2007	53.91	22.83	-	31.08	34,900	5,400	364	2,080	6,360	1,980
	10/23/2007	53.91	23.01	-	30.9	22,600	4,070	<86	1,120	3,095	970
	1/22/2008	53.96	22.04	-	31.92	22,100	1,280	453	1,330	3,520	490
	4/16/2008	53.91	22.4	-	31.51	20,700	2,790	182	860	3,389	263
	7/3/2008	53.91	22.9	-	31.01	48,500	3,760	346	3,130	12,980	573
	10/16/2008	53.91	23.36	-	30.55	50,000	3,900	300	3,100	11,000	460
	1/8/2009	53.91	22.82	-	31.09	54,000	2,600	180	2,500	8,800	220
	4/13/2009	53.91	22.06	-	31.85	49,000	2,900	170	2,100	8,100	490
	8/27/2009	53.91	23.11	-	30.80	43,000	2,500	160	1,900	7,000	210
	12/2/2009	53.91	23.00	-	30.91	30,000	2,100	180	1,600	5,600	91
	3/17/2010	53.91	21.90	-	32.01	24,000	970	81	1,100	3,700	38
	6/3/2010	53.91	22.49	-	31.42	31,000	1,200	110	1,300	4,400	34
	9/2/2010	53.91	22.76	-	31.15	26,000	1,100	81	1,200	3,810	26
	12/2/2010	53.91	22.86	-	31.05	18,000	830	47	780	2,360	14
	3/4/2011	53.91	21.44	Ν	32.47	18,000	410	32	850	2,480	16
	5/20/2011	53.91	22.36	Ν	31.55	12,000	710	24	620	1,460	11
	9/9/2011	53.91	22.44	N	31.47	11,000	1,100	26	580	1,430	7.8
	12/2/2011	53.91	21.60	N	32.31	5,100 [×]	280	12	370	740	<1.7

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-3 cont.	3/2/2012	53.91	22.39	N	31.52	13,000	440	23	690	1,570	<5.0
	6/7/2012	53.91	22.50	Ν	31.41	9,000	290	9.3	520	900	<5.0
	9/21/2012	53.91	23.17	Ν	30.74	12,000	710	26	630	1,230	8.2
	12/14/2012	53.91	22.32	Y	31.59	8,500	350	8.7	550	1,003	<5
	3/28/2013	53.91	22.69	Y	31.22	9,300	790	8.2	760	974	8.7
	6/11/2013	53.91	23.06	Y	30.85	14,000	700	26	860	1,630	6.1
	9/17/2013	53.91	23.41	Y	30.50	28,000	570	37	1,800	3,560	<10
	12/6/2013	53.91	23.76	Y	30.15	23,000	360	26	1,700	3,330	<10
	3/12/2014	53.91	23.13	22.98	30.88	FP	FP	FP	FP	FP	FP
	6/5/2014	53.91	23.08	23.06	30.84	FP	FP	FP	FP	FP	FP
	9/23/2014	53.91	24.16	Y	29.75	41,000	230	84	1,000	4,500	<10
	12/23/20014	53.91	20.83	N	33.08	13,000	64	28	250	1,250	<3.6
	3/20/2015	53.91	22.32	Y	31.59	18,000	140	24	730	1,870	<3.6
	6/4/2015	53.91	22.77	Y	31.14	32,000	200	17	680	1,820	<6.3
	9/11/2015	53.91	23.31	Y	30.60	24,000	260	<6.3	380	1,144	<6.3
	12/29/2015	53.91	22.95	Y	30.96	13,000	74	<5.0	220	628	<5.0
	3/24/2016	53.91	20.75	Y	33.16	7,600	180	2	130	263	3.2
	6/16/2016	53.91	20.78	Y	33.13	10,000	98	2.6	250	507	1.7
	9/21/2016	53.91	23.12	N	30.79	12,000	380	<2.5	250	424	<2.5
MW-4	5/10/2002	50.54	21.78	-	28.76	880	25	1.0C	110	52	12,000
	8/8/2002	50.54	22.50	-	28.04	3,800	70	<5.0	300	115	4,800
	11/8/2002	50.54	22.81	-	27.73	5,100	150	10	460	258	2,400
	2/21/2003	50.54	21.48	-	29.06	3,200	98	66	220	360	6,600
	5/28/2003	50.54	21.24	-	29.30	6,200	140	46	200	790	2,300
	8/12/2003	50.54	22.32	-	28.22	7,500	180	57	220	1450	1,900
	10/9/2003	50.54	22.74	-	27.80	5,800	250	32	300	970	7,800
	1/15/2004	50.54	21.19	-	29.35	5,900	270	17 C	150	640	7,300
	5/25/2004	50.54	22.03	-	28.51	9,100	210	51	200	1190	1800
	9/21/2004	53.31	22.76	-	30.55	5,200	290	12	370	600	7300
	12/14/2004	53.31	21.99	-	31.32	8,937	538	114	416	2379	5021

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-4 cont.	3/11/2005	53.31	20.01	-	33.30	12,300	225	39.6	80.1	1465	3870
	6/15/2005	53.31	21.25	-	32.06	7,690	114	32.6	77.1	555	1150
	8/26/2005	53.31	22.03	-	31.28	8,850	175	24.6	150	851	1380
	11/11/2005	53.31	22.43	-	30.88	9,990	356	<43	196	700	3,640
	2/9/2006	53.31	20.31	-	33.00	6,850	205	<43	67.2	255.2	5,120
	5/9/2006	53.31	20.33	-	32.98	1,290	18.1	<8.6	12.9	25.87	799
	8/10/2006	53.31	21.74	-	31.57	7,830	118	<8.60	25.3	174.6	919
	10/26/2006	53.31	22.29	-	31.02	1,540	81.9	<43	96	46.4	3,610
	1/25/2007	53.31	21.86	-	31.45	4,370	163	<8.6	85.1	269.1	1,050
	4/26/2007	53.31	21.63	-	31.68	4,380	140	<8.6	67	276.8	576
	7/25/2007	53.31	22.49	-	30.82	4,970	220	<8.60	198	241.5	1,040
	10/23/2007	53.31	22.69	-	30.62	4,200	267	<8.6	147	155.5	1,220
	1/22/2008	53.36	21.39	-	31.97	2,180	133	<22.0	43.1	32.2	1,800
	4/15/2008	53.31	21.9	-	31.41	4,240	90.4	<22.0	107	380	674
	7/2/2008	53.31	22.55	-	30.76	2,300	193	<22.0	212	183	4,050
	10/16/2008	53.31	23.13	-	30.18	8,900	320	3.7	430	1,160	450
	1/8/2009	53.31	22.42	-	30.89	19,000	430	44	590	3,380	440
	4/13/2009	53.31	21.51	-	31.80	21,000	400	38	450	2,880	330
	8/27/2009	53.31	22.94	-	30.37	16,000	960	64	560	2,120	290
	12/2/2009	53.31	22.36	-	30.95	4,400	480	6	170	640	110
	3/17/2010	53.31	21.39	-	31.92	14,000	260	6	230	1,220	93
	6/3/2010	53.31	22.23	-	31.08	18,000	240	4	310	770	41
	9/2/2010	53.31	22.51	-	30.80	1,800	800	<3.6	150	25	33
	12/2/2010	53.31	22.71	-	30.60	3,800	1,500	<10	200	115	29

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-4 cont.	3/3/2011	53.31	20.64	Ν	32.67	2,400	28	<0.71	28	17	3
	5/19/2011	53.31	21.84	Ν	31.47	1,800	27	<0.5	29	11.2	4.8
	9/8/2011	53.31	22.11	N	31.20	3,600	300	2.6	270	68.5	59
	12/1/2011	53.31	21.38	Ν	31.93	1,400 [×]	370	<0.84	110	30.6	110
	3/2/2012	53.31	22.02	Ν	31.29	3,100	780	<2.0	150	59.6	50
	6/7/2012	53.31	22.24	Ν	31.07	2,000	290	<2.5	66	23	29
	9/21/2012	53.31	22.87	Ν	30.44	2,900	820	<2.5	75	17	72
	12/14/2012	53.31	21.84	Ν	31.47	840	48	<0.5	14	4.5	2.5
	3/28/2013	53.31	22.24	Ν	31.07	790	650	<5.0	26	<5.0	15
	6/11/2013	53.31	22.71	Ν	30.60	1,100	860	<5.0	64	<5.0	35
	9/17/2013	53.31	23.23	N	30.08	<1,000	1,300	<10	22	<10	44
	12/6/2013	53.31	23.6	Ν	29.71	2,300	3,300	<10	78	199	42
	3/13/2014	53.31	22.6	N	30.71	<630	600	<6.3	7.0	21	6.8
	6/6/2014	53.31	22.97	N	30.34	<630	710	<6.3	21	<6.3	17.0
	9/23/2014	53.31	24.22	N	29.09	<630	1,100	<6.3	10	6.6	7.5
	12/23/2014	53.31	19.78	Ν	33.53	<50	0.95	<0.5	<0.5	<0.5	<0.5
	3/20/2015	53.31	21.75	N	31.56	56	1.8	<0.5	2.00	<0.5	8.7
	6/4/2015	53.31	22.29	N	31.02	210	35	<0.5	4.10	0.54	12
	9/11/2015	53.31	23.02	Ν	30.29	1,200	140	1.1	7.30	19	39
	12/29/2015	53.31	24.5	Ν	28.81	440	91	<0.5	0.84	0.74	17
	3/23/2016	53.31	19.81	N	33.50	62	12	<0.5	<0.5	<0.5	7.4
	6/16/2016	53.31	19.84	Ν	33.47	120	18	0.75	0.53	<0.5	4.1
	9/21/2016	53.31	22.72	N	30.59	620	87	<0.5	5	9.90	35
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MW-5	5/10/2002	47.79	19.02	-	28.77	25,000	1,000	1200	1,100	3,060	1,800
	8/8/2002	47.79	19.80	-	27.99	18,000	1,000	660	950	1,720	1,500
	11/8/2002	47.79	20.14	-	27.65	16,000	1,300	380	930	1,550	1,200
	2/21/2003	47.79	18.70	-	29.09	12,000	390	71	770	1,100	860
	5/28/2003	47.79	18.52	-	29.27	9,100	210	31	560	790	600
	8/12/2003	47.79	19.54	-	28.25	12,000	660	75	660	1,110	1,000
	10/9/2003	47.79	20.06	-	27.73	15,000	1,000	130	1,000	1,430	1,700

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-5 cont.	1/15/2004	47.79	18.42	-	29.37	9,900	450 C	16	500	431	1,100
	5/25/2004	47.79	19.30	-	28.49	9,200	380	24	490	536	720
	9/21/2004	50.53	20.15	-	30.38	10,000	980	71	560	770	1200
	12/14/2004	50.53	19.30	-	31.23	10,502	587	64	1040	1133	1015
	3/11/2005	50.53	17.20	-	33.33	8,390	407	<5.5	83	42.5	1530
	6/15/2005	50.53	18.54	-	31.99	9,350	147	18.3	435	146.2	573
	8/26/2005	50.53	19.31	-	31.22	9,500	261	<22	726	321.3	749
	11/11/2005	50.53	19.75	-	30.78	10,000	443	41.5	527	278.5	1,430
	2/9/2006	50.53	17.58	-	32.95	7,640	237	<22	187	50.2	2,050
	5/9/2006	50.53	17.54	-	32.99	8,360	111	<8.6	300	75.84	566
	8/10/2006	50.53	19.02	-	31.51	16,100	250	<22	455	187.4	1,590
	10/26/2006	50.53	19.61	-	30.92	10,100	430	<22	375	192.6	3,060
	1/25/2007	50.53	19.19	-	31.34	3,960	340	<22	323	150.1	1,740
	4/26/2007	50.53	18.89	-	31.64	4,590	187	<8.6	307	116.5	861
	7/25/2007	50.53	19.81	-	30.72	6,490	419	21.8	413	223.2	913
	10/23/2007	50.53	19.98	-	30.55	6,120	550	11	284	141.4	433
	1/22/2008	50.18	18.69	-	31.49	9,810	572	22	574	184.1	126
	4/15/2008	50.18	19.16	-	31.02	8,890	335	15.1	477	397.5	136
	7/3/2008	50.53	19.88	-	30.65	13,100	949	34.4	875	825.5	176
	10/16/2008	50.53	20.45	-	30.08	11,000	870	25	820	668	160
	1/8/2009	50.53	19.72	-	30.81	12,000	490	21	690	456	76
	4/13/2009	50.53	18.81	-	31.72	9,000 ^Y	200	11	390	198	44
	8/27/2009	50.53	21.30	-	29.23	7,400	610	15	320	185	66
	12/2/2009	50.53	20.00	-	30.53	8,400 ^Y	400	12	540	296	45

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-5 cont.	3/17/2010	50.53	18.73	-	31.80	4,800	120	8.7	120	107	14
	6/4/2010	50.53	19.60	-	30.93	7,200	160	5.7	190	149.2	24
	9/2/2010	50.53	19.82	-	30.71	9,200	110	12	270	318	35
	12/2/2010	50.53	20.10	-	30.43	9,100	170	6.7	350	442	23
	3/4/2011	50.53	18.00	Ν	32.53	2,600	18	0.62	54	18.1	3
	5/20/2011	50.53	19.18	Ν	31.35	4,000	91	8.5	110	106	33
Pre-MPE	8/4/2011	50.53	NM	-	NC	3,000	23	0.95	92	43.7	5.4
	9/9/2011	50.53	19.41	Ν	31.12	4,200	120	2.8	140	61.1	22
	12/2/2011	50.53	18.59	Ν	31.94	6,900 [×]	96	12	220	104	32
	3/2/2012	50.53	19.30	Ν	31.23	5,400	43	1.8	110	85	7
	6/7/2012	50.53	19.45	Ν	31.08	3,700	32	<1.0	100	59	4.4
	9/21/2012	50.53	20.17	Ν	30.36	3,900	68	1.5	140	88.5	9.8
	12/14/2012	50.53	19.12	Ν	31.41	3,100	48	6.7	100	62.3	5.2
	3/28/2013	50.53	19.47	Ν	31.06	1,900	30	<1.0	59	48.4	4.5
	6/11/2013	50.53	20.03	Ν	30.50	2,900	22	3.9	110	131	3.0
	9/17/2013	50.53	20.54	Ν	29.99	4,200	55	7.9	180	229	5.2
	12/6/2013	50.53	20.86	N	29.67	3,600	35	2.1	160	241	2.5
	3/13/2014	50.53	19.91	Ν	30.62	2,100	23	<1.0	130	73	1.4
	6/6/2014	50.53	20.27	Ν	30.26	1,700	8.2	0.56	63	40.2	0.75
	9/23/2014	50.53	21.61	Ν	28.92	1,700	38	0.52	45	29.8	1.60
	12/23/2014	50.53	17.12	Ν	33.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	3/20/2015	50.53	18.91	Ν	31.62	130	<0.5	<0.5	4.5	3.4	<0.5
	6/4/2015	50.53	19.49	Ν	31.04	340	0.7	<0.5	4	3.7	<0.5
	9/11/2015	50.53	20.29	Ν	30.24	1,300	3.1	<0.5	13	13	<0.5
	12/29/2015	50.53	19.89	N	30.64	260	1.5	<0.5	1.1	0.89	<0.5
	3/23/2016	50.53	17.07	Ν	33.46	300	<0.5	<0.5	<0.5	<0.5	<0.5
	6/16/2016	50.53	17.10	Ν	33.43	520	0.68	<0.5	<0.5	<0.5	<0.5
	9/21/2016	50.53	19.97	N	30.56	590	0.73	<0.5	<0.5	<0.5	1.90
				-							
MW-6	9/21/2004	45.82	17.64	-	28.18	34,000	150	130	2200	8100	0.6
	12/14/2004	45.82	15.75	-	30.07	5,161	137	7	436	1136	<5.5

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-6 cont.	3/11/2005	45.82	13.80	-	32.02	6,040	125	3.22	260	722.1	4.94
	6/15/2005	45.82	14.78	-	31.04	5,590	44.3	6.60	272	382	5.85
	8/26/2005	45.82	15.91	-	29.91	6,130	99	<8.6	378	492.9	5.66
	11/11/2005	45.82	16.55	-	29.27	11,400	101	<8.6	645	834.7	4.33
	2/9/2006	45.82	13.92	-	31.90	2,790	32.3	<8.6	131	131.22	7.30
	5/9/2006	45.82	13.95	-	31.87	3,730	25	<2.0	213	207.82	5.87
	8/10/2006	45.82	15.28	-	30.54	4,800	41.9	<2.0	201	189	10.4
	10/26/2006	45.82	16.11	-	29.71	6,080	37.4	<2.0	116	183	9.78
	1/25/2007	45.82	15.76	-	30.06	3,220	25.2	<2.0	219	174	14.7
	4/26/2007	45.82	15.18	-	30.64	3,110	28	<2.0	165	138.47	14.6
	7/25/2007	45.82	16.82	-	29.00	4,960	54.1	<2.0	199	255.87	8.05
	10/23/2007	45.82	16.91	-	28.91	9,610	64.3	<2.0	188	302.6	5.81
	1/21/2008	45.82	15.36	-	30.46	3,290	33	<2.0	149	131.31	3.86
	4/15/2008	45.82	15.73	-	30.09	2,070	10.8	<2.0	51.1	67	<0.5
	7/2/2008	45.82	16.9	-	28.92	7,900	42.4	<2.0	194	296	3.58
	10/15/2008	45.82	17.21	-	28.61	18,000 ^Y	42	1.4	320	673	1.7
	1/7/2009	45.82	17.08	-	28.74	13,000	47	<3.1	210	425	<3.1
	4/13/2009	45.82	15.52	-	30.30	7,200 ^Y	26	<1.3	170	312.6	2.6
	8/26/2009	45.82	17.82	-	28.00	10,000 ^Y	25	<2.0	130	294	2.2
	12/1/2009	45.82	17.34	-	28.48	11,000 ^Y	31	6.1	220	539	<2.0
	3/16/2010	45.82	14.81	-	31.01	31,000	63	140	970	4,200	64
	6/3/2010	45.82	15.72	-	30.10	27,000	22	67	840	3,100	32
	9/1/2010	45.82	16.86	-	28.96	33,000	24	34	1,100	3,780	12
	12/2/2010	45.82	16.98	-	28.84	70,000	32	55	1,700	5,670	18

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-6 cont.	3/3/2011	45.82	14.35	Y	31.47	7,000	18	<2.5	97	237	11
	5/20/2011	45.82	14.95	Y	30.87	14,000	14	<2.5	300	823	7.2
	9/8/2011	45.82	16.14	Y	29.68	23,000	28	<2.5	360	812	3.4
	12/1/2011	45.82	16.17	16.15	29.66	FP	FP	FP	FP	FP	FP
	3/2/2012	45.82	16.11	Y	29.71	14,000	23	<4.2	400	694.4	<4.2
	6/6/2012	45.82	16.31	Y	29.51	9,200	12	<1.7	210	320	<1.7
	9/20/2012*	45.82	17.36	17.32	28.49	FP	FP	FP	FP	FP	FP
	12/13/2012	45.82	15.46	Y	30.36	13,000	22	<0.71	83	62.8	5.1
	3/27/2013	45.82	16.3	Y	29.52	7,400	27	<1.3	190	221.8	<1.3
	6/10/2013	45.82	17.37	Y	28.45	12,000	20	<2.5	280	230	<2.5
	9/16/2013	45.82	18.11	18.06	27.74	FP	FP	FP	FP	FP	FP
	12/5/2013	45.82	18.75	Y	27.07	18,000	220	330	460	2,030	6.1
	3/12/2014	45.82	17	Y	28.82	8,900	42	5.4	290	760	<2.5
	6/5/2014	45.82	18.15	Y	27.67	9,600	29	<2.5	370	295	<2.5
	9/22/2014	45.82	19.33	Y	26.49	31,000	140	140	1,600	3,590	4.3
	12/22/2014	45.82	13.43	Y	32.39	2,700	20	<0.5	70	55.4	0.63
	3/19/2015	45.82	16.1	Ν	29.72	2,900	8.2	<0.5	48	3.6	<0.5
	6/3/2015	45.82	17.21	Ν	28.61	4,600	13	<0.5	53	3.4	<0.5
	9/10/2015	45.82	18.25	Ν	27.57	4,200	8.8	<5.0	27	<5.0	<5.0
	12/28/2015	45.82	16.64	Ν	29.18	4,600	27	<1.0	160	24	<1.0
	3/24/2016	45.82	14.35	Ν	31.47	700	3.4	<0.5	4.4	2.64	<0.5
	6/16/2016	45.82	14.38	Ν	31.44	2,900	9.7	<0.5	18	17	<0.5
	9/21/2016	45.82	17.57	N	28.25	2,600	8.5	<1.0	1.9	<1.0	<1.0
MW-7	9/21/2004	44.74	15.21	-	29.53	2,900	<0.5	<0.5	52	61	8.1
	12/14/2004	44.74	13.90	-	30.84	<50	1.6	<0.5	29	58	6.0
	3/11/2005	44.74	11.46	-	33.28	2,230	<2.5	<2.5	39.4	51.4	12.4
	6/15/2005	44.74	12.97	-	31.77	2,940	0.85	<2.0	50.6	31.9	13.7
	8/26/2005	44.74	14.10	-	30.64	2,310	<0.50	<2.0	55.7	29.6	4.01
	11/11/2005	44.74	14.59	-	30.15	3,030	<0.5	<2.0	66.5	42.3	9.76

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-7 cont.	2/9/2006	44.74	NM	-	NM	NA	NA	NA	NA	NA	NA
	5/9/2006	44.74	12.02	-	32.72	1,400	<0.5	<2.0	19.8	12.4	2.30
	8/10/2006	44.74	13.72	-	31.02	604	<0.50	<2.0	6.2	4.63	1.42
	10/26/2006	44.74	14.38	-	30.36	1350	<0.50	<2.0	16.6	10.8	1.87
	1/25/2007	44.74	13.93	-	30.81	340	<0.5	<2.0	6.84	2.44	1.63
	4/26/2007	44.74	14.44	-	30.30	552	<0.5	<2.0	11.4	6.11	4.12
	7/25/2007	44.74	14.79	-	29.95	1,230	<0.5	<2.0	27	19.24	3.2
	10/23/2007	44.74	14.88	-	29.86	1,730	0.67	<2.0	20.7	17.31	8.44
	1/21/2008	44.74	13.34	-	31.40	610	1.15	<2.0	8.4	4.34	17.2
	4/15/2008	44.74	13.91	-	30.83	1,460	<0.5	<2.0	15.9	19.7	17.3
	7/2/2008	44.74	14.87	-	29.87	1,450	<0.5	<2.0	11	6.8	22.1
	10/15/2008	44.74	15.68	-	29.06	1,900 ^Y	0.56	1.2	27	39.5	55
	1/7/2009	44.74	14.72	-	30.02	2,700	1.2	2.9	11	25	39
	4/13/2009	44.74	13.54	-	31.20	2,300 ^Y	<0.5	<0.5	15	6.3	63
	8/26/2009	44.74	15.84	-	28.90	2,700 ^Y	<0.5	<0.5	48	53	140
	12/1/2009	44.74	15.03	-	29.71	1,800 ^Y	<0.5	<0.5	22	15	120
	3/16/2010	44.74	12.56	-	32.18	1,100	<0.5	<0.5	3.2	1.4	65
	6/3/2010	44.74	13.80	-	30.94	740	<0.5	<0.5	1.8	0.62	28
	9/1/2010	44.74	14.84	-	29.90	1,200	<0.5	<0.5	10	3.2	29
	12/2/2010	44.74	14.74	-	30.00	1,400	<0.5	<0.5	8	0.74	21
	3/3/2011	44.74	13.31	Ν	31.43	1,000	<0.5	<0.5	1.8	<0.5	16
	5/19/2011	44.74	13.43	Ν	31.31	810	<0.5	<0.5	2.2	0.79	7.8
	9/8/2011	44.74	14.38	Ν	30.36	1,000	<0.5	<0.5	8.3	2.9	5.4
	12/1/2011	44.74	13.57	Ν	31.17	1,500 ×	<0.33	<0.19	12	5.7	13
	3/2/2012	44.74	14.16	Ν	30.58	1,000	<0.5	<0.5	4	1.1	5.1
	6/6/2012	44.74	14.00	Ν	30.74	780	<0.5	<0.5	2.9	1.0	2.6
	9/20/2012	44.74	15.26	Ν	29.48	1,200	<0.5	<0.5	4.3	0.92	2.7
	12/13/2012	44.74	13.34	N	31.40	1,100	<0.5	<0.5	0.99	<0.5	3.4

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-7 cont.	3/27/2013	44.74	14.30	N	30.44	680	<0.5	<0.5	1.8	<0.5	4.2
	6/10/2013	44.74	15.06	N	29.68	890	<0.5	<0.5	2.6	<0.5	2.3
	9/16/2013	44.74	15.78	N	28.96	1,400	<0.5	<0.5	7.9	2.7	4.1
	12/5/2013	44.74	16.21	N	28.53	1,800	<0.5	<0.5	8	3.1	5.7
	3/12/2014	44.74	14.56	N	30.18	920	<0.5	<0.5	3.7	1.5	4.6
	6/5/2014	44.74	15.18	N	29.56	1,600	<0.5	<0.5	11	3.0	5.7
	9/22/2014	44.74	16.63	Ν	28.11	1,900	<0.5	<0.5	9.6	3.5	5.3
	12/22/2014	44.74	11.37	N	33.37	320	<0.5	<0.5	2.2	2.3	1.7
	3/19/2015	44.74	13.82	N	30.92	1,400	<0.5	<0.5	4.6	2.0	4.7
	6/3/2015	44.74	14.53	Ν	30.21	2,000	<0.5	<0.5	12	5.4	4.4
	9/10/2015	44.74	15.62	N	29.12	2,200	<1.7	<1.7	9.9	1.7	4.0
	12/28/2015	44.74	14.75	N	29.99	2,500	<0.5	<0.5	5.2	4.0	3.1
	3/24/2016	44.74	11.46	N	33.28	1,800	<0.5	<0.5	1.7	<0.5	3.1
	6/16/2016	44.74	11.49	Ν	33.25	2,400	<0.5	<0.5	2.3	<0.5	1.4
	9/21/2016	44.74	16.32	N	28.42	2,000	1.9	0.63	11	12.1	<0.5
MW-8	9/21/2004	41.14	12.98	-	28.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	41.14	11.22	-	29.92	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	41.14	NM	-	NM	NA	NA	NA	NA	NA	NA
	6/15/2005	41.14	10.46	-	30.68	<200	0.53	<2.0	<0.5	<1.0	<0.5
	8/26/2005	41.14	11.53	-	29.61	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	41.14	11.92	-	29.22	<50	<0.5	<2.0	1.36	1.8	<0.5
	2/9/2006	41.14	9.74	-	31.40	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	41.14	9.90	-	31.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	41.14	10.9	-	30.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	41.14	11.68	-	29.46	<50	<0.50	<2.0	3.37	<1.0	<0.50
	1/25/2007	41.14	11.44	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	41.14	10.81	-	30.33	<50	<0.5	<2.0	4.29	<2.0	<0.5
	7/25/2007	41.14	12.31	-	28.83	<50	<0.5	<2.0	4.39	<2.0	<0.5
	10/23/2007	41.14	12.37	-	28.77	<50	<0.5	<2.0	4.31	<2.0	<0.5

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-8 cont.	1/21/2008	41.14	11.02	-	30.12	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	41.14	11.44	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	41.14	12.39	-	28.75	94.8	<0.5	<2.0	1	<2.0	<0.5
	10/15/2008	41.14	13.42	-	27.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	41.14	12.50	-	28.64	<50	<0.5	<0.5	<0.5	0.6	<0.5
	4/13/2009	41.14	11.23	-	29.91	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	41.14	13.24	-	27.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5
				v	Vell Decommissio	ned 11/13/2	009				
MW-9	9/21/2004	40.26	12.18	-	28.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	40.26	10.91	-	29.35	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	40.26	10.52	-	29.74	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	6/15/2005	40.26	14.73	-	25.53	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	8/26/2005	40.26	10.59	-	29.67	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	40.26	11.25	-	29.01	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	2/9/2006	40.26	10.05	-	30.21	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	40.26	9.06	-	31.20	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	40.26	10.01	-	30.25	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	40.26	10.81	-	29.45	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	1/25/2007	40.26	10.67	-	29.59	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	40.26	10.05	-	30.21	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/25/2007	40.26	11.44	-	28.82	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/23/2007	40.26	11.59	-	28.67	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/21/2008	40.26	10.37	-	29.89	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	40.26	10.56	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	40.26	11.95	-	28.31	161	<0.5	<2.0	2.15	<2.0	<0.5
	10/15/2008	40.26	12.64	-	27.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5

 Table 1

 Historical Groundwater Elevation Data and Analytical Results

 15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-9 cont.	1/7/2009	40.26	11.75	-	28.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	40.26	10.89	-	29.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	40.26	12.50	-	27.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5
				V	Vell Decommissio	ned 11/13/2	009				
		-		-				-	-		
MW-10	9/22/2014	44.66	17.84	Ν	26.82	23,000	<10	<10	1200	2,610	<10
	12/22/2014	44.66	12.33	Ν	32.33	6,000	<2.5	<2.5	390	802	<2.5
	3/19/2015	44.66	15.01	Ν	29.65	3,500	<1.0	<1.0	130	279	<1.0
	6/3/2015	44.66	15.81	Ν	28.85	24,000	<5.0	<5.0	870	1,358	<5.0
	9/10/2015	44.66	17.03	Ν	27.63	28,000	<10	<10	1,200	2,173	<10
	12/28/2015	44.66	15.18	Ν	29.48	22,000	<10	<10	930	1,737	<10
	3/24/2016	44.66	13.1	Ν	31.56	22,000	<5	<5	620	1,038	<5
MW-10R	6/15/2016	45.13	13.6	Ν	31.53	28,000	<10	<10	720	1,454	<10
Post MPE	8/8/2016	45.13	NA	N	NA	8,100	<4.2	<4.2	150	267.1	<4.2
	9/21/2016	45.13	16.84	N	28.29	10,000	9.6	<2.0	340	432	<2.0
MW-11	9/22/2014	42.45	15.52	Ν	26.93	2,100	<0.5	<0.5	2.7	4.5	<0.5
	12/22/2014	42.45	10.08	Ν	32.37	310	<0.5	<0.5	1.8	2.7	<0.5
	3/19/2015	42.45	12.77	Ν	29.68	870	<0.5	<0.5	1.4	2.2	<0.5
	6/3/2015	42.45	13.5	Ν	28.95	330	<0.5	<0.5	2.0	3.1	<0.5
	9/10/2015	42.45	14.79	Ν	27.66	78	<0.5	<0.5	<0.5	<0.5	<0.5
	12/28/2015	42.45	13.07	Ν	29.38	170	<0.5	<0.5	3.0	4.2	<0.5
	3/23/2016	42.45	10.48	N	31.97	110	<0.5	<0.5	<0.5	<0.5	<0.5
	6/16/2016	42.45	10.51	Ν	31.94	100	<0.5	<0.5	<0.5	<0.5	<0.5
	9/21/2016	42.45	14.05	N	28.40	75	<0.5	<0.5	1.5	1.7	<0.5
				I	Extraction Wells						
EX-1	12/2/2009	47.36	17.02	-	30.34	2,900	120	4	64	410	25
	3/16/2010	47.36	19.08	-	28.28	2,200	150	18	94	326	210
	6/3/2010	47.36	17.02	-	30.34	3,600	180	6.3	150	428	83
	9/1/2010	47.36	16.88	-	30.48	550	6.5	0.5	6.9	31.7	38
	12/2/2010	47.36	19.84	-	27.52	<200	3.1	<2.0	<2.0	<2.0	210

 Table 1

 Historical Groundwater Elevation Data and Analytical Results

 15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
EX-1 cont.	3/3/2011	47.36	14.96	Ν	32.4	530	51	0.94	15	31.3	110
	5/19/2011	47.36	16.12	Ν	31.24	370	42	<0.71	7.6	17.2	110
	9/8/2011	47.36	16.47	Ν	30.89	110	5	<0.5	2.2	6.4	12
	12/1/2011	47.36	16.1	Ν	31.26	780 [×]	91	3	29	85	150
	3/2/2012	47.36	16.35	Ν	31.01	140	6	<0.5	3.5	8	14
	6/6/2012	47.36	24.76	Ν	22.6	250	22	<0.5	4.7	20	71
	9/20/2012	47.36	17.26	Ν	30.1	95	24	<0.5	<0.5	2.61	36
	12/13/2012	47.36	16.55	N	30.81	1,000	73	2.3	47	110	48
	3/27/2013	47.36	16.15	Ν	31.21	69	4.1	<0.5	3.3	10	1.8
	6/10/2013	47.36	24.25	Ν	23.11	340	37	<0.5	5.9	15.1	62
	9/16/2013	47.36	22.54	Ν	24.82	97	14	<0.5	<0.5	<0.5	65
	12/5/2013	47.36	22.53	Ν	24.83	390	42	2.5	9.8	32.6	76
	3/12/2014	47.36	21.15	Ν	26.21	250	12	<0.5	4.7	17.2	40
	6/5/2014	47.36	21.31	Ν	26.05	1,700	70	11	92	208	40
	9/22/2014	47.36	21.15	Ν	26.21	1,500	23	1.3	73	161	51
	12/22/2014	47.36	19.74	Ν	27.62	530	8.6	<0.5	3.2	29.3	11
	3/19/2015	47.36	15.59	Ν	31.77	<50	1.2	<0.5	<0.5	1.0	<0.5
	6/3/2015	47.36	22.89	Ν	24.47	770	31	<0.5	8.2	17.1	22
	9/10/2015	47.36	22.57	Ν	24.79	<50	0.66	<0.5	<0.5	1.53	<0.5
	12/28/2015	47.36	22.7	N	24.66	400	27	<0.5	4.6	10.9	21
	3/24/2016	47.36	13.45	Ν	33.91	57	3.9	<0.5	<0.5	<0.5	3.5
	6/15/2016	47.36	13.83	Ν	33.53	140	9.1	<0.5	<0.5	<0.5	<0.5
	9/21/2016	47.36	16.75	N	30.61	260	1.2	<0.5	5.3	1.7	<0.5
		1	1	1			1			-	
EX-2	12/2/2009	45.96	17.56	-	28.4	7,100 ^Y	9.3	3.2	440	770	<3.1
	3/16/2010	45.96	19.65	-	26.31	13,000	600	360	770	2,250	15
	6/3/2010	45.96	17.10	-	28.86	16,000	590	400	700	2,500	9.5
	9/1/2010	45.96	16.99	-	28.97	6,100	230	74	200	890	11
	12/2/2010	45.96	20.87	-	25.09	14,000	510	270	640	2,170	15

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
EX-2 cont.	3/3/2011	45.96	14.61	Ν	31.35	8,600	340	52	460	1,350	13
	5/19/2011	45.96	15.08	Ν	30.88	7,500	260	65	390	1,080	11
	9/8/2011	45.96	16.34	Ν	29.62	3,400	190	28	160	451	5.4
	12/1/2011	45.96	22.60	Ν	23.36	9,900 ×	630	200	690	1,760	<3.3
	3/2/2012	45.96	16.48	Ν	29.48	5,000	220	25	200	600	7.1
	6/6/2012	45.96	18.90	Ν	27.06	6,900	290	97	310	790	5.2
	9/20/2012	45.96	17.49	Ν	28.47	1,800	170	14	62	204	5.0
	12/13/2012	45.96	15.96	Ν	30	7,300	490	180	610	1,290	5.2
	3/27/2013	45.96	16.59	Ν	29.37	2,200	130	9.6	100	288	4.3
	6/10/2013	45.96	23.11	Ν	22.85	2,600	190	20	100	248	6.8
	9/20/2013	45.96	23.11	Ν	22.85	3,900	210	37	170	450	6.3
	12/5/2013	45.96	23.28	Ν	22.68	3,700	160	46	110	394	7.2
	3/12/2014	45.96	22.04	Ν	23.92	3,700	100	9.8	220	498	5.7
	6/5/2014	45.96	23.41	Ν	22.55	4,400	120	37	280	590	5.4
	9/22/2014	45.96	23.20	Ν	22.76	2,200	63	8.8	88	240	7.1
	12/22/2014	45.96	20.22	Ν	25.74	1,600	42	4.2	94	148	6.0
	3/19/2015	45.96	16.46	Ν	29.50	890	42	<0.5	54	10.5	<0.5
	6/3/2015	45.96	21.06	Ν	24.90	4,700	100	8.7	120	311	1.9
	9/10/2015	45.96	21.15	Ν	24.81	670	8.1	<1.0	13	27.4	<1.0
	12/28/2015	45.96	20.75	Ν	25.21	3,500	46	6	120	266	4.5
	3/24/2016	45.96	13.97	Ν	31.99	1,500	22	0.86	42	75	1.7
	6/15/2016	45.96	14.00	-	31.96	NA	NA	NA	NA	NA	NA
					MPE Wells						
MPE-1	12/1/2009	51.96	21.41	-	30.55	NA	NA	NA	NA	NA	NA
	3/16/2010	51.96	20.22	-	31.74	NA	NA	NA	NA	NA	NA
	6/3/2010	51.96	21.18	-	30.78	NA	NA	NA	NA	NA	NA
	9/1/2010	51.96	21.25	-	30.71	NA	NA	NA	NA	NA	NA
	12/2/2010	51.96	21.64	-	30.32	NA	NA	NA	NA	NA	NA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MPE-1 cont.	3/3/2011	51.96	19.33	-	32.63	NA	NA	NA	NA	NA	NA
	5/19/2011	51.96	20.6	-	31.36	NA	NA	NA	NA	NA	NA
Pre-MPE	8/4/2011	51.96	NM	-	NC	49,000	210	100	840	7,070	45
	9/8/2011	51.96	20.83	-	31.13	NA	NA	NA	NA	NA	NA
Post-MPE	9/26/2011	51.96	20.94	Y	31.02	62,000	6,300	3,700	1,800	9,400	1,200
	12/2/2011	51.96	20.14	Y	31.82	56,000	9,000	7,700	2,200	10,800	2,600
	3/2/2012	51.96	20.73	Y	31.23	97,000	11,000	11,000	2,600	12,600	2,700
	6/6/2012	51.96	20.96	Y	31.00	78,000	4,500	4,900	2,300	10,700	750
	9/20/2012	51.96	21.58	Y	30.38	89,000	8,600	9,200	3,400	14,800	1,900
	12/14/2012	51.96	20.57	Y	31.39	98,000	7,400	9,600	2,900	13,300	1,300
	3/27/2013	51.96	20.91	Y	31.05	61,000	6,600	4,500	2,200	9,400	1,500
	6/10/2013	51.96	21.47	Y	30.49	42,000	1,900	980	630	4,400	670
	9/17/2013	51.96	21.98	Y	29.98	45,000	2,400	1,400	1,200	8,000	150
	12/6/2013	51.96	22.41	Y	29.55	27,000	1,600	220	990	5,000	110
	3/13/2014	51.96	21.33	Y	30.63	67,000	1,800	3,500	1,800	10,100	170
	6/5/2014	51.96	21.89	21.8	30.13	FP	FP	FP	FP	FP	FP
	9/23/2014	51.96	23.12	Y	28.84	12,000	380	31	100	1,630	39
	12/23/2014	51.96	18.3	Y	33.66	3,100	23	24	23	220	<1.0
	3/20/2015	51.96	20.14	Y	31.82	9,700	58	43	77	1,000	<2.5
	6/4/2015	51.96	21.00	Y	30.96	14,000	110	49	66	620	10
	9/11/2015	51.96	21.77	Y	30.19	9,600	590	150	83	590	50
	12/29/2015	51.96	21.13	Y	30.83	3,100	24	11	8.2	237	0.88
	3/24/2016	51.96	18.22	Ν	33.74	98	<0.5	<0.5	<0.5	0.79	<0.5
	6/16/2016	51.96	18.45	Y	33.51	310	8.6	<0.5	1.2	16.10	0.68
	9/21/2016	51.96	21.31	N	30.65	1,200	35	<0.5	3.2	6.10	1.50
MPE-2	12/1/2009	53.72	22.87	-	30.85	NA	NA	NA	NA	NA	NA
	3/16/2010	53.72	21.7	-	32.02	NA	NA	NA	NA	NA	NA
	6/3/2010	53.72	22.35	-	31.37	NA	NA	NA	NA	NA	NA
	9/1/2010	53.72	23.7	-	30.02	NA	NA	NA	NA	NA	NA
	12/2/2010	53.72	22.7	-	31.02	NA	NA	NA	NA	NA	NA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MPE-2 cont.	3/3/2011	53.72	21.25	-	32.47	NA	NA	NA	NA	NA	NA
	5/19/2011	53.72	22.19	-	31.53	NA	NA	NA	NA	NA	NA
Pre-MPE	8/4/2011	53.72	NM	-	NC	46,000	2,100	80	1,900	5,300	75
	9/8/2011	53.72	22.31	-	31.41	NA	NA	NA	NA	NA	NA
Post-MPE	9/26/2011	53.72	22.38	N	31.34	37,000	1,800	33	1,700	2,760	<17
	12/2/2011	53.72	21.44	N	32.28	26,000	1,600	43	1,800	3,370	<17
	3/2/2012	53.72	22.24	Ν	31.48	36,000	1,100	19	1,700	2,970	<17
	6/7/2012	53.72	22.35	Ν	31.37	33,000	1,800	27	1,600	2,700	29
	9/21/2012	53.72	23.03	Ν	30.69	31,000	1,700	13	1,900	2,747	14
	12/14/2012	53.72	22.17	N	31.55	31,000	1,700	20	1,800	2,490	16
	3/28/2013	53.72	22.53	Ν	31.19	20,000	2,200	<20	1,300	960	<20
	6/11/2013	53.72	22.9	Ν	30.82	26,000	920	<13	1,500	1,352	<13
	9/17/2013	53.72	23.29	Ν	30.43	23,000	680	15	1,400	1,059	<13
	12/5/2013	53.72	23.73	23.61	30.07	FP	FP	FP	FP	FP	FP
	3/12/2014	53.72	22.89	22.85	30.86	FP	FP	FP	FP	FP	FP
	6/5/2014	53.72	22.96	22.94	30.77	FP	FP	FP	FP	FP	FP
	9/23/2014	53.72	24.05	Y	29.67	22,000	550	340	760	2,760	<6.3
	12/23/2014	53.72	20.65	N	33.07	12,000	430	77	420	1,670	4.6
	3/20/2015	53.72	22.16	Y	31.56	14,000	670	21	630	1,150	6.9
	6/4/2015	53.72	22.6	Y	31.12	27,000	730	6.5	930	1,343	6.9
	9/11/2015	53.72	23.15	Y	30.57	21,000	1,000	<7.1	1,200	760	9.3
	12/29/2015	53.72	22.86	Y	30.86	16,000	220	10	210	990	<6.3
	3/24/2016	53.72	20.55	Y	33.17	9,500	960	<6.3	180	370	11
	6/16/2016	53.72	20.58	Y	33.14	13,000	570	<5.0	350	351	7
	9/21/2016	53.72	22.96	N	30.76	12,000	630	<6.3	300	190	<6.3
		-		-	2nd WBZ	1	-		l line line line line line line line lin	l line	-
MW-1D	1/3/2008	54.42		-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	1/22/2008	54.42	22.85	-	31.57	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	4/16/2008	54.42	23.10	-	31.32	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/3/2008	54.42	23.44	-	30.98	75.9	<0.5	<2.0	0.54	<2.0	<0.5
	10/15/2008	54.42	23.82	-	30.60	120	1.6	<0.5	2.8	3.6	<0.5

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-1D cont.	1/8/2009	54.42	23.44	-	30.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	54.42	23.06	-	31.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	54.42	23.73	-	30.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	54.42	23.59	-	30.83	330 ^Y	<0.5	<0.5	1.3	2.2	<0.5
	3/16/2010	54.42	22.60	-	31.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/4/2010	54.42	23.10	-	31.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/1/2010	54.42	23.51	-	30.91	<50	<0.5	<0.5	0.52	1.8	<0.5
	12/3/2010	54.42	23.41	-	31.01	61	<0.5	<0.5	1.0	3.73	<0.5
	3/3/2011	54.42	22.27	Ν	32.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	54.42	22.89	Ν	31.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	54.42	23.08	Ν	31.34	220	<0.5	<0.5	0.6	1.4	<0.5
	12/1/2011	54.42	22.26	Ν	32.16	<22	<0.33	<0.19	<0.15	<0.20	<0.38
	3/2/2012	54.42	23.01	Ν	31.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	54.42	23.18	Ν	31.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	54.42	23.76	Ν	30.66	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	54.42	23.04	Ν	31.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	54.42	23.34	Ν	31.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	54.42	23.69	Ν	30.73	110	<0.5	<0.5	0.55	<0.5	<0.5
	9/16/2013	54.42	24.02	Ν	30.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/5/2013	54.42	24.31	N	30.11	<50	<0.5	<0.5	<0.5	1.3	<0.5
	3/12/2014	54.42	23.68	Ν	30.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/5/2014	54.42	23.68	Ν	30.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/22/2014	54.42	24.65	Ν	29.77	<50	<0.5	<0.5	<0.5	0.88	<0.5
	12/23/2014	54.42	21.84	N	32.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	3/19/2015	54.42	23.04	Ν	31.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2015	54.42	23.43	Ν	30.99	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/10/2015	54.42	23.91	Ν	30.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (μg/L)
MW-3D	1/3/2008	54.10		-	-	<50	<0.50	<2.0	<0.50	<2.0	87.6
	1/22/2008	54.10	22.31	-	31.79	<50	<0.50	<2.0	<0.50	<2.0	88.3
	4/16/2008	54.10	22.64	-	31.46	<50	<0.5	<2.0	<0.5	<2.0	71.1
	7/3/2008	54.10	23.17	-	30.93	<50	<0.5	<2.0	<0.5	<2.0	67.4
	10/16/2008	54.10	23.62	-	30.48	<50	<0.5	<0.5	<0.5	<0.5	37
	1/8/2009	54.10	23.07	-	31.03	<50	<0.5	<0.5	<0.5	<0.5	29
	4/14/2009	54.10	22.36	-	31.74	<50	<0.5	<0.5	<0.5	<0.5	44
	8/26/2009	54.10	23.41	-	30.69	<50	<0.5	<0.5	<0.5	<0.5	20
	12/1/2009	54.10	23.27	-	30.83	110 Y	<0.5	<0.5	<0.5	0.52	24
	3/16/2010	54.10	22.10	-	32.00	<50	<0.5	<0.5	<0.5	<0.5	7.1
	6/4/2010	54.10	22.70	-	31.40	<50	<0.5	<0.5	<0.5	<0.5	17
	9/1/2010	54.10	23.09	-	31.01	78	<0.5	<0.5	1.1	4.71	24
	12/3/2010	54.10	22.90	-	31.20	<50	<0.5	<0.5	0.56	1.4	13
	3/3/2011	54.10	21.66	Ν	32.44	<50	1.3	<0.5	<0.5	0.59	14
	5/19/2011	54.10	22.61	Ν	31.49	<50	<0.5	<0.5	<0.5	<0.5	5.2
	9/8/2011	54.10	22.68	Ν	31.42	69	<0.5	<0.5	<0.5	0.62	4.8
	12/1/2011	54.10	22.86	N	31.24	<22	<0.33	<0.19	<0.15	<0.20	10
	3/2/2012	54.10	22.60	Ν	31.50	<50	<0.5	<0.5	<0.5	<0.5	4.2
	6/6/2012	54.10	22.77	Ν	31.33	<50	<0.5	<0.5	<0.5	<0.5	4.8
	9/20/2012	54.10	23.42	Ν	30.68	<50	<0.5	<0.5	<0.5	<0.5	5.1
	12/13/2012	54.10	22.57	N	31.53	<50	<0.5	<0.5	<0.5	<0.5	4.4
	3/27/2013	54.10	22.87	Ν	31.23	<50	<0.5	<0.5	<0.5	<0.5	4.4
	6/10/2013	54.10	23.27	Ν	30.83	<50	<0.5	<0.5	<0.5	<0.5	3.5
	9/16/2013	54.10	23.65	Ν	30.45	<50	<0.5	<0.5	<0.5	<0.5	2.1
	12/5/2013	54.10	23.97	N	30.13	<50	<0.5	<0.5	<0.5	0.53	1.6
	3/13/2014	54.10	23.22	Ν	30.88	130	<0.5	2.9	2.5	16.6	0.97
	6/5/2014	54.10	23.33	Ν	30.77	<50	<0.5	<0.5	<0.5	0.77	1.5
	9/22/2014	54.10	24.40	Ν	29.70	<50	<0.5	<0.5	<0.5	<0.5	0.96
	12/23/2014	54.10	21.09	N	33.01	<50	<0.5	<0.5	<0.5	<0.5	1

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-3D cont.	3/19/2015	54.10	22.50	Ν	31.60	<50	<0.5	<0.5	<0.5	<0.5	1.6
	6/3/2015	54.10	22.85	Ν	31.25	<50	<0.5	<0.5	<0.5	<0.5	1.6
	9/10/2015	54.10	23.53	Ν	30.57	<50	<0.5	<0.5	<0.5	<0.5	1.4
	4/4/22.22	53.12	[= -	0.50		0.50		0.50
MW-4D	1/4/2008	53.12		-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	1/22/2008	53.12	21.11	-	32.01	91.5	18.7	<2.0	7.08	11.42	219
	4/15/2008	53.12	21.67	-	31.45	<50	<0.5	<2.0	<0.5	<2.0	27
	7/3/2008		22.39	-	30.73	<50	<0.5	<2.0	<0.5	<2.0	6.27
-	10/16/2008	53.12	22.98	-	30.14	<50	<0.5	<0.5	<0.5	<0.5	1.9
	1/8/2009	53.12	22.25	-	30.87	<50	<0.5	<0.5	<0.5	<0.5	2
	4/14/2009	53.12	21.34	-	31.78	<50	<0.5	<0.5	<0.5	<0.5	2.2
	8/27/2009	53.12	22.79	-	30.33	<50	<0.5	<0.5	<0.5	<0.5	2.2
-	12/1/2009	53.12	22.49	-	30.63	120 ^Y	<0.5	<0.5	1.4	2.3	2.3
	3/16/2010	53.12	21.02	-	32.10	<50	<0.5	<0.5	<0.5	<0.5	0.65
	6/4/2010	53.12	21.93	-	31.19	<50	<0.5	<0.5	<0.5	<0.5	1.1
	9/1/2010	53.12	23.32	-	29.80	<50	<0.5	<0.5	0.85	3.76	2.2
	12/3/2010	53.12	22.46	-	30.66	<50	<0.5	<0.5	<0.5	0.67	<0.5
	3/3/2011	53.12	20.45	Ν	32.67	<50	<0.5	<0.5	<0.5	<0.5	0.58
	5/19/2011	53.12	21.57	N	31.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	53.12	21.92	Ν	31.20	59	<0.5	<0.5	<0.5	0.51	1.7
	12/1/2011	53.12	21.19	Ν	31.93	<22	<0.33	<0.19	<0.15	<0.20	4.2
	3/2/2012	53.12	21.8	Ν	31.32	<50	<0.5	<0.5	0.85	1.2	2.7
	6/6/2012	53.12	22.00	Ν	31.12	<50	<0.5	<0.5	<0.5	<0.5	1.3
	9/20/2012	53.12	22.67	Ν	30.45	<50	<0.5	<0.5	<0.5	<0.5	1.6
	12/13/2012	53.12	21.55	Ν	31.57	<50	<0.5	<0.5	<0.5	<0.5	0.94
	3/27/2013	53.12	21.98	Ν	31.14	<50	<0.5	<0.5	<0.5	<0.5	2.1
	6/10/2013	53.12	22.55	Ν	30.57	<50	<0.5	<0.5	<0.5	<0.5	1.7
	9/16/2013	53.12	23.05	Ν	30.07	<50	<0.5	<0.5	<0.5	<0.5	4.6
	12/6/2013	53.12	23.43	Ν	29.69	<50	<0.5	<0.5	<0.5	<0.5	3.4

Table 1	
Historical Groundwater Elevation Data and Analytical Results	

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
MW-4D cont.	3/13/2014	53.12	22.38	Ν	30.74	<50	<0.5	<0.5	<0.5	<0.5	4.0
	6/6/2014	53.12	22.78	Ν	30.34	<50	<0.5	<0.5	<0.5	<0.5	1.8
	9/23/2014	53.12	24.05	Ν	29.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/23/2014	53.12	19.66	Ν	33.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	3/19/2015	53.12	21.54	Ν	31.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2015	53.12	22.10	Ν	31.02	75	<0.5	<0.5	<0.5	<0.5	<0.5
	9/10/2015	53.12	22.89	Ν	30.23	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1573 153 RD	1/3/2008	NS	NM	-	NC	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	NS	NM	-	NC	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/16/2008	NS	NM	-	NC	<50	<0.5	<0.5	<0.5	<0.5	<0.5
				E	quipment Blanks						
EB-PMP	1/21/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PRB	1/21/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PMP2	1/22/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PRB2	1/22/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
ESL (ug/L)	-	-	-	-	-	100	1	40	13	20	5

15101 Freedom Avenue, San Leandro, CA

Notes:

The first time SOMA monitored this Site was in May 2002.

*: Due to minimal recharge rates in well MW-2, the groundwater elevation recorded on these dates did not

match the overall site conditions, May 2002 & August 2003.

NC: Not Calculated

¹: Top of casing elevations were surveyed to a datum of 67.07 M.S.L by Kier & Wright Civil Engineers & Land Surveyors on May 7, 2002.

On October 11, 2004, the site was re-surveyed by Harrington Surveys, Inc. of Walnut Creek, CA to a datum of California Coordinate System, Zone 3, NAD 83.

² MtBE analyzed by EPA Method 8021B, and confirmed by EPA Method 8260B.

<: Not detected above the laboratory reporting limit.

Y: Sample exhibits chromatographic pattern which does not resemble standard

^c Presence confirmed, but confirmation concentration differed by more than a factor of two.

C: Presence confirmed, but RPD between columns exceeds 40%.

H: Heavier hydrocarbons contributed to the quantitation.

x: Does not match pattern of reference Gasoline Standard. Hydrocarbons in the range of C5-C12 quantified as gasoline (possibly aged gasoline)

NA: Not Analyzed. Well MW-8 was inaccessible during the First Quarter 2005, car was parked over well. Not Analyzed. Well MW-7 was inaccessible during the First Quarter 2006, car was parked over well.

NM: Not Measured. Well MW-8 was inaccessible during the First Quarter 2005, car was parked over well. Not Measured. Well MW-7 was inaccessible during the First Quarter 2006, car was parked over well.

The first time SOMA monitored wells MW-6 to MW-9 was in September 2004.

EB-PMP/EB-PRB: Equipment Blanks for Pump and Probe

ESL: Environmental Screening Levels per CRWQCB SFBay Region (Revised February 2016)

Tier 1 ESL (Groundwater Screening Levels (groundwater is a drinking water resource)

Table 1 Historical Groundwater Elevation Data and Analytical Results

15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Free- Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	MtBE 8260B ² (µg/L)
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MW-8 and MW-9 were decommissioned November 13, 2009

FP: Groundwater not sampled due to presence of free-product

Groundwater elevation corrected upon presence of FP as follows:

Corrected depth to groundwater is equal to (measured depth)- 0.68(free product thickness)

The correction factor is derived by the following: specific gravity of gas at 20 °C is 0.68, then specific gravity is multiplied by the thickness of free product

Table 2Focused Site Conceptual Model15101 Freedom Ave, San Leandro

No.	SCM Element	LTCP Criteria	Description	Data Gap	How to Address
1	Contaminants of Concern and Free-Product	Plume Stability: Media Specific Criteria- Groundwater	Identified site-specific COCs include total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX); methyl tertiary-butyl ether (MtBE); and tertiary-butyl alcohol (TBA). Light non-aqueous phase liquid (LNAPL) or free product has been observed in various site/off-site wells in the past. However, there has been no free-product observation in any monitoring or remediation well since June 2014. According to 'Technical Justification for Media Specific Criteria' (March 2012), if TPH-g concentration is greater than 20,000 µg/L or benzene concentration is greater than 3,000 µg/L, this could indicate the presence of free-product. During the previous groundwater monitoring event (Third Quarter 2016), the highest TPH-g concentration was observed in MW-3 at 12,000 µg/L and benzene in MPE-2 at 630 µg/L. Currently, these concentrations do not present an indication of free-product.	Rebounding concentrations due to in- operation of the on-site groundwater extraction and treatment system	Conduct three rounds of groundwater sample collection from MW-3, once each month. During the month of December 2016, this sample collection will be scheduled to be combined with the Fourth Quarter groundwater monitoring event. If contaminant concentrations remain stable and below 20,000 µg/L for TPH-g and 3,000 µg/L for Benzene, there will be no evidence of presence of Free-product.
2	Plume Stability	Plume Stability: Media Specific Criteria- Groundwater	The off-site well MW-10 was installed in August 2014, south of MW-6, downgradient of the site. This well showed the highest TPH-g concentrations during groundwater monitoring events until the second quarter 2016. MW-10 was reconstructed as a remediation well (MW-10R) in April 2016. An MPE event was conducted utilizing this well in August 2016. Groundwater samples collected immediately after the MPE event showed significant decrease in contaminant concentrations. However, there was slight increase in TPH-g and BTEX concentrations a month later during third quarter 2016 monitoring event.	Rebounding concentrations after MPE event	Conduct three rounds of groundwater sample collection from off-site well MW-10R, once each month. During the month of December 2016, this sample collection will be scheduled to be combined with the Fourth Quarter groundwater monitoring event. If contaminant concentrations remain stable and below 20,000 µg/L for TPH-g and 3,000 µg/L for Benzene, there will be no evidence of presence of Free-product.

No.	SCM Element	LTCP Criteria	Description	Data Gap	How to Address
3	Nearby Domestic Wells	Plume Length: Media Specific Criteria- Groundwater	To the south of well MW-6, the contaminant plume appears to split into a southerly direction towards MW-10R and into a southeastern direction towards MW-7. An initial attempt to locate neighborhood residential wells was made in 2003. One of the residential wells which was located at 153 rd St was sampled a few times in 2008 when all contaminants of concern were below laboratory reporting limit. However, the occupant informed SOMA's staff in 2014 that the pump in his well is in-operational and there is no way to extract water for sampling.	Plume length for MtBE	Conduct a door-to door well survey within 1,000 feet downgradient of the site in southerly & southeasterly direction. If residential wells are located and concentrations in these wells are at low or non-detect levels, the plume length will be as already defined.
4	Vapor Intrusion	Media Specific Criteria- Petroleum Vapor Intrusion to Indoor Air; Direct Contact and Outdoor Air Exposure	During an investigation conducted in August 2016, two shallow soil bores were advanced at the site and shallow soil samples were collected between 0 to 5 feet bgs and 5 to 10 feet bgs. Results of the investigation were documented in SOMA's report 'Shallow Soil Sample Investigation Report' dated September 9, 2016. Based on these results the site meets the LTCP Media specific criteria for Petroleum Vapor Intrusion to Indoor Air and for Direct Contact and Outdoor Air Exposure		

APPENDIX A Previous Activities

In May 1999, three 10,000-gallon USTs, approximately 250 feet of product piping, and six product dispensers were removed from the site (Geo-Logic, 1999). A total of 21 soil samples were collected for laboratory analyses from the removal areas, including seven from the east and west sides of the UST removal excavation, at depths ranging from 12 to 14 feet below ground surface (bgs), and 14 from beneath the fuel dispensers and product delivery piping ranging in depth from 2.5 to 3.5 feet bgs. Samples were analyzed for the following: total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethylbenzene, xylenes (BTEX); and methyl tertiary-butyl ether (MtBE). Analysis results indicated the need for removal of additional soil from product piping areas and the UST removal excavation. Concentrations of TPH-g, BTEX and MtBE in soil samples from the UST removal excavation were elevated relative to those from the product piping and dispenser areas, where concentrations were relatively low. Following overexcavation, three soil samples were collected for laboratory analysis from the enlarged UST removal excavation ranging in depth from 16.5 to 24.5 feet bgs, and one from the product delivery piping at 5 feet bgs. Laboratory analysis detected elevated concentrations in soil samples at 24.5 feet bgs from the UST removal excavation relative to those at 16.5 and 19.5 feet bgs. Low concentrations of petroleum hydrocarbons were detected in the soil sample from the product delivery piping.

In July 1999, one 14,000-gallon UST divided into a 6,000-gallon unit for diesel and an 8,000-gallon unit for gasoline, and one 20,000-gallon UST for gasoline were installed at the site (Geo-Logic, 1999).

On January 3, 2000, ACHCS notified the property owner, Mr. Pazdel, of an unauthorized release that had occurred during removal of old USTs in May 1999. ACHCS requested a preliminary site assessment.

On July 5, 2001, a soil and groundwater investigation was conducted at the site to delineate the extent of soil and groundwater impact discovered during removal of the USTs, product delivery piping and product dispensers in May 1999 (CSS Environmental Services, 2001). Five soil borings, SB-1 through SB-5, were advanced using direct-push methods, to a maximum depth of 31 feet bgs. Groundwater was encountered in borings at depths ranging from 29 to 30 feet bgs, and stabilized at depths ranging from 17 to 20 feet bgs. Ten soil samples were collected from borings for laboratory analysis of TPH-g, BTEX and MtBE. Analytical results revealed elevated concentrations between 19 and 25.5 feet bgs. Maximum concentrations of TPH-g and BTEX in samples were 470,000 µg/kg, 2,600 µg/kg, 16,000 µg/kg, 12,000 µg/kg, and 73,000 µg/kg, respectively. MtBE was not detected in any soil samples. Grab groundwater samples were collected from each boring for laboratory analysis of TPH-g, BTEX and MtBE. Maximum concentrations of TPH-g and benzene in boring samples were 83,000 µg/L and 19,000 µg/L, respectively. MtBE was detected in four of five grab groundwater samples, at a maximum concentration of 87,000 µg/L.

In April 2002, groundwater monitoring wells MW-1 through MW-5 were installed on the site to a total depth of 30 feet bgs, and competed with well screens installed between 15 and 30 feet bgs. The wells were installed to evaluate the groundwater flow gradient and the extent of dissolved-phase fuel hydrocarbons in groundwater (SOMA, 2002). Groundwater was first encountered at depths ranging from approximately 25 to 29 feet bgs, and stabilized at depths ranging from 21 to 23 feet bgs. Five soil samples were collected from borings for laboratory analyses of TPH-q, BTEX and MtBE. Results revealed elevated concentrations of TPH-g and BTEX between 21 and 26 feet bgs, coincident with the depth at which groundwater was first encountered in the boreholes. No MtBE was detected in soil samples. Groundwater samples were initially collected from each monitoring well during Second Quarter 2002 (May 2002) for laboratory analyses of TPH-g, BTEX and MtBE (SOMA, 2002a). Maximum concentrations of TPH-g, benzene and MtBE in groundwater samples were 44,000 µg/L, 6,000 µg/L and 12,000 µg/L, respectively. Groundwater was determined to flow south across the site. Elevated levels of dissolved-phase hydrocarbons in the farthest downgradient monitoring well indicated off-site migration.

Between August and October 2003, a soil and groundwater investigation was conducted to evaluate off-site extent of dissolved-phase hydrocarbon migration with groundwater (SOMA, 2003). The investigation included a sensitive receptor survey to locate water supply wells and/or water bodies within a 2,000-foot radius of the site, and a conduit study to identify underground utilities adjacent to the site beneath Freedom Avenue, Fairmont Drive and 153rd Avenue. Soil borings TWB-1 through TWB-6 were advanced to depths ranging from 30 to 44 feet bgs, at locations ranging from 125 to 750 feet hydraulically downgradient from the site. Fourteen soil samples were collected at depths ranging from 16 to 39 feet bgs for laboratory analysis of TPH-g, BTEX, MtBE and 1,2-dichloroethene (1,2-DCE). Results revealed soil impact off-site to a maximum distance of 265 feet hydraulically downgradient of the site, at depths ranging from 18 to 31.5 feet bgs. Elevated concentrations were detected at depths ranging from 21.5 to 24.5 feet bgs, approximately 125 feet hydraulically downgradient from the site. Concentrations of benzene, MtBE and 1,2 DCE were not detected in soil samples. Grab groundwater samples were collected from each boring for laboratory analysis of TPH-g, BTEX, MtBE and 1,2-dichloroethane (1,2-DCA). Maximum concentrations of TPH-g and benzene were 410,000 µg/L and 2,200 µg/L, respectively, detected in a boring 125 feet hydraulically downgradient of the site. Maximum concentration of MtBE was 34 µg/L, detected in a boring 265 feet hydraulically downgradient of the site. The investigation resulted in preliminary identification of two water-bearing zones beneath the site and proximity. The sensitive receptor survey identified 10 wells within 2,000 feet of the site. Three are located hydraulically downgradient of the site: one irrigation well and two wells of unknown use. The remaining wells are either hydraulically upgradient or crossgradient of the site. No water body was identified within a 0.5-mile distance from the site. The conduit study revealed two sewer lines beneath Fairmont Drive and 153rd Avenue; it was determined that neither was submerged by groundwater.

In September 2004, an additional soil and groundwater investigation was conducted to further evaluate the extent of dissolved-phase hydrocarbon migration with groundwater off-site (SOMA 2004). Groundwater monitoring wells MW-6 thru MW-9 were installed downgradient from the site to total depths ranging from 21 to 33 feet bgs, and completed with well screens ranging from 4 to 15 feet long installed at the base of each well. Groundwater was first encountered at depths ranging from 12 to 17 feet bgs. Four soil samples were collected from one monitoring well borehole. Soil samples were not collected from other boreholes because of extensive and unexpected lateral lithologic changes encountered between the well boreholes during drilling, necessitating continuous coring that precluded soil sample collection. Collected samples were analyzed for TPH-g and BTEX; neither was detected.

During this investigation, an attempt was made to collect a groundwater sample from an irrigation well hydraulically downgradient from the site, identified by the sensitive receptor survey conducted between August and October 2003. The irrigation well had been unused for some time and, subsequently, no groundwater sample could be collected.

An attempt was made to locate another well of unknown use hydraulically downgradient from the site, also identified by the sensitive receptor survey. This well could not be located despite canvassing of the surrounding residential neighborhood with written requests for information. Based on results of this investigation and the previous investigation conducted between August and October 2003, one water-bearing zone was identified to consist of discontinuous water-bearing layers and stringers separated by discontinuous clay lenses of varying thickness. Additionally, a preferential flow pathway study was proposed consisting of a possible buried stream channel trending north to south beneath the eastern portion of the site, and extending off-site to the south, beneath the intersection of 153rd Avenue, Fairmont Drive and Liberty Avenue, which is hydraulically downgradient from the site.

On November 21, 2005, ACHCS requested that the property owner submit a workplan for a soil and water investigation by January 21, 2006. It was submitted on December 28, 2005 (SOMA, 2005) and proposed installation of eight cone penetrometer test (CPT), membrane interface probe (MIP) borings to refine hydrogeologic conditions using CPT technology on- and off-site. The purpose of this investigation was to define the horizontal and vertical extent of the soil and groundwater impact on- and off-site using MIP technology, and to collect soil and groundwater samples for laboratory analyses to support MIP findings.

Based on a telephone conversation between SOMA and ACHCS, an addendum to SOMA's December 2005 workplan was prepared and submitted on March 3, 2006. The workplan provided further clarification for advancing the CPT/MIP as requested by ACHCS.

On April 10, 2006, SOMA oversaw drilling of CPT/MIP boreholes. Fisch Environmental, SOMA's subcontractor, used a Geoprobe 6600. Because of unforeseen subsurface drilling conditions, and the fact that Fisch's drilling rig was not strong enough to drill through the hard subsurface materials, drilling could not advance beyond 35 feet bgs in any of the CPT/MIP locations despite three days effort. An ACHCS representative was present during this operation. On April 26, using a hollow stem auger, a CPT calibration borehole was drilled to 47 feet bgs. Because CPT/MIP boreholes could not be advanced to targeted depths, Gregg Drilling was selected to drill CPT/MIP boreholes at a later date, and Fisch's compensation was to be appropriately reduced.

In a letter dated May 29, 2006, ACHCS reduced the quantity of on-site CPT/MIP borings from six to five, altered some boring locations, adjusted depths at which to collect groundwater samples, and requested development of a site conceptual model (SCM) and corrective action plan (CAP) along with an interim remediation and migration control evaluation. ACHCS established a November 30, 2006 deadline for report submittal.

On September 7, 2006, SOMA resumed the field investigation. To characterize site lithology and hydrogeology, and evaluate lateral and vertical distribution of soil and groundwater impact on- and off-site, SOMA supervised advancement of eight CPT/MIP borings by Gregg, using a 25-ton CPT rig. The MIP portion of the study was performed by Fisch utilizing an MIP probe attached to Gregg's CPT probe. After completion of the CPT/MIP program, eight borings were advanced using direct-push drilling methods, in the immediate proximity of the CPT/MIP borings. These borings were advanced to collect soil and groundwater samples for laboratory analyses to support MIP findings.

Investigation results were presented by SOMA in "Additional Soil and Groundwater Investigation Report and Initial Conceptual Site Model, Texaco Gasoline Service Station, 15101 Freedom Avenue, San Leandro, California," dated November 27, 2006. The report also included an interim remediation and migration control evaluation.

In summary, the report described two main water-bearing zones designated as the First and Second water-bearing zones (WBZs). Both WBZs appear to be laterally continuous across the site and hydraulically downgradient of the site, and are separated by a laterally continuous aquitard. Moderately weathered fuel hydrocarbons are adsorbed to soil or dissolved in groundwater within the First

and Second WBZs. The source area in the First WBZ appears to be in proximity to the location of the former USTs and the existing fuel dispensers in both the north and southeast portions of the site. A source area for the Second WBZ is indeterminate because limited data for the Second WBZ was generated by the investigation. The site is located in an area of primarily residential properties with a commercial property to the east. Population/receptors exposed to fuel hydrocarbons in soil and groundwater of the First WBZ on- and off-site include current and future on-site workers and current off-site commercial workers and residents. Sources are fuel hydrocarbons adsorbed to soil, and dissolved-phase hydrocarbons in groundwater, of the First WBZ. Exposure pathways for on-site receptors are inhalation of volatile emissions from impacted soil and groundwater of the First WBZ. The only exposure pathway for off-site residents appears to be incidental ingestion of groundwater from the First and Second WBZs. The soil interim remediation alternatives evaluated included soil excavation, soil vapor extraction (SVE), and multi-phase extraction (MPE). Groundwater interim remediation alternatives included groundwater extraction, ozone sparging and hydrogen peroxide injection.

ACHCS correspondence dated March 14, 2007 directed that a workplan be prepared to address ACHCS comments contained therein and SOMA's recommendations in the November 27, 2006 report.

A workplan detailing proposed monitoring well installation, soil gas survey and remediation feasibility study was submitted to ACHCS on April 11, 2007 and approved in ACHCS correspondence dated October 18, 2007.

SOMA submitted "Additional Soil and Groundwater Investigation for Remedial Investigation and Feasibility Study" on March 14, 2008. ACHCS comments included in correspondence dated April 25, 2008 were addressed by SOMA's correspondence dated June 9, 2008.

In December 2007 SOMA installed three groundwater monitoring wells within the Second WBZ (MW-1D, MW-2D, and MW-3D) to approximately 60 feet bgs. A soil vapor study was conducted utilizing four soil gas sampling probes (SGS-1 through SGS-4, advanced to 5 feet bgs). Based on results of the soil gas sampling, concentrations of COCs in soil gas at the site are not considered a significant risk to human health.

In March 2009, ACHCS approved SOMA's CAP and initiated a public comment period for affected stakeholders to comment on SOMA's remedial action plan. On April 27, 2009, SOMA installed extraction wells MPE-1 and MPE-2 onsite. In their May 2009 correspondence, ACHCS approved SOMA's recommendation to decommission MW-8 and MW-9, off site wells that have consistently demonstrated COCs below ESLs and laboratory detection limits. November 2009, SOMA installed EX-1 and EX-2 off-site, within the downgradient plume and installed a groundwater extraction and treatment system at the site.

Quarterly and/or Semi-Annual groundwater monitoring/sampling has been regularly conducted at the site since Second Quarter 2002.

SOMA conducted MPE pilot testing between November 13 and 16, 2007. An estimated VOC mass of 106 lbs was removed during testing, at a mass removal rate of 35 lbs/day over 72 hours. Several week-long and extended MPE events have been conducted at the site with a total of 3,302 lbs of VOCs being removed as of September 2014.

The groundwater extraction system was initiated on December 9, 2009.

In July 20 and 21, 2011, SOMA advanced five soil borings in the vicinity of MW-6 and EX-2 within the First WBZ. TPH-g was detected above environmental screening levels (ESL) published by SB Bay Region RWQCB in DP-4 (located in the sidewalk area) at 24 feet bgs (140 mg/kg). TPH-g in all other soil samples was either below the laboratory-reporting limit or below ESL (100 mg/kg). Toluene was the only other contaminant of concern (COC), and was detected above ESL (2.9 mg/kg) in DP-1 at 20 feet bgs (2.94 mg/kg), and in DP-4 at 24 feet bgs (6.79 mg/kg). TPH-g in grab groundwater samples from advanced soil borings ranged from 1,500 μ g/L (DP-3) to 84,000 μ g/L (DP-1). Maximum benzene concentration was detected in DP-5 at 290 μ g/L; Maximum MtBE and TBA were detected in DP-3 at 150 μ g/L and 40 μ g/L, respectively, and were below laboratory-detection limits in the other borings.

Based on ACEH directive dated April 22, 2013, SOMA submitted a data gaps workplan along with an updated site conceptual model on July 22, 2013 and an addendum was submitted on October 17, 2013. ACEH approved the workplan on October 30, 2013.

In October 2013, SOMA obtained a sample of free-product from MW-6 and had the laboratory run fingerprinting analysis on it. The laboratory reported that chromatographic pattern for the sample included a wide range of peaks in C6 through C12 range. However, this pattern did not resemble that of TPH-g or any other light-end distillates for which the laboratory has standards.

During January and February 2014, SOMA advanced eleven cone penetrometer test (CPT) and/or membrane interface technology (MIP) borings (MIP-9 through MIP-19) to the south of DP-4 and DP-5 and upgradient of the source on 151st Avenue. DP-6 was installed in the backyard of adjacent residential property and DP-6-SO was installed on-site. An air sample was obtained from the crawl space of the same adjacent property. Based on the results of this investigation, ACEH

requested installation of three off-site groundwater monitoring wells, and an additional crawl space air sample.

In September 2014, two 2-inch groundwater monitoring wells (MW-10 and MW-11) were installed off-site in the First WBZ. MW-10 was installed at the northern end of the center median in Fairmont Drive. MW-11 was installed along the eastern side of Fairmont Drive to the south of MIP-12.

In April 2016, three off-site direct-push borings (DP-7 through DP-9) were advanced downgradient of the site to define the downgradient extent of contaminant plume and the off-site more impacted well MW-10 was reconstructed to convert it into a 4-inch remediation well MW-10R.

In May 2016, SOMA submitted work plan to address data collection for Low Threat Closure Policy (LTCP) evaluation.

In August 2016, two on-site borings, SB-6 in the vicinity of property boundary close to well MW-4D and SB-7 in the vicinity of MW-3. All contaminants of concern in soil samples collected during this investigation were below the laboratory reporting limits. Results of this investigation indicate that the site satisfies the media-specific criteria of the LTCP for direct contact and outdoor air exposure. An MPE event was conducted on reconstructed well MW-10R. Contaminant concentrations decreased significantly in this well immediately after the event.