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October 24, 2014

**RECEIVED**

*By Alameda County Environmental Health at 10:24 am, Oct 27, 2014*

Mr. Mark 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 "Third Quarter 2014 Groundwater Monitoring and Remediation Progress Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

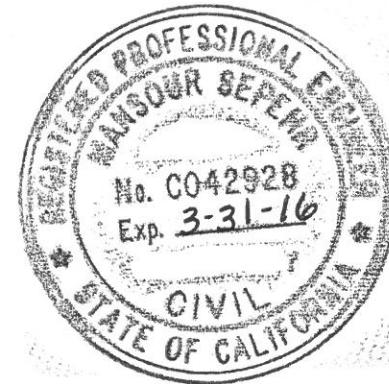
Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mansour Sepehr".

Mansour Sepehr, Ph.D.,PE  
Principal Hydrogeologist

cc: Mr. Mohammad Pazdel w/report enclosure



**Third Quarter 2014  
Groundwater Monitoring and  
Remediation Progress Report**

**Freedom Food and Gas  
15101 Freedom Avenue  
San Leandro, California**

**October 24, 2014**

**Project 2551/2553**

**Prepared for**

**Mr. 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".

Mohammad Pazdel

Mohammad Pazdel  
1770 Pistacia Court  
Fairfield, California 94533  
Responsible Party

## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of the responsible party, Mr. Mohammad Pazdel, for property located at 15101 Freedom Avenue, San Leandro, California, to comply with Alameda County Health Care Services requirements for the Third Quarter 2014 groundwater monitoring event.



Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



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## **1. INTRODUCTION**

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of the responsible party, Mr. Mohammad Pazdel, for property located at 15101 Freedom Avenue, San Leandro, California. The site is located in an area of primarily residential properties and adjacent commercial areas (Figure 1). The property was formerly owned by Mr. Mohammad Pazdel. In late 2009, the property was sold to DDH, LLC, Assignee and in early 2010 it was sold to Mr. Mohammad Mashhoon. Under the new management, the site is currently operational with the business name “Freedom Food and Gas” (formerly “Freedom Arco Mini-Mart”).

This report summarizes results of the Third Quarter 2014 groundwater monitoring event conducted on September 22 and 23, 2014. It includes physical and chemical properties measured in the field and laboratory analysis results for each groundwater sample. It also presents the remediation progress report for Third Quarter 2014, which includes operation of a groundwater extraction and treatment system.

### **1.1 Field Activities**

In September 2014, SOMA’s field crew conducted a groundwater monitoring event in accordance with procedures and guidelines of Alameda County Health Care Services (ACHCS) and the California Regional Water Quality Control Board (CRWQCB). Figure 2 shows well locations.

On September 22, 2014, the following wells were measured for depth to groundwater: five on-site monitoring wells (MW-1 to MW-5) and four off-site wells (MW-6, MW-7, and newly installed MW-10 and MW-11) in the First water-bearing zone (WBZ); two extraction wells (EX-1 and EX-2), two MPE wells (MPE-1 and MPE-2), and three on-site monitoring wells (MW-1D, MW-3D, and MW-4D) in the Second WBZ. On September 22 and 23, 2014, additional field measurements and groundwater samples were collected from all monitoring and MPE wells. Grab groundwater samples were collected from extraction wells EX-1 and EX-2. Free product (FP) was not observed in any well during this monitoring event. Properties measured include pH, temperature, and electrical conductivity (EC).

A natural attenuation study was conducted during this event to determine whether petroleum hydrocarbons in groundwater are biodegrading. Dissolved oxygen (DO) and oxidation reduction potential (ORP) measurements were taken for all monitoring and MPE wells.

## **1.2 Laboratory Analysis**

Curtis & Tompkins Laboratories, a California state-certified laboratory, analyzed groundwater samples for the following: total petroleum hydrocarbons as gasoline (TPH-g); benzene, toluene, ethylbenzene, total xylenes (collectively termed BTEX); methyl tertiary-butyl ether (MtBE); and gasoline oxygenates, ethanol and lead scavengers. Samples were prepared using EPA Method 5030B and analyzed using EPA Method 8260B.

## **2. RESULTS**

Following are results of field measurements and laboratory analysis for the Third Quarter 2014 groundwater monitoring event.

### **2.1 Field Measurements, First WBZ Wells**

Table 1 presents calculated groundwater elevations and depths to groundwater for each monitoring well. Depths to groundwater ranged from 15.52 feet in MW-11 to 24.49 feet in MW-1. As mentioned above in Section 1.1, no FP was observed in any First WBZ well. Appendix A includes the procedure for FP measurement.

Corresponding groundwater elevations ranged from 26.49 feet in MW-6 to 29.97 feet in MW-1. Groundwater elevations at extraction wells EX-1 and EX-2 were 26.21 feet and 22.76 feet, respectively (Table 1).

Figure 3 displays the contour map of groundwater elevations. As illustrated, groundwater flows towards extraction wells, at a gradient of 0.024 feet/feet. Since the previous monitoring event (Second Quarter 2014) the gradient has decreased. Groundwater gradient calculations are attached in Appendix B.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO in the First WBZ ranged from 0.55 mg/L in MPE-2 to 1.84 mg/L in MW-7. ORP showed negative redox potentials in all tested wells. Negative redox potentials indicate that contaminants in the groundwater are conducive to anaerobic biodegradation.

Field measurements taken during this monitoring event are included in Appendix B (Table A).

### **2.2 Laboratory Analysis, First WBZ Wells**

Appendix C includes the laboratory report and chain-of-custody form for this monitoring event.

Table 1 presents TPH-g, BTEX, and MtBE analysis results for the current and historical groundwater monitoring events.

TPH-g was below laboratory-reporting limit in MW-4 and was detected at concentrations ranging from 80 µg/L in MW-2 to 41,000 µg/L in MW-3. Since the previous monitoring event (Second Quarter 2014), TPH-g increased in MW-1, MW-7, and significantly in MW-6, decreased in MW-2, EX-1, and EX-2, and remained constant in MW-5. No comparison can be made for MW-3, MPE-1, and MPE-2 due to the presence of FP in these three wells during Second Quarter 2014. TPH-g was detected in newly installed wells MW-10 and MW-11 at 23,000 µg/L and 2,100 µg/L, respectively.

Figure 4 displays the contour map of TPH-g concentrations in groundwater. As illustrated, the highest TPH-g impact is in the northeast corner of the site in the vicinity of MW-3. High impact is also seen off-site to the southeast of the site in the vicinity of MW-6 and the newly installed well MW-10.

The following BTEX concentrations were observed:

- Benzene was below laboratory-reporting limits in MW-2, MW-7, MW-10, and MW-11. Detectable benzene concentrations ranged from 23 µg/L in EX-1 to 1,100 µg/L in MW-4.
- Toluene was below laboratory-reporting limits in MW-1, MW-2, MW-4, MW-7, MW-10, and MW-11. Detectable toluene concentrations ranged from 0.52 µg/L in MW-5 to 340 µg/L in MPE-2.
- Ethylbenzene was below laboratory-reporting limit in MW-2 and was detected in concentrations ranging from 2.7 µg/L in MW-11 to 1,600 µg/L in MW-6.
- Total xylenes were below laboratory-reporting limits in MW-2. Detectable concentrations ranged from 3.5 µg/L in MW-7 to 4,500 µg/L in MW-3.

Figure 5 displays the contour map of benzene in groundwater. The highest benzene impact is in the southern section of the site near dispenser islands. Since the previous monitoring event (Second Quarter 2014), benzene has increased in MW-4, MW-5 and MW-6 and decreased in MW-1, EX-1, and, EX-2. As mentioned above, no comparison can be made for MW-3, MPE-1, and MPE-2.

MtBE was below the laboratory-reporting limit in MW-1, MW-2, MW-3, MW-10, MW-11, and MPE-2. Detectable MtBE ranged from 1.60 µg/L in MW-5 to 51 µg/L in EX-1. Figure 6 displays the contour map of MtBE concentrations in groundwater. The highest MtBE impact is to the south of the site and in the vicinity of extraction well EX-1. Since the previous monitoring event (Second Quarter 2014), MtBE has increased in MW-5, MW-6, EX-1, and EX-2, and decreased in MW-1, MW-4, and MW-7.

As shown in Table 1, TPH-g, BTEX, and MtBE increased in more impacted well MW-6 where free-product has been observed in the past, since the previous monitoring event (Second Quarter 2014) while no comparison could be made for MW-3, MPE-1, and MPE-2 due to the presence of FP during Second Quarter 2014.

Table 2 shows analysis results for gasoline oxygenate and lead scavenger concentrations for the current as well as historical events.

The following gasoline oxygenate and lead scavenger concentrations were observed:

- In MW-1, MW-2, MW-3, MW-5, MW-7, MW-10, and MPE-2 all gasoline oxygenates and lead scavengers were below laboratory-reporting limits.
- Tertiary-butyl alcohol (TBA) was detected in MW-4, MW-6, MW-11, EX-1, and MPE-1 at 1,100 µg/L, 160 µg/L, 69 µg/L, 96 µg/L, and 420 µg/L, respectively and was below the laboratory-reporting limit in remaining wells. Figure 7 shows the contour map of TBA concentrations in First WBZ wells. Since the previous monitoring event (Second Quarter 2014), TBA increased in MW-4, MW-6, and EX-1. No comparison could be made for MPE-1 due to presence of FP during Second Quarter 2014.
- Methyl tertiary-amyl ether (TAME) was detected in EX-1 and MPE-1 at 5.6 µg/L and 24 µg/L, respectively and was below the laboratory-reporting limit in remaining wells. Figure 7 displays the map of TAME concentrations in First WBZ wells.
- Ethyl tertiary-butyl ether (ETBE) was detected in MW-4, EX-1, and MPE-1 at 6.30 µg/L, 0.94 µg/L, and 3.70 µg/L, respectively and was below laboratory-reporting limits in remaining wells. Figure 7 displays the map of ETBE concentrations in First WBZ wells.
- 1,2-dichloroethane (1,2-DCA) was detected in EX-2 at 1.10 µg/L and was below laboratory-reporting limit in remaining wells. Figure 7 displays the map of 1,2-DCA concentrations in First WBZ wells.
- Isopropyl ether (DIPE), 1,2-dibromoethane (EDB), and ethanol were below laboratory-reporting limits in all groundwater samples. Analysis results for ethanol are shown in Appendix C.

### **2.3 Field Measurements, Second WBZ Wells**

Table 1 presents calculated groundwater elevations and depths to groundwater for each Second WBZ monitoring well. Depths to groundwater ranged from 24.05 feet in MW-4D to 24.65 feet in MW-1D. Corresponding groundwater elevations ranged from 29.07 feet in MW-4D to 29.77 feet in MW-1D.

Figure 8 displays the contour map of groundwater elevations in the Second WBZ. Groundwater flows southwesterly at a gradient of 0.006 feet/feet. The groundwater gradient has increased since the previous monitoring event (Second Quarter 2014) and the flow direction has remained the same. Groundwater gradient calculations are attached in Appendix B.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO in the Second WBZ ranged from 0.76 mg/L in MW-3D to 8.52 mg/L in MW-4D. ORP showed positive redox potentials in all second WBZ wells. Positive redox potentials are more energetically favorable in utilizing electron acceptors during chemical reactions. This promotes the removal of organic mass from the contaminated groundwater by indigenous bacteria in the subsurface during the release of the transfer of electrons.

Field measurements taken during this monitoring event are included in Appendix B.

## **2.4 Laboratory Analysis for Second WBZ Wells**

Appendix C includes the laboratory report and chain-of-custody form for this monitoring event.

Table 1 presents TPH-g, BTEX, and MtBE analysis results for the current and historical groundwater monitoring events.

Similar to the previous monitoring event (Second Quarter 2014), TPH-g was below laboratory-reporting limit in all Second WBZ wells.

The following BTEX concentrations were observed:

- All BTEX analytes were below laboratory-reporting limits in MW-3D and MW-4D. Since the previous monitoring event (Second Quarter 2014), total xylenes have decreased in MW-3D.
- In MW-1D, benzene, toluene, and ethylbenzene were below laboratory-reporting limits, and total xylenes were detected at 0.88 µg/L, respectively. Since the previous monitoring event (Second Quarter 2014), total xylenes have slightly increased in MW-1D and decreased in MW-3D.

MtBE was below the laboratory-reporting limit in MW-1D and MW-4D and was detected in MW-3D at 0.96 µg/L, respectively. Since the previous monitoring event (Second Quarter 2014), MtBE has decreased in MW-3D and MW-4D. Figure 9 shows the map of MtBE concentrations in Second WBZ.

Table 2 shows analysis results for gasoline oxygenate and lead scavenger concentrations for the current as well as historical events.

All gasoline oxygenate, lead scavenger, and ethanol concentrations were below laboratory-reporting limits in Second WBZ wells.

### **3. OPERATION OF TREATMENT SYSTEM**

SOMA installed a groundwater treatment system at the site in December 2009. The system includes two extraction wells (EX-1 and EX-2), trenching containing influent and effluent lines and electrical conduits, and the treatment system compound. During system operation, extracted groundwater is pumped from extraction wells through underground piping to a fenced treatment compound, adjacent to the existing service station building.

In the treatment compound, groundwater is treated using granular activated carbon (GAC) and subsequently discharged to the sanitary sewer. Two GAC vessels are connected in series. The first unit (1,000 gallons) serves as the primary treatment unit, and the second (55 gallons) polishing drum provides an additional safety buffer prior to discharge. Effectiveness of the GAC units is monitored by collection and analysis of samples from the system discharge, including a sample collected from water that has passed only through the first GAC unit. When analytical results indicate that the first GAC unit is no longer effectively treating groundwater, the vessel will be removed from the treatment line and refurbished with new carbon. The polishing unit was replaced on June 16, 2014 because this drum was leaking at the base.

Since the system began discharging, approximately 3,392,863 gallons of groundwater have been treated and discharged at the site (as of September 23, 2014).

The treatment system operates under discharge permit issued by Oro Loma Sanitary District (OLSD) in May 2009. This discharge permit was most recently renewed in May 2012. Treated groundwater has been discharging to the OLSD sewer since December 9, 2009. Figure 10 shows the schematic diagram of the groundwater treatment system. Treatment system effluent is sampled monthly to comply with OLSD discharge permit requirements. Table 3 includes analytical results and operational history of the treatment system. As shown in Table 4, as of July 21, 2014, cumulative masses of TPH-g and BTEX extracted from groundwater were approximately 37.70 pounds, 1.45 pounds, 0.36 pounds, 0.94 pounds, and 4.97 pounds, respectively. Appendix D includes laboratory analytical results.

### **4. MULTI-PHASE EXTRACTION EVENTS**

An MPE event was performed during Third Quarter 2014 from July 24, 2014 to September 8, 2014. Details of this event are documented in a separate report

'Installation of Off-Site Monitoring Wells, Additional Vapor Sampling, and MPE Event' dated October 16, 2014. The overall estimated total mass of VOCs extracted by current and previous MPE events is 3,302 pounds. This includes the following: 106 pounds, November 2007 pilot test; 243 pounds, October 2009 event; 72 pounds, November 2009 event; 97 pounds, December 2009 event; 17 pounds, February 2010 event; 11 pounds, March 2010 event; 30 pounds, June 2010 event; 30 pounds, August 2010 event; 79 pounds, October 2010 event; 27 pounds, April 2011 event; 94 pounds, August 2011 event; 300 pounds, May 2013 event; 841 pounds, August 2013 event; 790 pounds, October 2013 event and 565 pounds, September 2014 event.

Figure 11 shows the extracted mass of VOCs during different MPE events at the site.

## 5. CONCLUSIONS AND RECOMMENDATIONS

Third Quarter 2014 groundwater monitoring and MPE events results are summarized below.

- No FP was observed during this monitoring event.
- Groundwater flows towards extraction wells in the First WBZ and southwesterly in the Second WBZ.
- The highest TPH-g concentrations were observed in the northeast corner of the site. High TPH-g was also observed off-site to the southeast of the site in MW-6 and MW-10, respectively. High concentration of TPH-g at MW-6 can be attributed the effectiveness of the MPE operation during the latest MPE event. It shows the accumulation of more mass around the MW-6 and further shows that MPE event was effective in putting more TPH-g mass around the extraction point. Highest benzene concentration was observed in the southern section of the site in MW-4.
- Since the previous monitoring event (Second Quarter 2014), TPH-g, BTEX, MtBE, and TBA increased in the more impacted well MW-6 while no comparison could be made for MW-3, MPE-1, and MPE-2 due to the presence of FP during the previous event. However, no FP was observed during this monitoring event.
- TPH-g was detected in both newly installed off-site wells (MW-10 and MW-11) at 23,000 µg/L and 2,100 µg/L, respectively. Ethylbenzene was detected at 1,200 µg/L and 2.7 µg/L, respectively and total xylenes were detected at 2,610 µg/L and 4.5 µg/L, respectively in MW-10 and MW-11. TBA was detected at 69 µg/L in MW-11. Other contaminants including benzene were below laboratory-reporting limits in both wells.

- In the Second WBZ, since the previous monitoring event (Second Quarter 2014), total xylenes have slightly increased in MW-1D and decreased in MW-3D; MtBE has decreased in MW-3D and MW-4D.
- The total mass of hydrocarbon removed by MPE operations (as of September 2014) is estimated to be 3,302 pounds.

Based on results of this monitoring event and previous MPE events, SOMA recommends the following action items:

- Continue quarterly groundwater monitoring to increase understanding of seasonal variations in groundwater quality conditions.
- Due to the presence of high TPH-g concentrations in off-site well MW-6 and MW-10, SOMA proposes to conduct further MPE events utilizing MW-6 as an extraction well during the next event. Although a groundwater be utilized, based in high contaminant concentrations in these wells. sample collected from MPE-1 showed a dramatic reduction in chemical concentrations, during the next event on-site wells MPE-1, MPE-2, and MW-4 will also

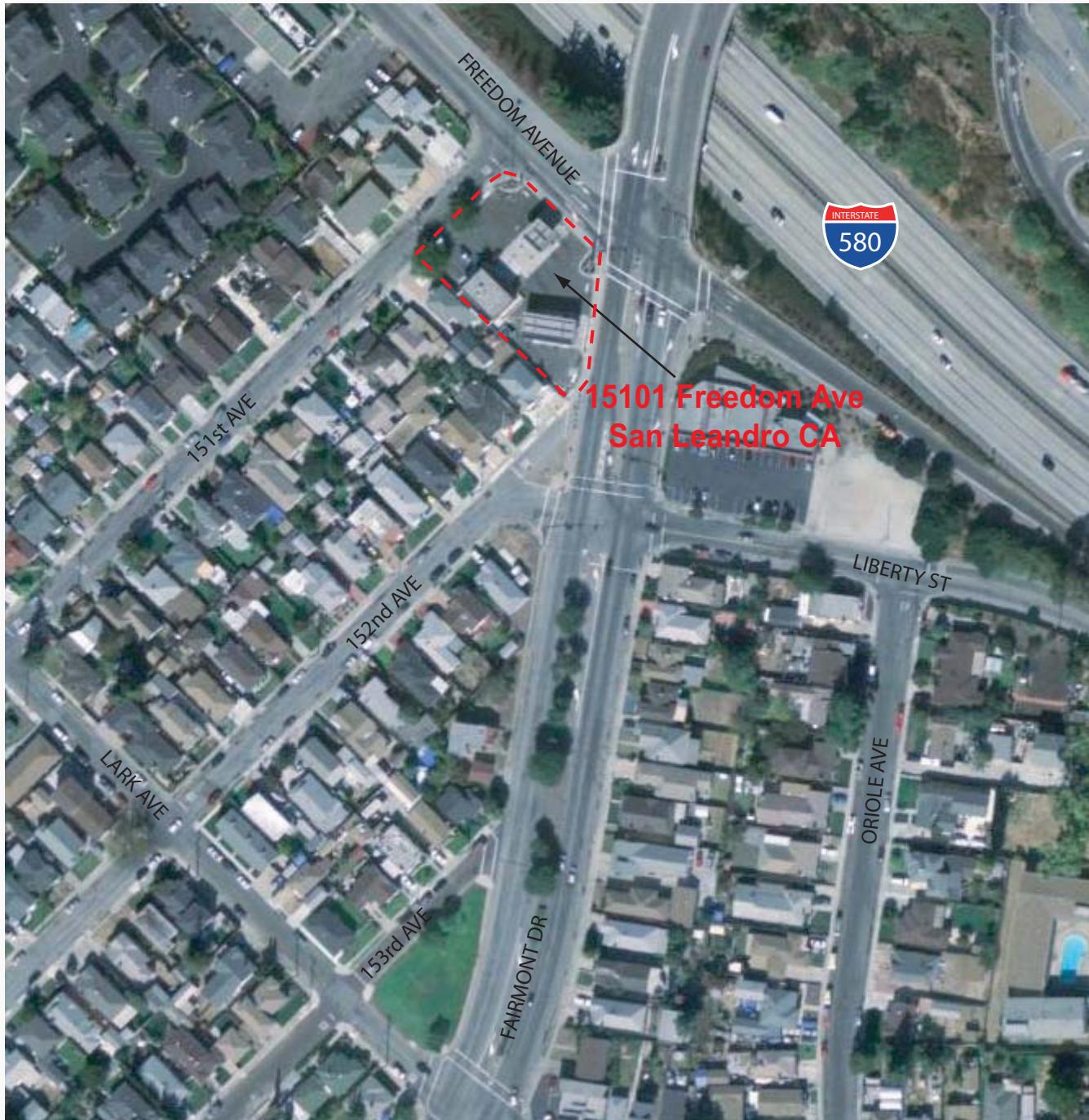
Based on ACHCS' approval dated July 17, 2014, SOMA implemented the workplan and has submitted a report for 'Installation of Offsite Monitoring Wells, Additional Vapor Sampling and MPE Event' dated October 16, 2014.

## 6. REPORT LIMITATIONS

This report is the summary of work done by SOMA, including observations and descriptions of site conditions. It includes analysis results produced by Curtis & Tompkins Laboratories for the current groundwater monitoring event. Quantities and locations of wells were selected to provide the required information, but may not be representative of entire site conditions. All conclusions and recommendations are based on laboratory analysis results. Conclusions beyond those specifically stated in this document should not be inferred from this report.

SOMA warrants that services were provided in accordance with generally accepted practices in the environmental engineering and consulting field at the time of this sampling.

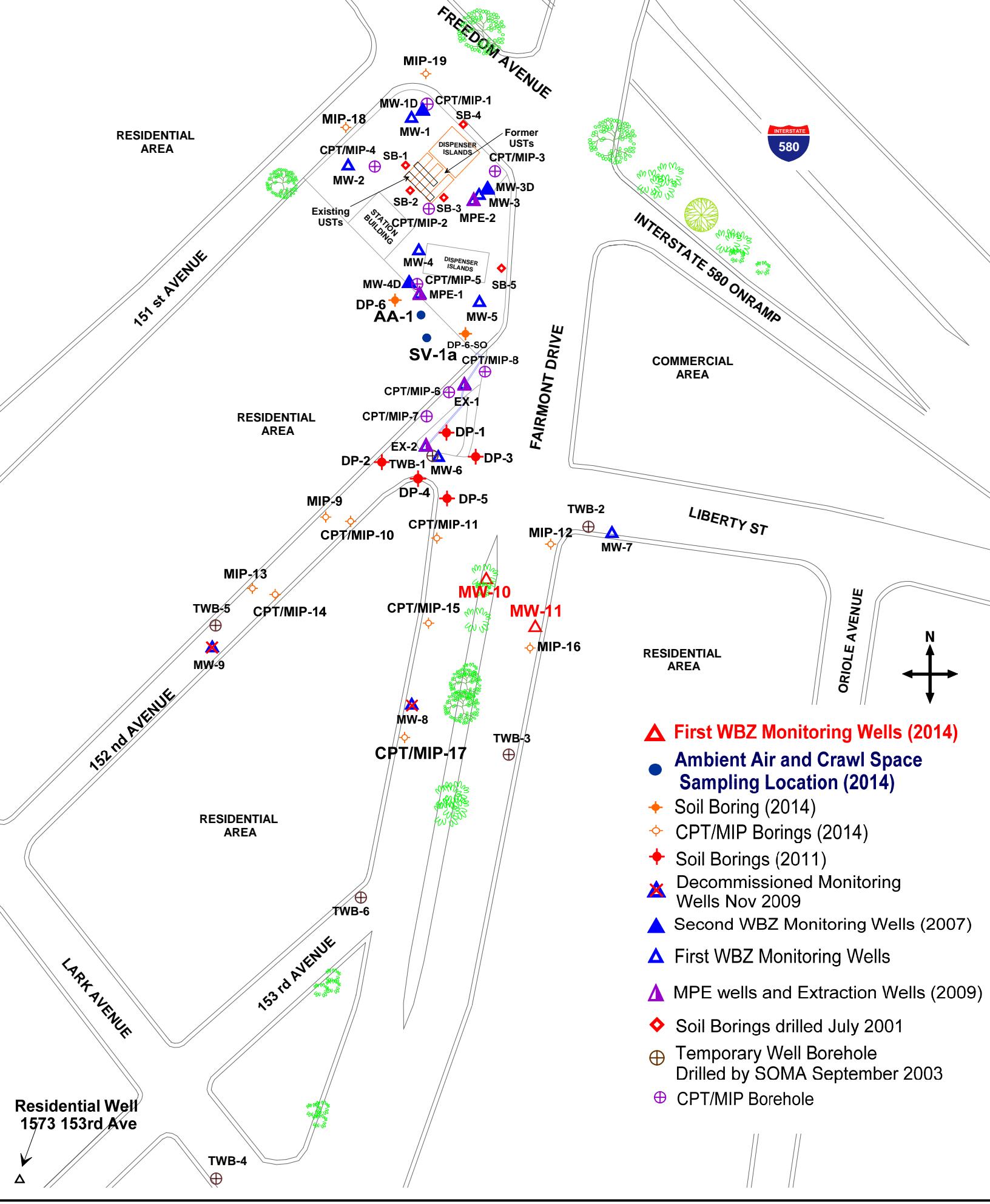
# **Figures**



approximate scale in feet

0 150 300

Figure 1: Site vicinity map.

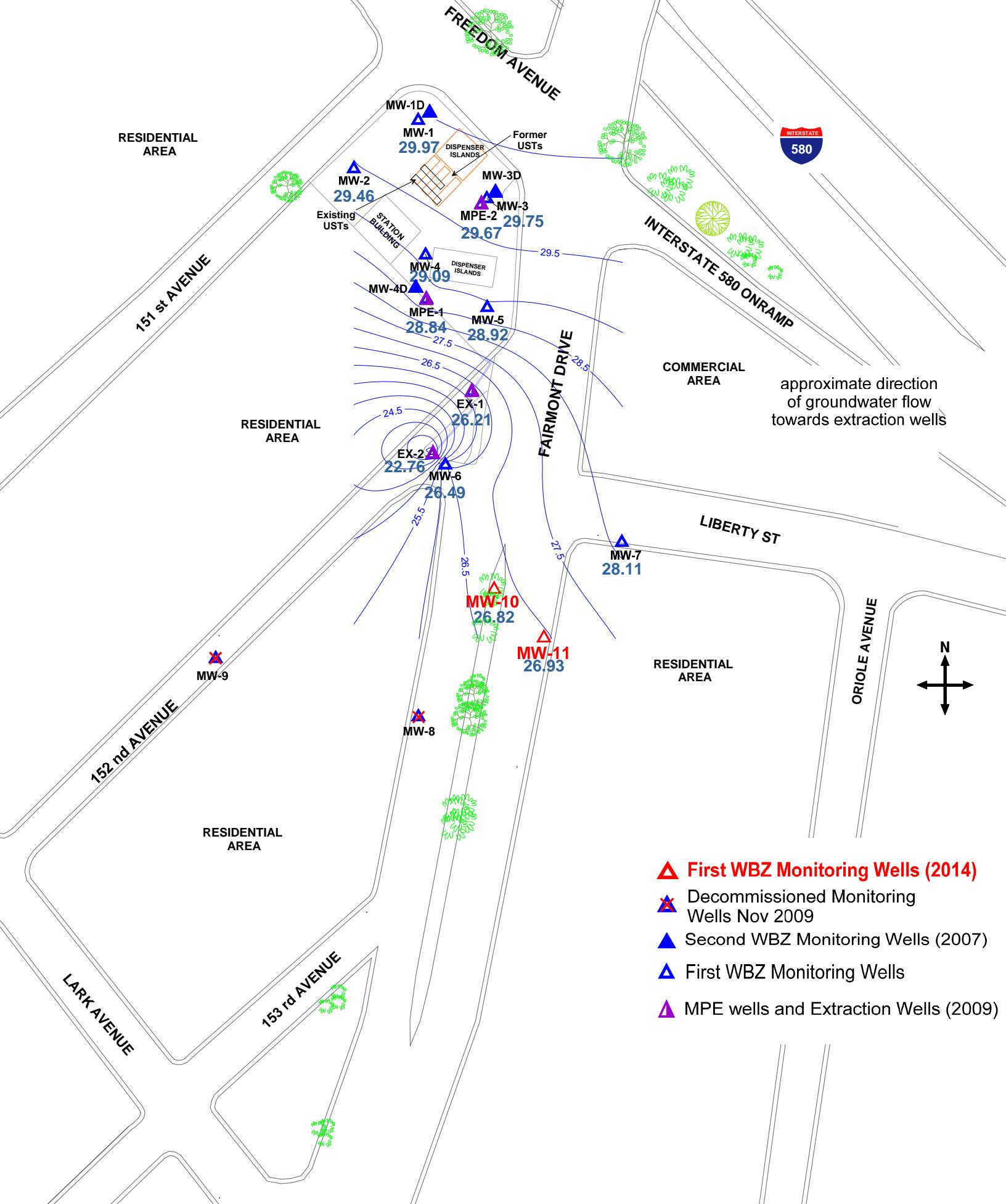


approximate scale in feet

A horizontal scale bar consisting of two segments: a solid black segment from 0 to 50, and a white segment from 50 to 100.

Figure 2: Site Map Showing Locations of USTs, Fuel Dispensers, Soil Borings, Vapor Samples, and Grundwater Monitoring Wells



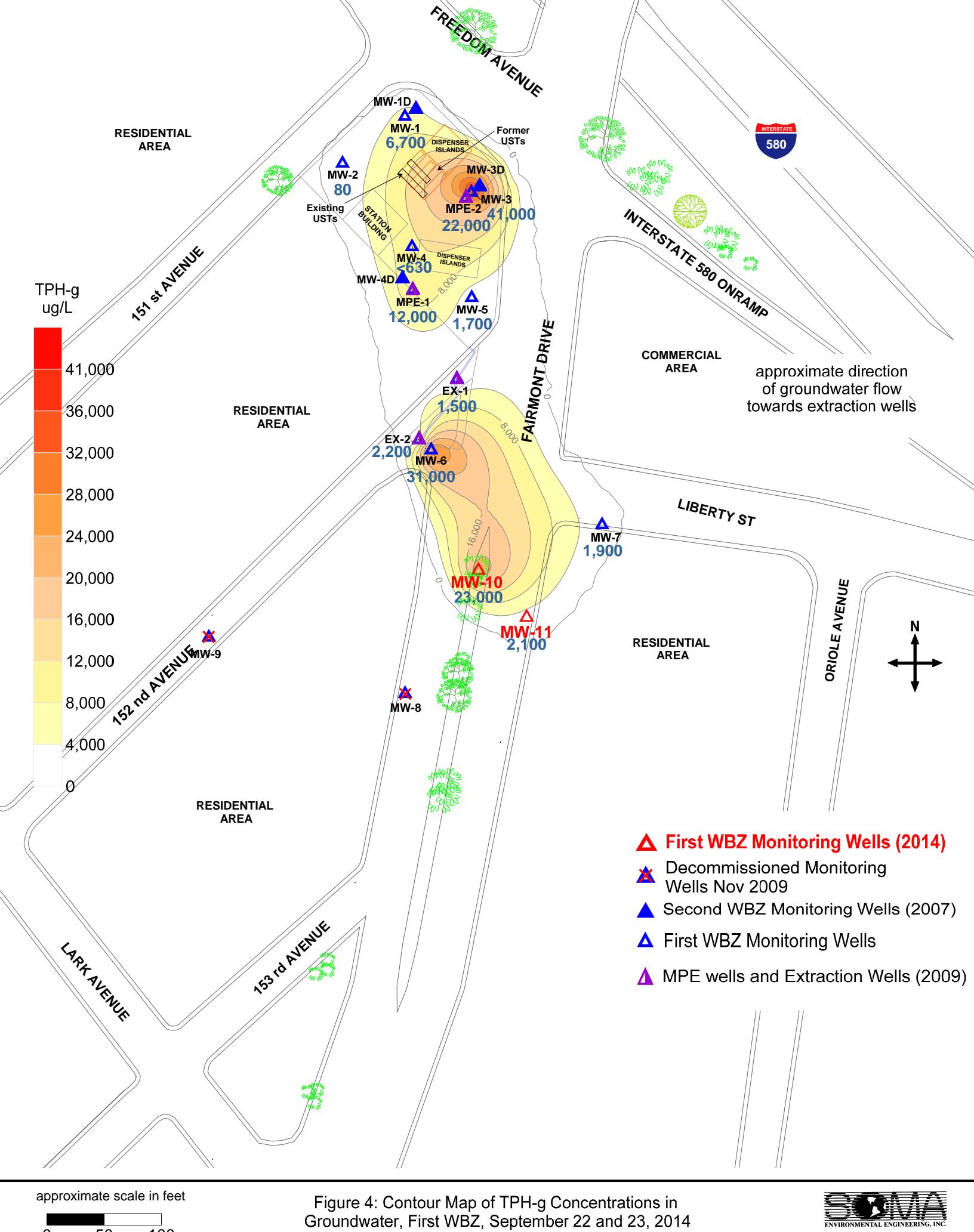


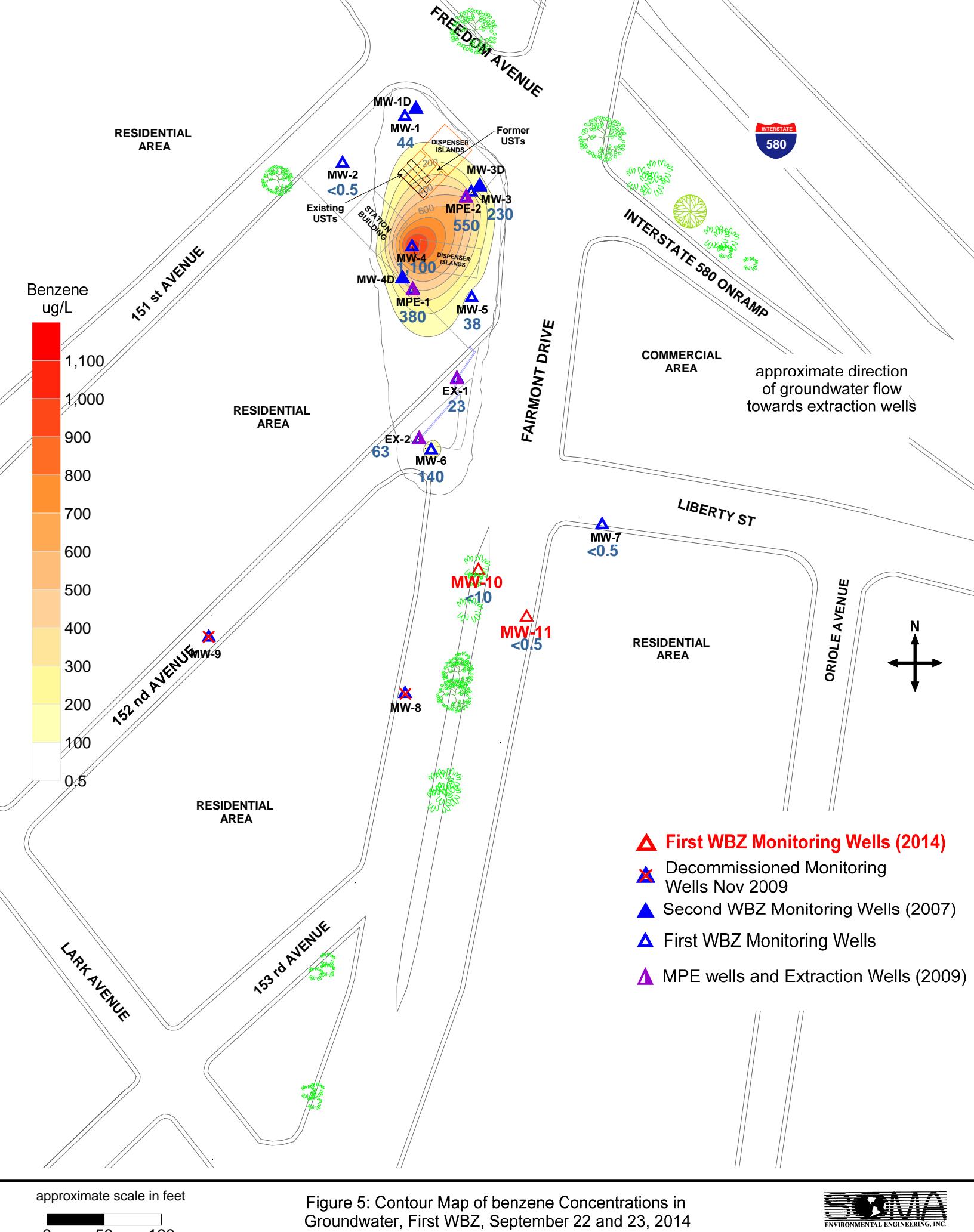
approximate scale in feet

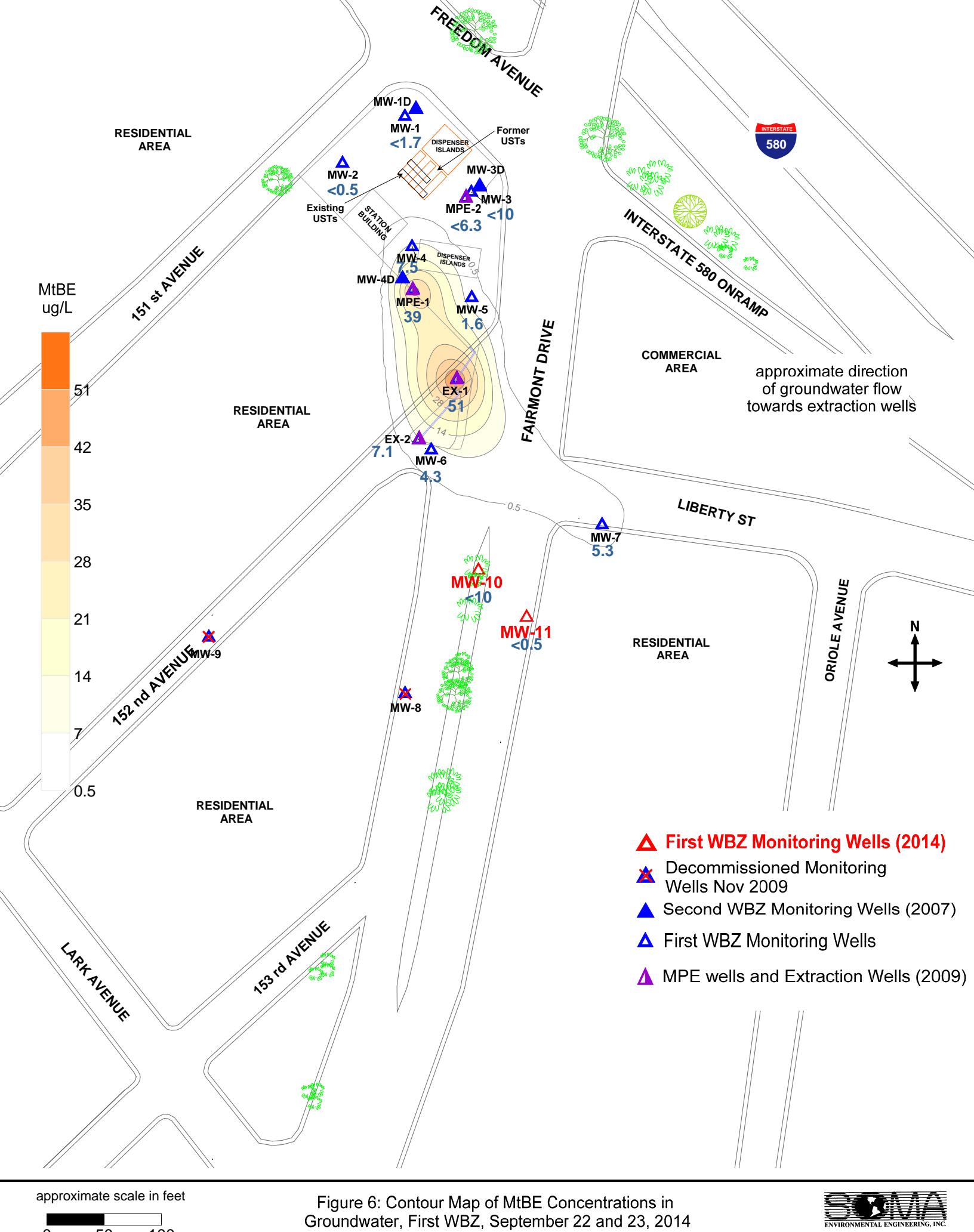
0 50 100

Figure 3: Groundwater Elevation Contour Map in Feet,  
First WBZ, September 22, 2014









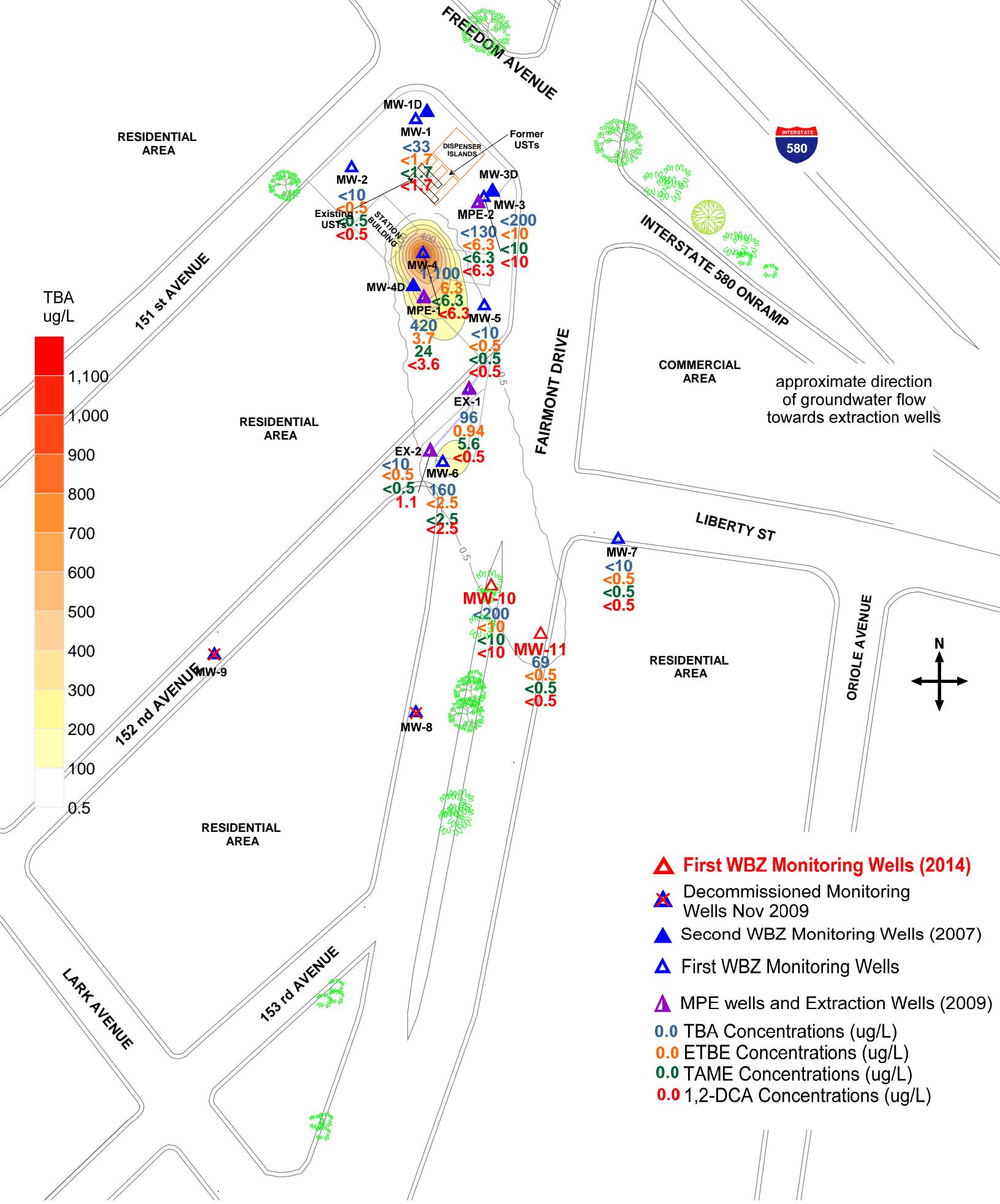
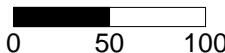
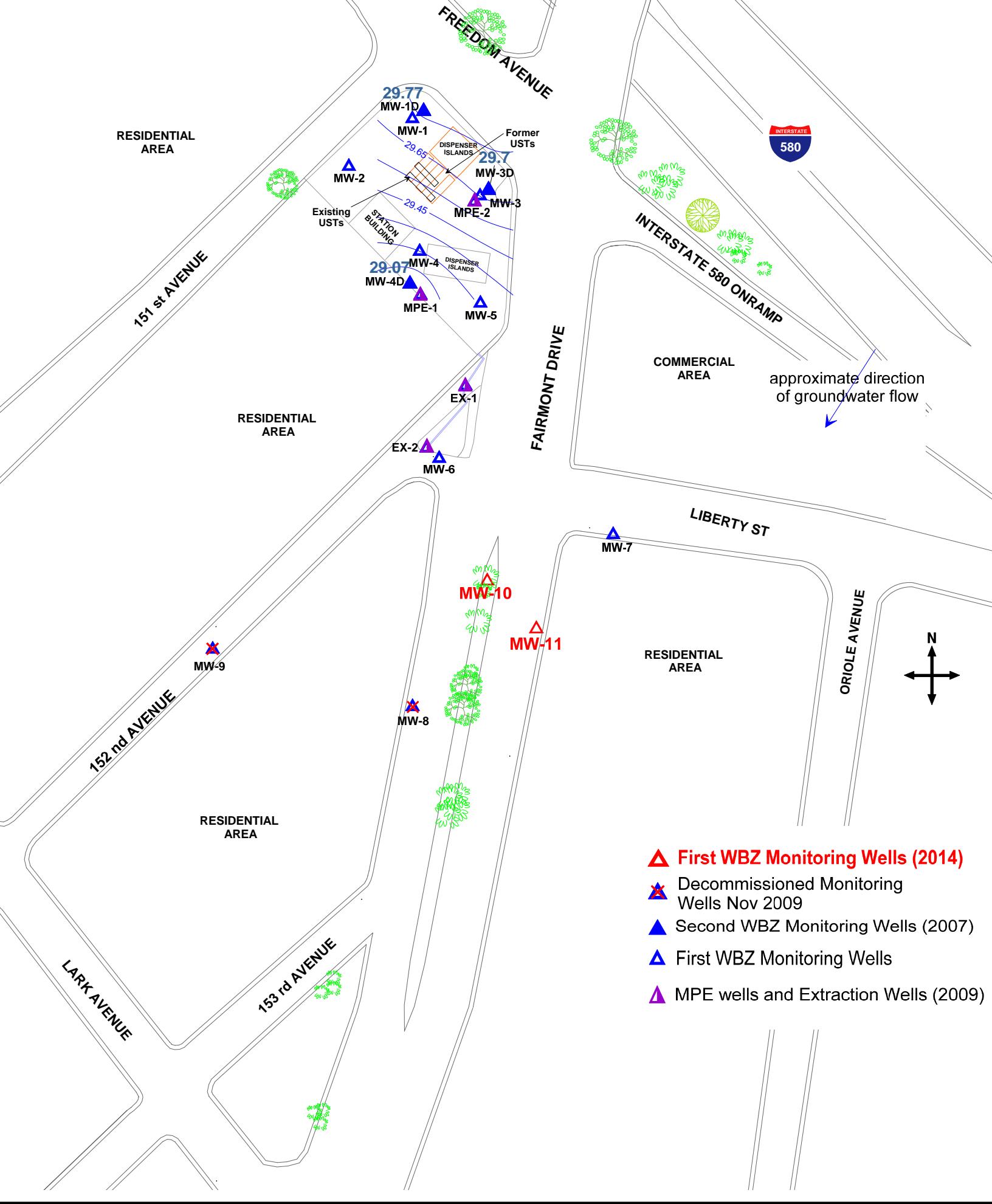


Figure 7: Contour Map of TBA and Map Showing ETBE, TAME, and 1,2-DCA Concentrations in Groundwater, First WBZ, September 22 and 23, 2014

approximate scale in feet





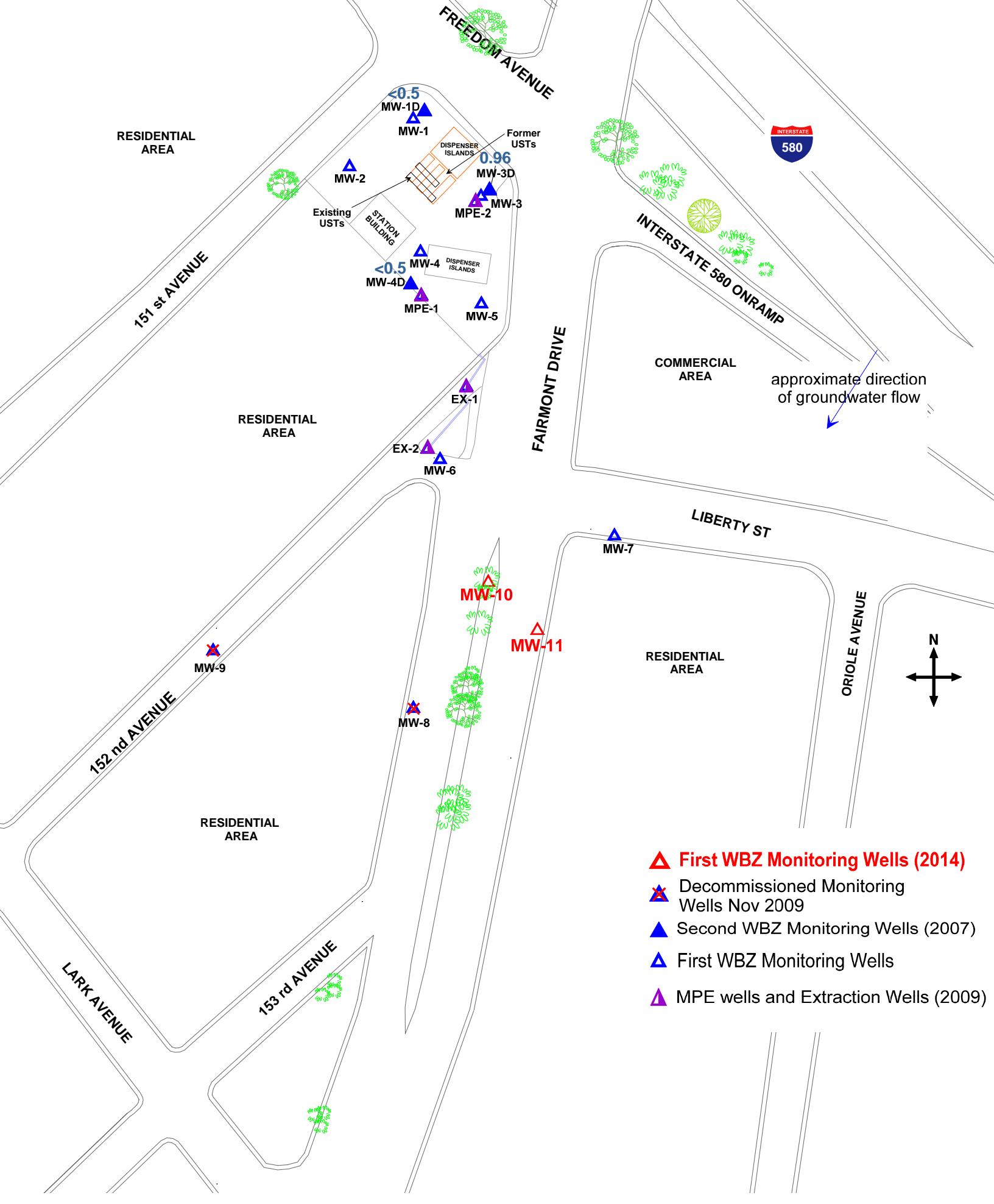
**▲ First WBZ Monitoring Wells (2014)**

- ★ Decommissioned Monitoring Wells Nov 2009**
- ▲ Second WBZ Monitoring Wells (2007)**
- △ First WBZ Monitoring Wells**
- ▲ MPE wells and Extraction Wells (2009)**

approximate scale in feet

0 50 100

Figure 8: Groundwater Elevation Contour Map in Feet, Second WBZ, September 22, 2014



**▲ First WBZ Monitoring Wells (2014)**

- ▲** Decommissioned Monitoring Wells Nov 2009
- ▲** Second WBZ Monitoring Wells (2007)
- ▲** First WBZ Monitoring Wells
- ▲** MPE wells and Extraction Wells (2009)

approximate scale in feet

0 50 100

Figure 9: Map Showing MtBE Concentrations in Groundwater, Second WBZ, September 22 and 23, 2014

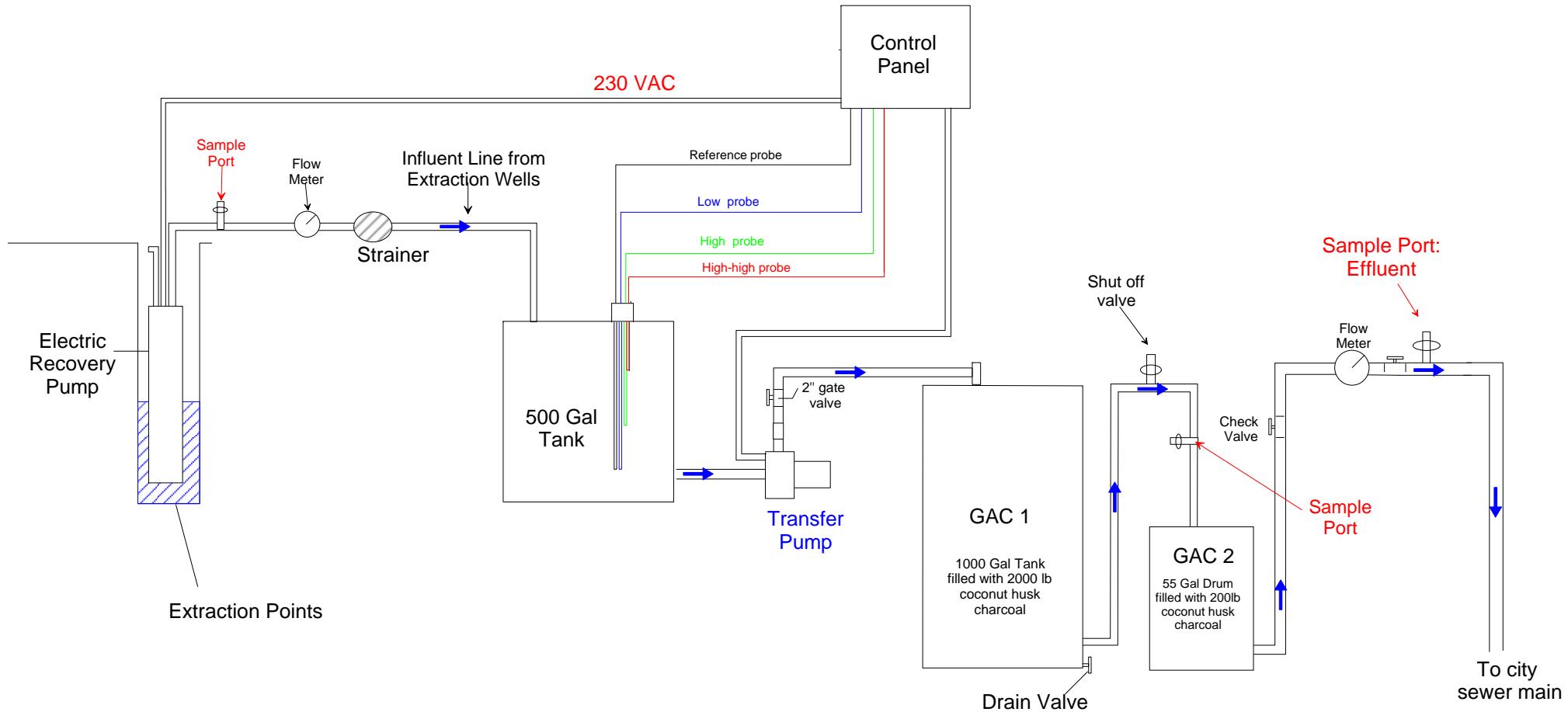


Figure 10: Schematic diagram of Groundwater Remediation System

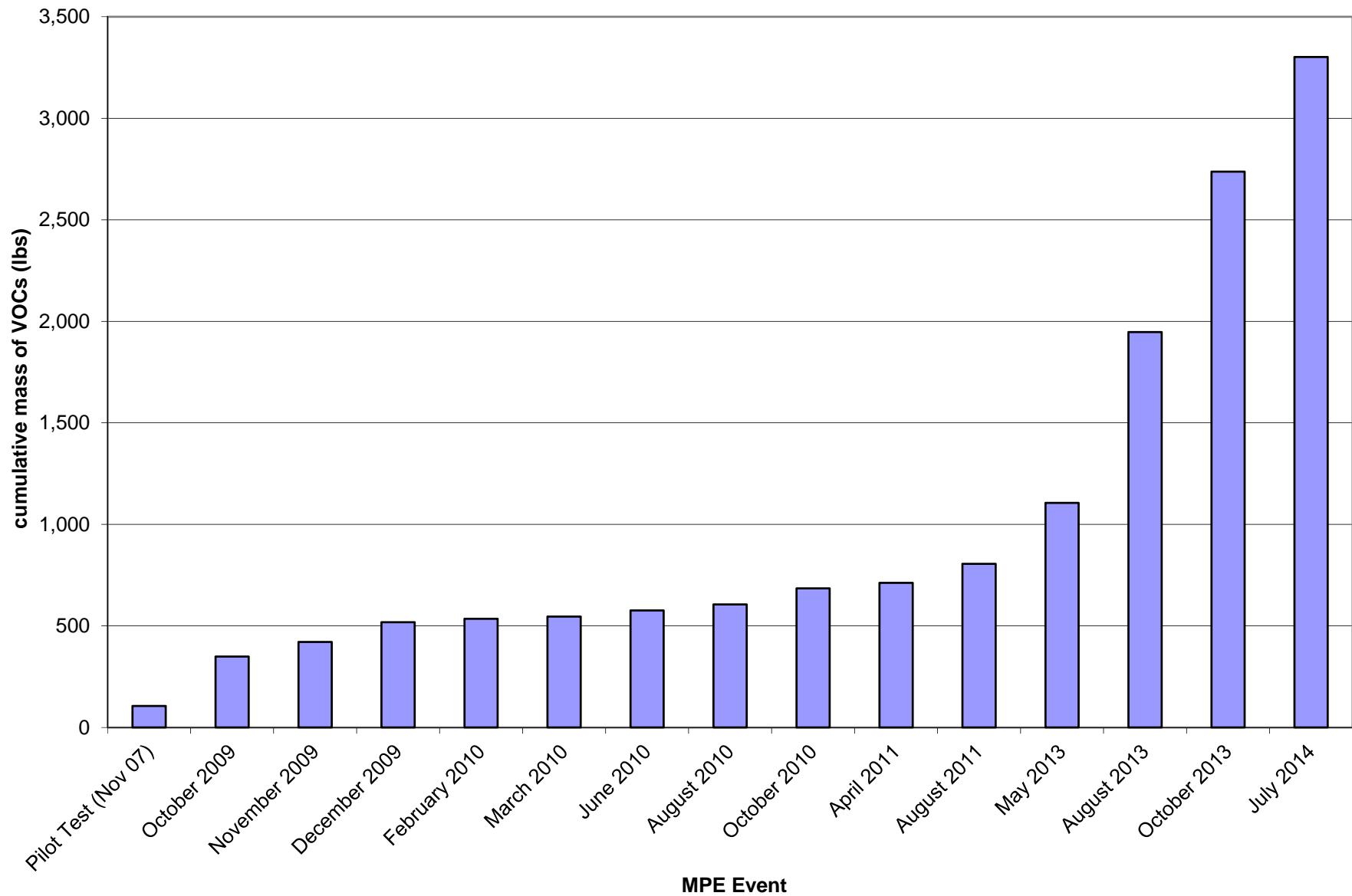


Figure 11: Cumulative mass of VOCs removed

# **Tables**

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
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
	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 <sup>Y</sup>	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 <sup>Y</sup>	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 <sup>Y</sup>	250	<2.0	110	25	2.50

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
MW-1 cont	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	N	32.51	2,400	67	<0.5	45	8.4	2.20
	5/20/2011	54.46	22.8	N	31.66	9,500	260	6.2	970	480	<3.6
	9/9/2011	54.46	22.81	N	31.65	6,400	220	<1.3	380	160	2.30
	12/2/2011	54.46	21.97	N	32.49	4,700 <sup>x</sup>	96	<1.7	310	200	<3.3
	3/2/2012	54.46	22.82	N	31.64	6,800	320	<2.5	430	120	<2.5
	6/7/2012	54.46	22.92	N	31.54	5,600	130	<2.5	360	160	2.9
	9/21/2012	54.46	23.56	N	30.90	8,000	300	<2.5	410	340	2.6
	12/14/2012	54.46	22.77	N	31.69	5,900	130	<2.5	320	97	<2.5
	3/28/2013	54.46	23.15	N	31.31	5,100	230	<2.5	280	48	3.6
	6/11/2013	54.46	23.48	N	30.98	6,800	200	<2.5	300	120	<2.5
	9/17/2013	54.46	23.84	N	30.62	7,500	120	<2.5	410	260	<2.5
	12/6/2013	54.46	24.16	N	30.30	5,300	71	<1.7	240	84	<1.7
	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	N	31.00	5,000	47	<0.5	240	58	0.9
	9/23/2014	54.46	24.49	N	29.97	6,700	44	<1.7	200	71	<1.7
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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
MW-2 cont.	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
	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 <sup>y</sup>	<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 <sup>y</sup>	<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 <sup>y</sup>	<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	N	32.76	240	<0.5	<0.5	6.6	0.8	<0.5
	5/20/2011	52.41	20.75	N	31.66	310	<0.5	<0.5	4.8	<0.5	<0.5
	9/9/2011	52.41	21.05	N	31.36	1,000	<0.5	<0.5	12	0.76	<0.5
	12/2/2011	52.41	20.14	N	32.27	900 <sup>x</sup>	<2.9	<1.7	14	1.9	<3.3

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**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
<b>MW-2 cont.</b>	3/2/2012	52.41	19.98	N	32.43	880	<0.5	<0.5	5.3	0.58	<0.5
	6/7/2012	52.41	21.04	N	31.37	720	<0.5	<0.5	7.9	0.79	<0.5
	9/21/2012	52.41	21.78	N	30.63	1,400	<0.5	<0.5	11	<0.5	<0.5
	12/14/2012	52.41	20.71	N	31.70	760	<0.5	<0.5	10	1.5	<0.5
	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	N	30.74	510	150	<0.5	15	12.3	3.1
	9/16/2013	52.41	22.15	N	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	N	30.85	190	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2014	52.41	21.7	N	30.71	97	<0.5	<0.5	<0.5	<0.5	<0.5
	<b>9/23/2014</b>	<b>52.41</b>	<b>22.95</b>	<b>N</b>	<b>29.46</b>	<b>80</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>MW-3</b>	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
	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

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MW-3 cont.	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	N	32.47	18,000	410	32	850	2,480	16
	5/20/2011	53.91	22.36	N	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 <sup>x</sup>	280	12	370	740	<1.7
	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	N	31.41	9,000	290	9.3	520	900	<5.0
	9/21/2012	53.91	23.17	N	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
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

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Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen Y/N	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethyl-benzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g}/\text{L}$ )
MW-4 cont.	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
	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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
<b>MW-4 cont.</b>	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
	3/3/2011	53.31	20.64	N	32.67	2,400	28	<0.71	28	17	3
	5/19/2011	53.31	21.84	N	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	N	31.93	1,400 <sup>x</sup>	370	<0.84	110	30.6	110
	3/2/2012	53.31	22.02	N	31.29	3,100	780	<2.0	150	59.6	50
	6/7/2012	53.31	22.24	N	31.07	2,000	290	<2.5	66	23	29
	9/21/2012	53.31	22.87	N	30.44	2,900	820	<2.5	75	17	72
	12/14/2012	53.31	21.84	N	31.47	840	48	<0.5	14	4.5	2.5
	3/28/2013	53.31	22.24	N	31.07	790	650	<5.0	26	<5.0	15
	6/11/2013	53.31	22.71	N	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	N	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
<b>MW-5</b>	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
	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	1,200
	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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethyl-benzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g}/\text{L}$ )
MW-5 cont.	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 <sup>Y</sup>	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 <sup>Y</sup>	400	12	540	296	45
	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
Pre-MPE	3/4/2011	50.53	18.00	N	32.53	2,600	18	0.62	54	18.1	3
	5/20/2011	50.53	19.18	N	31.35	4,000	91	8.5	110	106	33
	8/4/2011	50.53	NM	-	NC	3,000	23	0.95	92	43.7	5.4
	9/9/2011	50.53	19.41	N	31.12	4,200	120	2.8	140	61.1	22
	12/2/2011	50.53	18.59	N	31.94	6,900 <sup>X</sup>	96	12	220	104	32
	3/2/2012	50.53	19.30	N	31.23	5,400	43	1.8	110	85	7
	6/7/2012	50.53	19.45	N	31.08	3,700	32	<1.0	100	59	4.4
	9/21/2012	50.53	20.17	N	30.36	3,900	68	1.5	140	88.5	9.8
	12/14/2012	50.53	19.12	N	31.41	3,100	48	6.7	100	62.3	5.2
	3/28/2013	50.53	19.47	N	31.06	1,900	30	<1.0	59	48.4	4.5
	6/11/2013	50.53	20.03	N	30.50	2,900	22	3.9	110	131	3.0
	9/17/2013	50.53	20.54	N	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	N	30.62	2,100	23	<1.0	130	73	1.4
	6/6/2014	50.53	20.27	N	30.26	1,700	8.2	0.56	63	40.2	0.75
	9/23/2014	<b>50.53</b>	<b>21.61</b>	<b>N</b>	<b>28.92</b>	<b>1,700</b>	<b>38</b>	<b>0.52</b>	<b>45</b>	<b>29.8</b>	<b>1.60</b>

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**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
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
	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 <sup>Y</sup>	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 <sup>Y</sup>	26	<1.3	170	312.6	2.6
	8/26/2009	45.82	17.82	-	28.00	10,000 <sup>Y</sup>	25	<2.0	130	294	2.2
	12/1/2009	45.82	17.34	-	28.48	11,000 <sup>Y</sup>	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

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<b>MW-6 cont.</b>	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
<b>MW-7</b>	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
	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 <sup>Y</sup>	0.56	1.2	27	39.5	55

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<b>MW-7 cont.</b>	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 <sup>Y</sup>	<0.5	<0.5	15	6.3	63
	8/26/2009	44.74	15.84	-	28.90	2,700 <sup>Y</sup>	<0.5	<0.5	48	53	140
	12/1/2009	44.74	15.03	-	29.71	1,800 <sup>Y</sup>	<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	N	31.43	1,000	<0.5	<0.5	1.8	<0.5	16
	5/19/2011	44.74	13.43	N	31.31	810	<0.5	<0.5	2.2	0.79	7.8
	9/8/2011	44.74	14.38	N	30.36	1,000	<0.5	<0.5	8.3	2.9	5.4
	12/1/2011	44.74	13.57	N	31.17	1,500 <sup>X</sup>	<0.33	<0.19	12	5.7	13
	3/2/2012	44.74	14.16	N	30.58	1,000	<0.5	<0.5	4	1.1	5.1
	6/6/2012	44.74	14.00	N	30.74	780	<0.5	<0.5	2.9	1.0	2.6
	9/20/2012	44.74	15.26	N	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
	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	N	28.11	1,900	<0.5	<0.5	9.6	3.5	5.3
<b>MW-8</b>	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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
<b>MW-8 cont.</b>	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
	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
Well Decommissioned 11/13/2009											
<b>MW-9</b>	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

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<b>MW-9 cont.</b>	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
Well Decommissioned 11/13/2009											
<b>MW-10</b>	9/22/2014	44.66	17.84	-	26.82	23,000	<10	<10	1200	2,610	<10
<b>MW-11</b>	9/22/2014	42.45	15.52	-	26.93	2,100	<0.5	<0.5	2.7	4.5	<0.5
Extraction Wells											
<b>EX-1</b>	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
	3/3/2011	47.36	14.96	N	32.4	530	51	0.94	15	31.3	110
	5/19/2011	47.36	16.12	N	31.24	370	42	<0.71	7.6	17.2	110
	9/8/2011	47.36	16.47	N	30.89	110	5	<0.5	2.2	6.4	12
	12/1/2011	47.36	16.1	N	31.26	780 <sup>x</sup>	91	3	29	85	150
	3/2/2012	47.36	16.35	N	31.01	140	6	<0.5	3.5	8	14
	6/6/2012	47.36	24.76	N	22.6	250	22	<0.5	4.7	20	71
	9/20/2012	47.36	17.26	N	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	N	31.21	69	4.1	<0.5	3.3	10	1.8
	6/10/2013	47.36	24.25	N	23.11	340	37	<0.5	5.9	15.1	62
	9/16/2013	47.36	22.54	N	24.82	97	14	<0.5	<0.5	<0.5	65
	12/5/2013	47.36	22.53	N	24.83	390	42	2.5	9.8	32.6	76
	3/12/2014	47.36	21.15	N	26.21	250	12	<0.5	4.7	17.2	40
	6/5/2014	47.36	21.31	N	26.05	1,700	70	11	92	208	40
	9/22/2014	47.36	21.15	N	26.21	1,500	23	1.3	73	161	51
<b>EX-2</b>	12/2/2009	45.96	17.56	-	28.4	7,100 <sup>y</sup>	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
	3/3/2011	45.96	14.61	N	31.35	8,600	340	52	460	1,350	13
	5/19/2011	45.96	15.08	N	30.88	7,500	260	65	390	1,080	11
	9/8/2011	45.96	16.34	N	29.62	3,400	190	28	160	451	5.4
	12/1/2011	45.96	22.60	N	23.36	9,900 <sup>x</sup>	630	200	690	1,760	<3.3

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EX-2 cont.	3/2/2012	45.96	16.48	N	29.48	5,000	220	25	200	600	7.1
	6/6/2012	45.96	18.90	N	27.06	6,900	290	97	310	790	5.2
	9/20/2012	45.96	17.49	N	28.47	1,800	170	14	62	204	5.0
	12/13/2012	45.96	15.96	N	30	7,300	490	180	610	1,290	5.2
	3/27/2013	45.96	16.59	N	29.37	2,200	130	9.6	100	288	4.3
	6/10/2013	45.96	23.11	N	22.85	2,600	190	20	100	248	6.8
	9/20/2013	45.96	23.11	N	22.85	3,900	210	37	170	450	6.3
	12/5/2013	45.96	23.28	N	22.68	3,700	160	46	110	394	7.2
	3/12/2014	45.96	22.04	N	23.92	3,700	100	9.8	220	498	5.7
	6/5/2014	45.96	23.41	N	22.55	4,400	120	37	280	590	5.4
<b>9/22/2014 45.96 23.20 N 22.76 2,200 63 8.8 88 240 7.1</b>											
<b>MPE Wells</b>											
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
Pre-MPE	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
	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
MPE-2	12/1/2009	53.72	22.87	-	30.85	NA	NA	NA	NA	NA	NA

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<b>MPE-2 cont.</b>	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
<b>Pre-MPE</b>	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
	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
<b>Post-MPE</b>	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	N	31.48	36,000	1,100	19	1,700	2,970	<17
	6/7/2012	53.72	22.35	N	31.37	33,000	1,800	27	1,600	2,700	29
	9/21/2012	53.72	23.03	N	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	N	31.19	20,000	2,200	<20	1,300	960	<20
	6/11/2013	53.72	22.9	N	30.82	26,000	920	<13	1,500	1,352	<13
	9/17/2013	53.72	23.29	N	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
2nd WBZ											
<b>MW-1D</b>	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
	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 <sup>y</sup>	<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

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<b>MW-1D cont.</b>	3/3/2011	54.42	22.27	N	32.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	54.42	22.89	N	31.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	54.42	23.08	N	31.34	220	<0.5	<0.5	0.6	1.4	<0.5
	12/1/2011	54.42	22.26	N	32.16	<22	<0.33	<0.19	<0.15	<0.20	<0.38
	3/2/2012	54.42	23.01	N	31.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	54.42	23.18	N	31.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	54.42	23.76	N	30.66	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	54.42	23.04	N	31.38	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	54.42	23.34	N	31.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	54.42	23.69	N	30.73	110	<0.5	<0.5	0.55	<0.5	<0.5
	9/16/2013	54.42	24.02	N	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	N	30.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/5/2014	54.42	23.68	N	30.74	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/22/2014	54.42	24.65	N	29.77	<50	<0.5	<0.5	<0.5	0.88	<0.5
<b>MW-3D</b>	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	N	32.44	<50	1.3	<0.5	<0.5	0.59	14
	5/19/2011	54.10	22.61	N	31.49	<50	<0.5	<0.5	<0.5	<0.5	5.2
	9/8/2011	54.10	22.68	N	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	N	31.50	<50	<0.5	<0.5	<0.5	<0.5	4.2
	6/6/2012	54.10	22.77	N	31.33	<50	<0.5	<0.5	<0.5	<0.5	4.8
	9/20/2012	54.10	23.42	N	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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
<b>MW-3D cont.</b>	3/27/2013	54.10	22.87	N	31.23	<50	<0.5	<0.5	<0.5	<0.5	4.4
	6/10/2013	54.10	23.27	N	30.83	<50	<0.5	<0.5	<0.5	<0.5	3.5
	9/16/2013	54.10	23.65	N	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	N	30.88	130	<0.5	2.9	2.5	16.6	0.97
	6/5/2014	54.10	23.33	N	30.77	<50	<0.5	<0.5	<0.5	0.77	1.5
	9/22/2014	<b>54.10</b>	<b>24.40</b>	<b>N</b>	<b>29.70</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.96</b>
<b>MW-4D</b>	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	53.12	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 <sup>y</sup>	<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	N	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	N	31.20	59	<0.5	<0.5	<0.5	0.51	1.7
	12/1/2011	53.12	21.19	N	31.93	<22	<0.33	<0.19	<0.15	<0.20	4.2
	3/2/2012	53.12	21.8	N	31.32	<50	<0.5	<0.5	0.85	1.2	2.7
	6/6/2012	53.12	22.00	N	31.12	<50	<0.5	<0.5	<0.5	<0.5	1.3
	9/20/2012	53.12	22.67	N	30.45	<50	<0.5	<0.5	<0.5	<0.5	1.6
	12/13/2012	53.12	21.55	N	31.57	<50	<0.5	<0.5	<0.5	<0.5	0.94
	3/27/2013	53.12	21.98	N	31.14	<50	<0.5	<0.5	<0.5	<0.5	2.1
	6/10/2013	53.12	22.55	N	30.57	<50	<0.5	<0.5	<0.5	<0.5	1.7
	9/16/2013	53.12	23.05	N	30.07	<50	<0.5	<0.5	<0.5	<0.5	4.6
	12/6/2013	53.12	23.43	N	29.69	<50	<0.5	<0.5	<0.5	<0.5	3.4
	3/13/2014	53.12	22.38	N	30.74	<50	<0.5	<0.5	<0.5	<0.5	4.0
	6/6/2014	53.12	22.78	N	30.34	<50	<0.5	<0.5	<0.5	<0.5	1.8
	9/23/2014	<b>53.12</b>	<b>24.05</b>	<b>N</b>	<b>29.07</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g/L}$ )
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
<b>Equipment Blanks</b>											
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	30	20	5

Notes:

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

<sup>\*</sup>: 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

<sup>1</sup>: 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.

<sup>2</sup>: 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

<sup>c</sup>: 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 SF Bay Region Interim Final Nov. 2007 (Revised May 2008);

Table F-1a, Groundwater Screening Levels (groundwater is a current or potential drinking water resource)

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 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
1st WBZ							
MW-1	8/8/2002	78	<1.3	<1.3	<1.3	NA	NA
	11/1/2002	42	<1.0	<1.0	<1.0	NA	NA
	2/21/2003	47	<0.5	<0.5	<0.5	NA	NA
	5/28/2003	25	<0.5	<0.5	<0.5	NA	NA
	8/12/2003	<10	<0.5	<0.5	<0.5	NA	NA
	10/9/2003	70	<1.0	<1.0	<1.0	NA	NA
	1/15/2004	55	<0.5	<0.5	<0.5	NA	NA
	5/25/2004	62	<0.7	<0.7	<0.7	NA	NA
	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<21.5	<4.3	<4.3	<17.2	NA	NA
	3/11/2005	81	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	68.9	<2.15	<2.15	<8.6	NA	NA
	11/11/2005	46	<2.15	<2.15	<8.6	NA	NA
	2/9/2006	11.3	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	0.51	<0.5
	8/10/2006	<43	<2.15	<2.15	<8.60	3.37	<2.15
	10/26/2006	39.4	<1.0	<1.0	<4.0	2.92	<1.0
	1/25/2007	41.4	<0.5	<0.5	<2.0	1.36	<0.5
	4/26/2007	39.6	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	46.5	<1.0	<1.0	<4.0	<1.0	<1.0
	10/23/2007	53.7	<0.5	<0.5	<2.0	<0.5	<0.5
	1/22/2008	23.8	<0.5	<0.5	2.16	<0.5	<0.5
	4/16/2008	8.36	<0.5	<0.5	<2.0	164	<0.5
	7/3/2008	30.5	<0.5	<0.5	<2.0	1.08	<0.5
	10/15/2008	<20	<1.0	<1.0	<1.0	<1.0	<1.0
	1/7/2009	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	4/14/2009	15	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	12/2/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	3/17/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	26	<0.5	<0.5	<0.5	<0.5	<0.5
	9/2/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	12/2/2010	<63	<3.1	<3.1	<3.1	<3.1	<3.1
	3/4/2011	40	<0.5	<0.5	<0.5	<0.5	<0.5
	5/20/2011	<71	<3.6	<3.6	<3.6	<3.6	<3.6
	9/9/2011	33	<1.3	<1.3	<1.3	<1.3	<1.3
	12/2/2011	49	<3.2	<3.5	<2.8	<2.4	<1.7
	3/2/2012	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	6/7/2012	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	9/21/2012	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	12/14/2012	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	3/28/2013	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	6/11/2013	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	9/17/2013	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	12/6/2013	<33	<1.7	<1.7	<1.7	<1.7	<1.7
	3/13/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/23/2014	<33	<1.7	<1.7	<1.7	<1.7	<1.7
MW-2	8/8/2002	21	<0.5	<0.5	<0.5	NA	NA
	11/1/2002	15	<0.5	<0.5	<0.5	NA	NA
	2/21/2003	12	<0.5	<0.5	<0.5	NA	NA
	5/28/2003	31	<0.5	<0.5	<0.5	NA	NA
	8/12/2003	69	<0.8	<0.8	<0.8	NA	NA
	10/9/2003	12	<0.5	<0.5	<0.5	NA	NA
	1/15/2004	<10	<0.5	<0.5	<0.5	NA	NA
	5/25/2004	14	<0.5	<0.5	<0.5	NA	NA
	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-2 cont.</b>	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/22/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	2.44	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/17/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/2/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/2/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/4/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	5/20/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/9/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/2/2011	<13	<3.2	<3.5	<2.8	<2.4	<1.7
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/7/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/21/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/28/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/11/2013	150	<0.5	1.6	<0.5	<0.5	<0.5
	9/16/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/6/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/13/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-3</b>	8/8/2002	<330	<8.3	<8.3	330	NA	NA
	11/1/2002	85	<1.3	<1.3	220	NA	NA
	2/21/2003	140	<5.0	<5.0	320	NA	NA
	5/28/2003	520	<10	<10	530	NA	NA
	8/12/2003	180	<4.2	<4.2	270	NA	NA
	10/9/2003	<170	<8.3	<8.3	200	NA	NA
	1/15/2004	<100	<5.0	<5.0	150	NA	NA
	5/25/2004	<100	<5.0	<5.0	270	NA	NA
	9/21/2004	<140	<7.1	<7.1	110	NA	NA
	12/14/2004	<100	<20	<20	154	NA	NA
	3/11/2005	<215	<43	<43	256	NA	NA
	6/15/2005	<215	<10.8	<10.8	374	NA	NA
	8/26/2005	699	<21.5	<21.5	277	NA	NA
	11/11/2005	<430	<21.5	<21.5	171	NA	NA
	2/9/2006	<430	<21.5	<21.5	620	NA	NA
	5/9/2006	367	<10.8	<10.8	594	<10.8	<10.8
	8/10/2006	365	<10.8	<10.8	727	<10.8	<10.8
	10/26/2006	591	<10.8	<10.8	899	<10.8	<10.8
	1/25/2007	711	<10.8	<10.8	768	<10.8	<10.8
	4/26/2007	690	<10.8	<10.8	369	<10.8	<10.8
	7/25/2007	1,340	<10.8	<10.8	565	<10.8	<10.8
	10/23/2007	1,050	<21.5	<21.5	301	<21.5	<21.5
	1/22/2008	373	<10.8	<10.8	170	<0.5	<0.5
	4/16/2008	881	<5.50	<5.50	<22.0	1,850	12.1
	7/3/2008	426	<10.8	<10.8	124	<10.8	<10.8
	10/16/2008	<400	<20	<20	<20	<20	<20

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-3 cont.</b>	1/8/2009	<500	<25	<25	<25	<25	<25
	4/13/2009	<500	<25	<25	<25	<25	<25
	8/27/2009	<500	<25	<25	<25	<25	<25
	12/2/2009	270	<13	<13	<13	<13	<13
	3/17/2010	<250	<13	<13	<13	<13	<13
	6/3/2010	<250	<13	<13	<13	<13	<13
	9/2/2010	<250	<13	<13	<13	<13	<13
	12/2/2010	<130	<6.3	<6.3	<6.3	<6.3	<6.3
	3/4/2011	<170	<8.3	<8.3	<8.3	<8.3	<8.3
	5/20/2011	<130	<6.3	<6.3	<6.3	<6.3	<6.3
	9/9/2011	<140	<7.1	<7.1	<7.1	<7.1	<7.1
	12/2/2011	<6.6	<1.6	<1.7	<1.4	<1.2	<0.86
	3/2/2012	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	6/7/2012	<100	<5.0	<5.0	<5.0	<5.0	<5.0
<b>MW-4</b>	9/21/2012	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	12/14/2012	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	3/28/2013	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	6/11/2013	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	9/17/2013	<200	<10	<10	<10	<10	<10
	12/6/2013	<200	<10	<10	<10	<10	<10
	3/12/2014	FP	FP	FP	FP	FP	FP
	6/5/2014	FP	FP	FP	FP	FP	FP
	9/23/2014	<200	<10	<10	<10	<10	<10
	8/8/2002	1500	<17	<17	18	NA	NA
	11/1/2002	580	<5.0	6	13	NA	NA
	2/21/2003	1600	<20	22	<20	NA	NA
	5/28/2003	690	<8.3	<8.3	17	NA	NA
<b>MW-4</b>	8/12/2003	550	<7.1	7.3	18	NA	NA
	10/9/2003	1400	<31	50	<31	NA	NA
	1/15/2004	1,300	<20	25	21	NA	NA
	5/25/2004	560	<8.3	<8.3	24	NA	NA
	9/21/2004	1,300	<50	<50	<50	NA	NA
	12/14/2004	826	<10.75	21	49	NA	NA
	3/11/2005	1,110	<10.8	12.1	<43	NA	NA
	6/15/2005	<110	<5.5	<5.5	22.9	NA	NA
	8/26/2005	902	<5.50	<5.50	37.4	NA	NA
	11/11/2005	884	<10.8	<10.8	<43	NA	NA
	2/9/2006	769	<10.8	16.4	45.6	NA	NA
	5/9/2006	405	<2.15	2.95	31.3	<2.15	<2.15
	8/10/2006	306	<2.15	<2.15	35.3	<2.15	<2.15
	10/26/2006	3430	<10.8	13.8	<43	<10.8	<10.8
<b>MW-4</b>	1/25/2007	822	<2.15	2.4	28	2.25	<2.15
	4/26/2007	556	<2.15	2.28	29.2	<2.15	<2.15
	7/25/2007	1,860	<2.15	9.94	24	<2.15	<2.15
	10/23/2007	3,400	<2.15	18.4	25.9	<2.15	<2.15
	1/22/2008	2,580	<5.50	64.7	<22	<0.5	<0.5
	4/15/2008	1,100	<5.50	11.7	<22	39.9	<5.50
	7/2/2008	8,720	<5.50	75.2	<22	<5.50	<5.50
	10/16/2008	700	<3.6	4.2	37	5.4	<3.6
	1/8/2009	1,500	<3.6	9.9	41	3.6	<3.6
	4/13/2009	1,100	<8.3	<8.3	28	<8.3	<8.3
	8/27/2009	4,900	<5.0	24	<5.0	<5.0	<5.0
	12/2/2009	6,800	<5.0	69	<5.0	<5.0	<5.0
	3/17/2010	1,900	<3.6	18	<3.6	<3.6	<3.6
	6/3/2010	930	<3.6	7.7	<3.6	<3.6	<3.6
	9/2/2010	7,200	<3.6	57	<3.6	<3.6	<3.6
	12/2/2010	3,800	<10	30	<10	<10	<10
<b>MW-4</b>	3/3/2011	410	<0.71	3.2	<0.71	<0.71	<0.71
	5/19/2011	130	<0.5	1.4	<0.5	<0.5	<0.5
	9/8/2011	380	<0.5	3.5	<0.5	1.1	<0.5
	12/1/2011	790	<1.6	5.4	8.2	<1.2	<0.86
	3/2/2012	920	<2.0	5.9	24	<2.0	<2.0
<b>MW-4</b>	6/7/2012	1,000	<2.5	13	<2.5	<2.5	<2.5
	9/21/2012	1,300	<2.5	14	<2.5	<2.5	<2.5
	12/14/2012	36	<0.5	0.65	<0.5	<0.5	<0.5

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-4 cont.</b>	3/28/2013	2,500	<5.0	29	<5.0	<5.0	<5.0
	6/11/2013	890	<5.0	12	<5.0	<5.0	<5.0
	9/17/2013	1,100	<10	<10	<10	<10	<10
	12/6/2013	1,500	<10	<10	<10	<10	<10
	3/13/2014	190	<6.3	<6.3	<6.3	<6.3	<6.3
	6/6/2014	360	<6.3	<6.3	<6.3	<6.3	<6.3
	9/23/2014	1,100	<6.3	6.3	<6.3	<6.3	<6.3
<b>MW-5</b>	8/8/2002	<250	<6.3	<6.3	510	NA	NA
	11/1/2002	66	<2.0	<2.0	560	NA	NA
	2/21/2003	<63	<3.1	<3.1	280	NA	NA
	5/28/2003	<33	<1.7	<1.7	110	NA	NA
	8/12/2003	130	<3.6	<3.6	270	NA	NA
	10/9/2003	<100	<5.0	<5.0	740	NA	NA
	1/15/2004	<63	<3.1	<3.1	300	NA	NA
	5/25/2004	<100	<5.0	<5.0	210	NA	NA
	9/21/2004	<130	<6.3	<6.3	550	NA	NA
	12/14/2004	40	<5.5	<5.5	444	NA	NA
	3/11/2005	88.8	<5.5	<5.5	448	NA	NA
	6/15/2005	<43	<2.15	<2.15	88.1	NA	NA
	8/26/2005	274	<5.50	<5.50	195	NA	NA
	11/11/2005	192	<5.50	<5.50	360	NA	NA
	2/9/2006	218	<5.50	<5.50	523	NA	NA
	5/9/2006	91.8	<2.15	<2.15	163	<2.15	<2.15
	8/10/2006	138	<5.50	<5.50	342	<5.50	<5.50
	10/26/2006	322	<5.50	<5.50	712	<5.50	<5.50
	1/25/2007	878	<5.50	<5.50	552	<5.50	<5.50
	4/26/2007	708	<2.15	<2.15	310	<2.15	<2.15
	7/25/2007	1,020	<2.15	<2.15	356	<2.15	<2.15
	10/23/2007	1,510	<2.15	<2.15	181	<2.15	<2.15
	1/22/2008	470	<0.5	4.56	62.1	<0.5	<0.5
	4/15/2008	566	<1.0	<1.0	29.6	231	5.66
	7/3/2008	2,320	<2.15	<2.15	53.3	<2.15	<2.15
	10/16/2008	990	<5.0	<5.0	82	<5.0	<5.0
	1/8/2009	360	<6.3	<6.3	51	<6.3	<6.3
	4/13/2009	280	<3.1	<3.1	<3.1	<3.1	<3.1
	8/27/2009	1,300	<5.0	<5.0	<5.0	<5.0	<5.0
	12/2/2009	320	<5.0	<5.0	25	<5.0	<5.0
	3/17/2010	570	<1.0	<1.0	<1.0	<1.0	<1.0
	6/4/2010	340	<1.0	<1.0	<1.0	<1.0	<1.0
	9/2/2010	320	<2.5	<2.5	13	<2.5	<2.5
	12/2/2010	200	<3.1	<3.1	<3.1	<3.1	<3.1
	3/4/2011	180	<0.5	<0.5	<0.5	<0.5	<0.5
	5/20/2011	480	<1.0	<1.0	<1.0	<1.0	<1.0
	8/4/2011	110	<0.71	<0.71	2.6	<0.71	<0.71
	9/9/2011	260	<1.0	<1.0	11	<1.0	<1.0
	12/2/2011	95	<3.2	<3.5	14	<2.4	<1.7
	3/2/2012	59	<1.0	<1.0	4.1	<1.0	<1.0
	6/7/2012	22	<1.0	<1.0	2.8	<1.0	<1.0
	9/21/2012	66	<1.0	<1.0	<1.0	<1.0	<1.0
	12/14/2012	<20	<1.0	<1.0	4.2	<1.0	<1.0
	3/28/2013	<20	<1.0	<1.0	<1.0	<1.0	<1.0
	6/11/2013	<20	<1.0	<1.0	2.5	<1.0	<1.0
	9/17/2013	20	<1.0	<1.0	5.7	<1.0	<1.0
	12/6/2013	<20	<1.0	<1.0	3.9	<1.0	<1.0
	3/13/2014	<20	<1.0	<1.0	2.2	<1.0	<1.0
	6/6/2014	<10	<0.5	<0.5	0.81	<0.5	<0.5
	9/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-6</b>	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<5.5	<5.5	<5.5	<22	NA	NA
	3/11/2005	2.54	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<20	<1.0	<1.0	<4.0	NA	NA
	8/26/2005	<43	<2.15	<2.15	<8.6	NA	NA
	11/11/2005	<43	<2.15	<2.15	<8.6	NA	NA

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-6 cont.</b>	2/9/2006	<43	<2.15	<2.15	<8.6	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	7.21	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	5.66	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	6.68	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	13.9	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	6.78	1.49
	7/2/2008	4.54	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<63	<3.1	<3.1	<3.1	<3.1	<3.1
	4/13/2009	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	8/26/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	12/1/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	3/16/2010	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	6/3/2010	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	9/1/2010	<200	<10	<10	<10	<10	<10
	12/2/2010	<330	<17	<17	<17	<17	<17
	3/3/2011	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	5/20/2011	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	9/8/2011	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	12/1/2011	NA	NA	NA	NA	NA	NA
	3/2/2012	<83	<4.2	<4.2	<4.2	<4.2	<4.2
	6/6/2012	<33	<1.7	<1.7	<1.7	<1.7	<1.7
	9/20/2012	NA	NA	NA	NA	NA	NA
	12/13/2012	29	<0.71	<0.71	<0.71	<0.71	<0.71
	3/27/2013	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	6/10/2013	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	9/16/2013	FP	FP	FP	FP	FP	FP
	12/5/2013	270	<2.5	<2.5	<2.5	<2.5	<2.5
	3/12/2014	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	6/5/2014	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	9/22/2014	160	<2.5	<2.5	<2.5	<2.5	<2.5
<b>MW-7</b>	9/21/2004	<10	<0.5	<0.5	1.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	<12.5	<2.5	<2.5	<10	NA	NA
	6/15/2005	<10	<0.5	<0.5	2.23	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	NA	NA	NA	NA	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	6.49	<0.5	<0.5	2.58	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	6.01	<0.5	<0.5
	4/15/2008	8.8	<0.5	<0.5	<2.0	<0.5	1.26
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	14	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	11	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	16	<0.5	<0.5
	8/26/2009	<33	<0.5	<0.5	33	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	30	<0.5	<0.5
	3/16/2010	11	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	20	<0.5	<0.5	7.1	<0.5	<0.5
	9/1/2010	47	<0.5	<0.5	7.2	<0.5	<0.5
	12/2/2010	22	<0.5	<0.5	4.9	<0.5	<0.5
	3/4/2011	14	<0.5	<0.5	4.0	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	2.1	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	1.6	<0.5	<0.5
	12/1/2011	15	<0.36	<0.40	2.4	<0.28	<0.19

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-7 cont.</b>	3/2/2012	<10	<0.5	<0.5	0.82	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/16/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/5/2013	<10	<0.5	<0.5	0.73	<0.5	<0.5
	3/12/2014	<10	<0.5	<0.5	0.64	<0.5	<0.5
	6/5/2014	<10	<0.5	<0.5	0.76	<0.5	<0.5
	9/22/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-8</b>	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	NA	NA	NA	NA	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
Well Decommissioned 11/13/2009							
<b>MW-9</b>	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	2.8	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	1.83	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	3.07	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	2.92	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	<2.0	1.18	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	2.07	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	1.5	<0.5
Well Decommissioned 11/13/2009							
<b>MW-10</b>	9/22/2014	<200	<10	<10	<10	<10	<10
<b>MW-11</b>	9/22/2014	69	<0.5	<0.5	<0.5	<0.5	<0.5
<b>EX-1</b>	12/2/2009	150	<1.3	<1.3	<1.3	<1.3	<1.3
	3/16/2010	980	<1.3	2.4	27	<1.3	<1.3
	6/3/2010	570	<1.3	1.9	<1.3	<1.3	<1.3
	9/1/2010	470	<0.5	1.4	2	<0.5	<0.5
	12/2/2010	1,300	<2.0	3.6	15	<2.0	<2.0

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (<math>\mu\text{g/L}</math>)</b>	<b>DIPE (<math>\mu\text{g/L}</math>)</b>	<b>ETBE (<math>\mu\text{g/L}</math>)</b>	<b>TAME (<math>\mu\text{g/L}</math>)</b>	<b>1,2-DCA (<math>\mu\text{g/L}</math>)</b>	<b>EDB (<math>\mu\text{g/L}</math>)</b>
<b>EX-1 cont.</b>	3/3/2011	690	<0.71	2.5	12	<0.71	<0.71
	5/19/2011	370	<0.71	1.9	13	<0.71	<0.71
	9/8/2011	32	<0.5	<0.5	0.53	<0.5	<0.5
	12/1/2011	1,200	<1.6	8.3	6.8	<1.2	<0.86
	3/2/2012	31	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	390	<0.5	2.9	4.8	0.57	<0.5
	9/20/2012	170	<0.5	1.5	<0.5	<0.5	<0.5
	12/13/2012	210	<0.5	2.7	5.2	<0.5	<0.5
	3/27/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	280	<0.5	4.0	1.6	<0.5	<0.5
	9/16/2013	450	<0.5	2.4	1.9	<0.5	<0.5
	12/5/2013	230	<0.5	1.7	5.5	<0.5	<0.5
	3/12/2014	48	<0.5	0.77	3.1	<0.5	<0.5
	6/5/2014	70	<0.5	1.1	3.9	0.69	<0.5
	9/22/2014	96	<0.5	0.94	5.6	<0.5	<0.5
<hr/>							
<b>EX-2</b>	12/2/2009	<63	<3.1	<3.1	<3.1	<3.1	<3.1
	3/16/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	6/3/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	9/1/2010	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	12/2/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	3/3/2011	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	5/19/2011	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	9/8/2011	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	12/1/2011	74	<3.2	<3.5	<2.8	<2.4	<1.7
	3/2/2012	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	6/6/2012	<33	<1.7	<1.7	<1.7	<1.7	<1.7
	9/20/2012	<33	<1.7	<1.7	<1.7	<1.7	<1.7
	12/13/2012	<71	<3.6	<3.6	<3.6	<3.6	<3.6
	3/27/2013	<20	<1.0	<1.0	<1.0	<1.0	<1.0
	6/10/2013	32	<1.0	<1.0	<1.0	<1.0	<1.0
	9/20/2013	<20	<1.0	<1.0	<1.0	1.4	<1.0
	12/5/2013	30	<1.0	<1.0	<1.0	1.2	<1.0
	3/12/2014	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	6/5/2014	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	9/22/2014	<10	<0.5	<0.5	<0.5	1.1	<0.5
<hr/>							
<b>MPE Wells</b>							
<b>MPE-1</b>	8/4/2011	<500	<25	<25	<25	<25	<25
	9/26/2011	<500	<25	<25	600	<25	<25
	12/2/2011	830	<32	<35	750	<24	<17
	3/2/2012	<710	<36	<36	1,200	<36	<36
	6/6/2012	<630	<31	<31	430	<31	<31
	9/20/2012	<1,300	<63	<63	1,200	<63	<63
	12/14/2012	<1,300	<63	<63	940	<63	<63
	3/27/2013	<710	<36	<36	890	<36	<36
	6/10/2013	660	<13	<13	380	<13	<13
	9/17/2013	1,400	<13	<13	<13	<13	<13
	12/6/2013	1,500	<20	<20	30	<20	<20
	3/13/2014	1,100	<20	<20	160	<20	<20
	6/5/2014	FP	FP	FP	FP	FP	FP
	9/23/2014	420	<3.6	3.7	24	<3.6	<3.6
	<hr/>						
<b>MPE-2</b>	8/4/2011	<330	<17	<17	<17	<17	<17
	9/26/2011	<330	<17	<17	<17	<17	<17
	12/2/2011	<66	<16	<17	<14	<12	<8.6
	3/2/2012	<330	<17	<17	<17	<17	<17
	6/7/2012	<250	<13	<13	<13	<13	<13
	9/21/2012	<250	<13	<13	<13	<13	<13
	12/14/2012	<250	<13	<13	<13	<13	<13
	3/28/2013	<400	<20	<20	<20	<20	<20
	6/11/2013	<250	<13	<13	<13	<13	<13
	9/17/2013	<250	<13	<13	<13	<13	<13
	12/5/2013	FP	FP	FP	FP	FP	FP
	3/12/2014	FP	FP	FP	FP	FP	FP
	6/5/2014	FP	FP	FP	FP	FP	FP
	9/23/2014	<130	<6.3	<6.3	<6.3	<6.3	<6.3

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
2nd WBZ							
MW-1D	1/3/2008	111	<0.5	<0.5	<2.0	NA	NA
	1/22/2008	12.9	<0.5	<0.5	<2.0	<0.5	<0.5
	4/16/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/16/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2011	<1.5	<0.36	<0.40	<0.32	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/16/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/5/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/12/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/5/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/22/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3D	1/3/2008	37.3	<0.5	3.12	15.3	NA	NA
	1/22/2008	15.6	<0.5	3.1	15.3	<0.5	<0.5
	4/16/2008	17.7	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	<2.0	<0.5	<0.5	7.45	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	4.7	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	3.4	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	5	<0.5	<0.5
	8/26/2009	<10	<0.5	<0.5	1.6	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	2.2	<0.5	<0.5
	3/16/2010	<10	<0.5	<0.5	0.65	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	1.8	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	0.93	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	1.0	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2011	<1.5	<0.36	<0.40	0.52	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/16/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/5/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/13/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/5/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/22/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4D	1/4/2008	25	<0.5	<0.5	<2.0	NA	NA
	1/22/2008	124	<0.5	4.9	3.32	<0.5	<0.5
	4/15/2008	25.7	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	3.38	<0.5	<0.5	<2.0	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 2**  
**Historical Gasoline Oxygenates Results**  
**15101 Freedom Avenue, San Leandro, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-4D cont.</b>	3/16/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2011	<1.5	<0.36	<0.40	<0.32	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/13/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/27/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/10/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/16/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/6/2013	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/13/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	<b>9/23/2014</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>1573 153 RD</b>	1/3/2008	21	<0.5	<0.5	<2.0	<0.5	<2.0
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>ESL</b>	<b>12</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>0.5</b>	<b>0.05</b>	

Notes:

August 8, 2002 was the first time that samples were analyzed for Gasoline Oxygenates

<: Not detected above the laboratory reporting limit.

NA: Not Analyzed. Well MW-8 was inaccessible during the 1Q05 & well MW-7 (1Q06) car was parked over each well.

NE: Not Established

TBA: tert-Butyl Alcohol

DIPE: Isopropyl Ether

ETBE: Ethyl tert-Butyl Ether

TAME: Methyl tert-Amyl Ether

ESL: Environmental Screening Levels per CRWQCB SFBay Region Interim Final Nov. 2007 (Revised May 2008);

Table F-1a, Groundwater Screening Levels (groundwater is a current or potential drinking water resource)

MW-8 and MW-9 were decommissioned November 13, 2009

FP: Groundwater not sampled due to presence of free-product in MW-6

**Table 3**  
**Effluent Chemical Analytical Results**  
**and Operational History of Remediation System**  
15101 Freedom Ave, San Leandro, CA

Date	Volume (gallons)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	COD (mg/L)	TSS (mg/L)	pH
<b>2009</b>											
8-Oct-2009	15,351	<50	120 <sup>Y</sup>	NA	NA	NA	NA	NA	NA	NA	NA
19-Nov-2009	8,287	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.7
9-Dec-2009	0										
16-Dec-2009	20,000	<50	<50	<300	<0.5	0.65 C	<0.5	0.84 C	<10	<5	7.4
<b>2010</b>											
18-Jan-2010	215,453	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.4
15-Feb-2010	297,560	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	11	<5	6.7
15-Mar-2010	475,245	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5.0	6.5
19-Apr-2010	621,180	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	8	6.6
17-May-2010	705,770	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	8	6.7
16-Jun-2010	825,200	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	17	9	6.8
19-Jul-2010	910,652	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	8	6.6
16-Aug-2010	939,935	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.6
28-Sep-2010	970,450	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	10	6.8
26-Oct-2010	1,013,700	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.2
15-Nov-2010	1,052,591	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.5
7-Dec-2010	1,100,492	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.6
<b>2011</b>											
11-Jan-2011	1,179,075	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	12	6	6.6
10-Feb-2011	1,249,569	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.6
14-Mar-2011	1,336,784	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.5
11-Apr-2011	1,364,272	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.5
10-May-2011	1,466,472	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	12	7	6.6
7-Jun-2011	1,532,263	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.6

**Table 3**  
**Effluent Chemical Analytical Results**  
**and Operational History of Remediation System**  
 15101 Freedom Ave, San Leandro, CA

Date	Volume (gallons)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylben- zene (µg/L)	Total Xylenes (µg/L)	COD (mg/L)	TSS (mg/L)	pH
28-Jul-2011	1,573,295	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	5	6.3
25-Aug-2011	1,613,935	77	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.1
23-Sep-2011	1,631,273	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.7
27-Oct-2011	1,642,277	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	7	7.1
18-Nov-2011	1,676,170	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.8
1-Dec-2011	1,694,889	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.97
<b>2012</b>											
19-Jan-2012	1,715,163	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.02
23-Feb-2012	1,794,185	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.98
20-Mar-2012	1,803,832	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	7	7.02
17-Apr-2012	1,876,439	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.95
29-May-2012	1,900,111	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.89
11-Jun-2012	1,914,130	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.1
12-Jul-2012	1,943,456	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.3
17-Aug-2012	1,955,438	<50	<52	<310	<0.5	<0.5	<0.5	<0.5	NA	NA	7.04
17-Sep-2012	1,979,852	<50	<54	<330	<0.5	<0.5	<0.5	<0.5	NA	NA	7.02
23-Oct-2012	1,989,022	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.95
12-Nov-2012	1,995,170	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.90
4-Dec-2012	2,024,040	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.86
<b>2013</b>											
7-Jan-2013	2,099,002	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.01
14-Feb-2013	2,186,595	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.08
14-Mar-2013	2,193,121	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.98
12-Apr-2013	2,198,793	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.83
10-Jun-2013	2,273,686	<50	<58	<350	<0.5	<0.5	<0.5	<0.5	NA	NA	6.91

**Table 3**  
**Effluent Chemical Analytical Results**  
**and Operational History of Remediation System**  
 15101 Freedom Ave, San Leandro, CA

Date	Volume (gallons)	TPH-g ( $\mu\text{g}/\text{L}$ )	TPH-d ( $\mu\text{g}/\text{L}$ )	TPH-mo ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethylbenzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	COD (mg/L)	TSS (mg/L)	pH
5-Jul-2013	2,282,444	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.87
15-Aug-2013	2,403,250	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.64
24-Sep-2013	2,449,583	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.59
28-Oct-2013	2,551,538	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.71
14-Nov-2013	2,665,016	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.53
6-Dec-2013	2,770,675	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.44
<b>2014</b>											
9-Jan-2014	2,884,292	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.49
18-Feb-2014	2,953,173	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.66
14-Mar-2014	2,977,698	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.58
17-Apr-2014	3,035,679	89 Y	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.60
15-May-2014	3,054,723	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.19
16-Jun-2014	55-Gallon polishing drum replaced due to leak										
17-Jun-2014	3,070,826	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.74
21-Jul-2014	3,136,493	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.92
13-Aug-2014	3,229,086	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.50
<b>9-Sep-2014</b>	<b>3,360,607</b>	<b>&lt;50</b>	<b>&lt;49</b>	<b>&lt;290</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>NA</b>	<b>NA</b>	<b>6.44</b>

Note:

NA: Not Available/Not Applicable

< : Less than Laboratory-reporting limit

Y: Sample exhibits chromatographic pattern which does not resemble standard

In October and November 2009 discharge occurred only during MPE events

GWETS and totalizer installed in December 2009.

Week # 1 sampling conducted on Oct 8, 2009

C: Presence confirmed, but RPD between column exceeds 40%

Volume discharged during the October 2009 MPE event was 18,669 gallons

Volume discharged during the November 2009 MPE event was 10,507 gallons

Volume discharged during the December 2009 MPE event was 20,298 gallons

Volume discharged during the February 2010 MPE event was 6,339 gallons

Volume discharged during the March 2010 MPE event was 3,810 gallons

Volume discharged during the June 2010 MPE event was 15,600 gallons

Volume discharged during the August 2010 MPE event was 1,421 gallons

Volume discharged during the October 2010 MPE event was 13,282 gallons

SOMA ceased COD and TSS testing based on a request from OLSD dated April 5, 2012

**Table 4**  
**Cumulative Masses of Petroleum Hydrocarbons Removed from**  
**the Groundwater Since Installation of the Treatment System**  
 15101 Freedom Ave, San Leandro, CA

Date	Volume (gallons)	Influent Concentration ( $\mu\text{g/L}$ )					Mass removed (pounds)					
		TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	
<b>2009</b>												
9-Dec-2009	0		Installation of GWETS, began discharging treated groundwater to site sewer main									
<b>2010</b>												
18-Jan-2010	215,453	1,900	79	32.00	2.4	260	3.41	0.14	0.06	0.00	0.47	
19-Apr-2010	621,180	2,100	75	28	56	332	10.50	0.40	0.15	0.19	1.59	
19-Jul-2010	910,652	56 <sup>Y</sup>	<0.5	<0.5	<0.5	<0.5	10.64	0.40	0.15	0.19	1.59	
26-Oct-2010	1,013,700	2,600	200	25	68	405	12.87	0.57	0.17	0.25	1.94	
<b>2011</b>												
11-Jan-2011	1,179,075	1,700	80	19	50	295	15.21	0.68	0.20	0.32	2.34	
11-Apr-2011	1,364,272	1,200	41	3.3	23	185	17.06	0.75	0.20	0.36	2.63	
28-Jul-2011	1,573,295	540	21	2.8	5.4	49	18.00	0.78	0.21	0.37	2.71	
27-Oct-2011	1,642,277	<50	1.50	<0.5	<0.5	2.9	18.00	0.78	0.21	0.37	2.71	
<b>2012</b>												
19-Jan-2012	1,715,163	110 <sup>Y</sup>	<0.5	<0.5	<0.5	<0.5	18.07	0.78	0.21	0.37	2.71	
17-Apr-2012	1,876,439	1,100	60	6.8	24	161	19.54	0.87	0.22	0.40	2.93	
12-Jul-2012	1,943,456	320	30	1.6	15	34	19.72	0.88	0.22	0.41	2.95	
23-Oct-2012	1,989,022	1,400 <sup>Y</sup>	130	12	42	153	20.25	0.93	0.22	0.42	3.01	
<b>2013</b>												
7-Jan-2013	2,099,002	1,500	66	9.8	37	228	21.63	0.99	0.23	0.46	3.22	
12-Apr-2013	2,198,793	1,600	110	3.8	64	131	22.96	1.08	0.24	0.51	3.32	
5-Jul-2013	2,282,444	680	71	1.8	22	33.9	23.43	1.13	0.24	0.52	3.35	
28-Oct-2013	2,551,538	4,900	88	49	150	583	34.41	1.33	0.35	0.86	4.65	
<b>2014</b>												
9-Jan-2014	2,884,292	590	17	4.1	9.1	68	36.04	1.38	0.36	0.89	4.84	
17-Apr-2014	3,035,679	650	19	0.67	16	50.1	36.86	1.40	0.36	0.91	4.91	
<b>21-Jul-2014</b>	<b>3,136,493</b>	<b>1,000</b>	<b>54</b>	<b>1.70</b>	<b>35</b>	<b>71.1</b>	<b>37.70</b>	<b>1.45</b>	<b>0.36</b>	<b>0.94</b>	<b>4.97</b>	

Notes:

< : Below laboratory-reporting limit

Y : sample exhibits chromatographic pattern which does not resemble standard

# **Appendix A**

## **Standard Operating Procedures for Conducting Groundwater Monitoring Activities**

# **Standard Operating Procedures for Conducting Groundwater Monitoring Activities**

## **Water Level and Free-Product Measurements**

Prior to measurement of groundwater depth at each well, equalization with the surrounding aquifer must be achieved. Initially, the well cap is removed and the pressure is allowed to dissipate, creating a more stable water table level within the well. After about 10-15 minutes, once the water level in the well stabilizes, the depth to groundwater is measured from the top of the casing to the nearest 0.01 foot using an electric sounder.

For free-product (FP) measurement, an oil-water interface probe is used. When the probe is lowered into the FP, the oil/water light and beeper are continuously on at which point a reading for depth to FP is noted. The probe is lowered further into the well until the water signal is given (light flashes and beeps intermittently). Then the probe is carefully raised until the FP signal is given and the reading is noted. This gives the depth to interface of product and water.

## **Purging and Field Measurements**

Prior to sample collection, each well is purged using a battery-operated, 2-inch-diameter pump (Model ES-60 DC). During purging, groundwater is measured for parameters such as dissolved oxygen (DO), pH, temperature, electrical conductivity (EC), and oxygen-reduction potential (ORP) using a Hanna HI-9828 multi-parameter instrument. Turbidity is measured using a Hanna HI-98703 portable turbidimeter. The equipment is calibrated at the site using standard solutions and procedures provided by the manufacturer.

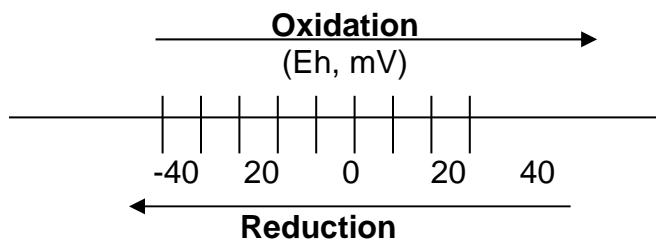
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater EC is directly related to the concentration of total dissolved solids (TDS) in solution.

There is a strong correlation between the turbidity level and the biological oxygen demand of natural water bodies. The main purpose for checking the turbidity level is to provide a general overview of the extent of the suspended solids in the groundwater.

ORP is the measure of the potential for an oxidation or reduction process to occur. In the oxidation process, a molecule or ion loses one or several electrons. In the reduction process, a molecule or ion gains one or several electrons. The unit of the redox potential is the volt or millivolt. The most important redox reaction in petroleum-contaminated groundwater is the oxidation of petroleum hydrocarbons in the presence of bacteria and free molecular oxygen. Because the solubility of O<sub>2</sub> in water is low (9 mg/L at 25 °C and 11 mg/L at 5 °C), and

because the rate of O<sub>2</sub> replenishment in subsurface environments is limited, DO can be entirely consumed when the oxidation of only a small amount of petroleum hydrocarbons occurs.

Oxidation of petroleum hydrocarbons can still occur when all the dissolved O<sub>2</sub> in the groundwater is consumed; however, the oxidizing agents (i.e., the constituents that undergo reduction) now become NO<sub>3</sub><sup>-</sup>, MnO<sub>2</sub>, Fe(OH)<sub>3</sub>, SO<sub>4</sub><sup>2-</sup> and others (Freeze and Cherry, 1979). As these oxidizing agents are consumed, the groundwater environment becomes more and more reduced. If the process advances far enough, the environment may become so strongly reduced that the petroleum hydrocarbons undergo anaerobic degradation, resulting in the production of methane and carbon dioxide. The concept of oxidation and reduction in terms of changes in oxidation states is illustrated below.



Purging of wells continues until the parameters for DO, pH, temperature, EC, turbidity, and redox stabilize, or three casing volumes are purged.

Once stabilization occurs, the groundwater samples are also tested on-site for ferrous iron (Fe<sup>+2</sup>), nitrate (NO<sub>3</sub><sup>-</sup>), and sulfate (SO<sub>4</sub><sup>2-</sup>) concentrations.

Fe<sup>+2</sup>, NO<sub>3</sub><sup>-</sup>, and SO<sub>4</sub><sup>2-</sup> are measured colorimetrically using the Hach Colorimeter Model 890, a microprocessor-controlled photometer suitable for colorimetric testing in the laboratory or the field. The required reagents for each specific test are provided in AccuVac ampuls.

## Sampling

For sampling purposes, after purging a disposable polyethylene bailer is used to collect sufficient samples from each monitoring well for laboratory analyses. Groundwater samples are transferred into 40-mL VOA vials and preserved with hydrochloric acid. The vials are sealed to prevent air bubbles from developing within the headspace. For TPH-d analysis, groundwater samples are collected using 1-L, amber, non-preserved glass containers. Samples are placed in an ice-filled cooler and maintained at 4°C. A chain of custody form for all samples is prepared to accompany the samples, which are promptly delivered to a California state-certified analytical laboratory.

# **Appendix B**

Table of Elevations and Coordinates on Monitoring Wells,  
Field Measurements of Physical, Chemical, and Natural  
Attenuation Parameters of Groundwater Samples, and  
Groundwater Gradient Calculations

# *Harrington Surveys Inc.*

## *Land Surveying & Mapping*

2278 Larkey Lane, Walnut Creek, Ca. 94596 Phone (925)935-7228 Fax (925)935-5118  
Cel (925)788-7359 E-Mail (ben5132@pacbell.net)

Soma Environmental Engineering  
2680 Bishop Dr. # 203  
San Ramon, Ca. 94583

Oct. 14, 2004

Attn: Elena Manzo  
Job # 2445

Ref: 15101 Freedom Ave, San Leandro, Ca.

### **HORIZONTAL CONTROL, NAD 88:**

Survey based on California Coordinate System, Zone 3, NAD 83.

CHABOT "B", NORTH 2,087,731.02 EAST 6,094,039.23 sft. LAT. N37°43'02.71762"  
W122°07'00.46339", NAVD 88, ELEV. 134.957.

CHABOT "A", NORTH 2,088,584.99 EAST 6,093,351.39 sft. LAT. N37°43'11.04190"  
W122°07'09.20691", NAVD 88, ELEV. 492.08.

### **VERTICAL CONTROL, NAVD 88:**

NGS 1974, STATION K 1256, NAVD 88 ELEV. 58.50.  
PID # HT1871

GPS: TRIMBLE 5800, LEICA TCA 1800, 1" HORZ. & VERT.

EPOCH DATE 1998.5

OBSERVATION: EPOCH=180.

FIELD SURVEY: OCT. 11, 2004.

  
Ben Harrington  
PLS 5132



**SURVEY REPORT  
15101 FREEDOM AVE  
SAN LEANDRO, CA.**

**HARRINGTON SURVEYS INC.**  
2278 LARKEY LANE  
WALNUT CREEK, CA. 94597  
925-935-7228 FAX. 935-5118

JOB NO. 2445  
DATE: OCT. 12, 2004



**AMMENDED REPORT  
15101 FREEDOM AVE  
SAN LEANDRO, CA.**

**HARRINGTON SURVEYS INC.**  
2278 LARKEY LANE  
WALNUT CREEK, CA. 94597  
925-935-7228 FAX. 935-5118

**JOB NO. 2445**

DATE: 1/08/2008  
JOB NUMBER 0208101  
DATE OF SURVEY 1/03/08  
INSTRUMENT LIECA SR520

TABLE OF ELEVATIONS & COORDINATES  
ON MONITORING WELLS

SOMA ENVIRONMENTAL, PROJECT 15101 FREEDOM DRIVE - SAN LEANDRO

WELL ID#	NORTHING (ft.) LATITUDE	EASTING (ft.) LONGITUDE	ELEVATION (ft.)	DESCRIPTION
MW-1D	2084371.23	6092127.90	54.42	MW-1D NOTCH
	37.708104856	122.123200912	54.94	MW-1D RIM
	37° 42' 29.1" N	122° 07' 23" W	54.74	PAVEMENT
MW-3D	2084303.98	6092183.53	54.10	MW-3D NOTCH
	37.707922851	122.123004590	54.56	MW-3D RIM
	37° 42' 28.5" N	122° 07' 22" W	54.47	PAVEMENT
MW-4D	2084222.77	6092116.37	53.12	MW-4D NOTCH
	37.707696648	122.123231858	53.37	MW-4D RIM
	37° 42' 27.7" N	122° 07' 23" W	53.39	PAVEMENT

BENCH MARK: NGS BENCH MARK NO. HT1871

3.0 KM (1.85 MI) NORTH FROM SAM LORENZO. 1.85 MILES NORTH ALONG INTERSTATE HIGHWAY 580 FROM THE JUNCTION OF STATE HIGHWAY 238 IN SAN LORENZO, IN THE WEST CORNER OF THE CROSSING OF 150TH AVENUE, IN TOP OF THE CONCRETE BRIDGE DECK, 15.5 FEET NORTHWEST OF THE SOUTHWEST BOUND LANES OF THE AVENUE, 10.9 FEET NORTHEAST OF THE SOUTH CORNER OF THE SOUTHWEST END OF THE NORTHWEST CONCRETE GUARDRAIL, 0.7 FOOT NORTHEAST OF THE SOUTHWEST EDGE OF THE DECK, 0.9 FOOT SOUTHEAST OF THE NORTHWEST CONCRETE GUARDRAIL, AND ABOUT LEVEL WITH THE HIGHWAY.

ELEVATION = 58.50 NAVD 88 DATUM

HORIZONTAL AND VERTICAL CONTROL BASED ON HARRINGTON SURVEY DATED 10-12-2004

FD CHABOT A, CALIFORNIA STATE PLAIN COORDINATE SYSTEM, NAD 83, ZONE 3. NORTH 2,088,584.99 EAST 6,093,351.39. LAT N 37°43'11.04190" LONG W 122°07'09.20691", ELEVATION 492.08 NAVD 88.

FD CHABOT B, CALIFORNIA STATE PLAIN COORDINATE SYSTEM, NAD 83, ZONE 3. NORTH 2,087,731.02 EAST 6,094,039.23. . LAT N 37°43'02.71762" LONG W 122°07'00.46339", ELEVATION 442.77 NAVD 88.

DATE: 12/11/2009

JOB# 09039

**TABLE OF ELEVATIONS & COORDINATES****ON MONITORING WELLS**

SOMA ENVIRONMENTAL ENGINEERING

15101 FREEDOM AVENUE

SAN LEANDRO, CA 94579

WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION
EX-1	2084135.454 37.707459134	6092163.720 122.123062972	47.36 47.61 47.60	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE
EX-2	2084082.018 37.707310806	6092130.224 122.123175540	45.96 47.04 47.00	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM CONCRETE NORTH SIDE
MPE-1	2084213.168 37.707670702	6092125.258 122.123200567	51.96 52.49 52.51	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM CONCRETE NORTH SIDE
MPE-2	2084293.133 37.707892479	6092171.374 122.123045970	53.72 54.29 54.27	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE

**HORIZONTAL AND VERTICAL CONTROL**

SURVEY BASED ON PREVIOUS SURVEY BY HARRINGTON SURVEY INC. DATED: 2/21/2008

COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD83.  
ELEVATIONS ARE NAVD 88 DATUM.

MW-2, PUNCH

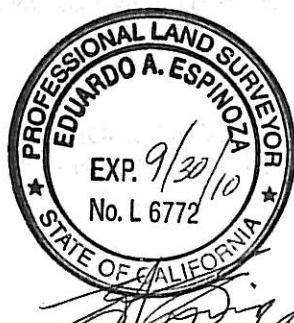
NORTHING 2,084323.44, EASTING 6,092063.77, ELEVATION 52.92

MW-4 PUNCH

NORTHING 2,084250.55, EASTING 6,092124.46, ELEVATION 53.74

EQUIPMENT USED: TRIMBLE S6

Edgis Land Surveying  
 Land Surveying and mapping  
 1374 Garland Avenue, Clovis, CA 93612  
 Phone (559) 906-3554 Fax (559) 292-0560  
 email: edgis@aol.com



DATE: 9/27/2014

JOB#

## **TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS**

SOMA ENVIRONMENTAL ENGINEERING  
15101 FREEDOM AVENUE  
SAN LEANDRO, CA 94579

#### HORIZONTAL AND VERTICAL CONTROL

SURVEY BASED ON PREVIOUS SURVEY BY EDGIS LAND SURVEYING DATED: 12/11/2009

COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD83.  
ELEVATIONS ARE NAVD 88 DATUM

## **EX-1. PUNCH**

NORTHING 2,084.135.63. EASTING 6,092.163.63 ELEVATION 47.61

EX-2 PUNCH

NORTHING 2 084 082 EASTING 6 092 129.99 ELEVATION 47.04

**EQUIPMENT USED: TRIMBLE S6**



*ATG*  
9/27/14

**EDGIS LAND SURVEYING**  
Land Surveying and mapping  
**2519 W. Shaw Avenue, Ste. 111**  
Fresno, CA 93711  
ne (559) 803-2679 Fax (559) 823-  
email: [edgis@aol.com](mailto:edgis@aol.com)



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1  
Casing Diameter: 4 inches  
Depth of Well: 30.50 feet  
Top of Casing Elevation: 54.46 feet  
Depth to Groundwater: 24.49 feet  
Groundwater Elevation: 29.97 feet  
Water Column Height: 6.01 feet  
Purged Volume: 12 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: Slight Petro

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
11:08	Started purging well						
11:09	2	1.75	6.58	20.7	1110	5.67	-72.4
11:10	4	1.52	6.55	20.7	1051	6.72	-81.4
11:12	8	1.10	6.57	20.7	1113	3.84	-86.6
11:13	10	1.02	6.59	20.7	1153	6.66	-90.3
11:14	12	0.95	6.61	20.6	1168	8.42	-92.6
11:19	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW - 2  
Casing Diameter: 4 inches  
Depth of Well: 30.15 feet  
Top of Casing Elevation: 52.41 feet  
Depth to Groundwater: 22.95 feet  
Groundwater Elevation: 29.46 feet  
Water Column Height: 7.20 feet  
Purged Volume: 12 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: Slight Petro

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
10:39	Started purging well						
10:40	2	10.09	6.63	20.6	1245	12.0	-101.3
10:41	4	3.31	6.57	20.7	1122	10.6	-124.0
10:43	8	1.81	6.72	20.6	1302	6.83	-131.3
10:44	10	1.32	6.75	20.6	1352	4.94	-128.4
10:45	12	1.14	6.77	20.6	1372	5.92	-123.8
10:50	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-3 Project No.: 2551  
Casing Diameter: 4 inches Address: 15101 Freedom Avenue  
Depth of Well: 29.90 feet San Leandro, CA  
Top of Casing Elevation: 53.91 feet Date: September 23, 2014  
Depth to Groundwater: 24.16 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 29.75 feet  
Water Column Height: 5.74 feet  
Purged Volume: 12 gallons

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

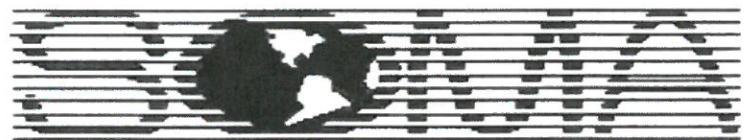
Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: Rainbow Sheen

Odor: Yes  No  Describe: Petro Odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:25	Started purging well						
12:26	2	0.94	6.68	21.6	1150	26.9	-146.9
12:27	4	0.81	6.69	21.6	1146	13.8	-158.3
12:29	8	0.70	6.71	21.6	1142	13.7	-169.9
12:30	10	0.65	6.72	21.5	1137	11.7	-170.7
12:31	12	0.61	6.73	21.5	1135	12.8	-169.7
12:36	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4  
Casing Diameter: 4 inches  
Depth of Well: 30.20 feet  
Top of Casing Elevation: 53.31 feet  
Depth to Groundwater: 24.22 feet  
Groundwater Elevation: 29.09 feet  
Water Column Height: 5.98 feet  
Purged Volume: 12 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Cloudy  
Sheen: Yes  No  Describe: \_\_\_\_\_  
Odor: Yes  No  Describe: Slight Petro

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
11:32	Started purging well						
11:33	2	1.64	6.69	20.5	1094	110	-34.5
11:34	4	1.14	6.62	20.4	1109	185	-52.7
11:36	8	0.97	6.58	20.4	1222	70.5	-67.7
11:37	10	0.86	6.58	20.4	1261	37.1	-69.1
11:38	12	0.81	6.59	20.4	1251	20.7	-69.0
11:43	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-5 Project No.: 2551  
Casing Diameter: 4 inches Address: 15101 Freedom Avenue  
Depth of Well: 29.80 feet San Leandro, CA  
Top of Casing Elevation: 50.53 feet Date: September 23, 2014  
Depth to Groundwater: 21.61 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 28.92 feet  
Water Column Height: 8.19 feet  
Purged Volume: 12 gallons

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: Slight Petro

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:00	Started purging well						
12:01	2	1.15	7.07	21.7	983	13.5	-190.4
12:02	4	0.84	7.08	21.8	982	13.8	-200.5
12:04	8	0.60	7.07	21.8	985	11.0	-201.1
12:05	10	0.57	7.05	21.7	1003	11.2	-196.7
12:06	12	0.56	7.02	21.6	1031	9.32	-192.6
12:11	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-6  
Casing Diameter: 4 inches  
Depth of Well: 27.30 feet  
Top of Casing Elevation: 45.82 feet  
Depth to Groundwater: 19.33 feet  
Groundwater Elevation: 26.49 feet  
Water Column Height: 7.97 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 22, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: Rainbow Sheen

Odor: Yes  No  Describe: Petro odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:20	Started purging well						
14:21	2	1.44	6.60	21.4	1306	15.6	-132.2
14:22	4	1.18	6.62	21.6	1311	10.4	-144.0
14:24	8	1.10	6.65	21.6	1330	10.5	-148.2
14:26	12	1.06	6.66	21.4	1357	8.70	-147.7
14:27	14	1.06	6.67	21.4	1361	8.19	-147.0
14:32	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-7  
Casing Diameter: 2 inches  
Depth of Well: 21.00 feet  
Top of Casing Elevation: 44.74 feet  
Depth to Groundwater: 16.63 feet  
Groundwater Elevation: 28.11 feet  
Water Column Height: 4.37 feet  
Purged Volume: 2 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 22, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: cloudy

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: \_\_\_\_\_

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. ( $\mu$ S/cm)	Turb. NTU	ORP
13:52	Started purging well						
13:54	1	3.98	6.66	20.8	1318	999	-95.8
13:58	1.5	1.72	6.65	20.2	1319	999	-90.6
14:00	2	1.84	6.67	20.2	1297	999	-85.0
14:05	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-10  
Casing Diameter: 2 inches  
Depth of Well: 28.50 feet  
Top of Casing Elevation: 44.66 feet  
Depth to Groundwater: 17.84 feet  
Groundwater Elevation: 26.82 feet  
Water Column Height: 10.66 feet  
Purged Volume: 6 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 22, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Cloudy  
Sheen: Yes  No  Describe: \_\_\_\_\_  
Odor: Yes  No  Describe: Petro odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
11:44	Started purging well						
11:45	2	2.74	6.47	19.9	1261	932	+10.9
11:46	4	1.90	6.51	19.9	1281	302	-14.2
11:47	6	1.80	6.53	19.9	1266	252	-36.7
11:52	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-11  
Casing Diameter: 2 inches  
Depth of Well: 28.57 feet  
Top of Casing Elevation: 42.45 feet  
Depth to Groundwater: 15.52 feet  
Groundwater Elevation: 26.93 feet  
Water Column Height: 13.05 feet  
Purged Volume: 6 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 22, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: cloudy

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: \_\_\_\_\_

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:31	Started purging well						
12:32	2	2.90	6.85	19.2	1154	999	-20.1
12:33	4	1.76	6.85	19.3	1165	999	-41.3
12:34	6	1.31	6.85	19.2	1158	999	-57.2
12:39	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.:	<u>EX-1</u>		Project No.:	2551	
Casing Diameter:	<u>4</u>	inches	Address:	15101 Freedom Avenue	
Depth of Well:	<u>—</u>	feet		San Leandro, CA	
Top of Casing Elevation:	<u>47.36</u>	feet	Date:	September <u>22</u> , 2014	
Depth to Groundwater:	<u>21.15</u>	feet	Sampler:	Lizzie Hightower	
Groundwater Elevation:	<u>26.21</u>	feet			
Water Column Height:	<u>NC</u>	feet			
Purged Volume:	<u>—</u>	gallons			
	<u>Not purged</u>				
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Pump	<input type="checkbox"/>	
Color:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Sheen:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Odor:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Slight Petro</u>

#### **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC

Well No.: EX-2 Project No.: 2551  
Casing Diameter: 4 inches Address: 15101 Freedom Avenue  
Depth of Well: — feet San Leandro, CA  
Top of Casing Elevation: 45.96 feet Date: September 22, 2014  
Depth to Groundwater: 23.20 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 22.76 feet  
Water Column Height: NC feet  
Purged Volume: — gallons  
*Not purged*  
Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump   
Color: Yes  No  Describe: \_\_\_\_\_  
Sheen: Yes  No  Describe: \_\_\_\_\_  
Odor: Yes  No  Describe: Slight Petro

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
13:36	<i>Grab Sample</i>						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MPE-1  
Casing Diameter: 4 inches  
Depth of Well: 30.00 feet  
Top of Casing Elevation: 51.96 feet  
Depth to Groundwater: 23.12 feet  
Groundwater Elevation: 28.84 feet  
Water Column Height: 6.88 feet  
Purged Volume: 12 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Gray

Sheen: Yes  No  Describe: Rainbow Sheen

Odor: Yes  No  Describe: Petro Odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
13:33	Started purging						
13:34	2	2.04	6.75	20.7	1098	17.4	-141.7
13:35	4	1.51	6.69	20.7	1165	14.7	-145.8
13:37	8	0.86	6.74	20.4	1262	58.6	-147.2
13:38	10	0.76	6.75	20.7	1250	135	-149.8
13:39	12	0.73	6.77	20.3	1253	67.4	-150.1
13:44	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MPE-2  
Casing Diameter: 4 inches  
Depth of Well: 30.00 feet  
Top of Casing Elevation: 53.72 feet  
Depth to Groundwater: 24.05 feet  
Groundwater Elevation: 29.67 feet  
Water Column Height: 5.95 feet  
Purged Volume: 12 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: Rainbow Sheen

Odor: Yes  No  Describe: Petro Odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:46	Started purging well						
12:47	2	0.76	6.81	21.8	1050	8.01	-175.2
12:48	4	0.65	6.84	21.8	1053	7.01	-188.5
12:50	8	0.57	6.84	21.7	1060	6.33	-193.3
12:51	10	0.56	6.83	21.7	1063	6.37	-191.3
12:52	12	0.55	6.83	21.7	1062	6.41	-190.8
12:57	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1D Project No.: 2551  
Casing Diameter: 2 inches Address: 15101 Freedom Avenue  
Depth of Well: 59.81 feet San Leandro, CA  
Top of Casing Elevation: 54.42 feet Date: September 22, 2014  
Depth to Groundwater: 24.65 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 29.71 feet  
Water Column Height: 35.16 feet  
Purged Volume: 14 gallons

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

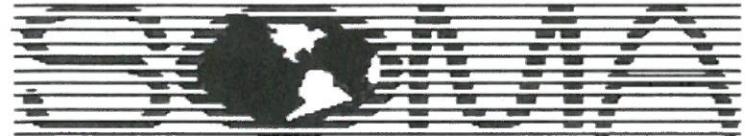
Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: \_\_\_\_\_

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:59	Started purging well						
15:00	2	1.61	7.25	19.9	1236	4.86	+20.3
15:01	4	1.31	7.26	19.8	1236	7.41	+17.2
15:03	8	1.10	7.28	19.8	1236	18.9	+16.0
15:05	12	1.03	7.28	19.8	1236	133	+16.5
15:06	14	1.04	7.29	19.8	1236	9.71	+16.8
15:11	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-3D  
Casing Diameter: 2 inches  
Depth of Well: 59.81 feet  
Top of Casing Elevation: 54.10 feet  
Depth to Groundwater: 24.40 feet  
Groundwater Elevation: 29.70 feet  
Water Column Height: 35.41 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 22, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: \_\_\_\_\_

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
15:28	Started purging well						
15:29	2	94.61	7.17	20.0	1122	6.94	+50.2
15:30	9	1.12	7.18	20.0	1185	4.94	+46.3
15:32	8	0.96	7.19	20.0	1198	4.53	+43.2
15:34	12	0.81	7.19	20.0	1210	5.50	+42.0
15:35	14	0.76	7.19	20.0	1208	3.73	+41.7
15:40	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4D  
Casing Diameter: 2 inches  
Depth of Well: 58.79 feet  
Top of Casing Elevation: 53.12 feet  
Depth to Groundwater: 24.05 feet  
Groundwater Elevation: 29.07 feet  
Water Column Height: 34.74 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 23, 2014  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Cloudy

Sheen: Yes  No  Describe: \_\_\_\_\_

Odor: Yes  No  Describe: \_\_\_\_\_

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
10:05	Started purging well						
10:06	2	14.59	7.04	19.6	1088	14.0	+159.8
10:07	4	8.31	7.23	19.5	1091	15.4	+153.2
10:09	8	6.13	7.33	19.8	1097	27.4	+150.0
10:11	12	9.86	7.35	19.5	1099	227	+146.8
10:12	14	8.52	7.36	19.6	1092	338	+147.7
10:17	Sampled						

## EPA On-line Tools for Site Assessment Calculation

### Hydraulic Gradient -- Magnitude and Direction

**Gradient Calculation** from fitting a plane to as many as thirty points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

...

$$a x_{30} + b y_{30} + c = h_{30}$$

where  $(x_i, y_i)$  are the coordinates of the well and

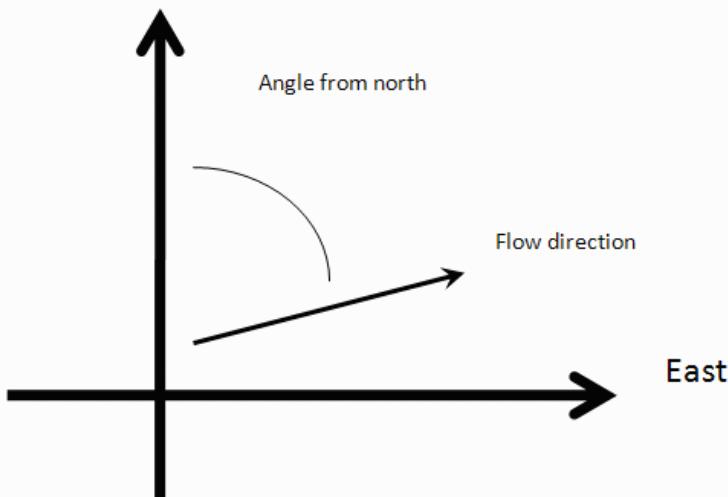
$h_i$  is the head

$i = 1, 2, 3, \dots, 30$

The coefficients a, b, and c are calculated by a least-squares fitting of the the data to a plane

The gradient is calculated from the square root of  $(a^2 + b^2)$  and the angle from the arctangent of a/b or b/a depending on the quadrant

North



### Inputs

Site Name

Date

Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head	ft
1) MW-1	6092119.016	2084364.691	29.97	
2) MW-2	6092063.978	2084323.224	29.46	
3) MW-3	6092176.317	2084298.343	29.75	
4) MW-4	6092124.294	2084251.598	29.09	
5) MW-5	6092177.071	2084206.361	28.92	
6) MW-6	6092140.881	2084072.911	26.49	
7) MW-7	6092290.918	2084008.071	28.11	
8) MW-10	6092182.374	2083967.53	26.82	
9) MW-11	6092224.568	2083926.493	26.93	
10) EX-1	6092163.5	2084133.982	26.21	
11) EX-2	6092131.08	2084082.713	22.76	
12) MPE-1	6092125.048	2084212.393	28.84	
13) MPE-2	6092171.793	2084292.312	29.67	
14)				

15)		
16)		
17)		
18)		
19)		
20)		
21)		
22)		
23)		
24)		
25)		
26)		
27)		
28)		
29)		
30)		

### Results

Number of Points Used in Calculation	13
Max. Difference Between Head Values	2.198
Gradient Magnitude (i)	0.02406
Flow direction as degrees from North (positive y axis)	233.9
Coefficient of Determination ( $R^2$ )	0.613

WCMS

Last updated on 1/10/2013

## EPA On-line Tools for Site Assessment Calculation

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### Hydraulic Gradient

**Gradient Calculation** from fitting a plane to three points

$$a x_1 + b y_1 + c = h_1$$

$$a x_2 + b y_2 + c = h_2$$

$$a x_3 + b y_3 + c = h_3$$

where  $(x_i, y_i)$  are the coordinates of the well and

$h_i$  is the head

$i = 1, 2, 3$

The gradient is calculated from the square root of  $(a^2 + b^2)$  and the angle from the arctangent of  $a/b$  or  $b/a$  depending on the quadrant

Example Data Set 1	<a href="#">Calculate</a>	<a href="#">Clear</a>
<a href="#">Save Data</a>	<a href="#">Recall Data</a>	<a href="#">Go Back</a>
Site Name 15101 Freedom Ave		
Date	September 22, 2014	<a href="#">Current Date</a>
Calculation basis	Head	▼
Coordinates	ft	▼
x-coordinate	y-coordinate	head
6092128.064	2084372.231	29.77
6092183.856	2084303.621	29.70
6092116.755	2084222.948	29.07
Gradient Magnitude (i) 0.006016		
Degrees from North (+ y axis) 223.3		

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# **Appendix C**

**Laboratory Reports and Chain of Custody Forms  
for the Third Quarter 2014 Monitoring Event**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 261180  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Pleasanton, CA 94588

Project : 2551  
Location : 15101 Freedom Avenue San Leandro  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-1	261180-001
MW-2	261180-002
MW-3	261180-003
MW-4	261180-004
MW-5	261180-005
MW-6	261180-006
MW-7	261180-007
MW-10	261180-008
MW-11	261180-009
MW-1D	261180-010
MW-3D	261180-011
MW-4D	261180-012
EX-1	261180-013
EX-2	261180-014
MPE-1	261180-015
MPE-2	261180-016

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar

Date: 10/01/2014

Tracy Babjar  
Project Manager  
tracy.babjar@ctberk.com  
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

**CASE NARRATIVE**

Laboratory number: **261180**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2551**  
Location: **15101 Freedom Avenue San Leandro**  
Request Date: **09/24/14**  
Samples Received: **09/24/14**

This data package contains sample and QC results for sixteen water samples, requested for the above referenced project on 09/24/14. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B):**

M,p-xlenes was detected above the RL in the method blank for batch 215778; this analyte was detected in the sample at a level at least 10 times that of the blank. M,p-xlenes was detected above the RL in the method blank for batch 215815; this analyte was detected in samples at a level at least 10 times that of the blank. No other analytical problems were encountered.

# CHAIN OF CUSTODY

## Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

Page 1 of 1

## Analyses

C&T LOGIN # 241180

<b>Project No:</b> <u>2551</u>	<b>Report To:</b> <u>Joyce Bobek</u>	<b>Project Name:</b> <u>15101 Freedom Ave., San Leandro Company :</u> SCMA Environmental	<b>Turnaround Time:</b> Standard	<b>Fax:</b> <u>925-734-6401</u>																																																																																																																																														
<table border="1"> <thead> <tr> <th rowspan="2">Lab No.</th> <th rowspan="2">Sample ID.</th> <th rowspan="2">Sampling Date Time</th> <th colspan="5">Preservative</th> </tr> <tr> <th>Waste Soil</th> <th># of Containers</th> <th>HCl</th> <th>H<sub>2</sub>SO<sub>4</sub></th> <th>HNO<sub>3</sub></th> <th>ICP</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MW-1</td> <td>9/23/14 11:49</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>2</td> <td>MW-2</td> <td>9/23/14 10:50</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>3</td> <td>MW-3</td> <td>9/23/14 12:36</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>4</td> <td>MW-4</td> <td>9/23/14 11:43</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>5</td> <td>MW-5</td> <td>9/23/14 12:11</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>6</td> <td>MW-6</td> <td>9/22/14 14:32</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>7</td> <td>MW-7</td> <td>9/22/14 14:05</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>8</td> <td>MW-10</td> <td>9/22/14 11:52</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>9</td> <td>MW-11</td> <td>9/22/14 12:39</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>10</td> <td>MW-1D</td> <td>9/22/14 15:11</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>11</td> <td>MW-3D</td> <td>9/22/14 15:40</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>12</td> <td>MW-4D</td> <td>9/23/14 10:17</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>13</td> <td>EX-1</td> <td>9/22/14 13:30</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>14</td> <td>EX-2</td> <td>9/22/14 13:36</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>15</td> <td>MPE-1</td> <td>9/23/14 13:44</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> <tr> <td>16</td> <td>MPE-2</td> <td>9/23/14 12:57</td> <td>*</td> <td>3-VOAS</td> <td>*</td> <td>*</td> <td>*</td> </tr> </tbody> </table>					Lab No.	Sample ID.	Sampling Date Time	Preservative					Waste Soil	# of Containers	HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICP	1	MW-1	9/23/14 11:49	*	3-VOAS	*	*	*	2	MW-2	9/23/14 10:50	*	3-VOAS	*	*	*	3	MW-3	9/23/14 12:36	*	3-VOAS	*	*	*	4	MW-4	9/23/14 11:43	*	3-VOAS	*	*	*	5	MW-5	9/23/14 12:11	*	3-VOAS	*	*	*	6	MW-6	9/22/14 14:32	*	3-VOAS	*	*	*	7	MW-7	9/22/14 14:05	*	3-VOAS	*	*	*	8	MW-10	9/22/14 11:52	*	3-VOAS	*	*	*	9	MW-11	9/22/14 12:39	*	3-VOAS	*	*	*	10	MW-1D	9/22/14 15:11	*	3-VOAS	*	*	*	11	MW-3D	9/22/14 15:40	*	3-VOAS	*	*	*	12	MW-4D	9/23/14 10:17	*	3-VOAS	*	*	*	13	EX-1	9/22/14 13:30	*	3-VOAS	*	*	*	14	EX-2	9/22/14 13:36	*	3-VOAS	*	*	*	15	MPE-1	9/23/14 13:44	*	3-VOAS	*	*	*	16	MPE-2	9/23/14 12:57	*	3-VOAS	*	*	*
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<b>Notes: EDF OUTPUT REQUIRED</b> Ethanol																																																																																																																																																		
<b>RELINQUISHED BY:</b> <u>E. H. H.</u> <u>9/24/14</u> <u>9.24.918</u> <u>DATE/TIME</u> <u>J. J.</u> <u>9/24/14 10:03</u> <u>9/24 103</u> <u>DATE/TIME</u>																																																																																																																																																		
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## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 261180 Date Received 9/24/14 Number of coolers 1  
 Client SOMIT Project 2551

Date Opened 9/24 By (print) FJH (sign) JH  
 Date Logged in 9/24/14 By (print) \_\_\_\_\_ (sign) \_\_\_\_\_

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES NO  
 Shipping info \_\_\_\_\_

2A. Were custody seals present? ....  YES (circle) on cooler on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used:  Wet  Blue/Gel  None Temp(°C) 7.1

Samples Received on ice & cold without a temperature blank; temp. taken with IR gun

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES NO

If YES, what time were they transferred to freezer? \_\_\_\_\_

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are there any missing / extra samples? YES NO

11. Are samples in the appropriate containers for indicated tests? YES NO

12. Are sample labels present, in good condition and complete? YES NO

13. Do the sample labels agree with custody papers? YES NO

14. Was sufficient amount of sample sent for tests requested? YES NO

15. Are the samples appropriately preserved? YES NO N/A

16. Did you check preservatives for all bottles for each sample? YES NO N/A

17. Did you document your preservative check? YES NO N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A

19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A

20. Are bubbles > 6mm absent in VOA samples? YES NO N/A

21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES NO

If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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Curtis & Tompkins, Ltd.

## Detections Summary for 261180

Results for any subcontracted analyses are not included in this summary.

Client : SOMA Environmental Engineering Inc.  
Project : 2551  
Location : 15101 Freedom Avenue San Leandro

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	6,700		1,700	350	ug/L	As Recd	33.33	EPA 8260B	EPA 5030B
Benzene	44		1.7	0.33	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
Ethylbenzene	200		1.7	0.44	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B
m,p-Xylenes	71		1.7	0.37	ug/L	As Recd	3.333	EPA 8260B	EPA 5030B

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	80		50	4.0	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	41,000		1,000	210	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
Benzene	230		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
Toluene	84		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
Ethylbenzene	1,000		10	3.1	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
m,p-Xylenes	3,700		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
o-Xylene	800		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B

Client Sample ID : MW-4      Laboratory Sample ID : 261180-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
tert-Butyl Alcohol (TBA)	1,100		130	17	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Ethyl tert-Butyl Ether (ETBE)	6.3		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
MTBE	7.5		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Benzene	1,100		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Ethylbenzene	10		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
m,p-Xylenes	6.6		6.3	1.7	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B



Curtis &amp; Tompkins, Ltd.

Client Sample ID : MW-5

Laboratory Sample ID :

261180-005

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,700		50	4.0	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	1.6		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	38		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	0.52		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	45		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	27		0.50	0.14	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	2.8		0.50	0.13	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-6

Laboratory Sample ID :

261180-006

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	31,000		1,300	270	ug/L	As Recd	25.00	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	160		50	7.3	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
MTBE	4.3		2.5	0.50	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
Benzene	140		2.5	0.50	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
Toluene	140		2.5	0.50	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
Ethylbenzene	1,600		13	3.9	ug/L	As Recd	25.00	EPA 8260B	EPA 5030B
m,p-Xylenes	3,200		13	2.5	ug/L	As Recd	25.00	EPA 8260B	EPA 5030B
o-Xylene	390		2.5	0.50	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-7

Laboratory Sample ID :

261180-007

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,900		50	11	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	5.3		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	9.6		0.50	0.13	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	3.5		0.50	0.11	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-10

Laboratory Sample ID :

261180-008

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	23,000		1,000	210	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
Ethylbenzene	1,200		10	3.1	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
m,p-Xylenes	2,500		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
o-Xylene	110		10	2.0	ug/L	As Recd	20.00	EPA 8260B	EPA 5030B

Client Sample ID : MW-11

Laboratory Sample ID :

261180-009

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	2,100		2,000	430	ug/L	As Recd	40.00	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	69		10	2.1	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	2.7		0.50	0.13	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	4.5		0.50	0.11	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B



Client Sample ID : MW-1D

Laboratory Sample ID :

261180-010

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
m,p-Xylenes	0.88		0.50	0.14	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-3D

Laboratory Sample ID :

261180-011

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
MTBE	0.96		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-4D

Laboratory Sample ID :

261180-012

No Detections

Client Sample ID : EX-1

Laboratory Sample ID :

261180-013

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,500		50	4.0	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	96		10	1.3	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethyl tert-Butyl Ether (ETBE)	0.94		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	5.6		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	51		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	23		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	1.3		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	73		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	140		0.50	0.14	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	21		0.50	0.13	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : EX-2

Laboratory Sample ID :

261180-014

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	2,200		50	4.0	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	7.1		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
1,2-Dichloroethane	1.1		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	63		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	8.8		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	88		0.50	0.10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	200		0.50	0.14	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	40		0.50	0.13	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MPE-1

Laboratory Sample ID :

261180-015

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	12,000		360	29	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	420		71	9.6	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Ethyl tert-Butyl Ether (ETBE)	3.7		3.6	0.71	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	24		3.6	0.71	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
MTBE	39		3.6	0.71	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Benzene	380		3.6	0.71	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Toluene	31		3.6	0.71	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Ethylbenzene	100		3.6	0.73	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
m,p-Xylenes	950		3.6	0.97	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
o-Xylene	680		3.6	0.94	ug/L	As Recd	7.143	EPA 8260B	EPA 5030B

Client Sample ID : MPE-2

Laboratory Sample ID :

261180-016

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	22,000		630	130	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Benzene	550		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Toluene	340		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
Ethylbenzene	760		6.3	2.0	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
m,p-Xylenes	2,200		6.3	1.3	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
o-Xylene	560		6.3	1.2	ug/L	As Recd	12.50	EPA 8260B	EPA 5030B

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-1	Units:	ug/L
Lab ID:	261180-001	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	6,700	1,700	33.33	215778	09/25/14
tert-Butyl Alcohol (TBA)	ND	33	3.333	215818	09/26/14
Isopropyl Ether (DIPE)	ND	1.7	3.333	215818	09/26/14
Ethyl tert-Butyl Ether (ETBE)	ND	1.7	3.333	215818	09/26/14
Methyl tert-Amyl Ether (TAME)	ND	1.7	3.333	215818	09/26/14
Ethanol	ND	3,300	3.333	215818	09/26/14
MTBE	ND	1.7	3.333	215818	09/26/14
1,2-Dichloroethane	ND	1.7	3.333	215818	09/26/14
Benzene	44	1.7	3.333	215818	09/26/14
Toluene	ND	1.7	3.333	215818	09/26/14
1,2-Dibromoethane	ND	1.7	3.333	215818	09/26/14
Ethylbenzene	200	1.7	3.333	215818	09/26/14
m,p-Xylenes	71	1.7	3.333	215818	09/26/14
o-Xylene	ND	1.7	3.333	215818	09/26/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	77-136	3.333	215818	09/26/14
1,2-Dichloroethane-d4	108	75-139	3.333	215818	09/26/14
Toluene-d8	100	80-120	3.333	215818	09/26/14
Bromofluorobenzene	100	80-120	3.333	215818	09/26/14

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	215757
Lab ID:	261180-002	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	80	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	95	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	215778
Lab ID:	261180-003	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	20.00		

Analyte	Result	RL
Gasoline C7-C12	41,000	1,000
tert-Butyl Alcohol (TBA)	ND	200
Isopropyl Ether (DIPE)	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	10
Methyl tert-Amyl Ether (TAME)	ND	10
Ethanol	ND	20,000
MTBE	ND	10
1,2-Dichloroethane	ND	10
Benzene	230	10
Toluene	84	10
1,2-Dibromoethane	ND	10
Ethylbenzene	1,000	10
m,p-Xylenes	3,700	10
o-Xylene	800	10

Surrogate	%REC	Limits
Dibromofluoromethane	87	77-136
1,2-Dichloroethane-d4	101	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	91	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	215757
Lab ID:	261180-004	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	12.50		

Analyte	Result	RL
Gasoline C7-C12	ND	630
tert-Butyl Alcohol (TBA)	1,100	130
Isopropyl Ether (DIPE)	ND	6.3
Ethyl tert-Butyl Ether (ETBE)	6.3	6.3
Methyl tert-Amyl Ether (TAME)	ND	6.3
Ethanol	ND	13,000
MTBE	7.5	6.3
1,2-Dichloroethane	ND	6.3
Benzene	1,100	6.3
Toluene	ND	6.3
1,2-Dibromoethane	ND	6.3
Ethylbenzene	10	6.3
m,p-Xylenes	6.6	6.3
o-Xylene	ND	6.3

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	89	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	215807
Lab ID:	261180-005	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,700	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	1.6	0.50
1,2-Dichloroethane	ND	0.50
Benzene	38	0.50
Toluene	0.52	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	45	0.50
m,p-Xylenes	27	0.50
o-Xylene	2.8	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	93	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-6	Units:	ug/L
Lab ID:	261180-006	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	31,000	1,300	25.00	215815	09/26/14
tert-Butyl Alcohol (TBA)	160	50	5.000	215778	09/25/14
Isopropyl Ether (DIPE)	ND	2.5	5.000	215778	09/25/14
Ethyl tert-Butyl Ether (ETBE)	ND	2.5	5.000	215778	09/25/14
Methyl tert-Amyl Ether (TAME)	ND	2.5	5.000	215778	09/25/14
Ethanol	ND	5,000	5.000	215778	09/25/14
MTBE	4.3	2.5	5.000	215778	09/25/14
1,2-Dichloroethane	ND	2.5	5.000	215778	09/25/14
Benzene	140	2.5	5.000	215778	09/25/14
Toluene	140	2.5	5.000	215778	09/25/14
1,2-Dibromoethane	ND	2.5	5.000	215778	09/25/14
Ethylbenzene	1,600	13	25.00	215815	09/26/14
m,p-Xylenes	3,200	13	25.00	215815	09/26/14
o-Xylene	390	2.5	5.000	215778	09/25/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	87	77-136	5.000	215778	09/25/14
1,2-Dichloroethane-d4	102	75-139	5.000	215778	09/25/14
Toluene-d8	94	80-120	5.000	215778	09/25/14
Bromofluorobenzene	89	80-120	5.000	215778	09/25/14

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-7	Diln Fac:	1.000
Lab ID:	261180-007	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L		

Analyte	Result	RL	Batch#	Analyzed
Gasoline C7-C12	1,900	50	215778	09/25/14
tert-Butyl Alcohol (TBA)	ND	10	215818	09/26/14
Isopropyl Ether (DIPE)	ND	0.50	215818	09/26/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	215818	09/26/14
Methyl tert-Amyl Ether (TAME)	ND	0.50	215818	09/26/14
Ethanol	ND	1,000	215818	09/26/14
MTBE	5.3	0.50	215818	09/26/14
1,2-Dichloroethane	ND	0.50	215818	09/26/14
Benzene	ND	0.50	215818	09/26/14
Toluene	ND	0.50	215818	09/26/14
1,2-Dibromoethane	ND	0.50	215818	09/26/14
Ethylbenzene	9.6	0.50	215818	09/26/14
m,p-Xylenes	3.5	0.50	215818	09/26/14
o-Xylene	ND	0.50	215818	09/26/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	99	77-136	215818	09/26/14
1,2-Dichloroethane-d4	114	75-139	215818	09/26/14
Toluene-d8	100	80-120	215818	09/26/14
Bromofluorobenzene	96	80-120	215818	09/26/14

ND= Not Detected  
 RL= Reporting Limit  
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### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-10	Batch#:	215815
Lab ID:	261180-008	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	20.00		

Analyte	Result	RL
Gasoline C7-C12	23,000	1,000
tert-Butyl Alcohol (TBA)	ND	200
Isopropyl Ether (DIPE)	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	10
Methyl tert-Amyl Ether (TAME)	ND	10
Ethanol	ND	20,000
MTBE	ND	10
1,2-Dichloroethane	ND	10
Benzene	ND	10
Toluene	ND	10
1,2-Dibromoethane	ND	10
Ethylbenzene	1,200	10
m,p-Xylenes	2,500	10
o-Xylene	110	10

Surrogate	%REC	Limits
Dibromofluoromethane	90	77-136
1,2-Dichloroethane-d4	108	75-139
Toluene-d8	92	80-120
Bromofluorobenzene	89	80-120

ND= Not Detected

RL= Reporting Limit

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### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-11	Units:	ug/L
Lab ID:	261180-009	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	2,100	2,000	40.00	215778	09/25/14
tert-Butyl Alcohol (TBA)	69	10	1.000	215818	09/26/14
Isopropyl Ether (DIPE)	ND	0.50	1.000	215818	09/26/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	1.000	215818	09/26/14
Methyl tert-Amyl Ether (TAME)	ND	0.50	1.000	215818	09/26/14
Ethanol	ND	1,000	1.000	215818	09/26/14
MTBE	ND	0.50	1.000	215818	09/26/14
1,2-Dichloroethane	ND	0.50	1.000	215818	09/26/14
Benzene	ND	0.50	1.000	215818	09/26/14
Toluene	ND	0.50	1.000	215818	09/26/14
1,2-Dibromoethane	ND	0.50	1.000	215818	09/26/14
Ethylbenzene	2.7	0.50	1.000	215818	09/26/14
m,p-Xylenes	4.5	0.50	1.000	215818	09/26/14
o-Xylene	ND	0.50	1.000	215818	09/26/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	77-136	1.000	215818	09/26/14
1,2-Dichloroethane-d4	110	75-139	1.000	215818	09/26/14
Toluene-d8	100	80-120	1.000	215818	09/26/14
Bromofluorobenzene	97	80-120	1.000	215818	09/26/14

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-1D	Batch#:	215757
Lab ID:	261180-010	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.88	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	96	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-3D	Batch#:	215757
Lab ID:	261180-011	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	0.96	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected

RL= Reporting Limit

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### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-4D	Batch#:	215757
Lab ID:	261180-012	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	EX-1	Batch#:	215757
Lab ID:	261180-013	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,500	50
tert-Butyl Alcohol (TBA)	96	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	0.94	0.50
Methyl tert-Amyl Ether (TAME)	5.6	0.50
Ethanol	ND	1,000
MTBE	51	0.50
1,2-Dichloroethane	ND	0.50
Benzene	23	0.50
Toluene	1.3	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	73	0.50
m,p-Xylenes	140	0.50
o-Xylene	21	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	97	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	EX-2	Batch#:	215807
Lab ID:	261180-014	Sampled:	09/22/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	2,200	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	7.1	0.50
1,2-Dichloroethane	1.1	0.50
Benzene	63	0.50
Toluene	8.8	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	88	0.50
m,p-Xylenes	200	0.50
o-Xylene	40	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	94	77-136
1,2-Dichloroethane-d4	90	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MPE-1	Batch#:	215757
Lab ID:	261180-015	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	7.143		

Analyte	Result	RL
Gasoline C7-C12	12,000	360
tert-Butyl Alcohol (TBA)	420	71
Isopropyl Ether (DIPE)	ND	3.6
Ethyl tert-Butyl Ether (ETBE)	3.7	3.6
Methyl tert-Amyl Ether (TAME)	24	3.6
Ethanol	ND	7,100
MTBE	39	3.6
1,2-Dichloroethane	ND	3.6
Benzene	380	3.6
Toluene	31	3.6
1,2-Dibromoethane	ND	3.6
Ethylbenzene	100	3.6
m,p-Xylenes	950	3.6
o-Xylene	680	3.6

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	92	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected

RL= Reporting Limit

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### **Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MPE-2	Batch#:	215815
Lab ID:	261180-016	Sampled:	09/23/14
Matrix:	Water	Received:	09/24/14
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	12.50		

Analyte	Result	RL
Gasoline C7-C12	22,000	630
tert-Butyl Alcohol (TBA)	ND	130
Isopropyl Ether (DIPE)	ND	6.3
Ethyl tert-Butyl Ether (ETBE)	ND	6.3
Methyl tert-Amyl Ether (TAME)	ND	6.3
Ethanol	ND	13,000
MTBE	ND	6.3
1,2-Dichloroethane	ND	6.3
Benzene	550	6.3
Toluene	340	6.3
1,2-Dibromoethane	ND	6.3
Ethylbenzene	760	6.3
m,p-Xylenes	2,200	6.3
o-Xylene	560	6.3

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	104	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	90	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215757
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759049

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	55.69	89	37-151
Isopropyl Ether (DIPE)	12.50	11.10	89	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	11.06	88	61-122
Methyl tert-Amyl Ether (TAME)	12.50	11.29	90	65-120
MTBE	12.50	10.29	82	64-121
1,2-Dichloroethane	12.50	11.43	91	77-137
Benzene	12.50	13.24	106	80-124
Toluene	12.50	12.90	103	80-122
1,2-Dibromoethane	12.50	11.99	96	80-120
Ethylbenzene	12.50	13.41	107	80-124
m,p-Xylenes	25.00	27.18	109	80-122
o-Xylene	12.50	13.63	109	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	94	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC759050

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	55.90	89	37-151	0	30
Isopropyl Ether (DIPE)	12.50	10.97	88	56-124	1	20
Ethyl tert-Butyl Ether (ETBE)	12.50	11.03	88	61-122	0	22
Methyl tert-Amyl Ether (TAME)	12.50	11.31	90	65-120	0	22
MTBE	12.50	10.56	84	64-121	3	20
1,2-Dichloroethane	12.50	11.72	94	77-137	2	20
Benzene	12.50	12.94	104	80-124	2	20
Toluene	12.50	12.93	103	80-122	0	20
1,2-Dibromoethane	12.50	12.38	99	80-120	3	20
Ethylbenzene	12.50	13.11	105	80-124	2	20
m,p-Xylenes	25.00	27.10	108	80-122	0	20
o-Xylene	12.50	13.58	109	77-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	92	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

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**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC759051	Batch#:	215757
Matrix:	Water	Analyzed:	09/25/14
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	96	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215757
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759059

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	916.9	92	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	77-136
1,2-Dichloroethane-d4	94	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC759060

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	945.1	95	80-120	3 20

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	96	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

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**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC759142	Batch#:	215778
Matrix:	Water	Analyzed:	09/25/14
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.89 b	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	77-136
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	88	80-120

b= See narrative

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215778
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759143

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	90.71	91	37-151
Isopropyl Ether (DIPE)	20.00	18.86	94	56-124
Ethyl tert-Butyl Ether (ETBE)	20.00	17.98	90	61-122
Methyl tert-Amyl Ether (TAME)	20.00	18.66	93	65-120
MTBE	20.00	16.73	84	64-121
1,2-Dichloroethane	20.00	21.84	109	77-137
Benzene	20.00	18.78	94	80-124
Toluene	20.00	19.16	96	80-122
1,2-Dibromoethane	20.00	19.29	96	80-120
Ethylbenzene	20.00	19.53	98	80-124
m,p-Xylenes	40.00	39.54	99	80-122
o-Xylene	20.00	20.85	104	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	92	77-136
1,2-Dichloroethane-d4	104	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	88	80-120

Type: BSD Lab ID: QC759144

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	103.6	104	37-151	13	30
Isopropyl Ether (DIPE)	20.00	19.20	96	56-124	2	20
Ethyl tert-Butyl Ether (ETBE)	20.00	18.75	94	61-122	4	22
Methyl tert-Amyl Ether (TAME)	20.00	20.70	103	65-120	10	22
MTBE	20.00	18.31	92	64-121	9	20
1,2-Dichloroethane	20.00	23.49	117	77-137	7	20
Benzene	20.00	20.73	104	80-124	10	20
Toluene	20.00	19.55	98	80-122	2	20
1,2-Dibromoethane	20.00	21.41	107	80-120	10	20
Ethylbenzene	20.00	21.00	105	80-124	7	20
m,p-Xylenes	40.00	43.74	109	80-122	10	20
o-Xylene	20.00	22.79	114	77-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	90	77-136
1,2-Dichloroethane-d4	105	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	87	80-120

RPD= Relative Percent Difference

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215778
Units:	ug/L	Analyzed:	09/25/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759145

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,063	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	103	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	86	80-120

Type: BSD Lab ID: QC759146

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	1,087	109	80-120	2 20

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	107	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	90	80-120

RPD= Relative Percent Difference

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215807
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759255

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	52.02	83	37-151
Isopropyl Ether (DIPE)	12.50	11.17	89	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	10.87	87	61-122
Methyl tert-Amyl Ether (TAME)	12.50	11.02	88	65-120
MTBE	12.50	10.20	82	64-121
1,2-Dichloroethane	12.50	11.16	89	77-137
Benzene	12.50	13.03	104	80-124
Toluene	12.50	13.36	107	80-122
1,2-Dibromoethane	12.50	12.60	101	80-120
Ethylbenzene	12.50	13.31	106	80-124
m,p-Xylenes	25.00	27.11	108	80-122
o-Xylene	12.50	13.39	107	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	92	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC759256

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	53.36	85	37-151	3	30
Isopropyl Ether (DIPE)	12.50	11.29	90	56-124	1	20
Ethyl tert-Butyl Ether (ETBE)	12.50	11.04	88	61-122	2	22
Methyl tert-Amyl Ether (TAME)	12.50	11.51	92	65-120	4	22
MTBE	12.50	10.54	84	64-121	3	20
1,2-Dichloroethane	12.50	11.48	92	77-137	3	20
Benzene	12.50	13.48	108	80-124	3	20
Toluene	12.50	13.34	107	80-122	0	20
1,2-Dibromoethane	12.50	12.64	101	80-120	0	20
Ethylbenzene	12.50	13.18	105	80-124	1	20
m,p-Xylenes	25.00	26.99	108	80-122	0	20
o-Xylene	12.50	13.69	110	77-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	77-136
1,2-Dichloroethane-d4	94	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

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25.0

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215807
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759257

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	925.3	93	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	94	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC759258

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	940.7	94	80-120	2 20

Surrogate	%REC	Limits
Dibromofluoromethane	97	77-136
1,2-Dichloroethane-d4	94	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

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26.0

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC759259	Batch#:	215807
Matrix:	Water	Analyzed:	09/26/14
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	77-136
1,2-Dichloroethane-d4	95	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215815
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759283

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	102.3	82	37-151
Isopropyl Ether (DIPE)	25.00	22.72	91	56-124
Ethyl tert-Butyl Ether (ETBE)	25.00	21.50	86	61-122
Methyl tert-Amyl Ether (TAME)	25.00	22.23	89	65-120
MTBE	25.00	20.40	82	64-121
1,2-Dichloroethane	25.00	25.92	104	77-137
Benzene	25.00	24.54	98	80-124
Toluene	25.00	22.77	91	80-122
1,2-Dibromoethane	25.00	23.17	93	80-120
Ethylbenzene	25.00	23.67	95	80-124
m,p-Xylenes	50.00	50.07	100	80-122
o-Xylene	25.00	25.32	101	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	102	75-139
Toluene-d8	94	80-120
Bromofluorobenzene	88	80-120

Type: BSD Lab ID: QC759284

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	114.7	92	37-151	11	30
Isopropyl Ether (DIPE)	25.00	23.94	96	56-124	5	20
Ethyl tert-Butyl Ether (ETBE)	25.00	23.48	94	61-122	9	22
Methyl tert-Amyl Ether (TAME)	25.00	24.44	98	65-120	9	22
MTBE	25.00	22.24	89	64-121	9	20
1,2-Dichloroethane	25.00	28.38	114	77-137	9	20
Benzene	25.00	25.59	102	80-124	4	20
Toluene	25.00	23.63	95	80-122	4	20
1,2-Dibromoethane	25.00	24.95	100	80-120	7	20
Ethylbenzene	25.00	24.71	99	80-124	4	20
m,p-Xylenes	50.00	52.05	104	80-122	4	20
o-Xylene	25.00	26.31	105	77-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	102	75-139
Toluene-d8	93	80-120
Bromofluorobenzene	86	80-120

RPD= Relative Percent Difference

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## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC759285	Batch#:	215815
Matrix:	Water	Analyzed:	09/26/14
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.91 b	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	89	77-136
1,2-Dichloroethane-d4	110	75-139
Toluene-d8	94	80-120
Bromofluorobenzene	87	80-120

b= See narrative

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215818
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759292

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	95.29	76	37-151
Isopropyl Ether (DIPE)	25.00	23.07	92	56-124
Ethyl tert-Butyl Ether (ETBE)	25.00	23.38	94	61-122
Methyl tert-Amyl Ether (TAME)	25.00	24.13	97	65-120
MTBE	25.00	24.36	97	64-121
1,2-Dichloroethane	25.00	27.42	110	77-137
Benzene	25.00	25.46	102	80-124
Toluene	25.00	25.59	102	80-122
1,2-Dibromoethane	25.00	24.09	96	80-120
Ethylbenzene	25.00	26.21	105	80-124
m,p-Xylenes	50.00	54.00	108	80-122
o-Xylene	25.00	26.87	107	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	77-136
1,2-Dichloroethane-d4	108	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC759293

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	104.2	83	37-151	9	30
Isopropyl Ether (DIPE)	25.00	22.09	88	56-124	4	20
Ethyl tert-Butyl Ether (ETBE)	25.00	22.45	90	61-122	4	22
Methyl tert-Amyl Ether (TAME)	25.00	23.55	94	65-120	2	22
MTBE	25.00	23.90	96	64-121	2	20
1,2-Dichloroethane	25.00	26.80	107	77-137	2	20
Benzene	25.00	24.44	98	80-124	4	20
Toluene	25.00	24.31	97	80-122	5	20
1,2-Dibromoethane	25.00	24.24	97	80-120	1	20
Ethylbenzene	25.00	25.09	100	80-124	4	20
m,p-Xylenes	50.00	51.82	104	80-122	4	20
o-Xylene	25.00	25.19	101	77-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	77-136
1,2-Dichloroethane-d4	108	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

RPD= Relative Percent Difference

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**Batch QC Report**
**Purgeable Organics by GC/MS**

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC759294	Batch#:	215818
Matrix:	Water	Analyzed:	09/26/14
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	NA	
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	107	77-136
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

NA= Not Analyzed

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Purgeable Organics by GC/MS

Lab #:	261180	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	215815
Units:	ug/L	Analyzed:	09/26/14
Diln Fac:	1.000		

Type: BS Lab ID: QC759299

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	983.3	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	88	77-136
1,2-Dichloroethane-d4	106	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	88	80-120

Type: BSD Lab ID: QC759300

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	1,037	104	80-120	5 20

Surrogate	%REC	Limits
Dibromofluoromethane	88	77-136
1,2-Dichloroethane-d4	106	75-139
Toluene-d8	93	80-120
Bromofluorobenzene	89	80-120

RPD= Relative Percent Difference

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32.0

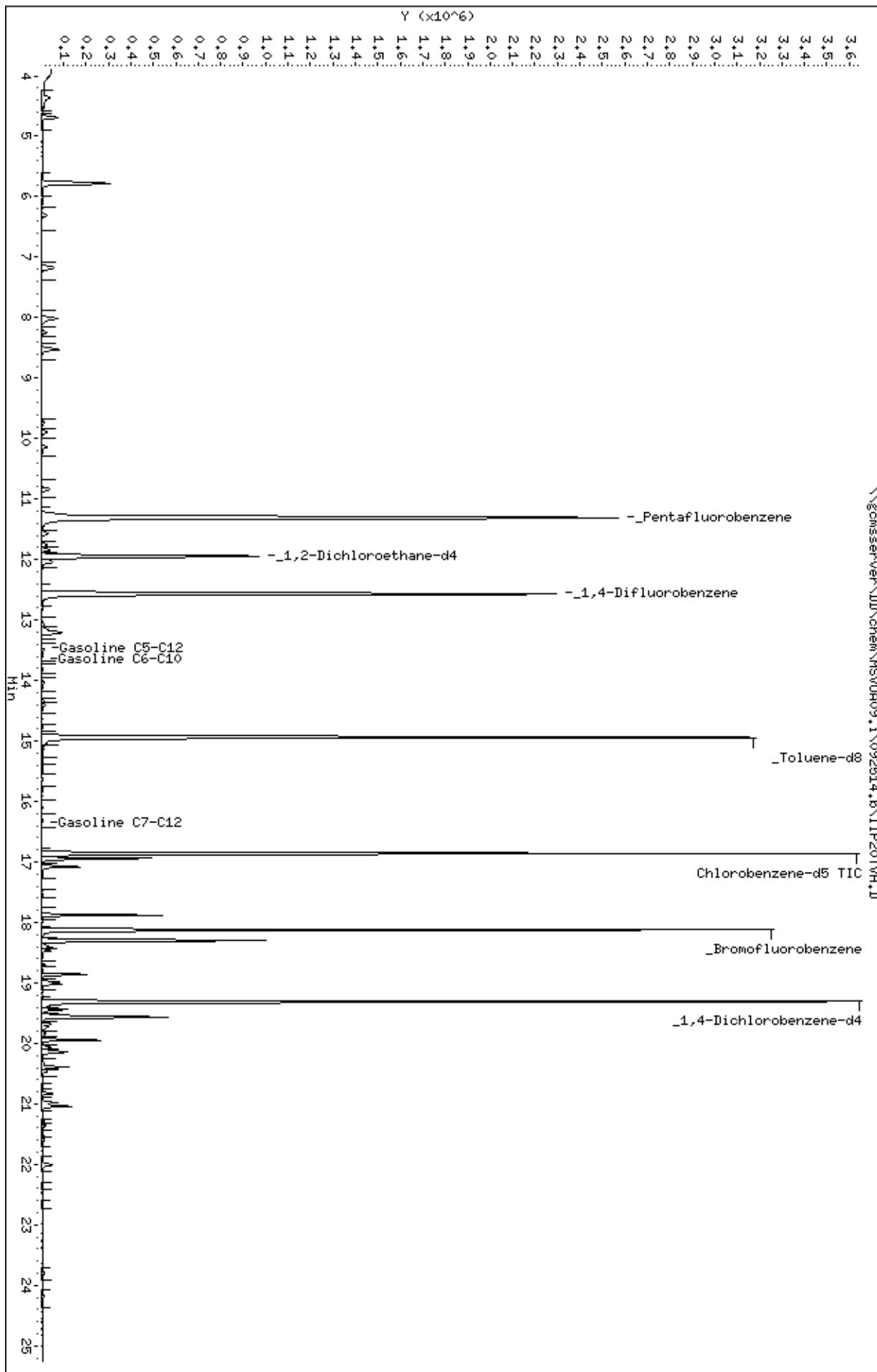
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Date : 25-SEP-2014 22:27  
Client ID: DYNH P&T

Sample Info: S\_261180-001

Column phase:

Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00

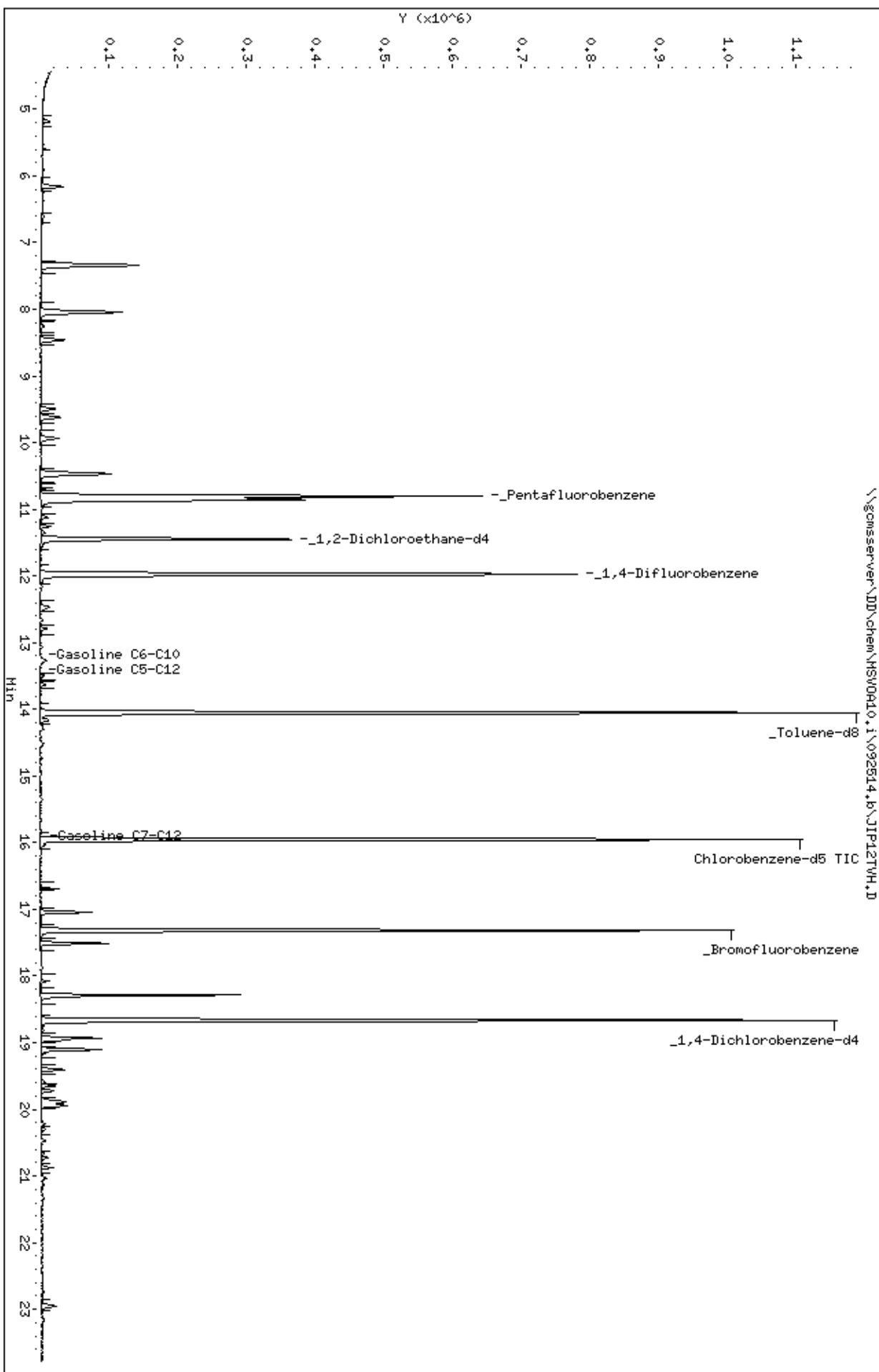
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Data File: \\gcmsserver\DD\chem\MSWD10.i\092514.b\JIP12TWH.D  
Date : 25-SEP-2014 12:39  
Client ID: DYNH P&T  
Sample Info: S\_261180-002

Page 2

Instrument: MSWD10.i  
Operator: WOA  
Column diameter: 2.00  
Column phase:



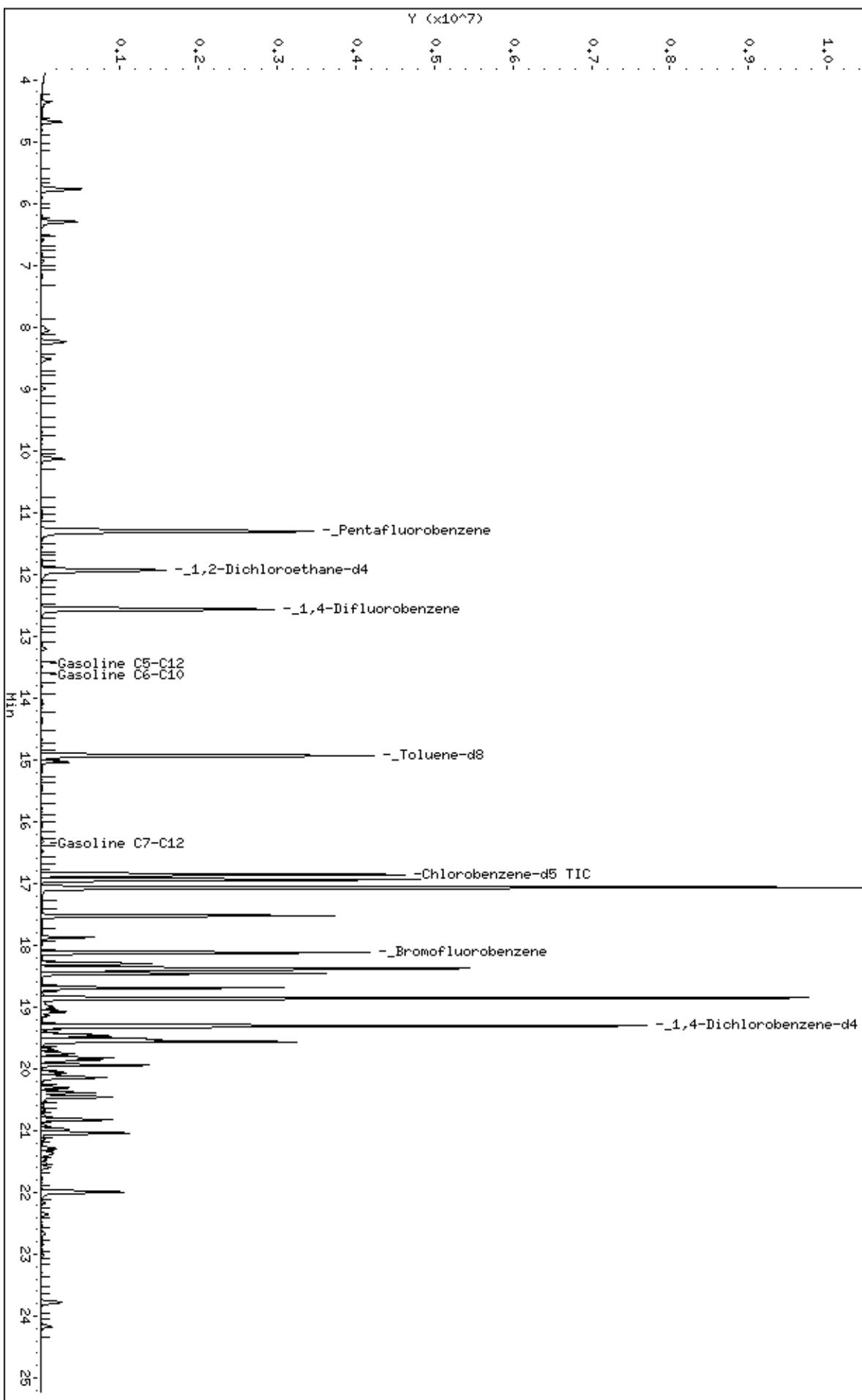
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Client ID: DYNH P&T  
Sample Info: S,261180-003

Page 2

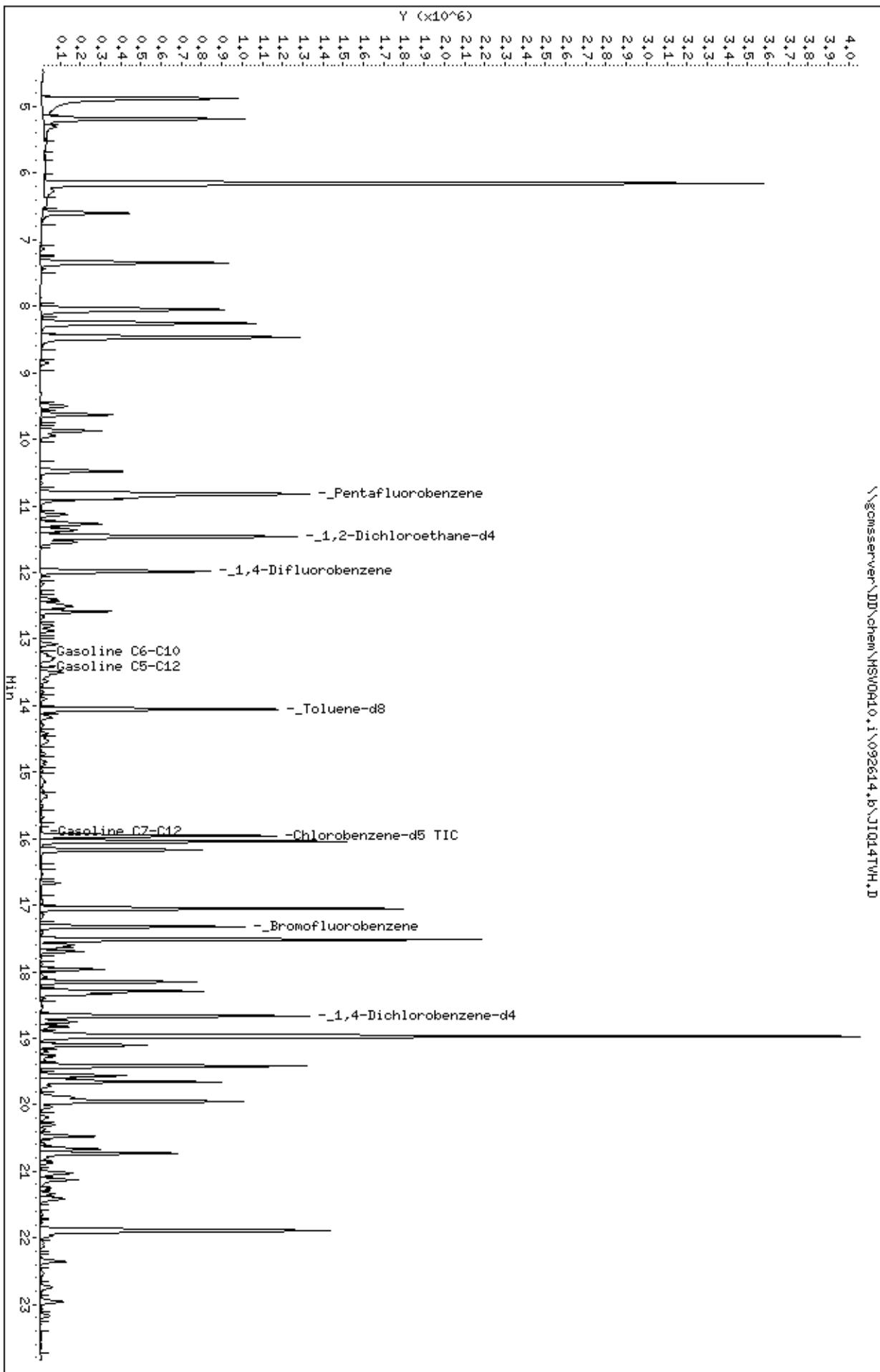
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Column phase:

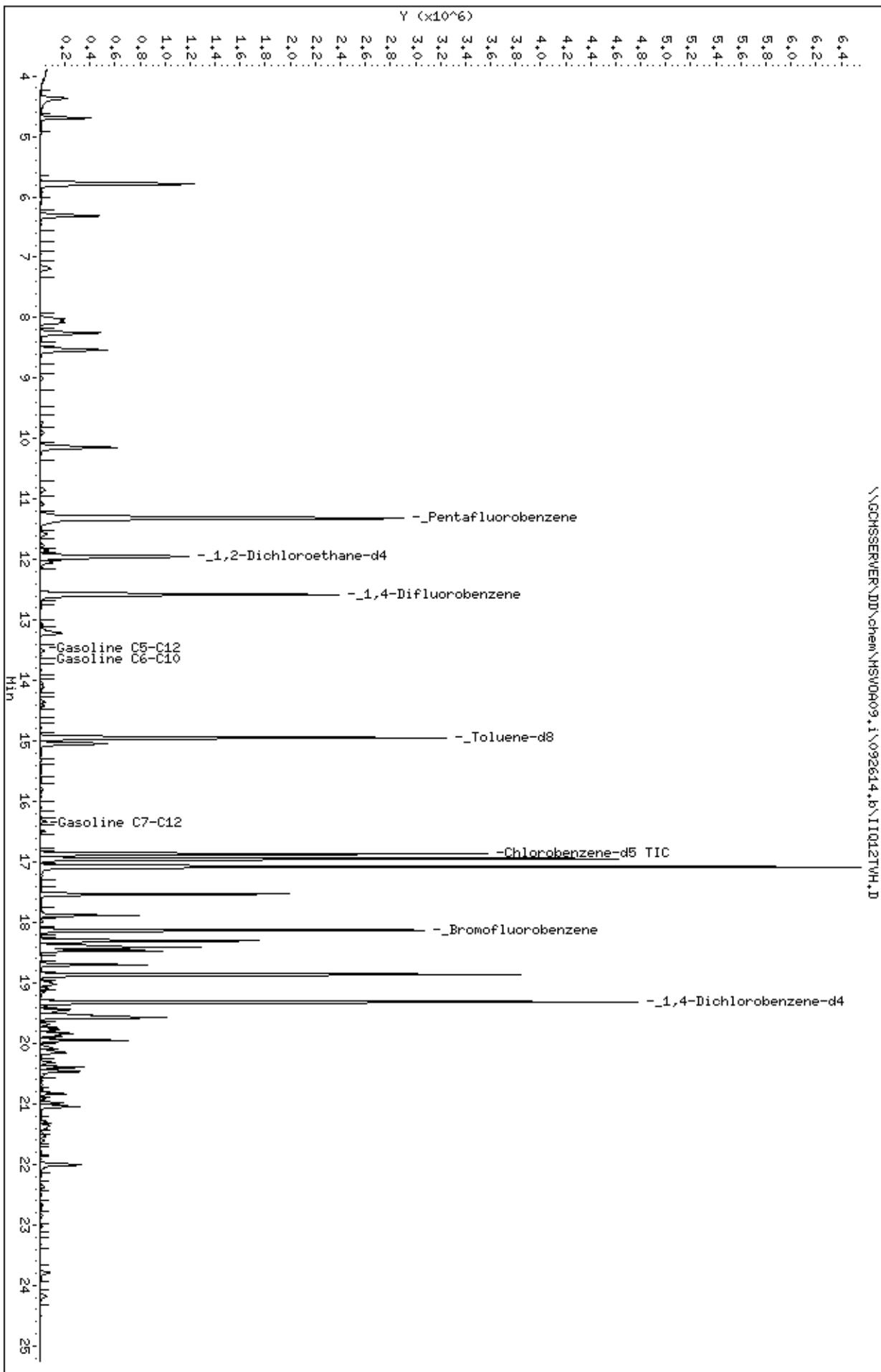
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Column phase:



Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00  
Column phase:  
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Client ID: DYNH P&T

Sample Info: S\_261180-007

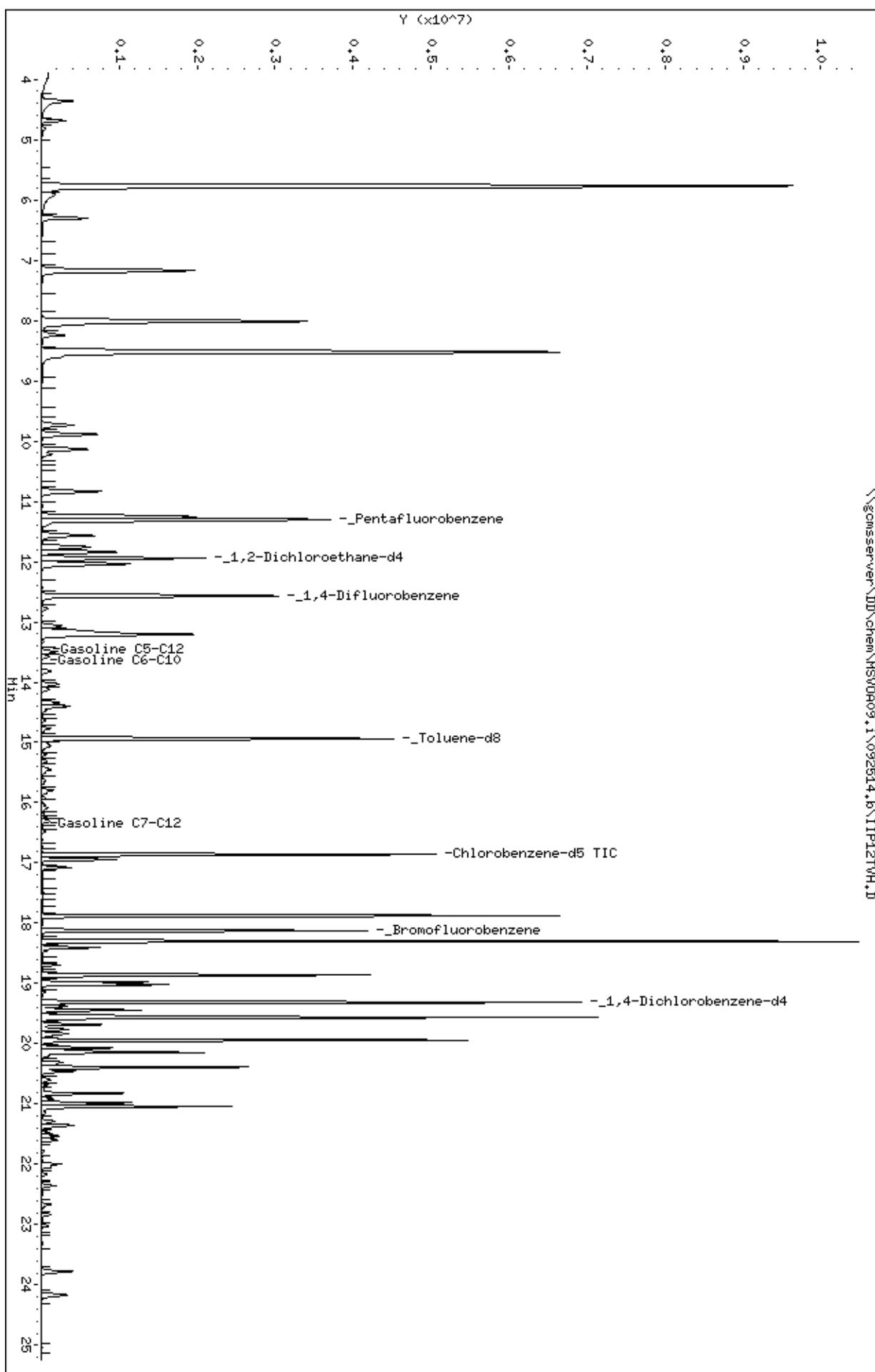
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Instrument: MSWD09.i

Operator: VOC

Column diameter: 2.00

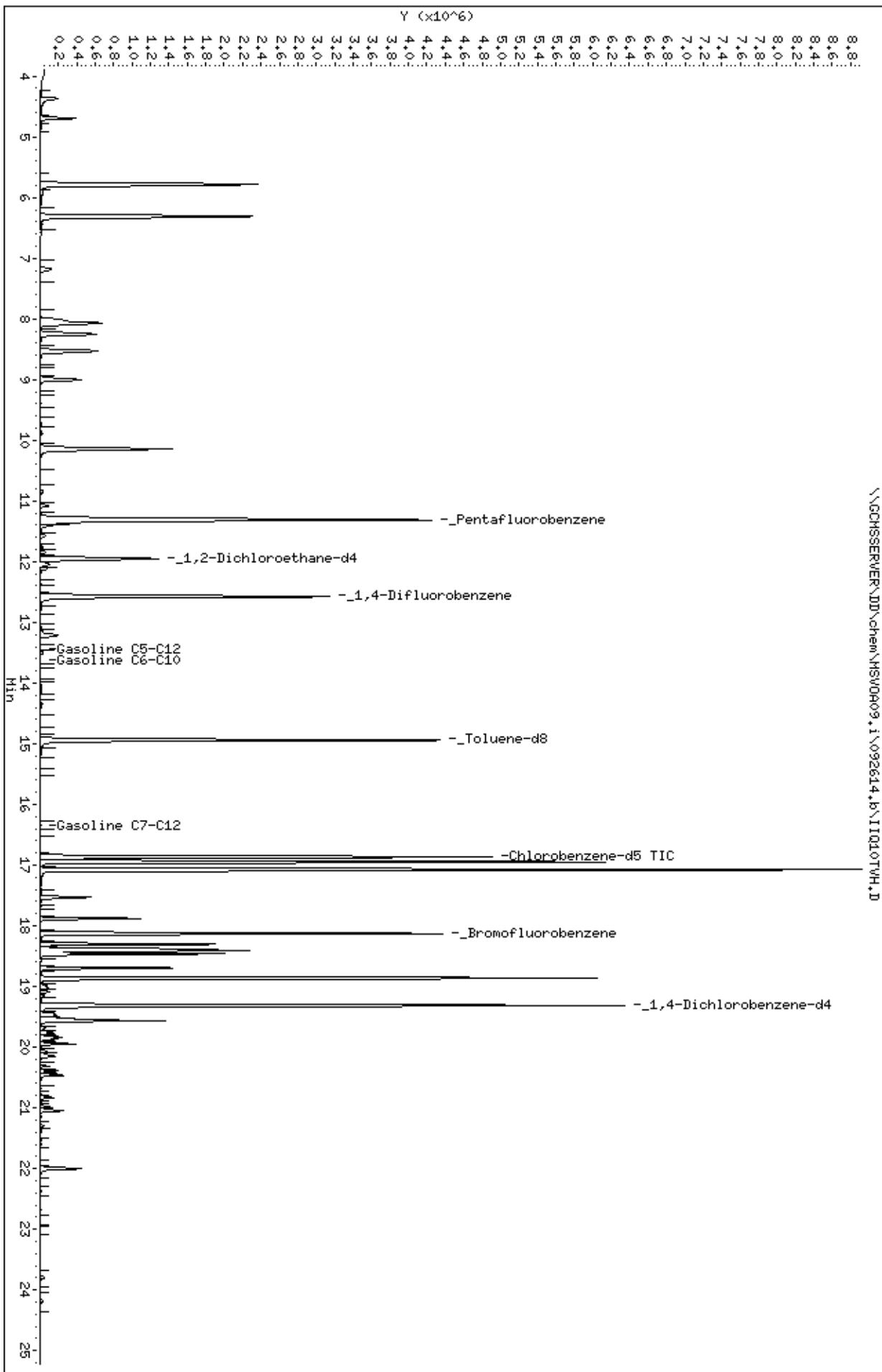
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Date : 26-SEP-2014 16:05  
Client ID: DYNH P&T  
Sample Info: S\_261180-008

Page 2

Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00  
Column phase:  
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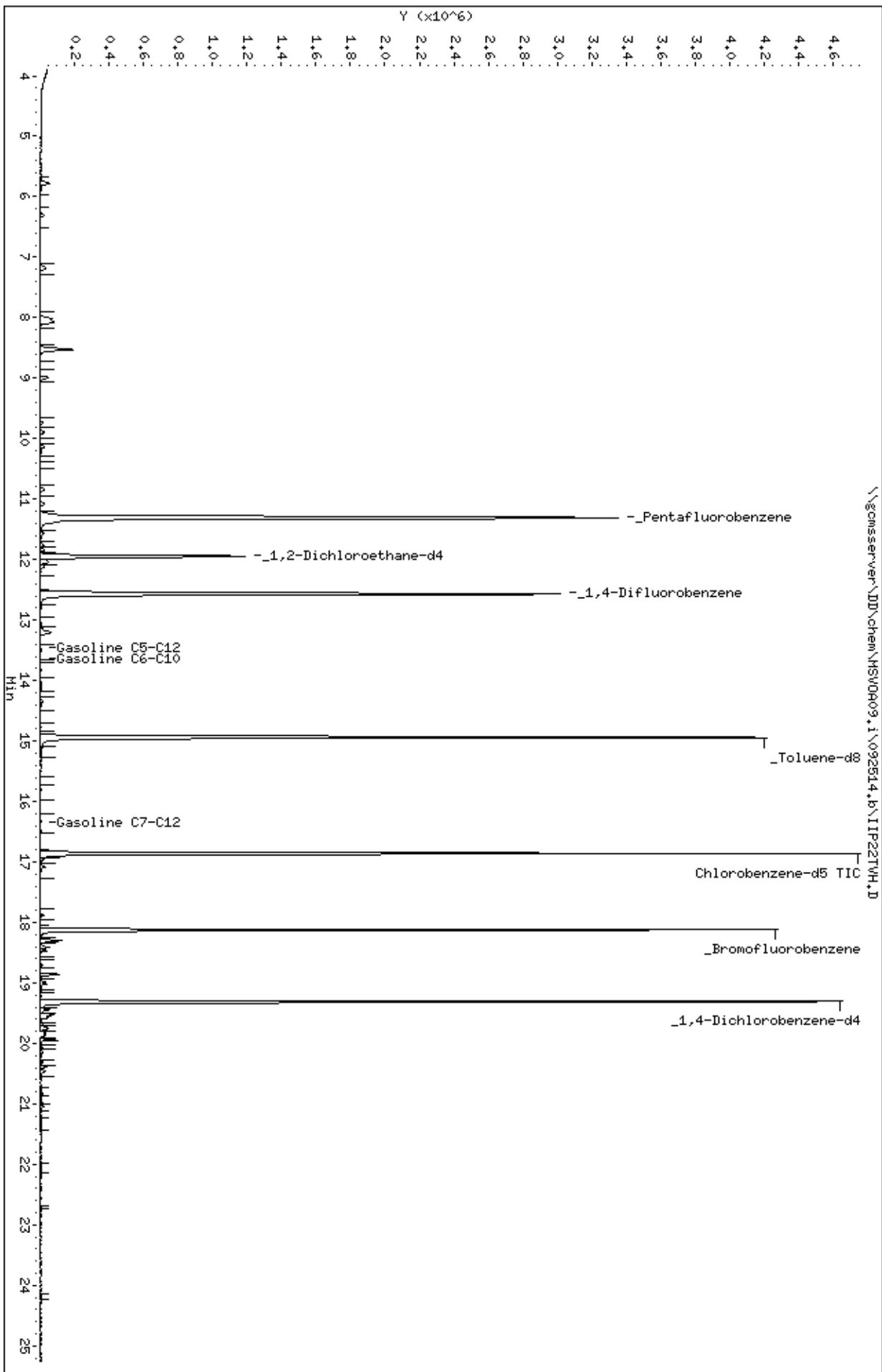


Sample Info: S\_261180-009

Column phase:

Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00

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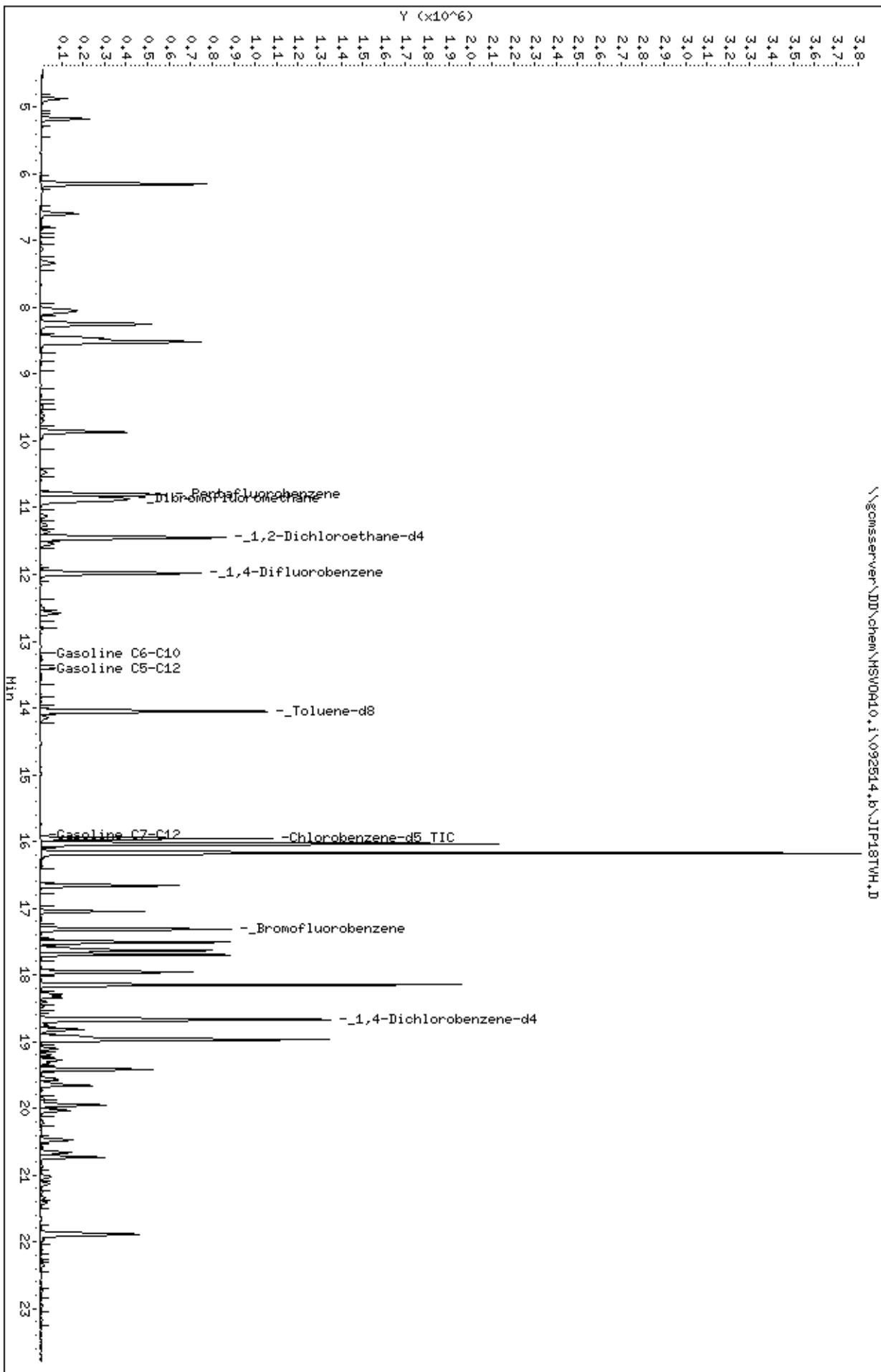
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Client ID: DYNH P&T

Sample Info: S\_261180-013

Column phase:

Instrument: MSWD10.i  
Operator: WOA  
Column diameter: 2.00

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Date : 26-SEP-2014 13:50

Client ID: DYNH P&T

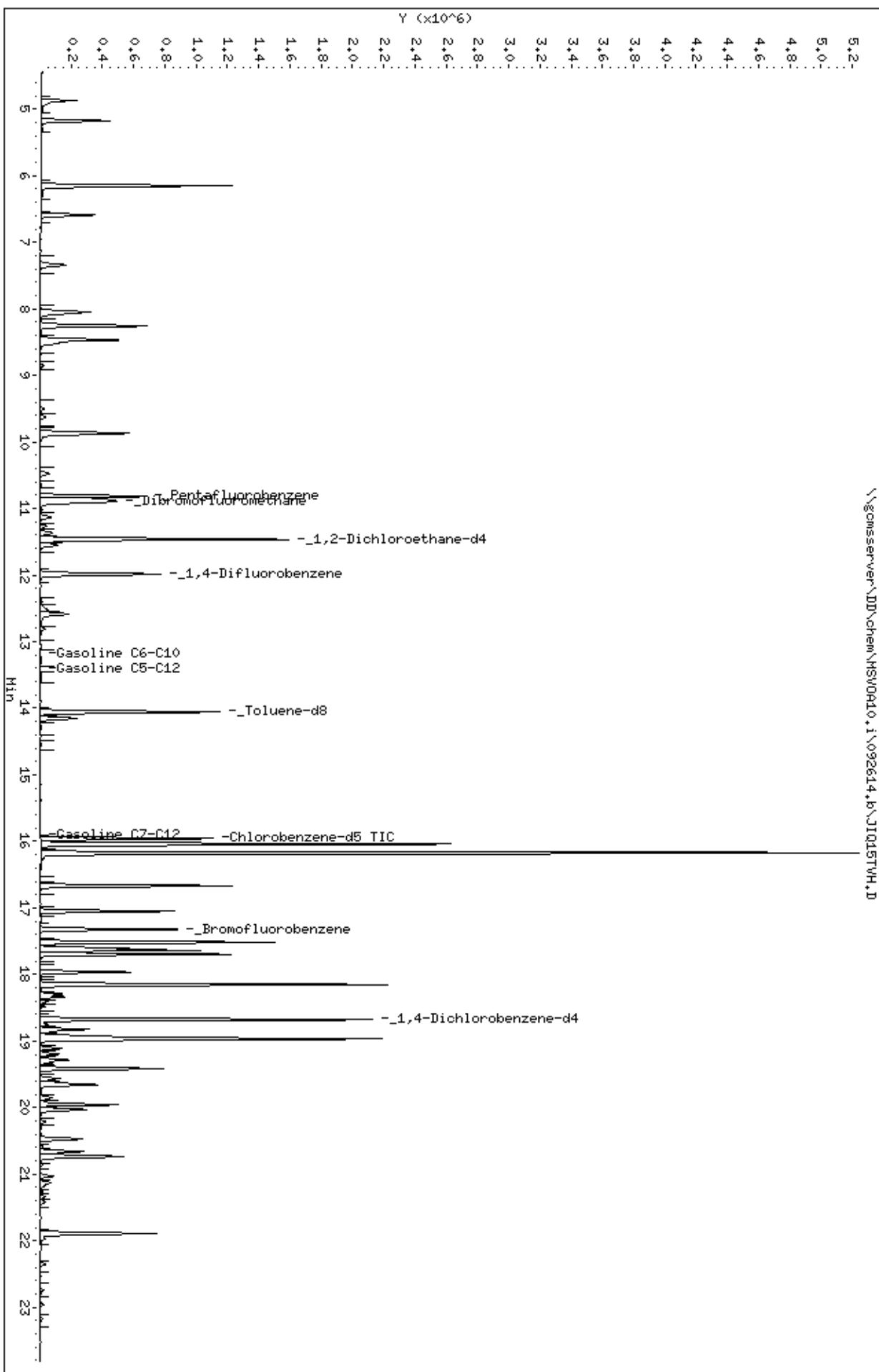
Sample Info: S\_261180-014

Page 2

Column phase:

Instrument: MSWD10.i  
Operator: WOA  
Column diameter: 2.00

\\gcserver\DD\chem\MSWD10.i\092614.b\J1Q15TVH.D



Client ID: DYNH P&T

Sample Info: S\_261180-015

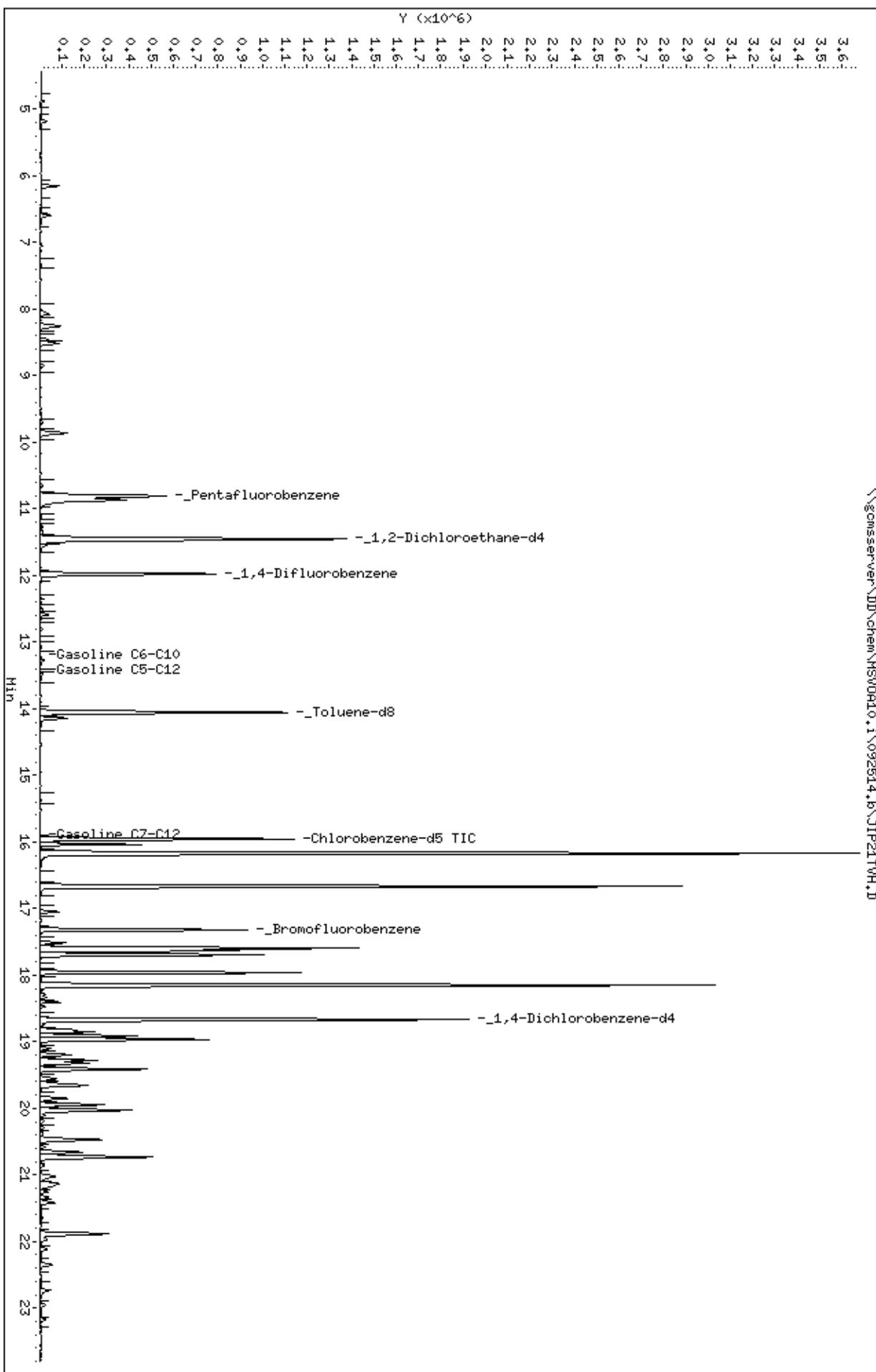
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Operator: WOA

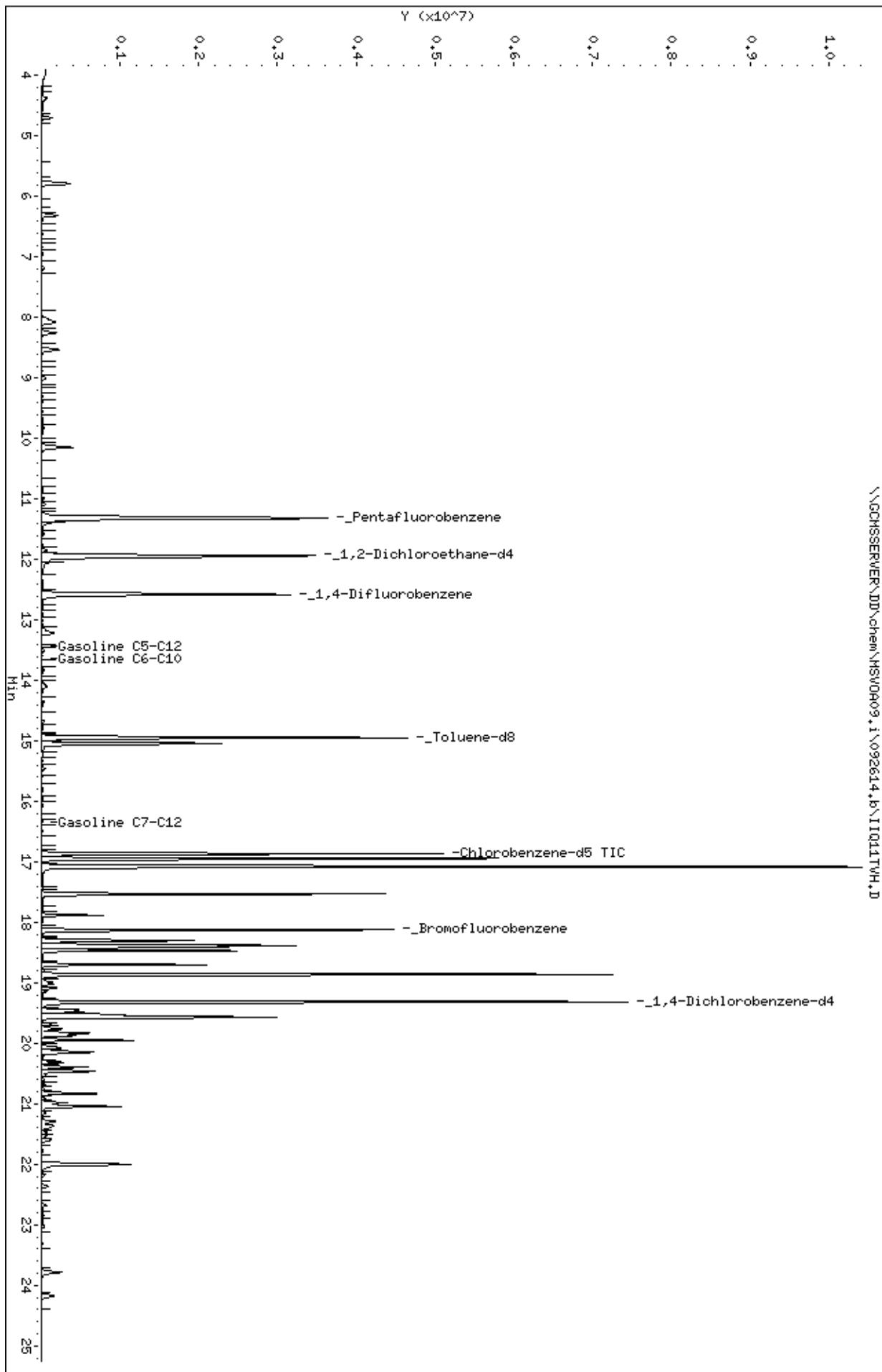
Column diameter: 2.00

Column phase:

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Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00  
Column phase:  
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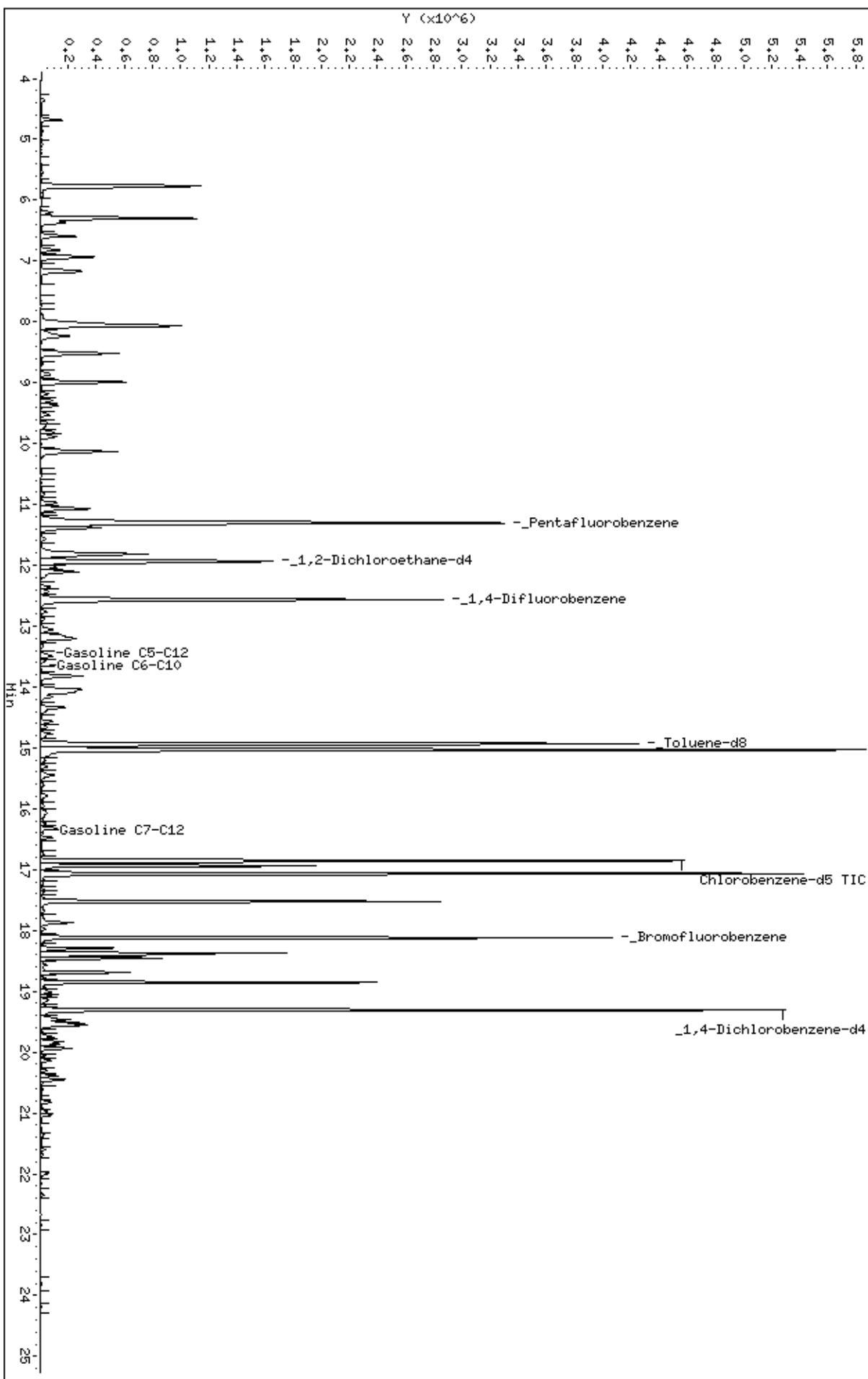
Client ID: DYNH P&T

Sample Info: CCW/BS, QC759145,215778,S25206.,.009/100

Column phase:

Instrument: MSWD09.i  
Operator: VOC  
Column diameter: 2.00

\\GCHSSERVER\\DD\\chem\\MSWD09.i\\092514.b\\IIP06TWH.D



# **Appendix D**

**Laboratory Reports and Chain of Custody  
Forms for the Treatment System**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 259122  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Pleasanton, CA 94588

Project : 2553  
Location : 15101 Freedom Ave. San Leandro  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
EFFLUENT	259122-001
GAC-1	259122-002
INFLUENT	259122-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: 

Date: 07/25/2014

Tracy Babjar  
Project Manager  
[tracy.babjar@ctberk.com](mailto:tracy.babjar@ctberk.com)  
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

**CASE NARRATIVE**

Laboratory number: **259122**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2553**  
Location: **15101 Freedom Ave. San Leandro**  
Request Date: **07/21/14**  
Samples Received: **07/21/14**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 07/21/14. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

# **CHAIN OF CUSTODY**

Curtis & Tompkins, Ltd

Analytical Laboratory Since 1878

2323 Fifth Street

תכלת-סא-סא-סא-סא

Berkeley, CA 94710

Berkeley, CA 94710  
(10)486-0900 Phone  
(510)486-0532 Fax

LOGIN # 259122

Page 1 of 1

## Analyses

Project No: 2553

**Project Name:** 15101 Freedom  
**Turnaround Time:** Standard

Report To: Joyce Bobek

**Company :** SOMA E  
**Tel:** 005 724

Sampler: DAV PASH

**Total** 225 731 2122

卷之三

**Fax:** 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	# of Containers	Preservative			
				HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICP
1	EFFLUENT	7/21/14 9:AM	*	*	6 VOAs	*	*
			*	2-500 mL Amber			*
2	GAC-1	7/21/14 9:25	*	6 VOAs	*	*	*
3	INFLUENT	7/21/14 9:47	*	6 VOAs	*	*	*

**Notes:** EDF OUTPUT REQUIRED

REINFORCED BY

RECEIVED BY:

RECEIVED BY:	7/21/14	10:25	166	7/21	14	10:25	DATE/TIME
ELIMINATED BY:	2010						

DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 2591127 Date Received 7/21/14 Number of coolers 1  
 Client SOMA Environmental Project Project 2553

Date Opened 7/21 By (print) J (sign) J  
 Date Logged in 7/21 By (print) J (sign) J

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES NO  
 Shipping info \_\_\_\_\_

2A. Were custody seals present? ....  YES (circle) on cooler on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_

Samples received on ice & cold without a temperature blank; temp taken with IR gun

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO

If YES, what time were they transferred to freezer? \_\_\_\_\_

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are there any missing / extra samples? YES NO

11. Are samples in the appropriate containers for indicated tests? YES NO

12. Are sample labels present, in good condition and complete? YES NO

13. Do the sample labels agree with custody papers? YES NO

14. Was sufficient amount of sample sent for tests requested? YES NO

15. Are the samples appropriately preserved? YES NO N/A

16. Did you check preservatives for all bottles for each sample? YES NO N/A

17. Did you document your preservative check? YES NO N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO N/A

19. Did you change the hold time in LIMS for preserved terracores? YES NO N/A

20. Are bubbles > 6mm absent in VOA samples? YES NO N/A

21. Was the client contacted concerning this sample delivery? YES NO

If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: 7/21

## COMMENTS

13) Sample -002 listed as GAC-1 on COC  
 & as GAC on sample labels



Curtis & Tompkins, Ltd.

## Detections Summary for 259122

Client : SOMA Environmental Engineering Inc.  
Project : 2553  
Location : 15101 Freedom Ave. San Leandro

Client Sample ID : EFFLUENT                      Laboratory Sample ID :                      259122-001

## No Detections

## No Detections

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,000		50	11	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Benzene	54		0.50	0.10	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
Toluene	1.7		0.50	0.11	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
Ethylbenzene	35		0.50	0.10	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
m,p-Xylenes	62		0.50	0.14	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
o-Xylene	9.1		0.50	0.11	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B

### **Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Sampled:	07/21/14
Units:	ug/L	Received:	07/21/14
Diln Fac:	1.000	Analyzed:	07/22/14
Batch#:	213535		

Field ID: **EFFLUENT** Lab ID: **259122-001**  
 Type: **SAMPLE**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Analysis</b>
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	108	77-128	EPA 8015B
Bromofluorobenzene (PID)	96	75-132	EPA 8021B

Field ID: **GAC-1** Lab ID: **259122-002**  
 Type: **SAMPLE**

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>Analysis</b>
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	111	77-128	EPA 8015B
Bromofluorobenzene (PID)	99	75-132	EPA 8021B

ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #: 259122 Location: 15101 Freedom Ave. San Leandro  
Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B  
Project#: 2553  
Matrix: Water Sampled: 07/21/14  
Units: ug/L Received: 07/21/14  
Diln Fac: 1.000 Analyzed: 07/22/14  
Batch#: 213535

Field ID: INFLUENT Lab ID: 259122-003  
Type: SAMPLE

Analyte	Result	RL	Analysis
Gasoline C7-C12	1,000	50	EPA 8015B
Benzene	54	0.50	EPA 8021B
Toluene	1.7	0.50	EPA 8021B
Ethylbenzene	35	0.50	EPA 8021B
m,p-Xylenes	62	0.50	EPA 8021B
o-Xylene	9.1	0.50	EPA 8021B

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	114	77-128	EPA 8015B
Bromofluorobenzene (PID)	100	75-132	EPA 8021B

Type: BLANK Lab ID: QC750183

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	110	77-128	EPA 8015B
Bromofluorobenzene (PID)	99	75-132	EPA 8021B

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	213535
Units:	ug/L	Analyzed:	07/22/14
Diln Fac:	1.000		

Type: BS Lab ID: QC750180

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	8.792	88	80-120
Toluene	10.00	8.969	90	80-120
Ethylbenzene	10.00	9.583	96	80-120
m,p-Xylenes	10.00	8.750	87	80-120
o-Xylene	10.00	9.487	95	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	101	75-132

Type: BSD Lab ID: QC750181

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	8.722	87	80-120	1	20
Toluene	10.00	8.775	88	80-120	2	20
Ethylbenzene	10.00	9.414	94	80-120	2	20
m,p-Xylenes	10.00	8.937	89	80-120	2	20
o-Xylene	10.00	9.669	97	80-120	2	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	101	75-132

RPD= Relative Percent Difference

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**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC750182	Batch#:	213535
Matrix:	Water	Analyzed:	07/22/14
Units:	ug/L		

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
Gasoline C7-C12	1,000	1,109	111	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Bromofluorobenzene (FID)	112	77-128



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	213535
MSS Lab ID:	259119-002	Sampled:	07/17/14
Matrix:	Water	Received:	07/18/14
Units:	ug/L	Analyzed:	07/22/14
Diln Fac:	1.000		

Type: MS Lab ID: QC750184

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	18.43	2,000	1,999	99	74-120
Surrogate	%REC	Limits			
Bromofluorobenzene (FID)	113	77-128			

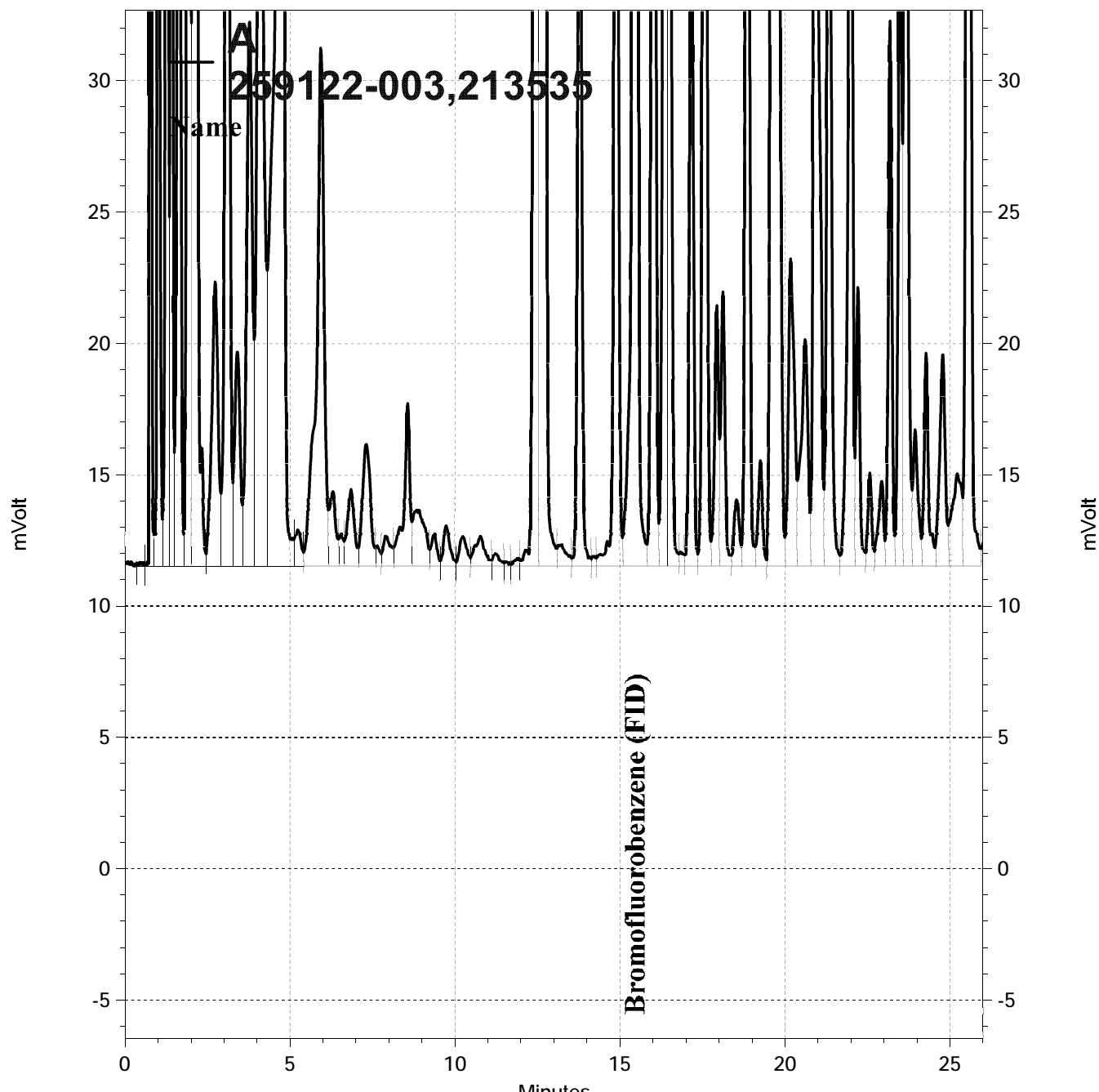
Type : MSD Lab ID : QC750185

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,002	99	74-120	0	27
Surrogate	%REC	Limits				
Bromofluorobenzene (FID)	111	77-128				

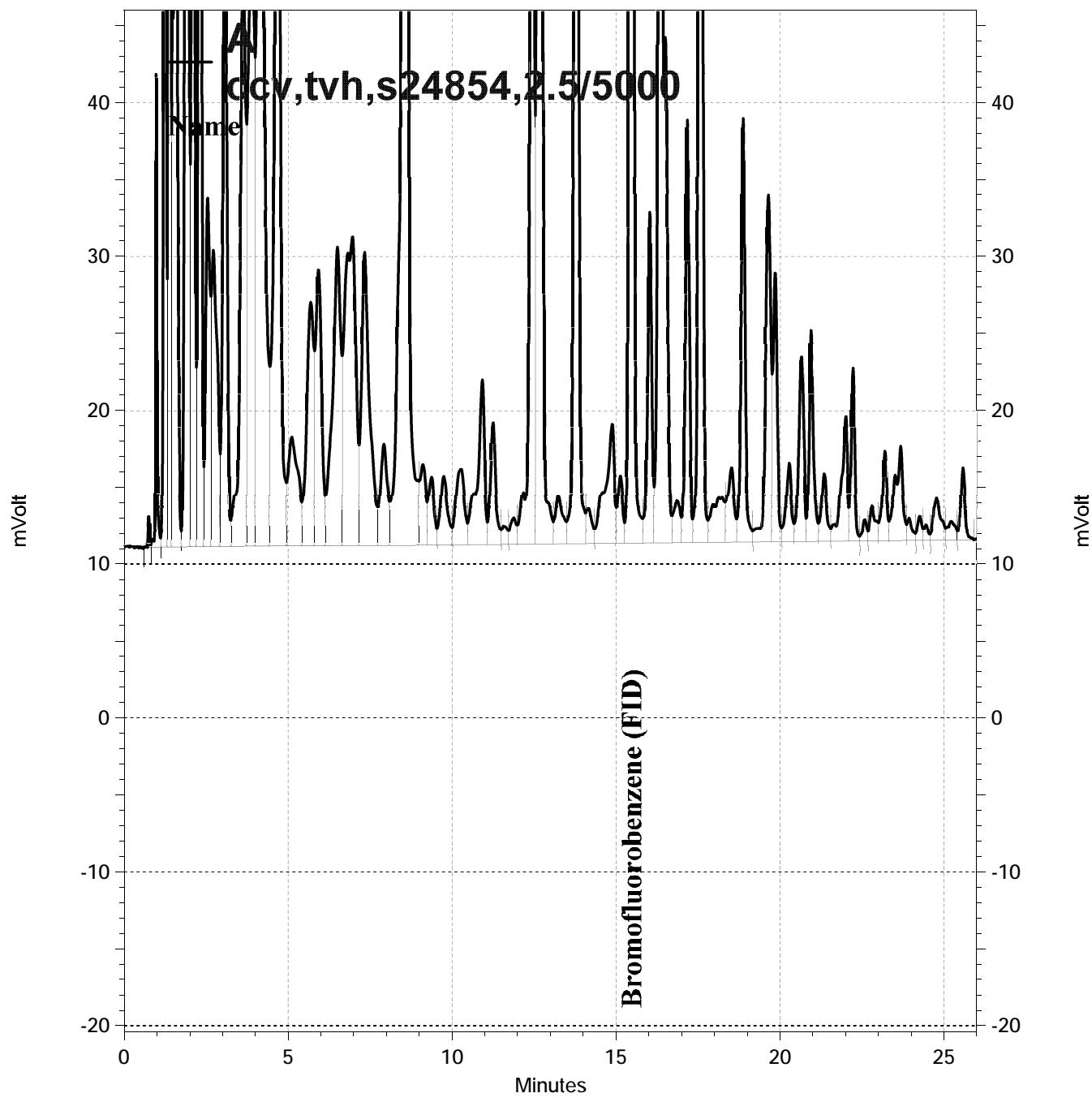
RPD= Relative Percent Difference

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### Total Extractable Hydrocarbons

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	213552
Matrix:	Water	Sampled:	07/21/14
Units:	ug/L	Received:	07/21/14
Diln Fac:	1.000		

Type: SAMPLE Prepared: 07/23/14  
 Lab ID: 259122-001 Analyzed: 07/24/14

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	75	66-129

Type: BLANK Prepared: 07/22/14  
 Lab ID: QC750247 Analyzed: 07/23/14

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	88	66-129

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	259122	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	213552
Units:	ug/L	Prepared:	07/22/14
Diln Fac:	1.000	Analyzed:	07/23/14

Type: BS Lab ID: QC750248

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,221	89	61-120

Surrogate	%REC	Limits
o-Terphenyl	92	66-129

Type: BSD Lab ID: QC750249

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,248	90	61-120	1	45

Surrogate	%REC	Limits
o-Terphenyl	85	66-129

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 259784  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Pleasanton, CA 94588

Project : 2553  
Location : 15101 Freedom Ave. San Leandro  
Level : II

Sample ID  
EFFLUENT

Lab ID  
259784-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: 

Date: 08/20/2014

Tracy Babjar  
Project Manager  
[tracy.babjar@ctberk.com](mailto:tracy.babjar@ctberk.com)  
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

**CASE NARRATIVE**

Laboratory number: **259784**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2553**  
Location: **15101 Freedom Ave. San Leandro**  
Request Date: **08/13/14**  
Samples Received: **08/13/14**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 08/13/14. The sample was received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

# **CHAIN OF CUSTODY**

Page 1 of 1

## **Curtis & Tompkins, Ltd**

Analytical Laboratory Since 1878

2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 Phone  
(510)486-0532 Fax

**Project No: 2553**

LOGIN # 259784

## **Analyses**

Sampler: Davoud Bazrpash

## **Report To: Joyce Bobek**

**Project Name:**15101 Freedom Ave, San Leandr Company : **SOMA Environmental**

**Turnaround Time: Standard**      **Telephone:** 925-734-6400

**Fax:** 925-734-6401

**Notes: EDF OUTPUT REQUIRED**

rec'd on PLATE 145

**RELINQUISHED BY:**

D.B. 100 15:20 8/13/14  
DATE/TIME

RECEIVED BY

8/13/14 /528 DATE/TIME

**DATE/TIME**

**DATE/TIME**

**DATE/TIME**

**DATE/TIME**

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# COOLER RECEIPT CHECKLIST



Login # 259784 Date Received 08/13/14 Number of coolers 0  
 Client SOMA Environmental Project 2553

Date Opened 08/13/14 By (print) JMC (sign) efr  
 Date Logged in ✓ By (print) ✓ (sign) efr

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES  NO  
 Shipping info \_\_\_\_\_
- 2A. Were custody seals present? ....  YES (circle) on cooler on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_
- 2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES NO  N/A
3. Were custody papers dry and intact when received? \_\_\_\_\_ YES NO
4. Were custody papers filled out properly (ink, signed, etc)? \_\_\_\_\_ YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) \_\_\_\_\_ YES NO
6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C
- Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_
- Samples received on ice & cold without a temperature blank; temp taken with IR gun \_\_\_\_\_
- Samples received on ice directly from the field. Cooling process had begun \_\_\_\_\_

8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES  NO  
 If YES, what time were they transferred to freezer? \_\_\_\_\_
9. Did all bottles arrive unbroken/unopened? \_\_\_\_\_ YES  NO
10. Are there any missing / extra samples? \_\_\_\_\_ YES  NO
11. Are samples in the appropriate containers for indicated tests? \_\_\_\_\_ YES  NO
12. Are sample labels present, in good condition and complete? \_\_\_\_\_ YES  NO
13. Do the sample labels agree with custody papers? \_\_\_\_\_ YES  NO
14. Was sufficient amount of sample sent for tests requested? \_\_\_\_\_ YES  NO
15. Are the samples appropriately preserved? \_\_\_\_\_ YES  NO N/A
16. Did you check preservatives for all bottles for each sample? \_\_\_\_\_ YES  NO  N/A
17. Did you document your preservative check? \_\_\_\_\_ YES  NO  N/A
18. Did you change the hold time in LIMS for unpreserved VOAs? \_\_\_\_\_ YES  NO  N/A
19. Did you change the hold time in LIMS for preserved terracores? \_\_\_\_\_ YES  NO  N/A
20. Are bubbles > 6mm absent in VOA samples? \_\_\_\_\_ YES  NO N/A
21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO  
 If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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### Detections Summary for 259784

Results for any subcontracted analyses are not included in this summary.

Client : SOMA Environmental Engineering Inc.  
Project : 2553  
Location : 15101 Freedom Ave. San Leandro

Client Sample ID : EFFLUENT                      Laboratory Sample ID :                      259784-001

No Detections

### **Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	EFFLUENT	Batch#:	214395
Matrix:	Water	Sampled:	08/13/14
Units:	ug/L	Received:	08/13/14
Diln Fac:	1.000	Analyzed:	08/14/14

Type: SAMPLE Lab ID: 259784-001

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	104	77-128	EPA 8015B
Bromofluorobenzene (PID)	93	75-132	EPA 8021B

Type: BLANK Lab ID: QC753543

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	101	77-128	EPA 8015B
Bromofluorobenzene (PID)	90	75-132	EPA 8021B

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	214395
Units:	ug/L	Analyzed:	08/14/14
Diln Fac:	1.000		

Type: BS Lab ID: QC753540

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.25	102	80-120
Toluene	10.00	10.25	102	80-120
Ethylbenzene	10.00	10.42	104	80-120
m,p-Xylenes	10.00	10.40	104	80-120
o-Xylene	10.00	10.24	102	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	97	75-132

Type: BSD Lab ID: QC753541

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	9.843	98	80-120	4	20
Toluene	10.00	9.731	97	80-120	5	20
Ethylbenzene	10.00	10.08	101	80-120	3	20
m,p-Xylenes	10.00	9.940	99	80-120	5	20
o-Xylene	10.00	9.639	96	80-120	6	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	91	75-132

RPD= Relative Percent Difference

**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753542	Batch#:	214395
Matrix:	Water	Analyzed:	08/14/14
Units:	ug/L		

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
Gasoline C7-C12	1,000	986.2	99	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Bromofluorobenzene (FID)	106	77-128



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	214395
MSS Lab ID:	259774-001	Sampled:	08/12/14
Matrix:	Water	Received:	08/13/14
Units:	ug/L	Analyzed:	08/14/14
Diln Fac:	1.000		

Type: MS Lab ID: QC753544

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	55.02	2,000	1,999	97	74-120
Surrogate	%REC	Limits			
Bromofluorobenzene (FID)	112	77-128			

Type: MSD Lab ID: QC753545

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,976	96	74-120	1	27
Surrogate	%REC	Limits				
Bromofluorobenzene (FID)	106	77-128				

RPD= Relative Percent Difference

### Total Extractable Hydrocarbons

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	214402
Matrix:	Water	Sampled:	08/13/14
Units:	ug/L	Received:	08/13/14
Diln Fac:	1.000	Prepared:	08/14/14

Type: SAMPLE Analyzed: 08/16/14  
 Lab ID: 259784-001

Analyte	Result	RL
Diesel C10-C24	ND	49
Motor Oil C24-C36	ND	290

Surrogate	%REC	Limits
o-Terphenyl	98	66-129

Type: BLANK Analyzed: 08/15/14  
 Lab ID: QC753563

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	104	66-129

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC753564	Batch#:	214402
Matrix:	Water	Prepared:	08/14/14
Units:	ug/L	Analyzed:	08/15/14

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,371	95	61-120

Surrogate	%REC	Limits
o-Terphenyl	102	66-129



Curtis & Tompkins, Ltd.

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	259784	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZ	Batch#:	214402
MSS Lab ID:	259774-001	Sampled:	08/12/14
Matrix:	Water	Received:	08/13/14
Units:	ug/L	Prepared:	08/14/14
Diln Fac:	1.000	Analyzed:	08/15/14

Type: MS Lab ID: QC753565

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	73.55	2,451	2,591	103	65-120
Surrogate	%REC	Limits			
o-Terphenyl	110	66-129			

Type: MSD Lab ID: QC753566

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,451	2,805	111	65-120	8	26
Surrogate	%REC	Limits				
o-Terphenyl	117	66-129				

RPD= Relative Percent Difference



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

**Laboratory Job Number 260635  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Pleasanton, CA 94588

Project : 2553  
Location : 15101 Freedom Ave. San Leandro  
Level : II

Sample ID  
EFFLUENT

Lab ID  
260635-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Isabelle Choy

Date: 09/17/2014

Isabelle Choy  
Project Manager  
isabelle.choy@ctberk.com

CA ELAP# 2896, NELAP# 4044-001

**CASE NARRATIVE**

Laboratory number: **260635**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2553**  
Location: **15101 Freedom Ave. San Leandro**  
Request Date: **09/09/14**  
Samples Received: **09/09/14**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 09/09/14. The sample was received intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):**

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

## **CHAIN OF CUSTODY**

Page \_1\_ of \_1\_

## **Curtis & Tompkins, Ltd**

Analytical Laboratory Since 1878  
2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 Phone  
(510)486-0532 Fax

Project No: 2553

Project Name: 15101 Freedom Ave, San Leandr Company : SOMA Environmental

**Turnaround Time: Standard**      **Telephone:** 925-734-6400

**Fax:** 925-734-6401

**Matrix**      **Preservative**

**Notes: EDF OUTPUT REQUIRED**

**RELINQUISHED BY:**

RECEIVED BY

9.9.14 1:05pm

**DATE/TIME**

**DATE/TIME**

D B color

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

## **Analyses**

# COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 260635 Date Received 9/9/14 Number of coolers 0  
 Client SOMA Project 7553

Date Opened 9/9/14 By (print) J (sign) J  
 Date Logged in 9/9/14 By (print) J (sign) J

1. Did cooler come with a shipping slip (airbill, etc) \_\_\_\_\_ YES NO  
 Shipping info \_\_\_\_\_

2A. Were custody seals present? ....  YES (circle) on cooler on samples  NO  
 How many \_\_\_\_\_ Name \_\_\_\_\_ Date \_\_\_\_\_

2B. Were custody seals intact upon arrival? \_\_\_\_\_ YES NO N/A

3. Were custody papers dry and intact when received? \_\_\_\_\_ YES NO

4. Were custody papers filled out properly (ink, signed, etc)? \_\_\_\_\_ YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe) \_\_\_\_\_

Bubble Wrap  Foam blocks  Bags  None  
 Cloth material  Cardboard  Styrofoam  Paper towels

7. Temperature documentation: \* Notify PM if temperature exceeds 6°C

Type of ice used:  Wet  Blue/Gel  None Temp(°C) \_\_\_\_\_

Samples received on ice & cold without a temperature blank; temp taken with IR gun

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? \_\_\_\_\_ YES NO  
 If YES, what time were they transferred to freezer? \_\_\_\_\_

9. Did all bottles arrive unbroken/unopened? \_\_\_\_\_ YES NO

10. Are there any missing / extra samples? \_\_\_\_\_ YES NO

11. Are samples in the appropriate containers for indicated tests? \_\_\_\_\_ YES NO

12. Are sample labels present, in good condition and complete? \_\_\_\_\_ YES NO

13. Do the sample labels agree with custody papers? \_\_\_\_\_ YES NO

14. Was sufficient amount of sample sent for tests requested? \_\_\_\_\_ YES NO

15. Are the samples appropriately preserved? \_\_\_\_\_ YES NO N/A

16. Did you check preservatives for all bottles for each sample? \_\_\_\_\_ YES NO N/A

17. Did you document your preservative check? \_\_\_\_\_ YES NO N/A

18. Did you change the hold time in LIMS for unpreserved VOAs? \_\_\_\_\_ YES NO N/A

19. Did you change the hold time in LIMS for preserved terracores? \_\_\_\_\_ YES NO N/A

20. Are bubbles > 6mm absent in VOA samples? \_\_\_\_\_ YES NO N/A

21. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES NO

If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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### Detections Summary for 260635

Results for any subcontracted analyses are not included in this summary.

Client : SOMA Environmental Engineering Inc.  
Project : 2553  
Location : 15101 Freedom Ave. San Leandro

Client Sample ID : EFFLUENT                      Laboratory Sample ID : 260635-001

No Detections

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	EFFLUENT	Batch#:	215249
Matrix:	Water	Sampled:	09/09/14
Units:	ug/L	Received:	09/09/14
Diln Fac:	1.000	Analyzed:	09/10/14

Type: SAMPLE Lab ID: 260635-001

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	111	77-128	EPA 8015B
Bromofluorobenzene (PID)	103	75-132	EPA 8021B

Type: BLANK Lab ID: QC757001

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	110	77-128	EPA 8015B
Bromofluorobenzene (PID)	101	75-132	EPA 8021B

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	215249
Units:	ug/L	Analyzed:	09/10/14
Diln Fac:	1.000		

Type: BS Lab ID: QC756998

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.23	102	80-120
Toluene	10.00	10.31	103	80-120
Ethylbenzene	10.00	10.45	104	80-120
m,p-Xylenes	10.00	10.67	107	80-120
o-Xylene	10.00	10.44	104	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	103	75-132

Type: BSD Lab ID: QC756999

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	10.13	101	80-120	1	20
Toluene	10.00	10.00	100	80-120	3	20
Ethylbenzene	10.00	10.04	100	80-120	4	20
m,p-Xylenes	10.00	10.25	102	80-120	4	20
o-Xylene	10.00	10.09	101	80-120	3	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	103	75-132

RPD= Relative Percent Difference

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**Batch QC Report**
**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC757000	Batch#:	215249
Matrix:	Water	Analyzed:	09/10/14
Units:	ug/L		

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
Gasoline C7-C12	1,000	1,108	111	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Bromofluorobenzene (FID)	112	77-128



Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	215249
MSS Lab ID:	260635-001	Sampled:	09/09/14
Matrix:	Water	Received:	09/09/14
Units:	ug/L	Analyzed:	09/11/14
Diln Fac:	1.000		

Type: MS Lab ID: QC757025

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	11.87	2,000	1,990	99	74-120
Surrogate	%REC	Limits			
Bromofluorobenzene (FID)	112	77-128			

Type: MSD Lab ID: QC757026

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,028	101	74-120	2	27
Surrogate	%REC	Limits				
Bromofluorobenzene (FID)	112	77-128				

RPD= Relative Percent Difference

### Total Extractable Hydrocarbons

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	215383
Matrix:	Water	Sampled:	09/09/14
Units:	ug/L	Received:	09/09/14
Diln Fac:	1.000	Prepared:	09/15/14

Type: SAMPLE Analyzed: 09/17/14  
 Lab ID: 260635-001

Analyte	Result	RL
Diesel C10-C24	ND	49
Motor Oil C24-C36	ND	290

Surrogate	%REC	Limits
o-Terphenyl	119	66-129

Type: BLANK Analyzed: 09/16/14  
 Lab ID: QC757535

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	99	66-129

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	260635	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	215383
Units:	ug/L	Prepared:	09/15/14
Diln Fac:	1.000	Analyzed:	09/16/14

Type: BS Lab ID: QC757536

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,194	88	61-120

Surrogate	%REC	Limits
o-Terphenyl	104	66-129

Type: BSD Lab ID: QC757537

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,330	93	61-120	6	45

Surrogate	%REC	Limits
o-Terphenyl	107	66-129

RPD= Relative Percent Difference

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