



**ENVIRONMENTAL ENGINEERING, INC.**  
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January 19, 2015

**RECEIVED**

*By Alameda County Environmental Health at 10:05 am, Jan 21, 2015*

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**

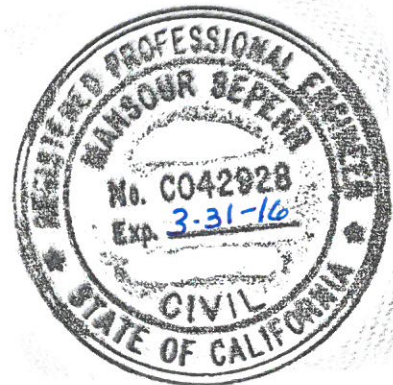
Dear Mr. Detterman:

SOMA's "Fourth 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,

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist



cc: Mr. Mohammad Pazdel w/report enclosure

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

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

**January 16, 2015**

**Project 2551/2553**

**Prepared for**

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



ENVIRONMENTAL ENGINEERING, INC.

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## 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".

A handwritten signature in cursive script, reading "M. Pazdel", written over a horizontal line.

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 Fourth Quarter 2014 groundwater monitoring event.



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Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



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- 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
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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 Fourth Quarter 2014 groundwater monitoring event conducted on December 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 Fourth Quarter 2014, which includes operation of a groundwater extraction and treatment system.

## 1.1 Field Activities

In December 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 December 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, 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 December 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 Fourth 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 10.08 feet in MW-11 to 21.52 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 32.33 feet in MW-10 to 33.66 feet in MPE-1. Groundwater elevations at extraction wells EX-1 and EX-2 were 27.62 feet and 25.74 feet, respectively (Table 1).

Figure 3 displays the contour map of groundwater elevations. As illustrated, groundwater flows towards extraction wells, at a gradient of 0.021 feet/feet. Since the previous monitoring event (Third Quarter 2014) the gradient has slightly decreased and groundwater elevation has increased approximately 3 to 5 feet across the site. 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 0.66 mg/L in MW-5 to 2.57 mg/L in MW-10. ORP showed negative redox potentials in all tested wells except MW-10 which showed positive redox potential. Negative redox potentials indicate that contaminants in the groundwater are conducive to anaerobic biodegradation. 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 (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 MW-5 and was detected at concentrations ranging from 140 µg/L in MW-2 to 13,000 µg/L in MW-3. Since the previous monitoring event (Third Quarter 2014), TPH-g increased in MW-2 and decreased significantly in MW-1, MW-3, MW-5, MW-6, MW-7, MW-10, MW-11, EX-1, EX-2, MPE-1, and MPE-2.

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-10.

The following BTEX concentrations were observed:

- Benzene was below laboratory-reporting limits in MW-2, MW-5, MW-7, MW-10, and MW-11. Detectable benzene concentrations ranged from 0.95 µg/L in MW-4 to 430 µg/L in MPE-2.
- Toluene was below laboratory-reporting limits in MW-1, MW-4, MW-5, MW-6, MW-7, MW-10, MW-11, and EX-1. Detectable toluene concentrations ranged from 0.7 µg/L in MW-2 to 77 µg/L in MPE-2.
- Ethylbenzene was below laboratory-reporting limit in MW-4 and MW-5 and was detected in concentrations ranging from 0.84 µg/L in MW-1 to 420 µg/L in MPE-2.
- Total xylenes were below laboratory-reporting limits in MW-1, MW-2, MW-4, and MW-5. Detectable concentrations ranged from 2.3 µg/L in MW-7 to 1,670 µg/L in MPE-2.

Figure 5 displays the contour map of benzene in groundwater. The highest benzene impact is in the northeast corner of the site in the vicinity of MPE-2. Since the previous monitoring event (Third Quarter 2014), benzene has decreased in MW-1, MW-3, MW-4, MW-5, MW-6, EX-1, EX-2, MPE-1, and MPE-2. Decrease in benzene concentration was the most significant in MW-4.

MtBE was below the laboratory-reporting limit in MW-1, MW-2, MW-3, MW-5, MW-10, MW-11, and MPE-1. Detectable MtBE ranged from 0.63 µg/L in MW-6 to 11 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 (Third

Quarter 2014), MtBE has decreased in MW-4, MW-5, MW-6, MW-7, EX-1, EX-2 and MPE-1.

As shown in Table 1, detectable concentrations of TPH-g, BTEX, and MtBE generally decreased across the site including more impacted wells MW-3, MW-6, MPE-1, and MPE-2 where free-product has been observed in the past, since the previous monitoring event (Third Quarter 2014). This decrease was significant in MW-3 and MW-6.

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-2, MW-3, MW-5, MW-7, and MPE-1 all gasoline oxygenates and lead scavengers were below laboratory-reporting limits.
- Tertiary-butyl alcohol (TBA) was detected in MW-1, MW-4, MW-6, MW-10, MW-11, EX-1, EX-2, and MPE-2 at concentrations ranging from 4.7 µg/L in MW-1 to 91 µg/L in EX-1. Figure 7 shows the contour map of TBA concentrations in First WBZ wells. Since the previous monitoring event (Third Quarter 2014), TBA increased in EX-2; decreased in MW-4, MW-6, MW-11, EX-1, and MPE-1; while no comparison can be made for MW-1, MW-10, and MPE-2 due to high reporting limits and high dilution during the previous monitoring event.
- Ethyl tertiary-butyl ether (ETBE) was detected in EX-1 at 0.84 µg/L 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 0.80 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.
- Methyl tertiary-amyl ether (TAME), 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 19.66 feet in MW-4D to 21.84 feet in MW-1D. Corresponding groundwater elevations ranged from 32.58 feet in MW-1D to 33.46 feet in MW-4D.

Figure 8 displays the contour map of groundwater elevations in the Second WBZ. Groundwater flows northwesterly at a gradient of 0.006 feet/feet. The

groundwater gradient has remained the same since the previous monitoring event (Third Quarter 2014) and the flow direction has changed from southwesterly to northwesterly. 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 1.32 mg/L in MW-3D to 7.73 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 (Third Quarter 2014), TPH-g was below laboratory-reporting limit in all Second WBZ wells.

All BTEX analytes were below laboratory-reporting limits in all Second WBZ wells. Since the previous monitoring event (Third Quarter 2014), total xylenes have decreased in MW-1D.

MtBE was below the laboratory-reporting limit in MW-1D and MW-4D and was detected in MW-3D at 1.00 µg/L, respectively. 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 3,560,504 gallons of groundwater have been treated and discharged at the site (as of December 22, 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 2014. 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 October 13, 2014, cumulative masses of TPH-g and BTEX extracted from groundwater were approximately 38.61 pounds, 1.46 pounds, 0.36 pounds, 0.95 pounds, and 5.07 pounds, respectively. Appendix D includes laboratory analytical results.

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

No MPE events were performed during Fourth Quarter 2014. The overall estimated total mass of VOCs extracted during 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

Fourth 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 northwesterly in the Second WBZ. Since the previous monitoring event (Third Quarter 2014) groundwater elevation has increased approximately 3 to 5 feet across the site.
- The highest TPH-g and benzene 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-10.
- Since the previous monitoring event (Third Quarter 2014), TPH-g and BTEX decreased in the more impacted wells MW-3, MW-6, MPE-1, and MPE-2. TPH-g decreased significantly in these wells. MtBE and TBA also decreased in MW-6 and MPE-1. No FP was observed during this monitoring event.
- In the Second WBZ, all contaminant concentrations were below laboratory-reporting limits except for MtBE which was detected in MW-3D at a low level.
- 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.
- SOMA will conduct additional MPE events at the site based on ACEH's approval dated October 29, 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



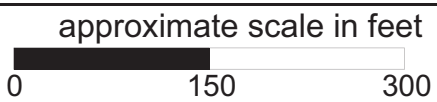
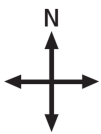
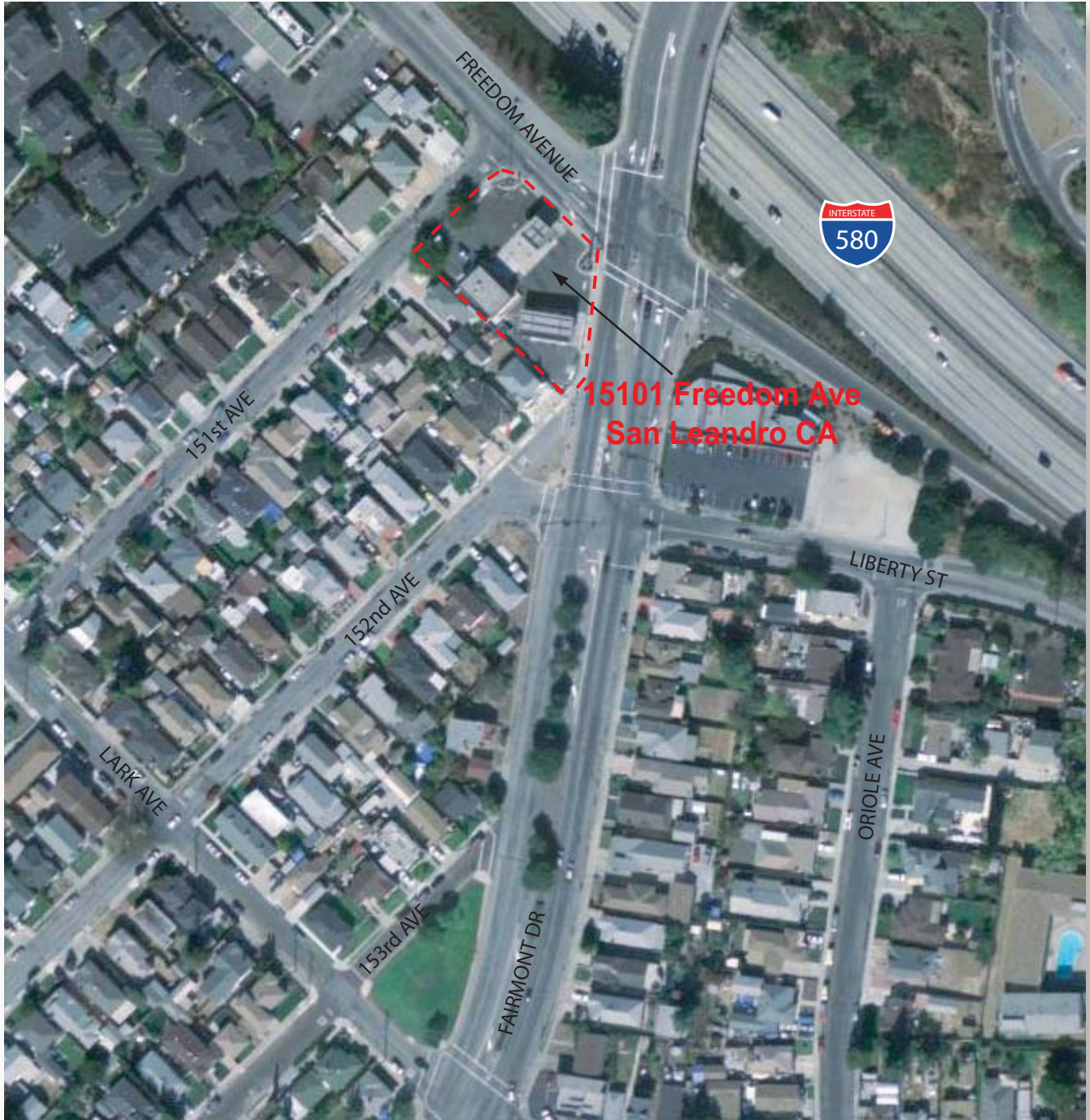
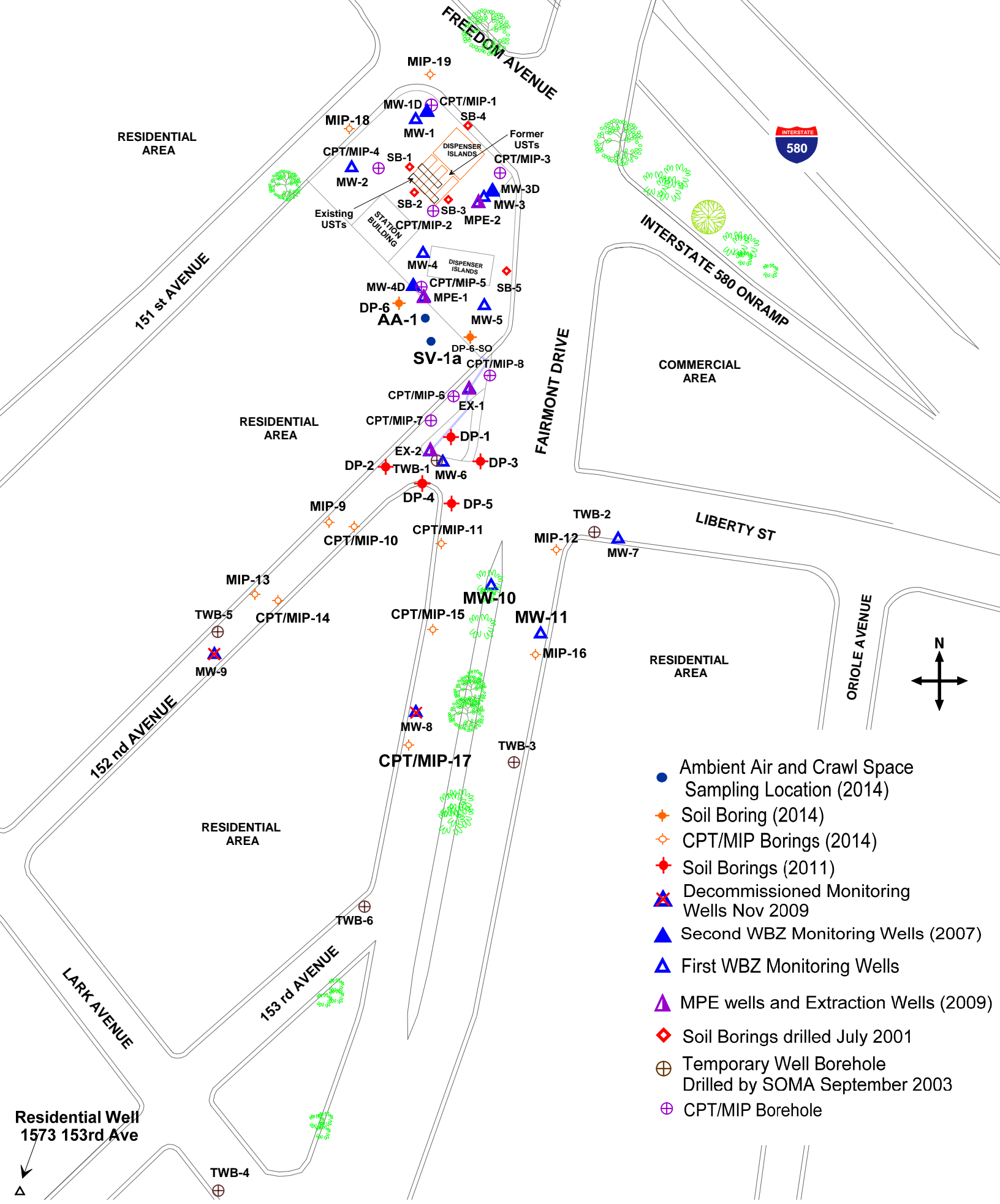


Figure 1: Site vicinity map.



- Ambient Air and Crawl Space Sampling Location (2014)
- ◆ Soil Boring (2014)
- ◇ CPT/MIP Borings (2014)
- ◆ Soil Borings (2011)
- ⊗ Decommissioned Monitoring Wells Nov 2009
- ▲ Second WBZ Monitoring Wells (2007)
- ▲ First WBZ Monitoring Wells
- ▲ MPE wells and Extraction Wells (2009)
- ◆ Soil Borings drilled July 2001
- ⊕ Temporary Well Borehole Drilled by SOMA September 2003
- ⊕ CPT/MIP Borehole

Residential Well  
1573 153rd Ave

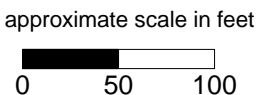
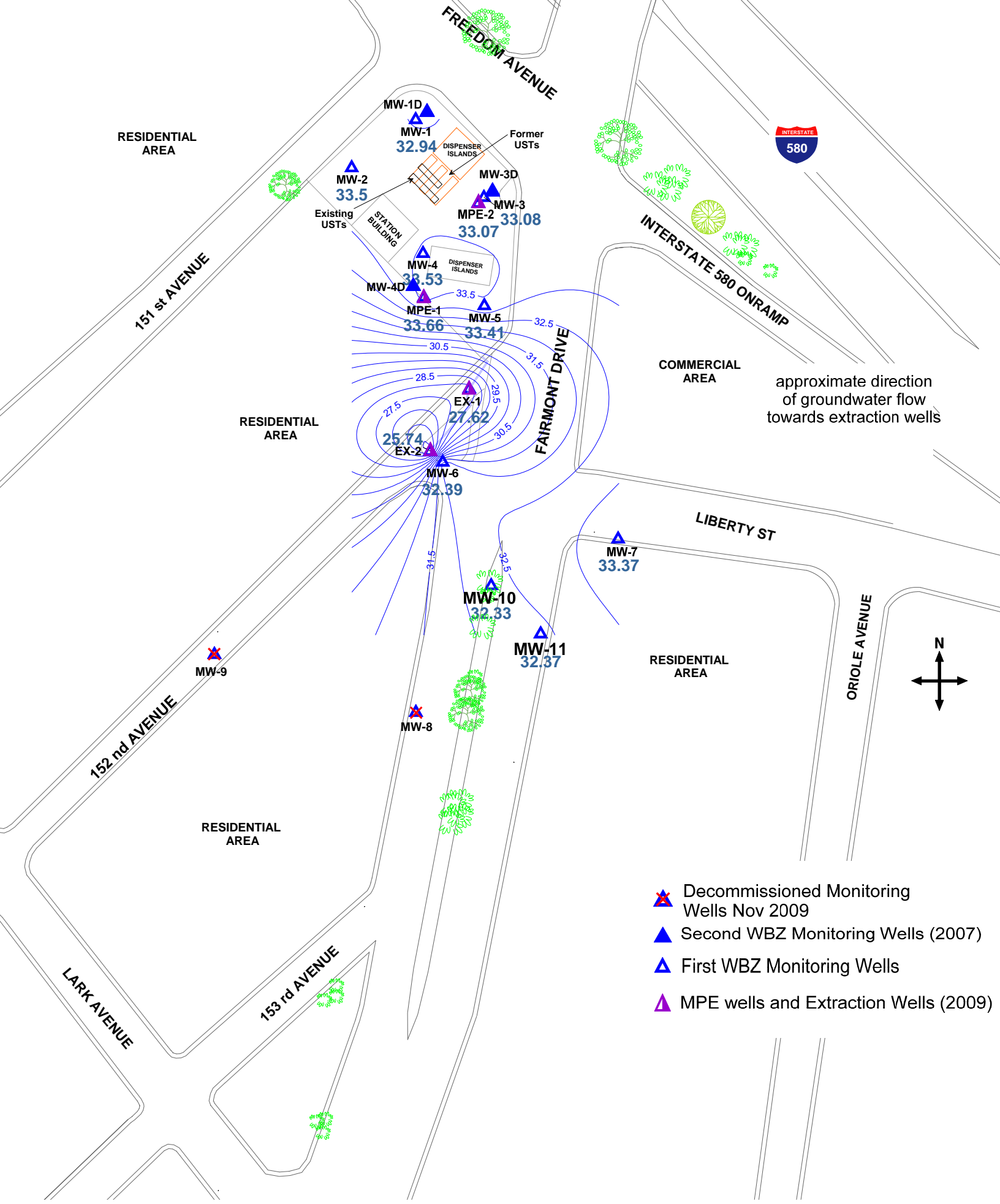


Figure 2: Site Map Showing Locations of USTs, Fuel Dispensers, Soil Borings, Vapor Samples, and Groundwater Monitoring Wells





approximate scale in feet  
 0 50 100

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



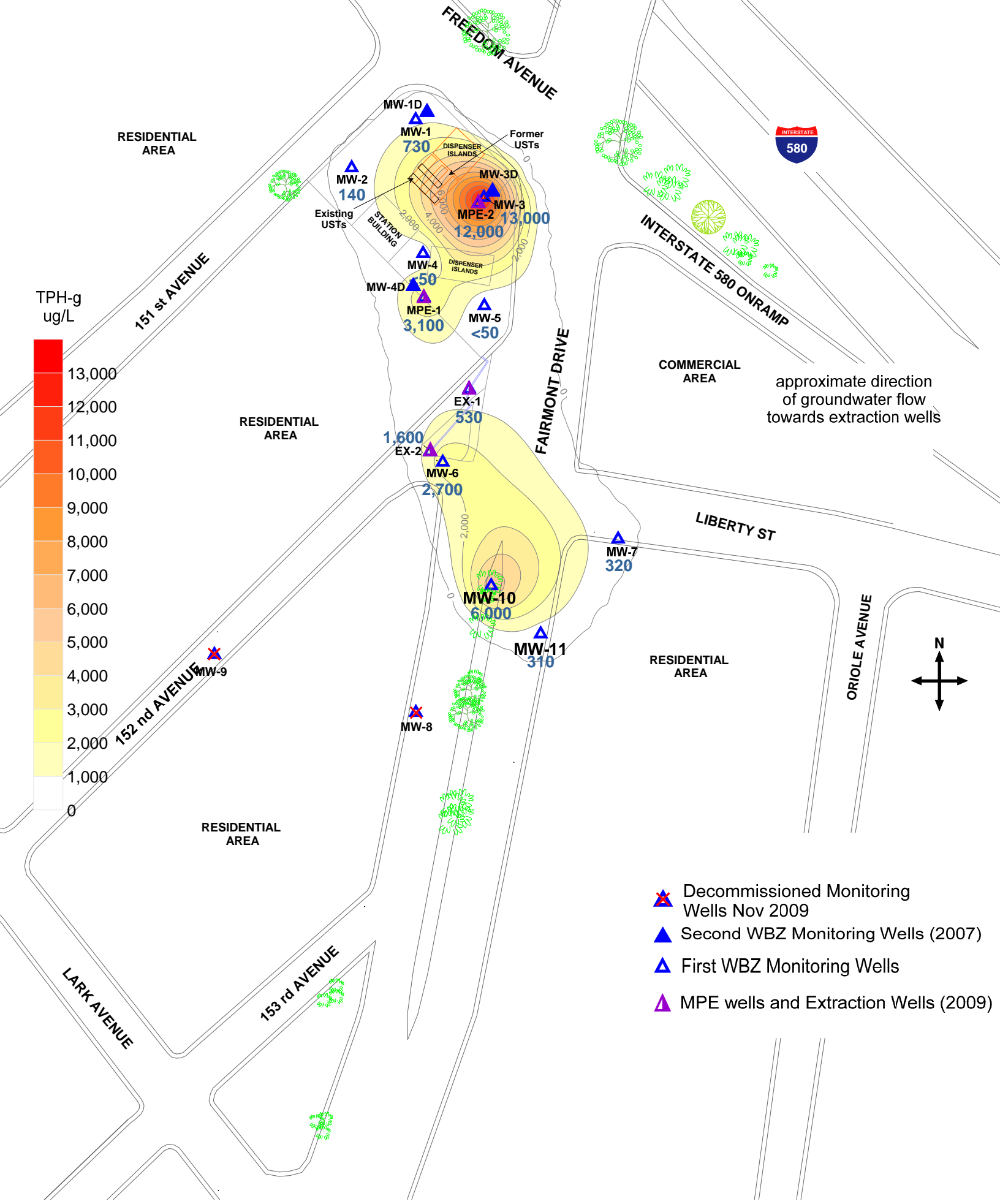
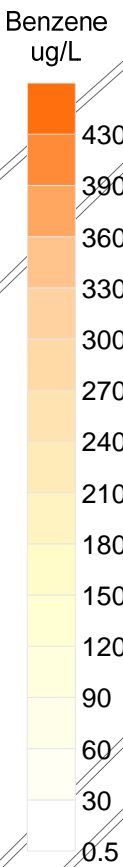
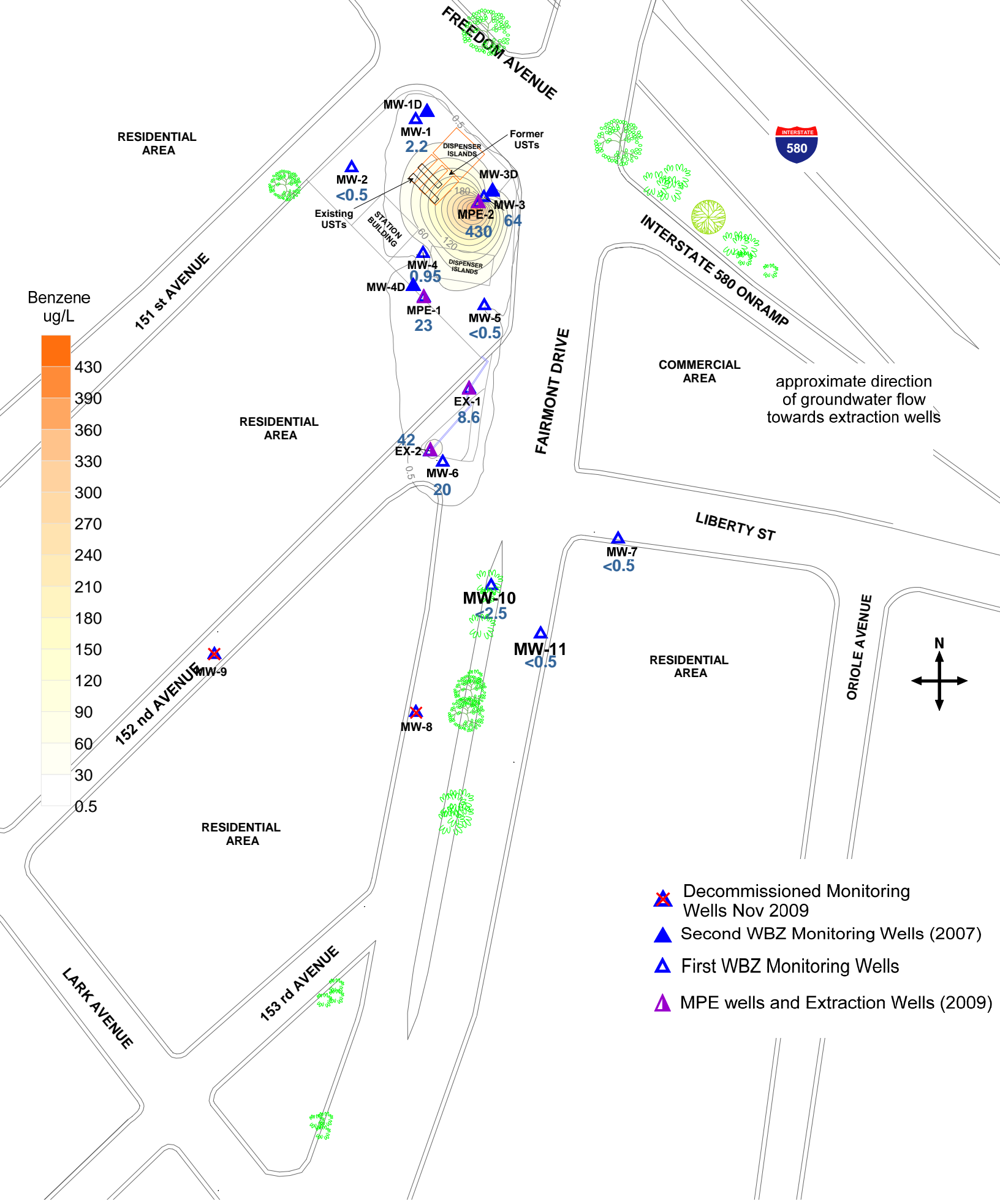


Figure 4: Contour Map of TPH-g Concentrations in Groundwater, First WBZ, December 22 and 23, 2014



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

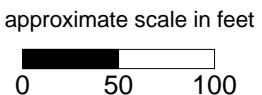


Figure 5: Contour Map of benzene Concentrations in Groundwater, First WBZ, December 22 and 23, 2014

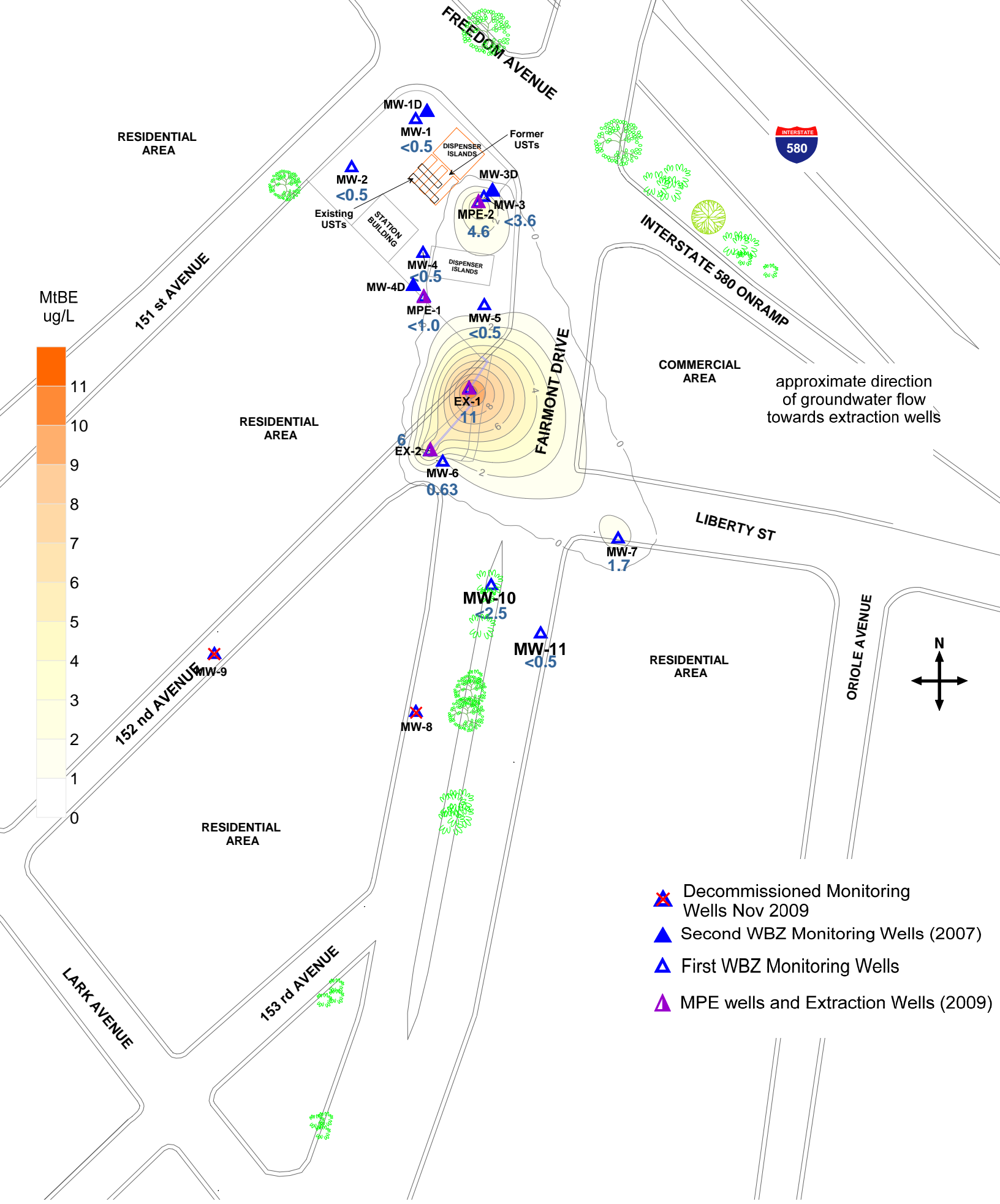


Figure 6: Contour Map of MtBE Concentrations in Groundwater, First WBZ, December 22 and 23, 2014

approximate scale in feet  
 0 50 100

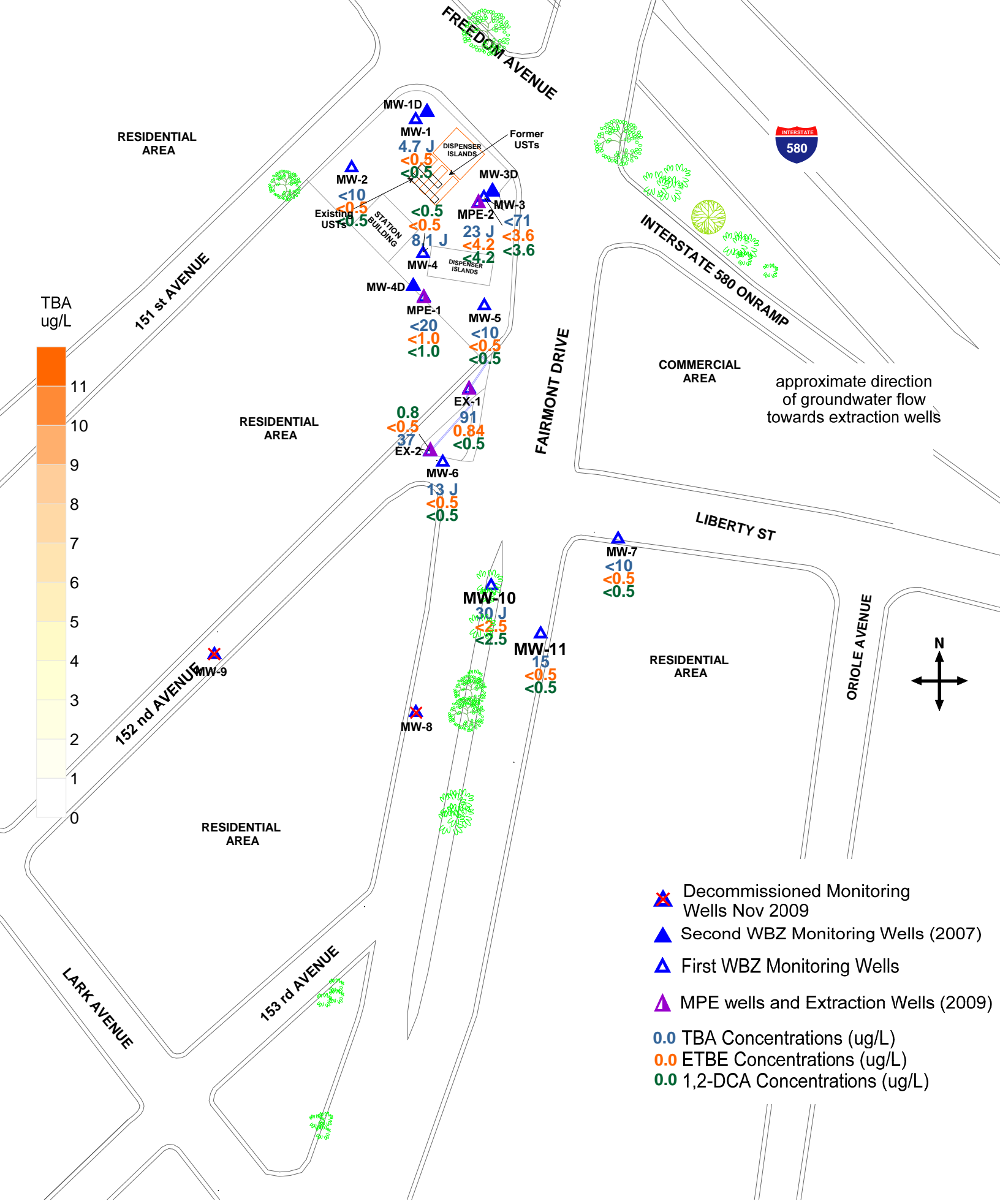
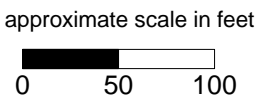
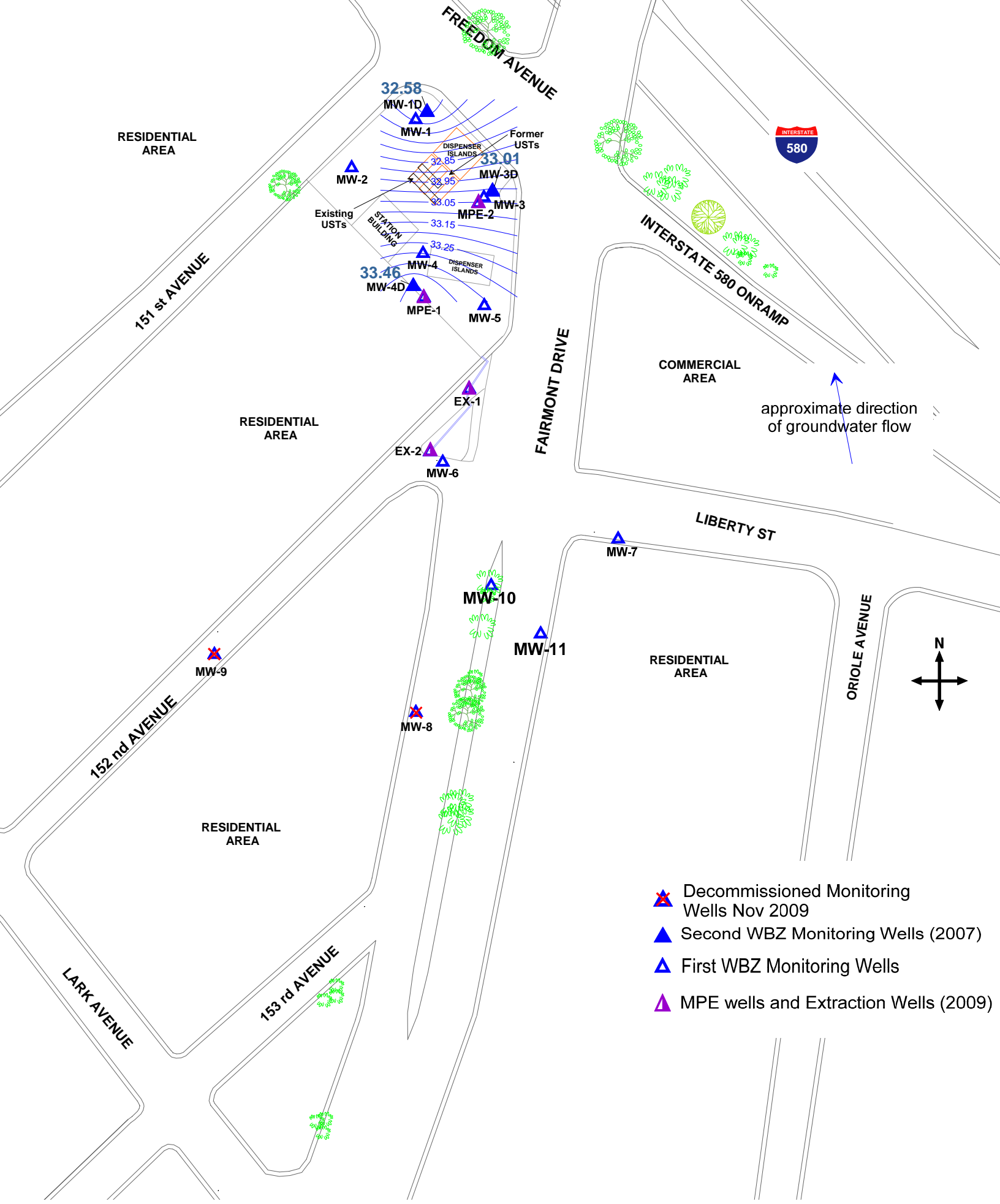


Figure 7: Contour Map of TBA Concentrations and Map Showing ETBE and 1,2-DCA in Groundwater, First WBZ, December 22 and 23, 2014





RESIDENTIAL AREA

151 st AVENUE

RESIDENTIAL AREA

152 nd AVENUE

MW-9

RESIDENTIAL AREA

LARK AVENUE

153 rd AVENUE

FREEDOM AVENUE

32.58

MW-1D

MW-1

Former USTs

DISPENSER ISLANDS

33.01

MW-3D

MW-3

MW-2

Existing USTs

32.85

33.95

33.05

33.15

33.25

MW-4

MW-4D

MPE-1

MW-5

EX-1

EX-2

MW-6

MW-10

MW-11

MW-8

MW-7

RESIDENTIAL AREA

LIBERTY ST

ORIOLE AVENUE

approximate direction of groundwater flow

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

approximate scale in feet

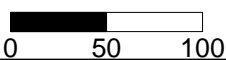
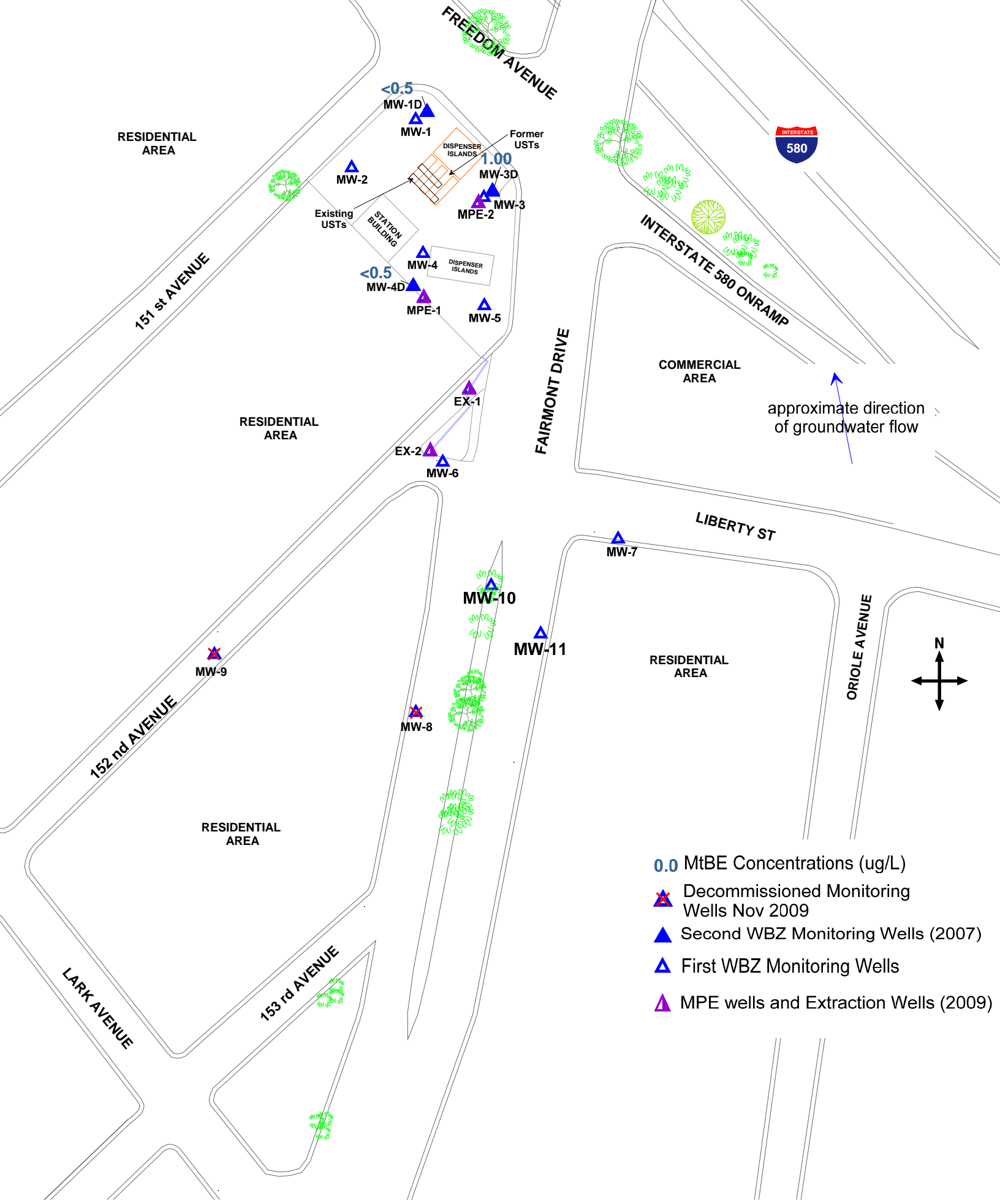






Figure 8: Groundwater Elevation Contour Map in Feet, Second WBZ, December 22, 2014





- 0.0 MtBE Concentrations (ug/L)
-  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, December 22 and 23, 2014

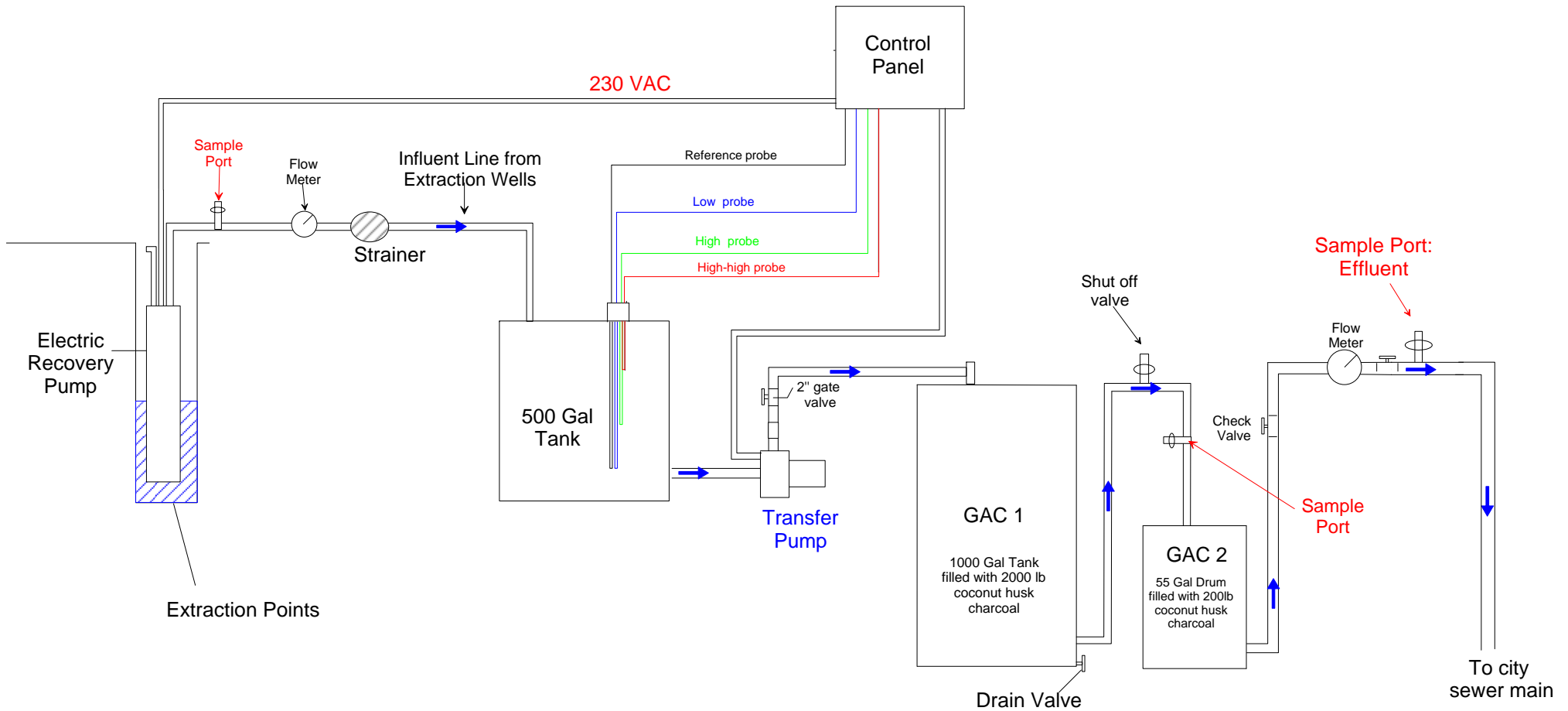


Figure 10: Schematic diagram of Groundwater Remediation System

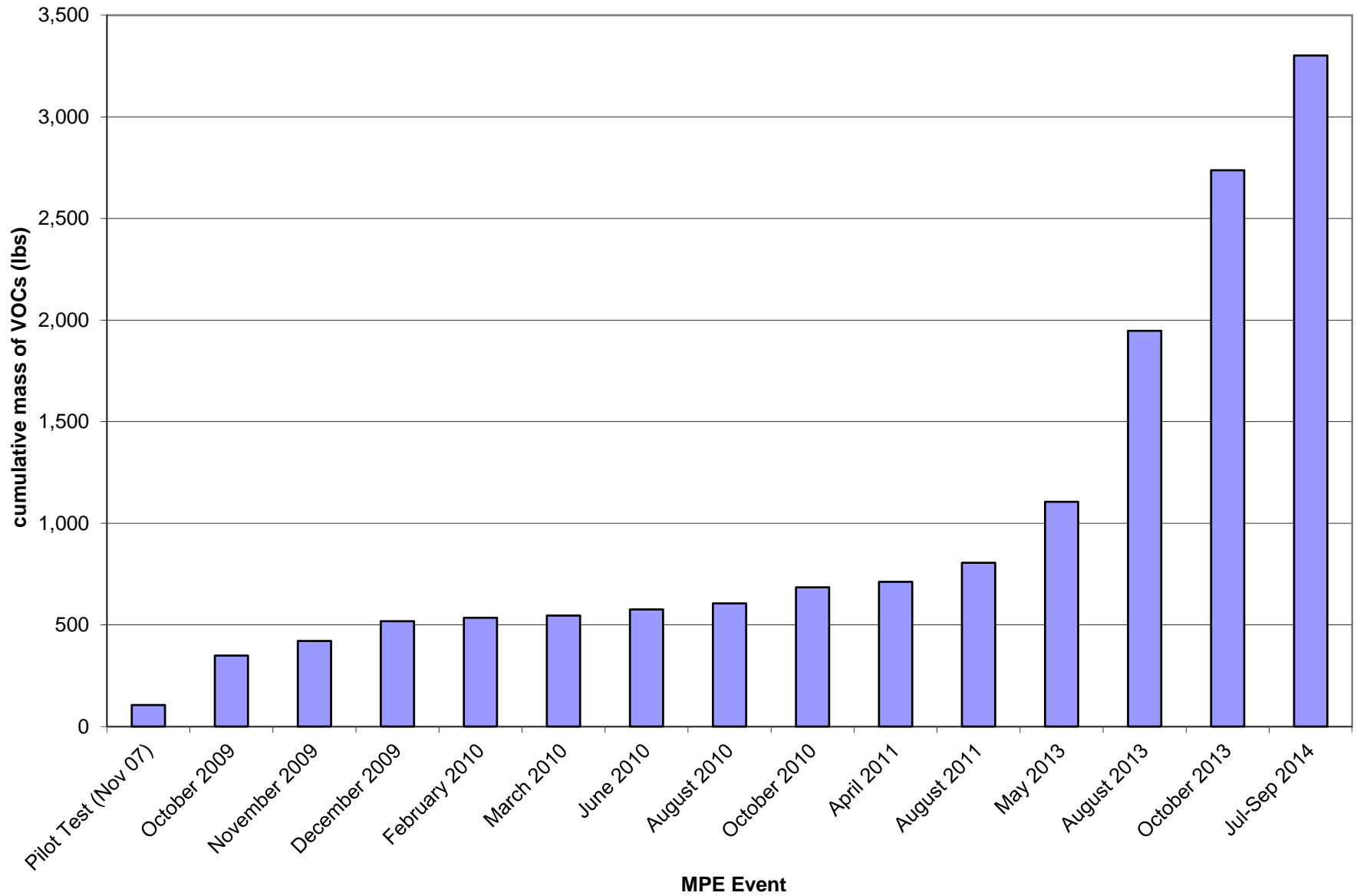


Figure 11: Cumulative mass of VOCs removed

# 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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>1st WBZ</b>											
<b>MW-1</b>	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	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-1 cont.	1/22/2008	54.46	22.59	-	31.87	2,260	81.3	<2.0	17.5	<2.0	4.23
	4/16/2008	54.46	22.89	-	31.57	2,320	248	<2.0	54.1	37.3	<0.5
	7/3/2008	54.46	23.33	-	31.13	5,240	414	<2.0	168	94	6.56
	10/15/2008	54.46	23.76	-	30.70	4,500 <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
	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	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-1 cont.	3/13/2014	54.46	23.47	N	30.99	2,800	16	<0.5	74	15	1.4
	6/6/2014	54.46	23.46	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
	<b>12/23/2014</b>	<b>54.46</b>	<b>21.52</b>	<b>N</b>	<b>32.94</b>	<b>730</b>	<b>2.2</b>	<b>&lt;0.5</b>	<b>0.84</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
MW-2	5/10/2002	49.66	22.83	-	26.83 *	3,100	67	8	250	215	56
	8/8/2002	49.66	21.41	-	28.25	2,700	4.6	<0.5	310	140	<0.5
	11/8/2002	49.66	21.79	-	27.87	3,400	4.6	< 0.5	310	160	< 0.5
	2/21/2003	49.66	20.51	-	29.15	890	1.7 C	0.80 C	68	38.92 C	<0.5
	5/28/2003	49.66	20.33	-	29.33	2,700	5.2 C	<0.5	120	140	1.2
	8/12/2003	49.66	23.18	-	26.48*	8,500	640	<2.5	560	659	<0.8
	10/9/2003	49.66	21.71	-	27.95	3100 H	4.3 C	<0.5	210	160	<0.5
	1/15/2004	49.66	20.31	-	29.35	660 H	1.5 C	<0.5	8.9	25	<0.5
	5/25/2004	49.66	21.09	-	28.57	4,500	5.1 C	<0.5	190	230	0.70
	9/21/2004	52.41	21.71	-	30.70	370	0.76 C	<0.5	25	16	0.50
	12/14/2004	52.41	21.20	-	31.21	880	1.0	<0.5	66	52	<0.5
	3/11/2005	52.41	19.15	-	33.26	564	<0.5	<0.5	21	11.9	<0.5
	6/15/2005	52.41	20.30	-	32.11	2,040	1.2	<2.0	78.2	22	<0.5
	8/26/2005	52.41	20.97	-	31.44	1,500	0.930	<2.00	87.6	21	0.86
	11/11/2005	52.41	25.30	-	27.11	2,140	1.08	<2.0	104	29	0.79
	2/9/2006	52.41	19.41	-	33.00	1,410	<0.5	<2.0	99.6	21.4	0.72
5/9/2006	52.41	19.41	-	33.00	1,100	<0.5	<2.0	86.5	17	<0.5	
8/10/2006	52.41	20.8	-	31.61	3,180	2.87	<2.0	88.9	24.8	<0.50	
10/26/2006	52.41	21.22	-	31.19	1,200	<0.5	<2.0	23.5	4.79	0.6	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-2 cont.	1/25/2007	52.41	20.89	-	31.52	623	0.64	<2.0	42.4	4.37	0.66
	4/26/2007	52.41	20.65	-	31.76	169	<0.5	<2.0	15.2	2.3	<0.5
	7/25/2007	52.41	21.43	-	30.98	276	0.78	<2.0	22.1	4.04	<0.5
	10/23/2007	52.41	21.59	-	30.82	535	<0.5	<2.0	18	5.11	<0.5
	1/22/2008	52.31	20.45	-	31.86	132	<0.5	<2.0	12.2	<2.0	<0.5
	4/15/2008	52.41	20.89	-	31.52	852	<0.5	<2.0	27.2	4.78	<0.5
	7/2/2008	52.41	21.5	-	30.91	98.3	<0.5	<2.0	2.76	<2.0	<0.5
	10/15/2008	52.41	22.06	-	30.35	1,400 <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
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	



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MW-2 cont.	3/28/2013	52.41	21.24	N	31.17	890	<0.5	<0.5	4.3	<0.5	<0.5
	6/11/2013	52.41	21.67	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
	9/23/2014	52.41	22.95	N	29.46	80	<0.5	<0.5	<0.5	<0.5	<0.5
	<b>12/23/2014</b>	<b>52.41</b>	<b>18.91</b>	<b>N</b>	<b>33.50</b>	<b>140</b>	<b>&lt;0.5</b>	<b>0.7</b>	<b>1.8</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
MW-3	5/10/2002	51.16	22.28	-	28.88	44,000	6,000	900	1,500	6,200	2,400
	8/8/2002	51.16	22.88	-	28.28	40,000	5,800	1,100	1,600	6,500	1,300
	11/8/2002	51.16	23.19	-	27.97	47,000	5,300	1,200	2,200	8,600	1,000
	2/21/2003	51.16	22.02	-	29.14	39,000	5,500	1,500	2,000	8,600	1,300
	5/28/2003	51.16	21.89	-	29.27	52,000	7,300	3,000	2,800	12,700	2,100
	8/12/2003	51.16	22.66	-	28.50	31,000	6,100	860	1,500	6,900	1,200
	10/9/2003	51.16	23.06	-	28.10	41,000	6,100	1,100	2,200	10,200	960
	1/15/2004	51.16	21.85	-	29.31	51,000	4,100	1,100	2,000	8,400	590
	5/25/2004	51.16	22.55	-	28.61	65,000	4,300	1,300	2,500	10,500	720
	9/21/2004	53.91	23.08	-	30.83	42,000	4,900	890	2,200	8,700	480
	12/14/2004	53.91	22.52	-	31.39	35,151	4,066	972	2,942	13,032	491
	3/11/2005	53.91	20.90	-	33.01	42,600	3,040	1,100	1,530	6,670	968
	6/15/2005	53.91	21.85	-	32.06	84,100	5,110	2,160	3,030	8,800	2,670
8/26/2005	53.91	22.49	-	31.42	43,500	3,630	1,080	2,500	6,830	1,440	
11/11/2005	53.91	22.81	-	31.10	47,700	4,240	520	2,170	6,320	1,390	

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MW-3 cont.	2/9/2006	53.91	21.12	-	32.79	44,500	5,070	1360	1,920	4,840	3,280
	5/9/2006	53.91	21.09	-	32.82	48,100	2,510	1,140	1,950	5,030	2,210
	8/10/2006	53.91	22.26	-	31.65	42,100	3,450	869	1,760	5,650	3,570
	10/26/2006	53.91	22.73	-	31.18	33,400	4,800	331	1,170	3,510	4,790
	1/25/2007	53.91	22.34	-	31.57	19,300	4,820	167	1,540	3,740	3,430
	4/26/2007	53.91	22.24	-	31.67	30,700	2,350	158	1,470	4,320	1,330
	7/25/2007	53.91	22.83	-	31.08	34,900	5,400	364	2,080	6,360	1,980
	10/23/2007	53.91	23.01	-	30.9	22,600	4,070	<86	1,120	3,095	970
	1/22/2008	53.96	22.04	-	31.92	22,100	1,280	453	1,330	3,520	490
	4/16/2008	53.91	22.4	-	31.51	20,700	2,790	182	860	3,389	263
	7/3/2008	53.91	22.9	-	31.01	48,500	3,760	346	3,130	12,980	573
	10/16/2008	53.91	23.36	-	30.55	50,000	3,900	300	3,100	11,000	460
	1/8/2009	53.91	22.82	-	31.09	54,000	2,600	180	2,500	8,800	220
	4/13/2009	53.91	22.06	-	31.85	49,000	2,900	170	2,100	8,100	490
	8/27/2009	53.91	23.11	-	30.80	43,000	2,500	160	1,900	7,000	210
	12/2/2009	53.91	23.00	-	30.91	30,000	2,100	180	1,600	5,600	91
	3/17/2010	53.91	21.90	-	32.01	24,000	970	81	1,100	3,700	38
	6/3/2010	53.91	22.49	-	31.42	31,000	1,200	110	1,300	4,400	34
	9/2/2010	53.91	22.76	-	31.15	26,000	1,100	81	1,200	3,810	26
	12/2/2010	53.91	22.86	-	31.05	18,000	830	47	780	2,360	14
3/4/2011	53.91	21.44	-	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

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-3 cont.	3/2/2012	53.91	22.39	N	31.52	13,000	440	23	690	1,570	<5.0
	6/7/2012	53.91	22.50	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
	<b>12/23/2014</b>	<b>53.91</b>	<b>20.83</b>	<b>N</b>	<b>33.08</b>	<b>13,000</b>	<b>64</b>	<b>28</b>	<b>250</b>	<b>1,250</b>	<b>&lt;3.6</b>
	MW-4	5/10/2002	50.54	21.78	-	28.76	880	25	1.0C	110	52
8/8/2002		50.54	22.50	-	28.04	3,800	70	<5.0	300	115	4,800
11/8/2002		50.54	22.81	-	27.73	5,100	150	10	460	258	2,400
2/21/2003		50.54	21.48	-	29.06	3,200	98	66	220	360	6,600
5/28/2003		50.54	21.24	-	29.30	6,200	140	46	200	790	2,300
8/12/2003		50.54	22.32	-	28.22	7,500	180	57	220	1450	1,900
10/9/2003		50.54	22.74	-	27.80	5,800	250	32	300	970	7,800
1/15/2004		50.54	21.19	-	29.35	5,900	270	17 C	150	640	7,300
5/25/2004		50.54	22.03	-	28.51	9,100	210	51	200	1190	1800
9/21/2004		53.31	22.76	-	30.55	5,200	290	12	370	600	7300
12/14/2004		53.31	21.99	-	31.32	8,937	538	114	416	2379	5021

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

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-4 cont.	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>12/23/2014</b>	<b>53.31</b>	<b>19.78</b>	<b>N</b>	<b>33.53</b>	<b>&lt;50</b>	<b>0.95</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
MW-5	5/10/2002	47.79	19.02	-	28.77	25,000	1,000	1200	1,100	3,060	1,800
	8/8/2002	47.79	19.80	-	27.99	18,000	1,000	660	950	1,720	1,500
	11/8/2002	47.79	20.14	-	27.65	16,000	1,300	380	930	1,550	1,200
	2/21/2003	47.79	18.70	-	29.09	12,000	390	71	770	1,100	860
	5/28/2003	47.79	18.52	-	29.27	9,100	210	31	560	790	600
	8/12/2003	47.79	19.54	-	28.25	12,000	660	75	660	1,110	1,000
	10/9/2003	47.79	20.06	-	27.73	15,000	1,000	130	1,000	1,430	1,700

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

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)	
MW-5 cont.	3/17/2010	50.53	18.73	-	31.80	4,800	120	8.7	120	107	14	
	6/4/2010	50.53	19.60	-	30.93	7,200	160	5.7	190	149.2	24	
	9/2/2010	50.53	19.82	-	30.71	9,200	110	12	270	318	35	
	12/2/2010	50.53	20.10	-	30.43	9,100	170	6.7	350	442	23	
	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	50.53	21.61	N	28.92	1,700	38	0.52	45	29.8	1.60	
12/23/2014	50.53	17.12	N	33.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5		
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	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-6 cont.	3/11/2005	45.82	13.80	-	32.02	6,040	125	3.22	260	722.1	4.94
	6/15/2005	45.82	14.78	-	31.04	5,590	44.3	6.60	272	382	5.85
	8/26/2005	45.82	15.91	-	29.91	6,130	99	<8.6	378	492.9	5.66
	11/11/2005	45.82	16.55	-	29.27	11,400	101	<8.6	645	834.7	4.33
	2/9/2006	45.82	13.92	-	31.90	2,790	32.3	<8.6	131	131.22	7.30
	5/9/2006	45.82	13.95	-	31.87	3,730	25	<2.0	213	207.82	5.87
	8/10/2006	45.82	15.28	-	30.54	4,800	41.9	<2.0	201	189	10.4
	10/26/2006	45.82	16.11	-	29.71	6,080	37.4	<2.0	116	183	9.78
	1/25/2007	45.82	15.76	-	30.06	3,220	25.2	<2.0	219	174	14.7
	4/26/2007	45.82	15.18	-	30.64	3,110	28	<2.0	165	138.47	14.6
	7/25/2007	45.82	16.82	-	29.00	4,960	54.1	<2.0	199	255.87	8.05
	10/23/2007	45.82	16.91	-	28.91	9,610	64.3	<2.0	188	302.6	5.81
	1/21/2008	45.82	15.36	-	30.46	3,290	33	<2.0	149	131.31	3.86
	4/15/2008	45.82	15.73	-	30.09	2,070	10.8	<2.0	51.1	67	<0.5
	7/2/2008	45.82	16.9	-	28.92	7,900	42.4	<2.0	194	296	3.58
	10/15/2008	45.82	17.21	-	28.61	18,000 <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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Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Free-Product (feet)/ Sheen (Y/N)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-6 cont.	3/3/2011	45.82	14.35	Y	31.47	7,000	18	<2.5	97	237	11
	5/20/2011	45.82	14.95	Y	30.87	14,000	14	<2.5	300	823	7.2
	9/8/2011	45.82	16.14	Y	29.68	23,000	28	<2.5	360	812	3.4
	12/1/2011	45.82	16.17	16.15	29.66	FP	FP	FP	FP	FP	FP
	3/2/2012	45.82	16.11	Y	29.71	14,000	23	<4.2	400	694.4	<4.2
	6/6/2012	45.82	16.31	Y	29.51	9,200	12	<1.7	210	320	<1.7
	9/20/2012*	45.82	17.36	17.32	28.49	FP	FP	FP	FP	FP	FP
	12/13/2012	45.82	15.46	Y	30.36	13,000	22	<0.71	83	62.8	5.1
	3/27/2013	45.82	16.3	Y	29.52	7,400	27	<1.3	190	221.8	<1.3
	6/10/2013	45.82	17.37	Y	28.45	12,000	20	<2.5	280	230	<2.5
	9/16/2013	45.82	18.11	18.06	27.74	FP	FP	FP	FP	FP	FP
	12/5/2013	45.82	18.75	Y	27.07	18,000	220	330	460	2,030	6.1
	3/12/2014	45.82	17	Y	28.82	8,900	42	5.4	290	760	<2.5
	6/5/2014	45.82	18.15	Y	27.67	9,600	29	<2.5	370	295	<2.5
	9/22/2014	45.82	19.33	Y	26.49	31,000	140	140	1,600	3,590	4.3
	<b>12/22/2014</b>	<b>45.82</b>	<b>13.43</b>	<b>Y</b>	<b>32.39</b>	<b>2,700</b>	<b>20</b>	<b>&lt;0.5</b>	<b>70</b>	<b>55.4</b>	<b>0.63</b>
MW-7	9/21/2004	44.74	15.21	-	29.53	2,900	<0.5	<0.5	52	61	8.1
	12/14/2004	44.74	13.90	-	30.84	<50	1.6	<0.5	29	58	6.0
	3/11/2005	44.74	11.46	-	33.28	2,230	<2.5	<2.5	39.4	51.4	12.4
	6/15/2005	44.74	12.97	-	31.77	2,940	0.85	<2.0	50.6	31.9	13.7
	8/26/2005	44.74	14.10	-	30.64	2,310	<0.50	<2.0	55.7	29.6	4.01
	11/11/2005	44.74	14.59	-	30.15	3,030	<0.5	<2.0	66.5	42.3	9.76
	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

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-7 cont.	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
	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	

**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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-7 cont.	3/27/2013	44.74	14.30	N	30.44	680	<0.5	<0.5	1.8	<0.5	4.2
	6/10/2013	44.74	15.06	N	29.68	890	<0.5	<0.5	2.6	<0.5	2.3
	9/16/2013	44.74	15.78	N	28.96	1,400	<0.5	<0.5	7.9	2.7	4.1
	12/5/2013	44.74	16.21	N	28.53	1,800	<0.5	<0.5	8	3.1	5.7
	3/12/2014	44.74	14.56	N	30.18	920	<0.5	<0.5	3.7	1.5	4.6
	6/5/2014	44.74	15.18	N	29.56	1,600	<0.5	<0.5	11	3.0	5.7
	9/22/2014	44.74	16.63	N	28.11	1,900	<0.5	<0.5	9.6	3.5	5.3
	<b>12/22/2014</b>	<b>44.74</b>	<b>11.37</b>	<b>N</b>	<b>33.37</b>	<b>320</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>2.2</b>	<b>2.3</b>	<b>1.7</b>
MW-8	9/21/2004	41.14	12.98	-	28.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	41.14	11.22	-	29.92	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	41.14	NM	-	NM	NA	NA	NA	NA	NA	NA
	6/15/2005	41.14	10.46	-	30.68	<200	0.53	<2.0	<0.5	<1.0	<0.5
	8/26/2005	41.14	11.53	-	29.61	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	41.14	11.92	-	29.22	<50	<0.5	<2.0	1.36	1.8	<0.5
	2/9/2006	41.14	9.74	-	31.40	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	41.14	9.90	-	31.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	41.14	10.9	-	30.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	41.14	11.68	-	29.46	<50	<0.50	<2.0	3.37	<1.0	<0.50
	1/25/2007	41.14	11.44	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	41.14	10.81	-	30.33	<50	<0.5	<2.0	4.29	<2.0	<0.5
	7/25/2007	41.14	12.31	-	28.83	<50	<0.5	<2.0	4.39	<2.0	<0.5
10/23/2007	41.14	12.37	-	28.77	<50	<0.5	<2.0	4.31	<2.0	<0.5	

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

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-9 cont.	1/7/2009	40.26	11.75	-	28.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	40.26	10.89	-	29.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	40.26	12.50	-	27.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>Well Decommissioned 11/13/2009</b>											
MW-10	9/22/2014	44.66	17.84	N	26.82	23,000	<10	<10	1200	2,610	<10
	12/22/2014	44.66	12.33	N	32.33	6,000	<2.5	<2.5	390	802	<2.5
MW-11	9/22/2014	42.45	15.52	N	26.93	2,100	<0.5	<0.5	2.7	4.5	<0.5
	12/22/2014	42.45	10.08	N	32.37	310	<0.5	<0.5	1.8	2.7	<0.5
<b>Extraction Wells</b>											
EX-1	12/2/2009	47.36	17.02	-	30.34	2,900	120	4	64	410	25
	3/16/2010	47.36	19.08	-	28.28	2,200	150	18	94	326	210
	6/3/2010	47.36	17.02	-	30.34	3,600	180	6.3	150	428	83
	9/1/2010	47.36	16.88	-	30.48	550	6.5	0.5	6.9	31.7	38
	12/2/2010	47.36	19.84	-	27.52	<200	3.1	<2.0	<2.0	<2.0	210
	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	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
EX-1 cont.	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>12/22/2014</b>	<b>47.36</b>	<b>19.74</b>	<b>N</b>	<b>27.62</b>	<b>530</b>	<b>8.6</b>	<b>&lt;0.5</b>	<b>3.2</b>	<b>29.3</b>	<b>11</b>
EX-2	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
	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	

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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
EX-2 cont.	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
	9/22/2014	45.96	23.20	N	22.76	2,200	63	8.8	88	240	7.1
	<b>12/22/2014</b>	<b>45.96</b>	<b>20.22</b>	<b>N</b>	<b>25.74</b>	<b>1,600</b>	<b>42</b>	<b>4.2</b>	<b>94</b>	<b>148</b>	<b>6.0</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
Post-MPE	9/8/2011	51.96	20.83	-	31.13	NA	NA	NA	NA	NA	NA
	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	
Post-MPE	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
	<b>12/23/2014</b>	<b>51.96</b>	<b>18.3</b>	<b>Y</b>	<b>33.66</b>	<b>3,100</b>	<b>23</b>	<b>24</b>	<b>23</b>	<b>220</b>	<b>&lt;1.0</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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>MPE-2</b>	12/1/2009	53.72	22.87	-	30.85	NA	NA	NA	NA	NA	NA
	3/16/2010	53.72	21.7	-	32.02	NA	NA	NA	NA	NA	NA
	6/3/2010	53.72	22.35	-	31.37	NA	NA	NA	NA	NA	NA
	9/1/2010	53.72	23.7	-	30.02	NA	NA	NA	NA	NA	NA
	12/2/2010	53.72	22.7	-	31.02	NA	NA	NA	NA	NA	NA
Pre-MPE	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
Post-MPE	9/8/2011	53.72	22.31	-	31.41	NA	NA	NA	NA	NA	NA
	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	
9/23/2014	53.72	24.05	Y	29.67	22,000	550	340	760	2,760	<6.3	
<b>12/23/2014</b>	<b>53.72</b>	<b>20.65</b>	<b>N</b>	<b>33.07</b>	<b>12,000</b>	<b>430</b>	<b>77</b>	<b>420</b>	<b>1,670</b>	<b>4.6</b>	



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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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>2nd WBZ</b>											
<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
	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	

**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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-1D cont.	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>12/23/2014</b>	<b>54.42</b>	<b>21.84</b>	<b>N</b>	<b>32.58</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>
MW-3D	1/3/2008	54.10		-	-	<50	<0.50	<2.0	<0.50	<2.0	87.6
	1/22/2008	54.10	22.31	-	31.79	<50	<0.50	<2.0	<0.50	<2.0	88.3
	4/16/2008	54.10	22.64	-	31.46	<50	<0.5	<2.0	<0.5	<2.0	71.1
	7/3/2008	54.10	23.17	-	30.93	<50	<0.5	<2.0	<0.5	<2.0	67.4
	10/16/2008	54.10	23.62	-	30.48	<50	<0.5	<0.5	<0.5	<0.5	37
	1/8/2009	54.10	23.07	-	31.03	<50	<0.5	<0.5	<0.5	<0.5	29
	4/14/2009	54.10	22.36	-	31.74	<50	<0.5	<0.5	<0.5	<0.5	44
	8/26/2009	54.10	23.41	-	30.69	<50	<0.5	<0.5	<0.5	<0.5	20
	12/1/2009	54.10	23.27	-	30.83	110 Y	<0.5	<0.5	<0.5	0.52	24
	3/16/2010	54.10	22.10	-	32.00	<50	<0.5	<0.5	<0.5	<0.5	7.1
	6/4/2010	54.10	22.70	-	31.40	<50	<0.5	<0.5	<0.5	<0.5	17
	9/1/2010	54.10	23.09	-	31.01	78	<0.5	<0.5	1.1	4.71	24
	12/3/2010	54.10	22.90	-	31.20	<50	<0.5	<0.5	0.56	1.4	13
	3/3/2011	54.10	21.66	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	

**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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-3D cont.	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
	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	54.10	24.40	N	29.70	<50	<0.5	<0.5	<0.5	<0.5	0.96
	12/23/2014	54.10	21.09	N	33.01	<50	<0.5	<0.5	<0.5	<0.5	1
	MW-4D	1/4/2008	53.12		-	-	<50	<0.50	<2.0	<0.50	<2.0
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

**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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-4D cont.	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	53.12	24.05	N	29.07	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	<b>12/23/2014</b>	<b>53.12</b>	<b>19.66</b>	<b>N</b>	<b>33.46</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>
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

**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 (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<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
<b>ESL (ug/L)</b>	-	-	-	-	-	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>5</b>

Notes:

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

\*: Due to minimal recharge rates in well MW-2, the groundwater elevation recorded on these dates did not match the overall site conditions, May 2002 & August 2003.

NC: Not Calculated

<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 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

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 (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/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	<2.0	<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	
12/23/2014	4.7 J	<0.5	<0.5	<0.5	<0.5	<0.5	
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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-2 cont.	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
	12/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-3 cont.	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
	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	
12/23/2014	<71	<3.6	<3.6	<3.6	<3.6	<3.6	
MW-4	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
	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
	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	
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	
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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-4 cont.	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
	12/23/2014	8.1 J	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-5</b>							
Pre- MPE	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	
12/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>MW-6</b>							
MW-6	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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-6 cont.	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	
12/22/2014	13 J	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-7	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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	
MW-7 cont.	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	
	12/22/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
	MW-8	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								
MW-9	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	
	1/7/2009	<10	<0.5	<0.5	<0.5	1.4	<0.5	
	4/13/2009	<10	<0.5	<0.5	<0.5	0.97	<0.5	
8/26/2009	<10	<0.5	<0.5	<0.5	2.6	<0.5		
Well Decommissioned 11/13/2009								
MW-10	9/22/2014	<200	<10	<10	<10	<10	<10	
	12/22/2014	30 J	<2.5	<2.5	<2.5	<2.5	<2.5	
MW-11	9/22/2014	69	<0.5	<0.5	<0.5	<0.5	<0.5	
	12/22/2014	15	<0.5	<0.5	<0.5	<0.5	<0.5	
EX-1	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**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
EX-1 cont.	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
	12/22/2014	91	<0.5	0.84	<0.5	<0.5	<0.5
	<b>EX-2</b>						
EX-2	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	
12/22/2014	37	<0.5	<0.5	<0.5	0.8	<0.5	
<b>MPE Wells</b>							
MPE-1	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	
12/23/2014	<20	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>MPE-2</b>							
MPE-2	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
12/23/2014	23 J	<4.2	<4.2	<4.2	<4.2	<4.2	

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

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
<b>2nd WBZ</b>							
<b>MW-1D</b>	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
12/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>MW-3D</b>	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
12/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>MW-4D</b>	1/4/2008	25	<0.5	<0.5	<2.0	NA	NA
	1/22/2008	124	<0.5	<0.5	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

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

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-4D cont.	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
	9/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5
12/23/2014	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
1573 153 RD	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
EB-PMP	1/21/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
EB-PRB	1/21/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
EB-PMP2	1/22/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
EB-PRB2	1/22/2008	<2.0	<0.5	<0.5	<2.0	<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	Installation of GWETS									
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)	Ethylbenzene (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 (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
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
9-Sep-2014	3,360,607	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.44
13-Oct-2014	3,431,247	<50	<49	<290	<0.5	<0.5	<0.5	<0.5	NA	NA	6.39
18-Nov-2014	3,504,809	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.51
<b>8-Dec-2014</b>	<b>3,544,218</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;300</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>6.65</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

**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
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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 OLSA 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 (µg/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
21-Jul-2014	3,136,493	1,000	54	1.70	35	71.1	37.70	1.45	0.36	0.94	4.97
<b>13-Oct-2014</b>	<b>3,431,247</b>	<b>370</b>	<b>6.50</b>	<b>0.75</b>	<b>6.30</b>	<b>41</b>	<b>38.61</b>	<b>1.46</b>	<b>0.36</b>	<b>0.95</b>	<b>5.07</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.

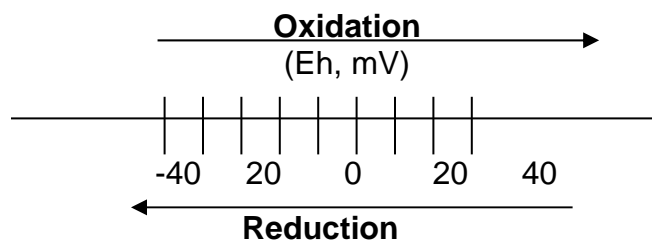
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater EC is directly related to the concentration of total dissolved solids (TDS) in solution.

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







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	6092163.720	47.36	4" PVC NOTCH NORTH SIDE
	37.707459134	122.123062972	47.61	SET PUNCH NORTH SIDE RIM
			47.60	PAVEMENT NORTH SIDE
EX-2	2084082.018	6092130.224	45.96	4" PVC NOTCH NORTH SIDE
	37.707310806	122.123175540	47.04	SET PUNCH NORTH SIDE RIM
			47.00	CONCRETE NORTH SIDE
MPE-1	2084213.168	6092125.258	51.96	4" PVC NOTCH NORTH SIDE
	37.707670702	122.123200567	52.49	SET PUNCH NORTH SIDE RIM
			52.51	CONCRETE NORTH SIDE
MPE-2	2084293.133	6092171.374	53.72	4" PVC NOTCH NORTH SIDE
	37.707892479	122.123045970	54.29	SET PUNCH NORTH SIDE RIM
			54.27	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



*Eduardo A. Espinoza* 1 of 1



DATE: 9/27/2014

JOB#

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

SOMA ENVIRONMENTAL ENGINEERING  
15101 FREEDOM AVENUE  
SAN LEANDRO, CA 94579

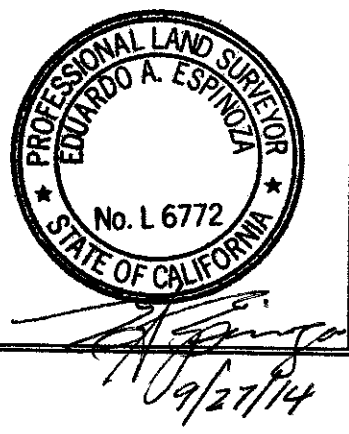
WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION
MW-10	2083967.378	6092174.688	44.66	2" PVC NOTCH NORTH SIDE
	37.706998127N	122.123014988W	45.08	PUNCH NORTH SIDE RIM
			44.98	GROUND NORTH SIDE
MW-11	2083923.210	6092215.039	42.45	2" PVC NOTCH NORTH SIDE
	37.706878766N	122.122872877W	42.83	PUNCH NORTH SIDE RIM
			42.84	PAVEMENT NORTH SIDE

**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



**EDGIS LAND SURVEYING**  
 Land Surveying and mapping  
 2519 W. Shaw Avenue, Ste. 111  
 Fresno, CA 93711  
 Phone (559) 803-2679 Fax (559) 823-9037  
 email: 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: 21.52 feet  
 Groundwater Elevation: 32.94 feet  
 Water Column Height: 8.98 feet  
 Purged Volume: 10 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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
12:47	Started						
12:48	2	2.00	6.69	20.84	1083	17.8	-4.5
12:49	4	1.50	6.84	21.01	1065	12.0	-13.5
12:51	8	1.05	6.65	21.17	1052	21.0	-17.0
12:52	10	1.00	6.63	21.19	1078	22.0	-19.2
12:57	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: 18.91 feet  
 Groundwater Elevation: 33.50 feet  
 Water Column Height: 11.24 feet  
 Purged Volume: 12 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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
12:21	Started purging well						
12:22	2	2.12	6.68	20.85	1032	10.7	-32.2
12:23	4	1.76	6.50	21.09	1047	10.1	-39.0
12:25	8	1.46	6.40	21.31	1055	16.0	-35.2
12:26	10	1.27	6.40	21.46	1063	23.5	-38.6
12:27	12	1.20	6.43	21.45	1057	13.8	-36.6
12:32	sampled						





ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-3  
 Casing Diameter: 4 inches  
 Depth of Well: 29.90 feet  
 Top of Casing Elevation: 53.91 feet  
 Depth to Groundwater: 20.83 feet  
 Groundwater Elevation: 33.08 feet  
 Water Column Height: 9.07 feet  
 Purged Volume: 10 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: Petro Odor

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:00	Started purging well						
14:01	2	1.68	6.70	21.59	1301	49.5	-105.9
14:02	4	1.51	6.67	21.63	1275	23.6	-111.8
14:04	8	1.32	6.66	21.67	1118	16.0	-117.2
14:05	10	1.15	6.66	21.69	1071	15.2	-122.8
14:10	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: 19.78 feet  
 Groundwater Elevation: 33.53 feet  
 Water Column Height: 10.42 feet  
 Purged Volume: 12 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: Very slight retro odor

Field Measurements:

Time	Volume (gallons)	D.O. (mg/L)	pH	Temp (°C)	E.C. (µS/cm)	Turb. NTU	ORP
11:53	Started purging well						
11:54	2	1.73	6.85	20.49	588	55.3	-26.0
11:55	4	1.45	6.75	20.49	6703	54.3	-31.7
11:57	8	1.52	6.69	20.48	855	28.5	-30.5
11:58	10	1.86	6.67	20.47	925	19.6	-26.2
11:59	12	1.75	6.66	20.46	972	19.8	-23.6
12:04	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-5  
 Casing Diameter: 4 inches  
 Depth of Well: 29.80 feet  
 Top of Casing Elevation: 50.53 feet  
 Depth to Groundwater: 17.12 feet  
 Groundwater Elevation: 33.41 feet  
 Water Column Height: 12.68 feet  
 Purged Volume: 10 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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 odor

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
13:14	started						
13:15	2	1.29	7.31	22.06	1084	22.7	-97.7
13:16	4	0.93	7.37	22.27	1012	17.4	-116.5
13:18	8	0.70	7.39	22.70	984	15.0	-108.3
13:19	10	0.66	7.38	22.89	978	13.7	-98.9
13:24	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: 13.43 feet  
 Groundwater Elevation: 32.39 feet  
 Water Column Height: 13.87 feet  
 Purged Volume: 14 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: Petro Odor

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:56	Started purging well						
14:57	2	2.11	6.72	22.94	1793	8.44	-40.7
14:58	4	1.79	6.72	22.97	1793	10.9	-49.7
15:00	8	1.63	6.72	23.00	1792	11.3	-60.5
15:02	12	1.32	6.72	22.97	1788	13.4	-87.6
15:03	14	1.25	6.72	22.96	1787	13.7	-94.2
15:08	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: 12.33 feet  
 Groundwater Elevation: 32.33 feet  
 Water Column Height: 16.17 feet  
 Purged Volume: 8 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: Musty

**Field Measurements:**

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:39	Started						
12:40	2	4.47	6.55	20.06	1183	916	+64.7
12:41	4	3.68	6.55	20.06	1183	482	+52.6
12:42	6	3.09	6.56	20.05	1182	245	+42.7
12:43	8	2.57	6.56	20.05	1183	200	+37.7
12:48	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: 10.08 feet  
 Groundwater Elevation: 32.37 feet  
 Water Column Height: 18.49 feet  
 Purged Volume: 8 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: Musty

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
13:59	Started purging well						
14:00	2	3.34	6.83	19.67	1132	320	-21.1
14:01	4	2.52	6.80	19.71	1138	633	-26.5
14:02	6	2.07	6.79	19.70	1137	617	-28.5
14:03	8	1.85	6.78	19.70	1137	780	-28.8
14:08	Sampled						









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: 18.30 feet  
 Groundwater Elevation: 33.66 feet  
 Water Column Height: 11.70 feet  
 Purged Volume: 10 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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
14:45	Started purging well						
14:46	2	2.17	7.00	20.92	1196	13.9	-24.3
14:47	4	1.40	6.99	20.96	1195	13.8	-30.6
14:49	8	1.00	7.00	20.05	1159	14.6	-36.8
14:50	10	0.90	7.04	21.09	1170	14.0	-37.6
14:55	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: 20.65 feet  
 Groundwater Elevation: 33.07 feet  
 Water Column Height: 9.35 feet  
 Purged Volume: 10 gallons

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

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Slightly Cloudy

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

Odor: Yes  No  Describe: Slight Petro Odor

Field Measurements:

Time	Volume (gallons)	D.O. (mg/L)	pH	Temp (°C)	E.C. (µS/cm)	Turb. NTU	ORP
14:19	Started purging well						
14:20	2	1.62	6.68	22.21	1394	14.8	-84.9
14:21	4	1.21	6.69	22.26	1391	11.5	-97.8
14:23	8	1.07	6.68	22.31	1387	16.0	-113.7
14:24	10	1.03	6.67	22.33	1376	16.9	-123.2
14:29	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1D  
 Casing Diameter: 2 inches  
 Depth of Well: 59.81 feet  
 Top of Casing Elevation: 54.42 feet  
 Depth to Groundwater: 21.84 feet  
 Groundwater Elevation: 32.58 feet  
 Water Column Height: 37.97 feet  
 Purged Volume: 14 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: \_\_\_\_\_

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
10:38	Started	purging	well				
10:39	2	3.62	7.15	19.64	1238	13.4	+215.6
10:40	4	3.13	7.16	19.62	1238	20.7	+204.9
10:42	8	2.59	7.18	19.61	1238	19.6	+199.0
10:44	12	2.63	7.19	19.62	1238	21.6	+194.0
10:45	14	2.56	7.19	19.62	1238	18.3	+189.3
10:50	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: 21.09 feet  
 Groundwater Elevation: 33.01 feet  
 Water Column Height: 38.72 feet  
 Purged Volume: 14 gallons

Project No.: 2551  
 Address: 15101 Freedom Avenue  
 San Leandro, CA  
 Date: December 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: \_\_\_\_\_

Field Measurements:

Time	Volume (gallons)	D.O. (mg/L)	pH	Temp (°C)	E.C. (µS/cm)	Turb. NTU	ORP
<u>11:04</u>	<u>Started purging well</u>						
<u>11:05</u>	<u>2</u>	<u>2.11</u>	<u>7.22</u>	<u>19.95</u>	<u>1201</u>	<u>15.2</u>	<u>+143.7</u>
<u>11:06</u>	<u>4</u>	<u>1.68</u>	<u>7.19</u>	<u>19.93</u>	<u>1203</u>	<u>10.5</u>	<u>+149.3</u>
<u>11:08</u>	<u>8</u>	<u>1.47</u>	<u>7.17</u>	<u>19.92</u>	<u>1204</u>	<u>10.5</u>	<u>+147.6</u>
<u>11:10</u>	<u>12</u>	<u>1.59</u>	<u>7.19</u>	<u>20.06</u>	<u>1203</u>	<u>12.9</u>	<u>+150.0</u>
<u>11:11</u>	<u>14</u>	<u>1.32</u>	<u>7.19</u>	<u>19.95</u>	<u>1205</u>	<u>8.20</u>	<u>+147.8</u>
<u>11:16</u>	<u>Sampled</u>						



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: 19.66 feet  
 Groundwater Elevation: 33.46 feet  
 Water Column Height: 39.13 feet  
 Purged Volume: 14 gallons

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

Purging Method: Bailer  Pump   
 Sampling Method: Bailer  Pump

Color: Yes  No  Describe: Slightly 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
11:27	Started purging well						
11:28	2	8.63	7.42	19.41	1049	13.9	+132.0
11:29	4	10.73	7.44	19.38	1067	16.4	+133.7
11:31	8	9.78	7.44	19.41	1078	46.8	+134.1
11:33	12	8.50	7.45	19.53	1077	119	+132.3
11:34	14	7.73	7.46	19.76	1074	115	+129.1
11:39	Sampled						

**Table A**  
**Historical Field Parameters**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity μS/cm	Turbidity NTU	ORP
<b>1st WBZ</b>							
<b>MW-1</b>	8/27/2009	0.38	6.32	20.8	1357	4.69	-95.7
	12/2/2009	0.15	6.4	20.82	1261	6.19	-136.4
	3/17/2010	0.58	5.68	20.97	1186	7.00	-155.9
	6/3/2010	0.91	6.11	20.81	1285	2.49	-131.6
	9/2/2010	0.92	6.04	20.66	1361	2.46	-86.4
	12/2/2010	0.97	5.96	20.74	1309	4.32	-119.7
	3/4/2011	1.4	6.69	20.96	1169	1.98	-101.2
	5/20/2011	1.51	6.22	20.68	1305	1.85	-164.5
	9/9/2011	1.73	6.02	20.53	1320	4.63	-179.2
	3/2/2012	1.39	6.53	20.84	1309	12.00	-204.4
	6/7/2012	0.89	6.51	20.00	1234	3.92	-20.0
	9/21/2012	0.55	6.12	19.96	1313	5.98	-31.4
	12/14/2012	0.63	6.6	19.71	1314	6.56	-99.2
	3/28/2013	1.07	6.4	20.67	1307	5.93	-70.5
	6/11/2013	0.71	6.52	20.43	1284	11.10	-49.4
	9/17/2013	1.56	6.44	20.47	1225	16.90	2.5
	12/6/2013	0.71	6.56	19.38	1153	15.60	-45.2
	3/13/2014	0.27	6.84	20.69	1105	17.50	-52.0
	9/23/2014	0.95	6.61	20.60	1168	8.42	-92.6
	<b>12/23/2014</b>	<b>1.00</b>	<b>6.63</b>	<b>21.19</b>	<b>1078</b>	<b>22.00</b>	<b>-19.2</b>
<b>MW-2</b>	8/27/2009	0.43	6.57	20.72	1530	2.59	-168.1
	12/1/2009	0.48	6.75	21.12	1297	5.01	-191.3
	3/17/2010	0.51	5.78	21.08	1025	5.65	-108
	6/3/2010	0.62	6.28	20.84	930	2.66	-150.2
	9/2/2010	0.66	6.29	20.73	1269	2.67	-174.2
	12/2/2010	0.63	6.06	20.94	1439	2062	-162.4
	3/4/2011	1.55	6.84	20.91	815	3.34	-87.8
	5/20/2011	1.22	6.39	20.59	981	2.58	-185.9
	9/9/2011	1.67	5.89	20.48	1303	6.19	-157.7
	3/2/2012	1.98	6.37	20.83	1014	11.8	-204.5
	6/7/2012	0.93	6.53	19.87	877	4.64	-22.9
	9/21/2012	0.63	5.97	20.01	1359	7.56	-55.0
	12/14/2012	1.06	6.67	19.91	1067	7.75	-82.3
	3/28/2013	1.35	6.46	20.59	1107	5.98	-88.0
	6/11/2013	0.5	6.61	20.44	1118	20.9	-42.7
	9/16/2013	1.04	6.68	20.82	1276	17.1	-51.3
	12/6/2013	0.74	6.64	19.63	1025	18	-77.5
	3/13/2014	0.25	6.35	20.74	1078	34.9	-41.0
	9/23/2014	1.14	6.77	20.6	1372	5.92	-123.8
	<b>12/23/2014</b>	<b>1.2</b>	<b>6.43</b>	<b>21.45</b>	<b>1057</b>	<b>13.8</b>	<b>-36.6</b>
<b>MW-3</b>	8/27/2009	1.90	6.36	20.82	1318	5.57	-119.3
	12/2/2009	1.80	6.52	20.94	1239	5.88	-206.6
	3/17/2010	1.60	5.78	21.28	1080	5.37	-166.4
	6/3/2010	1.05	6.24	21.16	1130	2.03	-134.8
	9/2/2010	1.17	6.18	21.04	1256	2.86	-131.2
	12/2/2010	1.27	6.06	21.03	1152	1.83	-171.9
	3/4/2011	1.26	6.77	21.18	1074	3.57	-109.8
	5/20/2011	1.04	6.4	20.9	1180	2.72	-220.1
	9/9/2011	1.05	6.13	20.74	1272	3.23	-179.4
	3/2/2012	1.72	6.58	20.87	1120	12.00	-162.7
	6/7/2012	0.54	6.66	20.13	1057	3.11	-20.9
	9/21/2012	0.60	6.08	20.04	1229	8.61	-74.9
	12/14/2012	0.53	6.66	19.81	1017	7.42	-59.3
	3/28/2013	0.90	6.49	20.71	1188	7.83	-56.8
	6/11/2013	0.38	6.64	20.67	1280	96.3	-39.6
	9/17/2013	0.94	6.64	20.93	1203	108	-44.7
	12/6/2013	0.61	6.68	20.2	1131	62.6	-58.7
	3/12/2014	FP	FP	FP	FP	FP	FP
	9/23/2014	0.61	6.73	21.5	1135	12.8	-169.7
	<b>12/23/2014</b>	<b>1.15</b>	<b>6.66</b>	<b>21.69</b>	<b>1071</b>	<b>15.2</b>	<b>-122.8</b>

**Table A**  
**Historical Field Parameters**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity µS/cm	Turbidity NTU	ORP
MW-4	8/27/2009	2.90	6.26	20.11	1649	2.78	-115.5
	12/2/2009	0.87	6.4	20.12	1578	5.06	-173.2
	3/17/2010	2.30	5.63	20.39	1506	4.01	-119.4
	6/3/2010	1.90	6.14	20.45	1418	1.56	-131.8
	9/2/2010	1.80	6.06	20.21	1305	1.45	-101.5
	12/2/2010	1.63	5.89	20.28	1465	102	-180
	3/3/2011	1.89	6.66	20.47	1278	0.97	-90.5
	5/19/2011	1.78	6.42	20.51	1251	1.5	-168.3
	9/8/2011	1.77	6.27	20.32	1430	3.82	-157.4
	3/2/2012	1.55	6.39	20.21	1486	8.00	-165.9
	6/7/2012	0.58	6.58	19.53	1315	2.62	-0.3
	9/21/2012	0.48	6.08	19.49	1425	5.12	-82.6
	12/14/2012	0.62	6.58	19.12	1216	5.42	-46
	3/28/2013	0.94	6.54	19.99	1350	5.03	-35.1
	6/11/2013	0.81	6.47	20.06	1372	16.20	-3
	9/17/2013	1.18	6.5	20.01	1353	11.70	3.8
	12/6/2013	1.09	6.57	19.01	1335	42.40	-11.8
3/13/2014	0.30	6.6	20.49	1333	22.60	-52	
9/23/2014	0.81	6.59	20.4	1251	20.70	-69	
12/23/2014	1.75	6.66	20.46	972	19.80	-23.6	
MW-5	8/27/2009	1.00	6.38	20.8	1321	6.63	-91.9
	12/2/2009	1.50	6.47	21.03	1227	5.66	-109.1
	3/17/2010	1.10	5.82	21.28	1150	75.3	-60.7
	6/4/2010	1.10	5.99	20.87	1128	3.84	-33.8
	9/2/2010	1.03	6.16	21.22	1178	13.0	-168.4
	12/2/2010	1.05	6.02	21.46	1112	12.3	-167.7
	3/4/2011	1.11	6.89	21.46	1078	4.59	-106.9
	5/20/2011	1.18	6.47	21.02	1106	26.5	-222.5
	9/9/2011	1.14	6.2	21.07	1194	5.83	-215.4
	3/2/2012	1.70	6.72	21.34	1187	11.7	-228.6
	6/7/2012	0.40	6.68	20.29	1200	5.35	-50.7
	9/21/2012	0.44	6.24	20.73	1164	9.74	33.0
	12/14/2012	0.52	6.76	20.7	1173	17	-126.5
	3/28/2013	1.01	6.59	21.24	1068	6.39	-141.5
	6/11/2013	0.50	6.69	20.94	1016	17	-44.8
	9/17/2013	0.65	6.85	21.44	1165	20.9	-64.7
	12/6/2013	0.60	7.01	20.82	747	16.7	-110.6
3/13/2014	0.22	6.89	21.92	1184	17.1	-79.0	
9/23/2014	0.56	7.02	21.6	1031	9.32	-192.6	
12/23/2014	0.66	7.38	22.89	978	13.7	-98.9	
MW-6	8/26/2009	0.42	6.47	20.93	1201	6.53	-172.3
	12/1/2009	0.26	6.89	21.64	1171	6.83	-207.9
	3/16/2010	0.63	5.91	21.26	1544	6.72	-168.2
	6/3/2010	0.58	6.38	20.74	1346	2.61	-116.4
	9/1/2010	0.41	6.44	20.86	1419	2.77	-120.3
	12/2/2010	0.37	6.24	21.17	1362	4.5	-148
	3/3/2011	1.54	6.81	21	1262	1.87	-98.3
	5/20/2011	1.23	6.62	20.51	1312	2.53	-221.1
	9/8/2011	1.07	6.2	20.84	1292	5.17	-167.9
	3/2/2012	1.10	6.55	21.03	1197	13.2	-166.4
	6/6/2012	1.18	6.78	19.82	1091	3.46	-32.8
	9/20/2012	FP	FP	FP	FP	FP	FP
	12/13/2012	1.47	6.72	21.05	1231	9.99	-46.2
	3/27/2013	1.53	6.58	20.81	1179	6.82	-54.9
	6/10/2013	0.70	6.64	20.55	1209	13	-13.9
	9/16/2013	FP	FP	FP	FP	FP	FP
	12/5/2013	0.90	6.66	20.26	1342	21.4	-73.5
3/12/2014	0.33	6.56	21.62	2500	78.3	-163	
9/22/2014	1.06	6.67	21.4	1361	8.19	-147	
12/22/2014	1.25	6.72	22.96	1787	13.7	-94.2	



**Table A**  
**Historical Field Parameters**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity µS/cm	Turbidity NTU	ORP
MW-7	8/26/2009	0.98	6.36	19.24	1375	145	-128.3
	12/1/2009	1.05	6.83	19.51	1340	997	-4.3
	3/16/2010	0.83	5.88	18.37	1266	382	-37.9
	6/3/2010	0.77	6.46	18.67	1199	873	-30.4
	9/1/2010	0.98	6.4	19.83	1271	999	-60
	12/2/2010	1.01	6.23	19.17	1253	999	-85.6
	3/4/2011	3.66	6.68	18.33	1098	609	-49.5
	5/19/2011	1.35	6.42	17.71	1192	879	-53.7
	9/8/2011	2.01	6.07	18.91	1198	748	-17.8
	3/2/2012	1.82	6.39	18.12	1308	363	-69.3
	6/6/2012	2.78	6.57	17.41	1106	362	1.3
	9/20/2012	1.61	6.11	18.8	1303	1000	95.9
	12/13/2012	2.93	6.67	18.42	1274	524	-22
	3/27/2013	3.01	6.51	17.1	1256	335	2.1
	6/10/2013	2.55	6.22	17.81	1232	672	8
	9/16/2013	3.59	6.21	19.19	1264	999	45.9
	12/5/2013	2.76	6.63	17.96	1212	999	6.5
	3/12/2014	2.59	6.22	18.85	1406	1086	36
	9/22/2014	1.84	6.67	20.2	1297	999	-85
12/22/2014	2.11	6.56	20.19	1300	33.2	-51.1	
MW-10	9/22/2014	1.8	6.53	19.9	1266	252	-36.7
	12/22/2014	2.57	6.56	20.05	1183	200	37.7
MW-11	9/22/2014	1.31	6.85	19.2	1158	999	-57.2
	12/22/2014	1.85	6.78	19.7	1137	780	-28.8
MPE-1	6/6/2012	1.73	6.83	19.34	1269	16.8	-41.9
	9/20/2012	0.62	5.87	19.36	1389	16.2	20.2
	12/14/2012	0.7	6.76	19.14	1473	16.4	-63.5
	3/27/2013	2.01	6.64	19.96	1499	7.03	-214.9
	6/10/2013	0.59	6.62	20.05	1497	20	-59.7
	9/17/2013	0.65	6.59	19.97	1467	16.2	-66.7
	12/6/2013	0.78	6.63	19.41	1390	32	-77.5
	3/13/2014	0.2	6.58	20.53	1163	52.4	-73
	9/23/2014	0.73	6.77	20.8	1253	67.4	-150.1
	12/23/2014	0.9	7.04	21.09	1170	14	-37.6
MPE-2	3/2/2012	1.30	6.40	21.18	1303	8.70	-164.9
	6/7/2012	0.48	6.62	20.32	1309	3.63	-20.4
	9/21/2012	0.46	6.29	20.27	1284	7.05	72.4
	12/14/2012	0.47	6.68	20.14	1223	7.29	-60.5
	3/28/2013	0.84	6.51	20.93	1327	8.35	-64.3
	6/11/2013	0.52	6.63	20.34	1192	29.70	-56.8
	9/17/2013	0.61	6.69	21.15	1201	26.50	-80.7
	12/5/2013	FP	FP	FP	FP	FP	FP
	3/12/2014	FP	FP	FP	FP	FP	FP
	9/23/2014	0.55	6.83	21.7	1062	6.41	-190.8
12/23/2014	1.03	6.67	22.33	1376	16.90	-123.2	
<b>2nd WBZ</b>							
MW-1D	8/26/2009	0.45	7.04	19.93	1388	7.75	-11
	12/1/2009	0.51	7.4	19.79	1342	19.1	-21.7
	3/16/2010	0.57	6.45	19.99	1353	98.9	-28.2
	6/4/2010	0.58	6.66	19.98	1336	3.85	97.7
	9/1/2010	0.52	6.94	20.12	1404	4.41	-6.6
	12/3/2010	0.49	6.64	19.73	1328	7.12	-75.3
	3/3/2011	2.77	7.35	19.79	1294	9.97	18.8
	5/19/2011	2.81	7.07	19.95	1330	5.26	6.6
	9/8/2011	3.21	6.66	20.03	1309	9.98	-35.5
	3/2/2012	2.04	6.75	19.76	1306	22.0	-71.3
	6/6/2012	1.1	7.29	19.54	1228	10.8	58.7
	9/20/2012	0.42	6.85	19.57	1256	18.6	93.7
	12/13/2012	1.03	7.29	18.82	1234	11.4	93.7

**Table A**  
**Historical Field Parameters**  
**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity µS/cm	Turbidity NTU	ORP
MW-1D cont.	3/27/2013	1.45	7.08	19.7	1253	5.8	-1
	6/10/2013	0.52	7.27	19.8	1238	16	111.5
	9/16/2013	0.78	7.09	19.88	1225	19	80.1
	12/5/2013	0.87	7.29	18.47	1184	23.2	5.2
	3/12/2014	0.34	8.11	19.69	1375	51.5	8
	9/22/2014	1.04	7.29	19.8	1236	9.9	16.8
	<b>12/23/2014</b>	<b>2.56</b>	<b>7.19</b>	<b>19.62</b>	<b>1238</b>	<b>18.3</b>	<b>189.3</b>
MW-3D	8/26/2009	0.73	6.93	20.17	1276	1.73	-18.8
	12/1/2009	0.98	7.3	20.04	1236	2.48	-23.5
	3/16/2010	0.69	6.38	20.29	1272	8.05	-27.8
	6/4/2010	0.77	6.54	20.2	1254	0.42	78.1
	9/1/2010	0.79	6.85	20.33	1304	0.25	-29.4
	12/3/2010	0.81	6.49	20.04	1252	1.49	-79.2
	3/3/2011	2	7.24	20.02	1254	0.85	54
	5/19/2011	1.99	6.91	20.21	1260	2.03	-14.8
	9/8/2011	1.73	6.52	20.19	1247	3.53	-32.6
	3/2/2012	2.17	6.99	20.02	1269	9.02	-84.2
	6/6/2012	0.33	7.16	19.76	1225	4.78	67.5
	9/20/2012	0.54	6.77	19.71	1233	4.70	88.0
	12/13/2012	0.85	7.14	19.02	1229	5.27	104.1
	3/27/2013	2.11	7.01	19.94	1241	5.31	66.3
	6/10/2013	0.73	7.19	20.32	1238	12.6	100.2
	9/16/2013	0.84	7.03	20	1236	16	72.9
	12/5/2013	0.74	7.16	18.64	1193	11.9	28.3
3/13/2014	0.35	8.09	19.82	1373	8.2	217.0	
9/22/2014	0.76	7.19	20	1208	3.73	41.7	
<b>12/23/2014</b>	<b>1.32</b>	<b>7.19</b>	<b>19.95</b>	<b>1205</b>	<b>8.20</b>	<b>147.8</b>	
MW-4D	8/27/2009	0.98	6.93	19.46	1280	4.31	-26.4
	12/1/2009	1.9	7.36	19.42	1249	4.66	-24.2
	3/16/2010	1.4	6.36	19.58	1283	24.8	-16.7
	6/4/2010	1.3	6.53	19.49	1259	5.1	115.8
	9/1/2010	1.44	6.92	19.67	1333	2.2	-26.9
	12/3/2010	1.3	6.5	19.4	1266	1.57	-116.6
	3/3/2011	2.11	7.36	19.42	1219	1.8	-96.4
	5/19/2011	2.12	6.95	19.56	1262	2.09	-15.5
	9/8/2011	2.03	6.57	19.62	1261	3.13	-54
	3/2/2012	2.15	6.92	19.39	1272	13.1	-86.5
	6/6/2012	0.32	7.27	19.25	1189	6.32	22.9
	9/20/2012	0.39	6.76	19.21	1232	6.12	91.1
	12/13/2012	0.89	7.2	18.46	1210	7.34	-15.7
	3/27/2013	2.01	7.02	19.39	1236	5.31	47.4
	6/10/2013	0.75	7.14	19.54	1223	24.7	43.7
	9/16/2013	0.77	7.13	19.44	1220	24.2	42.8
	12/6/2013	1.34	7.17	18.05	1175	20	75
3/13/2014	0.55	7.69	19.26	1359	20.3	150	
9/23/2014	8.52	7.36	19.6	1092	338	147.7	
<b>12/23/2014</b>	<b>7.73</b>	<b>7.46</b>	<b>19.76</b>	<b>1074</b>	<b>115</b>	<b>129.1</b>	



# 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

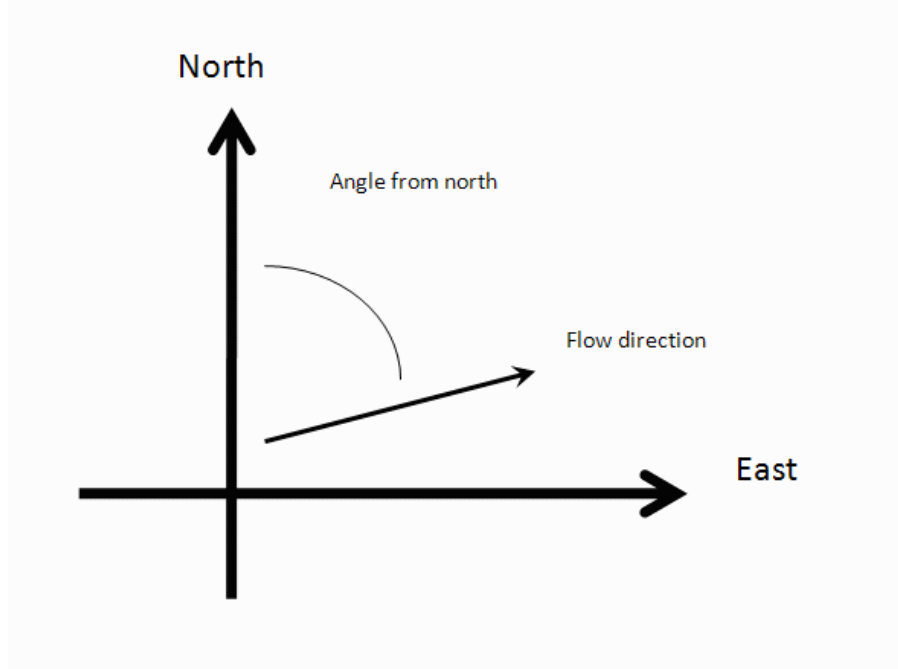
$$\begin{aligned}
 a x_1 + b y_1 + c &= h_1 \\
 a x_2 + b y_2 + c &= h_2 \\
 a x_3 + b y_3 + c &= h_3 \\
 &\dots \\
 a x_{30} + b y_{30} + c &= h_{30}
 \end{aligned}$$

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



### Inputs

Site Name

Date

Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head	ft
1) MW-1	6092119.016	2084364.691	32.94	
2) MW-2	6092063.978	2084323.224	33.5	
3) MW-3	6092176.317	2084298.343	33.08	
4) MW-4	6092124.294	2084251.598	33.53	
5) MW-5	6092177.071	2084206.361	33.41	
6) MW-6	6092140.881	2084072.911	32.39	
7) MW-7	6092290.918	2084008.071	33.37	
8) MW-10	6092182.374	2083967.53	32.33	
9) MW-11	6092224.568	2083926.493	32.37	
10) EX-1	6092163.5	2084133.982	27.62	
11) EX-2	6092131.08	2084082.713	25.74	
12) MPE-1	6092125.048	2084212.393	33.66	
13) MPE-2	6092171.793	2084292.312	33.07	
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	2.414
Gradient Magnitude (i)	0.02112
Flow direction as degrees from North (positive y axis)	243.2
Coefficient of Determination ( $R^2$ )	0.192

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

<input type="button" value="Example Data Set 1"/>	<input type="button" value="Calculate"/>	<input type="button" value="Clear"/>
<input type="button" value="Save Data"/>	<input type="button" value="Recall Data"/>	<input type="button" value="Go Back"/>
Site Name <input type="text" value="15101 Freedom Ave, San L"/>		<input type="button" value="Current Date"/>
Date <input type="text" value="December 22, 2014"/>		
Calculation basis <input type="text" value="Head"/>		
Coordinates <input type="text" value="ft"/>		
x-coordinate	y-coordinate	head <input type="text" value="ft"/>
<input type="text" value="6092128.064"/>	<input type="text" value="2084372.231"/>	<input type="text" value="32.58"/>
<input type="text" value="6092183.856"/>	<input type="text" value="2084303.621"/>	<input type="text" value="33.01"/>
<input type="text" value="6092116.755"/>	<input type="text" value="2084222.948"/>	<input type="text" value="33.46"/>
Gradient Magnitude (i) <input type="text" value="0.005941"/>		
Degrees from North (+ y axis) <input type="text" value="356.0"/>		

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# Appendix C

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



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

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

Laboratory Job Number 263579
ANALYTICAL REPORT

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

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

Table with 2 columns: Sample ID and Lab ID. Lists various sample identifiers like MW-1 through MW-11, MW-1D through MW-4D, EX-1 through EX-2, and MPE-1 through MPE-2 with their corresponding Lab IDs.

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

Date: 01/06/2015

CA ELAP# 2896, NELAP# 4044-001

### CASE NARRATIVE

Laboratory number: 263579  
Client: SOMA Environmental Engineering Inc.  
Project: 2551  
Location: 15101 Freedom Avenue San Leandro  
Request Date: 12/26/14  
Samples Received: 12/26/14

This data package contains sample and QC results for sixteen water samples, requested for the above referenced project on 12/26/14. The samples were received cold and intact.

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

MW-1 (lab # 263579-001) and MW-4 (lab # 263579-004) were analyzed with more than 1 mL of headspace in the VOA vial. No other analytical problems were encountered.



# CHAIN OF CUSTODY

### Analyses

**Curtis & Tompkins, Ltd.**  
Analytical Laboratory Since 1878  
2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 Phone  
(510)486-0532 Fax

C&T LOGIN # 263579

Sampler: Lizzie Hightower

Report To: Joyce Bobek

Company: SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

Project No: 2551

Project Name: 15101 Freedom Ave., San Leandro

Turnaround Time: Standard

TPHg, BTEX, MTBE 8260B	Gasoline Oxygenates & Lead Scavengers																								
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Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative			
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
1	MW-1	12/23/14 12:57	*	*	*	3-VOAS	*			*
2	MW-2	12:32	*	*	*	3-VOAS	*			*
3	MW-3	14:10	*	*	*	3-VOAS	*			*
4	MW-4	12:04	*	*	*	3-VOAS	*			*
5	MW-5	13:24	*	*	*	3-VOAS	*			*
6	MW-6	15:08	*	*	*	3-VOAS	*			*
7	MW-7	14:35	*	*	*	3-VOAS	*			*
8	MW-10	12:48	*	*	*	3-VOAS	*			*
9	MW-11	14:08	*	*	*	3-VOAS	*			*
10	MW-1D	10:50	*	*	*	3-VOAS	*			*
11	MW-3D	11:16	*	*	*	3-VOAS	*			*
12	MW-4D	11:37	*	*	*	3-VOAS	*			*
13	EX-1	15:25	*	*	*	3-VOAS	*			*
14	EX-2	15:36	*	*	*	3-VOAS	*			*
15	MPE-1	14:55	*	*	*	3-VOAS	*			*
16	MPE-2	14:29	*	*	*	3-VOAS	*			*

RECEIVED BY: \_\_\_\_\_ DATE/TIME: 12/26/14

RELINQUISHED BY: [Signature] DATE/TIME: 01:58

DATE/TIME: \_\_\_\_\_

DATE/TIME: \_\_\_\_\_

Notes: **EDF OUTPUT REQUIRED**  
Ethanol

RECEIVED BY: [Signature] DATE/TIME: 12/26/14

RELINQUISHED BY: [Signature] DATE/TIME: 01:58

**COOLER RECEIPT CHECKLIST**



Login # 203579 Date Received 12/26/14 Number of coolers 2  
 Client SOMA Project 2551

Date Opened 12/26 By (print) [Signature] (sign) [Signature]  
 Date Logged in " " 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) \_\_\_\_\_

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**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Detections Summary for 263579

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

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

Client Sample ID : MW-1 Laboratory Sample ID : 263579-001

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	730		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	4.7	J	10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	2.2		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	0.84		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-2 Laboratory Sample ID : 263579-002

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	140		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	0.70		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	1.8		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-3 Laboratory Sample ID : 263579-003

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	13,000		1,000		ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
Benzene	64		3.6		ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Toluene	28		3.6		ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
Ethylbenzene	250		3.6		ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
m,p-Xylenes	960		3.6		ug/L	As Recd	7.143	EPA 8260B	EPA 5030B
o-Xylene	290		3.6		ug/L	As Recd	7.143	EPA 8260B	EPA 5030B

Client Sample ID : MW-4 Laboratory Sample ID : 263579-004

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
tert-Butyl Alcohol (TBA)	8.1	J	10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	0.95		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-5 Laboratory Sample ID : 263579-005

No Detections

Client Sample ID : MW-6

Laboratory Sample ID :

263579-006

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	2,700		250		ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	13	J	20	1.5	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	0.63		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	20		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	70		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	50		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	5.4		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-7

Laboratory Sample ID :

263579-007

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	320		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	1.7		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	2.2		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	2.3		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-10

Laboratory Sample ID :

263579-008

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	6,000		1,000		ug/L	As Recd	20.00	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	30	J	50	8.5	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
Ethylbenzene	390		2.5		ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
m,p-Xylenes	780		2.5		ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
o-Xylene	22		2.5		ug/L	As Recd	5.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-11

Laboratory Sample ID :

263579-009

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	310		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	15		10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	1.8		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	2.7		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-1D

Laboratory Sample ID :

263579-010

No Detections

Client Sample ID : MW-3D

Laboratory Sample ID :

263579-011

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
MTBE	1.0		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MW-4D

Laboratory Sample ID :

263579-012

No Detections

Client Sample ID : EX-1

Laboratory Sample ID :

263579-013

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	530		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	91		10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethyl tert-Butyl Ether (ETBE)	0.84		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	11		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	8.6		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	3.2		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	26		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	3.3		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : EX-2

Laboratory Sample ID :

263579-014

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	1,600		50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	37		10	2.2	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	6.0		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
1,2-Dichloroethane	0.80		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Benzene	42		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	4.2		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	94		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	130		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	18		0.50		ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : MPE-1

Laboratory Sample ID :

263579-015

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	3,100		100		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
Benzene	23		1.0		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
Toluene	24		1.0		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
Ethylbenzene	23		1.0		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
m,p-Xylenes	110		1.0		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
o-Xylene	110		1.0		ug/L	As Recd	2.000	EPA 8260B	EPA 5030B

Client Sample ID : MPE-2

Laboratory Sample ID :

263579-016

Analyte	Result	Flags	RL	MDL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	12,000		630		ug/L	As Recd	12.50	EPA 8260B	EPA 5030B
tert-Butyl Alcohol (TBA)	23	J	83	14	ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
MTBE	4.6		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
Benzene	430		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
Toluene	77		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
Ethylbenzene	420		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
m,p-Xylenes	1,000		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B
o-Xylene	670		4.2		ug/L	As Recd	8.333	EPA 8260B	EPA 5030B

J = Estimated value

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-1	Diln Fac: 1.000
Lab ID: 263579-001	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	730	50		219024	01/01/15
tert-Butyl Alcohol (TBA)	4.7 J	10	2.2	219024	01/01/15
Isopropyl Ether (DIPE)	ND	0.50		219024	01/01/15
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		219024	01/01/15
Methyl tert-Amyl Ether (TAME)	ND	0.50		219024	01/01/15
Ethanol	ND	1,000		219038	01/02/15
MTBE	ND	0.50		219024	01/01/15
1,2-Dichloroethane	ND	0.50		219024	01/01/15
Benzene	2.2	0.50		219024	01/01/15
Toluene	ND	0.50		219024	01/01/15
1,2-Dibromoethane	ND	0.50		219024	01/01/15
Ethylbenzene	0.84	0.50		219024	01/01/15
m,p-Xylenes	ND	0.50		219024	01/01/15
o-Xylene	ND	0.50		219024	01/01/15

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	114	77-136	219024	01/01/15
1,2-Dichloroethane-d4	105	75-139	219024	01/01/15
Toluene-d8	96	80-120	219024	01/01/15
Bromofluorobenzene	102	80-120	219024	01/01/15

J= Estimated value  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

**Purgeable Organics by GC/MS**

Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-2	Diln Fac:	1.000
Lab ID:	263579-002	Sampled:	12/23/14
Matrix:	Water	Received:	12/26/14
Units:	ug/L		

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	140	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	ND	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	0.70	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	1.8	0.50		218950	12/30/14
m,p-Xylenes	ND	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	111	77-136	218950	12/30/14
1,2-Dichloroethane-d4	110	75-139	218950	12/30/14
Toluene-d8	103	80-120	218950	12/30/14
Bromofluorobenzene	102	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit



### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-3	Units: ug/L
Lab ID: 263579-003	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	13,000	1,000		20.00	218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	71	12	7.143	218991	12/31/14
Isopropyl Ether (DIPE)	ND	3.6		7.143	218991	12/31/14
Ethyl tert-Butyl Ether (ETBE)	ND	3.6		7.143	218991	12/31/14
Methyl tert-Amyl Ether (TAME)	ND	3.6		7.143	218991	12/31/14
Ethanol	ND	7,100		7.143	218991	12/31/14
MTBE	ND	3.6		7.143	218991	12/31/14
1,2-Dichloroethane	ND	3.6		7.143	218991	12/31/14
Benzene	64	3.6		7.143	218991	12/31/14
Toluene	28	3.6		7.143	218991	12/31/14
1,2-Dibromoethane	ND	3.6		7.143	218991	12/31/14
Ethylbenzene	250	3.6		7.143	218991	12/31/14
m,p-Xylenes	960	3.6		7.143	218991	12/31/14
o-Xylene	290	3.6		7.143	218991	12/31/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	102	77-136	7.143	218991	12/31/14
1,2-Dichloroethane-d4	119	75-139	7.143	218991	12/31/14
Toluene-d8	101	80-120	7.143	218991	12/31/14
Bromofluorobenzene	99	80-120	7.143	218991	12/31/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-4	Diln Fac: 1.000
Lab ID: 263579-004	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	ND	50		219024	01/01/15
tert-Butyl Alcohol (TBA)	8.1 J	10	2.2	219024	01/01/15
Isopropyl Ether (DIPE)	ND	0.50		219024	01/01/15
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		219024	01/01/15
Methyl tert-Amyl Ether (TAME)	ND	0.50		219024	01/01/15
Ethanol	ND	1,000		219038	01/02/15
MTBE	ND	0.50		219024	01/01/15
1,2-Dichloroethane	ND	0.50		219024	01/01/15
Benzene	0.95	0.50		219024	01/01/15
Toluene	ND	0.50		219024	01/01/15
1,2-Dibromoethane	ND	0.50		219024	01/01/15
Ethylbenzene	ND	0.50		219024	01/01/15
m,p-Xylenes	ND	0.50		219024	01/01/15
o-Xylene	ND	0.50		219024	01/01/15

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	110	77-136	219024	01/01/15
1,2-Dichloroethane-d4	104	75-139	219024	01/01/15
Toluene-d8	98	80-120	219024	01/01/15
Bromofluorobenzene	99	80-120	219024	01/01/15

J= Estimated value  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-5	Diln Fac: 1.000
Lab ID: 263579-005	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	ND	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	ND	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	ND	0.50		218950	12/30/14
m,p-Xylenes	ND	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	112	77-136	218950	12/30/14
1,2-Dichloroethane-d4	107	75-139	218950	12/30/14
Toluene-d8	101	80-120	218950	12/30/14
Bromofluorobenzene	104	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

Purgeable Organics by GC/MS					
Lab #:	263579	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:	263579-006	Sampled:	12/22/14		
Matrix:	Water	Received:	12/26/14		

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	2,700	250		5.000	218950	12/30/14
tert-Butyl Alcohol (TBA)	13 J	20	1.5	1.000	219075	01/04/15
Isopropyl Ether (DIPE)	ND	0.50		1.000	219075	01/04/15
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		1.000	219075	01/04/15
Methyl tert-Amyl Ether (TAME)	ND	0.50		1.000	219075	01/04/15
Ethanol	ND	1,000		1.000	219075	01/04/15
MTBE	0.63	0.50		1.000	219075	01/04/15
1,2-Dichloroethane	ND	0.50		1.000	219075	01/04/15
Benzene	20	0.50		1.000	219075	01/04/15
Toluene	ND	0.50		1.000	219075	01/04/15
1,2-Dibromoethane	ND	0.50		1.000	219075	01/04/15
Ethylbenzene	70	0.50		1.000	219075	01/04/15
m,p-Xylenes	50	0.50		1.000	219075	01/04/15
o-Xylene	5.4	0.50		1.000	219075	01/04/15

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	100	77-136	1.000	219075	01/04/15
1,2-Dichloroethane-d4	93	75-139	1.000	219075	01/04/15
Toluene-d8	98	80-120	1.000	219075	01/04/15
Bromofluorobenzene	86	80-120	1.000	219075	01/04/15

J= Estimated value  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	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: 263579-007	Sampled: 12/22/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	320	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	1.7	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	2.2	0.50		218950	12/30/14
m,p-Xylenes	2.3	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	111	77-136	218950	12/30/14
1,2-Dichloroethane-d4	108	75-139	218950	12/30/14
Toluene-d8	101	80-120	218950	12/30/14
Bromofluorobenzene	100	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-10	Units: ug/L
Lab ID: 263579-008	Sampled: 12/22/14
Matrix: Water	Received: 12/26/14

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	6,000	1,000		20.00	218950	12/30/14
tert-Butyl Alcohol (TBA)	30 J	50	8.5	5.000	218991	12/31/14
Isopropyl Ether (DIPE)	ND	2.5		5.000	218991	12/31/14
Ethyl tert-Butyl Ether (ETBE)	ND	2.5		5.000	218991	12/31/14
Methyl tert-Amyl Ether (TAME)	ND	2.5		5.000	218991	12/31/14
Ethanol	ND	5,000		5.000	218991	12/31/14
MTBE	ND	2.5		5.000	218991	12/31/14
1,2-Dichloroethane	ND	2.5		5.000	218991	12/31/14
Benzene	ND	2.5		5.000	218991	12/31/14
Toluene	ND	2.5		5.000	218991	12/31/14
1,2-Dibromoethane	ND	2.5		5.000	218991	12/31/14
Ethylbenzene	390	2.5		5.000	218991	12/31/14
m,p-Xylenes	780	2.5		5.000	218991	12/31/14
o-Xylene	22	2.5		5.000	218991	12/31/14

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	103	77-136	5.000	218991	12/31/14
1,2-Dichloroethane-d4	123	75-139	5.000	218991	12/31/14
Toluene-d8	102	80-120	5.000	218991	12/31/14
Bromofluorobenzene	101	80-120	5.000	218991	12/31/14

J= Estimated value  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-11	Diln Fac: 1.000
Lab ID: 263579-009	Sampled: 12/22/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	310	50		219024	01/01/15
tert-Butyl Alcohol (TBA)	15	10	2.2	219024	01/01/15
Isopropyl Ether (DIPE)	ND	0.50		219024	01/01/15
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		219024	01/01/15
Methyl tert-Amyl Ether (TAME)	ND	0.50		219024	01/01/15
Ethanol	ND	1,000		219038	01/02/15
MTBE	ND	0.50		219024	01/01/15
1,2-Dichloroethane	ND	0.50		219024	01/01/15
Benzene	ND	0.50		219024	01/01/15
Toluene	ND	0.50		219024	01/01/15
1,2-Dibromoethane	ND	0.50		219024	01/01/15
Ethylbenzene	1.8	0.50		219024	01/01/15
m,p-Xylenes	2.7	0.50		219024	01/01/15
o-Xylene	ND	0.50		219024	01/01/15

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	109	77-136	219024	01/01/15
1,2-Dichloroethane-d4	98	75-139	219024	01/01/15
Toluene-d8	95	80-120	219024	01/01/15
Bromofluorobenzene	98	80-120	219024	01/01/15

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-1D	Diln Fac: 1.000
Lab ID: 263579-010	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	ND	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	ND	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	ND	0.50		218950	12/30/14
m,p-Xylenes	ND	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	114	77-136	218950	12/30/14
1,2-Dichloroethane-d4	110	75-139	218950	12/30/14
Toluene-d8	98	80-120	218950	12/30/14
Bromofluorobenzene	104	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit



### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-3D	Diln Fac: 1.000
Lab ID: 263579-011	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	ND	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	1.0	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	ND	0.50		218950	12/30/14
m,p-Xylenes	ND	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	113	77-136	218950	12/30/14
1,2-Dichloroethane-d4	108	75-139	218950	12/30/14
Toluene-d8	97	80-120	218950	12/30/14
Bromofluorobenzene	102	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-4D	Diln Fac: 1.000
Lab ID: 263579-012	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	ND	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	ND	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	ND	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	ND	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	ND	0.50		218950	12/30/14
m,p-Xylenes	ND	0.50		218950	12/30/14
o-Xylene	ND	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	114	77-136	218950	12/30/14
1,2-Dichloroethane-d4	114	75-139	218950	12/30/14
Toluene-d8	100	80-120	218950	12/30/14
Bromofluorobenzene	108	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: EX-1	Diln Fac: 1.000
Lab ID: 263579-013	Sampled: 12/22/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	530	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	91	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	0.84	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	11	0.50		218950	12/30/14
1,2-Dichloroethane	ND	0.50		218950	12/30/14
Benzene	8.6	0.50		218950	12/30/14
Toluene	ND	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	3.2	0.50		218950	12/30/14
m,p-Xylenes	26	0.50		218950	12/30/14
o-Xylene	3.3	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	111	77-136	218950	12/30/14
1,2-Dichloroethane-d4	109	75-139	218950	12/30/14
Toluene-d8	99	80-120	218950	12/30/14
Bromofluorobenzene	100	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: EX-2	Diln Fac: 1.000
Lab ID: 263579-014	Sampled: 12/22/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	1,600	50		218950	12/30/14
tert-Butyl Alcohol (TBA)	37	10	2.2	218950	12/30/14
Isopropyl Ether (DIPE)	ND	0.50		218950	12/30/14
Ethyl tert-Butyl Ether (ETBE)	ND	0.50		218950	12/30/14
Methyl tert-Amyl Ether (TAME)	ND	0.50		218950	12/30/14
Ethanol	ND	1,000		218991	12/31/14
MTBE	6.0	0.50		218950	12/30/14
1,2-Dichloroethane	0.80	0.50		218950	12/30/14
Benzene	42	0.50		218950	12/30/14
Toluene	4.2	0.50		218950	12/30/14
1,2-Dibromoethane	ND	0.50		218950	12/30/14
Ethylbenzene	94	0.50		218950	12/30/14
m,p-Xylenes	130	0.50		218950	12/30/14
o-Xylene	18	0.50		218950	12/30/14

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	107	77-136	218950	12/30/14
1,2-Dichloroethane-d4	100	75-139	218950	12/30/14
Toluene-d8	98	80-120	218950	12/30/14
Bromofluorobenzene	99	80-120	218950	12/30/14

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

### Purgeable Organics by GC/MS

Lab #: 263579	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MPE-1	Diln Fac: 2.000
Lab ID: 263579-015	Sampled: 12/23/14
Matrix: Water	Received: 12/26/14
Units: ug/L	

Analyte	Result	RL	MDL	Batch#	Analyzed
Gasoline C7-C12	3,100	100		219024	01/01/15
tert-Butyl Alcohol (TBA)	ND	20	4.4	219024	01/01/15
Isopropyl Ether (DIPE)	ND	1.0		219024	01/01/15
Ethyl tert-Butyl Ether (ETBE)	ND	1.0		219024	01/01/15
Methyl tert-Amyl Ether (TAME)	ND	1.0		219024	01/01/15
Ethanol	ND	2,000		219038	01/02/15
MTBE	ND	1.0		219024	01/01/15
1,2-Dichloroethane	ND	1.0		219024	01/01/15
Benzene	23	1.0		219024	01/01/15
Toluene	24	1.0		219024	01/01/15
1,2-Dibromoethane	ND	1.0		219024	01/01/15
Ethylbenzene	23	1.0		219024	01/01/15
m,p-Xylenes	110	1.0		219024	01/01/15
o-Xylene	110	1.0		219024	01/01/15

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	105	77-136	219024	01/01/15
1,2-Dichloroethane-d4	90	75-139	219024	01/01/15
Toluene-d8	97	80-120	219024	01/01/15
Bromofluorobenzene	96	80-120	219024	01/01/15

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

Purgeable Organics by GC/MS					
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro		
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B		
Project#:	2551	Analysis:	EPA 8260B		
Field ID:	MPE-2	Units:	ug/L		
Lab ID:	263579-016	Sampled:	12/23/14		
Matrix:	Water	Received:	12/26/14		

Analyte	Result	RL	MDL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	12,000	630		12.50	219024	01/01/15
tert-Butyl Alcohol (TBA)	23 J	83	14	8.333	219038	01/02/15
Isopropyl Ether (DIPE)	ND	4.2		8.333	219038	01/02/15
Ethyl tert-Butyl Ether (ETBE)	ND	4.2		8.333	219038	01/02/15
Methyl tert-Amyl Ether (TAME)	ND	4.2		8.333	219038	01/02/15
Ethanol	ND	8,300		8.333	219038	01/02/15
MTBE	4.6	4.2		8.333	219038	01/02/15
1,2-Dichloroethane	ND	4.2		8.333	219038	01/02/15
Benzene	430	4.2		8.333	219038	01/02/15
Toluene	77	4.2		8.333	219038	01/02/15
1,2-Dibromoethane	ND	4.2		8.333	219038	01/02/15
Ethylbenzene	420	4.2		8.333	219038	01/02/15
m,p-Xylenes	1,000	4.2		8.333	219038	01/02/15
o-Xylene	670	4.2		8.333	219038	01/02/15

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	106	77-136	8.333	219038	01/02/15
1,2-Dichloroethane-d4	121	75-139	8.333	219038	01/02/15
Toluene-d8	103	80-120	8.333	219038	01/02/15
Bromofluorobenzene	103	80-120	8.333	219038	01/02/15

J= Estimated value  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	218950
Units:	ug/L	Analyzed:	12/30/14
Diln Fac:	1.000		

Type: BS Lab ID: QC771494

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	69.73	112	37-151
Isopropyl Ether (DIPE)	12.50	11.50	92	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	12.16	97	61-122
Methyl tert-Amyl Ether (TAME)	12.50	11.10	89	65-120
MTBE	12.50	12.65	101	64-121
1,2-Dichloroethane	12.50	12.58	101	77-137
Benzene	12.50	11.85	95	80-124
Toluene	12.50	11.51	92	80-122
1,2-Dibromoethane	12.50	11.97	96	80-120
Ethylbenzene	12.50	11.49	92	80-124
m,p-Xylenes	25.00	22.79	91	80-122
o-Xylene	12.50	12.22	98	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	112	77-136
1,2-Dichloroethane-d4	113	75-139
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC771495

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	68.54	110	37-151	2	30
Isopropyl Ether (DIPE)	12.50	11.45	92	56-124	0	20
Ethyl tert-Butyl Ether (ETBE)	12.50	11.74	94	61-122	4	22
Methyl tert-Amyl Ether (TAME)	12.50	11.59	93	65-120	4	22
MTBE	12.50	12.59	101	64-121	1	20
1,2-Dichloroethane	12.50	12.35	99	77-137	2	20
Benzene	12.50	12.27	98	80-124	4	20
Toluene	12.50	11.24	90	80-122	2	20
1,2-Dibromoethane	12.50	11.52	92	80-120	4	20
Ethylbenzene	12.50	11.95	96	80-124	4	20
m,p-Xylenes	25.00	22.62	90	80-122	1	20
o-Xylene	12.50	11.91	95	77-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	109	77-136
1,2-Dichloroethane-d4	110	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	100	80-120

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	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:	QC771496	Batch#:	218950
Matrix:	Water	Analyzed:	12/30/14
Units:	ug/L		

Analyte	Result	RL	MDL
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	2.2
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	110	77-136
1,2-Dichloroethane-d4	102	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit



## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	218950
Units:	ug/L	Analyzed:	12/30/14
Diln Fac:	1.000		

Type: BS Lab ID: QC771497

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	907.5	91	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	109	77-136
1,2-Dichloroethane-d4	101	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC771498

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	891.1	89	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	106	77-136
1,2-Dichloroethane-d4	98	75-139
Toluene-d8	96	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	218991
Units:	ug/L	Analyzed:	12/31/14
Diln Fac:	1.000		

Type: BS Lab ID: QC771656

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	48.78	78	37-151
Isopropyl Ether (DIPE)	12.50	12.34	99	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	12.56	101	61-122
Methyl tert-Amyl Ether (TAME)	12.50	11.87	95	65-120
MTBE	12.50	11.89	95	64-121
1,2-Dichloroethane	12.50	15.20	122	77-137
Benzene	12.50	13.02	104	80-124
Toluene	12.50	13.39	107	80-122
1,2-Dibromoethane	12.50	10.98	88	80-120
Ethylbenzene	12.50	13.81	110	80-124
m,p-Xylenes	25.00	27.72	111	80-122
o-Xylene	12.50	13.89	111	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	77-136
1,2-Dichloroethane-d4	115	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC771657

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	49.68	79	37-151	2	30
Isopropyl Ether (DIPE)	12.50	12.06	97	56-124	2	20
Ethyl tert-Butyl Ether (ETBE)	12.50	12.26	98	61-122	2	22
Methyl tert-Amyl Ether (TAME)	12.50	11.43	91	65-120	4	22
MTBE	12.50	11.73	94	64-121	1	20
1,2-Dichloroethane	12.50	14.91	119	77-137	2	20
Benzene	12.50	12.37	99	80-124	5	20
Toluene	12.50	12.98	104	80-122	3	20
1,2-Dibromoethane	12.50	11.33	91	80-120	3	20
Ethylbenzene	12.50	13.53	108	80-124	2	20
m,p-Xylenes	25.00	26.95	108	80-122	3	20
o-Xylene	12.50	13.41	107	77-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	77-136
1,2-Dichloroethane-d4	117	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	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:	QC771658	Batch#:	218991
Matrix:	Water	Analyzed:	12/31/14
Units:	ug/L		

Analyte	Result	RL	MDL
Gasoline C7-C12	NA		
tert-Butyl Alcohol (TBA)	ND	10	1.7
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	101	77-136
1,2-Dichloroethane-d4	120	75-139
Toluene-d8	101	80-120
Bromofluorobenzene	103	80-120

NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	219024
Units:	ug/L	Analyzed:	01/01/15
Diln Fac:	1.000		

Type: BS Lab ID: QC771781

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	63.65	102	37-151
Isopropyl Ether (DIPE)	12.50	11.55	92	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	11.77	94	61-122
Methyl tert-Amyl Ether (TAME)	12.50	10.61	85	65-120
MTBE	12.50	12.54	100	64-121
1,2-Dichloroethane	12.50	12.08	97	77-137
Benzene	12.50	11.37	91	80-124
Toluene	12.50	11.46	92	80-122
1,2-Dibromoethane	12.50	11.58	93	80-120
Ethylbenzene	12.50	11.43	91	80-124
m,p-Xylenes	25.00	22.77	91	80-122
o-Xylene	12.50	11.74	94	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	113	77-136
1,2-Dichloroethane-d4	105	75-139
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

Type: BSD Lab ID: QC771782

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	69.27	111	37-151	8	30
Isopropyl Ether (DIPE)	12.50	11.87	95	56-124	3	20
Ethyl tert-Butyl Ether (ETBE)	12.50	12.00	96	61-122	2	22
Methyl tert-Amyl Ether (TAME)	12.50	11.20	90	65-120	5	22
MTBE	12.50	12.57	101	64-121	0	20
1,2-Dichloroethane	12.50	12.01	96	77-137	1	20
Benzene	12.50	12.14	97	80-124	7	20
Toluene	12.50	11.54	92	80-122	1	20
1,2-Dibromoethane	12.50	11.74	94	80-120	1	20
Ethylbenzene	12.50	11.69	94	80-124	2	20
m,p-Xylenes	25.00	23.96	96	80-122	5	20
o-Xylene	12.50	11.70	94	77-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	112	77-136
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	263579	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:	QC771783	Batch#:	219024
Matrix:	Water	Analyzed:	01/01/15
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	2.2
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	

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	112	77-136
1,2-Dichloroethane-d4	105	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	219024
Units:	ug/L	Analyzed:	01/01/15
Diln Fac:	1.000		

Type: BS Lab ID: QC771784

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	917.8	92	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	112	77-136
1,2-Dichloroethane-d4	102	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC771785

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	835.7	84	80-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	111	77-136
1,2-Dichloroethane-d4	101	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	219038
Units:	ug/L	Analyzed:	01/02/15
Diln Fac:	1.000		

Type: BS Lab ID: QC771838

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	52.65	84	37-151
Isopropyl Ether (DIPE)	12.50	13.73	110	56-124
Ethyl tert-Butyl Ether (ETBE)	12.50	13.50	108	61-122
Methyl tert-Amyl Ether (TAME)	12.50	12.12	97	65-120
MTBE	12.50	12.80	102	64-121
1,2-Dichloroethane	12.50	15.80	126	77-137
Benzene	12.50	13.00	104	80-124
Toluene	12.50	13.01	104	80-122
1,2-Dibromoethane	12.50	11.22	90	80-120
Ethylbenzene	12.50	13.65	109	80-124
m,p-Xylenes	25.00	26.89	108	80-122
o-Xylene	12.50	13.42	107	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	77-136
1,2-Dichloroethane-d4	122	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-120

Type: BSD Lab ID: QC771839

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	47.77	76	37-151	10	30
Isopropyl Ether (DIPE)	12.50	13.64	109	56-124	1	20
Ethyl tert-Butyl Ether (ETBE)	12.50	13.09	105	61-122	3	22
Methyl tert-Amyl Ether (TAME)	12.50	11.55	92	65-120	5	22
MTBE	12.50	11.90	95	64-121	7	20
1,2-Dichloroethane	12.50	15.19	121	77-137	4	20
Benzene	12.50	13.12	105	80-124	1	20
Toluene	12.50	13.31	107	80-122	2	20
1,2-Dibromoethane	12.50	10.74	86	80-120	4	20
Ethylbenzene	12.50	13.74	110	80-124	1	20
m,p-Xylenes	25.00	27.39	110	80-122	2	20
o-Xylene	12.50	13.57	109	77-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	77-136
1,2-Dichloroethane-d4	120	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-120

RPD= Relative Percent Difference

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	263579	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:	QC771840	Batch#:	219038
Matrix:	Water	Analyzed:	01/02/15
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>
Gasoline C7-C12	NA		
tert-Butyl Alcohol (TBA)	ND	10	1.7
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	

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	106	77-136
1,2-Dichloroethane-d4	125	75-139
Toluene-d8	102	80-120
Bromofluorobenzene	107	80-120

NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit



**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	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:	QC771979	Batch#:	219075
Matrix:	Water	Analyzed:	01/04/15
Units:	ug/L		

Analyte	Result	RL	MDL
Gasoline C7-C12	NA		
tert-Butyl Alcohol (TBA)	ND	20	1.5
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	102	77-136
1,2-Dichloroethane-d4	89	75-139
Toluene-d8	95	80-120
Bromofluorobenzene	94	80-120

NA= Not Analyzed  
 ND= Not Detected  
 RL= Reporting Limit  
 MDL= Method Detection Limit

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	263579	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	219075
Units:	ug/L	Analyzed:	01/04/15
Diln Fac:	1.000		

Type: BS Lab ID: QC771980

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	68.75	52.23	76	37-151
Isopropyl Ether (DIPE)	13.75	9.868	72	56-124
Ethyl tert-Butyl Ether (ETBE)	13.75	10.75	78	61-122
Methyl tert-Amyl Ether (TAME)	13.75	11.44	83	65-120
MTBE	13.75	10.91	79	64-121
1,2-Dichloroethane	13.75	11.87	86	77-137
Benzene	13.75	13.05	95	80-124
Toluene	13.75	13.22	96	80-122
1,2-Dibromoethane	13.75	11.86	86	80-120
Ethylbenzene	13.75	13.51	98	80-124
m,p-Xylenes	27.50	28.54	104	80-122
o-Xylene	13.75	13.75	100	77-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	77-136
1,2-Dichloroethane-d4	89	75-139
Toluene-d8	97	80-120
Bromofluorobenzene	91	80-120

Type: BSD Lab ID: QC771981

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	68.75	52.40	76	37-151	0	30
Isopropyl Ether (DIPE)	13.75	9.819	71	56-124	0	20
Ethyl tert-Butyl Ether (ETBE)	13.75	10.80	79	61-122	0	22
Methyl tert-Amyl Ether (TAME)	13.75	11.79	86	65-120	3	22
MTBE	13.75	11.00	80	64-121	1	20
1,2-Dichloroethane	13.75	12.13	88	77-137	2	20
Benzene	13.75	13.42	98	80-124	3	20
Toluene	13.75	13.37	97	80-122	1	20
1,2-Dibromoethane	13.75	11.69	85	80-120	1	20
Ethylbenzene	13.75	13.41	98	80-124	1	20
m,p-Xylenes	27.50	28.66	104	80-122	0	20
o-Xylene	13.75	13.84	101	77-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	77-136
1,2-Dichloroethane-d4	92	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	90	80-120

RPD= Relative Percent Difference

Date : 01-JAN-2015 13:38

Client ID: DYNA P&T

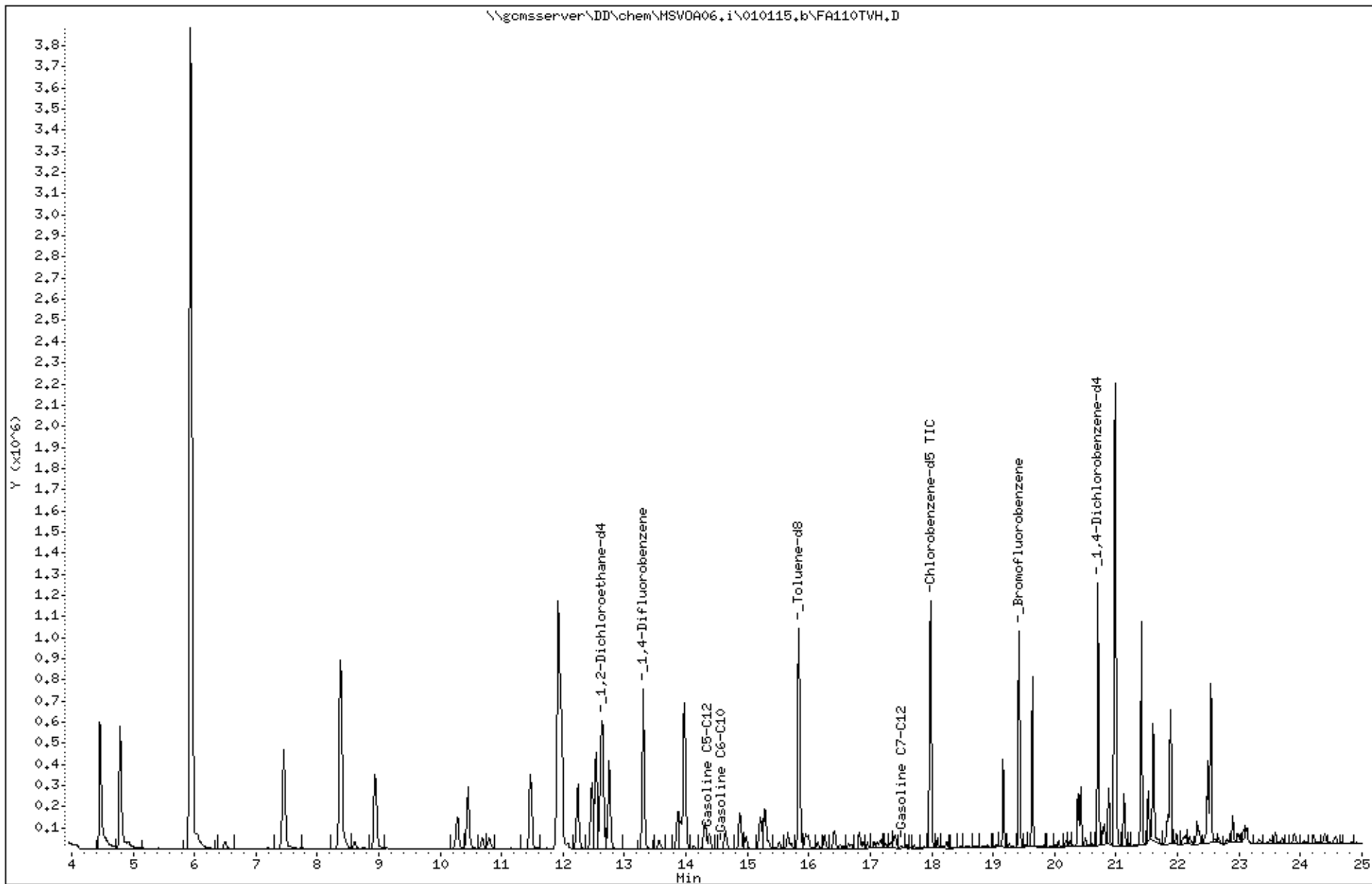
Sample Info: S,263579-001

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 30-DEC-2014 15:17

Client ID: DYNA P&T

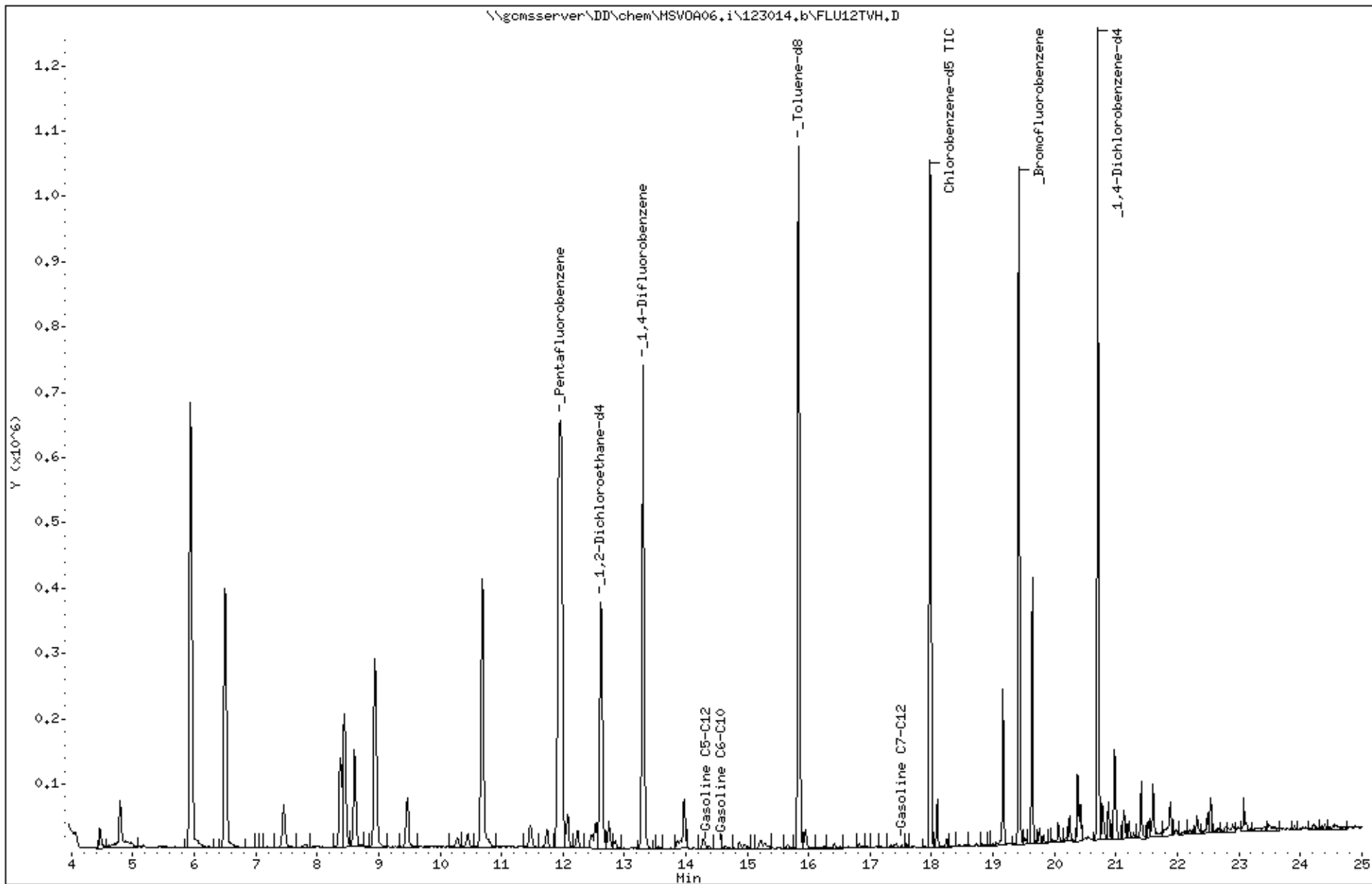
Sample Info: S,263579-002

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 2.00

Column phase:

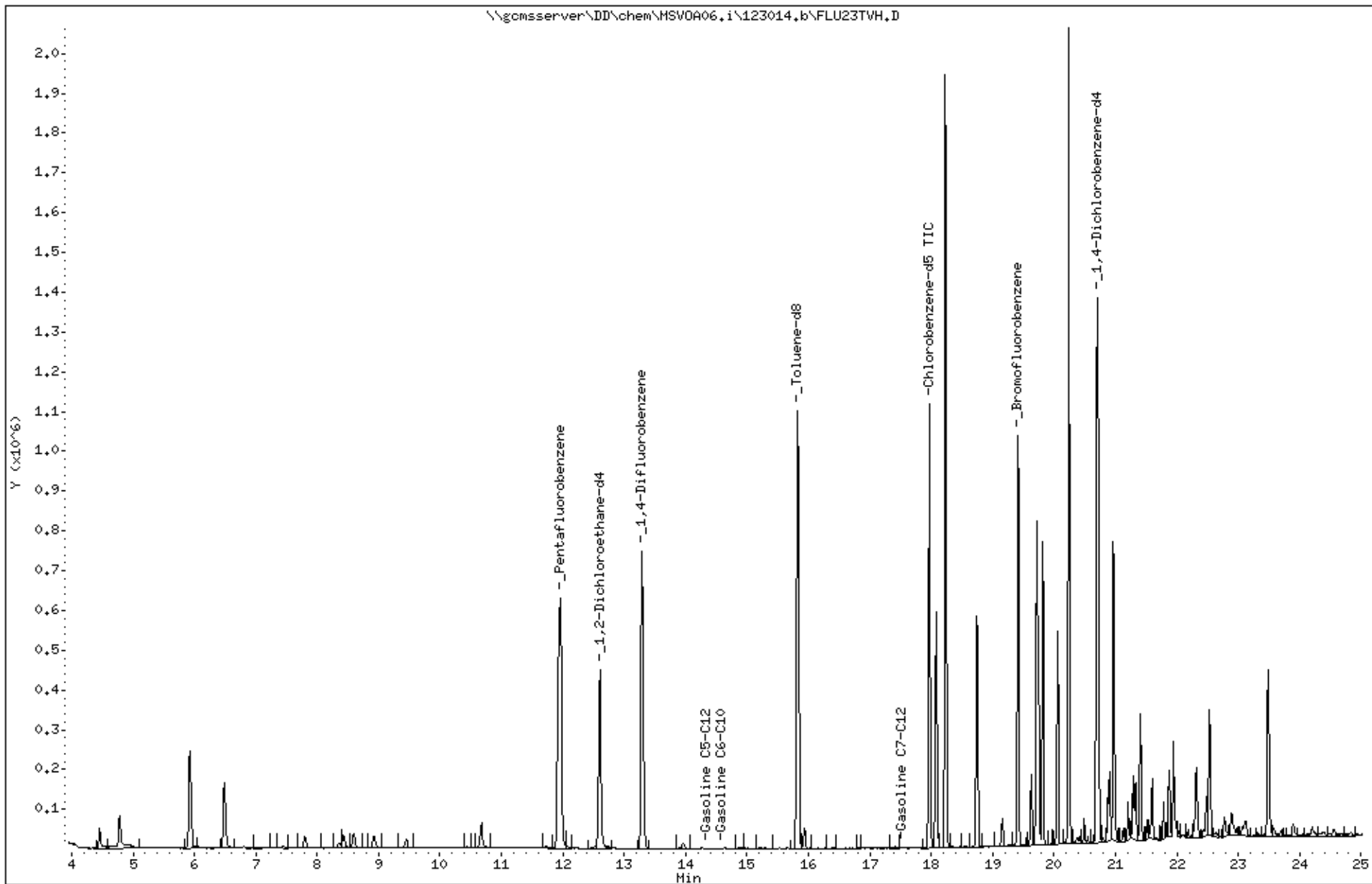


Date : 30-DEC-2014 21:09  
Client ID: DYNA P&T  
Sample Info: S,263579-003

Instrument: MSV0A06.i

Operator: VOC  
Column diameter: 2.00

Column phase:



Data File: \\GCHSSERVER\DD\chem\MSV0A06.i\123014.b\FLU20.D

Date : 30-DEC-2014 19:32

Client ID: DYNA P&T

Sample Info: S,263579-006

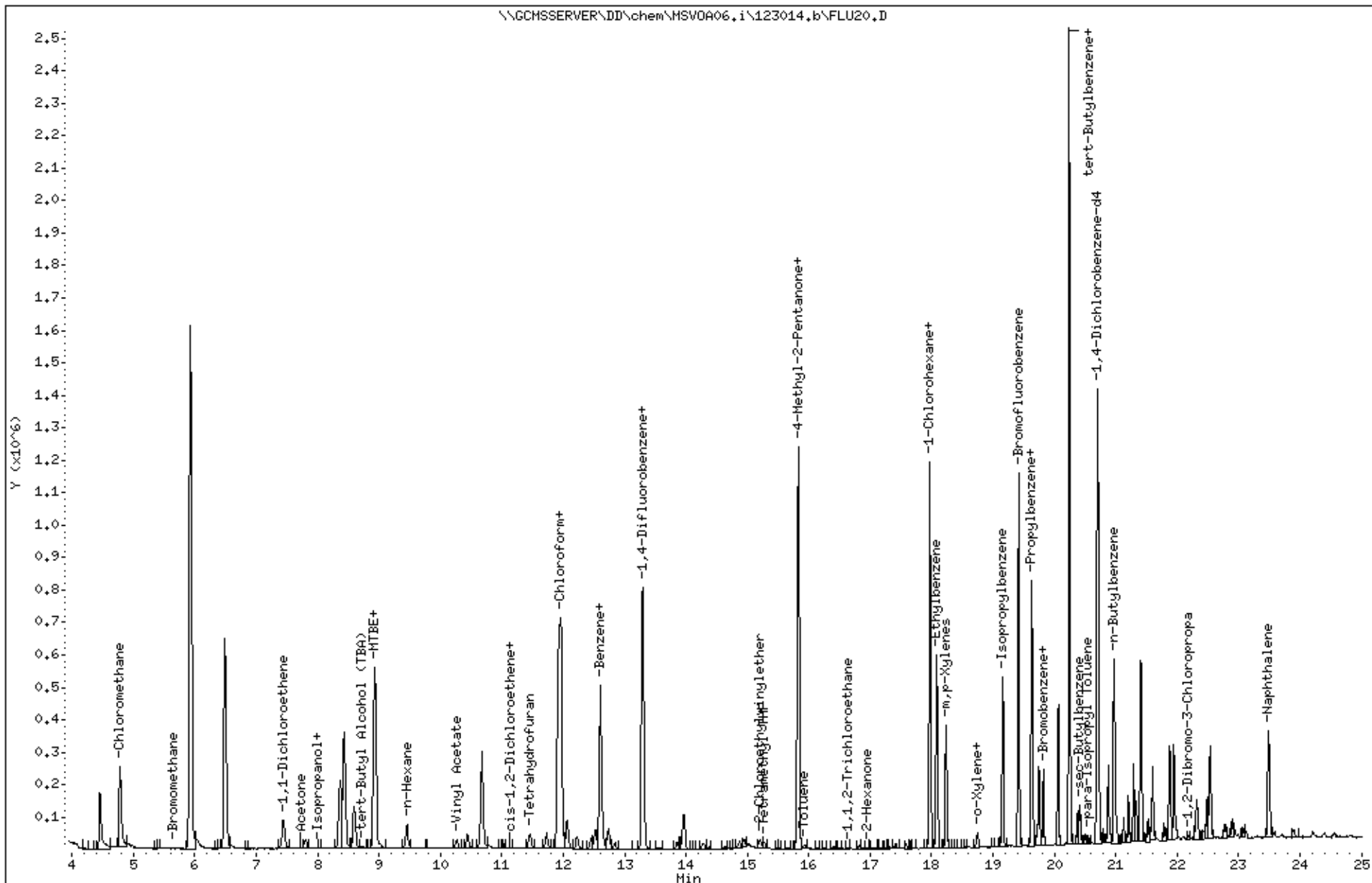
Purge Volume: 5.0

Column phase: RTX 624

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 0.25

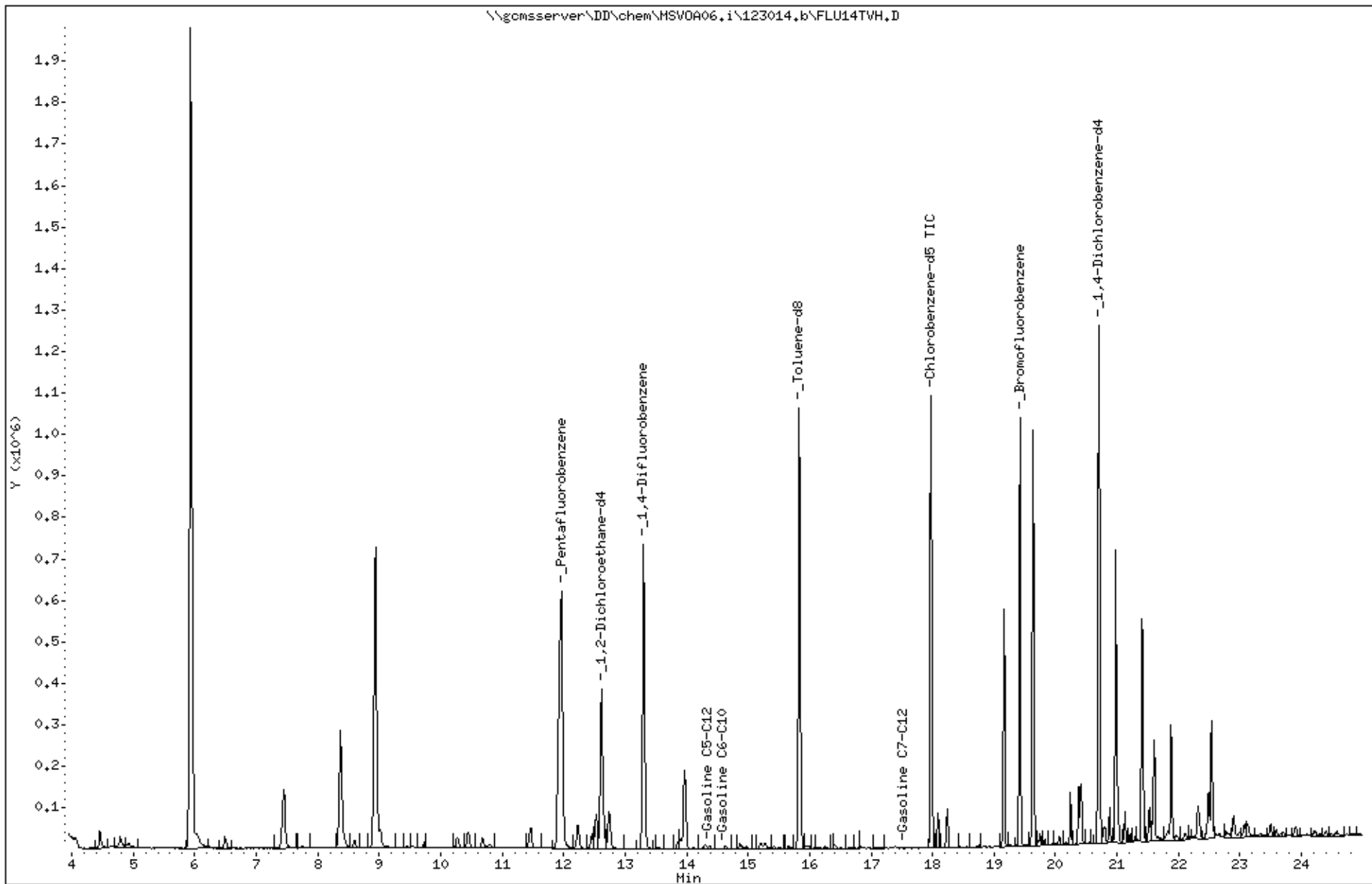


Date : 30-DEC-2014 16:21  
Client ID: DYNA P&T  
Sample Info: S,263579-007

Instrument: MSV0A06.i

Operator: VOC  
Column diameter: 2.00

Column phase:



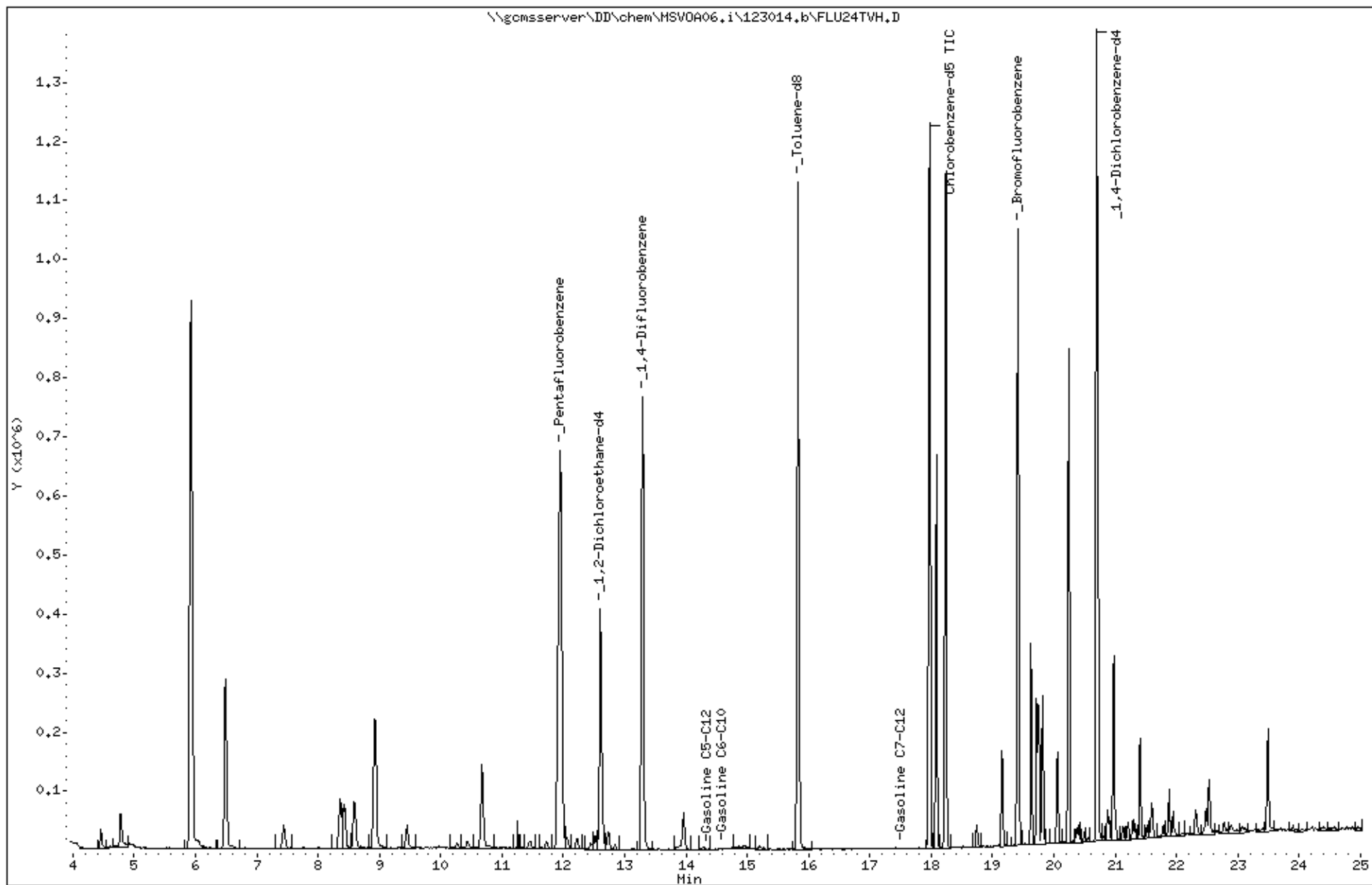
Date : 30-DEC-2014 21:41  
Client ID: DYNA P&T  
Sample Info: S,263579-008

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 2.00

Column phase:



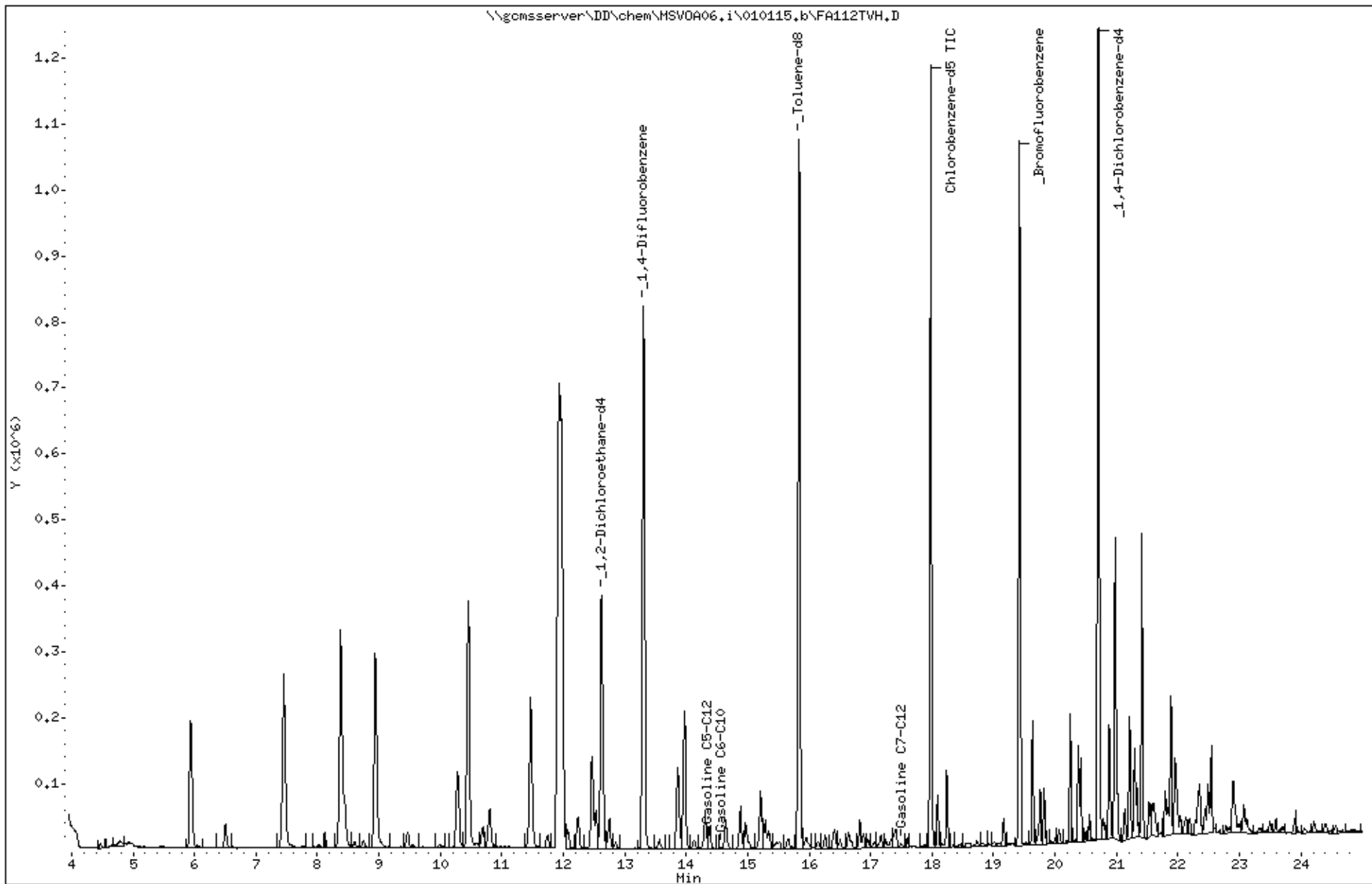


Date : 01-JAN-2015 14:42  
Client ID: DYNA P&T  
Sample Info: S,263579-009

Instrument: MSV0A06.i

Operator: VOC  
Column diameter: 2.00

Column phase:



Date : 30-DEC-2014 18:28

Client ID: DYNA P&T

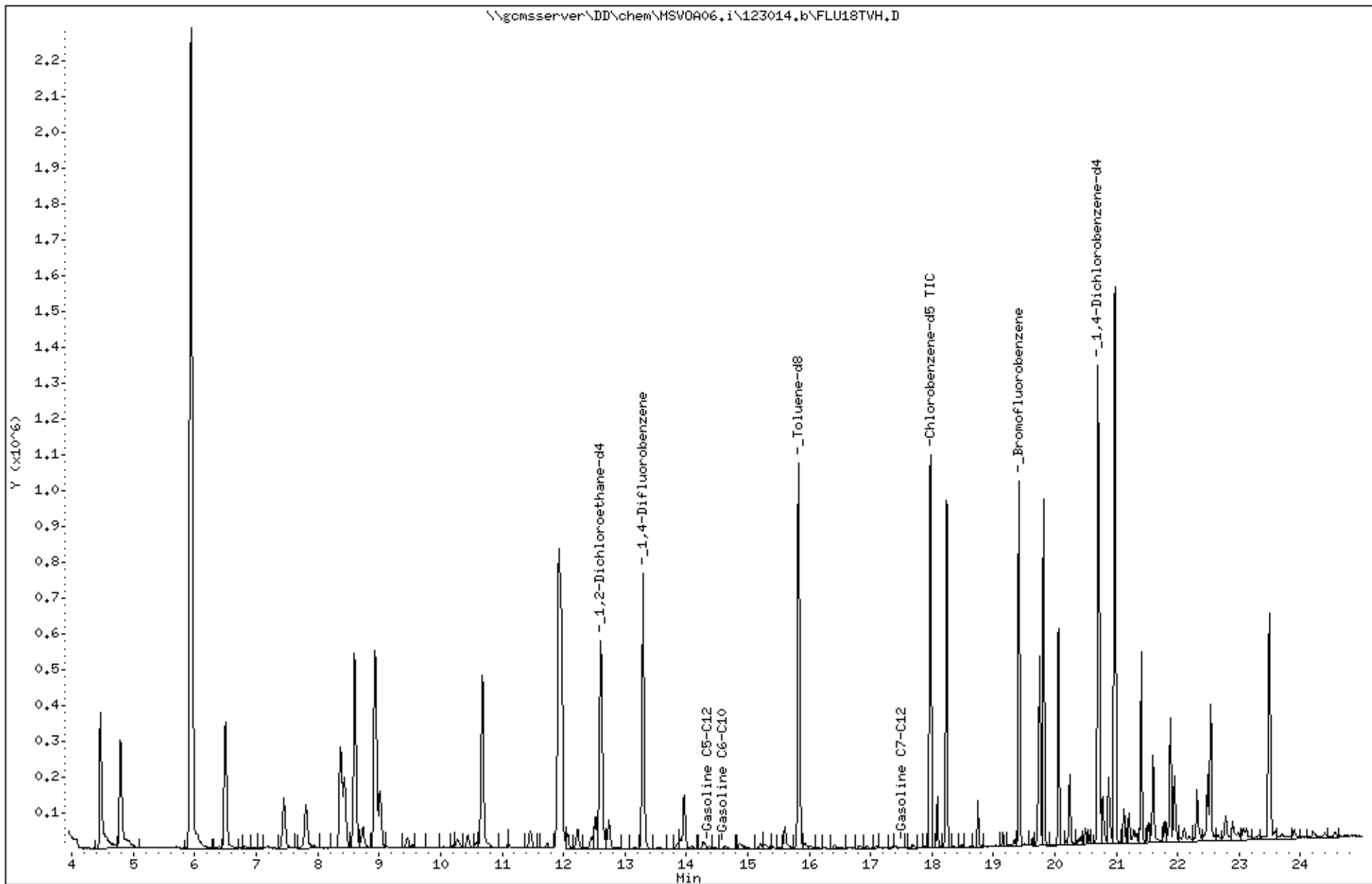
Sample Info: S,263579-013

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 2.00

Column phase:



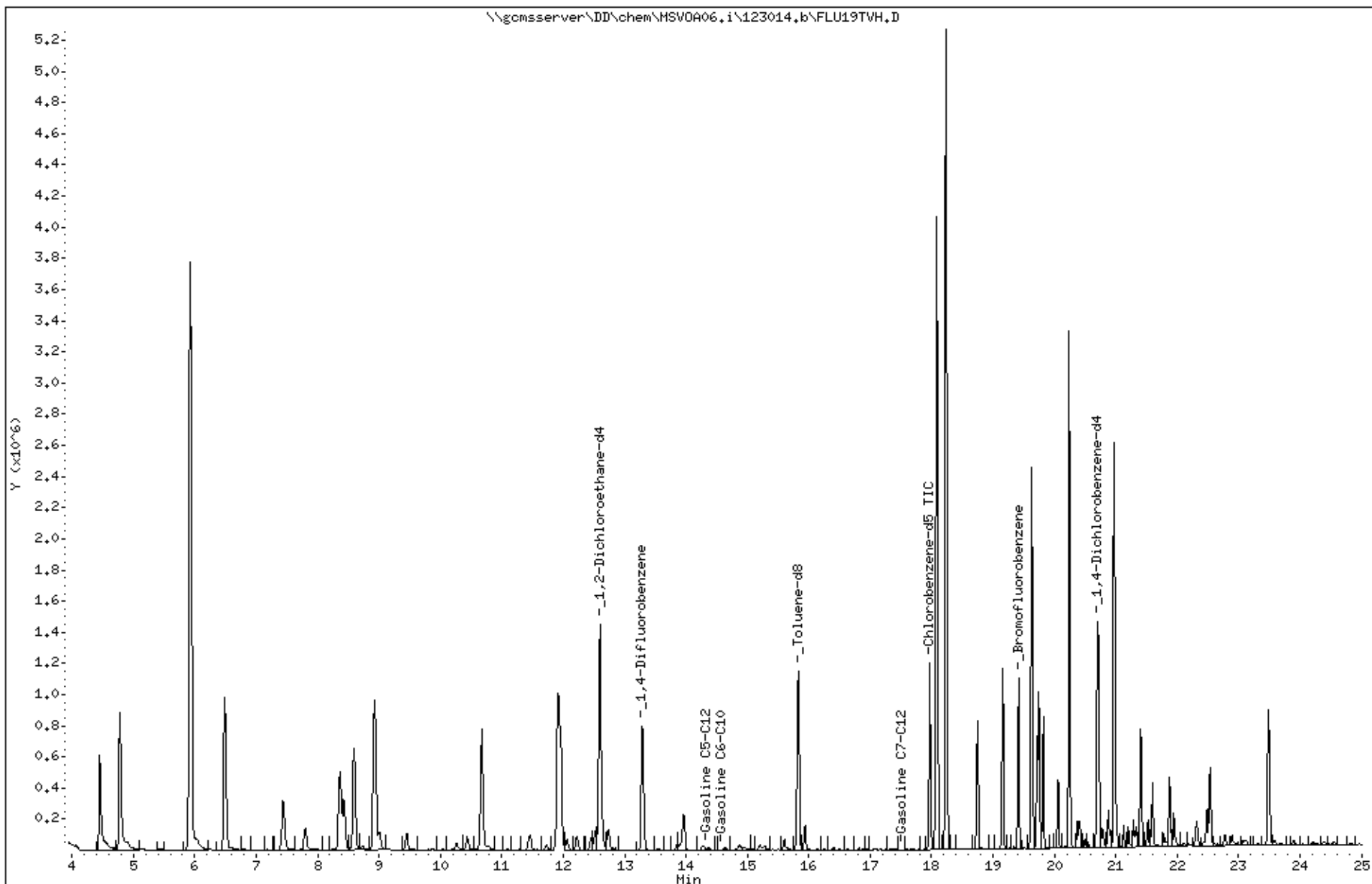
Date : 30-DEC-2014 19:01  
Client ID: DYNA P&T  
Sample Info: S,263579-014

Instrument: MSV0A06.i

Operator: VOC

Column phase:

Column diameter: 2.00



Date : 01-JAN-2015 16:52

Client ID: DYNA P&T

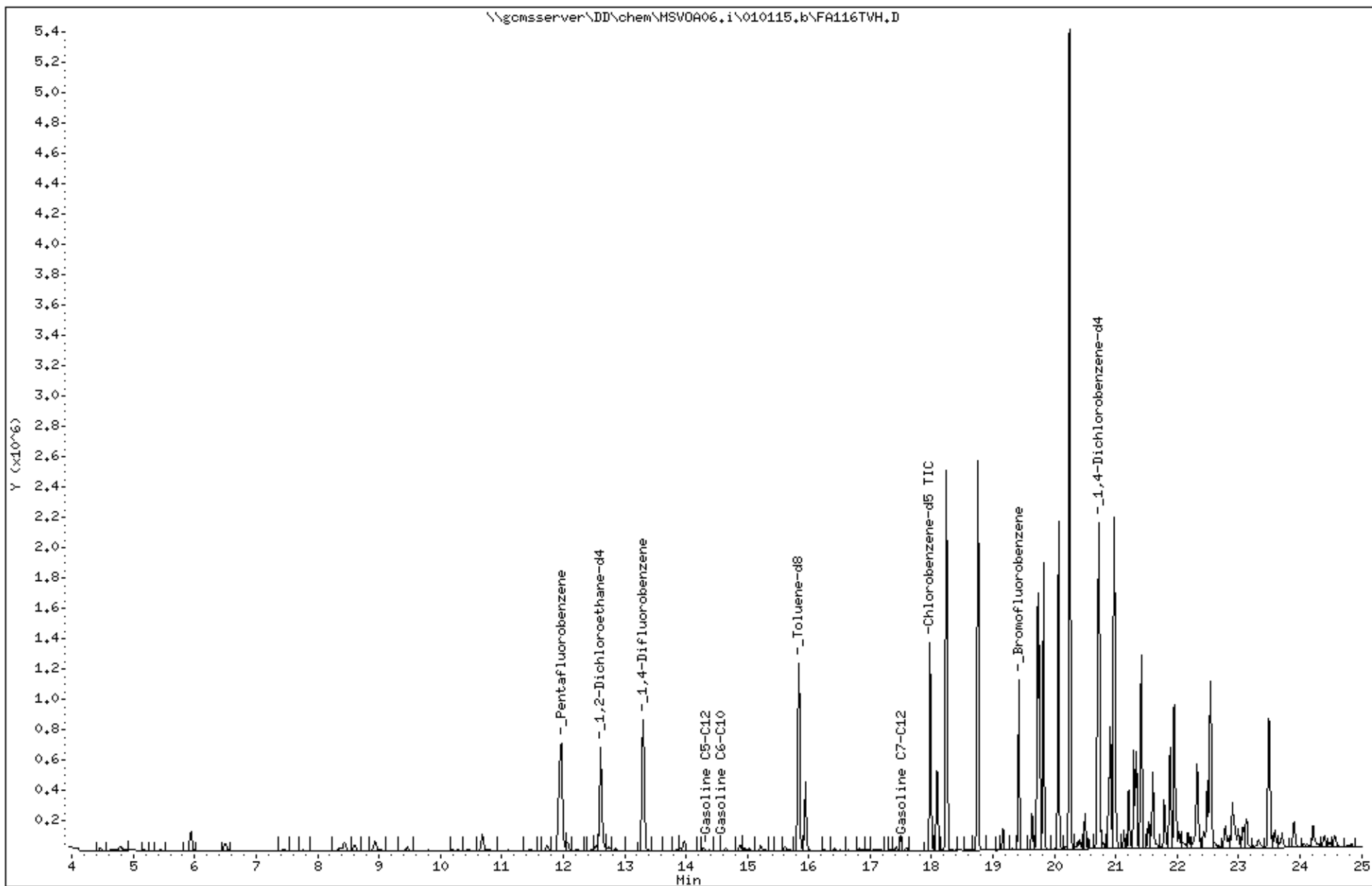
Sample Info: S,263579-015

Instrument: MSV0A06.i

Operator: VOC

Column diameter: 2.00

Column phase:

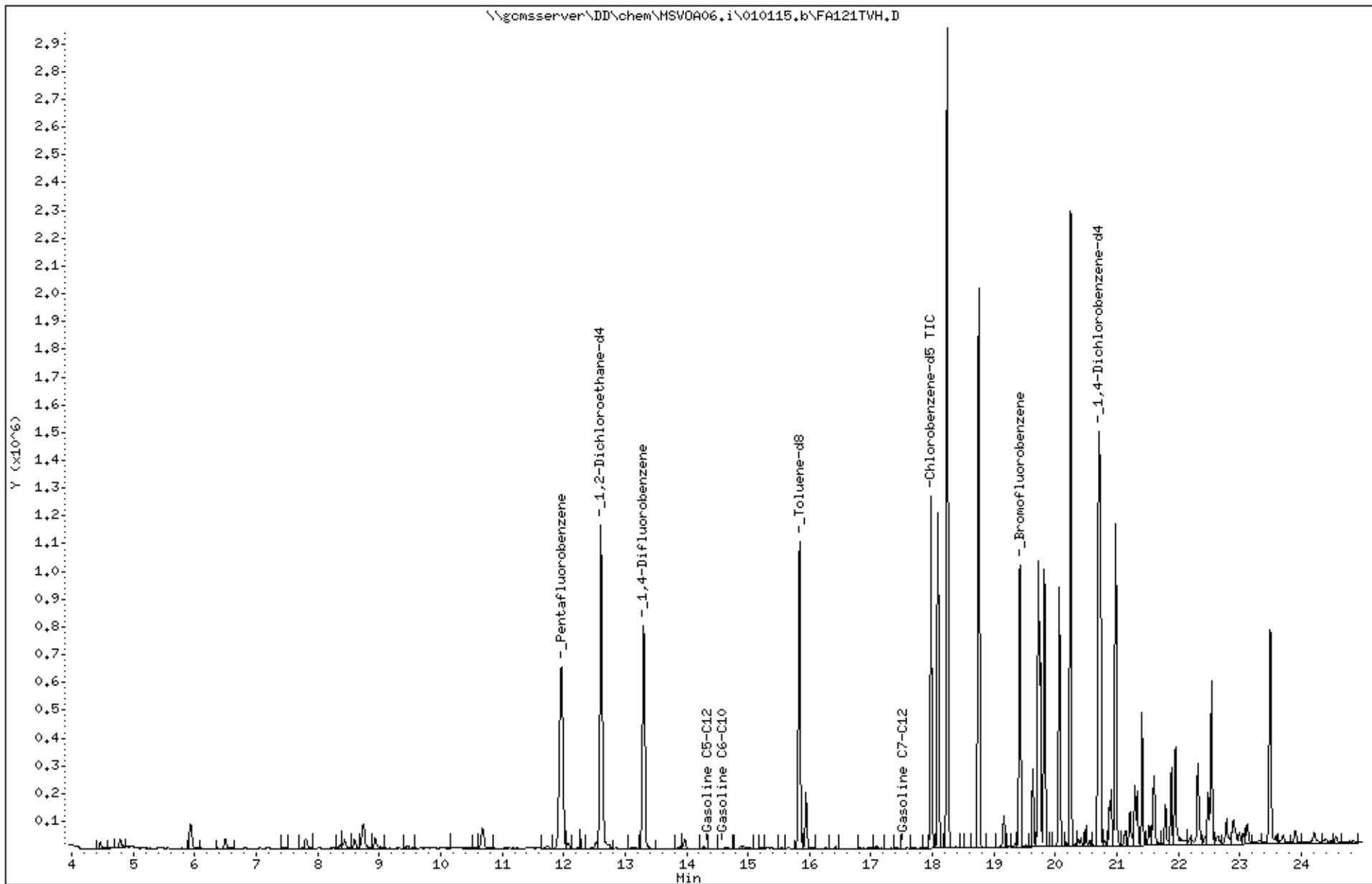


Date : 01-JAN-2015 19:33  
Client ID: DYNA P&T  
Sample Info: S,263579-016

Instrument: MSV0A06.i

Operator: VOC  
Column diameter: 2.00

Column phase:



Date : 30-DEC-2014 12:26

Client ID: DYNA P&T

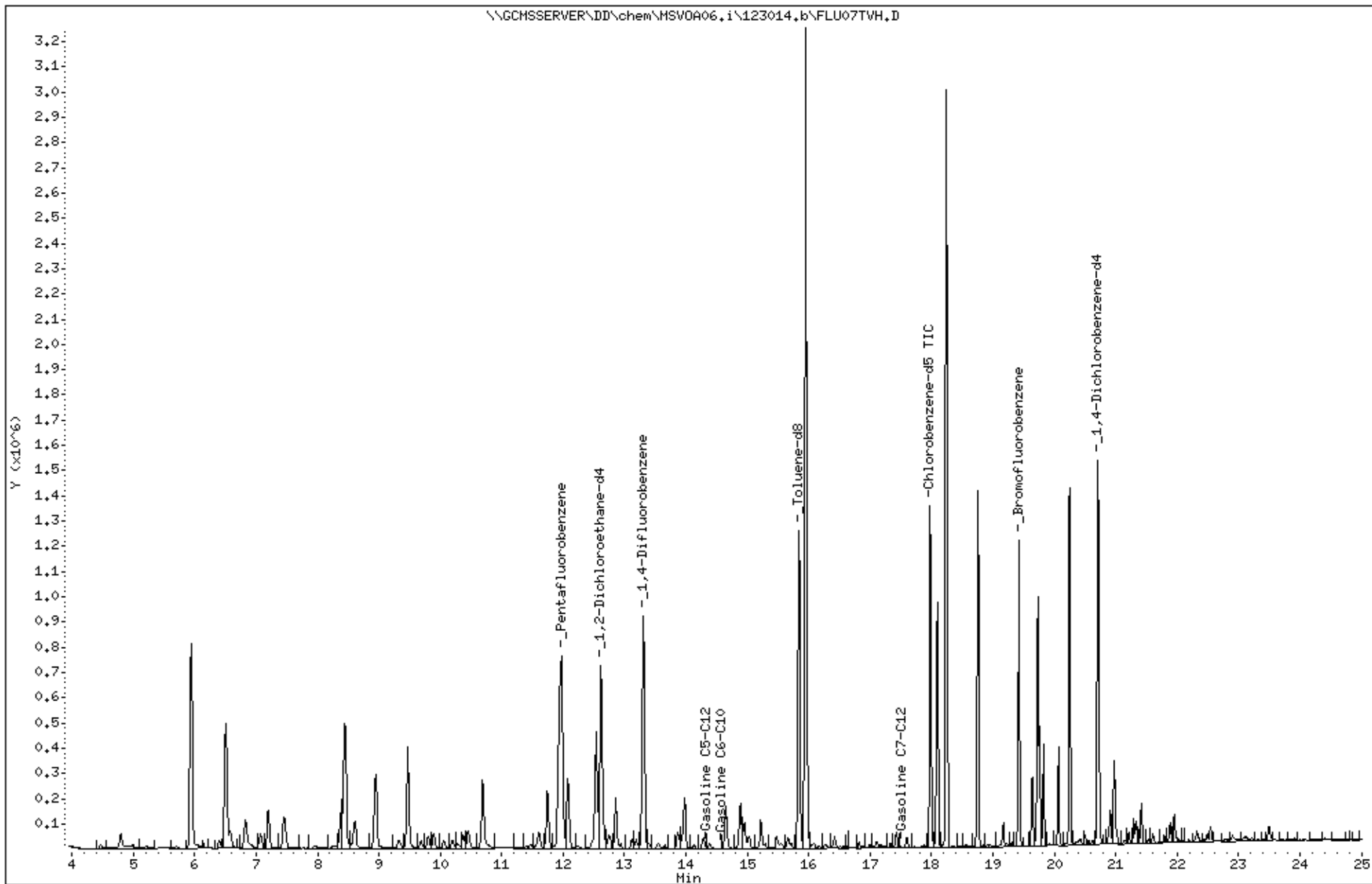
Sample Info: CCV/BS, QC711497, 218950,

Instrument: MSV0A06.i

Operator: VOC

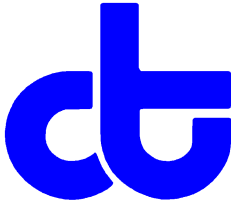
Column diameter: 2.00

Column phase:



# 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 261658  
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	261658-001
GAC-1	261658-002
INFLUENT	261658-003

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: \_\_\_\_\_

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

Date: 10/17/2014

CA ELAP# 2896, NELAP# 4044-001



### CASE NARRATIVE

Laboratory number: 261658  
Client: SOMA Environmental Engineering Inc.  
Project: 2553  
Location: 15101 Freedom Ave. San Leandro  
Request Date: 10/13/14  
Samples Received: 10/13/14

This data package contains sample and QC results for three water samples, requested for the above referenced project on 10/13/14. 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  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

LOGIN # 241658

## Analyses

**Project No:** 2553

**Sampler:**

**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

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	
1	EFFLUENT	10/13/14 9:45		*		6 VOAs	*			*	
				*		2-500 mL Amber				*	
2	GAC-1	10/13/14 10:10		*		6 VOAs	*			*	
3	INFLUENT	10/13/14 10:00		*		6 VOAs	*			*	

TPH-g 8015																				
TPH-d, TPH-mo 8015	*																			
BTEX 8020	*																			

**Notes:** EDF OUTPUT REQUIRED

**RELINQUISHED BY:**

**RECEIVED BY:**

J Bobek 10/13/14 11:10

W. [Signature] 10/13/14 11:10

DATE/TIME

DATE/TIME

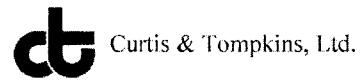
DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

**COOLER RECEIPT CHECKLIST**



Login # 261658 Date Received 10/13/14 Number of coolers 1  
 Client SOMA Project 253

Date Opened 10/13 By (print) [Signature] (sign) [Signature]  
 Date Logged in \_\_\_\_\_ 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) \_\_\_\_\_

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**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Detections Summary for 261658

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 :                      261658-001

No Detections

Client Sample ID : GAC-1                      Laboratory Sample ID :                      261658-002

No Detections

Client Sample ID : INFLUENT                      Laboratory Sample ID :                      261658-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Gasoline C7-C12	370		50	ug/L	As Recd	1.000	EPA 8015B	EPA 5030B
Benzene	6.5		0.50	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
Toluene	0.75		0.50	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
Ethylbenzene	6.3		0.50	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
m,p-Xylenes	34		0.50	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B
o-Xylene	7.0		0.50	ug/L	As Recd	1.000	EPA 8021B	EPA 5030B

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	261658	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Sampled:	10/13/14
Units:	ug/L	Received:	10/13/14
Diln Fac:	1.000	Analyzed:	10/14/14
Batch#:	216407		

Field ID: EFFLUENT                      Lab ID: 261658-001  
 Type: SAMPLE

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)	108	77-128	EPA 8015B
Bromofluorobenzene (PID)	116	75-132	EPA 8021B

Field ID: GAC-1                      Lab ID: 261658-002  
 Type: SAMPLE

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)	107	77-128	EPA 8015B
Bromofluorobenzene (PID)	114	75-132	EPA 8021B

ND= Not Detected  
 RL= Reporting Limit



## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	261658	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	216407
Units:	ug/L	Analyzed:	10/14/14
Diln Fac:	1.000		

Type: BS Lab ID: QC761601

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.56	106	80-120
Toluene	10.00	10.50	105	80-120
Ethylbenzene	10.00	10.82	108	80-120
m,p-Xylenes	10.00	10.24	102	80-120
o-Xylene	10.00	10.65	106	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	108	75-132

Type: BSD Lab ID: QC761602

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	10.62	106	80-120	1	20
Toluene	10.00	10.81	108	80-120	3	20
Ethylbenzene	10.00	10.92	109	80-120	1	20
m,p-Xylenes	10.00	10.61	106	80-120	4	20
o-Xylene	10.00	10.94	109	80-120	3	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	121	75-132

RPD= Relative Percent Difference

## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	261658	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:	QC761603	Batch#:	216407	
Matrix:	Water	Analyzed:	10/14/14	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	920.7	92	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	77-128



Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	261658	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	261583-001	Batch#:	216407
Matrix:	Water	Sampled:	10/09/14
Units:	ug/L	Received:	10/09/14

Type: MS Analyzed: 10/14/14  
 Lab ID: QC761605

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	193.1	2,000	1,994	90	74-120

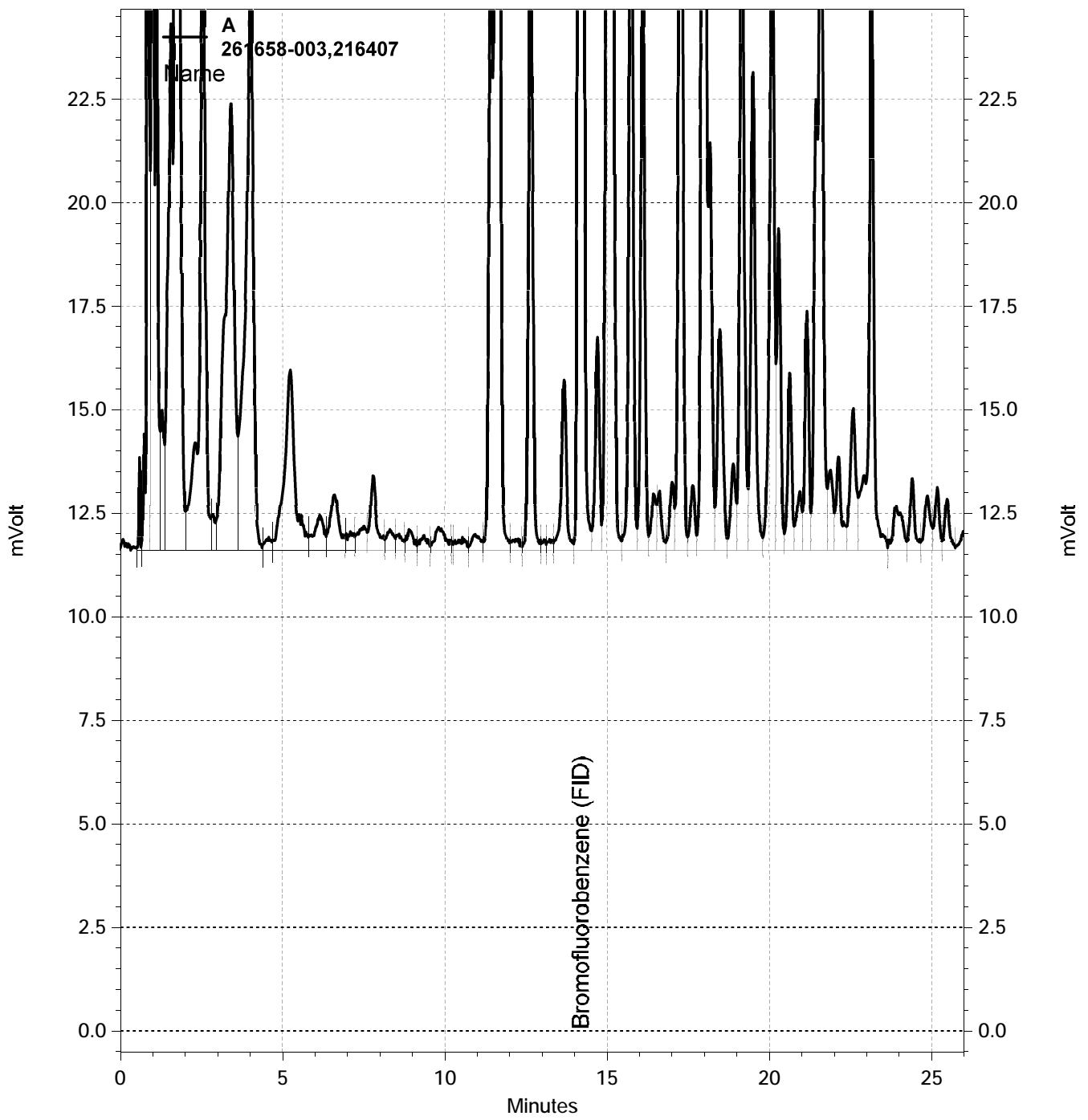
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	124	77-128

Type: MSD Analyzed: 10/15/14  
 Lab ID: QC761606

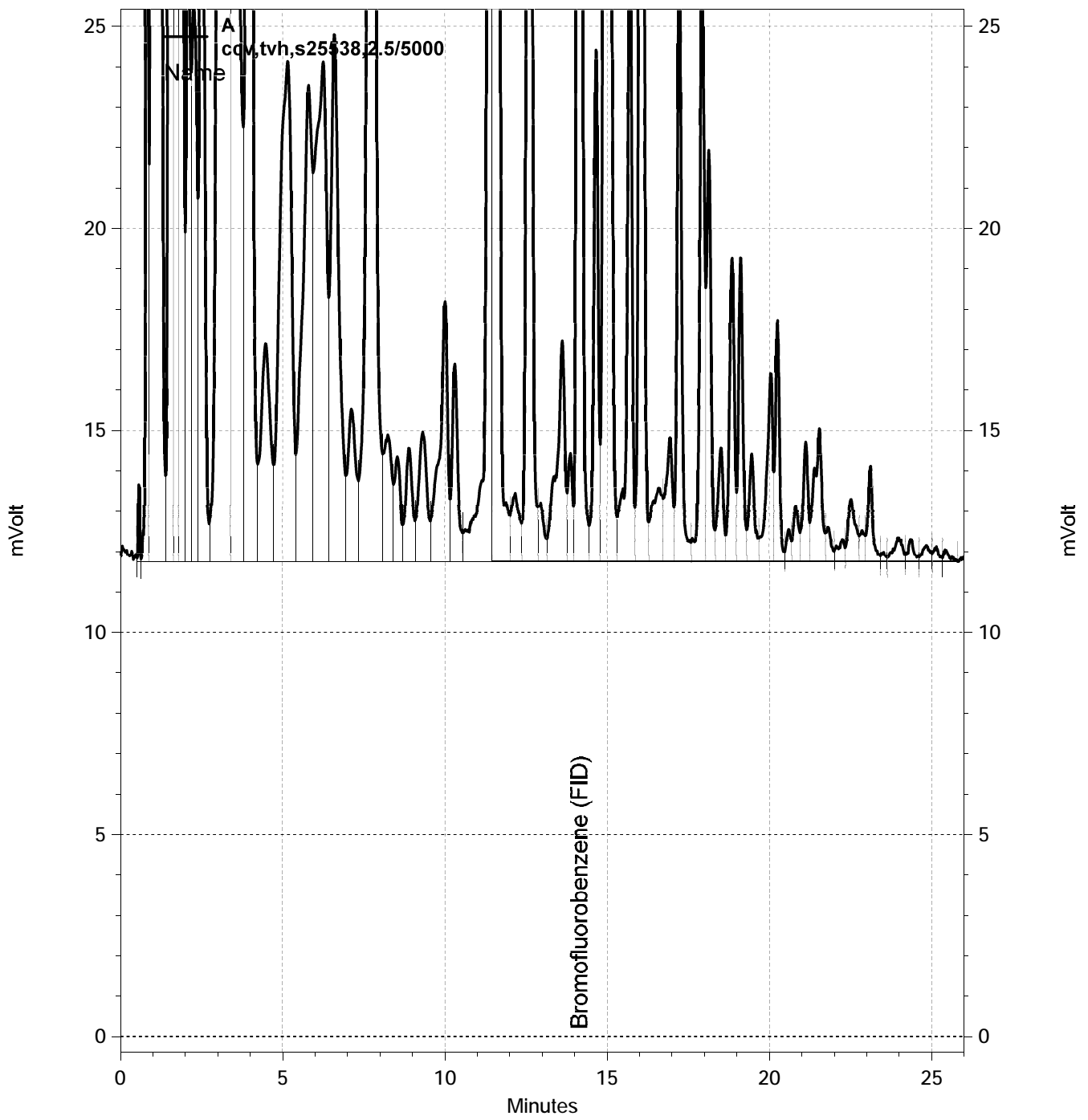
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,904	86	74-120	5	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	124	77-128

RPD= Relative Percent Difference



— \\Lims\gdrive\ezchrom\Projects\GC19\Data\287-013, A



— \\Lims\gdrive\ezchrom\Projects\GC19\Data\287-003, A

Total Extractable Hydrocarbons			
Lab #:	261658	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	216381
Matrix:	Water	Sampled:	10/13/14
Units:	ug/L	Received:	10/13/14
Diln Fac:	1.000		

Type: SAMPLE Prepared: 10/14/14  
 Lab ID: 261658-001 Analyzed: 10/15/14

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

Surrogate	%REC	Limits
o-Terphenyl	107	66-129

Type: BLANK Prepared: 10/13/14  
 Lab ID: QC761511 Analyzed: 10/14/14

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 #:	261658	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	216381
Units:	ug/L	Prepared:	10/13/14
Diln Fac:	1.000	Analyzed:	10/14/14

Type: BS Lab ID: QC761512

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,507	100	61-120

Surrogate	%REC	Limits
o-Terphenyl	103	66-129

Type: BSD Lab ID: QC761513

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,931	77	61-120	26	45

Surrogate	%REC	Limits
o-Terphenyl	95	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 262625  
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  
262625-001

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  
Project Manager  
isabelle.choy@ctberk.com

Date: 11/25/2014

CA ELAP# 2896, NELAP# 4044-001

**CASE NARRATIVE**

Laboratory number: 262625  
Client: SOMA Environmental Engineering Inc.  
Project: 2553  
Location: 15101 Freedom Ave. San Leandro  
Request Date: 11/18/14  
Samples Received: 11/18/14

This data package contains sample and QC results for one water sample, requested for the above referenced project on 11/18/14. The sample was received on ice and intact, directly from the field.

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

## Analyses

LOGIN # 202025

Sampler: Lizzie Hightower

**Project No:** 2553

**Report To:** Joyce Bobek

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

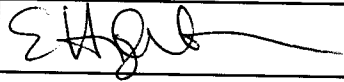
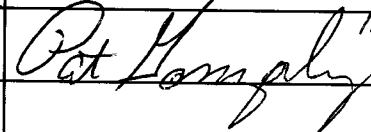
**Turnaround Time:** Standard

**Telephone:** 925-734-6400

**Fax:** 925-734-6401

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				TPH-g 8015	BTEX 8020	TPH-d, TPH-mo 8015
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE			
	Effluent	11/18/14 11:00		*		6 VOAs	*				*		
	↓	↓		*		2-500 mL Ambers					*		

**Notes:** EDF OUTPUT REQUIRED

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
	11/18/14 11:46		11/18/14 11:46
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME



COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 262625 Date Received 11/18/14 Number of coolers 1
Client Soma Environmental Project 2553

Date Opened 11/18/14 By (print) [Signature] (sign) [Signature]
Date Logged in 11/18 By (print) [Signature] (sign) [Signature]

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

Blank lines for handwritten comments.

Detections Summary for 262625

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 :                      262625-001

No Detections



## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	262625	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:	QC766518	Batch#:	217657	
Matrix:	Water	Analyzed:	11/19/14	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,041	104	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	111	77-128

Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	262625	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	217657
MSS Lab ID:	262622-001	Sampled:	11/17/14
Matrix:	Water	Received:	11/18/14
Units:	ug/L	Analyzed:	11/20/14
Diln Fac:	1.000		

Type: MS Lab ID: QC766524

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	29.56	2,000	2,020	100	74-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	77-128

Type: MSD Lab ID: QC766525

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,946	96	74-120	4	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	117	77-128

RPD= Relative Percent Difference

## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	262625	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	217740
Units:	ug/L	Analyzed:	11/21/14
Diln Fac:	1.000		

Type: BS Lab ID: QC766849

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	9.279	93	80-120
Toluene	10.00	9.262	93	80-120
Ethylbenzene	10.00	9.660	97	80-120
m,p-Xylenes	10.00	9.354	94	80-120
o-Xylene	10.00	9.628	96	80-120

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

Type: BSD Lab ID: QC766850

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	9.044	90	80-120	3	20
Toluene	10.00	9.022	90	80-120	3	20
Ethylbenzene	10.00	9.131	91	80-120	6	20
m,p-Xylenes	10.00	9.367	94	80-120	0	20
o-Xylene	10.00	9.463	95	80-120	2	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	104	75-132

RPD= Relative Percent Difference

Total Extractable Hydrocarbons			
Lab #:	262625	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Sampled:	11/18/14
Matrix:	Water	Received:	11/18/14
Units:	ug/L	Prepared:	11/18/14
Diln Fac:	1.000	Analyzed:	11/19/14
Batch#:	217602		

Type: SAMPLE Lab ID: 262625-001

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

Surrogate	%REC	Limits
o-Terphenyl	109	66-129

Type: BLANK Lab ID: QC766323

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

Surrogate	%REC	Limits
o-Terphenyl	108	66-129

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	262625	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	217602
Units:	ug/L	Prepared:	11/18/14
Diln Fac:	1.000	Analyzed:	11/19/14

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC766324

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,275	91	61-120

Surrogate	%REC	Limits
o-Terphenyl	113	66-129

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC766325

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,991	80	61-120	13	45

Surrogate	%REC	Limits
o-Terphenyl	91	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 263133  
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  
263133-001

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: \_\_\_\_\_

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

Date: 12/17/2014

CA ELAP# 2896, NELAP# 4044-001

### CASE NARRATIVE

Laboratory number: 263133  
Client: SOMA Environmental Engineering Inc.  
Project: 2553  
Location: 15101 Freedom Ave. San Leandro  
Request Date: 12/08/14  
Samples Received: 12/08/14

This data package contains sample and QC results for one water sample, requested for the above referenced project on 12/08/14. The sample was received cold and intact.

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

Low response was observed for gasoline C7-C12 in the CCV analyzed 12/11/14 00:12; affected data was qualified with "b". Low response was observed for gasoline C7-C12 in the CCV analyzed 12/11/14 06:13; affected data was qualified with "b". No other 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  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

LOGIN # 263133**Analyses**Project No: **2553**

Sampler: \_\_\_\_\_

Project Name: **15101 Freedom Ave, San Leandro** Company: **SOMA Environmental**Report To: **Joyce Bobek**Turnaround Time: **Standard**Telephone: **925-734-6400**Fax: **925-734-6401**

Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative			
			Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
	Effluent	12/8/14 9:40 AM		*		6 VOAs	*			*
		12/8/14 9:45 AM		*		2-500 mL Ambers				*

TPH-g 8015	BTEX 8020	TPH-d, TPH-mo 8015														
*	*															
		*														

**Notes: EDF OUTPUT REQUIRED**

RELINQUISHED BY:

RECEIVED BY:

12/8/14  
10:18*John* \_\_\_\_\_  
DATE/TIME*Pat Haney* \_\_\_\_\_  
DATE/TIME12/8/14 10:18  
DATE/TIME

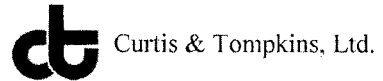
DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

COOLER RECEIPT CHECKLIST



Login # 263133 Date Received 12/8/14 Number of coolers 0
Client SOMA environmental Project 2553

Date Opened 12/8 By (print) u FBJ (sign) [Signature]
Date Logged in [Signature] By (print) u FBJ (sign) [Signature]

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

Detections Summary for 263133

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 :                      263133-001

No Detections

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	263133	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	EFFLUENT	Batch#:	218305
Matrix:	Water	Sampled:	12/08/14
Units:	ug/L	Received:	12/08/14
Diln Fac:	1.000	Analyzed:	12/10/14

Type: SAMPLE Lab ID: 263133-001

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)	96	77-128	EPA 8015B
Bromofluorobenzene (PID)	108	75-132	EPA 8021B

Type: BLANK Lab ID: QC769062

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)	92	77-128	EPA 8015B
Bromofluorobenzene (PID)	106	75-132	EPA 8021B

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	263133	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:	QC769061	Batch#:	218305	
Matrix:	Water	Analyzed:	12/10/14	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	924.7	92	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	93	77-128

Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	263133	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	218305
MSS Lab ID:	263142-002	Sampled:	12/08/14
Matrix:	Water	Received:	12/09/14
Units:	ug/L	Analyzed:	12/11/14
Diln Fac:	1.000		

Type: MS Lab ID: QC769063

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	23.05	2,000	1,633 b	80	74-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	77-128

Type: MSD Lab ID: QC769064

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,591 b	78	74-120	3	27

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	77-128

b= See narrative

RPD= Relative Percent Difference



## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	263133	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	218305
Units:	ug/L	Analyzed:	12/10/14
Diln Fac:	1.000		

Type: BS Lab ID: QC769234

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	21.69	108	80-120
Toluene	20.00	21.81	109	80-120
Ethylbenzene	20.00	21.84	109	80-120
m,p-Xylenes	20.00	21.74	109	80-120
o-Xylene	20.00	22.35	112	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	108	75-132

Type: BSD Lab ID: QC769235

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	21.57	108	80-120	1	20
Toluene	20.00	21.55	108	80-120	1	20
Ethylbenzene	20.00	21.60	108	80-120	1	20
m,p-Xylenes	20.00	21.48	107	80-120	1	20
o-Xylene	20.00	22.15	111	80-120	1	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	105	75-132

RPD= Relative Percent Difference

### Total Extractable Hydrocarbons

Lab #: 263133	Location: 15101 Freedom Ave. San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 3520C
Project#: 2553	Analysis: EPA 8015B
Field ID: EFFLUENT	Sampled: 12/08/14
Matrix: Water	Received: 12/08/14
Units: ug/L	Prepared: 12/09/14
Diln Fac: 1.000	Analyzed: 12/10/14
Batch#: 218250	

Type: SAMPLE                      Lab ID: 263133-001

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

Surrogate	%REC	Limits
o-Terphenyl	111	66-129

Type: BLANK                      Lab ID: QC768857

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 #:	263133	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	218250
Units:	ug/L	Prepared:	12/09/14
Diln Fac:	1.000	Analyzed:	12/10/14

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC768858

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,238	90	61-120

Surrogate	%REC	Limits
o-Terphenyl	101	66-129

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC768859

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,146	86	61-120	4	45

Surrogate	%REC	Limits
o-Terphenyl	113	66-129

RPD= Relative Percent Difference