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October 21, 2011



Mr. Paresh Khatri  
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. Khatri:

SOMA's "Third Quarter 2011 Groundwater Monitoring and Remediation Progress Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

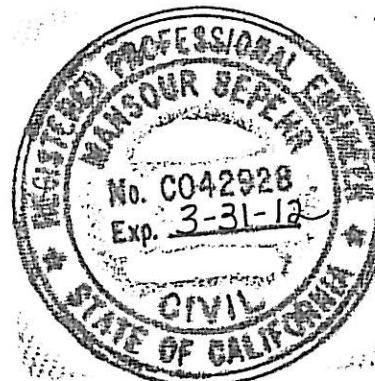
Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

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

Mansour Sepehr, Ph.D.,PE  
Principal Hydrogeologist

cc: Mr. Mohammad Pazdel w/report enclosure



**Third Quarter 2011  
Groundwater Monitoring and  
Remediation Progress Report**

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

**October 21, 2011**

**Project 2551/2555**

**Prepared for**

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



ENVIRONMENTAL ENGINEERING, INC.

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## PERJURY STATEMENT

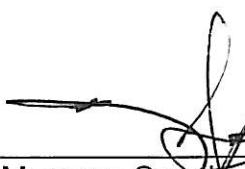
Site Location: 15101 Freedom Avenue, San Leandro, California

"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".

Mohammad Pazdel  
Mohammad Pazdel  
1770 Pistacia Court  
Fairfield, California 94533  
Responsible Party

## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of the responsible party, Mr. Mohammad Pazdel, for property located at 15101 Freedom Avenue, San Leandro, California, to comply with Alameda County Health Care Services requirements for the Third Quarter 2011 groundwater monitoring event.



Mansour Sepemir, PhD, PE  
Principal Hydrogeologist



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# **1. INTRODUCTION**

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

This report summarizes results of the Third Quarter 2011 groundwater monitoring event conducted on September 8, 9, and 26, 2011. It includes physical and chemical properties measured in the field and laboratory analysis results for each groundwater sample. It also presents the remediation progress report for Third Quarter 2011, which includes operation of a groundwater extraction and treatment system and a multi-phase extraction (MPE) event which was conducted in August 2011.

## **1.1 Field Activities**

In September 2011, SOMA's field crew conducted a groundwater monitoring event in accordance with procedures and guidelines of Alameda County Health Care Services (ACHCS) and the California Regional Water Quality Control Board (CRWQCB). Figure 2 shows well locations.

On September 8, 2011, the following wells were measured for depth to groundwater: five on-site monitoring wells (MW-1 to MW-5) and two off-site wells (MW-6 and MW-7) in the First water-bearing zone (WBZ); two extraction wells (EX-1 and EX-2) and two MPE wells (MPE-1 and MPE-2); and three on-site monitoring wells (MW-1D, MW-3D, and MW-4D) in the Second WBZ. On September 8 and 9, 2011, additional field measurements and grab groundwater samples were collected from all monitoring wells. Grab groundwater samples were also collected from the two extraction wells. On September 26, 2011 grab groundwater samples were collected from the two MPE wells (MPE-1 and MPE-2). 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 wells.

## **1.2 Laboratory Analysis**

Curtis & Tompkins, Ltd., 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 September 2011 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 14.38 feet in MW-7 to 22.81 feet in MW-1. Corresponding groundwater elevations ranged from 29.68 feet in MW-6 to 31.65 feet in MW-1. Groundwater elevations at extraction wells EX-1 and EX-2 were 30.89 feet and 29.62 feet respectively.

Figure 3 displays the contour map of groundwater elevations. As illustrated, groundwater flows south to slightly southwesterly toward extraction well EX-2, at a gradient of 0.01 feet/feet. The groundwater flow direction remained similar to the previous monitoring event (Second Quarter 2011) while the gradient increased.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO concentrations in the First WBZ ranged from 1.05 mg/L in MW-3 to 2.01 mg/L in MW-7. ORP showed negative redox potentials in all First WBZ monitoring wells. Negative redox potentials indicate that contaminants in groundwater are conducive to anaerobic biodegradation.

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

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

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

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

TPH-g concentrations ranged from 110 µg/L in EX-1 to 62,000 µg/L in MPE-1. Since the previous monitoring event (Second Quarter 2011), TPH-g decreased in MW-1, MW-3, EX-1, and EX-2 and increased in all other First WBZ wells. Since the pre-MPE sampling event (August 2011), TPH-g increased in MW-5 and MPE-1 and decreased in MPE-2.

Figure 4 displays the contour map of TPH-g concentrations in groundwater. As illustrated, the highest TPH-g impact is in the southern portion of the site and in the vicinity of the dispenser islands around MPE extraction well MPE-1. High TPH-g concentration was also observed in the vicinity of dispenser islands and former underground storage tanks (USTs) around MPE-2 and off-site well MW-6.

The following BTEX concentrations were observed:

- In MW-2 and MW-7, benzene and toluene were below laboratory-reporting limits and ethylbenzene and total xylenes were at low levels.
- Toluene was also below laboratory-reporting limit in MW-1, MW-6, and EX-1.
- The highest BTEX concentrations were detected in MPE-1 at 6,300 µg/L, 3,700 µg/L, 1,800 µg/L, and 9,400 µg/L, respectively.

Figure 5 displays the contour map of benzene concentrations in groundwater. The highest benzene impact is in the southern portion of the site and in the vicinity of the dispenser islands around MPE extraction well MPE-1. Since the previous monitoring event (Second Quarter 2011), benzene has increased in MW-3, MW-4, MW-5, and MW-6 and decreased in MW-1, EX-1, and EX-2. Since the pre-MPE sampling event (August 2011), BTEX concentrations increased in MW-5 and MPE-1 and decreased in MPE-2.

MtBE was below the laboratory-reporting limit in MW-2. Detectable MtBE concentrations ranged from 2.3 µg/L in MW-1 to 1,200 µg/L in MPE-1. Figure 6 displays the contour map of MtBE concentrations in groundwater. The highest MtBE impact is in the southern portion of the site and in the vicinity of the dispenser islands around MPE extraction well MPE-1. Since the previous monitoring event (Second Quarter 2011), MtBE has decreased in MW-3, MW-5, MW-6, MW-7, EX-1, and EX-2 and increased in MW-1 and MW-4. Since the pre-MPE sampling event (August 2011), MtBE increased in MW-5 and MPE-1 and decreased in MPE-2.

As shown in Table 1, since the previous monitoring event (Second Quarter 2011), TPH-g, benzene, and ethylbenzene concentrations increased, while total xylenes and MtBE decreased in off-site well MW-6; benzene and toluene increased while all other contaminant concentrations decreased in the more impacted well MW-3. All contaminants, except benzene, have shown a declining trend in MW-3 since October 2008.

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-6, and EX-2, all gasoline oxygenates and lead scavengers were below laboratory-reporting limits.
- Tertiary-butyl alcohol (TBA) was detected in MW-1, MW-4, MW-5, and EX-1 and was below the laboratory-reporting limit in all other First WBZ wells. Detectable concentrations ranged from 32 µg/L in EX-1 to 380 µg/L in MW-4.

Figure 7 shows the contour map of TBA concentrations in groundwater. The highest TBA impact was in the vicinity of dispenser islands around MW-4.

- Methyl tertiary-amyl ether (TAME) was detected in MW-5, MW-7, EX-1, and MPE-1 at 11 µg/L, 1.6 µg/L, 0.53 µg/L, and 600 µg/L, respectively and was below the laboratory-reporting limit in remaining wells. Figure 8 displays the contour map of TAME concentrations in First WBZ wells.
- Ethyl tertiary-butyl ether (ETBE) and 1,2-dichloroethane (1,2-DCA) were detected in MW-4 at 3.5 µg/L and 1.1 µg/L, respectively and were below laboratory-reporting limits in remaining wells. Figure 9 displays the map of ETBE and 1,2-DCA concentrations in First WBZ wells
- Isopropyl ether (DIPE), 1,2-dibromoethane (EDB), and ethanol concentrations 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 21.92 feet in MW-4D to 23.08 feet in MW-1D. Corresponding groundwater elevations ranged from 31.20 feet in MW-4D to 31.42 feet in MW-3D.

Figure 10 displays the contour map of groundwater elevations in the Second WBZ. Groundwater flows southwesterly as compared to easterly during the previous monitoring event (Second Quarter 2011), at a gradient of 0.0016 feet/feet. The groundwater gradient slightly increased since the previous monitoring event.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO concentrations in the Second WBZ ranged from 1.73 mg/L in MW-3D to 3.21 mg/L in MW-1D. ORP showed negative potentials in

all second WBZ wells. Negative redox potentials indicate that contaminants in groundwater are conducive to anaerobic biodegradation.

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.

TPH-g was detected at concentrations ranging from 59 µg/L in MW-4D to 220 µg/L in MW-1D. Since the previous monitoring event (Second Quarter 2011), TPH-g has increased in all Second WBZ wells. Figure 11 displays the contour map of TPH-g concentrations in Second WBZ wells.

The following BTEX concentrations were observed:

- Benzene and toluene were below laboratory-reporting limits in all Second WBZ wells.
- Ethylbenzene was detected in MW-1D at a low level and was below the laboratory-reporting limit in MW-3D and MW-4D.
- Total xylenes were detected in all Second WBZ wells at low levels.

MtBE concentrations were below the laboratory-reporting limit in MW-1D and were detected in MW-3D and MW-4D at 4.8 µg/L and 1.7 µg/L, respectively. Since the previous monitoring event (Second Quarter 2011), MtBE has decreased in MW-3D and increased in MW-4D.

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.

Figure 12 displays a map of MtBE concentrations 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) 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 treatment system operates under discharge permit issued by Oro Loma Sanitary District (OLSD) in May 2009. This discharge permit was renewed in May 2010. Treated groundwater has been discharging to the OLSD sewer since December 9, 2009. Figure 13 shows the schematic diagram of the groundwater treatment system. Treatment system effluent is sampled monthly to comply with OLSD discharge permit requirements. Table 3 includes analytical results and operational history of the treatment system. As shown in Table 4, as of July 28, 2011, cumulative masses of TPH-g and BTEX extracted from groundwater were approximately 18 pounds, 0.78 pounds, 0.21 pounds, 0.37 pounds, and 2.71 pounds, respectively. Appendix D includes laboratory analytical results. Since the system began discharging, approximately 1,632,820 gallons of groundwater have been treated and discharged at the site (as of September 29, 2011).

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

During Third Quarter 2011, SOMA performed an MPE event August 5-19, utilizing MPE-2 and MW-5.

MPE operational data is presented in Table 5. Extraction data is presented in Table 6. Field data sheets are presented in Appendix E.

Representative samples were analyzed from the stack of the thermal oxidizer to show compliance with the Bay Area Air Quality Management District permit. An influent soil vapor sample was collected through a sampling port located on the vacuum pump discharge manifold. A thermal oxidizer stack vapor sample was collected through a sampling port located at the top of the stack. The air samples were submitted under chain-of-custody documentation to a California state-certified analytical laboratory (Torrent Laboratory, Inc.) and analyzed for TPH-g using USEPA Analytical Method TO-3, and for BTEX, and MtBE using USEPA Analytical Method TO-15. Soil vapor analytical results and abatement efficiencies

are presented in Table 7. Certified laboratory analytical reports and chain-of-custody documentation are included in Appendix F.

The estimated mass of volatile organic compounds (VOCs) removed from soil vapor extraction and VOC mass removal rate for the August 2011 event was 94 lbs at 8 lbs/day.

The overall estimated total mass of VOCs extracted by previous MPE events is 806 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; and 94 pounds, August 2011 event. Figure 14 shows the cumulative mass of VOCs removed in pounds.

## 5. CONCLUSIONS AND RECOMMENDATIONS

Third Quarter 2011 groundwater monitoring and previous MPE events results are summarized below.

- Groundwater flows southwesterly across the site in the First WBZ towards EX-2 and the Second WBZ.
- The highest hydrocarbon concentrations were observed in the southern portion of the site and in the vicinity of the dispenser islands around MPE extraction well MPE-1. High TPH-g concentrations were also detected in the vicinity of dispenser islands and former (USTs around MPE-2 and off-site well MW-6).
- Since the previous quarterly monitoring event (Second Quarter 2011), TPH-g concentrations decreased in MW-1, MW-3, EX-1, and EX-2 and increased in all other First WBZ wells.
- Since the pre-MPE sampling event (August 2011), TPH-g, BTEX and MtBE increased in MW-5 and MPE-1 and decreased in MPE-2.
- In the Second WBZ, since the previous monitoring event (Second Quarter 2011), TPH-g increased in all wells, ethylbenzene increased in MW-1D, total xylenes increased in all wells, and MtBE decreased in MW-3D and increased in MW-4D.
- MPE events conducted since November 2007 have removed an estimated 806 pounds of VOCs.

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.

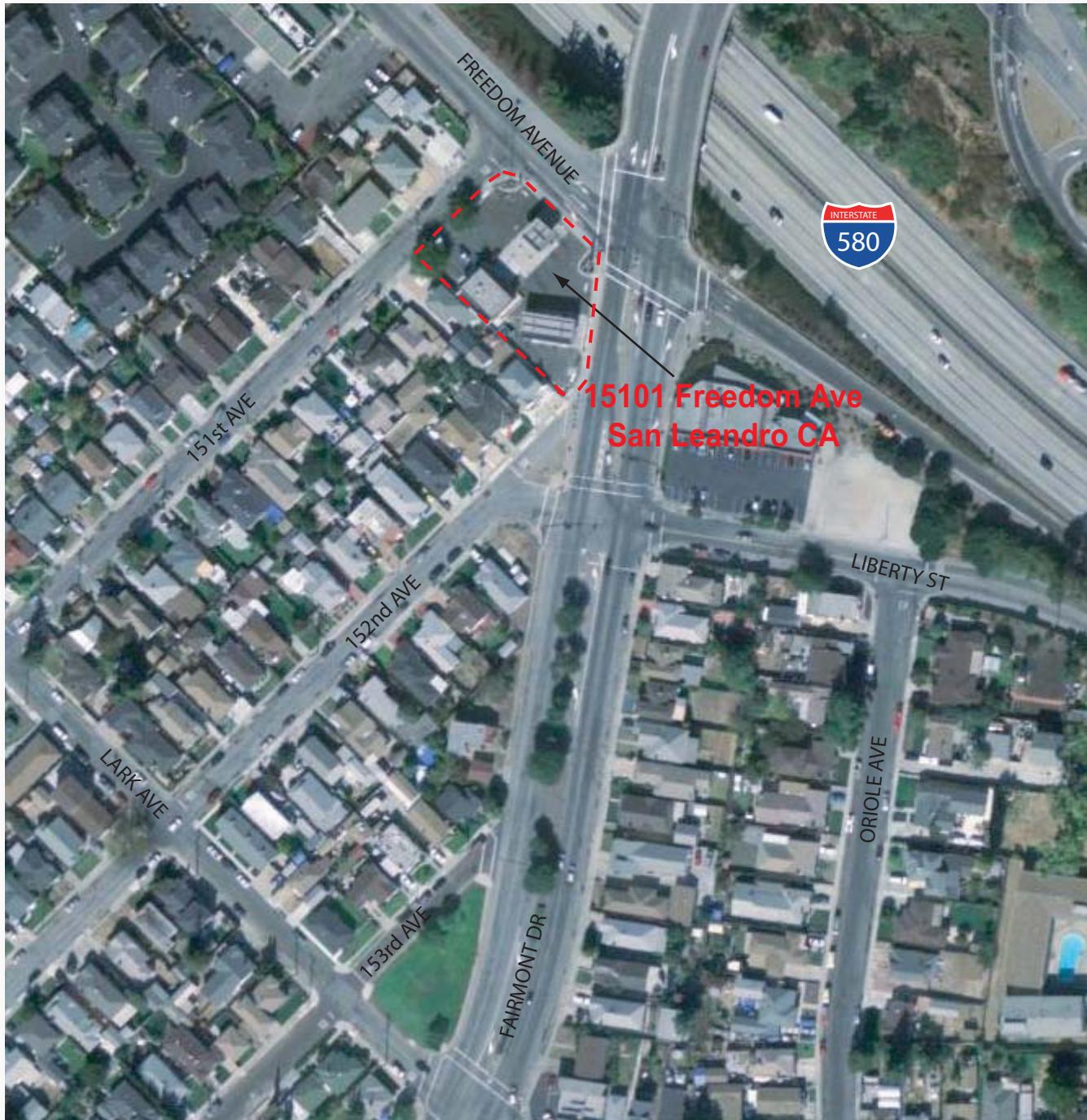
Other ongoing activities: SOMA is currently preparing a soil and groundwater investigation workplan, requested in ACHCS directive dated September 21, 2011.

## 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, Ltd. for the current groundwater monitoring event. Quantities and locations of wells were selected to provide the required information, but may not be representative of entire site conditions. All conclusions and recommendations are based on laboratory analysis results. Conclusions beyond those specifically stated in this document should not be inferred from this report.

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

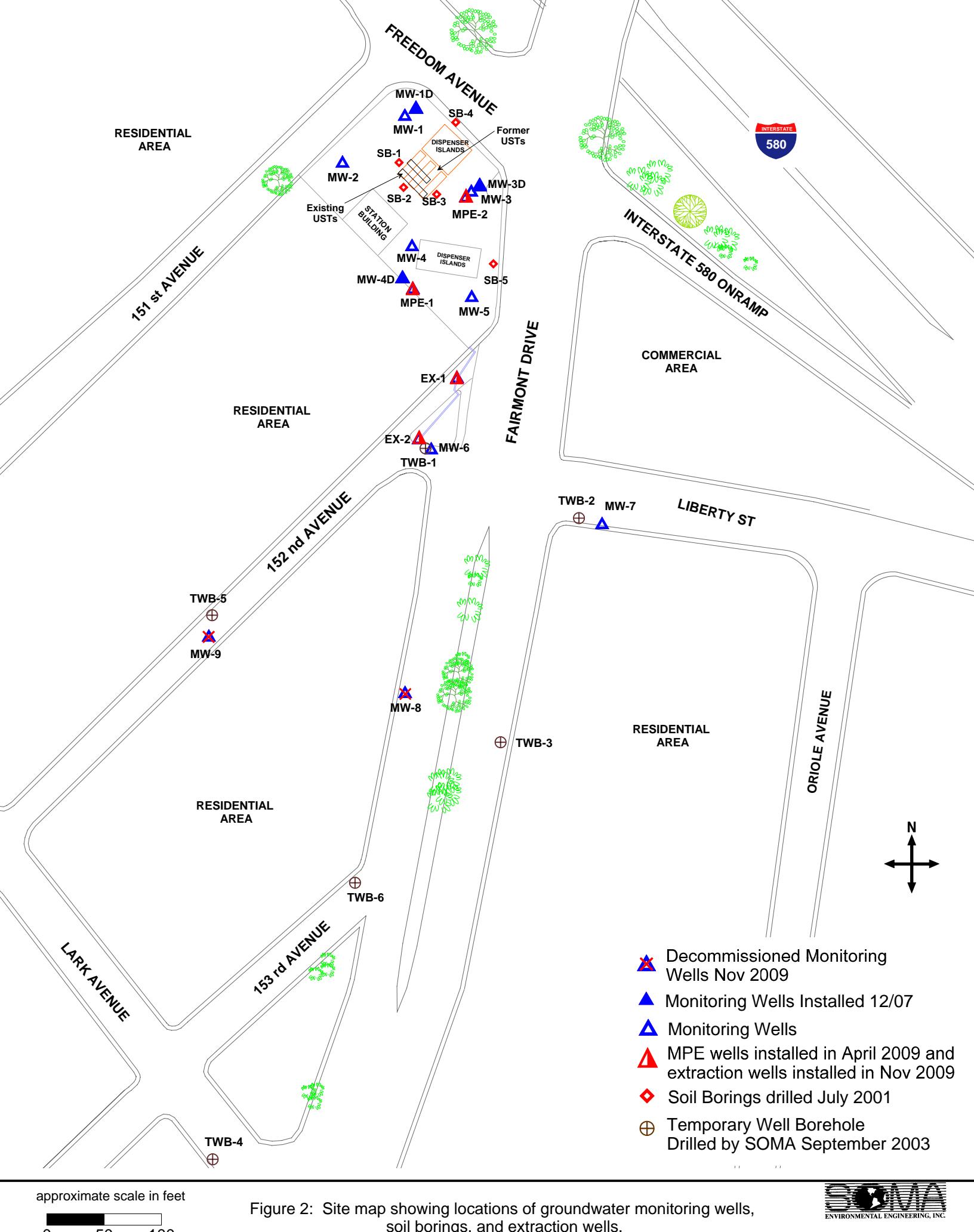
# **Figures**

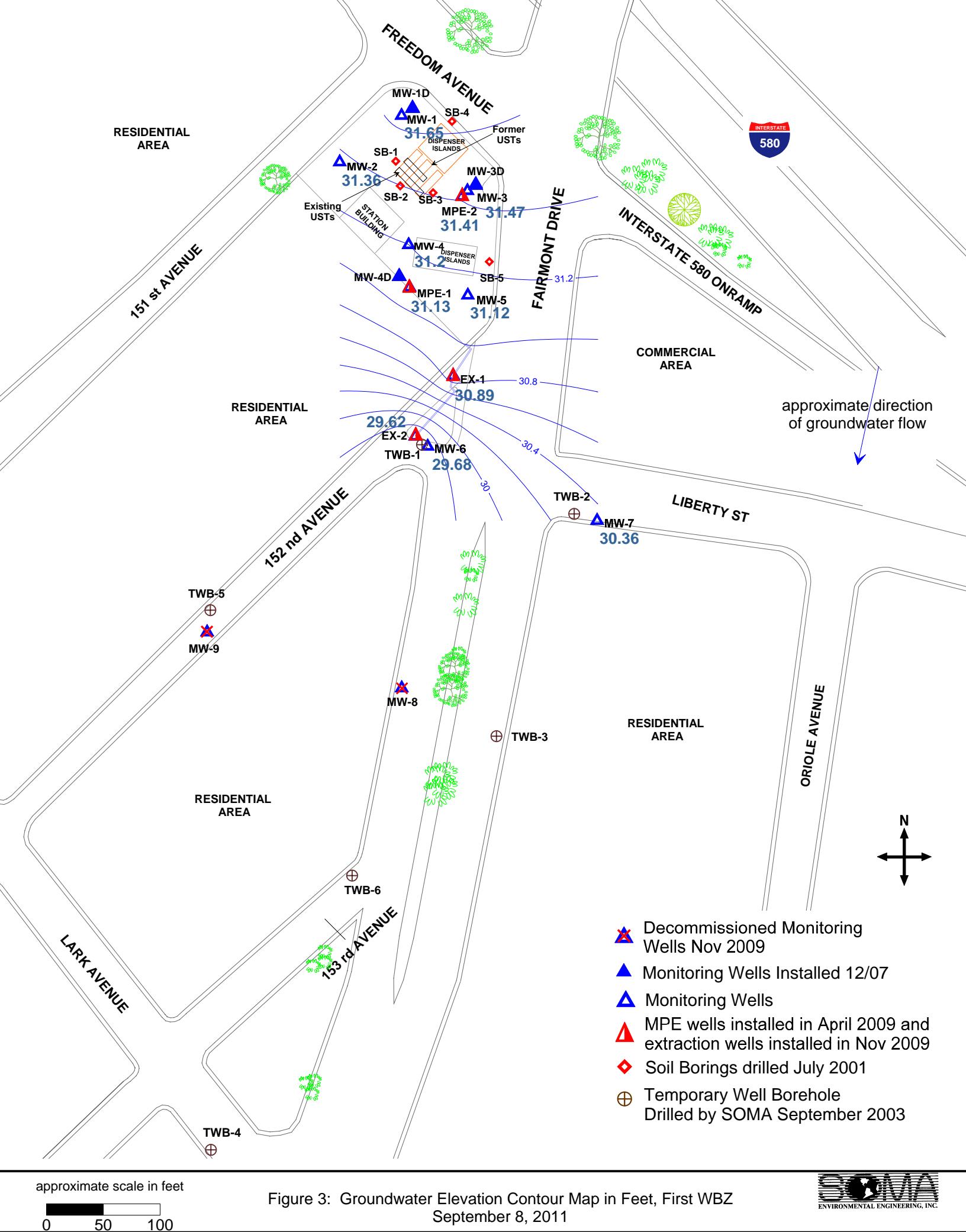


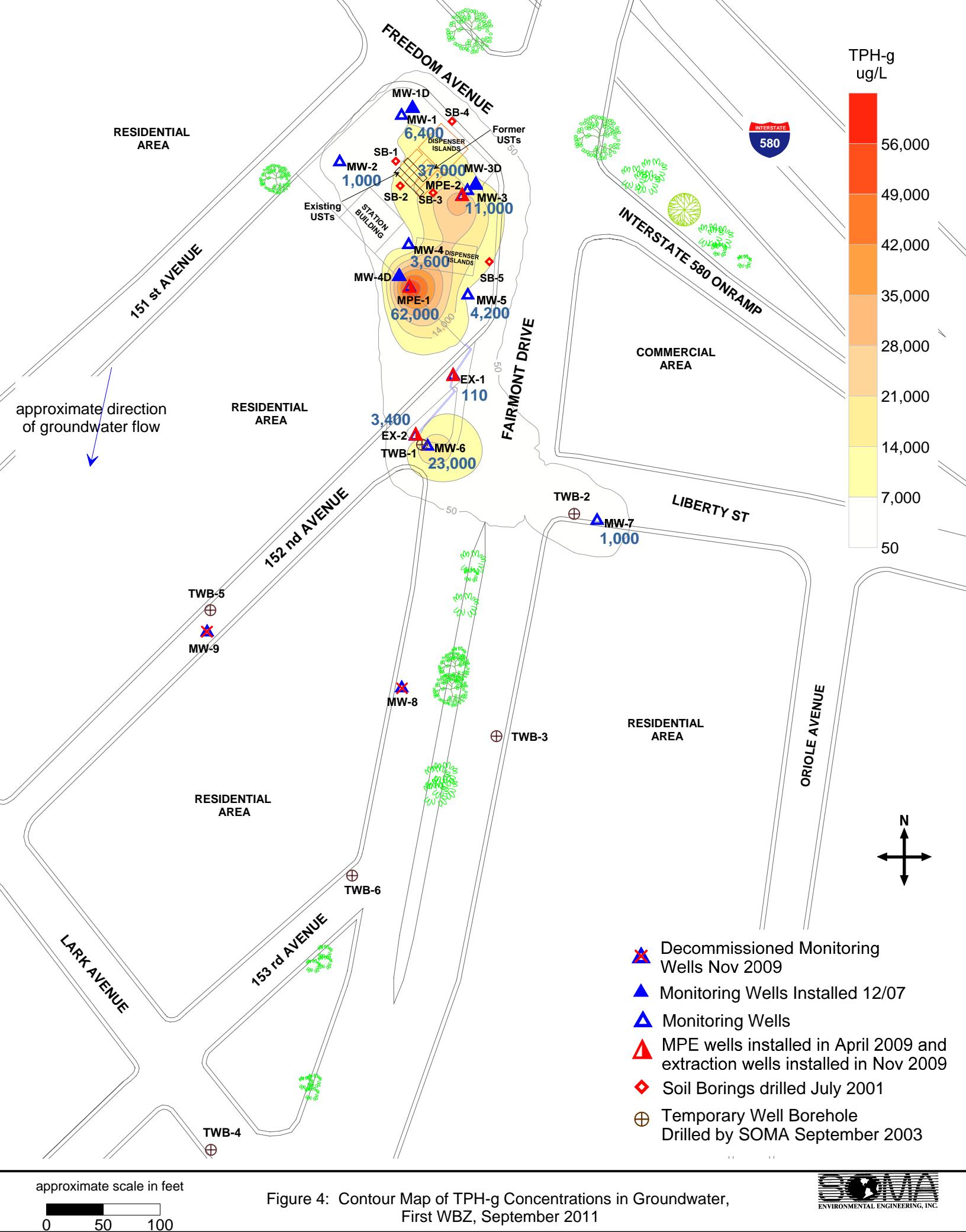
approximate scale in feet

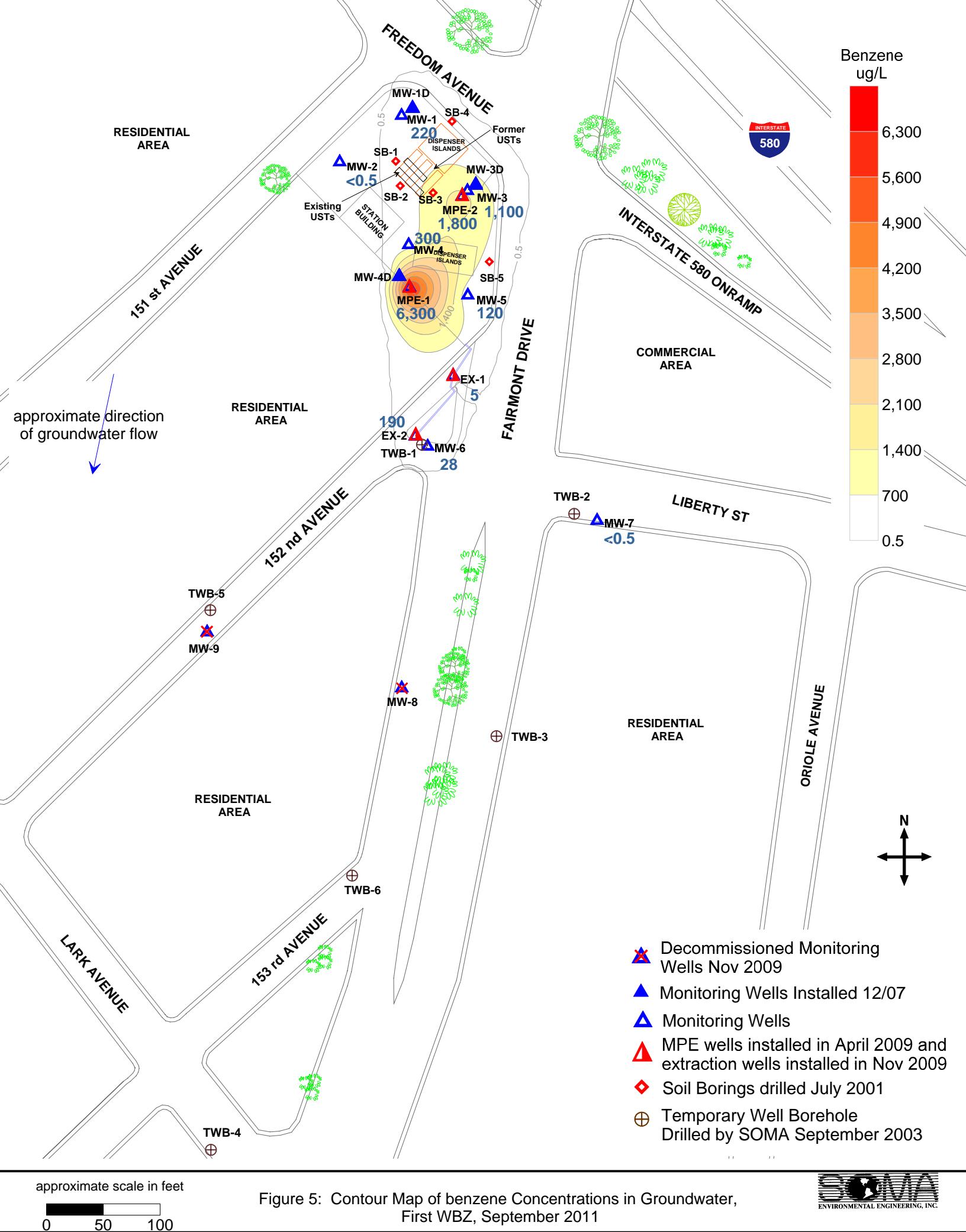
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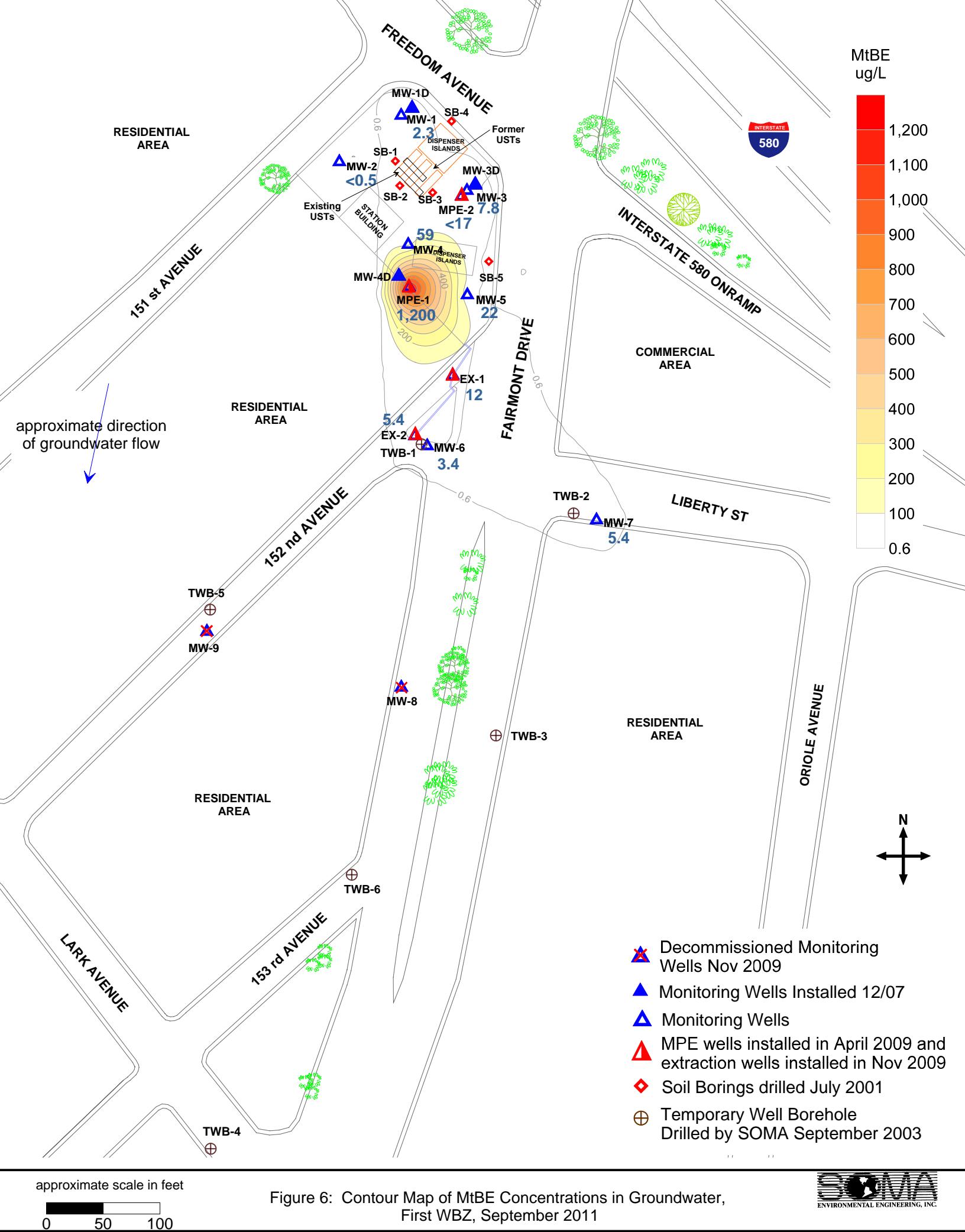
Figure 1: Site vicinity map.











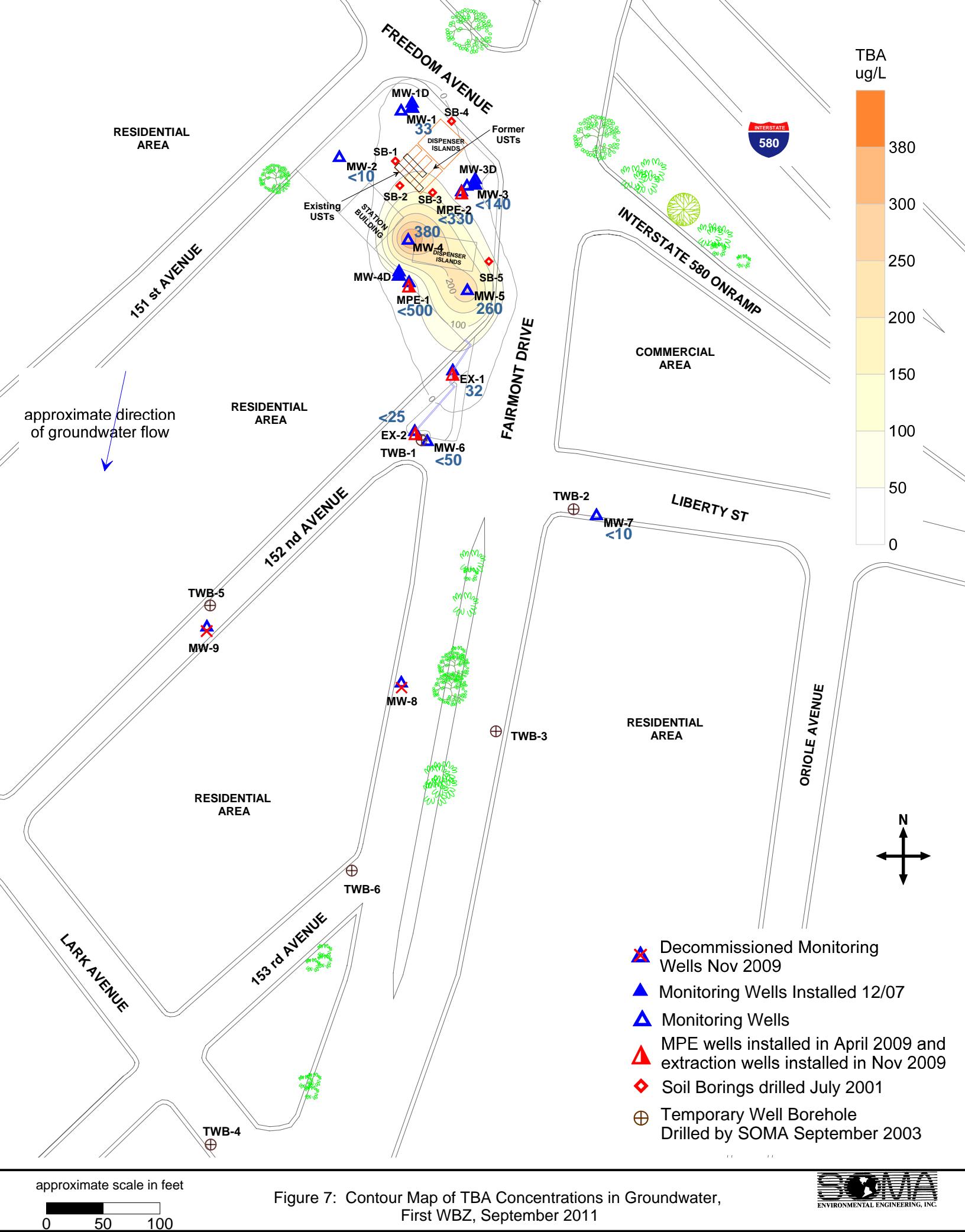
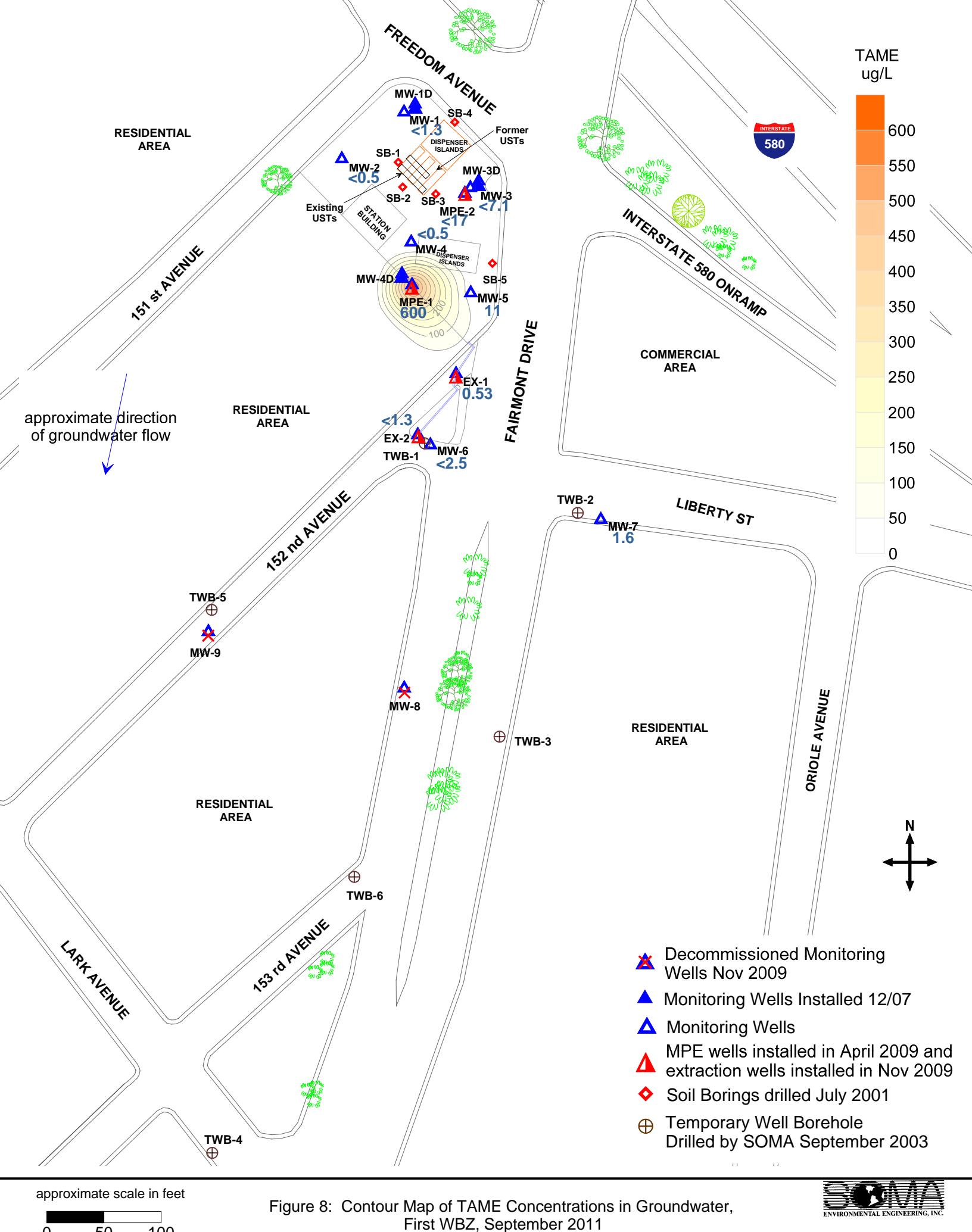
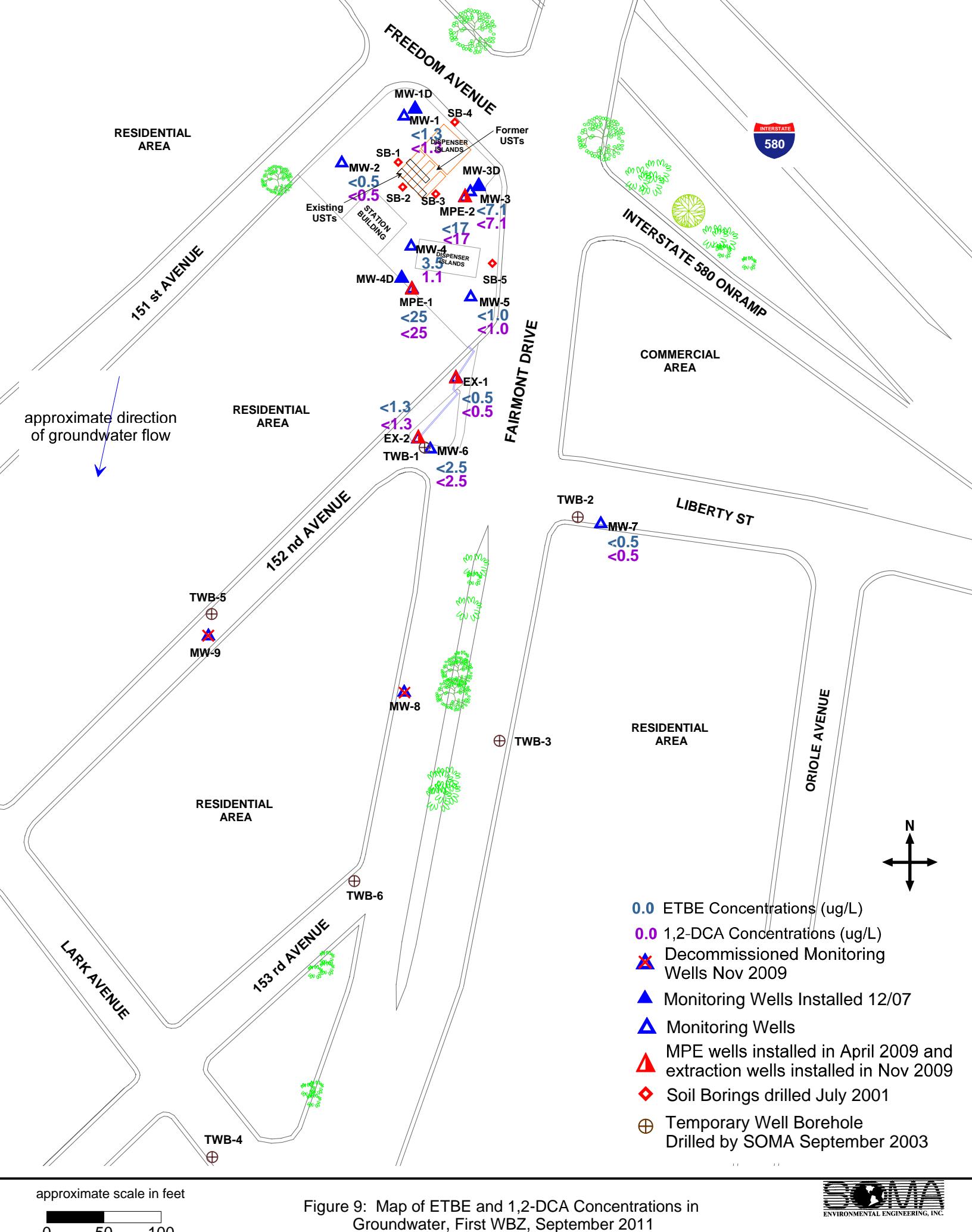


Figure 7: Contour Map of TBA Concentrations in Groundwater, First WBZ, September 2011





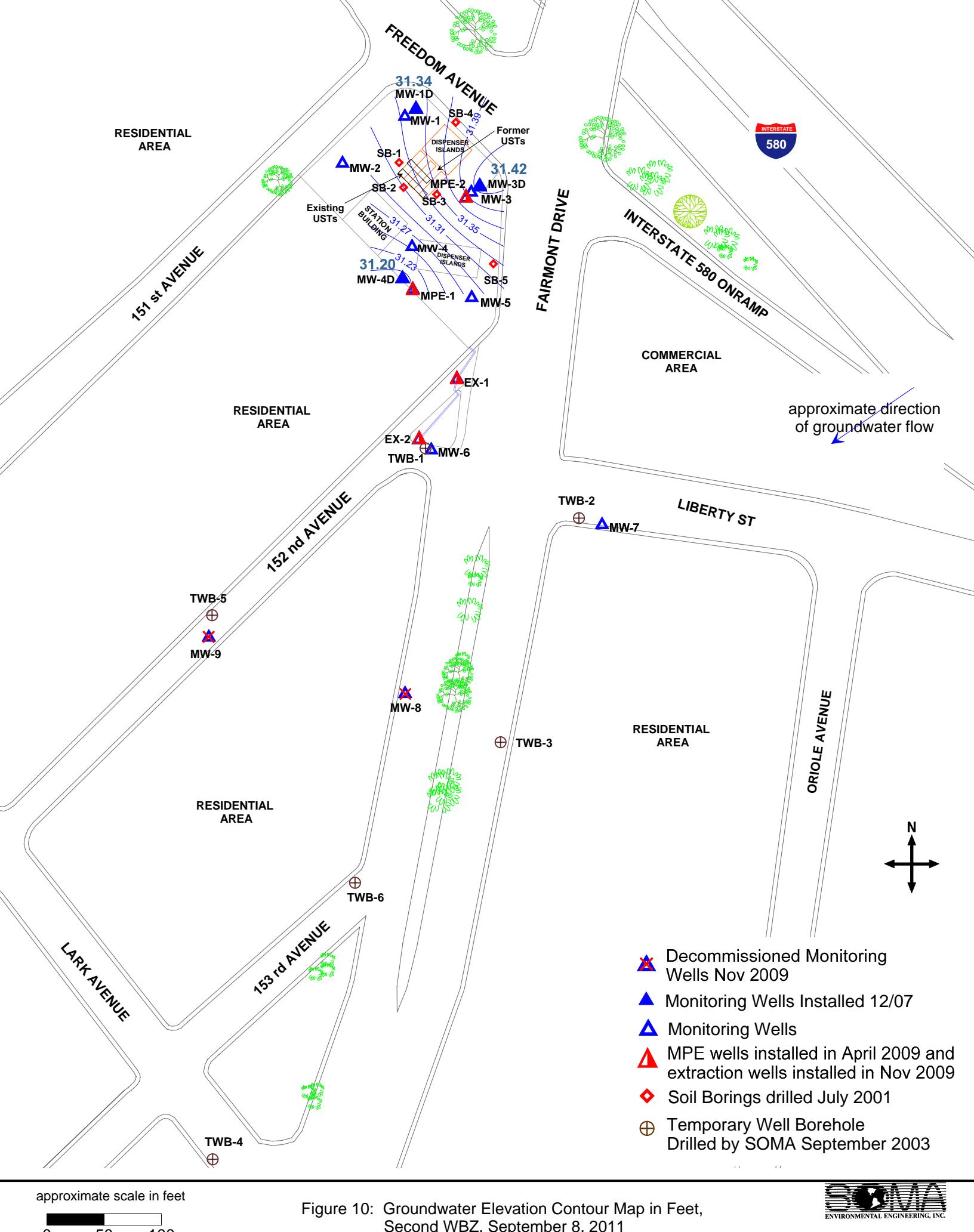
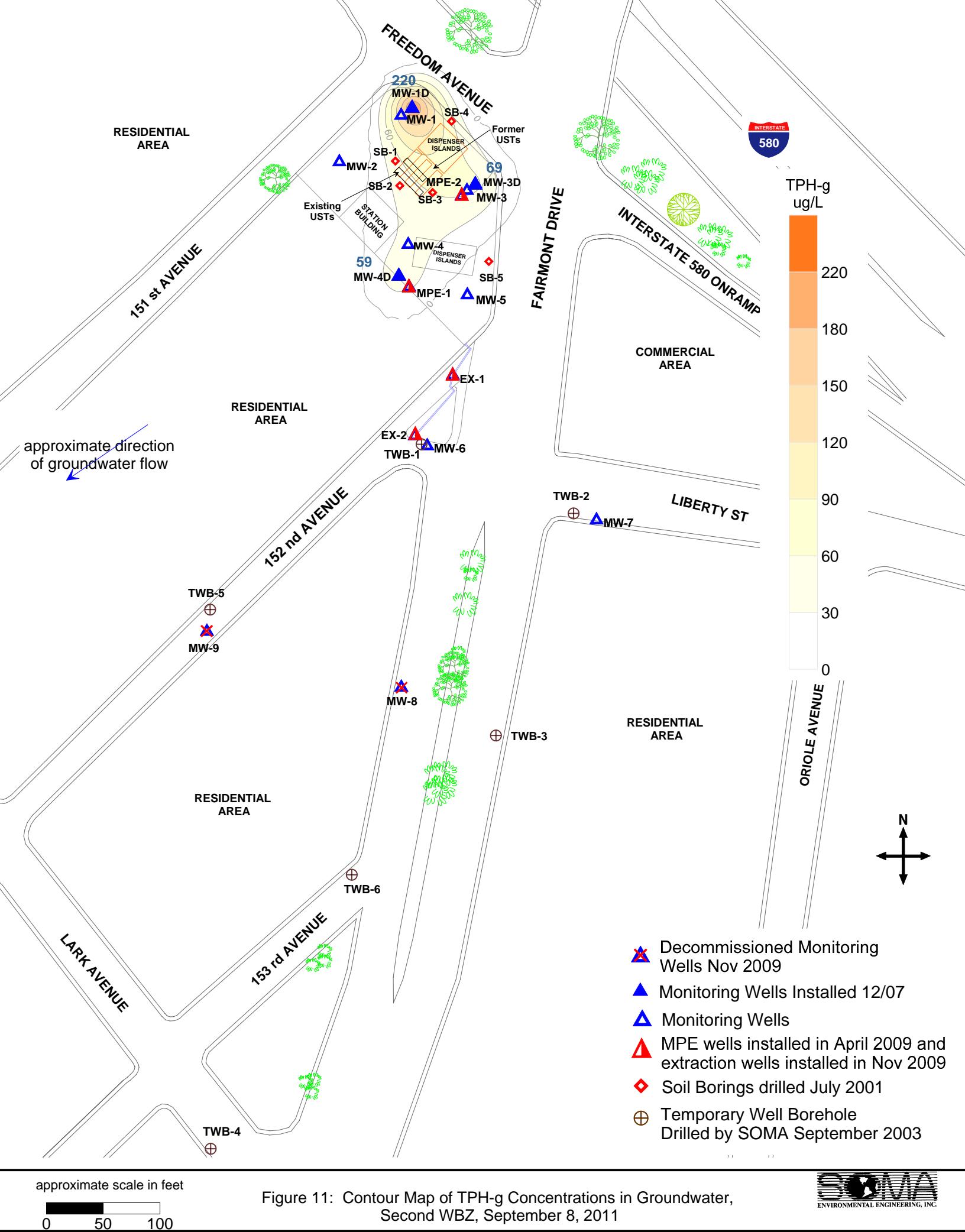
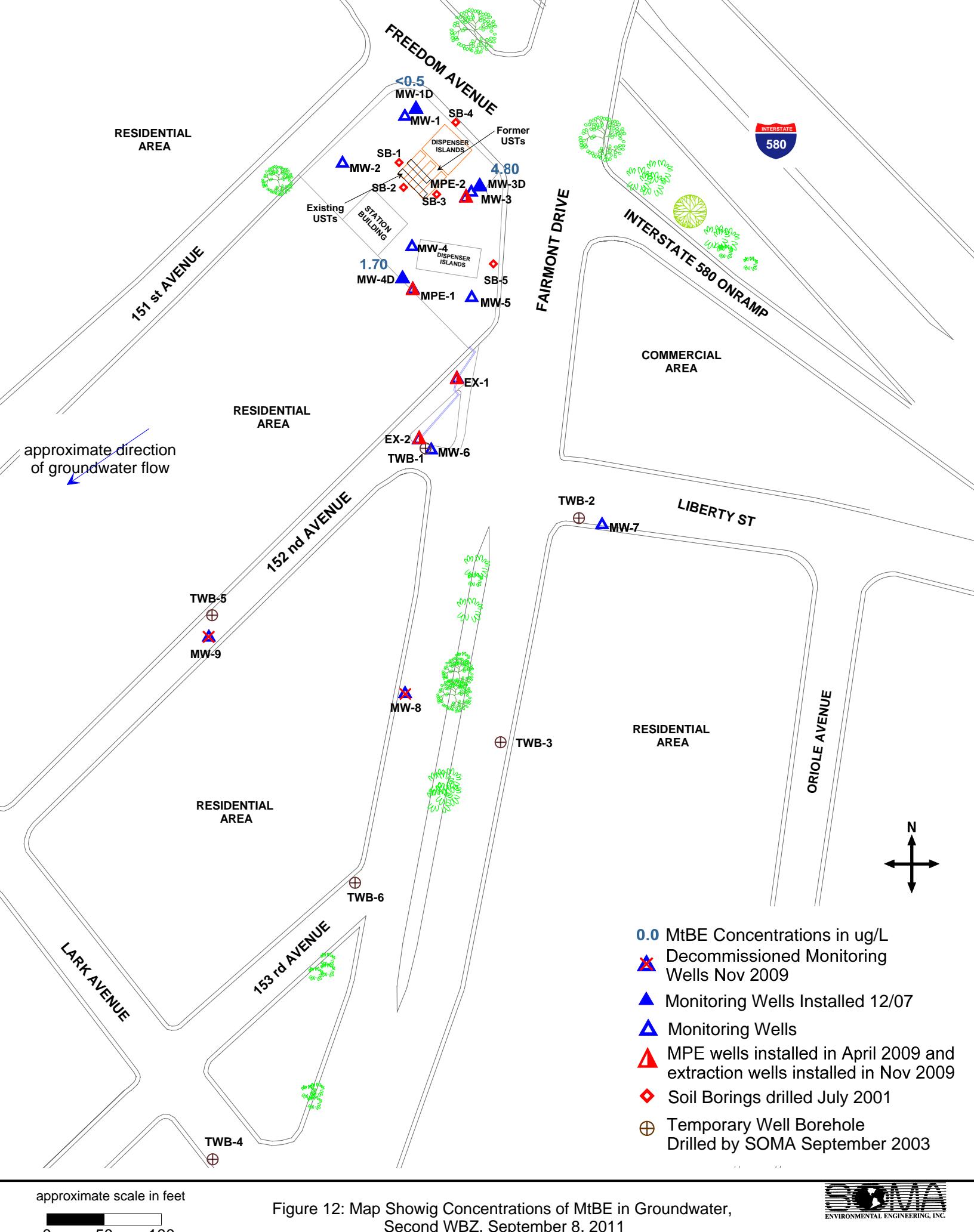


Figure 10: Groundwater Elevation Contour Map in Feet,  
Second WBZ, September 8, 2011





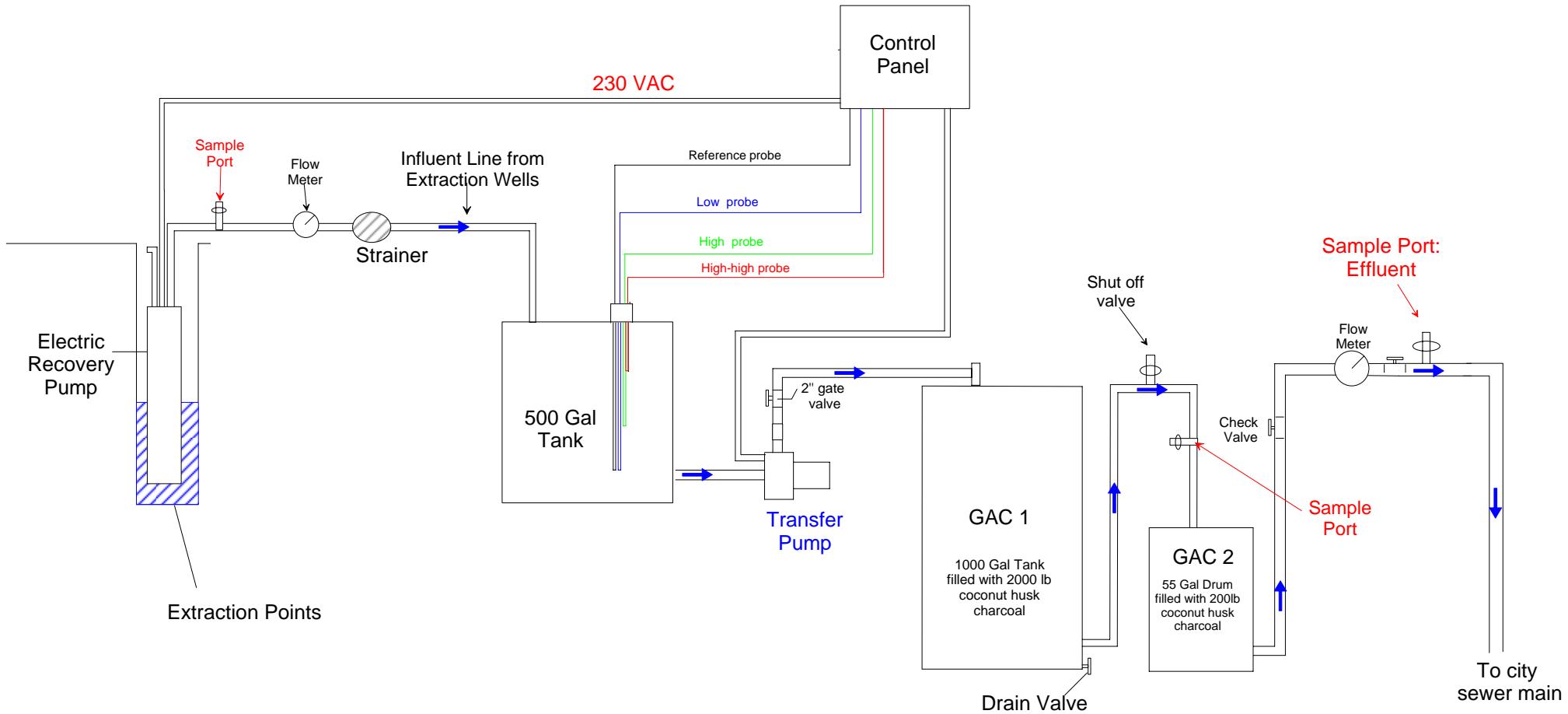


Figure 13: Schematic diagram of Groundwater Remediation System

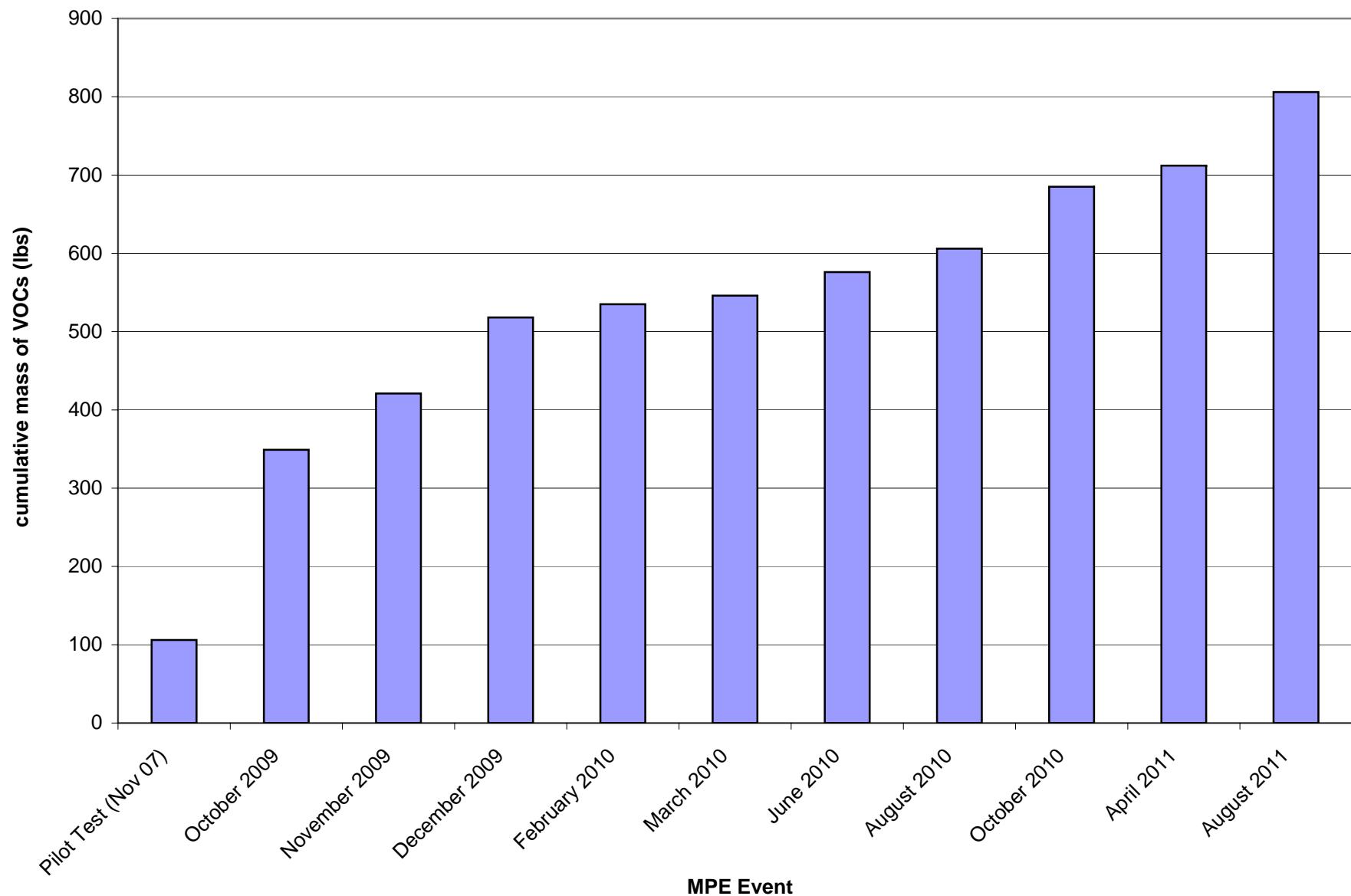


Figure 14: Cumulative mass of VOCs removed

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

**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)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (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	32.51	2,400	67	<0.5	45	8.4	2.20
	5/20/2011	54.46	22.8	31.66	9,500	260	6.2	970	480	<3.6
	9/9/2011	54.46	22.81	31.65	6,400	220	<1.3	380	160	2.30
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

**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)	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.	3/11/2005	52.41	19.15	33.26	564	<0.5	<0.5	21	11.9	<0.5
	6/15/2005	52.41	20.30	32.11	2,040	1.2	<2.0	78.2	22	<0.5
	8/26/2005	52.41	20.97	31.44	1,500	0.930	<2.00	87.6	21	0.86
	11/11/2005	52.41	25.30	27.11	2,140	1.08	<2.0	104	29	0.79
	2/9/2006	52.41	19.41	33.00	1,410	<0.5	<2.0	99.6	21.4	0.72
	5/9/2006	52.41	19.41	33.00	1,100	<0.5	<2.0	86.5	17	<0.5
	8/10/2006	52.41	20.8	31.61	3,180	2.87	<2.0	88.9	24.8	<0.50
	10/26/2006	52.41	21.22	31.19	1,200	<0.5	<2.0	23.5	4.79	0.6
	1/25/2007	52.41	20.89	31.52	623	0.64	<2.0	42.4	4.37	0.66
	4/26/2007	52.41	20.65	31.76	169	<0.5	<2.0	15.2	2.3	<0.5
	7/25/2007	52.41	21.43	30.98	276	0.78	<2.0	22.1	4.04	<0.5
	10/23/2007	52.41	21.59	30.82	535	<0.5	<2.0	18	5.11	<0.5
	1/22/2008	52.31	20.45	31.86	132	<0.5	<2.0	12.2	<2.0	<0.5
	4/15/2008	52.41	20.89	31.52	852	<0.5	<2.0	27.2	4.78	<0.5
	7/2/2008	52.41	21.5	30.91	98.3	<0.5	<2.0	2.76	<2.0	<0.5
	10/15/2008	52.41	22.06	30.35	1,400 <sup>Y</sup>	<0.5	<0.5	60	17	<0.5
	1/7/2009	52.41	21.35	31.06	93	<0.5	<0.5	2.1	0.74	<0.5
	4/13/2009	52.41	20.52	31.89	480 <sup>Y</sup>	<0.5	<0.5	20	5.5	<0.5
	8/27/2009	52.41	21.85	30.56	130	<0.5	<0.5	2.5	0.61	<0.5
	12/1/2009	52.41	21.59	30.82	760 <sup>Y</sup>	<0.5	<0.5	14	1.5	<0.5
	3/17/2010	52.41	20.11	32.30	480	<0.5	<0.5	30	6.9	<0.5
	6/3/2010	52.41	21	31.41	690	<0.5	<0.5	14	2.6	<0.5
	9/2/2010	52.41	21.42	30.99	470	<0.5	<0.5	7.6	1	<0.5
	12/2/2010	52.41	21.44	30.97	470	<0.5	<0.5	7.6	3.3	<0.5
	3/4/2011	52.41	19.65	32.76	240	<0.5	<0.5	6.6	0.8	<0.5
	5/20/2011	52.41	20.75	31.66	310	<0.5	<0.5	4.8	<0.5	<0.5
	9/9/2011	52.41	21.05	31.36	1,000	<0.5	<0.5	12	0.76	<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)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethylbenzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g}/\text{L}$ )
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
	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

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-3 cont.	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	32.47	18,000	410	32	850	2,480	16
	5/20/2011	53.91	22.36	31.55	12,000	710	24	620	1,460	11
	9/9/2011	53.91	22.44	31.47	11,000	1,100	26	580	1,430	7.8
MW-4	5/10/2002	50.54	21.78	28.76	880	25	1.0C	110	52	12,000
	8/8/2002	50.54	22.50	28.04	3,800	70	<5.0	300	115	4,800
	11/8/2002	50.54	22.81	27.73	5,100	150	10	460	258	2,400
	2/21/2003	50.54	21.48	29.06	3,200	98	66	220	360	6,600
	5/28/2003	50.54	21.24	29.30	6,200	140	46	200	790	2,300
	8/12/2003	50.54	22.32	28.22	7,500	180	57	220	1450	1,900
	10/9/2003	50.54	22.74	27.80	5,800	250	32	300	970	7,800
	1/15/2004	50.54	21.19	29.35	5,900	270	17 C	150	640	7,300
	5/25/2004	50.54	22.03	28.51	9,100	210	51	200	1190	1800
	9/21/2004	53.31	22.76	30.55	5,200	290	12	370	600	7300
	12/14/2004	53.31	21.99	31.32	8,937	538	114	416	2379	5021

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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
	3/3/2011	53.31	20.64	32.67	2,400	28	<0.71	28	17	3
	5/19/2011	53.31	21.84	31.47	1,800	27	<0.5	29	11.2	4.8
	9/8/2011	53.31	22.11	31.20	3,600	300	2.6	270	68.5	59

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MW-5	5/10/2002	47.79	19.02	28.77	25,000	1,000	1200	1,100	3,060	1,800
	8/8/2002	47.79	19.80	27.99	18,000	1,000	660	950	1,720	1,500
	11/8/2002	47.79	20.14	27.65	16,000	1,300	380	930	1,550	1,200
	2/21/2003	47.79	18.70	29.09	12,000	390	71	770	1,100	860
	5/28/2003	47.79	18.52	29.27	9,100	210	31	560	790	600
	8/12/2003	47.79	19.54	28.25	12,000	660	75	660	1,110	1,000
	10/9/2003	47.79	20.06	27.73	15,000	1,000	130	1,000	1,430	1,700
	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

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MW-5 cont.	1/22/2008	50.18	18.69	31.49	9,810	572	22	574	184.1	126
	4/15/2008	50.18	19.16	31.02	8,890	335	15.1	477	397.5	136
	7/3/2008	50.53	19.88	30.65	13,100	949	34.4	875	825.5	176
	10/16/2008	50.53	20.45	30.08	11,000	870	25	820	668	160
	1/8/2009	50.53	19.72	30.81	12,000	490	21	690	456	76
	4/13/2009	50.53	18.81	31.72	9,000 <sup>Y</sup>	200	11	390	198	44
	8/27/2009	50.53	21.30	29.23	7,400	610	15	320	185	66
	12/2/2009	50.53	20.00	30.53	8,400 <sup>Y</sup>	400	12	540	296	45
	3/17/2010	50.53	18.73	31.80	4,800	120	8.7	120	107	14
	6/4/2010	50.53	19.60	30.93	7,200	160	5.7	190	149.2	24
	9/2/2010	50.53	19.82	30.71	9,200	110	12	270	318	35
	12/2/2010	50.53	20.10	30.43	9,100	170	6.7	350	442	23
	3/4/2011	50.53	18.00	32.53	2,600	18	0.62	54	18.1	3
	5/20/2011	50.53	19.18	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
	<b>9/9/2011</b>	<b>50.53</b>	<b>19.41</b>	<b>31.12</b>	<b>4,200</b>	<b>120</b>	<b>2.8</b>	<b>140</b>	<b>61.1</b>	<b>22</b>
Pre-MPE	9/21/2004	45.82	17.64	28.18	34,000	150	130	2200	8100	0.6
	12/14/2004	45.82	15.75	30.07	5,161	137	7	436	1136	<5.5
	3/11/2005	45.82	13.80	32.02	6,040	125	3.22	260	722.1	4.94
	6/15/2005	45.82	14.78	31.04	5,590	44.3	6.60	272	382	5.85
	8/26/2005	45.82	15.91	29.91	6,130	99	<8.6	378	492.9	5.66
	11/11/2005	45.82	16.55	29.27	11,400	101	<8.6	645	834.7	4.33
	2/9/2006	45.82	13.92	31.90	2,790	32.3	<8.6	131	131.22	7.30
	5/9/2006	45.82	13.95	31.87	3,730	25	<2.0	213	207.82	5.87
	8/10/2006	45.82	15.28	30.54	4,800	41.9	<2.0	201	189	10.4
	10/26/2006	45.82	16.11	29.71	6,080	37.4	<2.0	116	183	9.78
MW-6	9/21/2004	45.82	17.64	28.18	34,000	150	130	2200	8100	0.6
	12/14/2004	45.82	15.75	30.07	5,161	137	7	436	1136	<5.5
	3/11/2005	45.82	13.80	32.02	6,040	125	3.22	260	722.1	4.94
	6/15/2005	45.82	14.78	31.04	5,590	44.3	6.60	272	382	5.85
	8/26/2005	45.82	15.91	29.91	6,130	99	<8.6	378	492.9	5.66
	11/11/2005	45.82	16.55	29.27	11,400	101	<8.6	645	834.7	4.33
	2/9/2006	45.82	13.92	31.90	2,790	32.3	<8.6	131	131.22	7.30
	5/9/2006	45.82	13.95	31.87	3,730	25	<2.0	213	207.82	5.87
	8/10/2006	45.82	15.28	30.54	4,800	41.9	<2.0	201	189	10.4
	10/26/2006	45.82	16.11	29.71	6,080	37.4	<2.0	116	183	9.78

**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)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
MW-6 cont.	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
	3/3/2011	45.82	14.35	31.47	7,000	18	<2.5	97	237	11
	5/20/2011	45.82	14.95	30.87	14,000	14	<2.5	300	823	7.2
	9/8/2011	45.82	16.14	29.68	23,000	28	<2.5	360	812	3.4
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

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Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>MW-7 cont.</b>	2/9/2006	44.74	NM	NM	NA	NA	NA	NA	NA	NA
	5/9/2006	44.74	12.02	32.72	1,400	<0.5	<2.0	19.8	12.4	2.30
	8/10/2006	44.74	13.72	31.02	604	<0.50	<2.0	6.2	4.63	1.42
	10/26/2006	44.74	14.38	30.36	1350	<0.50	<2.0	16.6	10.8	1.87
	1/25/2007	44.74	13.93	30.81	340	<0.5	<2.0	6.84	2.44	1.63
	4/26/2007	44.74	14.44	30.30	552	<0.5	<2.0	11.4	6.11	4.12
	7/25/2007	44.74	14.79	29.95	1,230	<0.5	<2.0	27	19.24	3.2
	10/23/2007	44.74	14.88	29.86	1,730	0.67	<2.0	20.7	17.31	8.44
	1/21/2008	44.74	13.34	31.40	610	1.15	<2.0	8.4	4.34	17.2
	4/15/2008	44.74	13.91	30.83	1,460	<0.5	<2.0	15.9	19.7	17.3
	7/2/2008	44.74	14.87	29.87	1,450	<0.5	<2.0	11	6.8	22.1
	10/15/2008	44.74	15.68	29.06	1,900 <sup>Y</sup>	0.56	1.2	27	39.5	55
	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	31.43	1,000	<0.5	<0.5	1.8	<0.5	16
	5/19/2011	44.74	13.43	31.31	810	<0.5	<0.5	2.2	0.79	7.8
	9/8/2011	44.74	14.38	30.36	1,000	<0.5	<0.5	8.3	2.9	5.4
<b>MW-8</b>	9/21/2004	41.14	12.98	28.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	41.14	11.22	29.92	<50	<0.5	<0.5	<0.5	<1.0	<0.5

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>MW-8 cont.</b>	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
	1/21/2008	41.14	11.02	30.12	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	41.14	11.44	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	41.14	12.39	28.75	94.8	<0.5	<2.0	1	<2.0	<0.5
	10/15/2008	41.14	13.42	27.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	41.14	12.50	28.64	<50	<0.5	<0.5	<0.5	0.6	<0.5
	4/13/2009	41.14	11.23	29.91	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	41.14	13.24	27.90	<50	<0.5	<0.5	<0.5	<0.5	<0.5
Well Decommissioned 11/13/2009										
<b>MW-9</b>	9/21/2004	40.26	12.18	28.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	40.26	10.91	29.35	<50	<0.5	<0.5	<0.5	<1.0	<0.5

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Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B <sup>2</sup> (µg/L)
<b>MW-9 cont.</b>	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
	1/7/2009	40.26	11.75	28.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	40.26	10.89	29.37	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	40.26	12.50	27.76	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Well Decommissioned 11/13/2009

**Table 1**  
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**15101 Freedom Avenue, San Leandro, CA**

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	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>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	32.4	530	51	0.94	15	31.3	110
	5/19/2011	47.36	16.12	31.24	370	42	<0.71	7.6	17.2	110
	9/8/2011	47.36	16.47	30.89	110	5	<0.5	2.2	6.4	12
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	31.35	8,600	340	52	460	1,350	13
	5/19/2011	45.96	15.08	30.88	7,500	260	65	390	1,080	11
	9/8/2011	45.96	16.34	29.62	3,400	190	28	160	451	5.4
<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

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<b>MPE-1 cont.</b>	3/3/2011	51.96	19.33	32.63	NA	NA	NA	NA	NA	NA
	5/19/2011	51.96	20.6	31.36	NA	NA	NA	NA	NA	NA
	8/4/2011	51.96	NM	NC	49,000	210	100	840	7,070	45
	9/8/2011	51.96	20.83	31.13	NA	NA	NA	NA	NA	NA
<b>Post-MPE</b>	<b>9/26/2011</b>	<b>51.96</b>	<b>20.94</b>	<b>31.02</b>	<b>62,000</b>	<b>6,300</b>	<b>3,700</b>	<b>1,800</b>	<b>9,400</b>	<b>1,200</b>
<hr/>										
<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
	3/3/2011	53.72	21.25	32.47	NA	NA	NA	NA	NA	NA
	5/19/2011	53.72	22.19	31.53	NA	NA	NA	NA	NA	NA
	8/4/2011	53.72	NM	NC	46,000	2,100	80	1,900	5,300	75
	9/8/2011	53.72	22.31	31.41	NA	NA	NA	NA	NA	NA
	9/26/2011	53.72	22.38	31.34	37,000	1,800	33	1,700	2,760	<17
<hr/>										
<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

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<b>MW-1D cont.</b>	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	32.15	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	54.42	22.89	31.53	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<b>54.42</b>	<b>23.08</b>	<b>31.34</b>	<b>220</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.6</b>	<b>1.4</b>	<b>&lt;0.5</b>
<b>MW-3D</b>	1/3/2008	54.10		-	<50	<0.50	<2.0	<0.50	<2.0	87.6
	1/22/2008	54.10	22.31	31.79	<50	<0.50	<2.0	<0.50	<2.0	88.3
	4/16/2008	54.10	22.64	31.46	<50	<0.5	<2.0	<0.5	<2.0	71.1
	7/3/2008	54.10	23.17	30.93	<50	<0.5	<2.0	<0.5	<2.0	67.4
	10/16/2008	54.10	23.62	30.48	<50	<0.5	<0.5	<0.5	<0.5	37
	1/8/2009	54.10	23.07	31.03	<50	<0.5	<0.5	<0.5	<0.5	29
	4/14/2009	54.10	22.36	31.74	<50	<0.5	<0.5	<0.5	<0.5	44
	8/26/2009	54.10	23.41	30.69	<50	<0.5	<0.5	<0.5	<0.5	20
	12/1/2009	54.10	23.27	30.83	110 Y	<0.5	<0.5	<0.5	0.52	24
	3/16/2010	54.10	22.10	32.00	<50	<0.5	<0.5	<0.5	<0.5	7.1
	6/4/2010	54.10	22.70	31.40	<50	<0.5	<0.5	<0.5	<0.5	17
	9/1/2010	54.10	23.09	31.01	78	<0.5	<0.5	1.1	4.71	24
	12/3/2010	54.10	22.90	31.20	<50	<0.5	<0.5	0.56	1.4	13
	3/3/2011	54.10	21.66	32.44	<50	1.3	<0.5	<0.5	0.59	14
	5/19/2011	54.10	22.61	31.49	<50	<0.5	<0.5	<0.5	<0.5	5.2
	9/8/2011	<b>54.10</b>	<b>22.68</b>	<b>31.42</b>	<b>69</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.62</b>	<b>4.8</b>

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

Monitoring Well	Date	Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethyl- benzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g}/\text{L}$ )
<b>MW-4D</b>	1/4/2008	53.12		-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	1/22/2008	53.12	21.11	32.01	91.5	18.7	<2.0	7.08	11.42	219
	4/15/2008	53.12	21.67	31.45	<50	<0.5	<2.0	<0.5	<2.0	27
	7/3/2008	53.12	22.39	30.73	<50	<0.5	<2.0	<0.5	<2.0	6.27
	10/16/2008	53.12	22.98	30.14	<50	<0.5	<0.5	<0.5	<0.5	1.9
	1/8/2009	53.12	22.25	30.87	<50	<0.5	<0.5	<0.5	<0.5	2
	4/14/2009	53.12	21.34	31.78	<50	<0.5	<0.5	<0.5	<0.5	2.2
	8/27/2009	53.12	22.79	30.33	<50	<0.5	<0.5	<0.5	<0.5	2.2
	12/1/2009	53.12	22.49	30.63	120 <sup>Y</sup>	<0.5	<0.5	1.4	2.3	2.3
	3/16/2010	53.12	21.02	32.10	<50	<0.5	<0.5	<0.5	<0.5	0.65
	6/4/2010	53.12	21.93	31.19	<50	<0.5	<0.5	<0.5	<0.5	1.1
	9/1/2010	53.12	23.32	29.80	<50	<0.5	<0.5	0.85	3.76	2.2
	12/3/2010	53.12	22.46	30.66	<50	<0.5	<0.5	<0.5	0.67	<0.5
	3/3/2011	53.12	20.45	32.67	<50	<0.5	<0.5	<0.5	<0.5	0.58
	5/19/2011	53.12	21.57	31.55	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	53.12	21.92	31.20	59	<0.5	<0.5	<0.5	0.51	1.7
<hr/>										
<b>1573 153 RD</b>	7/2/2008	NS	NM	NC	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/16/2008	NS	NM	NC	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>Equipment Blanks</b>										
<b>EB-PMP</b>	1/21/2008	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
<b>EB-PRB</b>	1/21/2008	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
<b>EB-PMP2</b>	1/22/2008	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
<b>EB-PRB2</b>	1/22/2008	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
<b>ESL (ug/L)</b>	-	-	-	-	100	1	40	30	20	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)	Groundwater Elevation (feet)	TPH-g ( $\mu\text{g}/\text{L}$ )	Benzene ( $\mu\text{g}/\text{L}$ )	Toluene ( $\mu\text{g}/\text{L}$ )	Ethyl-benzene ( $\mu\text{g}/\text{L}$ )	Total Xylenes ( $\mu\text{g}/\text{L}$ )	MtBE 8260B <sup>2</sup> ( $\mu\text{g}/\text{L}$ )
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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

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

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

H: Heavier hydrocarbons contributed to the quantitation.

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

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

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
1st WBZ							
MW-1	8/8/2002	78	<1.3	<1.3	<1.3	NA	NA
	11/1/2002	42	< 1.0	< 1.0	< 1.0	NA	NA
	2/21/2003	47	<0.5	<0.5	<0.5	NA	NA
	5/28/2003	25	<0.5	<0.5	<0.5	NA	NA
	8/12/2003	<10	<0.5	<0.5	<0.5	NA	NA
	10/9/2003	70	<1.0	<1.0	<1.0	NA	NA
	1/15/2004	55	<0.5	<0.5	<0.5	NA	NA
	5/25/2004	62	<0.7	<0.7	<0.7	NA	NA
	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<21.5	<4.3	<4.3	<17.2	NA	NA
	3/11/2005	81	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	68.9	<2.15	<2.15	<8.6	NA	NA
	11/11/2005	46	<2.15	<2.15	<8.6	NA	NA
	2/9/2006	11.3	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	0.51	<0.5
	8/10/2006	<43	<2.15	<2.15	<8.60	3.37	<2.15
	10/26/2006	39.4	<1.0	<1.0	<4.0	2.92	<1.0
	1/25/2007	41.4	<0.5	<0.5	<2.0	1.36	<0.5
	4/26/2007	39.6	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	46.5	<1.0	<1.0	<4.0	<1.0	<1.0
	10/23/2007	53.7	<0.5	<0.5	<2.0	<0.5	<0.5
	1/22/2008	23.8	<0.5	<0.5	2.16	<0.5	<0.5
	4/16/2008	8.36	<0.5	<0.5	<2.0	164	<0.5
	7/3/2008	30.5	<0.5	<0.5	<2.0	1.08	<0.5
	10/15/2008	<20	<1.0	<1.0	<1.0	<1.0	<1.0
	1/7/2009	<25	<1.3	<1.3	<1.3	<1.3	<1.3
	4/14/2009	15	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	12/2/2009	<40	<2.0	<2.0	<2.0	<2.0	<2.0
	3/17/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	26	<0.5	<0.5	<0.5	<0.5	<0.5
	9/2/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	12/2/2010	<63	<3.1	<3.1	<3.1	<3.1	<3.1
	3/4/2011	40	<0.5	<0.5	<0.5	<0.5	<0.5
	5/20/2011	<71	<3.6	<3.6	<3.6	<3.6	<3.6
	9/9/2011	33	<1.3	<1.3	<1.3	<1.3	<1.3
MW-2							
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)
<b>MW-2 cont.</b>	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/22/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	2.44	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/17/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/2/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/2/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/4/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	5/20/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/9/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>MW-3</b>	8/8/2002	<330	<8.3	<8.3	330	NA	NA
	11/1/2002	85	<1.3	<1.3	220	NA	NA
	2/21/2003	140	<5.0	<5.0	320	NA	NA
	5/28/2003	520	<10	<10	530	NA	NA
	8/12/2003	180	<4.2	<4.2	270	NA	NA
	10/9/2003	<170	<8.3	<8.3	200	NA	NA
	1/15/2004	<100	<5.0	<5.0	150	NA	NA
	5/25/2004	<100	<5.0	<5.0	270	NA	NA
	9/21/2004	<140	<7.1	<7.1	110	NA	NA
	12/14/2004	<100	<20	<20	154	NA	NA
	3/11/2005	<215	<43	<43	256	NA	NA
	6/15/2005	<215	<10.8	<10.8	374	NA	NA
	8/26/2005	699	<21.5	<21.5	277	NA	NA
	11/11/2005	<430	<21.5	<21.5	171	NA	NA
	2/9/2006	<430	<21.5	<21.5	620	NA	NA
	5/9/2006	367	<10.8	<10.8	594	<10.8	<10.8
	8/10/2006	365	<10.8	<10.8	727	<10.8	<10.8
	10/26/2006	591	<10.8	<10.8	899	<10.8	<10.8
	1/25/2007	711	<10.8	<10.8	768	<10.8	<10.8
	4/26/2007	690	<10.8	<10.8	369	<10.8	<10.8
	7/25/2007	1,340	<10.8	<10.8	565	<10.8	<10.8
	10/23/2007	1,050	<21.5	<21.5	301	<21.5	<21.5
	1/22/2008	373	<10.8	<10.8	170	<0.5	<0.5
	4/16/2008	881	<5.50	<5.50	<22.0	1,850	12.1
	7/3/2008	426	<10.8	<10.8	124	<10.8	<10.8
	10/16/2008	<400	<20	<20	<20	<20	<20
	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

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

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
MW-3 cont.	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
	<b>9/9/2011</b>	<b>&lt;140</b>	<b>&lt;7.1</b>	<b>&lt;7.1</b>	<b>&lt;7.1</b>	<b>&lt;7.1</b>	<b>&lt;7.1</b>
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
	<b>9/8/2011</b>	<b>380</b>	<b>&lt;0.5</b>	<b>3.5</b>	<b>&lt;0.5</b>	<b>1.1</b>	<b>&lt;0.5</b>
MW-5	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

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

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
MW-5 cont.	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
Pre- MPE	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
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
	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

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

Monitoring Well	Date	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )
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
MW-8	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
MW-9	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
	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
MW-8	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
MW-9	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
MW-9	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
MW-9	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
<b>Well Decommissioned 11/13/2009</b>							
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

**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>MW-9 contd.</b>	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	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
<b>Well Decommissioned 11/13/2009</b>							
<b>EX-1</b>	12/2/2009	150	<1.3	<1.3	<1.3	<1.3	<1.3
	3/16/2010	980	<1.3	2.4	27	<1.3	<1.3
	6/3/2010	570	<1.3	1.9	<1.3	<1.3	<1.3
	9/1/2010	470	<0.5	1.4	2	<0.5	<0.5
	12/2/2010	1,300	<2.0	3.6	15	<2.0	<2.0
	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
<b>EX-2</b>	12/2/2009	<63	<3.1	<3.1	<3.1	<3.1	<3.1
	3/16/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	6/3/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	9/1/2010	<50	<2.5	<2.5	<2.5	<2.5	<2.5
	12/2/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	3/3/2011	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	5/19/2011	<100	<5.0	<5.0	<5.0	<5.0	<5.0
	9/8/2011	<25	<1.3	<1.3	<1.3	<1.3	<1.3
<b>MPE Wells</b>							
<b>MPE-1</b>	8/4/2011	<500	<25	<25	<25	<25	<25
	9/26/2011	<500	<25	<25	600	<25	<25
<b>MPE-2</b>	8/4/2011	<330	<17	<17	<17	<17	<17
	9/26/2011	<330	<17	<17	<17	<17	<17
<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

**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-1D cont.	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
MW-3D	1/3/2008	37.3	<0.5	3.12	15.3	NA	NA
	1/22/2008	15.6	<0.5	3.1	15.3	<0.5	<0.5
	4/16/2008	17.7	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	<2.0	<0.5	<0.5	7.45	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	4.7	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	3.4	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	5	<0.5	<0.5
	8/26/2009	<10	<0.5	<0.5	1.6	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	2.2	<0.5	<0.5
	3/16/2010	<10	<0.5	<0.5	0.65	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	1.8	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	0.93	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	1.0	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4D	1/4/2008	25	<0.5	<0.5	<2.0	NA	NA
	1/22/2008	124	<0.5	4.9	3.32	<0.5	<0.5
	4/15/2008	25.7	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	3.38	<0.5	<0.5	<2.0	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	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
1573 153 RD	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
ESL	12	NE	NE	NE	0.5	0.05	

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

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

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

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

Date	Volume (gallons)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	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
<b>23-Sep-2011</b>	<b>1,631,273</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>&lt;10</b>	<b>&lt;5</b>	<b>6.7</b>

Note:

NA: Not Available/Not Applicable

< : Less than Laboratory-reporting limit

In October and November 2009 discharge occurred only during MPE events

GWETS and totalizer installed in December 2009.

Week # 1 sampling conducted on Oct 8, 2009

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

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

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

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

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

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

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

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

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

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

Date	Volume (gallons)	Influent Concentration ( $\mu\text{g}/\text{L}$ )					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	
<b>28-Jul-2011</b>	<b>1,573,295</b>	<b>540</b>	<b>21</b>	<b>2.8</b>	<b>5.4</b>	<b>49</b>	<b>18.00</b>	<b>0.78</b>	<b>0.21</b>	<b>0.37</b>	<b>2.71</b>	

Notes:

< : Below laboratory-reporting limit

Y : sample exhibits chromatographic pattern which does not resemble standard

**Table 5**
**Third Quarter 2011 MPE Event  
Operational Data : August 2011**
15101 Freedom Ave.  
San Leandro, California

DATE	TIME	PID (ppmv)	WELL MANIFOLD VACUUM (In of Hg)	OXIDIZER TEMPERATURE (°F)	WELL FIELD FLOW VAPOR RATE (scfm)	TOTAL SYSTEM VAPOR FLOW RATE (scfm)	DILUTION AIR FLOW RATE (scfm)	SYSTEM (BLOWER) VACUUM (In of Hg)	SYSTEM TOTALIZER READING (gallons)	COMMENTS
8/5/2011	1115								0	
	1300	1,158	21.6	1511	54	54	0	26	170	
	1420	IN: 1484; EFF: 3	22	1547	47	47	0	26.4	526	
	1515	1,465	25	1541	47	47	0	26.4	756	
	1600	1,389	21.6	1533	54	54	0	26	946	
	1700	1,303	19.8	1525	54	54	0	26	1,036	
	1800	645	19.8	1536	44	82	38	24.2	1,483	
8/6/2011	945	661	21	1499	47	47	0	26.4	3,284	
8/7/2011	900	800	22	1500	29	54	25	26	4,294	
	1600	715	21	1497	27	54	27	26	7,794	
8/8/2011	900	615	21.7	1497	54	54	0	26	9,922	
	1000	655	21.8	1499	54	54	0	26	10,010	
	1100	675	21.7	1499	54	54	0	26	10,057	
	1200	688	21.8	1502	54	54	0	26	10,174	
	1300	696	21.8	1503	54	54	0	26	10,305	
	1400	710	21.9	1409	54	54	0	26	10,406	
	1500	710	21.6	1501	54	54	0	26	10,547	
	1600	689	21.7	1502	54	54	0	26	10,696	
	1700	696	21.7	1500	54	54	0	26	10,792	
8/9/2011	900	604	21.6	1500	57	57	0	25.8	12,640	
	1000	613	21.6	1497	57	57	0	25.8	12,640	
	1100	625	21.7	1502	55	55	0	25.9	12,769	
	1200	630	21.6	1501	55	55	0	25.9	12,896	
	1300	602	21.6	1570	58	58	0	25.7	13,006	
	1400	631	21.6	1506	58	58	0	25.7	13,110	
	1500	633	21.6	1501	58	58	0	25.7	13,239	
	1600	615	21.3	1500	58	58	0	25.7	13,324	
	1700	611	21.6	1498	58	58	0	25.7	13,428	
8/10/2011	900	583	21.2	1498	60	60	0	25.6	15,167	
	1000	545	21.6	1502	58	58	0	25.7	15,228	
	1100	549	21.5	1501	60	60	0	25.6	15,348	
	1200	553	21.6	1497	60	60	0	25.6	15,431	
	1300	558	21.5	1502	60	60	0	25.6	15,556	
	1400	561	21.4	1502	62	62	0	25.5	15,639	
	1500	563	21.2	1498	62	62	0	25.5	15,748	
	1600	548	21.4	1500	62	62	0	25.5	15,852	
	1700	538	21.2	1500	63	63	0	25.4	15,961	
8/11/2011	900	445	21.2	1500	63	63	0	25.4	17,548	
	1000	454	21.1	1502	62	62	0	25.5	17,631	
	1100	456	21.1	1500	62	62	0	25.5	17,716	
	1200	455	21.2	1500	62	62	0	25.5	17,816	
	1300	465	21	1497	62	62	0	25.5	17,926	

**Table 5**
**Third Quarter 2011 MPE Event  
Operational Data : August 2011**

 15101 Freedom Ave.  
 San Leandro, California

DATE	TIME	PID (ppmv)	WELL MANIFOLD VACUUM (In of Hg)	OXIDIZER TEMPERATURE (°F)	WELL FIELD FLOW VAPOR RATE (scfm)	TOTAL SYSTEM VAPOR FLOW RATE (scfm)	DILUTION AIR FLOW RATE (scfm)	SYSTEM (BLOWER) VACUUM (In of Hg)	SYSTEM TOTALIZER READING (gallons)	COMMENTS
8/12/2011	1400	467	21.3	1497	62	62	0	25.5	18,007	
	1500	469	21.5	1498	62	62	0	25.5	18,110	
	1600	448	20.5	1501	70	70	0	25	18,216	
	1700	450	21.1	1503	68	68	0	25.1	18,297	
	900	394	21.2	1498	66	66	0	25.2	19,857	
	1000	396	21.1	1500	66	66	0	25.2	19,986	
	1100	400	21.1	1502	66	66	0	25.2	20,070	
	1200	397	21.1	1502	65	65	0	25.3	20,156	
	1300	408	21	1500	65	65	0	25.3	20,281	
	1400	415	20.8	1501	66	66	0	25.2	20,377	
	1500	404	20.8	1498	66	66	0	25.2	20,486	
	1600	386	20.8	1502	66	66	0	25.2	20,578	
	1700	385	21	1498	66	66	0	25.2	20,670	
8/13/2011	1200	385	21	1498	66	66	0	25.2	22,864	
	1200								22,864	shut down due to over heating
8/15/2011	1130								22,864	restart extraction with new truck at MPE-2, MW-5
	1200	221	22.4	1501	15	39	24	25.1	23,357	
8/16/2011	1600	132	25	1515	15	39	24	28	23,566	
	1700	102	24	1510	15	39	24	24.7	23,779	
	900	82	25	1512	15	39	24	26.7	26,560	
	1000	81	24.6	1517	15	39	24	26.8	26,816	
	1100	74	25.2	1490	15	39	24	26.8	26,977	
	1200	93	25	1535	15	39	24	27	27,158	
	1300	105	25	1501	15	39	24	26.8	27,406	
	1400	98	25.1	1486	13	37	24	27	27,554	
	1500	71	25.3	1501	15	39	24	26.8	27,726	
	1600	41	25.3	1495	15	39	24	26.8	27,957	
	1700	39	25.1	1498	15	39	24	26.7	28,056	
8/17/2011	900	34	25	1492	14	38	24	26.8	30,886	
	1000	34	25.2	1486	15	39	24	26.7	31,054	
	1100	33	25.2	1482	15	39	24	27	31,254	
	1200	35	25.3	1483	15	39	24	26.9	31,366	
	1300	33	25	1495	15	39	24	26.9	31,554	
	1400	35	25.3	1494	15	39	24	26.8	31,714	
	1500	34	25.3	1502	15	39	24	26	31,914	
	1600	39	25.2	1505	15	39	24	26.7	32,074	
	1700	38	25	1543	15	39	24	26.6	32,226	
8/18/2011	900	220	25.3	1495	15	39	24	26.6	34,904	
	1000	231	25.4	1481	15	39	24	26.8	35,116	
	1100	218	25.3	1498	15	39	24	26.9	35,274	
	1200	211	25.5	1503	15	39	24	26.9	35,436	
	1300	207	25.5	1487	15	39	24	26.8	35,626	

**Table 5**

**Third Quarter 2011 MPE Event**  
**Operational Data : August 2011**

15101 Freedom Ave.  
 San Leandro, California

DATE	TIME	PID (ppmv)	WELL MANIFOLD VACUUM (In of Hg)	OXIDIZER TEMPERATURE (°F)	WELL FIELD FLOW VAPOR RATE (scfm)	TOTAL SYSTEM VAPOR FLOW RATE (scfm)	DILUTION AIR FLOW RATE (scfm)	SYSTEM (BLOWER) VACUUM (In of Hg)	SYSTEM TOTALIZER READING (gallons)	COMMENTS
8/19/2011	1400	209	24.6	1541	15	39	24	26.8	35,794	End MPE
	1500	205	25	1535	15	39	24	26.7	35,954	
	1600	217	25.2	1535	15	39	24	26.7	36,164	
	1700	189	25.4	1541	15	39	24	26.6	36,356	
	900	34	25.4	1482	15	39	24	26.5	38,826	
	1000	33	25.4	1485	16	40	24	26.6	39,014	
	1100	32	25.1	1523	16	40	24	26.6	39,176	
	1200	33	25.3	1501	15	39	24	26.8	39,354	
	1300	34	25.3	1510	15	39	24	26.7	39,496	
	1400	31	25	1498	15	39	24	26.7	39,687	
	1400								39,729	

Totalizer readings = 39,729 gallons = 2.27 gpm

Total time of test = 17,475 minutes = 291.25 hours = 12.1 days

Notes

ppmv parts per million vapor

In of Hg inches of mercury

In of H<sub>2</sub>O inches of water

°F degrees Fahrenheit

scfm standard cubic feet per minute

**Table 6**

**Third Quarter 2011 MPE Event**  
**Extraction Data and VOC Mass Removal Rate**  
**August 2011**  
 15101 Freedom Avenue  
 San Leandro, California

MPE WELL	COMMENT	DATE	CLOCK	INCREMENTAL	ELAPSED TIME	Q		PID		MASS REMOVAL				
			TIME	TIME		SCFM	ft <sup>3</sup> of extracted air	Moles of extracted air	ppm as hexane	VOC mole %	lb VOC mass removal as hexane	lbs/min	lbs/day	
MPE-2,MW-5	START	8/5/2011	1115	0	0									
			1300	105	105	54	5,631	14.8585	1,158	0.0012	1.4832	0.0141	20	
			1420	80	185	47	3,783	9.9810	1,484	0.0015	1.2768	0.0160	23	
			1515	55	240	47	2,601	6.8619	1,465	0.0015	0.8665	0.0158	23	
			1600	45	285	54	2,413	6.3679	1,389	0.0014	0.7624	0.0169	24	
			1700	60	345	54	3,218	8.4906	1,303	0.0013	0.9536	0.0159	23	
			1800	60	405	82	4,932	13.0123	645	0.0006	0.7235	0.0121	17	
			8/6/2011	945	945	47	44,684	117.9001	661	0.0007	6.7177	0.0071	10	
			8/7/2011	900	1395	54	74,817	197.4054	800	0.0008	13.6131	0.0098	14	
			1600	420	3,165	54	22,525	59.4339	715	0.0007	3.6631	0.0087	13	
			8/8/2011	900	1020	4,185	54	54,705	144.3394	615	0.0006	7.6519	0.0075	11
			1000	60	4,245	54	3,218	8.4906	655	0.0007	0.4794	0.0080	12	
			1100	60	4,305	54	3,218	8.4906	675	0.0007	0.4940	0.0082	12	
			1200	60	4,365	54	3,218	8.4906	688	0.0007	0.5035	0.0084	12	
			1300	60	4,425	54	3,218	8.4906	696	0.0007	0.5094	0.0085	12	
			1400	60	4,485	54	3,218	8.4906	710	0.0007	0.5196	0.0087	12	
			1500	60	4,545	54	3,218	8.4906	710	0.0007	0.5196	0.0087	12	
			1600	60	4,605	54	3,218	8.4906	689	0.0007	0.5043	0.0084	12	
			1700	60	4,665	54	3,218	8.4906	696	0.0007	0.5094	0.0085	12	
			8/9/2011	900	960	5,625	57	54,533	143.8875	604	0.0006	7.4915	0.0078	11
			1000	60	5,685	57	3,408	8.9930	613	0.0006	0.4752	0.0079	11	
			1100	60	5,745	55	3,313	8.7418	625	0.0006	0.4710	0.0078	11	
			1200	60	5,805	55	3,313	8.7418	630	0.0006	0.4747	0.0079	11	
			1300	60	5,865	58	3,504	9.2442	602	0.0006	0.4797	0.0080	12	
			1400	60	5,925	58	3,504	9.2442	631	0.0006	0.5028	0.0084	12	
			1500	60	5,985	58	3,504	9.2442	633	0.0006	0.5044	0.0084	12	
			1600	60	6,045	58	3,504	9.2442	615	0.0006	0.4901	0.0082	12	
			1700	60	6,105	58	3,504	9.2442	611	0.0006	0.4869	0.0081	12	
			8/10/2011	900	960	7,065	60	57,580	151.9262	583	0.0006	7.6350	0.0080	11
			1000	60	7,125	58	3,504	9.2442	545	0.0005	0.4343	0.0072	10	
			1100	60	7,185	60	3,599	9.4954	549	0.0005	0.4494	0.0075	11	
			1200	60	7,245	60	3,599	9.4954	553	0.0006	0.4526	0.0075	11	
			1300	60	7,305	60	3,599	9.4954	558	0.0006	0.4567	0.0076	11	
			1400	60	7,365	62	3,694	9.7466	561	0.0006	0.4713	0.0079	11	
			1500	60	7,425	62	3,694	9.7466	563	0.0006	0.4730	0.0079	11	
			1600	60	7,485	62	3,694	9.7466	548	0.0005	0.4604	0.0077	11	
			1700	60	7,545	63	3,789	9.9978	538	0.0005	0.4637	0.0077	11	

**Table 6**

**Third Quarter 2011 MPE Event**  
**Extraction Data and VOC Mass Removal Rate**  
**August 2011**  
 15101 Freedom Avenue  
 San Leandro, California

MPE WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q		PID		MASS REMOVAL		
						minutes	SCFM	ft <sup>3</sup> of extracted air	Moles of extracted air	ppm as hexane	VOC mole %	lb VOC mass removal as hexane
<span style="color: red;">STOP</span> <span style="color: green;">START</span>	<b>8/11/2011</b>	900	960	8,505	63	60,627	159.9649	445	0.0004	6.1361	0.0064	9
		1000	60	8,565	62	3,694	9.7466	454	0.0005	0.3814	0.0064	9
		1100	60	8,625	62	3,694	9.7466	456	0.0005	0.3831	0.0064	9
		1200	60	8,685	62	3,694	9.7466	455	0.0005	0.3823	0.0064	9
		1300	60	8,745	62	3,694	9.7466	465	0.0005	0.3907	0.0065	9
		1400	60	8,805	62	3,694	9.7466	467	0.0005	0.3924	0.0065	9
		1500	60	8,865	62	3,694	9.7466	469	0.0005	0.3940	0.0066	9
		1600	60	8,925	70	4,170	11.0026	448	0.0004	0.4249	0.0071	10
		1700	60	8,985	68	4,075	10.7514	450	0.0005	0.4170	0.0070	10
		900	960	9,945	66	63,673	168.0035	394	0.0004	5.7059	0.0059	9
	<b>8/12/2011</b>	1000	60	10,005	66	3,980	10.5002	396	0.0004	0.3584	0.0060	9
		1100	60	10,065	66	3,980	10.5002	400	0.0004	0.3620	0.0060	9
		1200	60	10,125	65	3,884	10.2490	397	0.0004	0.3507	0.0058	8
		1300	60	10,185	65	3,884	10.2490	408	0.0004	0.3605	0.0060	9
		1400	60	10,245	66	3,980	10.5002	415	0.0004	0.3756	0.0063	9
		1500	60	10,305	66	3,980	10.5002	404	0.0004	0.3657	0.0061	9
		1600	60	10,365	66	3,980	10.5002	386	0.0004	0.3494	0.0058	8
		1700	60	10,425	66	3,980	10.5002	385	0.0004	0.3485	0.0058	8
		1200	1140	11,565	66	75,612	199.5042	385	0.0004	6.6209	0.0058	8
		1200	0	11,565								
	<b>8/13/2011</b>	1130	0	11,565								
		1200	30	11,595	39	1,181	3.1166	221	0.0002	0.0594	0.0020	3
		1600	240	11,835	39	9,449	24.9325	132	0.0001	0.2837	0.0012	2
		1700	60	11,895	39	2,358	6.2223	102	0.0001	0.0547	0.0009	1
		900	960	12,855	39	37,798	99.7300	82	0.0001	0.7049	0.0007	1
<b>8/15/2011</b>	<b>8/16/2011</b>	1000	60	12,915	39	2,354	6.2114	81	0.0001	0.0434	0.0007	1
		1100	60	12,975	39	2,366	6.2441	74	0.0001	0.0398	0.0007	1
		1200	60	13,035	39	2,366	6.2441	93	0.0001	0.0501	0.0008	1
		1300	60	13,095	39	2,362	6.2331	105	0.0001	0.0564	0.0009	1
		1400	60	13,155	37	2,245	5.9236	98	0.0001	0.0500	0.0008	1
	<b>8/17/2011</b>	1500	60	13,215	39	2,342	6.1793	71	0.0001	0.0378	0.0006	1
		1600	60	13,275	39	2,346	6.1900	41	0.0000	0.0219	0.0004	1
		1700	60	13,335	39	2,346	6.1900	39	0.0000	0.0208	0.0003	0
		900	960	14,295	38	36,905	97.3752	34	0.0000	0.2854	0.0003	0
		1000	60	14,355	39	2,354	6.2114	34	0.0000	0.0182	0.0003	0
		1100	60	14,415	39	2,362	6.2331	33	0.0000	0.0177	0.0003	0
		1200	60	14,475	39	2,362	6.2331	35	0.0000	0.0188	0.0003	0
		1300	60	14,535	39	2,358	6.2223	33	0.0000	0.0177	0.0003	0

**Table 6**

**Third Quarter 2011 MPE Event**  
**Extraction Data and VOC Mass Removal Rate**  
**August 2011**  
 15101 Freedom Avenue  
 San Leandro, California

MPE WELL	COMMENT	DATE	CLOCK TIME	INCREMENTAL TIME	ELAPSED TIME	Q		PID		MASS REMOVAL			
						minutes	minutes	SCFM	ft <sup>3</sup> of extracted air	Moles of extracted air	ppmv as hexane	VOC mole %	lb VOC mass removal as hexane
8/18/2011			1400	60	14,595	39	2,358	6.2223	35	0.0000	0.0188	0.0003	0
			1500	60	14,655	39	2,354	6.2114	34	0.0000	0.0182	0.0003	0
			1600	60	14,715	39	2,358	6.2223	39	0.0000	0.0209	0.0003	1
			1700	60	14,775	39	2,358	6.2223	38	0.0000	0.0204	0.0003	0
			900	960	15,735	39	37,343	98.5315	220	0.0002	1.8686	0.0019	3
			1000	60	15,795	39	2,358	6.2223	231	0.0002	0.1239	0.0021	3
			1100	60	15,855	39	2,362	6.2331	218	0.0002	0.1171	0.0020	3
			1200	60	15,915	39	2,362	6.2331	211	0.0002	0.1134	0.0019	3
			1300	60	15,975	39	2,358	6.2223	207	0.0002	0.1110	0.0019	3
			1400	60	16,035	39	2,354	6.2114	209	0.0002	0.1119	0.0019	3
			1500	60	16,095	39	2,354	6.2114	205	0.0002	0.1098	0.0018	3
			1600	60	16,155	39	2,354	6.2114	217	0.0002	0.1162	0.0019	3
			1700	60	16,215	39	2,354	6.2114	189	0.0002	0.1012	0.0017	2
	STOP		900	960	17,175	39	37,343	98.5315	34	0.0000	0.2888	0.0003	0
			1000	60	17,235	40	2,371	6.2550	33	0.0000	0.0178	0.0003	0
			1100	60	17,295	40	2,371	6.2550	32	0.0000	0.0173	0.0003	0
			1200	60	17,355	39	2,366	6.2441	33	0.0000	0.0178	0.0003	0
			1300	60	17,415	39	2,366	6.2441	34	0.0000	0.0183	0.0003	0
			1400	60	17,475	39	2,362	6.2331	31	0.0000	0.0167	0.0003	0
	TOTAL MEDIAN				17,475	54	906,523	2392	415	0.0004	94	0.0054	8

Notes

Q volumetric flow rate  
 SCFM standard cubic feet per minute  
 ft<sup>3</sup> cubic feet per minute  
 VOC volatile organic compounds  
 PID photo-ionization detector  
 ppmv parts per million vapor

**DERIVATION OF MASS REMOVAL RATE**

ppmv as hexane/1,000,000 = VOC mole %  
 ft<sup>3</sup> of extracted air/(379 ft<sup>3</sup> air/lb-mole air) = moles of extracted air  
 (moles of extracted air)(VOC mole %)(86.2 lb/lb-mole hexane) = lbs of VOC removed as hexane  
 (lbs of VOC mass removed as hexane)(elapsed time) = lbs/min of VOC removed as hexane  
 (lbs/min of VOC removed as hexane)(60 min/1 hour)(24 hours/1 day) = lbs/day of VOC removed as hexane

**Table 7**  
**SVE Abatement System Emissions**  
**15101 Freedom Avenue, San Leandro, CA**

Operation Start Date/Time	Onboard Analyzer Sample Date/Time	Onboard Analyzer		Lab Sample Date/Time	USEPA TO-3 MODIFIED		USEPA TO-15 MODIFIED		Q (SCFM)	Abatement Efficiency	Emissions Rate Benzene (lbs/day)				
		Hydrocarbons (TPH-g + BTEX) (ppmv as hexane)			TPH-g (ppmv)		Benzene (ppmv)								
		Inlet	Outlet		Inlet	Outlet	Inlet	Outlet							
8/5/11 @ 11:15	8/5/11 @ 14:20	1484	3	8/5/11 @ 15:10	376.119	1.379	7.952	0.0094	47	99.8818%	2.23E-04				
				8/16/11 @ 12:35	16.48	0.76	1.95	0.087	39	95.5385%	2.05E-03				
										total lbs	1.3771E-02				

SCFM standard cubic feet per minute

lbs/day pounds per day

# **Appendix A**

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

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

## **Water Level 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.

## **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.

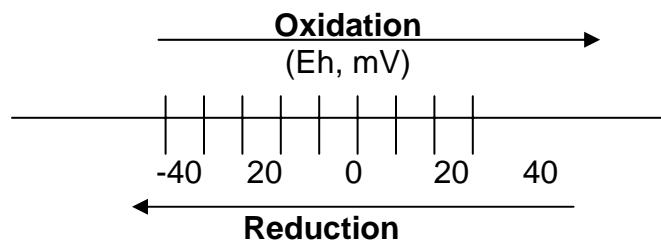
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater EC is directly related to the concentration of total dissolved solids (TDS) in solution.

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 ( $\text{Fe}^{+2}$ ), nitrate ( $\text{NO}_3^-$ ), and sulfate ( $\text{SO}_4^{+2}$ ) concentrations.

$\text{Fe}^{+2}$ ,  $\text{NO}_3^-$ , and  $\text{SO}_4^{+2}$  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, nonpreserved 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  
and Field Measurements of Physical, Chemical, and Natural  
Attenuation Parameters of Groundwater Samples

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

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

JOB NO. 2445  
DATE: FEB. 21,2008

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

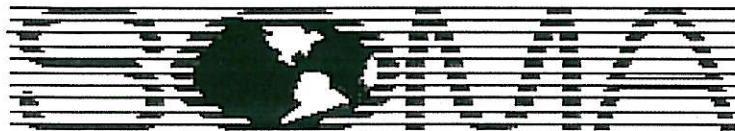
FD CHABOT A, CALIFORNIA STATE PLAIN COORDINATE SYSTEM, NAD 83, ZONE 3. NORTH 2,088,584.99 EAST 6,093,351.39. LAT N 37°43'11.04190" LONG W 122°07'09.20691", ELEVATION 492.08 NAVD 88.

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
<b>TABLE OF ELEVATIONS &amp; COORDINATES</b>					
<b>ON MONITORING WELLS</b>					
SOMA ENVIRONMENTAL ENGINEERING					
15101 FREEDOM AVENUE SAN LEANDRO, CA 94579					
WELL ID #	NORTHING (FT.) / LATITUDE (D.DEG.)	EASTING (FT.) / LONGITUDE (D.DEG.)	ELEVATION (FT.)	DESCRIPTION	
EX-1	2084135.454 37.707459134	6092163.720 122.123062972	47.36 47.61 47.60	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE	
EX-2	2084082.018 37.707310806	6092130.224 122.123175540	45.96 47.04 47.00	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM CONCRETE NORTH SIDE	
MPE-1	2084213.168 37.707670702	6092125.258 122.123200567	51.96 52.49 52.51	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM CONCRETE NORTH SIDE	
MPE-2	2084293.133 37.707892479	6092171.374 122.123045970	53.72 54.29 54.27	4" PVC NOTCH NORTH SIDE SET PUNCH NORTH SIDE RIM PAVEMENT NORTH SIDE	
<b>HORIZONTAL AND VERTICAL CONTROL</b>					
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





## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1  
Casing Diameter: 104 inches  
Depth of Well: 30.50 feet  
Top of Casing Elevation: 54.46 feet  
Depth to Groundwater: 22.81 feet  
Groundwater Elevation: 31.65 feet  
Water Column Height: 7.69 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 9, 2011  
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
09:35	Started purging well						
09:36	2	2.97	6.88	20.43	1280	4.51	-151.1
09:38	6	2.81	6.07	20.48	1269	4.42	-177.7
09:40	10	2.25	6.03	20.49	1311	4.36	-179.8
09:40	12	2.98	6.02	20.51	1317	4.66	-177.8
09:42	14	1.73	6.02	20.53	1320	4.63	-179.2
09:46	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: 21.05 feet  
Groundwater Elevation: 31.36 feet  
Water Column Height: 9.10 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 9, 2011  
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
09:07	Started purging well						
09:08	2	3.03	6.02	20.40	1312	14.4	-87.8
09:10	6	2.73	5.96	20.49	1118	7.14	-165.2
09:12	10	2.35	5.88	20.54	1107	9.97	-158.7
09:13	12	1.90	5.88	20.52	1242	5.51	-156.3
09:14	14	1.67	5.89	20.48	1303	6.19	-157.7
09:19	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: 22.44 feet  
Groundwater Elevation: 31.47 feet  
Water Column Height: 7.46 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 9, 2011  
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
10:08	Start of purging well						
10:09	2	1.52	6.23	20.72	1260	9.66	-81.3
10:11	6	1.40	6.18	20.74	1260	4.58	-152.3
10:13	10	1.20	6.16	20.75	1262	4.81	-172.0
10:14	12	1.13	6.15	20.77	1260	4.67	-177.6
10:15	14	1.05	6.13	20.74	1272	3.23	-179.4
10:20	sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4 Project No.: 2551  
Casing Diameter: 4 inches Address: 15101 Freedom Avenue  
Depth of Well: 30.20 feet San Leandro, CA  
Top of Casing Elevation: 53.31 feet Date: September 8, 2011  
Depth to Groundwater: 22.11 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 31.20 feet  
Water Column Height: 8.09 feet  
Purged Volume: 14 gallons

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

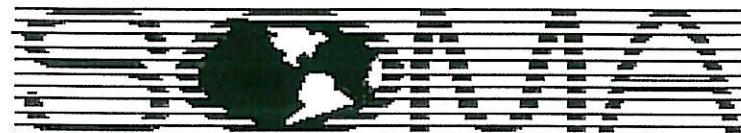
Color: Yes  No  Describe: \_\_\_\_\_

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

Odor: Yes  No  Describe: Slight Petro

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:03	Started purging well						
14:04	2	3.27	6.39	20.32	1361	6.69	-144.0
14:06	6	3.32	6.37	20.27	1351	5.21	-154.5
14:08	10	2.83	6.31	20.33	1434	3.82	-160.8
14:09	12	2.04	6.29	20.33	1429	3.37	-159.6
14:10	14	1.77	6.27	20.32	1430	3.82	-157.4
14:15	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: 19.41 feet  
Groundwater Elevation: 31.12 feet  
Water Column Height: 9.39 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 9, 2011  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

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

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
10:29	Started purging well						
10:30	2	1.93	6.30	21.03	1200	6.21	-137.7
10:32	6	1.88	6.24	21.08	1198	5.67	-185.1
10:34	10	1.61	6.22	21.09	1199	5.66	-207.1
10:35	12	1.29	6.21	21.06	1196	4.81	-213.1
10:36	14	1.14	6.20	21.07	1194	5.83	-215.4
10:41	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

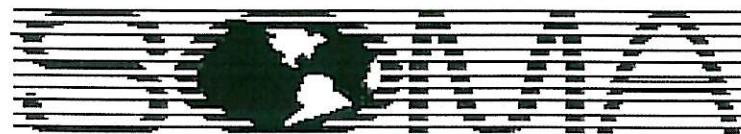
Well No.: MW-6 Project No.: 2551  
Casing Diameter: 4 inches Address: 15101 Freedom Avenue  
Depth of Well: 27.30 feet San Leandro, CA  
Top of Casing Elevation: 45.82 feet Date: September 8, 2011  
Depth to Groundwater: 16.14 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 29.68 feet  
Water Column Height: 11.16 feet  
Purged Volume: 14 gallons

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

Color: Yes  No  Describe: \_\_\_\_\_  
Sheen: Yes  No  Describe: Rainbow Sheen  
Odor: Yes  No  Describe: Strong Petro Odor

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
11:19	Started purging well						
11:20	2	2.63	6.22	20.94	1296	7.83	-53.3
11:22	6	1.92	6.18	20.85	1292	4.92	-109.9
11:24	10	1.71	6.19	20.87	1292	6.10	-136.3
11:25	12	1.22	6.19	20.87	1291	4.56	-161.3
11:26	14	1.07	6.20	20.84	1292	5.17	-167.9
11:31	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-7  
Casing Diameter: 2 inches  
Depth of Well: 21.00 feet  
Top of Casing Elevation: 44.74 feet  
Depth to Groundwater: 14.38 feet  
Groundwater Elevation: 30.36 feet  
Water Column Height: 6.62 feet  
Purged Volume: 3.5 gallons

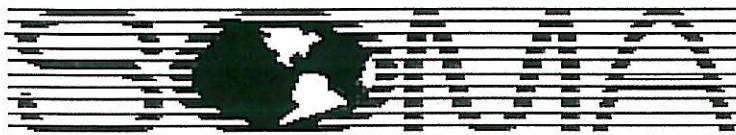
Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 8, 2011  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump   
Sampling Method: Bailer  Pump

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

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
10:41	Started purging well						
10:44	1	3.52 (6.44)	6.34	18.34	1239	746	-20.4
10:49	2	3.05	6.14	18.69	1196	1000	-31.3
10:52	3	2.73	6.09	18.92	1178	857	-22.8
10:56	3.5	2.01	6.07	18.91	1198	748	-17.8
11:01	Sampled						



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>EX-1</u>	Project No.:	2551
Casing Diameter:	<u>6</u> inches	Address:	15101 Freedom Avenue
Depth of Well:	<u>—</u> feet		San Leandro, CA
Top of Casing Elevation:	<u>47.36</u> feet	Date:	September <u>8</u> , 2011
Depth to Groundwater:	<u>16.47</u> feet	Sampler:	Lizzie Hightower
Groundwater Elevation:	<u>30.89</u> feet		
Water Column Height:	<u>NC</u> feet		
Purged Volume:	<u>—</u> gallons		

Purging Method: Bailer □ Pump □

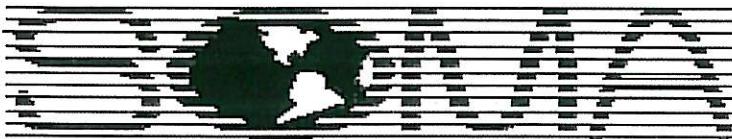
Sampling Method: Bailer  Pump

Color: Yes  No  Describe:

**Sheep:** Yes  No  **Describe:**

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

#### **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>EX-2</u>	Project No.:	2551
Casing Diameter:	<u>6</u> inches	Address:	15101 Freedom Avenue
Depth of Well:	<u>—</u> feet		San Leandro, CA
Top of Casing Elevation:	<u>45.96</u> feet	Date:	September <u>8</u> , 2011
Depth to Groundwater:	<u>16.34</u> feet	Sampler:	Lizzie Hightower
Groundwater Elevation:	<u>29.62</u> feet		
Water Column Height:	<u>NC</u> feet		
Purged Volume:	<u>—</u> gallons		

Purging Method: Bailer  Pump

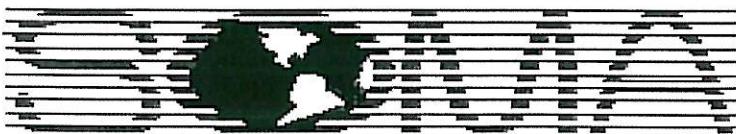
**Sampling Method:** Bailer  Pump

**Color:** Yes  No  **Describe:**

**Sheen:** Yes  No  **Describe:**

Odor: Yes  No  Describe: Slight Petro

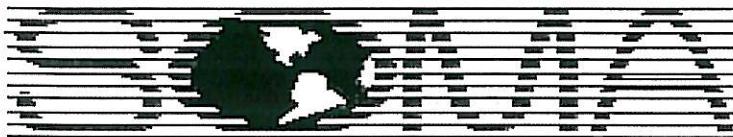
### **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>MPE-1</u>		Project No.:	2551	
Casing Diameter:	<u>4</u>	inches	Address:	15101 Freedom Avenue	
Depth of Well:	<u>30.00</u> feet		San Leandro, CA		
Top of Casing Elevation:	<u>51.95</u> feet		Date:	September <u>8</u> , 2011	
Depth to Groundwater:	<u>20.83</u> feet		Sampler:	Lizzie Hightower	
Groundwater Elevation:	<u>31.13</u> feet				
Water Column Height:	<u>9.17</u> feet				
Purged Volume:	<u>—</u> gallons				
<u>Not purged</u>					
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/>	
Sampling Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/> <u>Not sampled</u>	
Color:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>
Sheen:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>
Odor:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>

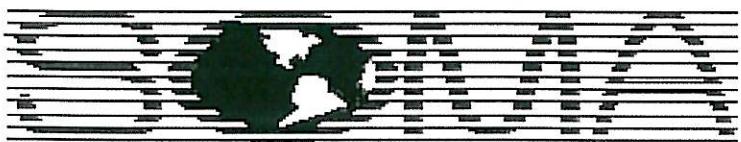
## **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>MPE-1</u>		Project No.:	2551	
Casing Diameter:	<u>4</u>	inches	Address:	15101 Freedom Avenue	
Depth of Well:	<u>30.00</u> feet		San Leandro, CA		
Top of Casing Elevation:	<u>51.96</u> feet		Date:	September <u>26</u> 2011	
Depth to Groundwater:	<u>20.93</u> feet		Sampler:	Lizzie Hightower	
Groundwater Elevation:	<u>31.13</u> feet				
Water Column Height:	<u>9.17</u> feet				
Purged Volume:	<u>—</u> gallons				
	<u>Not purged</u>				
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Pump	<input type="checkbox"/>	
Color:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Sheen:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Rainbow Sheen</u>
Odor:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Petro odor</u>

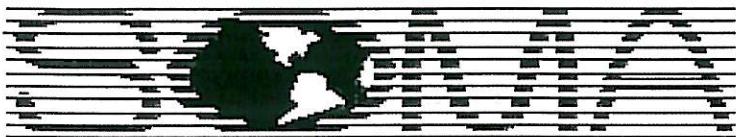
#### **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>MPE-2</u>		Project No.:	2551	
Casing Diameter:	<u>4</u>	inches	Address:	15101 Freedom Avenue	
Depth of Well:	<u>30.00</u> feet		San Leandro, CA		
Top of Casing Elevation:	<u>53.72</u> feet		Date:	September <u>8</u> , 2011	
Depth to Groundwater:	<u>22.31</u> feet		Sampler:	Lizzie Hightower	
Groundwater Elevation:	<u>31.41</u> feet				
Water Column Height:	<u>7.69</u> feet				
Purged Volume:	<u>—</u> gallons				
<u>Not purged</u>					
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/>	
Sampling Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/> <u>Not sampled</u>	
Color:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>
Sheen:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>
Odor:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Unknown</u>

## **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC.

Well No.:	<u>MPE-2</u>		Project No.:	2551	
Casing Diameter:	<u>4</u>	inches	Address:	15101 Freedom Avenue	
Depth of Well:	<u>30.00</u> feet		San Leandro, CA		
Top of Casing Elevation:	<u>53.72</u> feet		Date:	September <u>26</u> 2011	
Depth to Groundwater:	<u>22.31</u> feet		Sampler:	Lizzie Hightower	
Groundwater Elevation:	<u>31.41</u> feet				
Water Column Height:	<u>7.69</u> feet				
Purged Volume:	<u>—</u> gallons				
<i>not purged</i>					
Purging Method:	Bailer	<input type="checkbox"/>	Pump	<input type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Pump	<input type="checkbox"/>	
Color:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Sheen:	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Describe: _____
Odor:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Describe: <u>Petro odor</u>

#### **Field Measurements:**



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1D Project No.: 2551  
Casing Diameter: 2 inches Address: 15101 Freedom Avenue  
Depth of Well: 59.81 feet San Leandro, CA  
Top of Casing Elevation: 54.42 feet Date: September 8, 2011  
Depth to Groundwater: 23.08 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 31.34 feet  
Water Column Height: 36.73 feet  
Purged Volume: 14 gallons

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

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

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

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

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
12:21	Started purging well						
12:22	2	4.33	6.80	20.12	1293	8.88	-12.7
12:24	6	4.01	6.74	20.07	1301	4.39	-21.4
12:26	10	3.76	6.69	20.03	1306	8.94	-30.8
12:27	12	3.50	6.67	20.04	1309	10.2	-34.5
12:28	14	3.21	6.66	20.03	1309	9.98	-35.5
12:33	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-3D  
Casing Diameter: 2 inches  
Depth of Well: 58.59 feet  
Top of Casing Elevation: 54.10 feet  
Depth to Groundwater: 22.68 feet  
Groundwater Elevation: 31.42 feet  
Water Column Height: 35.91 feet  
Purged Volume: 14 gallons

Project No.: 2551  
Address: 15101 Freedom Avenue  
San Leandro, CA  
Date: September 8, 2011  
Sampler: Lizzie Hightower

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

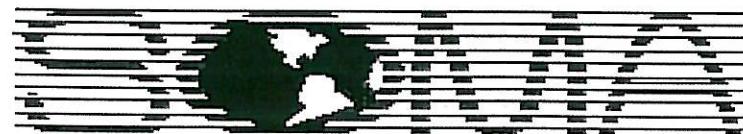
Color: Yes  No  Describe: \_\_\_\_\_

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
13:11	Started pumping well						
13:12	2	2.97	6.59	20.21	1237	3.65	-12.8
13:14	6	2.53	6.56	20.19	1243	3.45	-22.4
13:16	10	2.20	6.54	20.19	1245	3.13	-28.6
13:17	12	1.95	6.53	20.19	1245	2.92	-29.9
13:18	14	1.73	6.52	20.19	1247	3.53	-32.6
13:21	Sampled						



## ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4D Project No.: 2551  
Casing Diameter: 2 inches Address: 15101 Freedom Avenue  
Depth of Well: 58.79 feet San Leandro, CA  
Top of Casing Elevation: 53.12 feet Date: September 8, 2011  
Depth to Groundwater: 21.92 feet Sampler: Lizzie Hightower  
Groundwater Elevation: 31.20 feet  
Water Column Height: 36.87 feet  
Purged Volume: 14 gallons

Purging Method: Bailer  Pump

Sampling Method: Bailer  Pump

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

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

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

## Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
13:37	Started purging well						
13:38	2	3.21	6.77	19.63	1242	4.42	-58.6
13:40	6	3.10	6.66	19.62	1260	2.15	-56.1
13:42	10	2.83	6.61	19.62	1263	4.32	-55.2
13:43	12	2.52	6.59	19.62	1262	3.55	-54.9
13:44	14	2.03	6.57	19.62	1261	3.13	-54.0
13:49	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
1st WBZ							
MW-1	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
MW-2	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
MW-3	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
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
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
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

**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>2nd WBZ</b>							
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
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
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
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

# **Appendix C**

**Laboratory Report and Chain of Custody Form  
for the Third Quarter 2011 Monitoring Event**



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

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

**Laboratory Job Number 230985  
ANALYTICAL REPORT**

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

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

<u>Sample ID</u>	<u>Lab ID</u>
MW-1	230985-001
MW-2	230985-002
MW-3	230985-003
MW-4	230985-004
MW-5	230985-005
MW-6	230985-006
MW-7	230985-007
MW-1D	230985-008
MW-3D	230985-009
MW-4D	230985-010
EX-1	230985-011
EX-2	230985-012

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:

Project Manager

Date: 09/19/2011

NELAP # 01107CA

**CASE NARRATIVE**

Laboratory number: **230985**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2551**  
Location: **15101 Freedom Avenue San Leandro**  
Request Date: **09/12/11**  
Samples Received: **09/12/11**

This data package contains sample and QC results for twelve water samples, requested for the above referenced project on 09/12/11. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B):**  
No analytical problems were encountered.

# CHAIN OF CUSTODY

Page 1 of 1

## Curtis & Tompkins, Ltd.

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

C&T LOGIN # 230985

Project No: 2551

Sampler: Lizzie Hightower/

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			Preservative			
			Soil	Water	Waste	# of Containers	HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>
1	MW-1	9/9/11 09:46	*			3-VOAs	*		*
2	MW-2	9/9/11 09:49	*			3-VOAs	*		*
3	MW-3	9/9/11 10:20	*			3-VOAs	*		*
4	MW-4	9/9/11 14:15	*			3-VOAs	*		*
5	MW-5	9/9/11 10:41	*			3-VOAs	*		*
6	MW-6	9/9/11 11:31	*			3-VOAs	*		*
7	MW-7	9/9/11 11:01	*			3-VOAs	*		*
8	MW-1D	9/9/11 12:33	*			3-VOAs	*		*
9	MW-3D	9/9/11 13:21	*			3-VOAs	*		*
10	MW-4D	9/9/11 13:49	*			3-VOAs	*		*
11	EX-1	9/9/11 11:49	*			3-VOAs	*		*
12	EX-2	9/9/11 12:01	*			3-VOAs	*		*

Notes: EDF OUTPUT REQUIRED

Ethanol

RELINQUISHED BY:

Lizzie Hightower 9/12/11  
 10:53 DATE/TIME

RECEIVED BY:

J. Bobek 9/12/11 10:53  
 DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

# COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 230985 Date Received 9/12/11 Number of coolers 1  
 Client SOMA ENVIRONMENTAL Project 2551

Date Opened 9/12/11 By (print) I. CHOU (sign) J  
 Date Logged in ↓ By (print) ↓ (sign) J

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

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

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

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

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

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

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

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

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

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

Samples Received on ice & cold without a temperature blank

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 samples in the appropriate containers for indicated tests?  YES  NO

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

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

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

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

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

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

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

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

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

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

## COMMENTS

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**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-1	Units:	ug/L
Lab ID:	230985-001	Sampled:	09/09/11
Matrix:	Water	Received:	09/12/11

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	6,400	130	2.500	178973	09/15/11
tert-Butyl Alcohol (TBA)	33	25	2.500	178973	09/15/11
Isopropyl Ether (DIPE)	ND	1.3	2.500	178973	09/15/11
Ethyl tert-Butyl Ether (ETBE)	ND	1.3	2.500	178973	09/15/11
Methyl tert-Amyl Ether (TAME)	ND	1.3	2.500	178973	09/15/11
Ethanol	ND	2,500	2.500	178973	09/15/11
MTBE	2.3	1.3	2.500	178973	09/15/11
1,2-Dichloroethane	ND	1.3	2.500	178973	09/15/11
Benzene	220	1.3	2.500	178973	09/15/11
Toluene	ND	1.3	2.500	178973	09/15/11
1,2-Dibromoethane	ND	1.3	2.500	178973	09/15/11
Ethylbenzene	380	6.3	12.50	178930	09/14/11
m,p-Xylenes	160	1.3	2.500	178973	09/15/11
o-Xylene	ND	1.3	2.500	178973	09/15/11

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	96	80-127	2.500	178973	09/15/11
1,2-Dichloroethane-d4	89	73-145	2.500	178973	09/15/11
Toluene-d8	97	80-120	2.500	178973	09/15/11
Bromofluorobenzene	87	80-120	2.500	178973	09/15/11

ND= Not Detected

RL= Reporting Limit

### Gasoline by GC/MS

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	178930
Lab ID:	230985-002	Sampled:	09/09/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,000	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	12	0.50
m,p-Xylenes	0.76	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	95	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	178973
Lab ID:	230985-003	Sampled:	09/09/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	14.29		

Analyte	Result	RL
Gasoline C7-C12	11,000	710
tert-Butyl Alcohol (TBA)	ND	140
Isopropyl Ether (DIPE)	ND	7.1
Ethyl tert-Butyl Ether (ETBE)	ND	7.1
Methyl tert-Amyl Ether (TAME)	ND	7.1
Ethanol	ND	14,000
MTBE	7.8	7.1
1,2-Dichloroethane	ND	7.1
Benzene	1,100	7.1
Toluene	26	7.1
1,2-Dibromoethane	ND	7.1
Ethylbenzene	580	7.1
m,p-Xylenes	1,100	7.1
o-Xylene	330	7.1

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-127
1,2-Dichloroethane-d4	86	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	89	80-120

ND= Not Detected

RL= Reporting Limit

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**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-4	Units:	ug/L
Lab ID:	230985-004	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	3,600	500	10.00	178973	09/15/11
tert-Butyl Alcohol (TBA)	380	10	1.000	178930	09/14/11
Isopropyl Ether (DIPE)	ND	0.50	1.000	178930	09/14/11
Ethyl tert-Butyl Ether (ETBE)	3.5	0.50	1.000	178930	09/14/11
Methyl tert-Amyl Ether (TAME)	ND	0.50	1.000	178930	09/14/11
Ethanol	ND	1,000	1.000	178930	09/14/11
MTBE	59	0.50	1.000	178930	09/14/11
1,2-Dichloroethane	1.1	0.50	1.000	178930	09/14/11
Benzene	300	5.0	10.00	178973	09/15/11
Toluene	2.6	0.50	1.000	178930	09/14/11
1,2-Dibromoethane	ND	0.50	1.000	178930	09/14/11
Ethylbenzene	270	5.0	10.00	178973	09/15/11
m,p-Xylenes	64	0.50	1.000	178930	09/14/11
o-Xylene	4.5	0.50	1.000	178930	09/14/11

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	98	80-127	1.000	178930	09/14/11
1,2-Dichloroethane-d4	85	73-145	1.000	178930	09/14/11
Toluene-d8	99	80-120	1.000	178930	09/14/11
Bromofluorobenzene	91	80-120	1.000	178930	09/14/11

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	178930
Lab ID:	230985-005	Sampled:	09/09/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	2.000		

Analyte	Result	RL
Gasoline C7-C12	4,200	100
tert-Butyl Alcohol (TBA)	260	20
Isopropyl Ether (DIPE)	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	1.0
Methyl tert-Amyl Ether (TAME)	11	1.0
Ethanol	ND	2,000
MTBE	22	1.0
1,2-Dichloroethane	ND	1.0
Benzene	120	1.0
Toluene	2.8	1.0
1,2-Dibromoethane	ND	1.0
Ethylbenzene	140	1.0
m,p-Xylenes	54	1.0
o-Xylene	7.1	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	90	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	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:	230985-006	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	23,000	1,300	25.00	178973	09/15/11
tert-Butyl Alcohol (TBA)	ND	50	5.000	178930	09/14/11
Isopropyl Ether (DIPE)	ND	2.5	5.000	178930	09/14/11
Ethyl tert-Butyl Ether (ETBE)	ND	2.5	5.000	178930	09/14/11
Methyl tert-Amyl Ether (TAME)	ND	2.5	5.000	178930	09/14/11
Ethanol	ND	5,000	5.000	178930	09/14/11
MTBE	3.4	2.5	5.000	178930	09/14/11
1,2-Dichloroethane	ND	2.5	5.000	178930	09/14/11
Benzene	28	2.5	5.000	178930	09/14/11
Toluene	ND	2.5	5.000	178930	09/14/11
1,2-Dibromoethane	ND	2.5	5.000	178930	09/14/11
Ethylbenzene	360	2.5	5.000	178930	09/14/11
m,p-Xylenes	780	2.5	5.000	178930	09/14/11
o-Xylene	32	2.5	5.000	178930	09/14/11

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	95	80-127	5.000	178930	09/14/11
1,2-Dichloroethane-d4	95	73-145	5.000	178930	09/14/11
Toluene-d8	95	80-120	5.000	178930	09/14/11
Bromofluorobenzene	89	80-120	5.000	178930	09/14/11

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-7	Batch#:	178973
Lab ID:	230985-007	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,000	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	1.6	0.50
Ethanol	ND	1,000
MTBE	5.4	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	8.3	0.50
m,p-Xylenes	2.9	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	93	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	91	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-1D	Batch#:	178973
Lab ID:	230985-008	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	220	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	0.60	0.50
m,p-Xylenes	1.4	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	96	73-145
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected

RL= Reporting Limit

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**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-3D	Batch#:	178930
Lab ID:	230985-009	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	69	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	4.8	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.62	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MW-4D	Batch#:	178930
Lab ID:	230985-010	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	59	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	1.7	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.51	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127
1,2-Dichloroethane-d4	98	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected

RL= Reporting Limit

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**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	EX-1	Batch#:	178973
Lab ID:	230985-011	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	110	50
tert-Butyl Alcohol (TBA)	32	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	0.53	0.50
Ethanol	ND	1,000
MTBE	12	0.50
1,2-Dichloroethane	ND	0.50
Benzene	5.0	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	2.2	0.50
m,p-Xylenes	4.8	0.50
o-Xylene	1.6	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-127
1,2-Dichloroethane-d4	92	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	95	80-120

ND= Not Detected

RL= Reporting Limit

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	EX-2	Batch#:	178973
Lab ID:	230985-012	Sampled:	09/08/11
Matrix:	Water	Received:	09/12/11
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	2.500		

Analyte	Result	RL
Gasoline C7-C12	3,400	130
tert-Butyl Alcohol (TBA)	ND	25
Isopropyl Ether (DIPE)	ND	1.3
Ethyl tert-Butyl Ether (ETBE)	ND	1.3
Methyl tert-Amyl Ether (TAME)	ND	1.3
Ethanol	ND	2,500
MTBE	5.4	1.3
1,2-Dichloroethane	ND	1.3
Benzene	190	1.3
Toluene	28	1.3
1,2-Dibromoethane	ND	1.3
Ethylbenzene	160	1.3
m,p-Xylenes	360	1.3
o-Xylene	91	1.3

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-127
1,2-Dichloroethane-d4	92	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	90	80-120

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

## Gasoline by GC/MS

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178930
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608932

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	86.11	86	46-141
Isopropyl Ether (DIPE)	20.00	18.43	92	52-139
Ethyl tert-Butyl Ether (ETBE)	20.00	19.15	96	56-131
Methyl tert-Amyl Ether (TAME)	20.00	17.84	89	65-120
MTBE	20.00	16.92	85	59-123
1,2-Dichloroethane	20.00	20.00	100	71-135
Benzene	20.00	21.08	105	80-122
Toluene	20.00	21.62	108	80-120
1,2-Dibromoethane	20.00	20.10	100	79-120
Ethylbenzene	20.00	22.09	110	80-120
m,p-Xylenes	40.00	41.15	103	80-120
o-Xylene	20.00	21.41	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	95	80-120

Type: BSD Lab ID: QC608933

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	85.28	85	46-141	1	31
Isopropyl Ether (DIPE)	20.00	17.38	87	52-139	6	20
Ethyl tert-Butyl Ether (ETBE)	20.00	18.45	92	56-131	4	20
Methyl tert-Amyl Ether (TAME)	20.00	17.03	85	65-120	5	20
MTBE	20.00	15.44	77	59-123	9	20
1,2-Dichloroethane	20.00	18.79	94	71-135	6	20
Benzene	20.00	20.39	102	80-122	3	20
Toluene	20.00	19.37	97	80-120	11	20
1,2-Dibromoethane	20.00	18.63	93	79-120	8	20
Ethylbenzene	20.00	20.40	102	80-120	8	20
m,p-Xylenes	40.00	37.89	95	80-120	8	20
o-Xylene	20.00	18.84	94	80-120	13	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

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## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178930
Units:	ug/L	Analyzed:	09/14/11
Diln Fac:	1.000		

Type: BS Lab ID: QC608934

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	871.5	109	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	97	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC608935

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	800.0	820.3	103	80-120	6 20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-120

RPD= Relative Percent Difference

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18.0

## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230985	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:	QC608936	Batch#:	178930
Matrix:	Water	Analyzed:	09/14/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	99	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178973
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	1.000		

Type: BS Lab ID: QC609123

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	90.45	72	46-141
Isopropyl Ether (DIPE)	25.00	22.53	90	52-139
Ethyl tert-Butyl Ether (ETBE)	25.00	22.45	90	56-131
Methyl tert-Amyl Ether (TAME)	25.00	20.75	83	65-120
MTBE	25.00	19.85	79	59-123
1,2-Dichloroethane	25.00	23.08	92	71-135
Benzene	25.00	25.00	100	80-122
Toluene	25.00	26.15	105	80-120
1,2-Dibromoethane	25.00	23.11	92	79-120
Ethylbenzene	25.00	26.14	105	80-120
m,p-Xylenes	50.00	50.75	101	80-120
o-Xylene	25.00	25.24	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC609124

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	89.51	72	46-141	1	31
Isopropyl Ether (DIPE)	25.00	21.27	85	52-139	6	20
Ethyl tert-Butyl Ether (ETBE)	25.00	21.83	87	56-131	3	20
Methyl tert-Amyl Ether (TAME)	25.00	20.54	82	65-120	1	20
MTBE	25.00	18.63	75	59-123	6	20
1,2-Dichloroethane	25.00	22.38	90	71-135	3	20
Benzene	25.00	24.03	96	80-122	4	20
Toluene	25.00	24.54	98	80-120	6	20
1,2-Dibromoethane	25.00	22.33	89	79-120	3	20
Ethylbenzene	25.00	24.72	99	80-120	6	20
m,p-Xylenes	50.00	47.23	94	80-120	7	20
o-Xylene	25.00	24.44	98	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-120

RPD= Relative Percent Difference

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19.0

## Batch QC Report

**Gasoline by GC/MS**

Lab #:	230985	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	178973
Units:	ug/L	Analyzed:	09/15/11
Diln Fac:	1.000		

Type: BS Lab ID: QC609125

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,028	103	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	98	73-145
Toluene-d8	99	80-120
Bromofluorobenzene	90	80-120

Type: BSD Lab ID: QC609171

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	965.1	97	80-120	6 20

Surrogate	%REC	Limits
Dibromofluoromethane	92	80-127
1,2-Dichloroethane-d4	92	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-120

RPD= Relative Percent Difference

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20.0

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	230985	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:	QC609172	Batch#:	178973
Matrix:	Water	Analyzed:	09/15/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	89	80-120

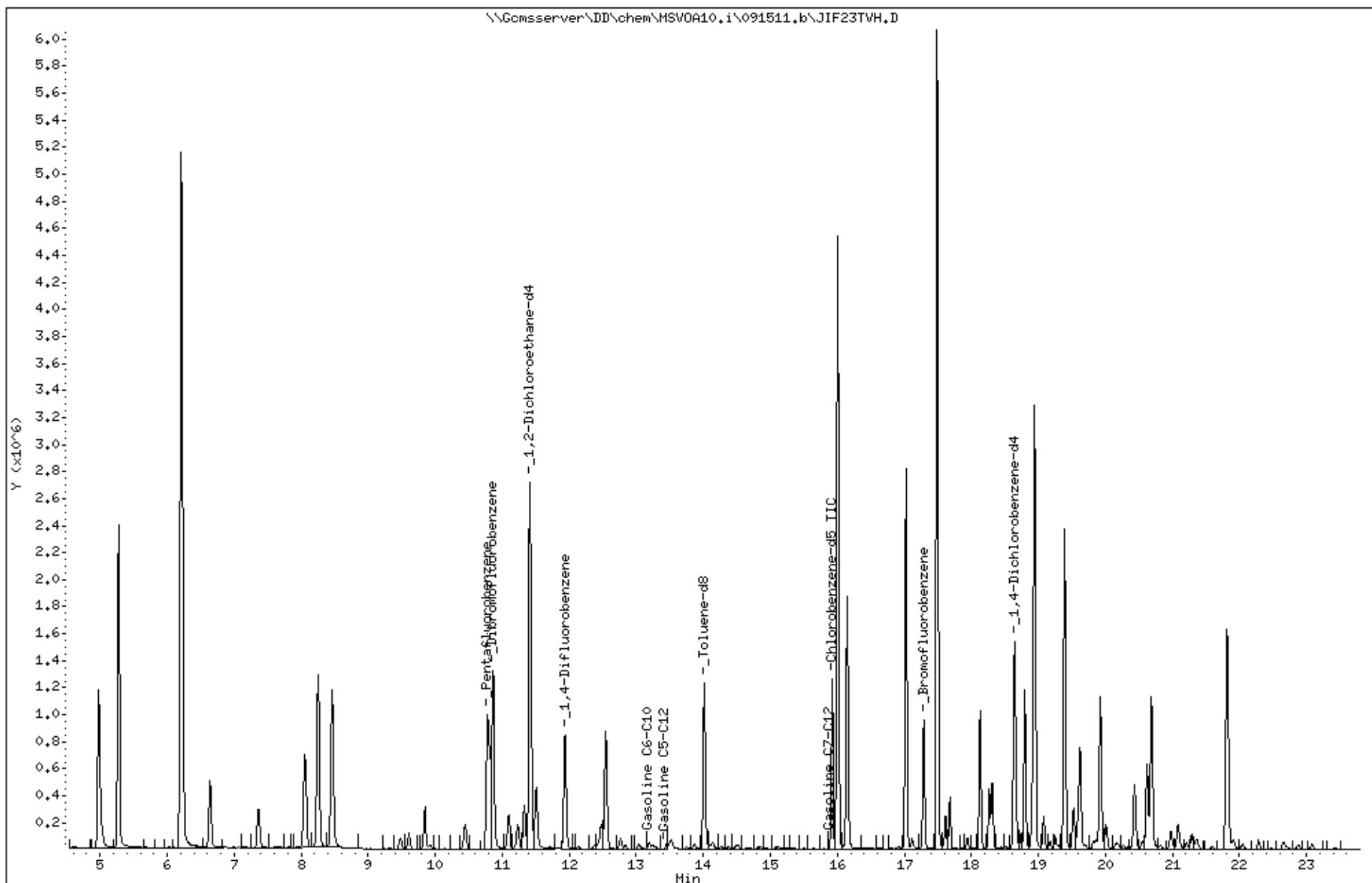
ND= Not Detected

RL= Reporting Limit

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Date : 15-SEP-2011 22:03  
Client ID: DYNAP&T  
Sample Info: S,230985-001

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

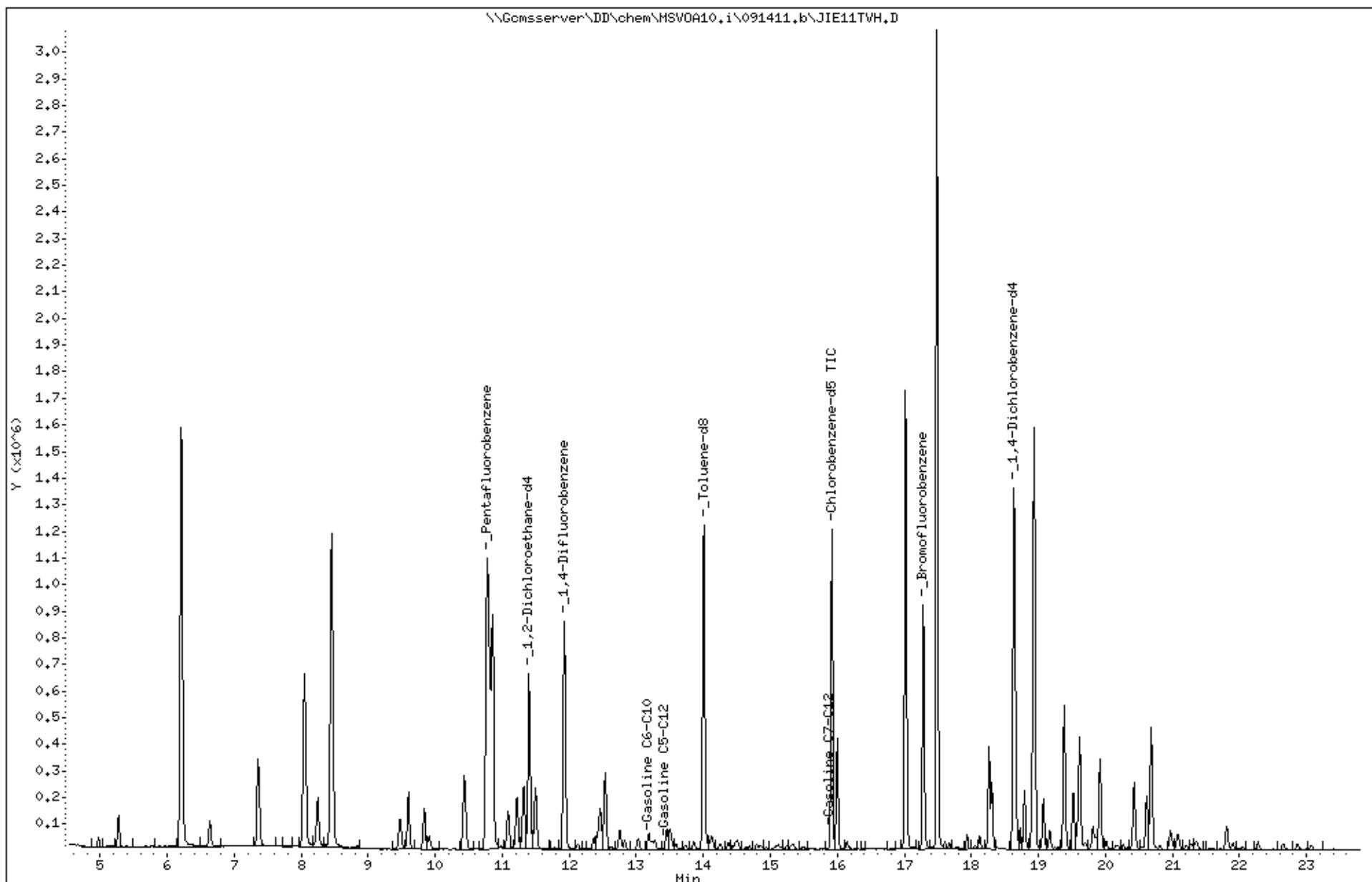
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Sample Info: S,230985-002

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

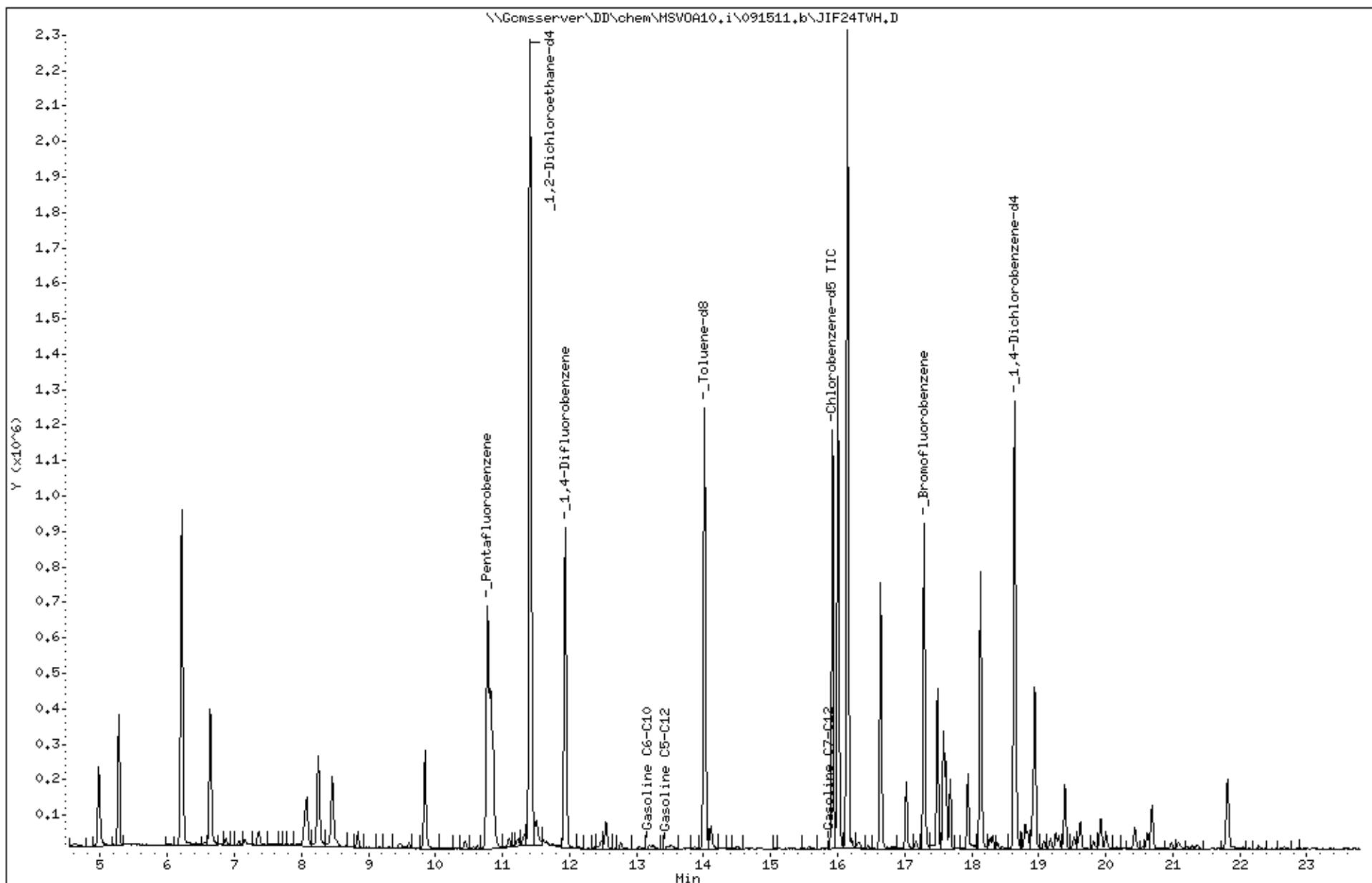
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Date : 15-SEP-2011 22:40  
Client ID: DYNAP&T  
Sample Info: S,230985-003

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

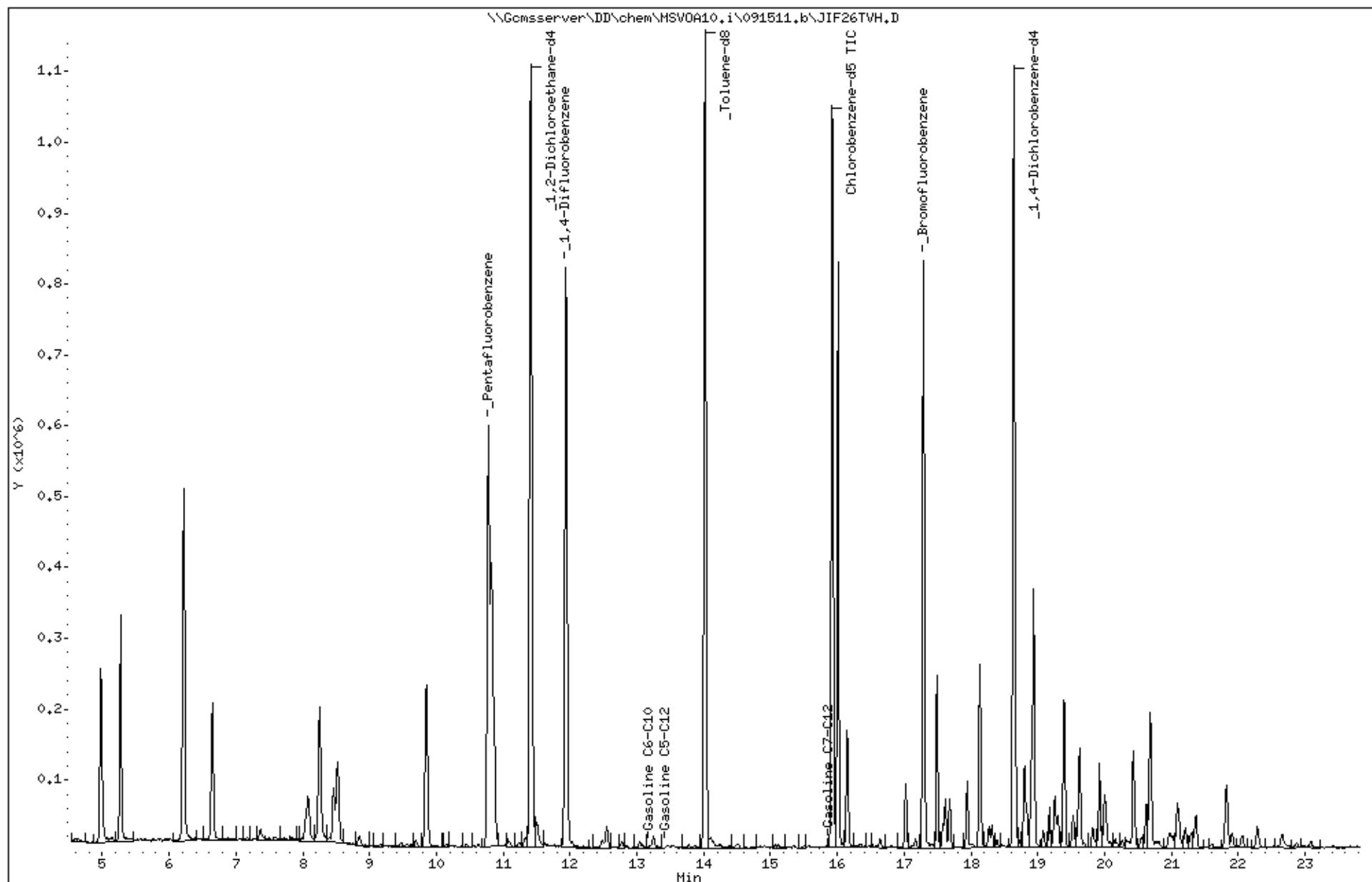
Column phase:



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Date : 15-SEP-2011 23:54  
Client ID: DYNAP&T  
Sample Info: S,230985-004

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

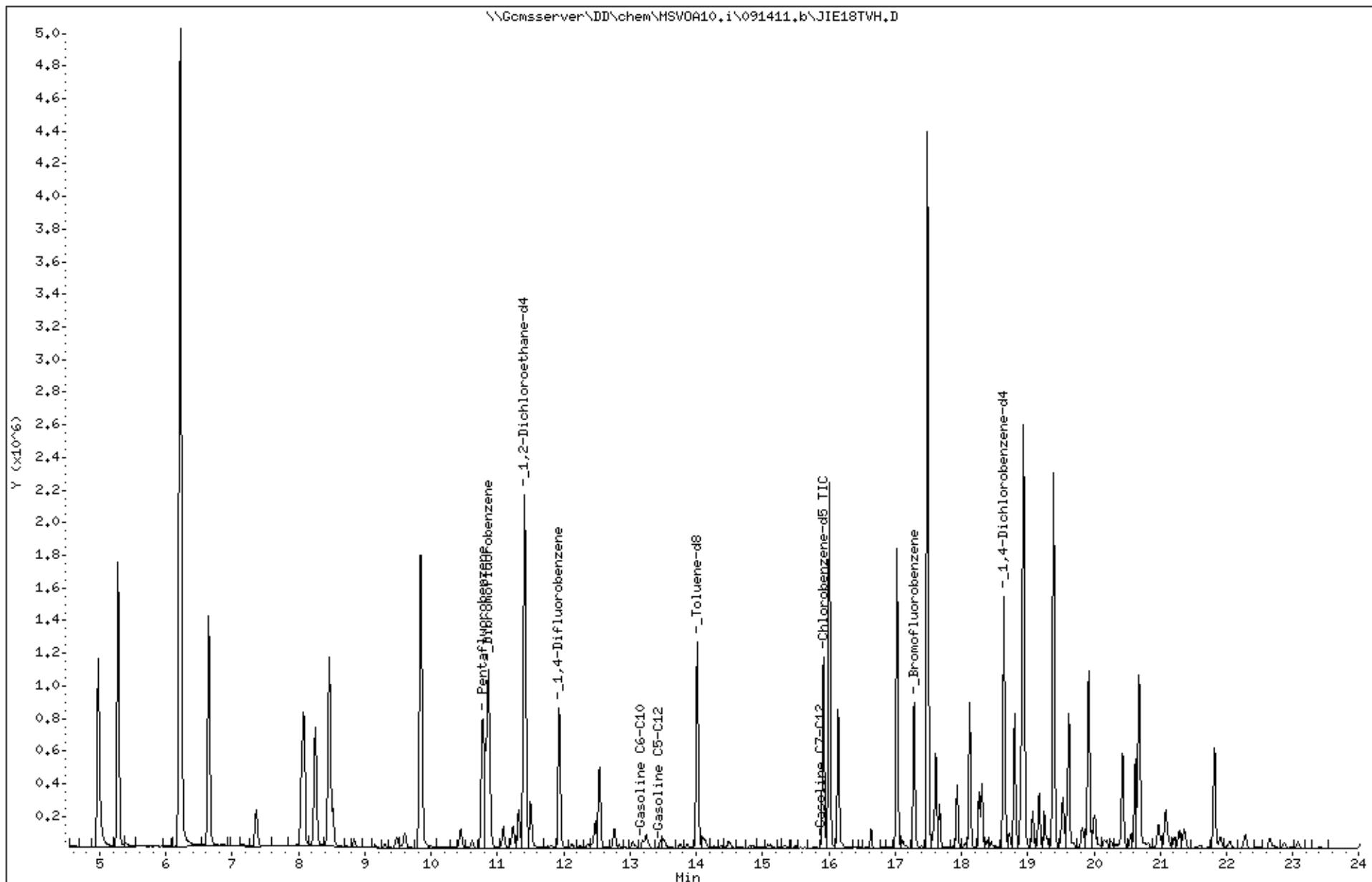
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Date : 14-SEP-2011 17:44  
Client ID: DYNAP&T  
Sample Info: S,230985-005

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

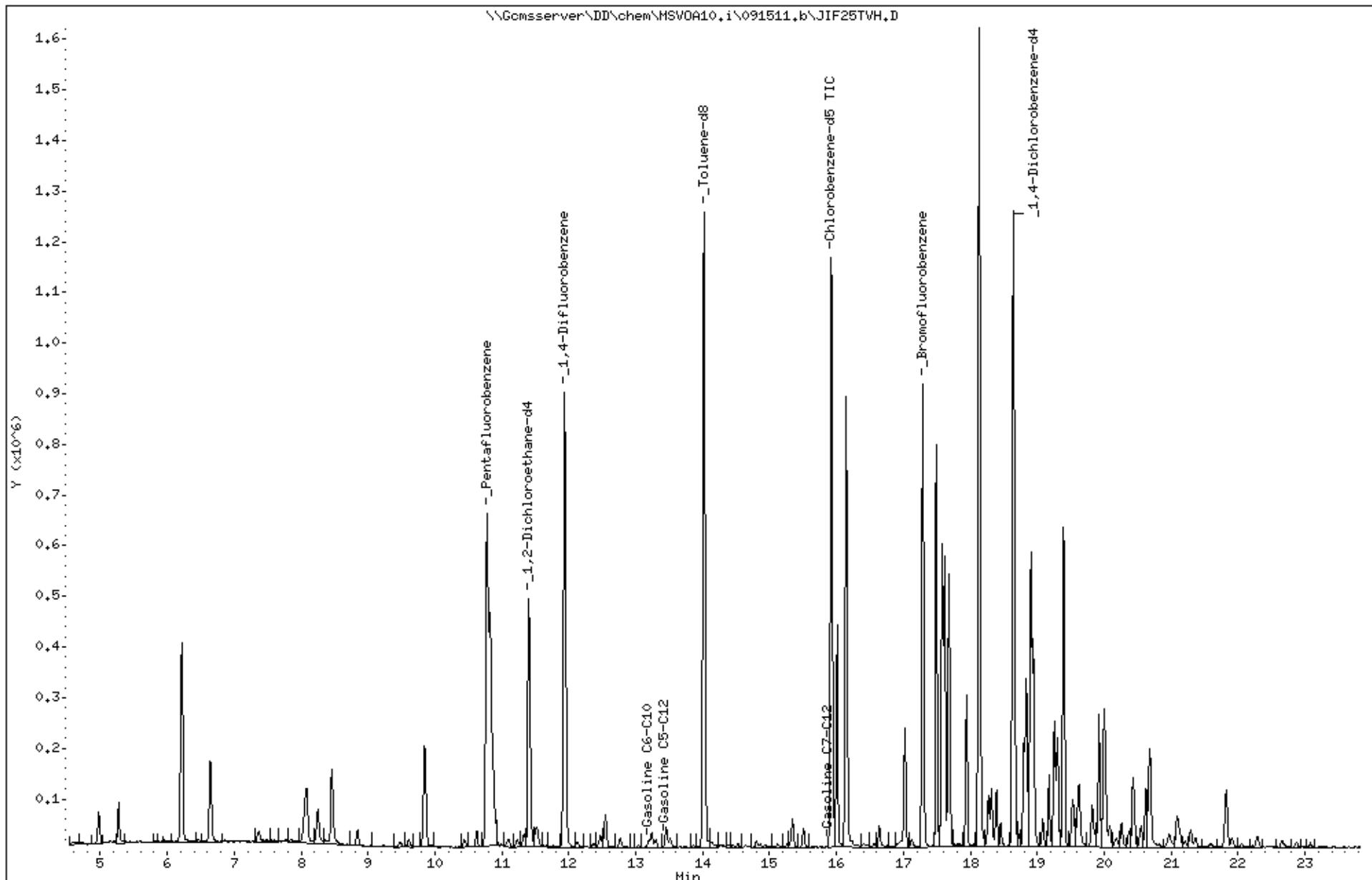
Column phase:



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Date : 15-SEP-2011 23:17  
Client ID: DYNAP&T  
Sample Info: S,230985-006

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

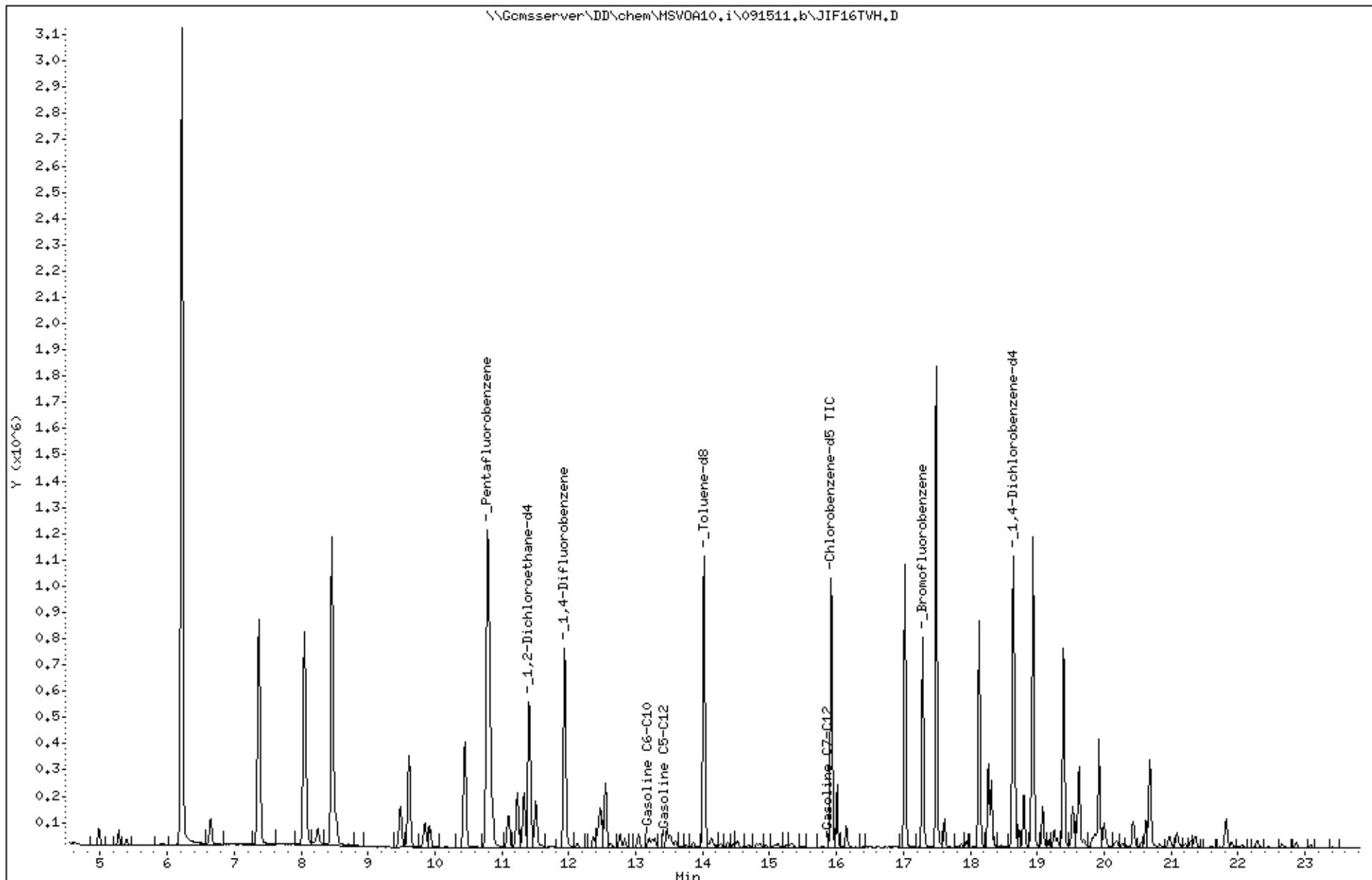
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Sample Info: S,230985-007

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

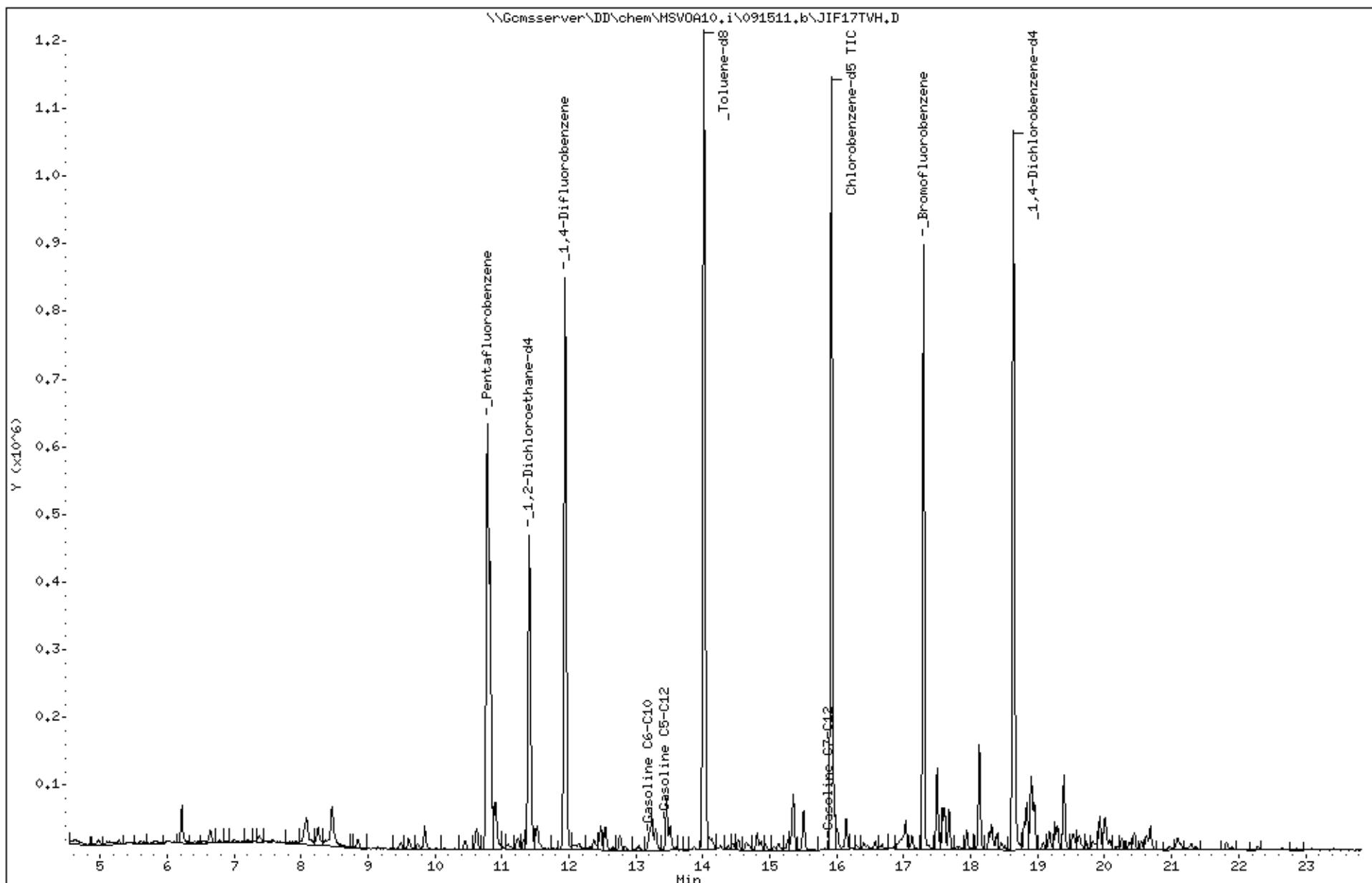
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Date : 15-SEP-2011 18:20  
Client ID: DYNAP&T  
Sample Info: S,230985-008

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

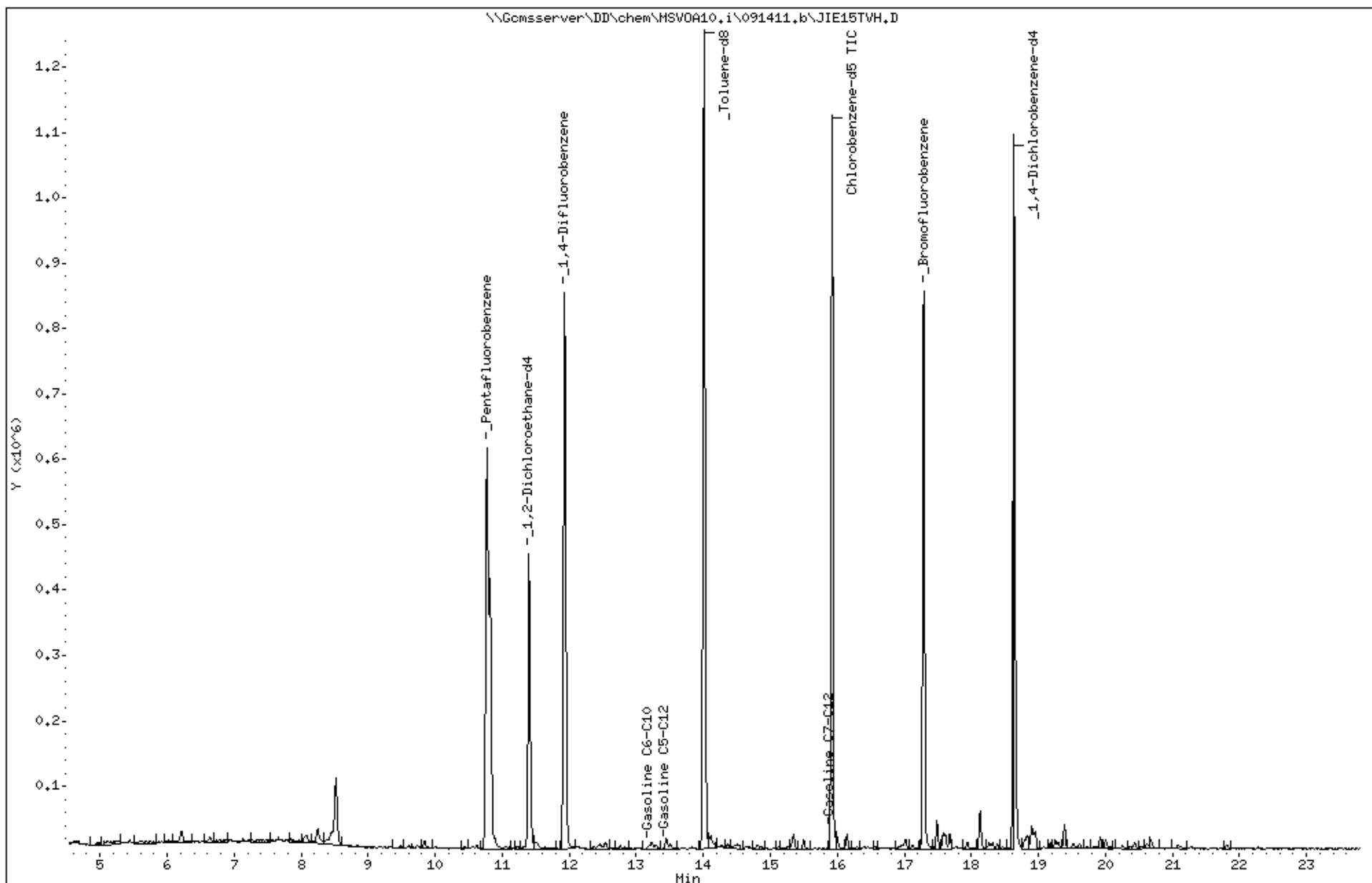
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Sample Info: S,230985-009

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

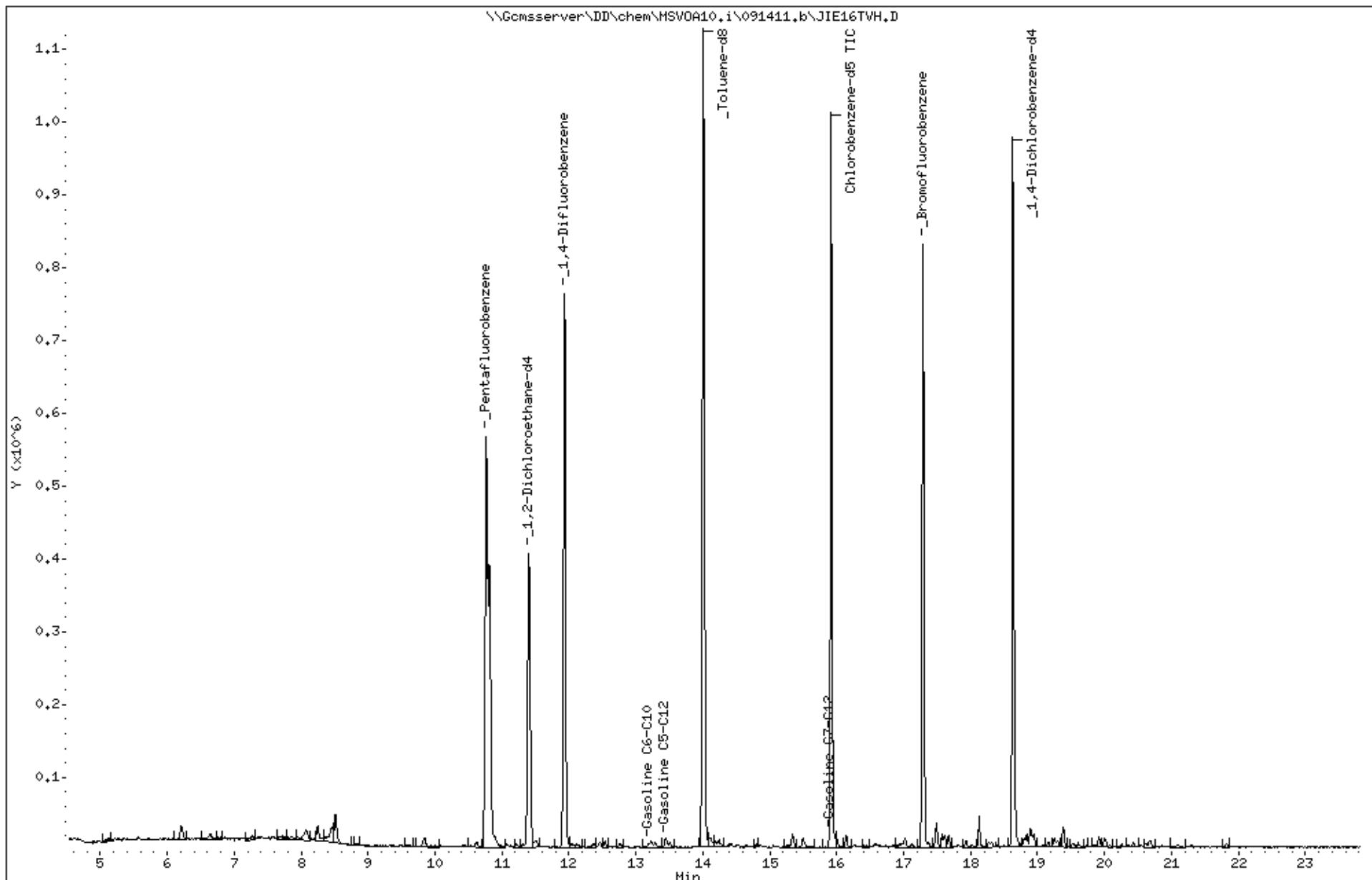
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Date : 14-SEP-2011 16:30  
Client ID: DYNAP&T  
Sample Info: S,230985-010

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

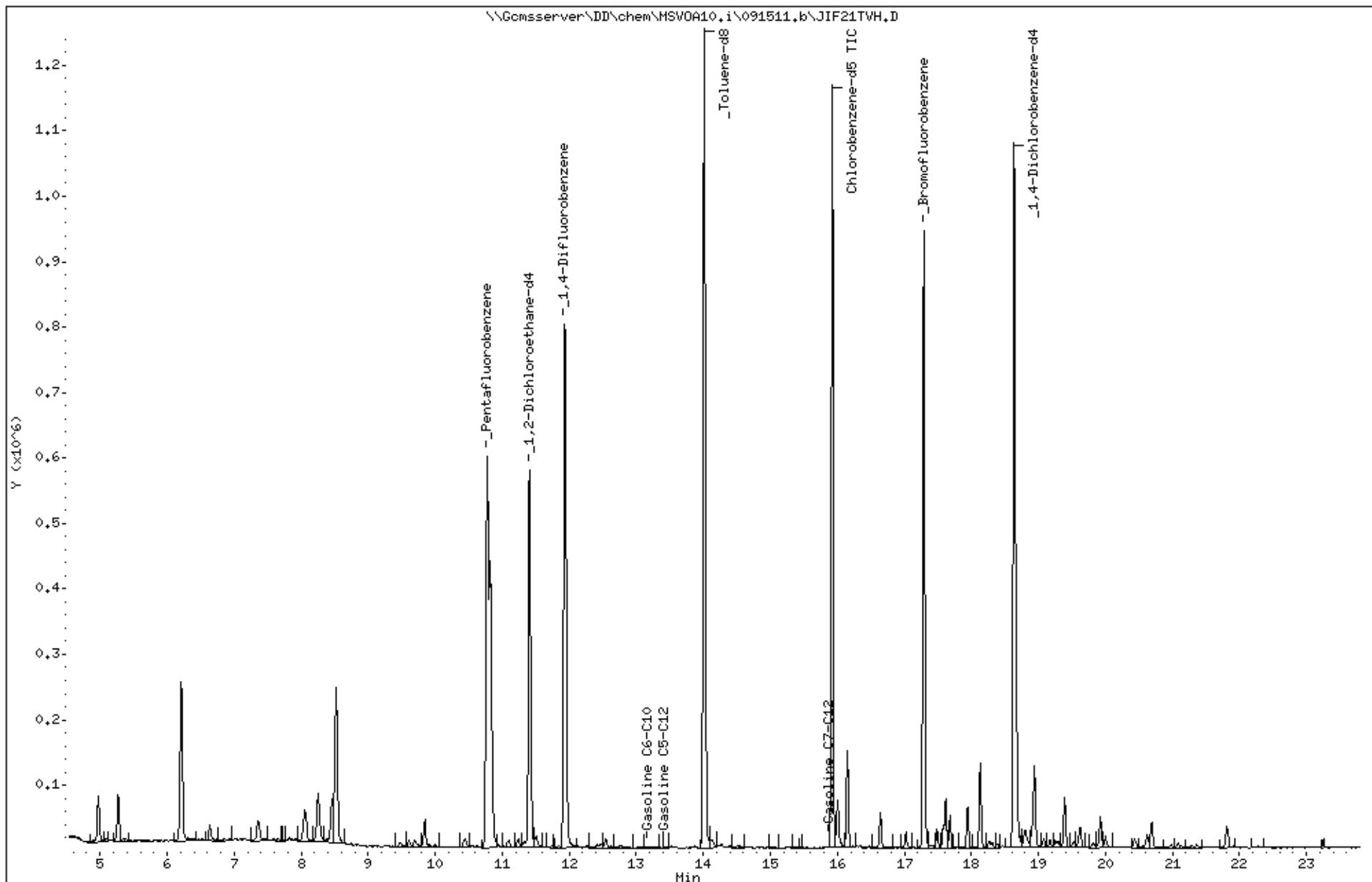
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Date : 15-SEP-2011 20:48  
Client ID: DYNAP&T  
Sample Info: S,230985-011

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

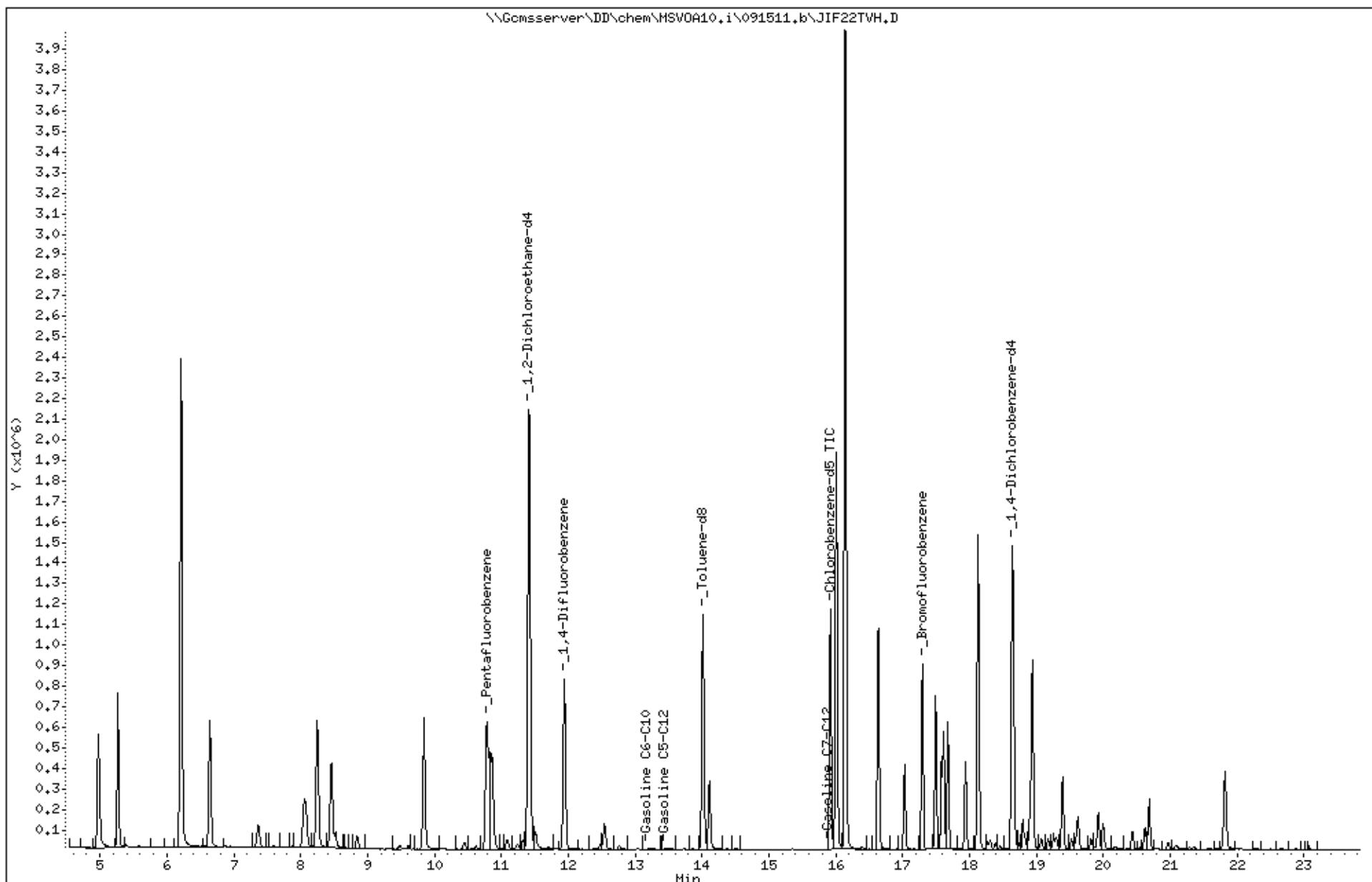
Column phase:



Data File: \\Gomsserver\DD\chem\MSV0A10.i\091511.b\JIF22TVH.D  
Date : 15-SEP-2011 21:25  
Client ID: DYNAP&T  
Sample Info: S,230985-012

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

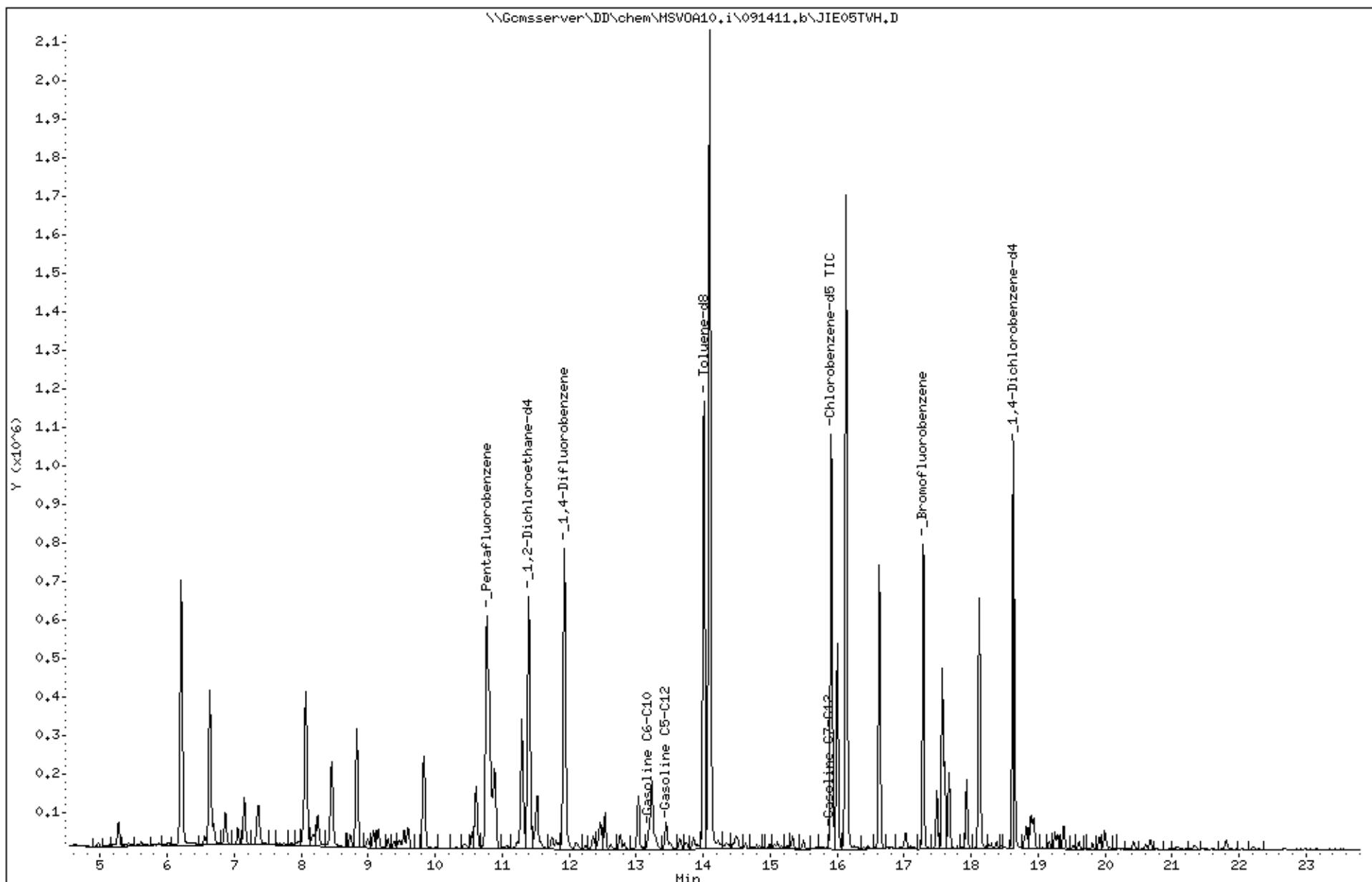
Column phase:



Data File: \\Gomsserver\DD\chem\MSV0A10.i\091411.b\JIE05TVH.D  
Date : 14-SEP-2011 09:45  
Client ID: DYNAP&T  
Sample Info: CCV\bs,qc608934

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

Column phase:





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

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

**Laboratory Job Number 231324  
ANALYTICAL REPORT**

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

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

<u>Sample ID</u>	<u>Lab ID</u>
MPE-1	231324-001
MPE-2	231324-002

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: Troy Baker  
Project Manager

Date: 10/03/2011

NELAP # 01107CA

**CASE NARRATIVE**

Laboratory number: **231324**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2551**  
Location: **15101 Freedom Avenue San Leandro**  
Request Date: **09/26/11**  
Samples Received: **09/26/11**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 09/26/11. The samples were received cold and intact.

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

No analytical problems were encountered.

# CHAIN OF CUSTODY

Page 1 of 1

## Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878

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

Project No: 2551

C&T LOGIN # 231324

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			
			Soil	Water	Waste		HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
MPE-1		9/26/11 09:59	*			3-VOAs	*		*	
MPE-2		9/26/11 09:40	*			3-VOAs	*		*	

Notes: EDF OUTPUT REQUIRED

Ethanol

RELINQUISHED BY:

L.Hightower 9/26/11  
10:31 DATE/TIME

RECEIVED BY:

P.L.Hanley 9/26/11 10:30  
DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 231324 Date Received 9/26/11 Number of coolers 1  
 Client SOMA Environmental Project 15101 Freedom Ave, San Leandro  
 Date Opened 9/26/11 By (print) Vidya Darsh (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  
 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 samples in the appropriate containers for indicated tests?  YES  NO
11. Are sample labels present, in good condition and complete?  YES  NO
12. Do the sample labels agree with custody papers?  YES  NO
13. Was sufficient amount of sample sent for tests requested?  YES  NO
14. Are the samples appropriately preserved?  YES  NO N/A
15. Did you check preservatives for all bottles for each sample?  YES  NO  N/A
16. Did you document your preservative check?  YES  NO  N/A
17. Did you change the hold time in LIMS for unpreserved VOAs?  YES  NO  N/A
18. Are bubbles > 6mm absent in VOA samples?  YES  NO N/A
19. Was the client contacted concerning this sample delivery? \_\_\_\_\_ YES  NO   
 If YES, Who was called? \_\_\_\_\_ By \_\_\_\_\_ Date: \_\_\_\_\_

## COMMENTS

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**Gasoline by GC/MS**

Lab #:	231324	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MPE-1	Units:	ug/L
Lab ID:	231324-001	Sampled:	09/26/11
Matrix:	Water	Received:	09/26/11

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	62,000	2,500	50.00	179396	09/28/11
tert-Butyl Alcohol (TBA)	ND	500	50.00	179396	09/28/11
Isopropyl Ether (DIPE)	ND	25	50.00	179396	09/28/11
Ethyl tert-Butyl Ether (ETBE)	ND	25	50.00	179396	09/28/11
Methyl tert-Amyl Ether (TAME)	600	25	50.00	179396	09/28/11
Ethanol	ND	50,000	50.00	179396	09/28/11
MTBE	1,200	25	50.00	179396	09/28/11
1,2-Dichloroethane	ND	25	50.00	179396	09/28/11
Benzene	6,300	42	83.33	179492	09/30/11
Toluene	3,700	25	50.00	179396	09/28/11
1,2-Dibromoethane	ND	25	50.00	179396	09/28/11
Ethylbenzene	1,800	25	50.00	179396	09/28/11
m,p-Xylenes	7,300	25	50.00	179396	09/28/11
o-Xylene	2,100	25	50.00	179396	09/28/11

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	95	80-127	50.00	179396	09/28/11
1,2-Dichloroethane-d4	84	73-145	50.00	179396	09/28/11
Toluene-d8	95	80-120	50.00	179396	09/28/11
Bromofluorobenzene	85	80-120	50.00	179396	09/28/11

ND= Not Detected

RL= Reporting Limit

### Gasoline by GC/MS

Lab #:	231324	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	MPE-2	Batch#:	179396
Lab ID:	231324-002	Sampled:	09/26/11
Matrix:	Water	Received:	09/26/11
Units:	ug/L	Analyzed:	09/28/11
Diln Fac:	33.33		

Analyte	Result	RL
Gasoline C7-C12	37,000	1,700
tert-Butyl Alcohol (TBA)	ND	330
Isopropyl Ether (DIPE)	ND	17
Ethyl tert-Butyl Ether (ETBE)	ND	17
Methyl tert-Amyl Ether (TAME)	ND	17
Ethanol	ND	33,000
MTBE	ND	17
1,2-Dichloroethane	ND	17
Benzene	1,800	17
Toluene	33	17
1,2-Dibromoethane	ND	17
Ethylbenzene	1,700	17
m,p-Xylenes	1,900	17
o-Xylene	860	17

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	89	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	231324	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	179396
Units:	ug/L	Analyzed:	09/28/11
Diln Fac:	1.000		

Type: BS Lab ID: QC610914

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	156.3	119.0	76	46-141
Isopropyl Ether (DIPE)	31.25	25.93	83	52-139
Ethyl tert-Butyl Ether (ETBE)	31.25	26.68	85	56-131
Methyl tert-Amyl Ether (TAME)	31.25	24.93	80	65-120
MTBE	31.25	23.28	74	59-123
1,2-Dichloroethane	31.25	27.06	87	71-135
Benzene	31.25	29.35	94	80-122
Toluene	31.25	29.42	94	80-120
1,2-Dibromoethane	31.25	28.44	91	79-120
Ethylbenzene	31.25	29.77	95	80-120
m,p-Xylenes	62.50	56.60	91	80-120
o-Xylene	31.25	30.34	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	90	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC610915

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	156.3	117.8	75	46-141	1	31
Isopropyl Ether (DIPE)	31.25	25.22	81	52-139	3	20
Ethyl tert-Butyl Ether (ETBE)	31.25	25.96	83	56-131	3	20
Methyl tert-Amyl Ether (TAME)	31.25	25.07	80	65-120	1	20
MTBE	31.25	22.97	73	59-123	1	20
1,2-Dichloroethane	31.25	26.81	86	71-135	1	20
Benzene	31.25	30.55	98	80-122	4	20
Toluene	31.25	30.17	97	80-120	3	20
1,2-Dibromoethane	31.25	28.28	90	79-120	1	20
Ethylbenzene	31.25	30.15	96	80-120	1	20
m,p-Xylenes	62.50	58.04	93	80-120	3	20
o-Xylene	31.25	29.52	94	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	89	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	91	80-120

RPD= Relative Percent Difference

Page 1 of 1

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**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	231324	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:	QC610916	Batch#:	179396
Matrix:	Water	Analyzed:	09/28/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	94	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	90	80-120

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	231324	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	179396
Units:	ug/L	Analyzed:	09/28/11
Diln Fac:	1.000		

Type: BS Lab ID: QC610940

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,036	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	100	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC610941

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	1,016	102	80-120	2 20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	91	73-145
Toluene-d8	96	80-120
Bromofluorobenzene	89	80-120

RPD= Relative Percent Difference

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**Batch QC Report**
**Gasoline by GC/MS**

Lab #:	231324	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	179492
Units:	ug/L	Analyzed:	09/30/11
Diln Fac:	1.000		

Type: BS Lab ID: QC611294

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	71.04	71	46-141
Isopropyl Ether (DIPE)	20.00	16.08	80	52-139
Ethyl tert-Butyl Ether (ETBE)	20.00	16.19	81	56-131
Methyl tert-Amyl Ether (TAME)	20.00	16.15	81	65-120
MTBE	20.00	15.05	75	59-123
1,2-Dichloroethane	20.00	16.12	81	71-135
Benzene	20.00	19.94	100	80-122
Toluene	20.00	20.58	103	80-120
1,2-Dibromoethane	20.00	19.29	96	79-120
Ethylbenzene	20.00	20.60	103	80-120
m,p-Xylenes	40.00	40.12	100	80-120
o-Xylene	20.00	19.97	100	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	84	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	90	80-120

Type: BSD Lab ID: QC611295

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	71.12	71	46-141	0	31
Isopropyl Ether (DIPE)	20.00	14.86	74	52-139	8	20
Ethyl tert-Butyl Ether (ETBE)	20.00	14.60	73	56-131	10	20
Methyl tert-Amyl Ether (TAME)	20.00	14.29	71	65-120	12	20
MTBE	20.00	13.71	69	59-123	9	20
1,2-Dichloroethane	20.00	15.52	78	71-135	4	20
Benzene	20.00	17.34	87	80-122	14	20
Toluene	20.00	17.98	90	80-120	14	20
1,2-Dibromoethane	20.00	17.71	89	79-120	9	20
Ethylbenzene	20.00	18.59	93	80-120	10	20
m,p-Xylenes	40.00	35.03	88	80-120	14	20
o-Xylene	20.00	18.01	90	80-120	10	20

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127
1,2-Dichloroethane-d4	84	73-145
Toluene-d8	95	80-120
Bromofluorobenzene	89	80-120

RPD= Relative Percent Difference

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## Batch QC Report

**Gasoline by GC/MS**

Lab #:	231324	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:	QC611296	Batch#:	179492
Matrix:	Water	Analyzed:	09/30/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-127
1,2-Dichloroethane-d4	87	73-145
Toluene-d8	96	80-120
Bromofluorobenzene	92	80-120

NA= Not Analyzed

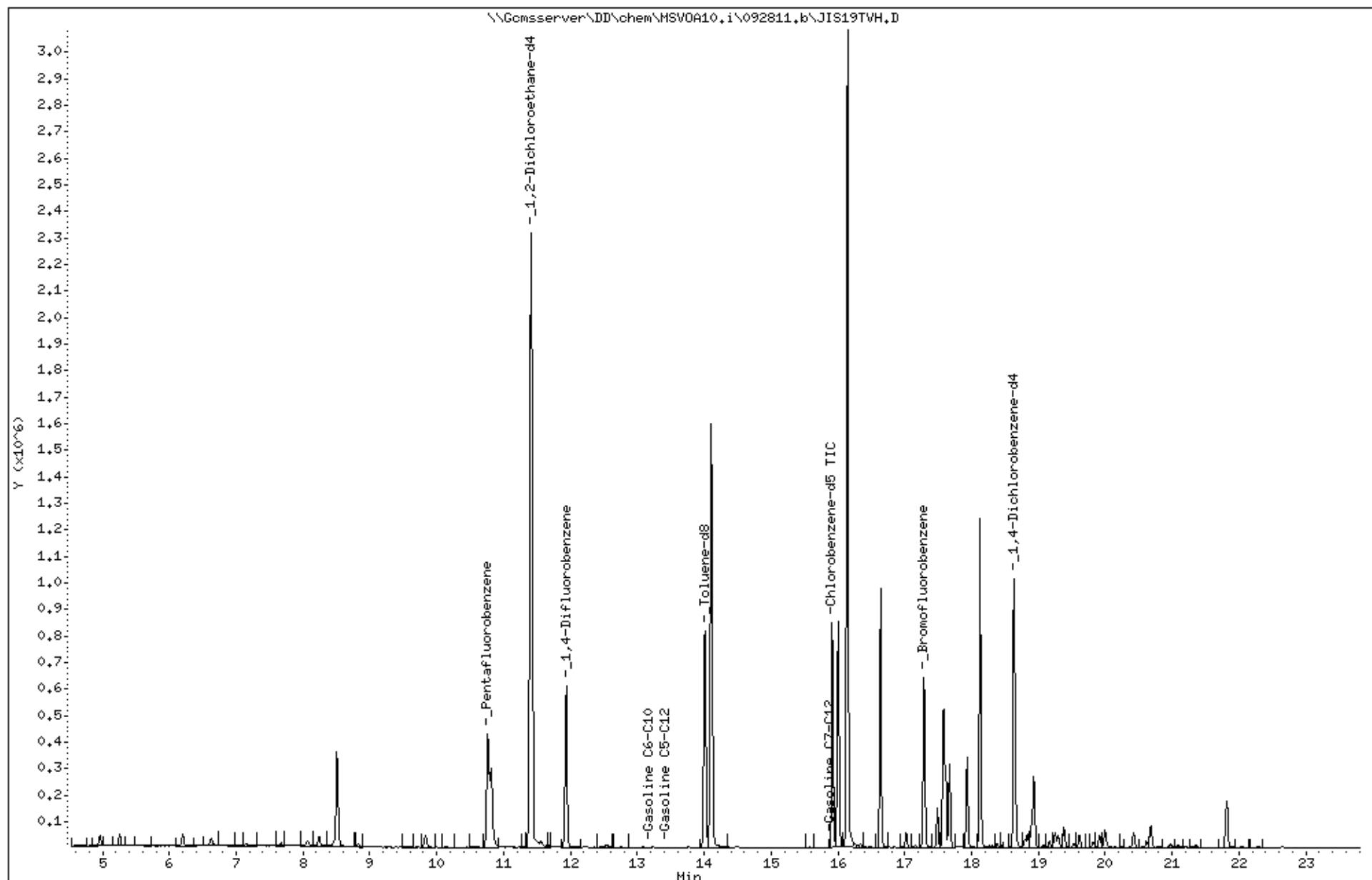
ND= Not Detected

RL= Reporting Limit

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Date : 28-SEP-2011 21:03  
Client ID: DYNAP&T  
Sample Info: S,231324-004,179396,

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00

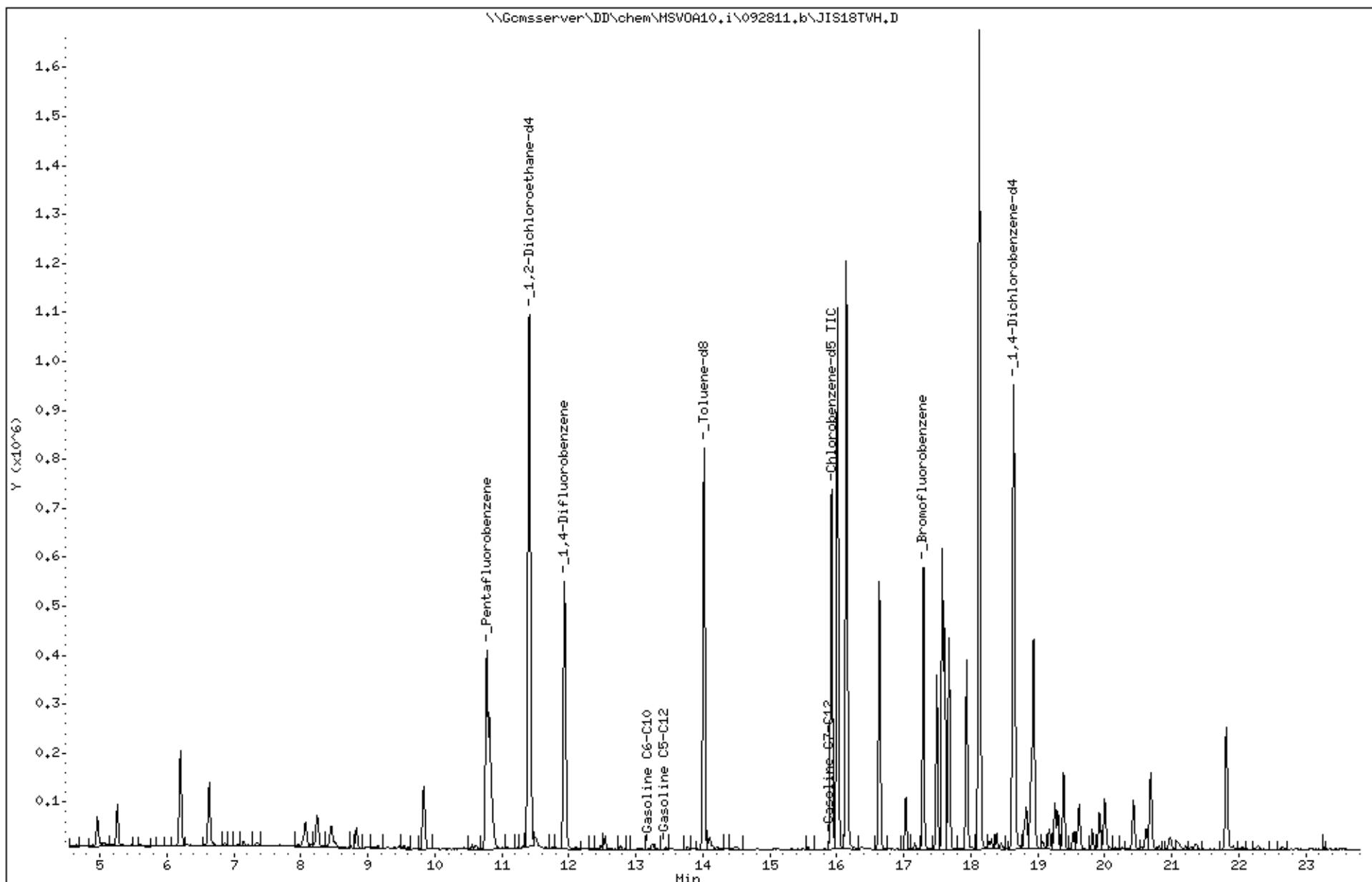
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Date : 28-SEP-2011 20:26  
Client ID: DYNAP&T  
Sample Info: S,231324-002,179396,

Column phase:

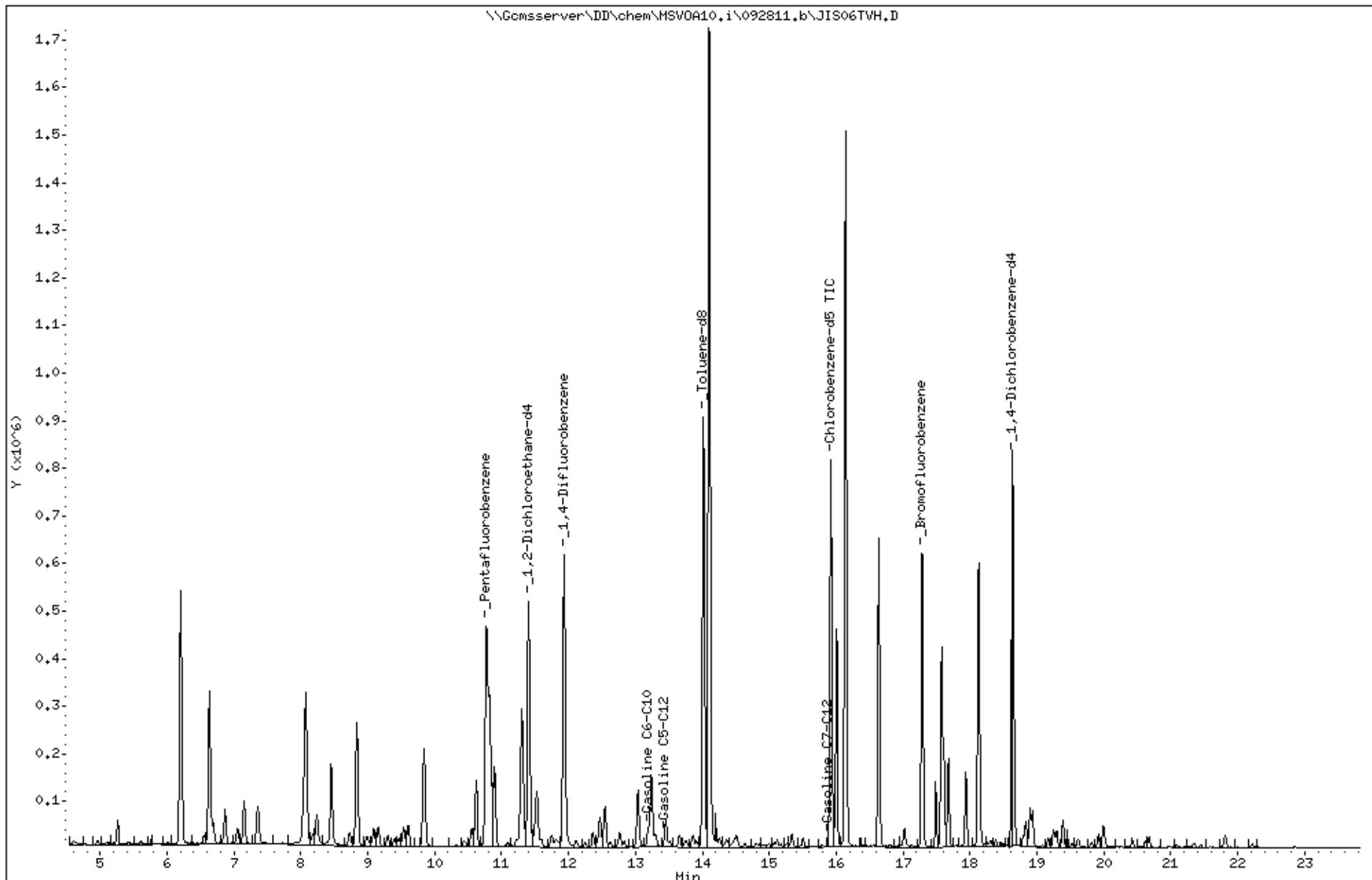
Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00



Data File: \\Gomsserver\DD\chem\MSV0A10.i\092811.b\JIS06TVH.D  
Date : 28-SEP-2011 12:43  
Client ID: DYNAP&T  
Sample Info: CCV/BS,QC610940,S17254,.01/100

Column phase:

Instrument: MSV0A10.i  
Operator: VOA  
Column diameter: 2.00



# **Appendix D**

**Laboratory Report and Chain of Custody  
Form for the Treatment System**



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

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

**Laboratory Job Number 229777  
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	229777-001
GAC-1	229777-002
INFLUENT	229777-003

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: Troy Baker  
Project Manager

Date: 08/04/2011

NELAP # 01107CA

## CASE NARRATIVE

Laboratory number: **229777**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2553**  
Location: **15101 Freedom Ave. San Leandro**  
Request Date: **07/28/11**  
Samples Received: **07/28/11**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 07/28/11. 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.

**Total Suspended Solids (TSS) (SM2540D):**

No analytical problems were encountered.

**pH (EPA 9040C):**

No analytical problems were encountered.

**Chemical Oxygen Demand (SM5220D):**

No analytical problems were encountered.

# CHAIN OF CUSTODY

Page 1 of 1

## Curtis & Tompkins, Ltd

Analytical Laboratory Since 1878

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

LOGIN # 229777

Project No: 2553

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	7/28/11 - 11	*			6 VOAs	*			*
			*			2-500mL Amber				*
			*			250 mL Poly	*		*	
			*			500 mL Poly				*
2	GAC-1		*			6 VOAs	*		*	
3	INFLUENT		*			6 VOAs	*		*	

Notes: EDF OUTPUT REQUIRED

RELINQUISHED BY:

7/28/11 - 9/2/13

RECEIVED BY:

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

## Analyses

*	TPH-g 8015	*	TPH-d, TPH-mo 8015	*	BTEX 8020	*	COD	pH, TSS	
*		*		*		*			
*						*			
*							*		
*								*	
*									*
*									
*									
*									
*									

11/1 7/28/11 1215	DATE/TIME

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 229777 Date Received 7/28/11 Number of coolers 1  
 Client SOMA Project 15101 Freedom Ave

Date Opened 7/28/11 By (print) Vidya Darshi (sign) V.D.  
 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) \_\_\_\_\_

<input type="checkbox"/> Bubble Wrap	<input checked="" type="checkbox"/> Foam blocks	<input type="checkbox"/> Bags	<input type="checkbox"/> None
<input type="checkbox"/> Cloth material	<input type="checkbox"/> Cardboard	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> 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

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 samples in the appropriate containers for indicated tests?  YES  NO

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

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

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

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

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

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

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

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

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

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

## COMMENTS

18. -001 2 of 6 VOAs w/ bubbles  
-003 "  
-003 3 of 6 VOAs w/ bubbles

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

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Sampled:	07/28/11
Units:	ug/L	Received:	07/28/11
Diln Fac:	1.000	Analyzed:	07/28/11
Batch#:	177264		

Field ID: **EFFLUENT** Lab ID: **229777-001**  
 Type: **SAMPLE**

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

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	89	78-123	EPA 8015B
Bromofluorobenzene (PID)	98	80-120	EPA 8021B

Field ID: **GAC-1** Lab ID: **229777-002**  
 Type: **SAMPLE**

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

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>	<b>Analysis</b>
Bromofluorobenzene (FID)	90	78-123	EPA 8015B
Bromofluorobenzene (PID)	98	80-120	EPA 8021B

ND= Not Detected

RL= Reporting Limit

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Sampled:	07/28/11
Units:	ug/L	Received:	07/28/11
Diln Fac:	1.000	Analyzed:	07/28/11
Batch#:	177264		

Field ID: INFLUENT    Lab ID: 229777-003  
 Type: SAMPLE

Analyte	Result	RL	Analysis
Gasoline C7-C12	540	50	EPA 8015B
Benzene	21	0.50	EPA 8021B
Toluene	2.8	0.50	EPA 8021B
Ethylbenzene	5.4	0.50	EPA 8021B
m,p-Xylenes	32	0.50	EPA 8021B
o-Xylene	17	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	92	78-123	EPA 8015B
Bromofluorobenzene (PID)	103	80-120	EPA 8021B

Type: BLANK    Lab ID: QC602036

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)	86	78-123	EPA 8015B
Bromofluorobenzene (PID)	96	80-120	EPA 8021B

ND= Not Detected

RL= Reporting Limit

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

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Batch#:	177264
Units:	ug/L	Analyzed:	07/28/11
Diln Fac:	1.000		

Type: BS Lab ID: QC602033

Analyte	Spiked	Result	%REC	Limits	Analysis
Benzene	10.00	10.10	101	80-120	EPA 8021B
Toluene	10.00	9.993	100	80-120	EPA 8021B
Ethylbenzene	10.00	10.37	104	80-120	EPA 8021B
m,p-Xylenes	10.00	10.26	103	80-120	EPA 8021B
o-Xylene	10.00	10.75	107	80-120	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	83	78-123	EPA 8015B
Bromofluorobenzene (PID)	93	80-120	EPA 8021B

Type: BSD Lab ID: QC602034

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Benzene	10.00	10.71	107	80-120	6	20	EPA 8021B
Toluene	10.00	10.84	108	80-120	8	20	EPA 8021B
Ethylbenzene	10.00	11.10	111	80-120	7	20	EPA 8021B
m,p-Xylenes	10.00	10.61	106	80-120	3	20	EPA 8021B
o-Xylene	10.00	11.39	114	80-120	6	20	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	93	78-123	EPA 8015B
Bromofluorobenzene (PID)	103	80-120	EPA 8021B

RPD= Relative Percent Difference

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

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC602035	Batch#:	177264
Matrix:	Water	Analyzed:	07/28/11
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	1,000	924.1	92	80-120	EPA 8015B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	88	78-123	EPA 8015B
Bromofluorobenzene (PID)	97	80-120	EPA 8021B

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

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	ZZZZZZZZZZ	Batch#:	177264
MSS Lab ID:	229742-008	Sampled:	07/26/11
Matrix:	Water	Received:	07/27/11
Units:	ug/L	Analyzed:	07/28/11
Diln Fac:	1.000		

Type: MS                                  Lab ID: QC602037

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	58.69	2,000	1,813	88	66-120	EPA 8015B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	97	78-123	EPA 8015B
Bromofluorobenzene (PID)	109	80-120	EPA 8021B

Type: MSD                                  Lab ID: QC602038

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	2,000	1,807	87	66-120	0	25	EPA 8015B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	95	78-123	EPA 8015B
Bromofluorobenzene (PID)	107	80-120	EPA 8021B

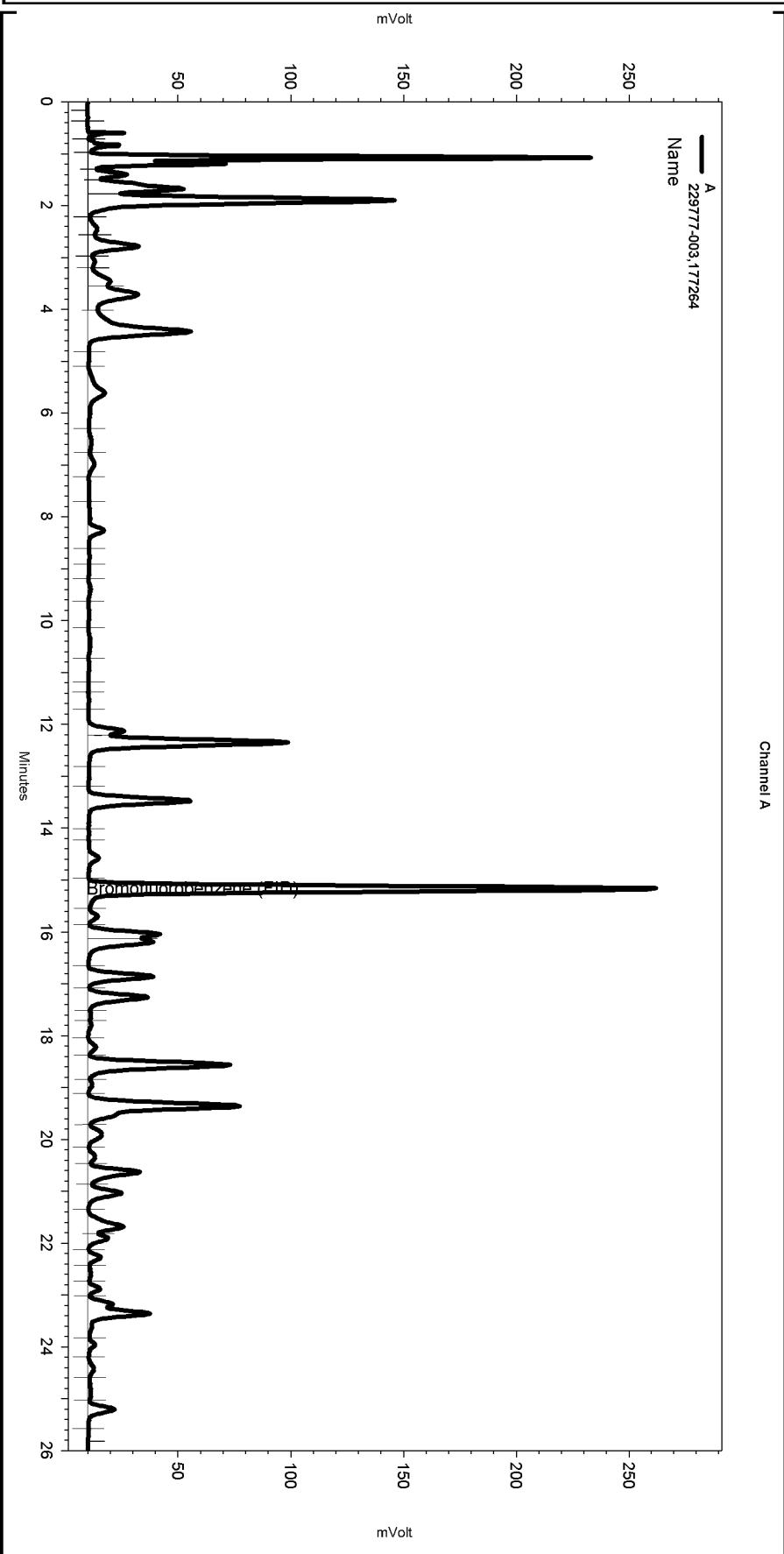
RPD= Relative Percent Difference

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6.0

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Sample Name: 229777-003,177264  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Data\\209-008  
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Method\\tvhtxe153.met

Software Version 3.1.7  
Run Date: 7/28/2011 8:27:00 PM  
Analysis Date: 7/29/2011 11:56:49 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: a1.0



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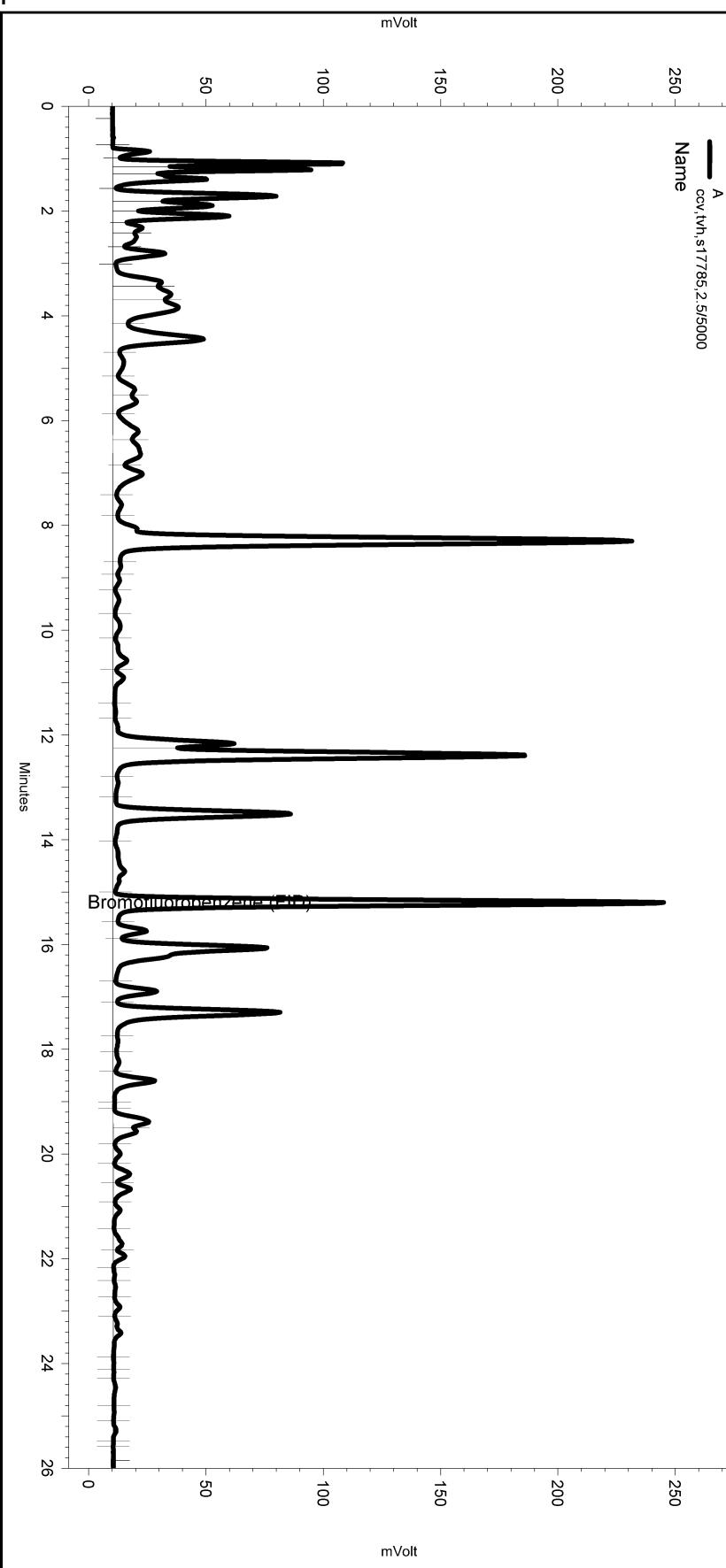
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Yes	Threshold	0	0	50

Manual Integration Fixes

Data File:	Start	Stop		
Enabled	Event Type	(Minutes)	(Minutes)	Value
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Sample Name: ccv,tvh,s17785,2.5/5000  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Data\\209-003  
Instrument: GC07 Vial: N/A Operator: lims2k3\\tvh3  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Method\\tvhbtxe153.met

Software Version 3.1.7  
Run Date: 7/28/2011 2:11:50 PM  
Analysis Date: 7/28/2011 2:40:34 PM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: {Data Description}



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No items selected for this section

#### Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

#### Manual Integration Fixes

Data File:	C:\Documents and Settings\All Users\Application Data\Chromatography\System\Recovery\
Instrument:	10049\209-003_D8FF.tmp
Enabled	Event Type
Start (Minutes)	Stop (Minutes)
None	

### Total Extractable Hydrocarbons

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Sampled:	07/28/11
Matrix:	Water	Received:	07/28/11
Units:	ug/L	Prepared:	07/29/11
Diln Fac:	1.000	Analyzed:	07/31/11
Batch#:	177309		

Type: SAMPLE Lab ID: 229777-001

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

Surrogate	%REC	Limits
o-Terphenyl	100	68-120

Type: BLANK Lab ID: QC602229

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

Surrogate	%REC	Limits
o-Terphenyl	106	68-120

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	177309
Units:	ug/L	Prepared:	07/29/11
Diln Fac:	1.000	Analyzed:	07/31/11

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC602230

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	5,000	4,419	88	61-120

Surrogate	%REC	Limits
o-Terphenyl	96	68-120

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC602231

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,189	88	61-120	1	20

Surrogate	%REC	Limits
o-Terphenyl	97	68-120

RPD= Relative Percent Difference

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### Chemical Oxygen Demand

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	177439
Field ID:	EFFLUENT	Sampled:	07/28/11 11:00
Matrix:	Water	Received:	07/28/11
Units:	mg/L	Prepared:	08/03/11 12:45
Diln Fac:	1.000	Analyzed:	08/03/11 14:45

Type	Lab ID	Result	RL
SAMPLE	229777-001	ND	10
BLANK	QC602739	ND	10

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Chemical Oxygen Demand

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	177439
Field ID:	ZZZZZZZZZZ	Sampled:	07/21/11 10:32
MSS Lab ID:	229635-001	Received:	07/22/11
Matrix:	Water	Prepared:	08/03/11 12:45
Units:	mg/L	Analyzed:	08/03/11 14:45

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim	Diln	Fac
LCS	QC602740		75.00	80.05	107	90-110			1.000	
MS	QC602741	<10.00	300.0	312.4	104	61-127			2.000	
MSD	QC602742		300.0	300.2	100	61-127	4	20	2.000	

RPD= Relative Percent Difference

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**pH**

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Diln Fac:	1.000
Field ID:	EFFLUENT	Batch#:	177260
Lab ID:	229777-001	Sampled:	07/28/11 11:00
Matrix:	Water	Received:	07/28/11
Units:	SU	Analyzed:	07/28/11 17:15

Result	RL
6.3	1.0

## Batch QC Report

**pH**

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Units:	SU
Field ID:	EFFLUENT	Diln Fac:	1.000
Type:	SDUP	Batch#:	177260
MSS Lab ID:	229777-001	Sampled:	07/28/11 11:00
Lab ID:	QC602021	Received:	07/28/11
Matrix:	Water	Analyzed:	07/28/11 17:15

MSS	Result	Result	RL	RPD	Lim
	6.300	6.290	1.000	0	20

RL= Reporting Limit

RPD= Relative Percent Difference

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### Total Suspended Solids (TSS)

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	177265
Field ID:	EFFLUENT	Sampled:	07/28/11
Matrix:	Water	Received:	07/28/11
Units:	mg/L	Prepared:	07/28/11
Diln Fac:	1.000	Analyzed:	07/29/11

Type	Lab ID	Result	RL
SAMPLE	229777-001	5	5
BLANK	QC602040	ND	5

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

**Total Suspended Solids (TSS)**

Lab #:	229777	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	177265
Field ID:	ZZZZZZZZZZ	Sampled:	07/28/11
MSS Lab ID:	229774-001	Received:	07/28/11
Matrix:	Water	Prepared:	07/28/11
Units:	mg/L	Analyzed:	07/29/11
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC602041		50.00	54.00	108	80-120		
BSD	QC602042		50.00	55.00	110	80-120	2	5
MS	QC602043	42.00	50.00	98.00	112	62-127		
MSD	QC602044		50.00	96.00	108	62-127	2	5

RPD= Relative Percent Difference

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

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

**Laboratory Job Number 230555  
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  
230555-001

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: Troy Baker  
Project Manager

Date: 09/07/2011

NELAP # 01107CA

## CASE NARRATIVE

Laboratory number: **230555**  
Client: **SOMA Environmental Engineering Inc.**  
Project: **2553**  
Location: **15101 Freedom Ave. San Leandro**  
Request Date: **08/25/11**  
Samples Received: **08/25/11**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 08/25/11. The sample was received cold and intact.

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

No analytical problems were encountered.

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

High recovery was observed for diesel C10-C24 in the MS for batch 178250; the parent sample was not a project sample, the LCS was within limits, and this analyte was not detected at or above the RL in the associated sample. High RPD was also observed for diesel C10-C24 in the MS/MSD for batch 178250; this analyte was not detected at or above the RL in the associated sample. High surrogate recovery was observed for o-terphenyl in the method blank for batch 178250; no target analytes were detected in the sample. No other analytical problems were encountered.

**Total Suspended Solids (TSS) (SM2540D):**

High RPD was observed for total suspended solids in the MS/MSD for batch 178468; the parent sample was not a project sample, the RPD was acceptable in the BS/BSD, and this analyte was not detected at or above the RL in the associated sample. No other analytical problems were encountered.

**pH (EPA 9040C):**

No analytical problems were encountered.

**Chemical Oxygen Demand (SM5220D):**

No analytical problems were encountered.

# **CHAIN OF CUSTODY**

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# Curtis & Tompkins, Ltd

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

Project No: 2553

LOGIN # 250665

Sampler: MASOUD

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

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

**Fax:** 925-734-6401

**Notes: EDF OUTPUT REQUIRED**

**REI INQUISITED BY:**

RECEIVED BY:

*See* 8/25/11 - 11:30 DATE/TIME

RECEIVED BY: *Terry* 9/15/74 11:30 AM  
F DATE/TIME

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

DATE/TIME

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 230555 Date Received 8/25/11 Number of coolers \_\_\_\_\_  
 Client SOMA ENVIRONMENTAL Project 2553

Date Opened 8/25/11 By (print) ISABELLE (sign) cl LS  
 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

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 samples in the appropriate containers for indicated tests?  YES  NO

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

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

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

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

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

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

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

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

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

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

## COMMENTS

i8) 2 of 6 VOAs rec'd w/ BUBBLES

Curtis & Tompkins Sample Preservation for 230555

Sample	pH:	<2	>12	Other
-001a		[ ]	[ ]	_____
b		[ ]	[ ]	_____
c		[ ]	[ ]	_____
d		[ ]	[ ]	_____
e		[ ]	[ ]	_____
f		[ ]	[ ]	_____
g		X	[ ]	_____
h		[ ]	[ ]	_____
i		[ ]	[ ]	_____
j		[ ]	[ ]	_____

Analyst: D. S.  
Date: 8/25/11

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

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	EFFLUENT	Batch#:	178297
Matrix:	Water	Sampled:	08/25/11
Units:	ug/L	Received:	08/25/11
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 08/27/11  
 Lab ID: 230555-001

Analyte	Result	RL	Analysis
Gasoline C7-C12	77	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)	100	78-123	EPA 8015B
Bromofluorobenzene (PID)	101	80-120	EPA 8021B

Type: BLANK Analyzed: 08/26/11  
 Lab ID: QC606259

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)	97	78-123	EPA 8015B
Bromofluorobenzene (PID)	109	80-120	EPA 8021B

ND= Not Detected

RL= Reporting Limit

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

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC606258	Batch#:	178297
Matrix:	Water	Analyzed:	08/26/11
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	1,000	1,117	112	80-120	EPA 8015B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	99	78-123	EPA 8015B
Bromofluorobenzene (PID)	101	80-120	EPA 8021B

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

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Batch#:	178297

Type: BS Analyzed: 08/26/11  
 Lab ID: QC606260

Analyte	Spiked	Result	%REC	Limits	Analysis
Benzene	10.00	10.21	102	80-120	EPA 8021B
Toluene	10.00	10.56	106	80-120	EPA 8021B
Ethylbenzene	10.00	11.30	113	80-120	EPA 8021B
m,p-Xylenes	10.00	10.47	105	80-120	EPA 8021B
o-Xylene	10.00	10.46	105	80-120	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	99	78-123	EPA 8015B
Bromofluorobenzene (PID)	109	80-120	EPA 8021B

Type: BSD Analyzed: 08/27/11  
 Lab ID: QC606261

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Benzene	10.00	9.535	95	80-120	7	20	EPA 8021B
Toluene	10.00	9.951	100	80-120	6	20	EPA 8021B
Ethylbenzene	10.00	10.31	103	80-120	9	20	EPA 8021B
m,p-Xylenes	10.00	9.453	95	80-120	10	20	EPA 8021B
o-Xylene	10.00	9.288	93	80-120	12	20	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	96	78-123	EPA 8015B
Bromofluorobenzene (PID)	107	80-120	EPA 8021B

RPD= Relative Percent Difference

## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	ZZZZZZZZZZ	Batch#:	178297
MSS Lab ID:	230568-001	Sampled:	08/25/11
Matrix:	Water	Received:	08/25/11
Units:	ug/L	Analyzed:	08/27/11
Diln Fac:	1.000		

Type: MS    Lab ID: QC606262

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	141.9	2,000	1,819	84	66-120	EPA 8015B
<b>Surrogate</b>						
Bromofluorobenzene (FID)	99	78-123	EPA 8015B			
Bromofluorobenzene (PID)	99	80-120	EPA 8021B			

Type: MSD    Lab ID: QC606263

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	2,000	1,854	86	66-120	2	25	EPA 8015B
<b>Surrogate</b>							
Bromofluorobenzene (FID)	97	78-123	EPA 8015B				
Bromofluorobenzene (PID)	98	80-120	EPA 8021B				

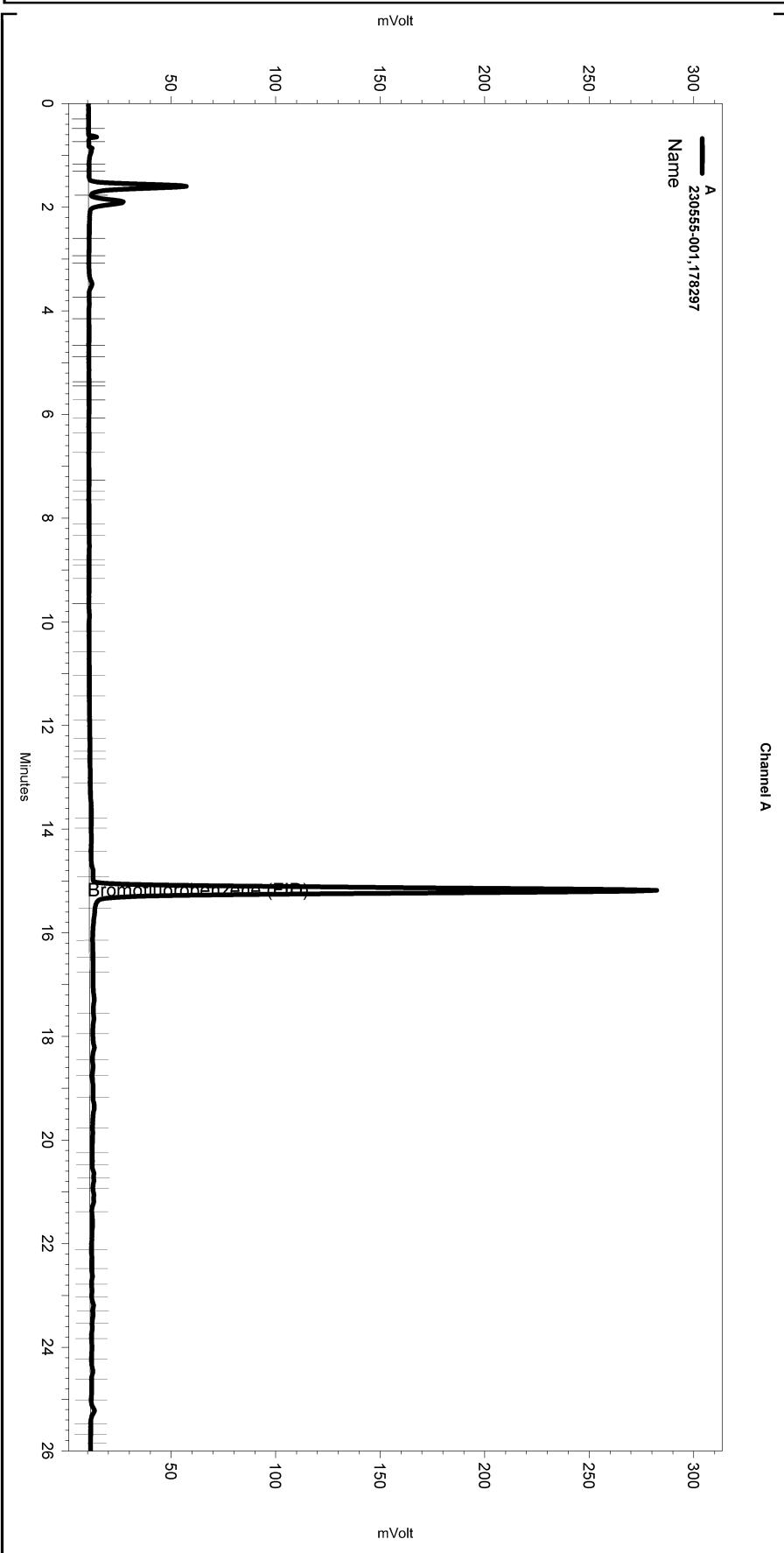
RPD= Relative Percent Difference

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Sequence File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Sequence\\238.seq  
Sample Name: 230555-001,178297  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Data\\238-018  
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Method\\tvhtxe153.met

Software Version 3.1.7  
Run Date: 8/27/2011 5:18:21 AM  
Analysis Date: 8/29/2011 1:18:51 PM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: a1.0



-----< General Method Parameters >-----

No items selected for this section

-----< A >-----

No items selected for this section

Integration Events

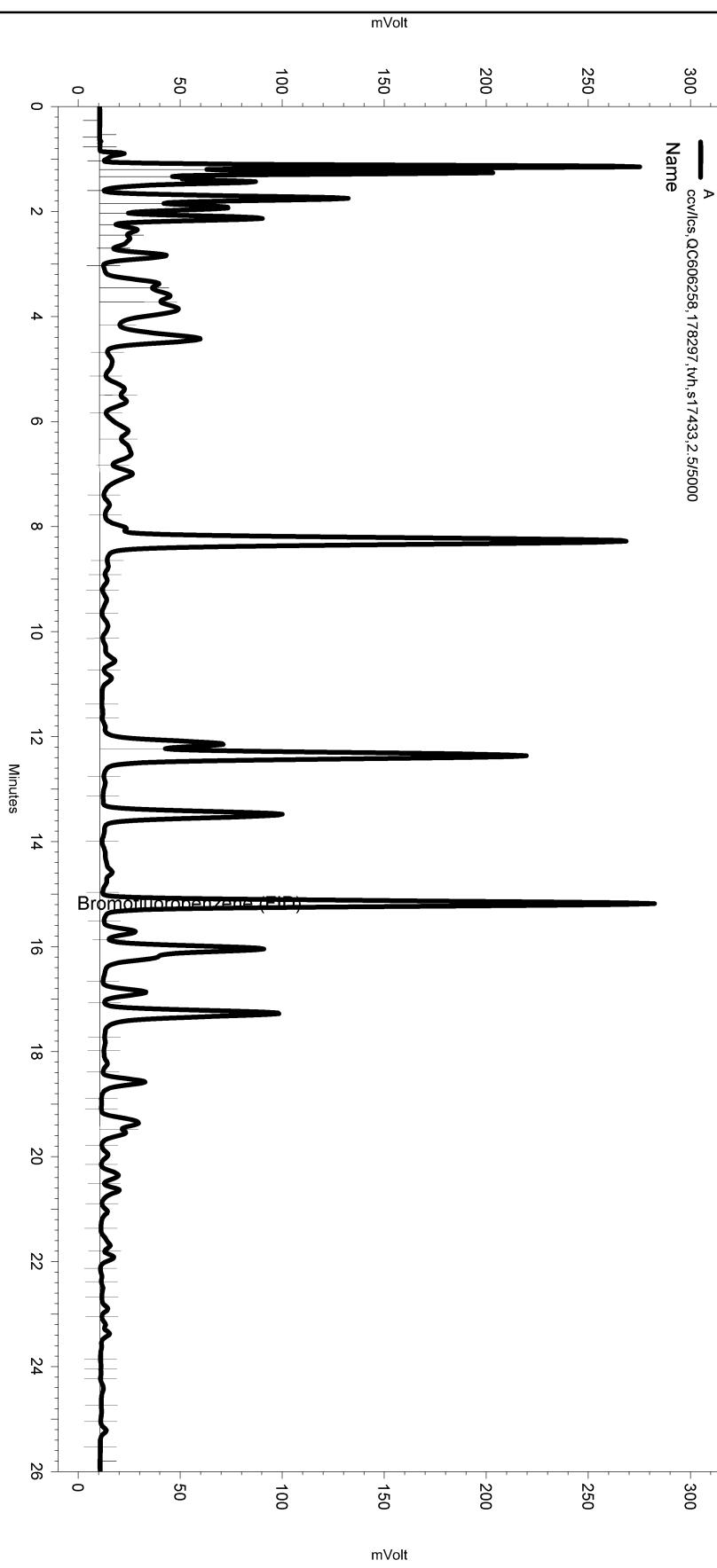
Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File:	Start (Minutes)	Stop (Minutes)	Value	
\\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Data\\238-018				
Enabled	Event Type	(Minutes)	(Minutes)	Value
Yes	Split Peak	15.531	0	0

Sequence File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Sequence\\238.seq  
Sample Name: ccv\\lcs, QC606258,178297, tvh, s17433,2.5/5000  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Data\\238-005  
Instrument: GC07 Vial: N/A Operator: lims2k3\\tvh3  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC07\\Method\\tvhbtxe153.met

Software Version 3.1.7  
Run Date: 8/26/2011 9:00:19 PM  
Analysis Date: 8/26/2011 9:29:01 PM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: {Data Description}



-----< General Method Parameters >-----

No items selected for this section

-----< A >-----

No items selected for this section

#### Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

#### Manual Integration Fixes

Data File:	C:\\Documents and Settings\\All Users\\Application Data\\Chromatography\\System\\Recovery\\Data\\Instrument.10049\\238-005_571A.tmp			
Start	Stop			
Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

### Total Extractable Hydrocarbons

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Sampled:	08/25/11
Matrix:	Water	Received:	08/25/11
Units:	ug/L	Prepared:	08/25/11
Diln Fac:	1.000	Analyzed:	08/28/11
Batch#:	178250		

Type: SAMPLE Lab ID: 230555-001

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

Surrogate	%REC	Limits
o-Terphenyl	112	68-120

Type: BLANK Lab ID: QC606042

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

Surrogate	%REC	Limits
o-Terphenyl	133 *	68-120

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC606043	Batch#:	178250
Matrix:	Water	Prepared:	08/25/11
Units:	ug/L	Analyzed:	08/28/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,460	98	61-120

Surrogate	%REC	Limits
o-Terphenyl	110	68-120

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	178250
MSS Lab ID:	230568-001	Sampled:	08/25/11
Matrix:	Water	Received:	08/25/11
Units:	ug/L	Prepared:	08/25/11
Diln Fac:	1.000	Analyzed:	08/29/11

Type: MS    Lab ID: QC606044

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	8,079	2,500	13,350	211 *	33-140
<b>Surrogate</b>					
o-Terphenyl	76	68-120			

Type: MSD    Lab ID: QC606045

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	9,127	42	33-140	38 *	30
<b>Surrogate</b>						
o-Terphenyl	85	68-120				

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

### Chemical Oxygen Demand

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	178411
Field ID:	EFFLUENT	Sampled:	08/25/11 09:00
Matrix:	Water	Received:	08/25/11
Units:	mg/L	Prepared:	08/30/11 11:30
Diln Fac:	1.000	Analyzed:	08/30/11 13:30

Type	Lab ID	Result	RL
SAMPLE	230555-001	ND	10
BLANK	QC606724	ND	10

ND= Not Detected

RL= Reporting Limit

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## Batch QC Report

## Chemical Oxygen Demand

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	178411
Field ID:	ZZZZZZZZZZ	Sampled:	08/18/11 10:25
MSS Lab ID:	230407-003	Received:	08/18/11
Matrix:	Water	Prepared:	08/30/11 11:30
Units:	mg/L	Analyzed:	08/30/11 13:30
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC606725		75.00	75.59	101	90-110		
MS	QC606726	93.13	300.0	376.2	94	61-127		
MSD	QC606727		300.0	378.6	95	61-127	1	20

RPD= Relative Percent Difference

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11.0

**pH**

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Diln Fac:	1.000
Field ID:	EFFLUENT	Batch#:	178233
Lab ID:	230555-001	Sampled:	08/25/11 09:00
Matrix:	Water	Received:	08/25/11
Units:	SU	Analyzed:	08/25/11 14:10

Result	RL
7.1	1.0

## Batch QC Report

**pH**

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Units:	SU
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	178233
MSS Lab ID:	230556-001	Sampled:	08/25/11 10:00
Lab ID:	QC605982	Received:	08/25/11
Matrix:	Water	Analyzed:	08/25/11 14:10

MSS	Result	Result	RL	RPD	Lim
	7.160	7.180	1.000	0	20

RL= Reporting Limit

RPD= Relative Percent Difference

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4.0

### Total Suspended Solids (TSS)

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	178468
Field ID:	EFFLUENT	Sampled:	08/25/11
Matrix:	Water	Received:	08/25/11
Units:	mg/L	Analyzed:	08/31/11
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	230555-001	ND	5
BLANK	QC606957	ND	5

ND= Not Detected

RL= Reporting Limit

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16.0

## Batch QC Report

**Total Suspended Solids (TSS)**

Lab #:	230555	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	178468
MSS Lab ID:	230600-003	Sampled:	08/25/11
Matrix:	Water	Received:	08/26/11
Units:	mg/L	Analyzed:	08/31/11

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC606958		500.0	47.00	94	80-120		
BSD	QC606959		500.0	49.00	98	80-120	4	5
MS	QC606960	<5.000	500.0	55.00	110	62-127		
MSD	QC606961		500.0	39.00	78	62-127	34 *	5

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference



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

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

**Laboratory Job Number 231293  
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  
231293-001

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: Troy Baker  
Project Manager

Date: 10/05/2011

NELAP # 01107CA

## CASE NARRATIVE

Laboratory number: 231293  
Client: SOMA Environmental Engineering Inc.  
Project: 2553  
Location: 15101 Freedom Ave. San Leandro  
Request Date: 09/23/11  
Samples Received: 09/23/11

This data package contains sample and QC results for one water sample, requested for the above referenced project on 09/23/11. The sample was received cold and intact.

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

No analytical problems were encountered.

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

No analytical problems were encountered.

**Total Suspended Solids (TSS) (SM2540D):**

High RPD was observed for total suspended solids in the BS/BSD for batch 179325; this analyte was not detected at or above the RL in the associated sample. No other analytical problems were encountered.

**pH (EPA 9040C):**

No analytical problems were encountered.

**Chemical Oxygen Demand (SM5220D):**

No analytical problems were encountered.

# CHAIN OF CUSTODY

Page \_1\_of \_1\_

## Curtis & Tompkins, Ltd

Analytical Laboratory Since 1878

2323 Fifth Street

Berkeley, CA 94710

(510)486-0900 Phone

(510)486-0532 Fax

LOGIN # 231293

## Analyses

TPH-g, TPH-d, TPH-mo	8015												
BTEX	8020												
		COD											
		pH, TSS											

Project No: 2553

Report To: Joyce Bobek

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

Turnaround Time: Standard

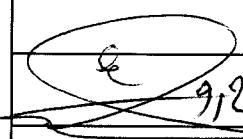
Telephone: 925-734-6400

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	9/23/11 - 11	*			4 VOAs	*			*
			*			2-500 mL Ambers				*
			*			250 mL Poly	*		*	
			*			500 mL Poly			*	

Notes: EDF OUTPUT REQUIRED

RELINQUISHED BY:

 15,35  
9/23/11

DATE/TIME

DATE/TIME

DATE/TIME

 DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

## COOLER RECEIPT CHECKLIST



Curtis &amp; Tompkins, Ltd.

Login # 231293 Date Received \_\_\_\_\_ Number of coolers 1  
 Client SOMA Project 2553

Date Opened 9/23/11 By (print) I. Choy (sign) I  
 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

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

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

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

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

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

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

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

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

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

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

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

## COMMENTS

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Curtis & Tompkins Sample Preservation for 231293

Sample	pH:	<2	>12	Other
-001a		[ ]	[ ]	_____
b		[ ]	[ ]	_____
c		[ ]	[ ]	_____
d		[ ]	[ ]	_____
e		[ ]	[ ]	_____
f		[ ]	[ ]	_____
g		X	[ ]	_____
h		[ ]	[ ]	_____

Analyst: Q  
Date: 9/23/11  
Page 1 of 1

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	EFFLUENT	Diln Fac:	1.000
Matrix:	Water	Sampled:	09/23/11
Units:	ug/L	Received:	09/23/11

Type: SAMPLE Lab ID: 231293-001

Analyte	Result	RL	Batch#	Analyzed	Analysis
Gasoline C7-C12	ND	50	179427	09/29/11	EPA 8015B
Benzene	ND	0.50	179646	10/05/11	EPA 8021B
Toluene	ND	0.50	179427	09/29/11	EPA 8021B
Ethylbenzene	ND	0.50	179427	09/29/11	EPA 8021B
m,p-Xylenes	ND	0.50	179427	09/29/11	EPA 8021B
o-Xylene	ND	0.50	179427	09/29/11	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analyzed	Analysis
Bromofluorobenzene (FID)	100	78-123	179427	09/29/11	EPA 8015B
Bromofluorobenzene (PID)	107	80-120	179427	09/29/11	EPA 8021B

Type: BLANK Batch#: 179427  
Lab ID: QC611030 Analyzed: 09/28/11

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
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)	100	78-123	EPA 8015B
Bromofluorobenzene (PID)	106	80-120	EPA 8021B

Type: BLANK Batch#: 179646  
Lab ID: QC611922 Analyzed: 10/04/11

Analyte	Result	RL	Analysis
Benzene	ND	0.50	EPA 8021B
Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	80	78-123	EPA 8015B
Bromofluorobenzene (PID)	99	80-120	EPA 8021B

ND= Not Detected

RL= Reporting Limit

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

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Batch#:	179427
Units:	ug/L	Analyzed:	09/28/11
Diln Fac:	1.000		

Type: BS Lab ID: QC611027

Analyte	Spiked	Result	%REC	Limits	Analysis
Toluene	10.00	10.28	103	80-120	EPA 8021B
Ethylbenzene	10.00	10.64	106	80-120	EPA 8021B
m,p-Xylenes	10.00	10.27	103	80-120	EPA 8021B
o-Xylene	10.00	10.67	107	80-120	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	101	78-123	EPA 8015B
Bromofluorobenzene (PID)	106	80-120	EPA 8021B

Type: BSD Lab ID: QC611028

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Toluene	10.00	10.20	102	80-120	1	20	EPA 8021B
Ethylbenzene	10.00	10.33	103	80-120	3	20	EPA 8021B
m,p-Xylenes	10.00	9.880	99	80-120	4	20	EPA 8021B
o-Xylene	10.00	10.23	102	80-120	4	20	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	100	78-123	EPA 8015B
Bromofluorobenzene (PID)	103	80-120	EPA 8021B

RPD= Relative Percent Difference

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17.0

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

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC611029	Batch#:	179427
Matrix:	Water	Analyzed:	09/28/11
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	1,000	1,142	114	80-120	EPA 8015B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	103	78-123	EPA 8015B
Bromofluorobenzene (PID)	106	80-120	EPA 8021B

## Batch QC Report

## Curtis &amp; Tompkins Laboratories Analytical Report

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Field ID:	ZZZZZZZZZZ	Batch#:	179427
MSS Lab ID:	231392-002	Sampled:	09/28/11
Matrix:	Water	Received:	09/28/11
Units:	ug/L	Analyzed:	09/29/11
Diln Fac:	1.000		

Type: MS    Lab ID: QC611031

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12	36.11	2,000	1,620	79	66-120	EPA 8015B
<b>Surrogate</b>						
Bromofluorobenzene (FID)	102	78-123	EPA 8015B			
Bromofluorobenzene (PID)	104	80-120	EPA 8021B			

Type: MSD    Lab ID: QC611032

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analysis
Gasoline C7-C12	2,000	1,860	91	66-120	14	25	EPA 8015B
<b>Surrogate</b>							
Bromofluorobenzene (FID)	100	78-123	EPA 8015B				
Bromofluorobenzene (PID)	103	80-120	EPA 8021B				

RPD= Relative Percent Difference

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19.0

## Batch QC Report

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC611920	Batch#:	179646
Matrix:	Water	Analyzed:	10/04/11
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Benzene	8.000	7.345	92	80-120	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	81	78-123	EPA 8015B
Bromofluorobenzene (PID)	100	80-120	EPA 8021B

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

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Batch#:	179646
MSS Lab ID:	231292-001	Sampled:	09/23/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Analyzed:	10/05/11
Diln Fac:	1.000		

Type: MS    Lab ID: QC611923

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	0.1183	20.00	19.63	98	74-120
<b>Surrogate</b>					
Bromofluorobenzene (PID)	111	80-120			

Type: MSD    Lab ID: QC611924

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	19.45	97	74-120	1	30
<b>Surrogate</b>						
Bromofluorobenzene (PID)	103	80-120				

RPD= Relative Percent Difference

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21.0

### Total Extractable Hydrocarbons

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	EFFLUENT	Batch#:	179283
Matrix:	Water	Sampled:	09/23/11
Units:	ug/L	Received:	09/23/11
Diln Fac:	1.000	Prepared:	09/23/11

Type: SAMPLE Analyzed: 09/25/11  
 Lab ID: 231293-001

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

Surrogate	%REC	Limits
o-Terphenyl	98	68-120

Type: BLANK Analyzed: 09/26/11  
 Lab ID: QC610460

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

Surrogate	%REC	Limits
o-Terphenyl	108	68-120

ND= Not Detected  
 RL= Reporting Limit

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12.0

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC610461	Batch#:	179283
Matrix:	Water	Prepared:	09/23/11
Units:	ug/L	Analyzed:	09/26/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,212	88	61-120

Surrogate	%REC	Limits
o-Terphenyl	92	68-120

## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	179283
MSS Lab ID:	231269-001	Sampled:	09/22/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Prepared:	09/23/11
Diln Fac:	1.000	Analyzed:	09/26/11

Type: MS                              Lab ID: QC610462

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	2,704	2,500	5,247	102	33-140

Surrogate	%REC	Limits
o-Terphenyl	104	68-120

Type: MSD                              Lab ID: QC610463

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	4,962	90	33-140	6	30

Surrogate	%REC	Limits
o-Terphenyl	89	68-120

RPD= Relative Percent Difference

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14.0

### Chemical Oxygen Demand

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	179415
Field ID:	EFFLUENT	Sampled:	09/23/11 11:00
Matrix:	Water	Received:	09/23/11
Units:	mg/L	Prepared:	09/28/11 13:00
Diln Fac:	1.000	Analyzed:	09/28/11 15:00

Type	Lab ID	Result	RL
SAMPLE	231293-001	ND	10
BLANK	QC610978	ND	10

ND= Not Detected

RL= Reporting Limit

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9.0

## Batch QC Report

## Chemical Oxygen Demand

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM5220D
Analyte:	Chemical Oxygen Demand	Batch#:	179415
Field ID:	ZZZZZZZZZZ	Sampled:	09/27/11 15:00
MSS Lab ID:	231369-001	Received:	09/27/11
Matrix:	Water	Prepared:	09/28/11 13:00
Units:	mg/L	Analyzed:	09/28/11 15:00
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC610979		75.00	70.11	93	90-110		
MS	QC610980	19.49	150.0	159.0	93	61-127		
MSD	QC610981		150.0	154.9	90	61-127	3	20

RPD= Relative Percent Difference

Page 1 of 1

10.0

**pH**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Batch#:	179285
Field ID:	EFFLUENT	Sampled:	09/23/11 11:00
Lab ID:	231293-001	Received:	09/23/11
Matrix:	Water	Prepared:	09/23/11 16:35
Units:	SU	Analyzed:	09/23/11 21:30
Diln Fac:	1.000		

<b>Result</b>	<b>RL</b>
6.7	1.0

## Batch QC Report

**pH**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	EPA 9040C
Analyte:	pH	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	179285
Type:	SDUP	Sampled:	09/23/11 10:00
MSS Lab ID:	231304-001	Received:	09/23/11
Lab ID:	QC610468	Prepared:	09/23/11 16:35
Matrix:	Water	Analyzed:	09/23/11 21:30
Units:	SU		

MSS	Result	RL	RPD	Lim
5.430	5.490	1.000	1	20

RL= Reporting Limit

RPD= Relative Percent Difference

### Total Suspended Solids (TSS)

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	179325
Field ID:	EFFLUENT	Sampled:	09/23/11
Matrix:	Water	Received:	09/23/11
Units:	mg/L	Prepared:	09/26/11
Diln Fac:	1.000	Analyzed:	09/27/11

Type	Lab ID	Result	RL
SAMPLE	231293-001	ND	5
BLANK	QC610613	ND	5

ND= Not Detected

RL= Reporting Limit

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6.0

## Batch QC Report

**Total Suspended Solids (TSS)**

Lab #:	231293	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	METHOD
Project#:	2553	Analysis:	SM2540D
Analyte:	Total Suspended Solids	Batch#:	179325
Field ID:	EFFLUENT	Sampled:	09/23/11
MSS Lab ID:	231293-001	Received:	09/23/11
Matrix:	Water	Prepared:	09/26/11
Units:	mg/L	Analyzed:	09/27/11
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC610614		500.0	57.00	114	80-120		
BSD	QC610615		500.0	50.00	100	80-120	13 *	5
MS	QC610616	<5.000	500.0	62.00	124	62-127		
MSD	QC610617		500.0	61.00	122	62-127	2	5

\*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

# **Appendix E**

## **Third Quarter 2011 MPE Event Field Data Sheets**



ADDRESS: 15101 Freedom Ave., San Leandro  
PROJECT #: 2555

MTS OPERATIONAL DATA												
DATE	TIME	OXIDIZER TEMPERATURE (F)	PUMP/AIR TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE (In of H2O)	EFFLUENT TEMPERATURE (F)	TOTAL FLOW (SCFM)	DILUTION FLOW (SCFM)	WELL FLOW (SCFM)	INFILUENT CONCENTRATION (PPMV)	WATER TOTALIZER
8/5/2011	1115	begin extraction from MPE- 2 and MW-5						54	0	54	0	0
	1300	1511	181	21.6	26			54	0	54	1,158	170
	1420	1547	192	22	26.4			47	0	47	IN: 1484; EFF: 3	526
	1515	1541	196	25	26.4			47	0	47	1,465	756
	1600	1533	200	21.6	26			54	0	54	1,389	946
	1700	1525	196	19.8	26			54	0	54	1,303	1,036
	1800	1536	194	19.8	24.2			82	38	44	645	1,483
8/6/2011	945	1499	189	21	26.4			47	0	47	661	3,284
8/7/2011	900	1500	197	22	26			54	25	29	800	4,294
	1600	1497	189	21	26			54	27	27	715	7,794
8/8/2011	900	1497	185	21.7	26			54	0	54	615	9,922
	1000	1499	176	21.8	26			54	0	54	655	10,010
	1100	1499	175	21.7	26			54	0	54	675	10,057
	1200	1502	177	21.8	26			54	0	54	688	10,174
	1300	1503	179	21.8	26			54	0	54	696	10,305
	1400	1409	185	21.9	26			54	0	54	710	10,406
	1500	1501	186	21.6	26			54	0	54	710	10,547
	1600	1502	182	21.7	26			54	0	54	689	10,696
	1700	1500	183	21.7	26			54	0	54	696	10,792
8/9/2011	900	1500	185	21.6	25.8			57	0	57	604	12,640
	1000	1497	180	21.6	25.8			57	0	57	613	12,640
	1100	1502	182	21.7	25.9			55	0	55	625	12,769
	1200	1501	182	21.6	25.9			55	0	55	630	12,896
	1300	1570	187	21.6	25.7			58	0	58	602	13,006
	1400	1506	191	21.6	25.7			58	0	58	631	13,110



ADDRESS: 15101 Freedom Ave., San Leandro  
PROJECT #: 2555

MTS OPERATIONAL DATA

DATE	TIME	OXIDIZER TEMPERATURE (F)	PUMP/AIR TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE (In of H2O)	EFFLUENT TEMPERATURE (F)	TOTAL FLOW (SCFM)	DILUTION FLOW (SCFM)	WELL FLOW (SCFM)	INFILUENT CONCENTRATION (PPMV)	WATER TOTALIZER
	1500	1501	195	21.6	25.7			58	0	58	633	13,239
	1600	1500	195	21.3	25.7			58	0	58	615	13,324
	1700	1498	195	21.6	25.7			58	0	58	611	13,428
8/10/2011	900	1498	185	21.2	25.6			60	0	60	583	15,167
	1000	1502	182	21.6	25.7			58	0	58	545	15,228
	1100	1501	181	21.5	25.6			60	0	60	549	15,348
	1200	1497	183	21.6	25.6			60	0	60	553	15,431
	1300	1502	185	21.5	25.6			60	0	60	558	15,556
	1400	1502	187	21.4	25.5			62	0	62	561	15,639
	1500	1498	192	21.2	25.5			62	0	62	563	15,748
	1600	1500	192	21.4	25.5			62	0	62	548	15,852
	1700	1500	190	21.2	25.4			63	0	63	538	15,961
8/11/2011	900	1500	185	21.2	25.4			63	0	63	445	17,548
	1000	1502	183	21.1	25.5			62	0	62	454	17,631
	1100	1500	184	21.1	25.5			62	0	62	456	17,716
	1200	1500	184	21.2	25.5			62	0	62	455	17,816
	1300	1497	189	21	25.5			62	0	62	465	17,926
	1400	1497	191	21.3	25.5			62	0	62	467	18,007
	1500	1498	193	21.5	25.5			62	0	62	469	18,110
	1600	1501	192	20.5	25			70	0	70	448	18,216
	1700	1503	191	21.1	25.1			68	0	68	450	18,297
8/12/2011	900	1498	191	21.2	25.2			66	0	66	394	19,857
	1000	1500	185	21.1	25.2			66	0	66	396	19,986
	1100	1502	184	21.1	25.2			66	0	66	400	20,070
	1200	1502	184	21.1	25.3			65	0	65	397	20,156



ADDRESS: 15101 Freedom Ave., San Leandro

PROJECT #: 2555

MTS OPERATIONAL DATA

DATE	TIME	OXIDIZER TEMPERATURE (F)	PUMP/AIR TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE (In of H2O)	EFFLUENT TEMPERATURE (F)	TOTAL FLOW (SCFM)	DILUTION FLOW (SCFM)	WELL FLOW (SCFM)	INFLUENT CONCENTRATION (PPMV)	WATER TOTALIZER
	1300	1500	191	21	25.3			65	0	65	408	20,281
	1400	1501	197	20.8	25.2			66	0	66	415	20,377
	1500	1498	200	20.8	25.2			66	0	66	404	20,486
	1600	1502	197	20.8	25.2			66	0	66	386	20,578
	1700	1498	193	21	25.2			66	0	66	385	20,670
8/13/2011	1200	1498	283	21	25.2			66	0	66	385	22,864
	1200	shut down due to over heating										22,864
8/15/2011	1130	restart extraction with new truck at MPE-2, MW-5										22,864
	1200	1501	178	22.4	25.1	0.1	112	39	24	15	221	23,357
	1600	1515	174	25	28	0.1	112	39	24	15	132	23,566
	1700	1510	175	24	24.7	0.1	114	39	24	15	102	23,779
8/16/2011	900	1512	172	25	26.7	0.1	112	39	24	15	82	26,560
	1000	1517	171	24.6	26.8	0.1	116	39	24	15	81	26,816
	1100	1490	173	25.2	26.8	0.1	110	39	24	15	74	26,977
	1200	1535	175	25	27	0.1	110	39	24	15	93	27,158
	1300	1501	176	25	26.8	0.1	112	39	24	15	105	27,406
	1400	1486	178	25.1	27	0.09	110	37	24	13	98	27,554
	1500	1501	178	25.3	26.8	0.1	122	39	24	15	71	27,726
	1600	1495	177	25.3	26.8	0.1	120	39	24	15	41	27,957
	1700	1498	177	25.1	26.7	0.1	120	39	24	15	39	28,056
8/17/2011	900	1492	180	25	26.8	0.1	140	38	24	14	34	30,886
	1000	1486	172	25.2	26.7	0.1	116	39	24	15	34	31,054
	1100	1482	173	25.2	27	0.1	112	39	24	15	33	31,254
	1200	1483	172	25.3	26.9	0.1	112	39	24	15	35	31,366
	1300	1495	174	25	26.9	0.1	114	39	24	15	33	31,554
	1400	1494	176	25.3	26.8	0.1	114	39	24	15	35	31,714
	1500	1502	175	25.3	26	0.1	116	39	24	15	34	31,914
	1600	1505	174	25.2	26.7	0.1	114	39	24	15	39	32,074
	1700	1543	174	25	26.6	0.1	114	39	24	15	38	32,226



ADDRESS: 15101 Freedom Ave., San Leandro

PROJECT #: 2555

MTS OPERATIONAL DATA

DATE	TIME	OXIDIZER TEMPERATURE (F)	PUMP/AIR TEMPERATURE (F)	STINGER VACUUM (IN-Hg)	PUMP VACUUM (IN-Hg)	PITOT TUBE (In of H2O)	EFFLUENT TEMPERATURE (F)	TOTAL FLOW (SCFM)	DILUTION FLOW (SCFM)	WELL FLOW (SCFM)	INFILUENT CONCENTRATION (PPMV)	WATER TOTALIZER
8/18/2011	900	1495	171	25.3	26.6	0.1	126	39	24	15	220	34,904
	1000	1481	173	25.4	26.8	0.1	114	39	24	15	231	35,116
	1100	1498	172	25.3	26.9	0.1	112	39	24	15	218	35,274
	1200	1503	174	25.5	26.9	0.1	112	39	24	15	211	35,436
	1300	1487	174	25.5	26.8	0.1	114	39	24	15	207	35,626
	1400	1541	174	24.6	26.8	0.1	116	39	24	15	209	35,794
	1500	1535	175	25	26.7	0.1	116	39	24	15	205	35,954
	1600	1535	174	25.2	26.7	0.1	116	39	24	15	217	36,164
	1700	1541	174	25.4	26.6	0.1	116	39	24	15	189	36,356
8/19/2011	900	1482	171	25.4	26.5	0.1	126	39	24	15	34	38,826
	1000	1485	171	25.4	26.6	0.1	108	40	24	16	33	39,014
	1100	1523	173	25.1	26.6	0.1	108	40	24	16	32	39,176
	1200	1501	174	25.3	26.8	0.1	110	39	24	15	33	39,354
	1300	1510	173	25.3	26.7	0.1	110	39	24	15	34	39,496
	1400	1498	174	25	26.7	0.1	112	39	24	15	31	39,687
	1400	End MPE										39,729

# **Appendix F**

## **Laboratory Report and Chain of Custody Form for Soil Vapor Samples**



Soma Environmental  
6620 Owens Dr. Suite A  
Pleasanton, California 94588  
Tel: 925-734-6400  
Fax: 925-734-6401  
RE: 15101 Freedom Ave

Work Order No.: 1108038

Dear Joyce Bobek:

Torrent Laboratory, Inc. received 2 sample(s) on August 05, 2011 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink that appears to read "Patti Sandrock".

---

Patti Sandrock

---

August 12, 2011

Date



**Date:** 8/12/2011

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**Client:** Soma Environmental

**Project:** 15101 Freedom Ave

**Work Order:** 1108038

### CASE NARRATIVE

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No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.



## Sample Result Summary

**Report prepared for:** Joyce Bobek  
Soma Environmental

**Date Received:** 08/05/11  
**Date Reported:** 08/12/11

**EFF MPE-2/MW-5**

1108038-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
TPH-Gasoline	ETO3	10	1800	3500	7700
Benzene	ETO15	5	3.4	8.0	52.8
Ethyl Benzene	ETO15	5	5.0	11	69.7
m,p-Xylene	ETO15	5	8.1	22	176
o-Xylene	ETO15	5	4.0	11	44.3
4-Ethyl Toluene	ETO15	5	4.1	12	62.0
1,3,5-Trimethylbenzene	ETO15	5	3.8	12	21.1

**INF MPE-2/MW-5**

1108038-002A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
tert-Butanol	ETO15	250	230	2100	3340
Ethyl Benzene	ETO15	250	250	540	8820
m,p-Xylene	ETO15	250	400	1100	16900
o-Xylene	ETO15	250	200	540	4100
4-Ethyl Toluene	ETO15	250	200	610	3370
1,3,5-Trimethylbenzene	ETO15	250	190	610	1000
1,2,4-Trimethylbenzene	ETO15	250	170	610	2050
TPH-Gasoline	ETO3	500	88000	180000	2100000
Benzene	ETO15	500	340	800	44400



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental      **Date Received:** 08/05/11  
**Date Reported:** 08/12/11

<b>Client Sample ID:</b>	EFF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108038-001A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/05/11 / 16:10	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	08/05/11	5	7.6	25	ND	ND		406180	NA
1,1-Difluoroethane	ETO15	NA	08/05/11	5	2.5	6.8	ND	ND		406180	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	08/05/11	5	25	70	ND	ND		406180	NA
Chloromethane	ETO15	NA	08/05/11	5	1.6	5.3	ND	ND		406180	NA
Vinyl Chloride	ETO15	NA	08/05/11	5	3.3	13	ND	ND		406180	NA
1,3-Butadiene	ETO15	NA	08/05/11	5	2.2	5.5	ND	ND		406180	NA
Bromomethane	ETO15	NA	08/05/11	5	3.6	9.8	ND	ND		406180	NA
Chloroethane	ETO15	NA	08/05/11	5	2.5	6.5	ND	ND		406180	NA
Trichlorofluoromethane	ETO15	NA	08/05/11	5	9.0	28	ND	ND		406180	NA
1,1-Dichloroethene	ETO15	NA	08/05/11	5	3.1	10	ND	ND		406180	NA
Freon 113	ETO15	NA	08/05/11	5	4.2	19	ND	ND		406180	NA
Carbon Disulfide	ETO15	NA	08/05/11	5	4.1	16	ND	ND		406180	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	08/05/11	5	4.9	50	ND	ND		406180	NA
Methylene Chloride	ETO15	NA	08/05/11	5	2.9	18	ND	ND		406180	NA
Acetone	ETO15	NA	08/05/11	5	4.4	48	ND	ND		406180	NA
trans-1,2-Dichloroethene	ETO15	NA	08/05/11	5	3.2	10	ND	ND		406180	NA
Hexane	ETO15	NA	08/05/11	5	2.6	8.8	ND	ND		406180	NA
MTBE	ETO15	NA	08/05/11	5	4.3	9.0	ND	ND		406180	NA
tert-Butanol	ETO15	NA	08/05/11	5	4.6	42	ND	ND		406180	NA
Diisopropyl ether (DIPE)	ETO15	NA	08/05/11	5	4.4	11	ND	ND		406180	NA
1,1-Dichloroethane	ETO15	NA	08/05/11	5	3.8	10	ND	ND		406180	NA
ETBE	ETO15	NA	08/05/11	5	3.4	11	ND	ND		406180	NA
cis-1,2-Dichloroethene	ETO15	NA	08/05/11	5	2.7	10	ND	ND		406180	NA
Chloroform	ETO15	NA	08/05/11	5	6.2	25	ND	ND		406180	NA
Vinyl Acetate	ETO15	NA	08/05/11	5	2.8	8.8	ND	ND		406180	NA
Carbon Tetrachloride	ETO15	NA	08/05/11	5	4.3	16	ND	ND		406180	NA
1,1,1-trichloroethane	ETO15	NA	08/05/11	5	4.2	14	ND	ND		406180	NA
2-Butanone (MEK)	ETO15	NA	08/05/11	5	3.1	7.5	ND	ND		406180	NA
Ethyl Acetate	ETO15	NA	08/05/11	5	3.7	9.0	ND	ND		406180	NA
Tetrahydrofuran	ETO15	NA	08/05/11	5	1.5	7.5	ND	ND		406180	NA
Benzene	ETO15	NA	08/05/11	5	3.4	8.0	52.8	16.50		406180	NA
TAME	ETO15	NA	08/05/11	5	1.8	11	ND	ND		406180	NA
1,2-Dichloroethane (EDC)	ETO15	NA	08/05/11	5	4.9	10	ND	ND		406180	NA
Trichloroethylene	ETO15	NA	08/05/11	5	6.9	27	ND	ND		406180	NA
1,2-Dichloropropane	ETO15	NA	08/05/11	5	6.6	23	ND	ND		406180	NA



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/05/11  
Date Reported: 08/12/11

Client Sample ID:	EFF MPE-2/MW-5	Lab Sample ID:	1108038-001A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Soil Vapor
Project Number:			
Date/Time Sampled:	08/05/11 / 16:10	Certified Clean WO # :	
Canister/Tube ID:		Received PSI :	0.0
Collection Volume (L):	0.00	Corrected PSI :	0.0
Tag Number:	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
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Bromodichloromethane	ETO15	NA	08/05/11	5	4.4	17	ND	ND		406180	NA
1,4-Dioxane	ETO15	NA	08/05/11	5	6.2	18	ND	ND		406180	NA
trans-1,3-Dichloropropene	ETO15	NA	08/05/11	5	4.3	11	ND	ND		406180	NA
Toluene	ETO15	NA	08/05/11	5	4.8	9.5	ND	ND		406180	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	08/05/11	5	4.2	10	ND	ND		406180	NA
cis-1,3-Dichloropropene	ETO15	NA	08/05/11	5	5.6	11	ND	ND		406180	NA
Tetrachloroethylene	ETO15	NA	08/05/11	5	4.5	17	ND	ND		406180	NA
1,1,2-Trichloroethane	ETO15	NA	08/05/11	5	4.6	14	ND	ND		406180	NA
Dibromochloromethane	ETO15	NA	08/05/11	5	8.7	21	ND	ND		406180	NA
1,2-Dibromoethane (EDB)	ETO15	NA	08/05/11	5	10	39	ND	ND		406180	NA

NOTE: Reporting limits were raised due to limited sample volume received (tedlar).

2-Hexanone	ETO15	NA	08/05/11	5	5.6	21	ND	ND		406180	NA
Ethyl Benzene	ETO15	NA	08/05/11	5	5.0	11	69.7	16.21		406180	NA
Chlorobenzene	ETO15	NA	08/05/11	5	3.6	12	ND	ND		406180	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	08/05/11	5	5.2	17	ND	ND		406180	NA
m,p-Xylene	ETO15	NA	08/05/11	5	8.1	22	176	40.93		406180	NA
o-Xylene	ETO15	NA	08/05/11	5	4.0	11	44.3	10.30		406180	NA
Styrene	ETO15	NA	08/05/11	5	3.4	11	ND	ND		406180	NA
Bromoform	ETO15	NA	08/05/11	5	5.5	25	ND	ND		406180	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	08/05/11	5	3.5	17	ND	ND		406180	NA
4-Ethyl Toluene	ETO15	NA	08/05/11	5	4.1	12	62.0	12.65		406180	NA
1,3,5-Trimethylbenzene	ETO15	NA	08/05/11	5	3.8	12	21.1	4.31		406180	NA
1,2,4-Trimethylbenzene	ETO15	NA	08/05/11	5	3.4	12	ND	ND		406180	NA
1,4-Dichlorobenzene	ETO15	NA	08/05/11	5	3.2	15	ND	ND		406180	NA
1,3-Dichlorobenzene	ETO15	NA	08/05/11	5	4.2	15	ND	ND		406180	NA
Benzyl Chloride	ETO15	NA	08/05/11	5	3.1	13	ND	ND		406180	NA
1,2-Dichlorobenzene	ETO15	NA	08/05/11	5	4.5	15	ND	ND		406180	NA
Hexachlorobutadiene	ETO15	NA	08/05/11	5	12	28	ND	ND		406180	NA
1,2,4-Trichlorobenzene	ETO15	NA	08/05/11	5	17	37	ND	ND		406180	NA
Naphthalene	ETO15	NA	08/05/11	5	7.3	26	ND	ND		406180	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/05/11	5	65	135	97.0 %			406180	NA



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental **Date Received:** 08/05/11  
**Date Reported:** 08/12/11

<b>Client Sample ID:</b>	EFF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108038-001A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/05/11 / 16:10	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	08/05/11	10	1800	3500	7700	2,187.50	x	406182	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/05/11  
Date Reported: 08/12/11

Client Sample ID:	INF MPE-2/MW-5	Lab Sample ID:	1108038-002A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Soil Vapor
Project Number:			
Date/Time Sampled:	08/05/11 / 15:20	Certified Clean WO # :	
Canister/Tube ID:		Received PSI :	0.0
Collection Volume (L):	0.00	Corrected PSI :	0.0
Tag Number:	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	08/05/11	250	380	1300	ND	ND		406180	NA
1,1-Difluoroethane	ETO15	NA	08/05/11	250	120	340	ND	ND		406180	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	08/05/11	250	1200	3500	ND	ND		406180	NA
Chloromethane	ETO15	NA	08/05/11	250	80	260	ND	ND		406180	NA
Vinyl Chloride	ETO15	NA	08/05/11	250	170	650	ND	ND		406180	NA
1,3-Butadiene	ETO15	NA	08/05/11	250	110	280	ND	ND		406180	NA
Bromomethane	ETO15	NA	08/05/11	250	180	490	ND	ND		406180	NA
Chloroethane	ETO15	NA	08/05/11	250	130	330	ND	ND		406180	NA
Trichlorofluoromethane	ETO15	NA	08/05/11	250	450	1400	ND	ND		406180	NA
1,1-Dichloroethene	ETO15	NA	08/05/11	250	150	500	ND	ND		406180	NA
Freon 113	ETO15	NA	08/05/11	250	210	960	ND	ND		406180	NA
Carbon Disulfide	ETO15	NA	08/05/11	250	200	780	ND	ND		406180	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	08/05/11	250	240	2500	ND	ND		406180	NA
Methylene Chloride	ETO15	NA	08/05/11	250	150	880	ND	ND		406180	NA
Acetone	ETO15	NA	08/05/11	250	220	2400	ND	ND		406180	NA
trans-1,2-Dichloroethene	ETO15	NA	08/05/11	250	160	500	ND	ND		406180	NA
Hexane	ETO15	NA	08/05/11	250	130	440	ND	ND		406180	NA
MTBE	ETO15	NA	08/05/11	250	220	450	ND	ND		406180	NA
tert-Butanol	ETO15	NA	08/05/11	250	230	2100	3340	795.24		406180	NA
Diisopropyl ether (DIPE)	ETO15	NA	08/05/11	250	220	530	ND	ND		406180	NA
1,1-Dichloroethane	ETO15	NA	08/05/11	250	190	510	ND	ND		406180	NA
ETBE	ETO15	NA	08/05/11	250	170	530	ND	ND		406180	NA
cis-1,2-Dichloroethene	ETO15	NA	08/05/11	250	130	500	ND	ND		406180	NA
Chloroform	ETO15	NA	08/05/11	250	310	1200	ND	ND		406180	NA
Vinyl Acetate	ETO15	NA	08/05/11	250	140	440	ND	ND		406180	NA
Carbon Tetrachloride	ETO15	NA	08/05/11	250	220	790	ND	ND		406180	NA
1,1,1-trichloroethane	ETO15	NA	08/05/11	250	210	690	ND	ND		406180	NA
2-Butanone (MEK)	ETO15	NA	08/05/11	250	160	380	ND	ND		406180	NA
Ethyl Acetate	ETO15	NA	08/05/11	250	190	450	ND	ND		406180	NA
Tetrahydrofuran	ETO15	NA	08/05/11	250	75	380	ND	ND		406180	NA
TAME	ETO15	NA	08/05/11	250	91	530	ND	ND		406180	NA
1,2-Dichloroethane (EDC)	ETO15	NA	08/05/11	250	250	510	ND	ND		406180	NA
Trichloroethylene	ETO15	NA	08/05/11	250	350	1400	ND	ND		406180	NA
1,2-Dichloropropane	ETO15	NA	08/05/11	250	330	1200	ND	ND		406180	NA
Bromodichloromethane	ETO15	NA	08/05/11	250	220	840	ND	ND		406180	NA



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental      **Date Received:** 08/05/11  
**Date Reported:** 08/12/11

<b>Client Sample ID:</b>	INF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108038-002A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/05/11 / 15:20	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,4-Dioxane	ETO15	NA	08/05/11	250	310	900	ND	ND		406180	NA
trans-1,3-Dichloropropene	ETO15	NA	08/05/11	250	220	560	ND	ND		406180	NA
Toluene	ETO15	NA	08/05/11	250	240	480	ND	ND		406180	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	08/05/11	250	210	510	ND	ND		406180	NA
cis-1,3-Dichloropropene	ETO15	NA	08/05/11	250	280	560	ND	ND		406180	NA
Tetrachloroethylene	ETO15	NA	08/05/11	250	230	850	ND	ND		406180	NA
1,1,2-Trichloroethane	ETO15	NA	08/05/11	250	230	690	ND	ND		406180	NA
Dibromochloromethane	ETO15	NA	08/05/11	250	430	1100	ND	ND		406180	NA
1,2-Dibromoethane (EDB)	ETO15	NA	08/05/11	250	510	1900	ND	ND		406180	NA
Benzene	ETO15	NA	08/09/11	500	340	800	44400	13,875.00		406189	NA
2-Hexanone	ETO15	NA	08/05/11	250	280	1000	ND	ND		406180	NA
Ethyl Benzene	ETO15	NA	08/05/11	250	250	540	8820	2,051.16		406180	NA
Chlorobenzene	ETO15	NA	08/05/11	250	180	580	ND	ND		406180	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	08/05/11	250	260	860	ND	ND		406180	NA
m,p-Xylene	ETO15	NA	08/05/11	250	400	1100	16900	3,930.23		406180	NA
o-Xylene	ETO15	NA	08/05/11	250	200	540	4100	953.49		406180	NA
Styrene	ETO15	NA	08/05/11	250	170	550	ND	ND		406180	NA
Bromoform	ETO15	NA	08/05/11	250	280	1300	ND	ND		406180	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	08/05/11	250	180	860	ND	ND		406180	NA
4-Ethyl Toluene	ETO15	NA	08/05/11	250	200	610	3370	687.76		406180	NA
1,3,5-Trimethylbenzene	ETO15	NA	08/05/11	250	190	610	1000	204.08		406180	NA
1,2,4-Trimethylbenzene	ETO15	NA	08/05/11	250	170	610	2050	418.37		406180	NA
1,4-Dichlorobenzene	ETO15	NA	08/05/11	250	160	750	ND	ND		406180	NA
1,3-Dichlorobenzene	ETO15	NA	08/05/11	250	210	750	ND	ND		406180	NA
Benzyl Chloride	ETO15	NA	08/05/11	250	150	650	ND	ND		406180	NA
1,2-Dichlorobenzene	ETO15	NA	08/05/11	250	230	750	ND	ND		406180	NA
Hexachlorobutadiene	ETO15	NA	08/05/11	250	600	1400	ND	ND		406180	NA
1,2,4-Trichlorobenzene	ETO15	NA	08/05/11	250	850	1900	ND	ND		406180	NA
Naphthalene	ETO15	NA	08/05/11	250	360	1300	ND	ND		406180	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/05/11	250	65	135	100 %			406180	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/09/11	500	65	135	86.2 %			406189	NA



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental **Date Received:** 08/05/11  
**Date Reported:** 08/12/11

<b>Client Sample ID:</b>	INF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108038-002A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Soil Vapor
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/05/11 / 15:20	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave.		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	08/05/11	500	88000	180000	2100000	596,590.91	x	406182	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## MB Summary Report

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/05/11	Analytical Batch:	406180
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.30	1.00	ND		
1,1-Difluoroethane	0.18	0.500	ND		
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND		
Chloromethane	0.15	0.500	ND		
Vinyl Chloride	0.26	1.00	ND		
1,3-Butadiene	0.20	0.500	ND		
Bromomethane	0.18	0.500	ND		
Chloroethane	0.19	0.500	ND		
Trichlorofluoromethane	0.32	1.00	ND		
1,1-Dichloroethene	0.15	0.500	ND		
Freon 113	0.11	0.500	ND		
Carbon Disulfide	0.26	1.00	ND		
2-Propanol (Isopropyl Alcohol)	0.39	4.00	ND		
Methylene Chloride	0.17	0.500	ND		
Acetone	0.37	4.00	ND		
trans-1,2-Dichloroethene	0.16	0.500	ND		
Hexane	0.15	0.500	ND		
MTBE	0.24	0.500	ND		
tert-Butanol	0.22	2.00	ND		
Diisopropyl ether (DIPE)	0.21	0.500	ND		
1,1-Dichloroethane	0.18	0.500	ND		
ETBE	0.16	0.500	ND		
cis-1,2-Dichloroethene	0.13	0.500	ND		
Chloroform	0.25	1.00	ND		
Vinyl Acetate	0.16	0.500	ND		
Carbon Tetrachloride	0.14	0.500	ND		
1,1,1-Trichloroethane	0.15	0.500	ND		
2-Butanone (MEK)	0.21	0.500	ND		
Ethyl Acetate	0.21	0.500	ND		
Tetrahydrofuran	0.10	0.500	ND		
Benzene	0.21	0.500	ND		
TAME	0.086	0.500	ND		
1,2-Dichloroethane (EDC)	0.24	0.500	ND		
Trichloroethylene	0.26	1.00	ND		
1,2-Dichloropropane	0.29	1.00	ND		
Bromodichloromethane	0.13	0.500	ND		
1,4-Dioxane	0.35	1.00	ND		
trans-1,3-Dichloropropene	0.19	0.500	ND		
Toluene	0.25	0.500	ND		
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND		
cis-1,3-Dichloropropene	0.25	0.500	ND		



## MB Summary Report

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/05/11	Analytical Batch:	406180
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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Tetrachloroethylene	0.13	0.500	ND	
1,1,2-Trichloroethane	0.17	0.500	ND	
Dibromochloromethane	0.20	0.500	ND	
1,2-Dibromoethane (EDB)	0.27	1.00	ND	
2-Hexanone	0.27	1.00	ND	
Ethyl Benzene	0.23	0.500	ND	
Chlorobenzene	0.15	0.500	ND	
1,1,1,2-Tetrachloroethane	0.15	0.500	ND	
m,p-Xylene	0.38	1.00	ND	
o-Xylene	0.19	0.500	ND	
Styrene	0.16	0.500	ND	
Bromoform	0.11	0.500	ND	
1,1,2,2-Tetrachloroethane	0.10	0.500	ND	
4-Ethyl Toluene	0.17	0.500	ND	
1,3,5-Trimethylbenzene	0.15	0.500	ND	
1,2,4-Trimethylbenzene	0.14	0.500	ND	
1,4-Dichlorobenzene	0.11	0.500	ND	
1,3-Dichlorobenzene	0.14	0.500	ND	
Benzyl Chloride	0.12	0.500	ND	
1,2-Dichlorobenzene	0.15	0.500	ND	
Hexachlorobutadiene	0.22	0.500	ND	
1,2,4-Trichlorobenzene	0.46	1.00	ND	
Naphthalene	0.28	1.00	ND	
(S) 4-Bromofluorobenzene			98.9	

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	08/05/11	Analytical Batch:	406182
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
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TPH-Gasoline	50	100	ND	
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## MB Summary Report

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/09/11	Analytical Batch:	406189
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.30	1.00	ND		

1,1-Difluoroethane	0.18	0.500	ND
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND
Chloromethane	0.15	0.500	ND
Vinyl Chloride	0.26	1.00	ND
1,3-Butadiene	0.20	0.500	ND
Bromomethane	0.18	0.500	ND
Chloroethane	0.19	0.500	ND
Trichlorofluoromethane	0.32	1.00	ND
1,1-Dichloroethene	0.15	0.500	ND
Freon 113	0.11	0.500	ND
Carbon Disulfide	0.26	1.00	ND
2-Propanol (Isopropyl Alcohol)	0.39	4.00	ND
Methylene Chloride	0.17	0.500	ND
Acetone	0.37	4.00	ND
trans-1,2-Dichloroethene	0.16	0.500	ND
Hexane	0.15	0.500	ND
MTBE	0.24	0.500	ND
tert-Butanol	0.22	2.00	ND
Diisopropyl ether (DIPE)	0.21	0.500	ND
1,1-Dichloroethane	0.18	0.500	ND
ETBE	0.16	0.500	ND
cis-1,2-Dichloroethene	0.13	0.500	ND
Chloroform	0.25	1.00	ND
Vinyl Acetate	0.16	0.500	ND
Carbon Tetrachloride	0.14	0.500	ND
1,1,1-Trichloroethane	0.15	0.500	ND
2-Butanone (MEK)	0.21	0.500	ND
Ethyl Acetate	0.21	0.500	ND
Tetrahydrofuran	0.10	0.500	ND
Benzene	0.21	0.500	ND
TAME	0.086	0.500	ND
1,2-Dichloroethane (EDC)	0.24	0.500	ND
Trichloroethylene	0.26	1.00	ND
1,2-Dichloropropane	0.29	1.00	ND
Bromodichloromethane	0.13	0.500	ND
1,4-Dioxane	0.35	1.00	ND
trans-1,3-Dichloropropene	0.19	0.500	ND
Toluene	0.25	0.500	ND
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND
cis-1,3-Dichloropropene	0.25	0.500	ND



## MB Summary Report

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/09/11	Analytical Batch:	406189
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.13	0.500	ND		
1,1,2-Trichloroethane	0.17	0.500	ND		
Dibromochloromethane	0.20	0.500	ND		
1,2-Dibromoethane (EDB)	0.27	1.00	ND		
2-Hexanone	0.27	1.00	ND		
Ethyl Benzene	0.23	0.500	ND		
Chlorobenzene	0.15	0.500	ND		
1,1,1,2-Tetrachloroethane	0.15	0.500	ND		
m,p-Xylene	0.38	1.00	ND		
o-Xylene	0.19	0.500	ND		
Styrene	0.16	0.500	ND		
Bromoform	0.11	0.500	ND		
1,1,2,2-Tetrachloroethane	0.10	0.500	ND		
4-Ethyl Toluene	0.17	0.500	ND		
1,3,5-Trimethylbenzene	0.15	0.500	ND		
1,2,4-Trimethylbenzene	0.14	0.500	ND		
1,4-Dichlorobenzene	0.11	0.500	ND		
1,3-Dichlorobenzene	0.14	0.500	ND		
Benzyl Chloride	0.12	0.500	ND		
1,2-Dichlorobenzene	0.15	0.500	ND		
Hexachlorobutadiene	0.22	0.500	ND		
1,2,4-Trichlorobenzene	0.46	1.00	ND		
Naphthalene	0.28	1.00	ND		
(S) 4-Bromofluorobenzene			92.6		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/05/11	Analytical Batch:	406180
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	20	97.6	95.0	2.70	65 - 135	30	
Benzene	0.21	0.500	ND	20	106	112	5.44	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	20	125	119	5.13	65 - 135	30	
Toluene	0.25	0.500	ND	20	123	118	3.69	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	20	121	107	12.7	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	20	85.0	80.0		65 - 135		

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	08/05/11	Analytical Batch:	406182
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH-Gasoline	50	100	ND	500	118	104	12.1	50 - 150	30	

Work Order:	1108038	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/09/11	Analytical Batch:	406189
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	20	82.2	79.7	3.03	65 - 135	30	
Benzene	0.21	0.500	ND	20	97.3	96.5	0.877	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	20	100	97.0	3.35	65 - 135	30	
Toluene	0.25	0.500	ND	20	90.0	89.9	0.111	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	20	83.1	77.2	7.30	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	20	75.0	75.0		65 - 135		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m3</b> , <b>mg.m3</b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % ( equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> (concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<b>B</b> - Indicates when the analyte is found in the associated method or preparation blank
<b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample
<b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
<b>H</b> - Indicates that the recommended holding time for the analyte or compound has been exceeded
<b>J</b> - Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather than quantitative
<b>NA</b> - Not Analyzed
<b>N/A</b> - Not Applicable
<b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
<b>R</b> - The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
<b>S</b> - Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
<b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.



## Sample Receipt Checklist

Client Name: Soma Environmental

Date and Time Received: 8/5/2011 17:11

Project Name: 15101 Freedom Ave

Received By: NG

Work Order No.: 1108038

Physically Logged By: YB

Checklist Completed By: YB

Carrier Name: Client Drop Off

### Chain of Custody (COC) Information

Chain of custody present? Yes

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present

Shipping Container/Cooler In Good Condition? Yes

Samples in proper container/bottle? Yes

Samples containers intact? Yes

Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Temperature:                  °C

Container/Temp Blank temperature in compliance? No VOA vials submitted

Water-VOA vials have zero headspace? No VOA vials submitted

Water-pH acceptable upon receipt?

pH Checked by: pH Adjusted by:



## Login Summary Report

**Client ID:** TL5237      **Soma Environmental**  
**Project Name:** 15101 Freedom Ave  
**Project # :**  
**Report Due Date:** 8/12/2011  
**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 8/5/2011  
**Time Received:** 17:11  
**Comments:** 5 day TAT! Received 2 tedlars for TO-3,TO-15. EDF requested.  
**Work Order # :** **1108038**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1108038-001A	EFF MPE-2/MW-5	08/05/11 16:10	Air				EDF A_TO-3GRO A_TO-15Full-B A_TO-15Full-A	
1108038-002A	INF MPE-2/MW-5	08/05/11 15:20	Air				A_TO-3GRO A_TO-15Full-B A_TO-15Full-A	



483 Sinclair Frontage Road  
Milpitas, CA 95035  
Phone: 408.263.5258    **RESET**  
FAX: 408.263.8293  
[www.torrentlab.com](http://www.torrentlab.com)

## **CHAIN OF CUSTODY**

**LAB WORK ORDER NO**

1108038

Company Name: <b>SOMA Environmental Engineering, Inc.</b>			Location of Sampling: 15101 Freedom Ave, San Leandro, CA
Address: 6620 Owens Drive, Suite A			Purpose: soil vapor extraction
City: Pleasanton	State: CA	Zip Code: 94588	Special Instructions / Comments: gas station site
Telephone: 925-734-6400	FAX: 925-734-6401		
<b>REPORT TO:</b> Joyce Bobek	<b>SAMPLER:</b> Erica Fisker		<b>P.O. #:</b> 2555 <b>EMAIL:</b> jbobek@somaenv.com

1	Relinquished By: 	Print: Erica Fish	Date: 8-5-11	Time: 17:11	Received By: 	Print: NAVIN G	Date: 8-5-11	Time: 17:11
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition?  Yes  NO      Samples on Ice?  Yes  NO      Method of Shipment *DHL*

Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Sample seals intact?  Yes  NO  N/A

Page 1 of 1

**Log In By:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Log In Reviewed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

Log In By \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



Soma Environmental  
6620 Owens Dr. Suite A  
Pleasanton, California 94588  
Tel: 925-734-6400  
Fax: 925-734-6401  
RE: 15101 Freedom Ave

Work Order No.: 1108109

Dear Joyce Bobek:

Torrent Laboratory, Inc. received 2 sample(s) on August 16, 2011 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "G. Gueorguieva".

---

G.Gueorguieva  
Sr. Project Manager

August 23, 2011

---

Date



**Date:** 8/23/2011

---

**Client:** Soma Environmental

**Project:** 15101 Freedom Ave

**Work Order:** 1108109

### CASE NARRATIVE

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/16/11  
Date Reported: 08/23/11

Client Sample ID:	EFF MPE-2/MW-5	Lab Sample ID:	1108109-001A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/16/11 / 12:35	Received PSI :	0.0
Canister/Tube ID:		Corrected PSI :	0.0
Collection Volume (L):	0.00		
Tag Number:	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	08/17/11	5	7.6	25	ND	ND		406310	NA
1,1-Difluoroethane	ETO15	NA	08/17/11	5	2.5	6.8	ND	ND		406310	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	08/17/11	5	25	70	ND	ND		406310	NA
Chloromethane	ETO15	NA	08/17/11	5	1.6	5.3	ND	ND		406310	NA
Vinyl Chloride	ETO15	NA	08/17/11	5	3.3	13	ND	ND		406310	NA
1,3-Butadiene	ETO15	NA	08/17/11	5	2.2	5.5	ND	ND		406310	NA
Bromomethane	ETO15	NA	08/17/11	5	3.6	9.8	ND	ND		406310	NA
Chloroethane	ETO15	NA	08/17/11	5	2.5	6.5	ND	ND		406310	NA
Trichlorofluoromethane	ETO15	NA	08/17/11	5	9.0	28	ND	ND		406310	NA
1,1-Dichloroethene	ETO15	NA	08/17/11	5	3.1	10	ND	ND		406310	NA
Freon 113	ETO15	NA	08/17/11	5	4.2	19	ND	ND		406310	NA
Carbon Disulfide	ETO15	NA	08/17/11	5	4.1	16	ND	ND		406310	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	08/17/11	5	4.9	50	ND	ND		406310	NA
Methylene Chloride	ETO15	NA	08/17/11	5	2.9	18	ND	ND		406310	NA
Acetone	ETO15	NA	08/17/11	5	4.4	48	76.2	31.75		406310	NA
trans-1,2-Dichloroethene	ETO15	NA	08/17/11	5	3.2	10	ND	ND		406310	NA
Hexane	ETO15	NA	08/17/11	5	2.6	8.8	ND	ND		406310	NA
MTBE	ETO15	NA	08/17/11	5	4.3	9.0	ND	ND		406310	NA
tert-Butanol	ETO15	NA	08/17/11	5	4.6	42	ND	ND		406310	NA
Diisopropyl ether (DIPE)	ETO15	NA	08/17/11	5	4.4	11	ND	ND		406310	NA
1,1-Dichloroethane	ETO15	NA	08/17/11	5	3.8	10	ND	ND		406310	NA
ETBE	ETO15	NA	08/17/11	5	3.4	11	ND	ND		406310	NA
cis-1,2-Dichloroethene	ETO15	NA	08/17/11	5	2.7	10	ND	ND		406310	NA
Chloroform	ETO15	NA	08/17/11	5	6.2	25	ND	ND		406310	NA
Vinyl Acetate	ETO15	NA	08/17/11	5	2.8	8.8	ND	ND		406310	NA
Carbon Tetrachloride	ETO15	NA	08/17/11	5	4.3	16	ND	ND		406310	NA
1,1,1-trichloroethane	ETO15	NA	08/17/11	5	4.2	14	ND	ND		406310	NA
2-Butanone (MEK)	ETO15	NA	08/17/11	5	3.1	7.5	ND	ND		406310	NA
Ethyl Acetate	ETO15	NA	08/17/11	5	3.7	9.0	ND	ND		406310	NA
Tetrahydrofuran	ETO15	NA	08/17/11	5	1.5	7.5	ND	ND		406310	NA
Benzene	ETO15	NA	08/17/11	5	3.4	8.0	487	152.19		406310	NA
TAME	ETO15	NA	08/17/11	5	1.8	11	ND	ND		406310	NA
1,2-Dichloroethane (EDC)	ETO15	NA	08/17/11	5	4.9	10	ND	ND		406310	NA
Trichloroethylene	ETO15	NA	08/17/11	5	6.9	27	ND	ND		406310	NA
1,2-Dichloropropane	ETO15	NA	08/17/11	5	6.6	23	ND	ND		406310	NA



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/16/11  
Date Reported: 08/23/11

Client Sample ID:	EFF MPE-2/MW-5	Lab Sample ID:	1108109-001A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/16/11 / 12:35	Received PSI :	0.0
Canister/Tube ID:		Corrected PSI :	0.0
Collection Volume (L):	0.00		
Tag Number:	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Bromodichloromethane	ETO15	NA	08/17/11	5	4.4	17	ND	ND		406310	NA
1,4-Dioxane	ETO15	NA	08/17/11	5	6.2	18	ND	ND		406310	NA
trans-1,3-Dichloropropene	ETO15	NA	08/17/11	5	4.3	11	ND	ND		406310	NA
Toluene	ETO15	NA	08/17/11	5	4.8	9.5	70.1	18.45		406310	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	08/17/11	5	4.2	10	ND	ND		406310	NA
cis-1,3-Dichloropropene	ETO15	NA	08/17/11	5	5.6	11	ND	ND		406310	NA
Tetrachloroethylene	ETO15	NA	08/17/11	5	4.5	17	ND	ND		406310	NA
1,1,2-Trichloroethane	ETO15	NA	08/17/11	5	4.6	14	ND	ND		406310	NA
Dibromochloromethane	ETO15	NA	08/17/11	5	8.7	21	ND	ND		406310	NA
1,2-Dibromoethane (EDB)	ETO15	NA	08/17/11	5	10	39	ND	ND		406310	NA
2-Hexanone	ETO15	NA	08/17/11	5	5.6	21	ND	ND		406310	NA
Ethyl Benzene	ETO15	NA	08/17/11	5	5.0	11	183	42.56		406310	NA
Chlorobenzene	ETO15	NA	08/17/11	5	3.6	12	ND	ND		406310	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	08/17/11	5	5.2	17	ND	ND		406310	NA
m,p-Xylene	ETO15	NA	08/17/11	5	8.1	22	314	73.02		406310	NA
o-Xylene	ETO15	NA	08/17/11	5	4.0	11	63.6	14.79		406310	NA
Styrene	ETO15	NA	08/17/11	5	3.4	11	ND	ND		406310	NA
Bromoform	ETO15	NA	08/17/11	5	5.5	25	ND	ND		406310	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	08/17/11	5	3.5	17	ND	ND		406310	NA
4-Ethyl Toluene	ETO15	NA	08/17/11	5	4.1	12	28.9	5.90		406310	NA
1,3,5-Trimethylbenzene	ETO15	NA	08/17/11	5	3.8	12	13.2	2.69		406310	NA
1,2,4-Trimethylbenzene	ETO15	NA	08/17/11	5	3.4	12	ND	ND		406310	NA
1,4-Dichlorobenzene	ETO15	NA	08/17/11	5	3.2	15	ND	ND		406310	NA
1,3-Dichlorobenzene	ETO15	NA	08/17/11	5	4.2	15	ND	ND		406310	NA
Benzyl Chloride	ETO15	NA	08/17/11	5	3.1	13	ND	ND		406310	NA
1,2-Dichlorobenzene	ETO15	NA	08/17/11	5	4.5	15	ND	ND		406310	NA
Hexachlorobutadiene	ETO15	NA	08/17/11	5	12	28	ND	ND		406310	NA
1,2,4-Trichlorobenzene	ETO15	NA	08/17/11	5	17	37	ND	ND		406310	NA
Naphthalene	ETO15	NA	08/17/11	5	7.3	26	ND	ND		406310	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/17/11	5	65	135	128 %			406310	NA



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental

**Date Received:** 08/16/11  
**Date Reported:** 08/23/11

<b>Client Sample ID:</b>	EFF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108109-001A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/16/11 / 12:35	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	08/17/11	10	1800	3500	4000	1,136.36	x	406331	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/16/11  
Date Reported: 08/23/11

Client Sample ID:	INF MPE-2/MW-5	Lab Sample ID:	1108109-002A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/16/11 / 12:45	Received PSI :	0.0
Canister/Tube ID:		Corrected PSI :	0.0
Collection Volume (L):	0.00		
Tag Number:	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Benzene	ETO15	NA	08/17/11	250	170	400	10900	3,406.25		406310	NA
Dichlorodifluoromethane	ETO15	NA	08/17/11	50	76	250	ND	ND		406310	NA
1,1-Difluoroethane	ETO15	NA	08/17/11	50	25	68	ND	ND		406310	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	08/17/11	50	250	700	ND	ND		406310	NA
Chloromethane	ETO15	NA	08/17/11	50	16	53	ND	ND		406310	NA
Vinyl Chloride	ETO15	NA	08/17/11	50	33	130	ND	ND		406310	NA
1,3-Butadiene	ETO15	NA	08/17/11	50	22	55	ND	ND		406310	NA
Bromomethane	ETO15	NA	08/17/11	50	36	98	ND	ND		406310	NA
Chloroethane	ETO15	NA	08/17/11	50	25	65	ND	ND		406310	NA
Trichlorofluoromethane	ETO15	NA	08/17/11	50	90	280	ND	ND		406310	NA
1,1-Dichloroethene	ETO15	NA	08/17/11	50	31	100	ND	ND		406310	NA
Freon 113	ETO15	NA	08/17/11	50	42	190	ND	ND		406310	NA
Carbon Disulfide	ETO15	NA	08/17/11	50	41	160	ND	ND		406310	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	08/17/11	50	49	500	ND	ND		406310	NA
Methylene Chloride	ETO15	NA	08/17/11	50	29	180	ND	ND		406310	NA
Acetone	ETO15	NA	08/17/11	50	44	480	ND	ND		406310	NA
trans-1,2-Dichloroethene	ETO15	NA	08/17/11	50	32	100	ND	ND		406310	NA
Hexane	ETO15	NA	08/17/11	50	26	88	ND	ND		406310	NA
MTBE	ETO15	NA	08/17/11	50	43	90	ND	ND		406310	NA
tert-Butanol	ETO15	NA	08/17/11	50	46	420	3030	721.43		406310	NA
Diisopropyl ether (DIPE)	ETO15	NA	08/17/11	50	44	110	ND	ND		406310	NA
1,1-Dichloroethane	ETO15	NA	08/17/11	50	38	100	ND	ND		406310	NA
ETBE	ETO15	NA	08/17/11	50	34	110	ND	ND		406310	NA
cis-1,2-Dichloroethene	ETO15	NA	08/17/11	50	27	100	ND	ND		406310	NA
Chloroform	ETO15	NA	08/17/11	50	62	250	ND	ND		406310	NA
Vinyl Acetate	ETO15	NA	08/17/11	50	28	88	ND	ND		406310	NA
Carbon Tetrachloride	ETO15	NA	08/17/11	50	43	160	ND	ND		406310	NA
1,1,1-trichloroethane	ETO15	NA	08/17/11	50	42	140	ND	ND		406310	NA
2-Butanone (MEK)	ETO15	NA	08/17/11	50	31	75	ND	ND		406310	NA
Ethyl Acetate	ETO15	NA	08/17/11	50	37	90	ND	ND		406310	NA
Tetrahydrofuran	ETO15	NA	08/17/11	50	15	75	ND	ND		406310	NA
TAME	ETO15	NA	08/17/11	50	18	110	638	151.90		406310	NA
1,2-Dichloroethane (EDC)	ETO15	NA	08/17/11	50	49	100	ND	ND		406310	NA
Trichloroethylene	ETO15	NA	08/17/11	50	69	270	ND	ND		406310	NA
1,2-Dichloropropane	ETO15	NA	08/17/11	50	66	230	ND	ND		406310	NA



## SAMPLE RESULTS

Report prepared for: Joyce Bobek  
Soma Environmental

Date Received: 08/16/11  
Date Reported: 08/23/11

Client Sample ID:	INF MPE-2/MW-5	Lab Sample ID:	1108109-002A
Project Name/Location:	15101 Freedom Ave	Sample Matrix:	Air
Project Number:		Certified Clean WO # :	
Date/Time Sampled:	08/16/11 / 12:45	Received PSI :	0.0
Canister/Tube ID:		Corrected PSI :	0.0
Collection Volume (L):	0.00		
Tag Number:	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Bromodichloromethane	ETO15	NA	08/17/11	50	44	170	ND	ND		406310	NA
1,4-Dioxane	ETO15	NA	08/17/11	50	62	180	ND	ND		406310	NA
trans-1,3-Dichloropropene	ETO15	NA	08/17/11	50	43	110	ND	ND		406310	NA
Toluene	ETO15	NA	08/17/11	50	48	95	1110	292.11		406310	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	08/17/11	50	42	100	ND	ND		406310	NA
cis-1,3-Dichloropropene	ETO15	NA	08/17/11	50	56	110	ND	ND		406310	NA
Tetrachloroethylene	ETO15	NA	08/17/11	50	45	170	ND	ND		406310	NA
1,1,2-Trichloroethane	ETO15	NA	08/17/11	50	46	140	ND	ND		406310	NA
Dibromochloromethane	ETO15	NA	08/17/11	50	87	210	ND	ND		406310	NA
1,2-Dibromoethane (EDB)	ETO15	NA	08/17/11	50	100	390	ND	ND		406310	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/17/11	250	65	135	120 %			406310	NA
2-Hexanone	ETO15	NA	08/17/11	50	56	210	ND	ND		406310	NA
Ethyl Benzene	ETO15	NA	08/17/11	50	50	110	1210	281.40		406310	NA
Chlorobenzene	ETO15	NA	08/17/11	50	36	120	ND	ND		406310	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	08/17/11	50	52	170	ND	ND		406310	NA
m,p-Xylene	ETO15	NA	08/17/11	50	81	220	1630	379.07		406310	NA
o-Xylene	ETO15	NA	08/17/11	50	40	110	310	72.09		406310	NA
Styrene	ETO15	NA	08/17/11	50	34	110	ND	ND		406310	NA
Bromoform	ETO15	NA	08/17/11	50	55	250	ND	ND		406310	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	08/17/11	50	35	170	ND	ND		406310	NA
4-Ethyl Toluene	ETO15	NA	08/17/11	50	41	120	ND	ND		406310	NA
1,3,5-Trimethylbenzene	ETO15	NA	08/17/11	50	38	120	ND	ND		406310	NA
1,2,4-Trimethylbenzene	ETO15	NA	08/17/11	50	34	120	ND	ND		406310	NA
1,4-Dichlorobenzene	ETO15	NA	08/17/11	50	32	150	ND	ND		406310	NA
1,3-Dichlorobenzene	ETO15	NA	08/17/11	50	42	150	ND	ND		406310	NA
Benzyl Chloride	ETO15	NA	08/17/11	50	31	130	ND	ND		406310	NA
1,2-Dichlorobenzene	ETO15	NA	08/17/11	50	45	150	ND	ND		406310	NA
Hexachlorobutadiene	ETO15	NA	08/17/11	50	120	280	ND	ND		406310	NA
1,2,4-Trichlorobenzene	ETO15	NA	08/17/11	50	170	370	ND	ND		406310	NA
Naphthalene	ETO15	NA	08/17/11	50	73	260	ND	ND		406310	NA
(S) 4-Bromofluorobenzene	ETO15	NA	08/17/11	50	65	135	124 %			406310	NA



## SAMPLE RESULTS

**Report prepared for:** Joyce Bobek  
Soma Environmental **Date Received:** 08/16/11  
**Date Reported:** 08/23/11

<b>Client Sample ID:</b>	INF MPE-2/MW-5	<b>Lab Sample ID:</b>	1108109-002A
<b>Project Name/Location:</b>	15101 Freedom Ave	<b>Sample Matrix:</b>	Air
<b>Project Number:</b>			
<b>Date/Time Sampled:</b>	08/16/11 / 12:45	<b>Certified Clean WO # :</b>	
<b>Canister/Tube ID:</b>		<b>Received PSI :</b>	0.0
<b>Collection Volume (L):</b>	0.00	<b>Corrected PSI :</b>	0.0
<b>Tag Number:</b>	15101 Freedom Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	08/17/11	200	35000	70000	92000	26,136.36	x	406331	NA

**NOTE:** x - Does not match pattern of reference Gasoline standard. Hydrocarbons in the range of C5-C12 quantified as Gasoline.



## MB Summary Report

Work Order:	1108109	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/17/11	Analytical Batch:	406310
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.30	1.00	ND		

1,1-Difluoroethane	0.18	0.500	ND
1,2-Dichlorotetrafluoroethane	0.70	2.00	ND
Chloromethane	0.15	0.500	ND
Vinyl Chloride	0.26	1.00	ND
1,3-Butadiene	0.20	0.500	ND
Bromomethane	0.18	0.500	ND
Chloroethane	0.19	0.500	ND
Trichlorofluoromethane	0.32	1.00	ND
1,1-Dichloroethene	0.15	0.500	ND
Freon 113	0.11	0.500	ND
Carbon Disulfide	0.26	1.00	ND
2-Propanol (Isopropyl Alcohol)	0.39	4.00	ND
Methylene Chloride	0.17	0.500	ND
Acetone	0.37	4.00	ND
trans-1,2-Dichloroethene	0.16	0.500	ND
Hexane	0.15	0.500	ND
MTBE	0.24	0.500	ND
tert-Butanol	0.22	2.00	ND
Diisopropyl ether (DIPE)	0.21	0.500	ND
1,1-Dichloroethane	0.18	0.500	ND
ETBE	0.16	0.500	ND
cis-1,2-Dichloroethene	0.13	0.500	ND
Chloroform	0.25	1.00	ND
Vinyl Acetate	0.16	0.500	ND
Carbon Tetrachloride	0.14	0.500	ND
1,1,1-Trichloroethane	0.15	0.500	ND
2-Butanone (MEK)	0.21	0.500	ND
Ethyl Acetate	0.21	0.500	ND
Tetrahydrofuran	0.10	0.500	ND
Benzene	0.21	0.500	ND
TAME	0.086	0.500	ND
1,2-Dichloroethane (EDC)	0.24	0.500	ND
Trichloroethylene	0.26	1.00	ND
1,2-Dichloropropane	0.29	1.00	ND
Bromodichloromethane	0.13	0.500	ND
1,4-Dioxane	0.35	1.00	ND
trans-1,3-Dichloropropene	0.19	0.500	ND
Toluene	0.25	0.500	ND
4-Methyl-2-Pentanone (MIBK)	0.21	0.500	ND
cis-1,3-Dichloropropene	0.25	0.500	ND



## MB Summary Report

Work Order:	1108109	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/17/11	Analytical Batch:	406310
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.13	0.500	ND		
1,1,2-Trichloroethane	0.17	0.500	ND		
Dibromochloromethane	0.20	0.500	ND		
1,2-Dibromoethane (EDB)	0.27	1.00	ND		
2-Hexanone	0.27	1.00	ND		
Ethyl Benzene	0.23	0.500	ND		
Chlorobenzene	0.15	0.500	ND		
1,1,1,2-Tetrachloroethane	0.15	0.500	ND		
m,p-Xylene	0.38	1.00	ND		
o-Xylene	0.19	0.500	ND		
Styrene	0.16	0.500	ND		
Bromoform	0.11	0.500	ND		
1,1,2,2-Tetrachloroethane	0.10	0.500	ND		
4-Ethyl Toluene	0.17	0.500	ND		
1,3,5-Trimethylbenzene	0.15	0.500	ND		
1,2,4-Trimethylbenzene	0.14	0.500	ND		
1,4-Dichlorobenzene	0.11	0.500	ND		
1,3-Dichlorobenzene	0.14	0.500	ND		
Benzyl Chloride	0.12	0.500	ND		
1,2-Dichlorobenzene	0.15	0.500	ND		
Hexachlorobutadiene	0.22	0.500	ND		
1,2,4-Trichlorobenzene	0.46	1.00	ND		
Naphthalene	0.28	1.00	ND		
(S) 4-Bromofluorobenzene			124		

Work Order:	1108109	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	08/17/11	Analytical Batch:	406331
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH-Gasoline	50	100	ND		



## LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1108109	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	08/17/11	Analytical Batch:	406310
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	20	98.3	99.1	0.811	65 - 135	30	
Benzene	0.21	0.500	ND	20	95.0	95.0	0.000	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	20	103	102	0.733	65 - 135	30	
Toluene	0.25	0.500	ND	20	97.8	97.9	0.0511	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	20	88.9	88.9	0.000	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	20	100	100		65 - 135		

Work Order:	1108109	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	08/17/11	Analytical Batch:	406331
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH-Gasoline	50	100	ND	500	97.0	99.6	2.66	50 - 150	30	



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m3</b> , <b>mg.m3</b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % ( equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> (concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<b>B</b> - Indicates when the analyte is found in the associated method or preparation blank
<b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample
<b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
<b>H</b> - Indicates that the recommended holding time for the analyte or compound has been exceeded
<b>J</b> - Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather than quantitative
<b>NA</b> - Not Analyzed
<b>N/A</b> - Not Applicable
<b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
<b>R</b> - The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
<b>S</b> - Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
<b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.



## Sample Receipt Checklist

Client Name: Soma Environmental

Date and Time Received: 8/16/2011 14:30

Project Name: 15101 Freedom Ave

Received By:

Work Order No.: 1108109

Physically Logged By: GG

Checklist Completed By: GG

Carrier Name: Client Drop Off

### Chain of Custody (COC) Information

Chain of custody present? Yes

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present

Shipping Container/Cooler In Good Condition? Yes

Samples in proper container/bottle? Yes

Samples containers intact? No

Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Container/Temp Blank temperature in compliance? No Temperature:    °C

Water-VOA vials have zero headspace? No VOA vials submitted

Water-pH acceptable upon receipt? N/A

pH Checked by: pH Adjusted by:

