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ENVIRONMENTAL ENGINEERING, INC.
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October 4, 2012

Ms. Dilan Roe
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 Ms. Roe:

SOMA's "Third Quarter 2012 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.

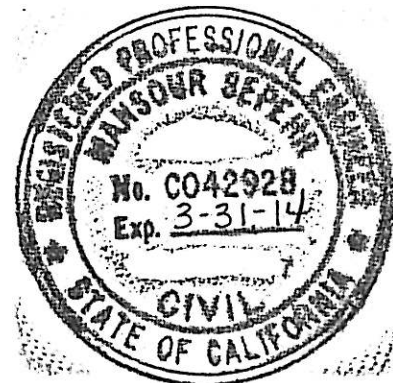
Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mansour Sepehr', written over a horizontal line.

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

cc: Mr. Mohammad Pazdel w/report enclosure



**Third Quarter 2012
Groundwater Monitoring and
Remediation Progress Report**

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

October 4, 2012

Project 2551/2553

Prepared for

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



ENVIRONMENTAL ENGINEERING, INC.

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PERJURY STATEMENT

Site Location: 15101 Freedom Avenue, San Leandro, California

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

A handwritten signature in black ink, appearing to read "M. Pazdel", written over a horizontal line.

Mohammad Pazdel
1770 Pistacia Court
Fairfield, California 94533
Responsible Party

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of the responsible party, Mr. Mohammad Pazdel, for property located at 15101 Freedom Avenue, San Leandro, California, to comply with Alameda County Health Care Services requirements for the Third Quarter 2012 groundwater monitoring event.



Mansour Sepehr, PhD, PE
Principal Hydrogeologist



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1. INTRODUCTION

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

This report summarizes results of the Third Quarter 2012 groundwater monitoring event conducted on September 20 and 21, 2012. 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 2012, which includes operation of a groundwater extraction and treatment system. During this reporting period, no multi-phase extraction (MPE) events were conducted.

1.1 Field Activities

In September 2012, SOMA's field crew conducted a groundwater monitoring event in accordance with procedures and guidelines of Alameda County Health Care Services Environmental Health Department (ACEH) and the California Regional Water Quality Control Board (CRWQCB). Figure 2 shows well locations.

On September 20, 2012, 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), 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 June 6 and 7, 2012, additional field measurements and groundwater samples were collected from all monitoring and MPE wells except MW-6. Grab groundwater samples were also collected from the two extraction wells. Properties measured include pH, temperature, and electrical conductivity (EC). MW-6 was not sampled due to the presence of free-product (FP) in this well. A natural attenuation study was conducted during this event to determine whether petroleum hydrocarbons in groundwater are biodegrading. Dissolved oxygen (DO) and oxidation reduction potential (ORP) measurements were taken for all monitoring and MPE wells.

1.2 Laboratory Analysis

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

2. RESULTS

Following are results of field measurements and laboratory analysis for the Third Quarter 2012 groundwater monitoring event.

2.1 Field Measurements, First WBZ Wells

Table 1 presents calculated groundwater elevations and depths to groundwater for each monitoring well. Depths to groundwater ranged from 15.26 feet in MW-7 to 23.56 feet in MW-1. 0.04 feet of FP was observed in MW-6. Depths corrected to reflect the presence of FP in MW-6 is detailed below.*

Corresponding groundwater elevations ranged from 28.49 feet in MW-6 to 30.90 feet in MW-1. Groundwater elevations at extraction wells EX-1 and EX-2 were 30.10 feet and 28.47 feet, respectively.

*Corrected Depth of MW-6: During monitoring, 0.04 feet of free product was observed in MPE-1. Depth to groundwater and the corresponding groundwater elevation were corrected for product thickness. Specific gravity of gas at 20°C, which is based on the average density of gas of 0.68 (g/cm³) at 20°C and the density of water at 1 (g/cm³), is approximately 0.68. This resulted in a 0.0272-foot correction factor from the actual measured groundwater column at well MW-6. The above correction factor was based on the specific gravity of gas multiplied by the free-product thickness. The correction factor, which accounted for the free-product layer, was subtracted from the actual measured depth to water. This caused the corrected groundwater elevation to be slightly higher than the field measured value. Values reflecting the correction for the product thickness are shown in Table 1.

Figure 3 displays the contour map of groundwater elevations. As illustrated, groundwater flows towards extraction wells, at a gradient of 0.011 feet/feet. Since the previous monitoring event (Second Quarter 2012) the gradient has decreased. Groundwater gradient calculations are attached in Appendix B.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO in the First WBZ ranged from 0.44 mg/L in MW-

5 to 1.61 mg/L in MW-7. ORP showed negative redox potentials in MW-1 through MW-4. Negative redox potentials indicate that contaminants in groundwater are conducive to anaerobic biodegradation. ORP showed positive redox potentials in MW-5, MW-7, MPE-1, and MPE-2. Positive redox potentials are more energetically favorable in utilizing electron acceptors during chemical reactions. This promotes the removal of organic mass from the contaminated groundwater by indigenous bacteria in the subsurface during the release of the transfer of electrons.

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

2.2 Laboratory Analysis, First WBZ Wells

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

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

TPH-g ranged from 95 µg/L in EX-1 to 89,000 µg/L in MPE-1. Since the previous monitoring event (Second Quarter 2012), TPH-g increased in all First WBZ monitoring wells and MPE-1 and decreased in extraction (EX-1 and EX-2) wells and MPE-2.

Figure 4 displays the contour map of TPH-g concentrations in groundwater. As illustrated, the highest TPH-g impact is in the southern portion of the site and in the vicinity of the dispenser islands around MPE-1.

The following BTEX concentrations were observed:

- In MW-2, benzene, toluene and total xylenes were below laboratory-reporting limits and ethylbenzene was at low level.
- In MW-7, benzene and toluene were below laboratory-reporting limits and ethylbenzene and total xylenes were at low levels.
- In EX-1, toluene and ethylbenzene were below laboratory-reporting limits and benzene and total xylenes were at low levels.
- Toluene was also below laboratory-reporting limit in MW-1 and MW-4.
- The highest BTEX was detected in MPE-1 at 8,600 µg/L, 9,200 µg/L, 3,400 µg/L, and 14,800 µg/L, respectively.

Figure 5 displays the contour map of benzene in groundwater. The highest benzene impact is in the southern portion of the site and in the vicinity of the dispenser islands around MPE-1. Since the previous monitoring event (Second Quarter 2012), benzene has increased in MW-1, MW-3, MW-4, MW-5, EX-1, and MPE-1 and decreased in EX-2 and MPE-2.

MtBE was below the laboratory-reporting limit in MW-2. Detectable MtBE ranged from 2.6 µg/L in MW-1 to 1,900 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-1 where MtBE concentration is significantly higher than in other wells. Since the previous monitoring event (Second Quarter 2012), MtBE has increased in MW-3, MW-4, MW-5, MW-7, and MPE-1 and decreased in MW-1, EX-1, EX-2, and MPE-2.

As shown in Table 1, TPH-g, BTEX, and MtBE increased in more impacted well MPE-1 since the previous monitoring event (Second Quarter 2012).

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

The following gasoline oxygenate and lead scavenger concentrations were observed:

- In MW-1, MW-2, MW-3, MW-7, EX-2, and MPE-2, all gasoline oxygenates and lead scavengers were below laboratory-reporting limits.
- Detectable tertiary-butyl alcohol (TBA) ranged from 66 µg/L in MW-5 to 1,300 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 southern dispenser islands around MW-4.

- Methyl tertiary-amyl ether (TAME) was detected in MPE-1 at 1,200 µg/L and was below the laboratory-reporting limit in remaining wells. Figure 8 displays the map of TAME concentrations in First WBZ wells.
- Ethyl tertiary-butyl ether (ETBE) was detected in MW-4 and EX-1 at 14 µg/L and 1.5 µg/L, respectively and was below laboratory-reporting limits in remaining wells. Figure 8 displays the map of ETBE concentrations in First WBZ wells.
- 1,2-dichloroethane (1,2-DCA), Isopropyl ether (DIPE), 1,2-dibromoethane (EDB), and ethanol were below laboratory-reporting limits in all groundwater samples. Analysis results for ethanol are shown in Appendix C.

2.3 Field Measurements, Second WBZ Wells

Table 1 presents calculated groundwater elevations and depths to groundwater for each Second WBZ monitoring well. Depths to groundwater ranged from 22.67 feet in MW-4D to 23.76 feet in MW-1D. Corresponding groundwater elevations ranged from 30.45 feet in MW-4D to 30.68 feet in MW-3D.

Figure 9 displays the contour map of groundwater elevations in the Second WBZ. Groundwater flows southwesterly similar to the previous monitoring event (Second Quarter 2012), at a gradient of 0.0023 feet/feet. The groundwater gradient decreased since the previous monitoring event. Groundwater gradient calculations are attached in Appendix B.

Upon equalization with the surrounding aquifer at each well location, when the purge cycle was terminated, DO in the Second WBZ ranged from 0.39 mg/L in MW-4D to 0.54 mg/L in MW-3D. ORP showed positive potentials in all second WBZ wells. Positive redox potentials are more energetically favorable in utilizing electron acceptors during chemical reactions. This promotes the removal of organic mass from the contaminated groundwater by indigenous bacteria in the subsurface during the release of the transfer of electrons.

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

2.4 Laboratory Analysis for Second WBZ Wells

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

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

TPH-g and BTEX were below laboratory-reporting limits in all second WBZ wells similar to the previous monitoring event (Second Quarter 2012).

MtBE was below the laboratory-reporting limit in MW-1D and was detected in MW-3D and MW-4D at 5.1 µg/L and 1.6 µg/L, respectively. Since the previous monitoring event (Second Quarter 2012), MtBE has slightly increased in MW-3D and MW-4D. Figure 10 shows the map of MtBE concentrations in Second WBZ.

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

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

3. OPERATION OF TREATMENT SYSTEM

SOMA installed a groundwater treatment system at the site in December 2009. The system includes two extraction wells (EX-1 and EX-2), trenching containing influent and effluent lines and electrical conduits, and the treatment system

compound. During system operation, extracted groundwater is pumped from extraction wells through underground piping to a fenced treatment compound, adjacent to the existing service station building.

In the treatment compound, groundwater is treated using granular activated carbon (GAC) and subsequently discharged to the sanitary sewer. Two GAC vessels are connected in series. The first unit (1,000 gallons) serves as the primary treatment unit, and the second (55 gallons) 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. Since the system began discharging, approximately 1,986,334 gallons of groundwater have been treated and discharged at the site (as of September 24, 2012).

The treatment system operates under discharge permit issued by Oro Loma Sanitary District (OLSD) in May 2009. This discharge permit was most recently renewed in May 2012. Treated groundwater has been discharging to the OLSD sewer since December 9, 2009. Figure 11 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 12, 2012, cumulative masses of TPH-g and BTEX extracted from groundwater were approximately 19.72 pounds, 0.88 pounds, 0.22 pounds, 0.41 pounds, and 2.95 pounds, respectively. Appendix D includes laboratory analytical results.

4. MULTI-PHASE EXTRACTION EVENTS

No MPE events were performed during Third Quarter 2012. 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 13 shows the cumulative mass of VOCs removed in pounds.

5. CONCLUSIONS AND RECOMMENDATIONS

Third Quarter 2012 groundwater monitoring and previous MPE events results are summarized below.

- Groundwater flows towards extraction wells in the First WBZ and southwesterly in 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.
- Since the previous quarterly monitoring event (Second Quarter 2012), TPH-g increased in all First WBZ monitoring wells and MPE-1 and decreased in extraction (EX-1 and EX-2) wells and MPE-2.
- In the Second WBZ, TPH-g and BTEX were below laboratory-reporting limits, and MtBE was below laboratory-reporting limit in MW-1D. Since the previous monitoring event (Second Quarter 2012), MtBE increased slightly in MW-3D and 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.
- Conduct additional MPE events at the site, based on the high contaminant concentrations in MPE-1.

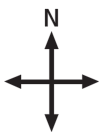
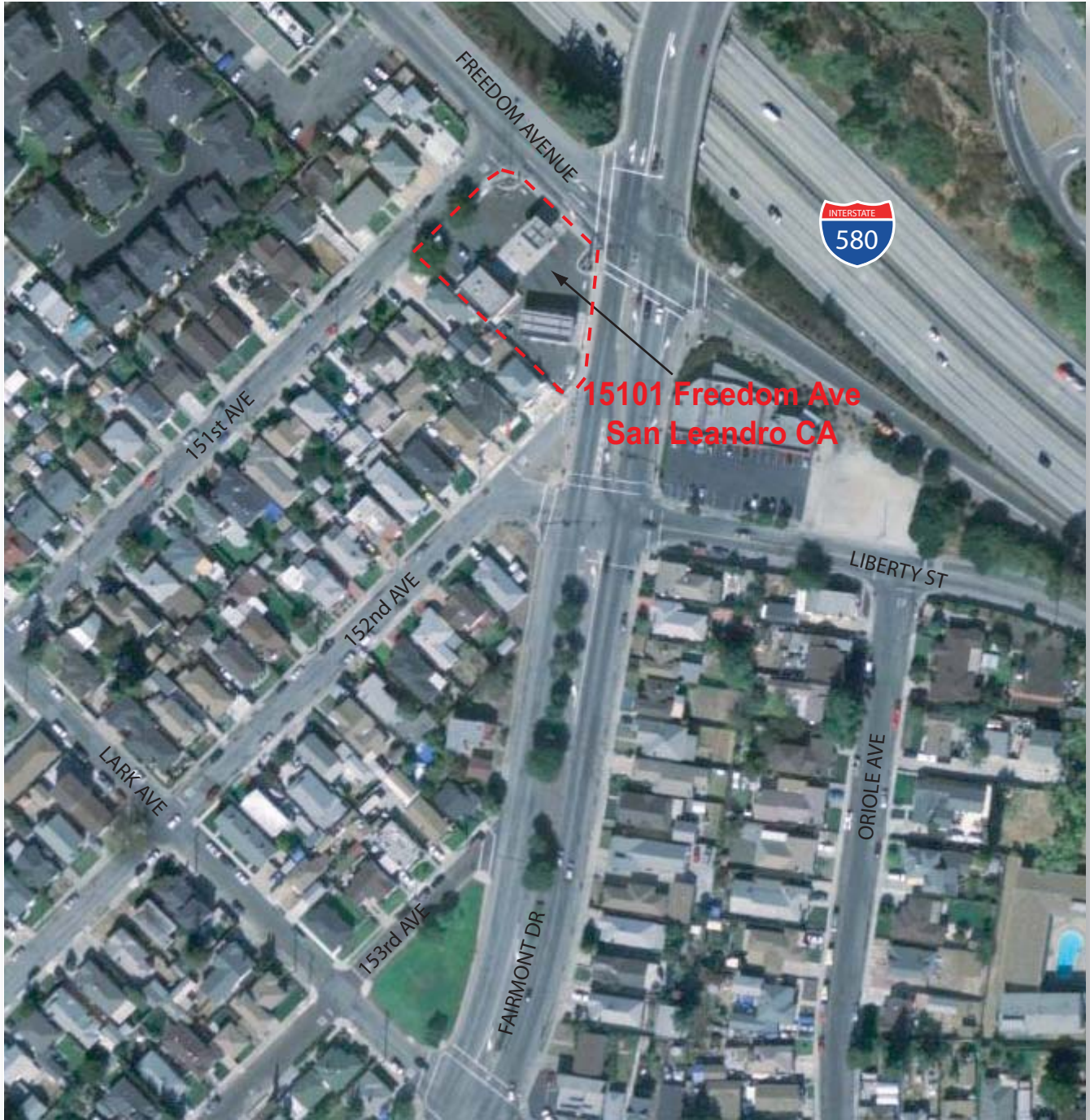
Other ongoing activities: Based on ACEH directive dated September 21, 2011, SOMA submitted a site evaluation workplan that discusses construction of extraction well MW-6 and its probable radius of influence (under pumping conditions). The workplan will be implemented upon receipt of written authorization from ACEH.

6. REPORT LIMITATIONS

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

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

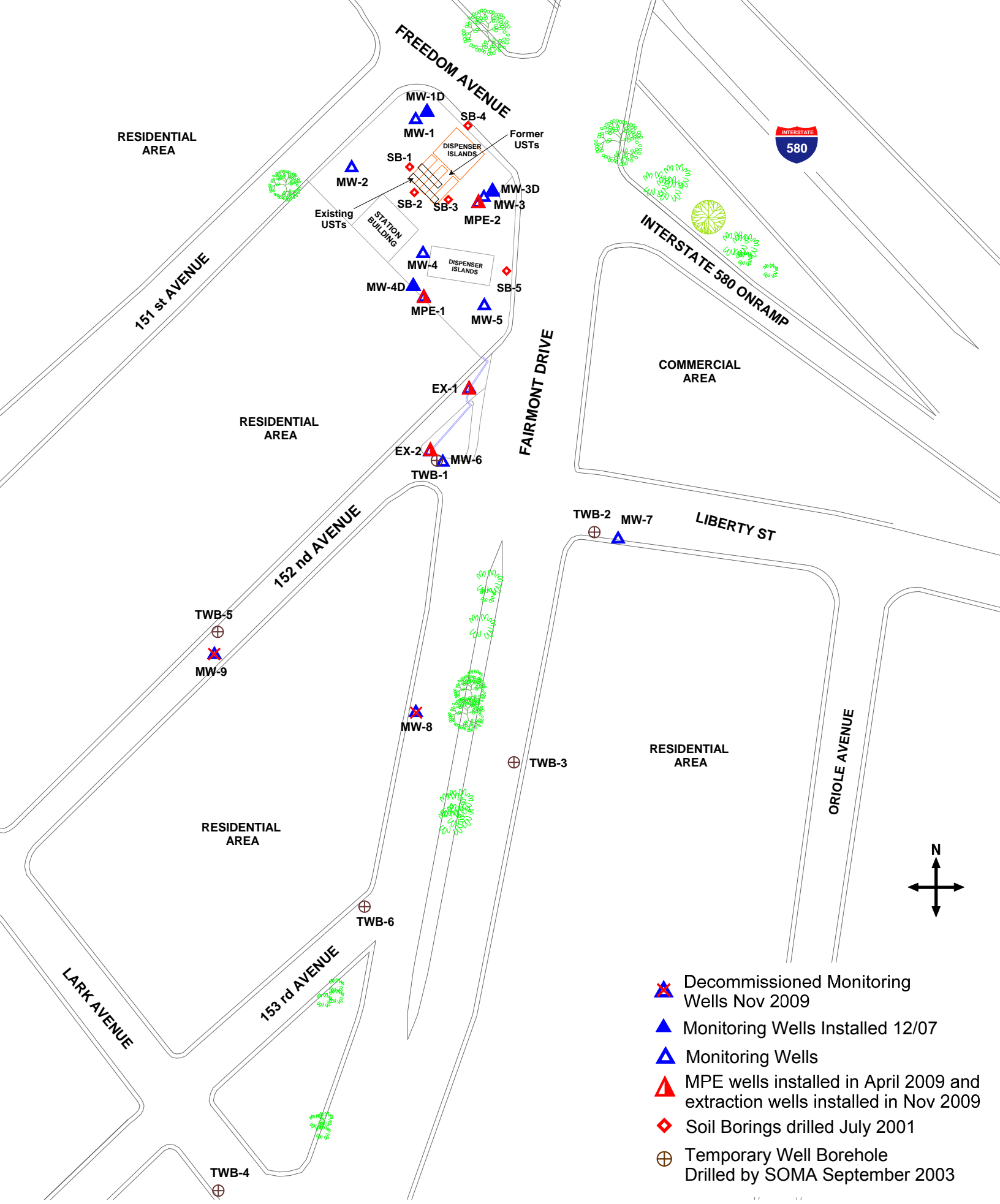
Figures









approximate scale in feet



Figure 1: Site vicinity map.

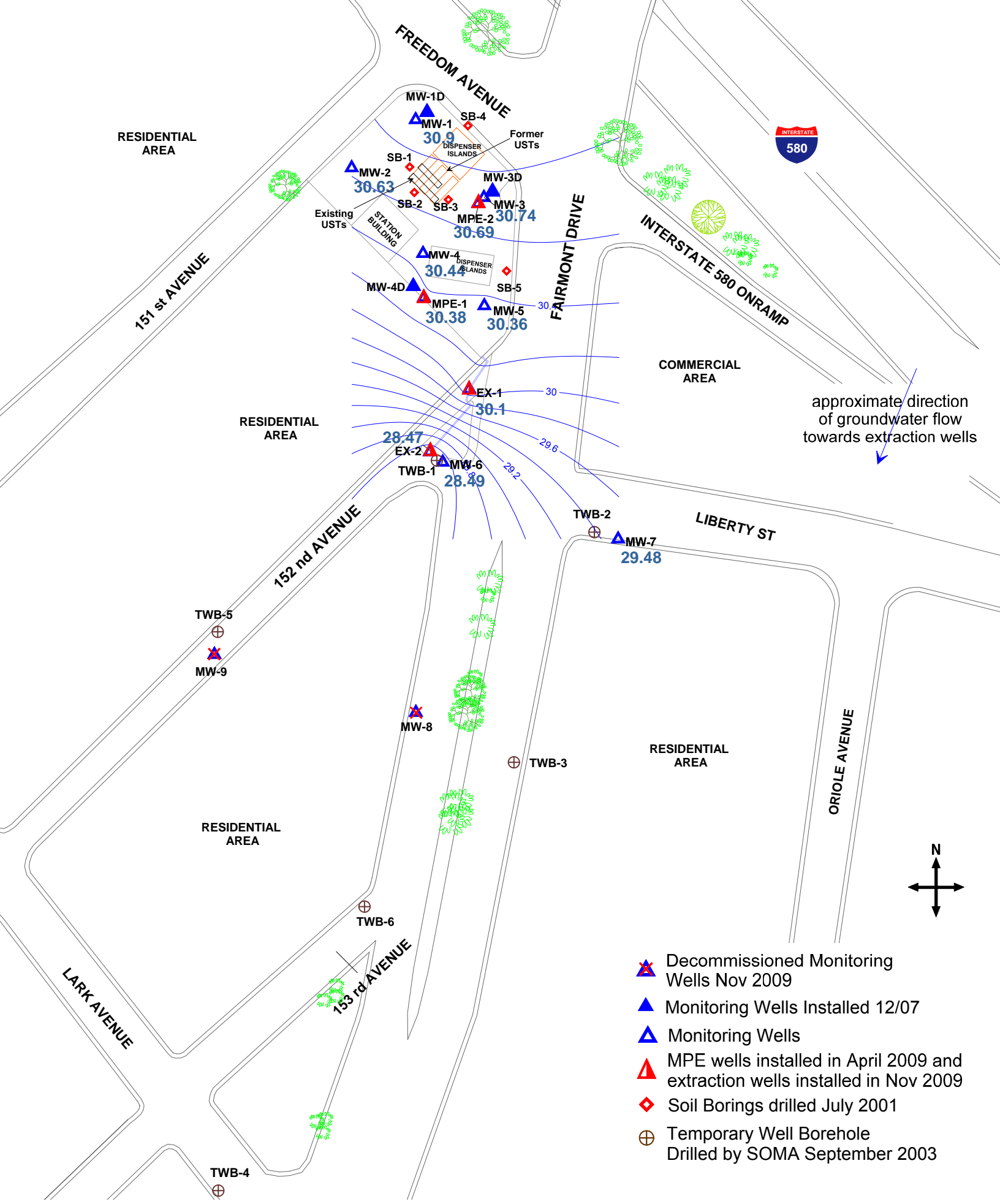


-  Decommissioned Monitoring Wells Nov 2009
-  Monitoring Wells Installed 12/07
-  Monitoring Wells
-  MPE wells installed in April 2009 and extraction wells installed in Nov 2009
-  Soil Borings drilled July 2001
-  Temporary Well Borehole Drilled by SOMA September 2003

approximate scale in feet
 0 50 100

Figure 2: Site map showing locations of groundwater monitoring wells, soil borings, and extraction wells.





- Decommissioned Monitoring Wells Nov 2009
- Monitoring Wells Installed 12/07
- Monitoring Wells
- MPE wells installed in April 2009 and extraction wells installed in Nov 2009
- Soil Borings drilled July 2001
- Temporary Well Borehole Drilled by SOMA September 2003

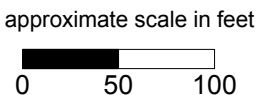
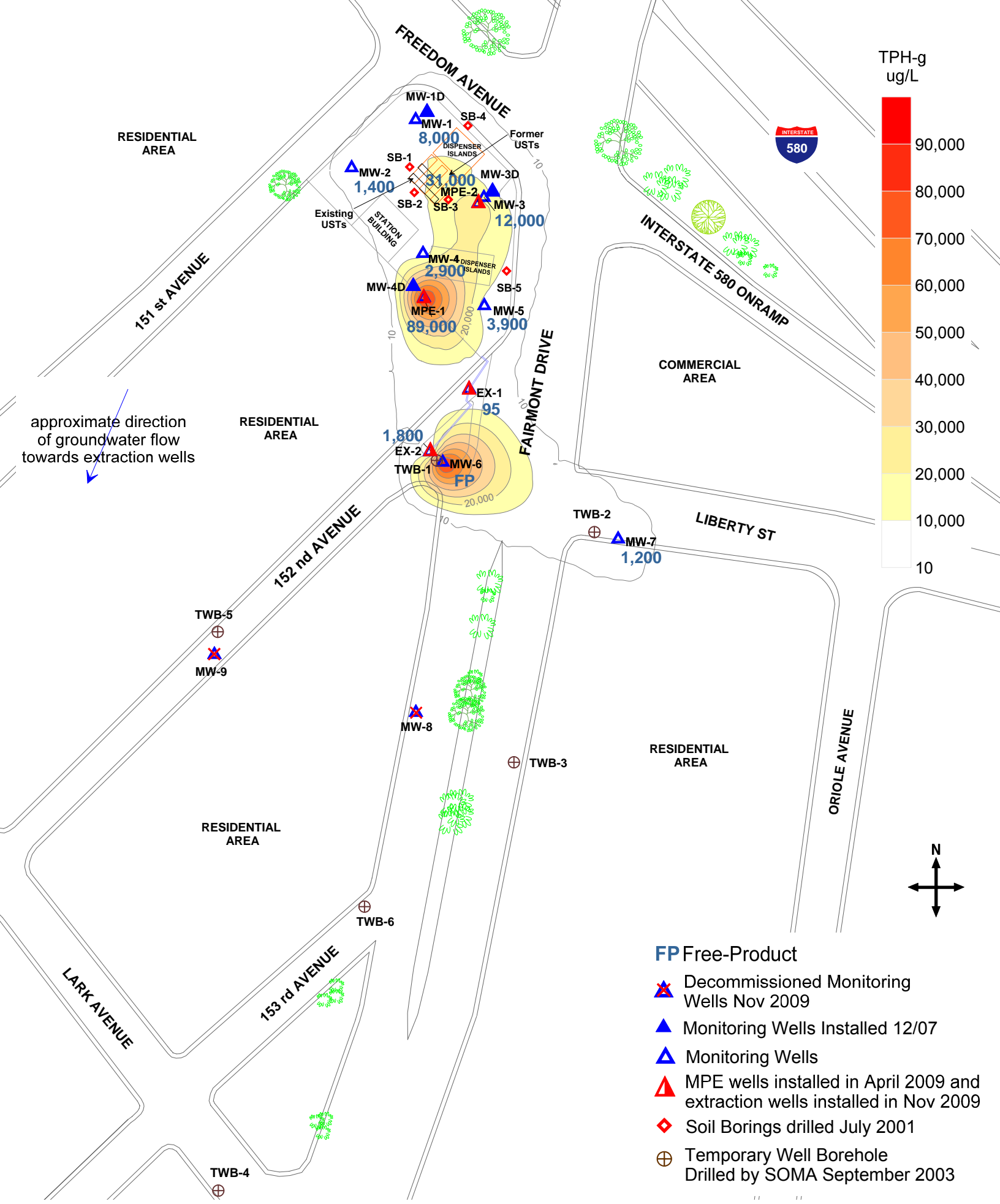


Figure 3: Groundwater Elevation Contour Map in Feet, First WBZ, September 20, 2012





approximate scale in feet

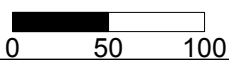
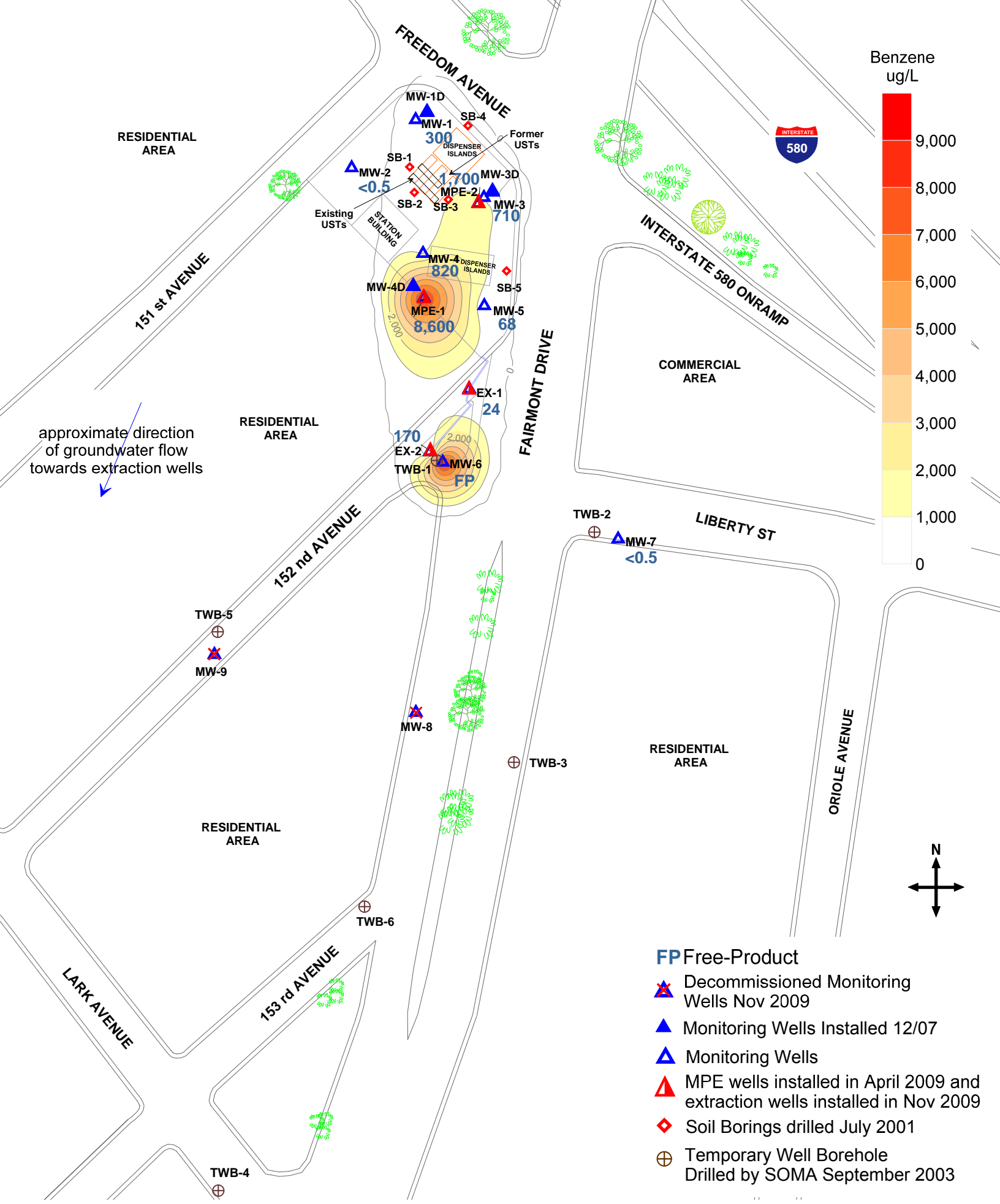


Figure 4: Contour Map of TPH-g Concentrations in Groundwater, First WBZ, September 20 and 21, 2012



approximate scale in feet

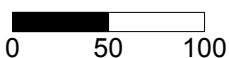
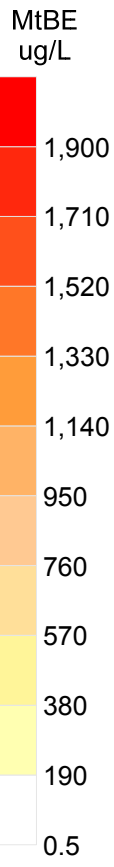
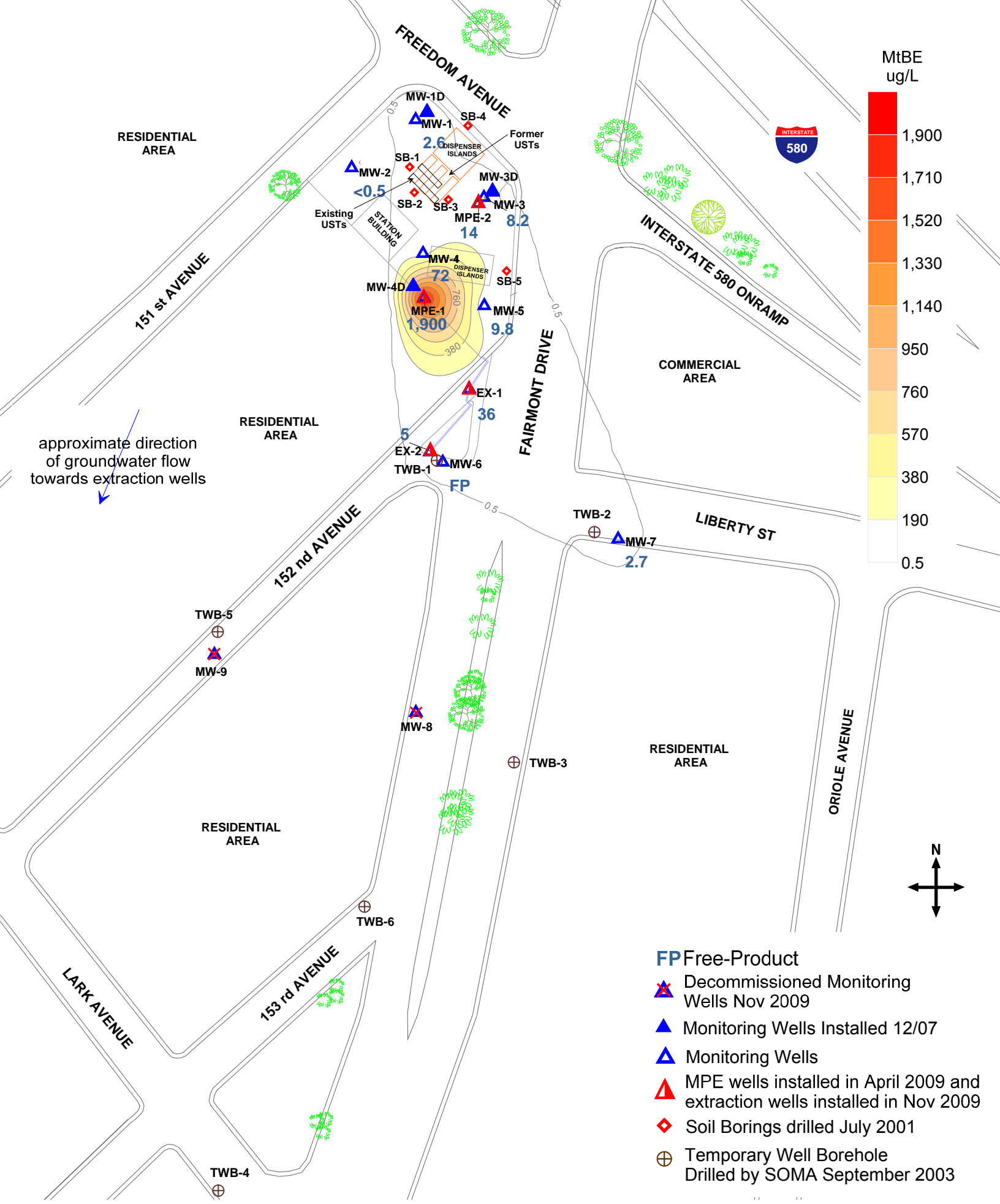


Figure 5: Contour Map of Benzene Concentrations in Groundwater, First WBZ, September 20 and 21, 2012



approximate direction of groundwater flow towards extraction wells

- FP** Free-Product
- Decommissioned Monitoring Wells Nov 2009
- Monitoring Wells Installed 12/07
- Monitoring Wells
- MPE wells installed in April 2009 and extraction wells installed in Nov 2009
- Soil Borings drilled July 2001
- Temporary Well Borehole Drilled by SOMA September 2003

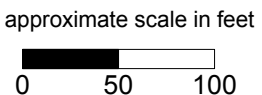


Figure 6: Contour Map of MtBE Concentrations in Groundwater, First WBZ, September 20 and 21, 2012



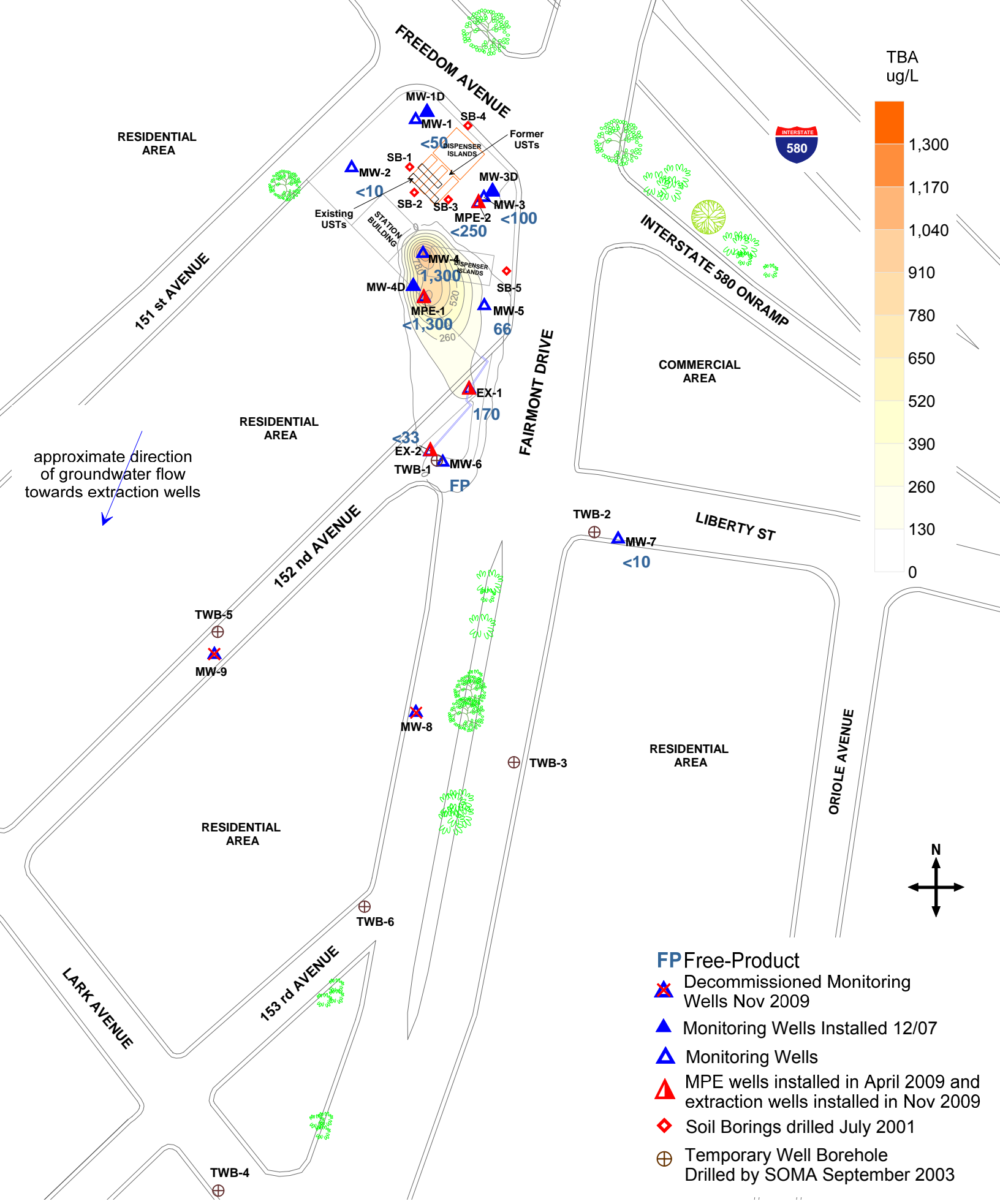
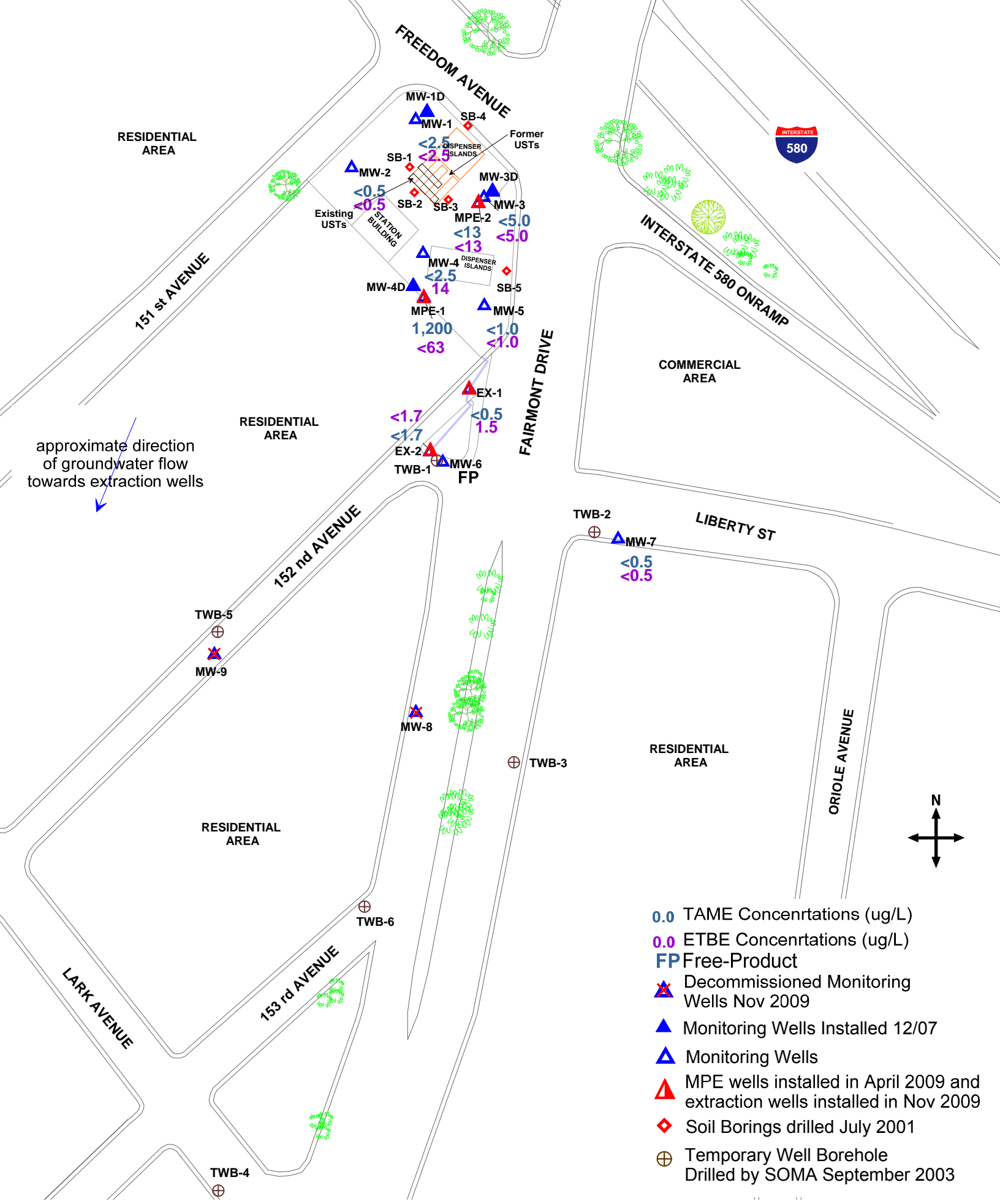


Figure 7: Contour Map of TBA Concentrations in Groundwater, First WBZ, September 20 and 21, 2012



approximate direction
of groundwater flow
towards extraction wells

- 0.0 TAME Concentrations (ug/L)
- 0.0 ETBE Concentrations (ug/L)
- FP Free-Product
- ⊗ Decommissioned Monitoring Wells Nov 2009
- ▲ Monitoring Wells Installed 12/07
- ▲ Monitoring Wells
- ▲ MPE wells installed in April 2009 and extraction wells installed in Nov 2009
- ◆ Soil Borings drilled July 2001
- ⊕ Temporary Well Borehole Drilled by SOMA September 2003

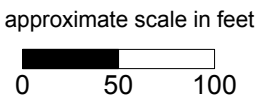
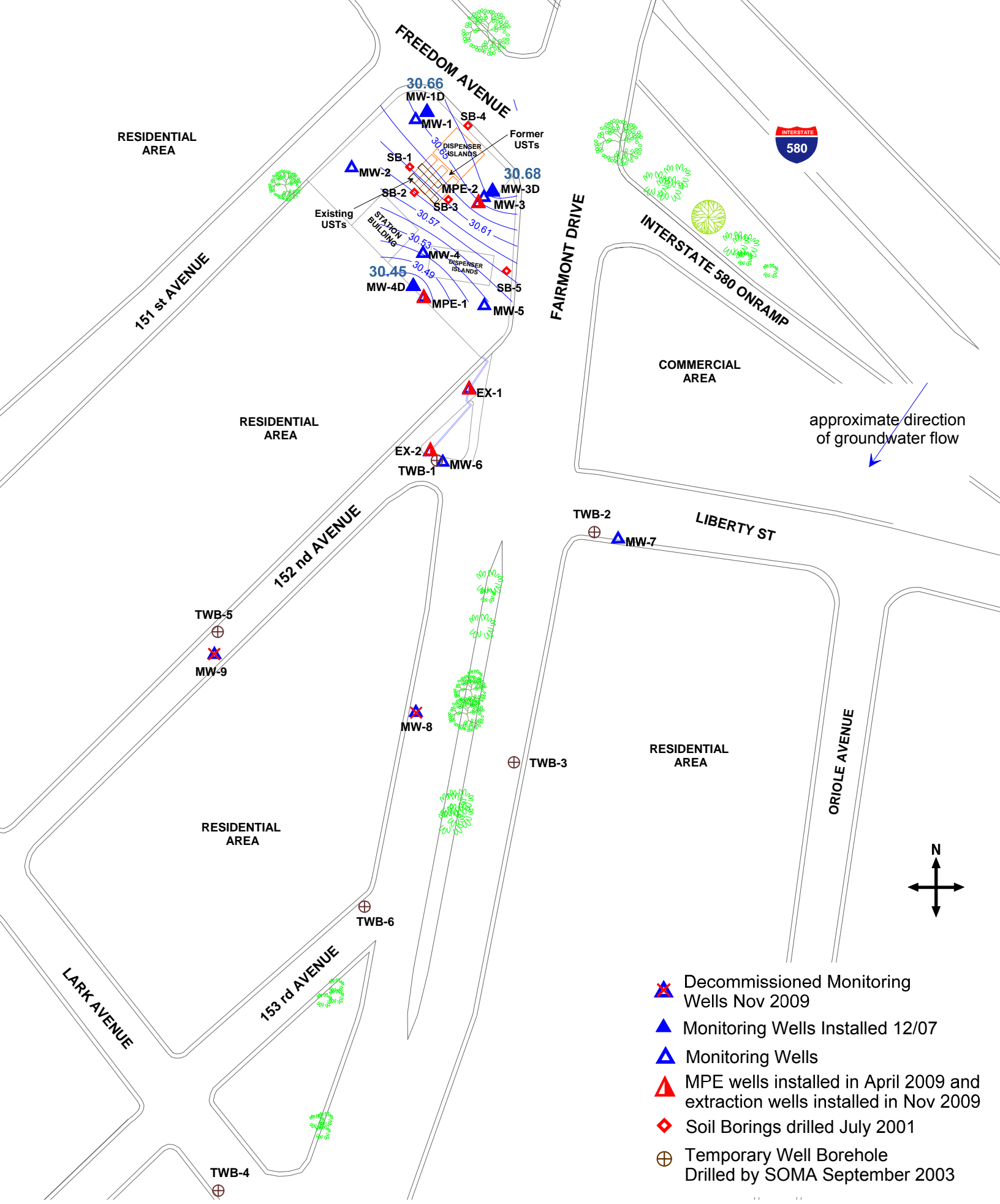


Figure 8: Map of TAME and ETBE Concentrations in Groundwater, First WBZ, September 20 and 21, 2012





RESIDENTIAL AREA

151 st AVENUE

FREEDOM AVENUE

FAIRMONT DRIVE



INTERSTATE 580 ONRAMP

COMMERCIAL AREA

approximate direction of groundwater flow

RESIDENTIAL AREA

152 nd AVENUE

LIBERTY ST

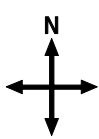
TWB-5
MW-9

MW-8

TWB-3

RESIDENTIAL AREA

ORIOLE AVENUE



RESIDENTIAL AREA

153 rd AVENUE

TWB-6

- Decommissioned Monitoring Wells Nov 2009
- Monitoring Wells Installed 12/07
- Monitoring Wells
- MPE wells installed in April 2009 and extraction wells installed in Nov 2009
- Soil Borings drilled July 2001
- Temporary Well Borehole Drilled by SOMA September 2003

approximate scale in feet

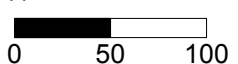
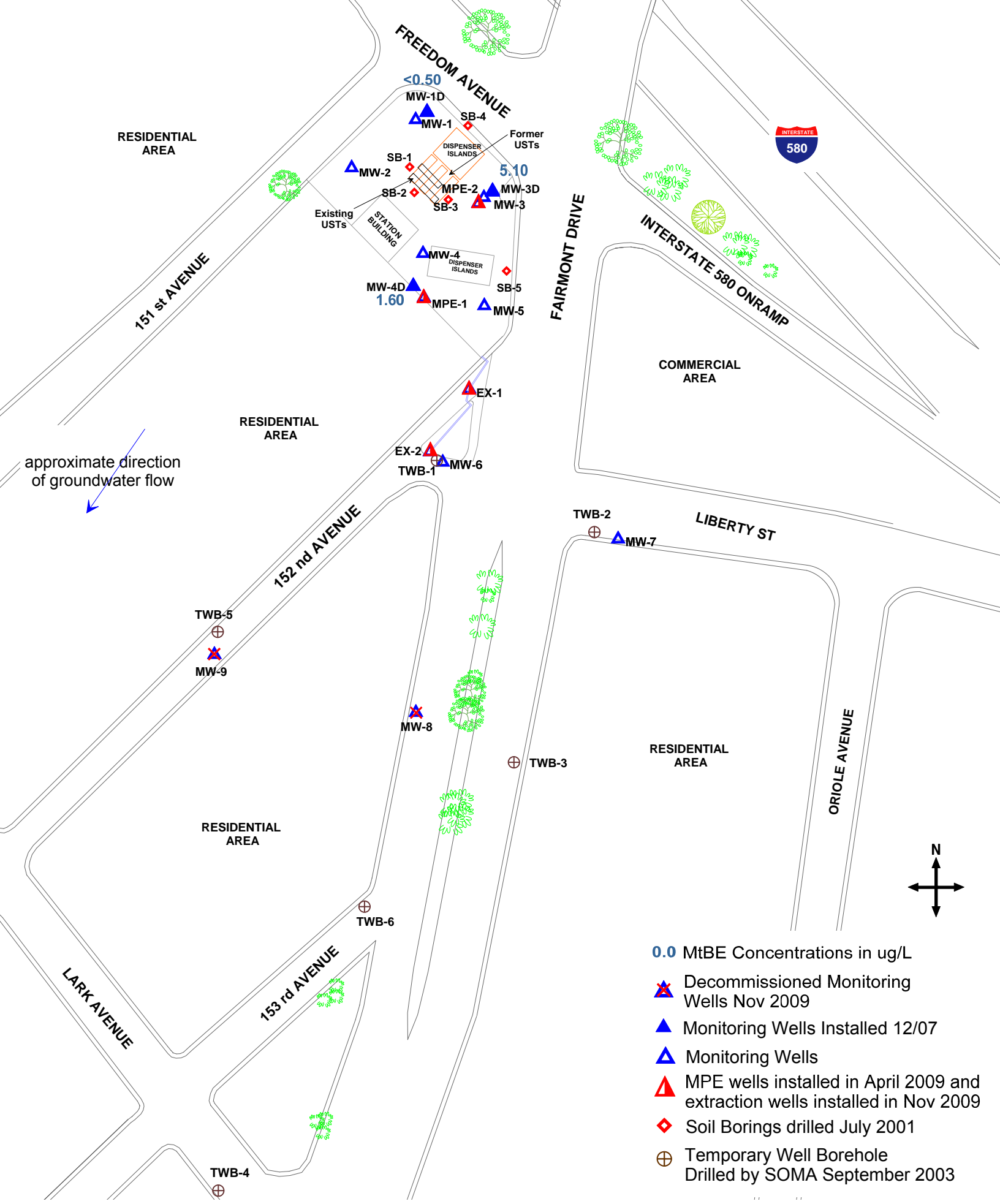


Figure 9: Groundwater Elevation Contour Map in Feet, Second WBZ, September 20, 2012





RESIDENTIAL AREA

151 st AVENUE

FREEDOM AVENUE



FAIRMONT DRIVE

INTERSTATE 580 ONRAMP

COMMERCIAL AREA

RESIDENTIAL AREA

approximate direction of groundwater flow

152 nd AVENUE

LIBERTY ST

TWB-5
MW-9

TWB-2
MW-7

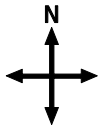
EX-2
TWB-1
MW-6

MW-8

TWB-3

RESIDENTIAL AREA

ORIOLE AVENUE



RESIDENTIAL AREA

TWB-6

0.0 MtBE Concentrations in ug/L

Decommissioned Monitoring Wells Nov 2009

Monitoring Wells Installed 12/07

Monitoring Wells

MPE wells installed in April 2009 and extraction wells installed in Nov 2009

Soil Borings drilled July 2001

Temporary Well Borehole Drilled by SOMA September 2003

approximate scale in feet

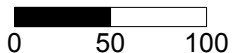


Figure 10: Map Showing Concentrations of MtBE in Groundwater, Second WBZ, September 20 and 21, 2012



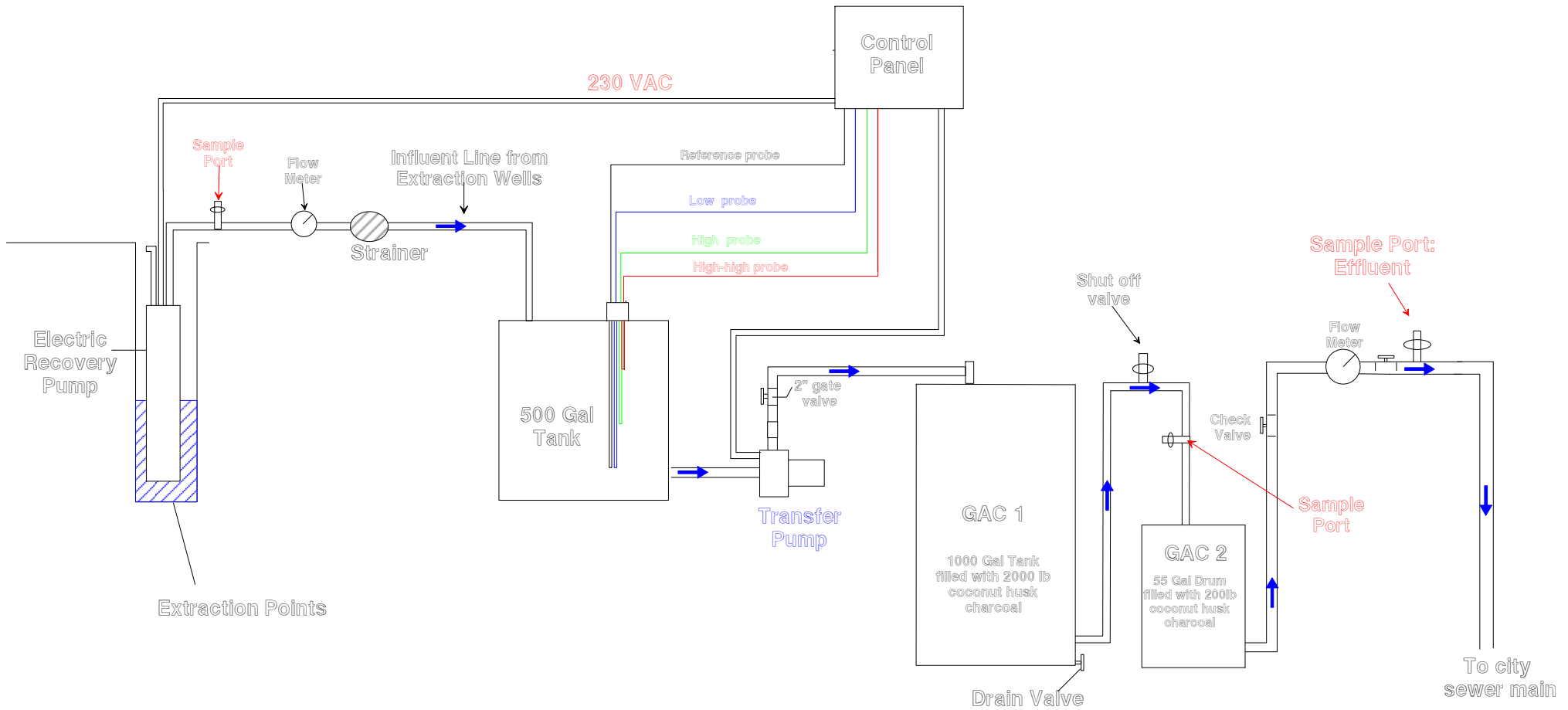


Figure 11: Schematic diagram of Groundwater Remediation System

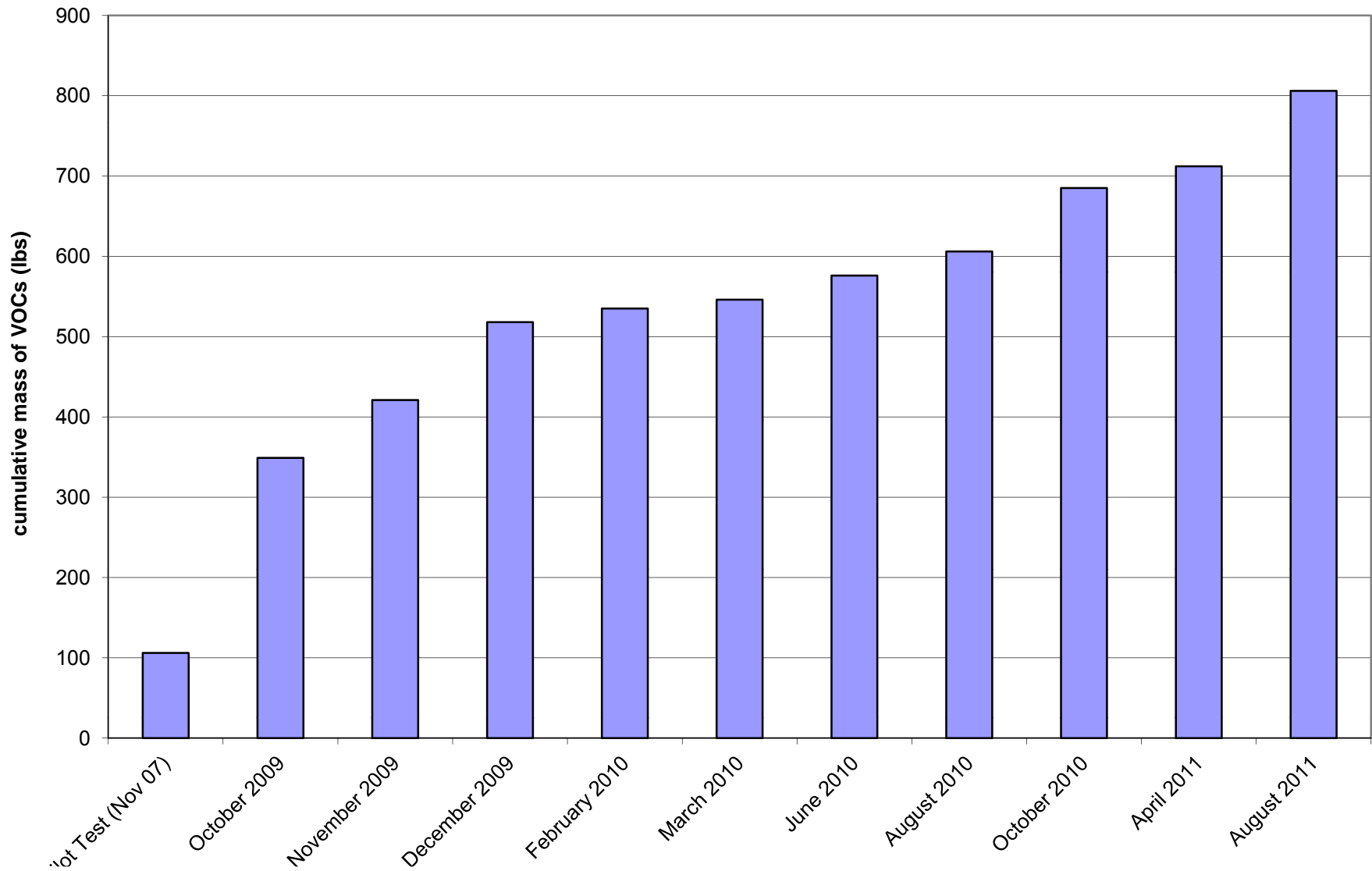


Figure 12: Cumulative mass of VOCs removed

Tables

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

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

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Historical Groundwater Elevation Data and Analytical Results
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Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-1 cont	1/22/2008	54.46	22.59	-	31.87	2,260	81.3	<2.0	17.5	<2.0	4.23
	4/16/2008	54.46	22.89	-	31.57	2,320	248	<2.0	54.1	37.3	<0.5
	7/3/2008	54.46	23.33	-	31.13	5,240	414	<2.0	168	94	6.56
	10/15/2008	54.46	23.76	-	30.70	4,500 ^Y	260	<1.0	150	130	3.40
	1/7/2009	54.46	23.25	-	31.21	4,800	140	<1.3	48	32	1.70
	4/14/2009	54.46	22.52	-	31.94	1,800 ^Y	78	<0.5	35	18	2.50
	8/27/2009	54.46	23.6	-	30.86	4,500	330	<2.0	97	42	4.60
	12/2/2009	54.46	23.43	-	31.03	3,800 ^Y	250	<2.0	110	25	2.50
	3/17/2010	54.46	22.32	-	32.14	1,100	33	<0.50	46	18	1.70
	6/3/2010	54.46	22.88	-	31.58	10,000	330	4.3	680	841.5	5.20
	9/2/2010	54.46	23.28	-	31.18	8,900	440	<5.0	510	310	<5.0
	12/2/2010	54.46	23.21	-	31.25	7,400	250	<3.1	390	180	<3.1
	3/4/2011	54.46	21.95	-	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
	12/2/2011	54.46	21.97	-	32.49	4,700 ^X	96	<1.7	310	200	<3.3
	3/2/2012	54.46	22.82	-	31.64	6,800	320	<2.5	430	120	<2.5
	6/7/2012	54.46	22.92	-	31.54	5,600	130	<2.5	360	160	2.9
	9/21/2012	54.46	23.56	-	30.90	8,000	300	<2.5	410	340	2.6
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

Table 1
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15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-2 cont.	1/15/2004	49.66	20.31	-	29.35	660 H	1.5 C	<0.5	8.9	25	<0.5
	5/25/2004	49.66	21.09	-	28.57	4,500	5.1 C	<0.5	190	230	0.70
	9/21/2004	52.41	21.71	-	30.70	370	0.76 C	<0.5	25	16	0.50
	12/14/2004	52.41	21.20	-	31.21	880	1.0	<0.5	66	52	<0.5
	3/11/2005	52.41	19.15	-	33.26	564	<0.5	<0.5	21	11.9	<0.5
	6/15/2005	52.41	20.30	-	32.11	2,040	1.2	<2.0	78.2	22	<0.5
	8/26/2005	52.41	20.97	-	31.44	1,500	0.930	<2.00	87.6	21	0.86
	11/11/2005	52.41	25.30	-	27.11	2,140	1.08	<2.0	104	29	0.79
	2/9/2006	52.41	19.41	-	33.00	1,410	<0.5	<2.0	99.6	21.4	0.72
	5/9/2006	52.41	19.41	-	33.00	1,100	<0.5	<2.0	86.5	17	<0.5
	8/10/2006	52.41	20.8	-	31.61	3,180	2.87	<2.0	88.9	24.8	<0.50
	10/26/2006	52.41	21.22	-	31.19	1,200	<0.5	<2.0	23.5	4.79	0.6
	1/25/2007	52.41	20.89	-	31.52	623	0.64	<2.0	42.4	4.37	0.66
	4/26/2007	52.41	20.65	-	31.76	169	<0.5	<2.0	15.2	2.3	<0.5
	7/25/2007	52.41	21.43	-	30.98	276	0.78	<2.0	22.1	4.04	<0.5
	10/23/2007	52.41	21.59	-	30.82	535	<0.5	<2.0	18	5.11	<0.5
	1/22/2008	52.31	20.45	-	31.86	132	<0.5	<2.0	12.2	<2.0	<0.5
	4/15/2008	52.41	20.89	-	31.52	852	<0.5	<2.0	27.2	4.78	<0.5
	7/2/2008	52.41	21.5	-	30.91	98.3	<0.5	<2.0	2.76	<2.0	<0.5
	10/15/2008	52.41	22.06	-	30.35	1,400 ^Y	<0.5	<0.5	60	17	<0.5
	1/7/2009	52.41	21.35	-	31.06	93	<0.5	<0.5	2.1	0.74	<0.5
	4/13/2009	52.41	20.52	-	31.89	480 ^Y	<0.5	<0.5	20	5.5	<0.5
	8/27/2009	52.41	21.85	-	30.56	130	<0.5	<0.5	2.5	0.61	<0.5
	12/1/2009	52.41	21.59	-	30.82	760 ^Y	<0.5	<0.5	14	1.5	<0.5
	3/17/2010	52.41	20.11	-	32.30	480	<0.5	<0.5	30	6.9	<0.5
	6/3/2010	52.41	21	-	31.41	690	<0.5	<0.5	14	2.6	<0.5
9/2/2010	52.41	21.42	-	30.99	470	<0.5	<0.5	7.6	1	<0.5	
12/2/2010	52.41	21.44	-	30.97	470	<0.5	<0.5	7.6	3.3	<0.5	

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Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-2 cont.	3/4/2011	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
	12/2/2011	52.41	20.14	-	32.27	900 ^x	<2.9	<1.7	14	1.9	<3.3
	3/2/2012	52.41	19.98	-	32.43	880	<0.5	<0.5	5.3	0.58	<0.5
	6/7/2012	52.41	21.04	-	31.37	720	<0.5	<0.5	7.9	0.79	<0.5
	9/21/2012	52.41	21.78	-	30.63	1,400	<0.5	<0.5	11	<0.5	<0.5
MW-3	5/10/2002	51.16	22.28	-	28.88	44,000	6,000	900	1,500	6,200	2,400
	8/8/2002	51.16	22.88	-	28.28	40,000	5,800	1,100	1,600	6,500	1,300
	11/8/2002	51.16	23.19	-	27.97	47,000	5,300	1,200	2,200	8,600	1,000
	2/21/2003	51.16	22.02	-	29.14	39,000	5,500	1,500	2,000	8,600	1,300
	5/28/2003	51.16	21.89	-	29.27	52,000	7,300	3,000	2,800	12,700	2,100
	8/12/2003	51.16	22.66	-	28.50	31,000	6,100	860	1,500	6,900	1,200
	10/9/2003	51.16	23.06	-	28.10	41,000	6,100	1,100	2,200	10,200	960
	1/15/2004	51.16	21.85	-	29.31	51,000	4,100	1,100	2,000	8,400	590
	5/25/2004	51.16	22.55	-	28.61	65,000	4,300	1,300	2,500	10,500	720
	9/21/2004	53.91	23.08	-	30.83	42,000	4,900	890	2,200	8,700	480
	12/14/2004	53.91	22.52	-	31.39	35,151	4,066	972	2,942	13,032	491
	3/11/2005	53.91	20.90	-	33.01	42,600	3,040	1,100	1,530	6,670	968
	6/15/2005	53.91	21.85	-	32.06	84,100	5,110	2,160	3,030	8,800	2,670
	8/26/2005	53.91	22.49	-	31.42	43,500	3,630	1,080	2,500	6,830	1,440
	11/11/2005	53.91	22.81	-	31.10	47,700	4,240	520	2,170	6,320	1,390
	2/9/2006	53.91	21.12	-	32.79	44,500	5,070	1360	1,920	4,840	3,280
5/9/2006	53.91	21.09	-	32.82	48,100	2,510	1,140	1,950	5,030	2,210	
8/10/2006	53.91	22.26	-	31.65	42,100	3,450	869	1,760	5,650	3,570	
10/26/2006	53.91	22.73	-	31.18	33,400	4,800	331	1,170	3,510	4,790	

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MW-3 cont.	1/25/2007	53.91	22.34	-	31.57	19,300	4,820	167	1,540	3,740	3,430
	4/26/2007	53.91	22.24	-	31.67	30,700	2,350	158	1,470	4,320	1,330
	7/25/2007	53.91	22.83	-	31.08	34,900	5,400	364	2,080	6,360	1,980
	10/23/2007	53.91	23.01	-	30.9	22,600	4,070	<86	1,120	3,095	970
	1/22/2008	53.96	22.04	-	31.92	22,100	1,280	453	1,330	3,520	490
	4/16/2008	53.91	22.4	-	31.51	20,700	2,790	182	860	3,389	263
	7/3/2008	53.91	22.9	-	31.01	48,500	3,760	346	3,130	12,980	573
	10/16/2008	53.91	23.36	-	30.55	50,000	3,900	300	3,100	11,000	460
	1/8/2009	53.91	22.82	-	31.09	54,000	2,600	180	2,500	8,800	220
	4/13/2009	53.91	22.06	-	31.85	49,000	2,900	170	2,100	8,100	490
	8/27/2009	53.91	23.11	-	30.80	43,000	2,500	160	1,900	7,000	210
	12/2/2009	53.91	23.00	-	30.91	30,000	2,100	180	1,600	5,600	91
	3/17/2010	53.91	21.90	-	32.01	24,000	970	81	1,100	3,700	38
	6/3/2010	53.91	22.49	-	31.42	31,000	1,200	110	1,300	4,400	34
	9/2/2010	53.91	22.76	-	31.15	26,000	1,100	81	1,200	3,810	26
	12/2/2010	53.91	22.86	-	31.05	18,000	830	47	780	2,360	14
	3/4/2011	53.91	21.44	-	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
	12/2/2011	53.91	21.60	-	32.31	5,100 ^x	280	12	370	740	<1.7
3/2/2012	53.91	22.39	-	31.52	13,000	440	23	690	1,570	<5.0	
6/7/2012	53.91	22.50	-	31.41	9,000	290	9.3	520	900	<5.0	
9/21/2012	53.91	23.17	-	30.74	12,000	710	26	630	1,230	8.2	
MW-4	5/10/2002	50.54	21.78	-	28.76	880	25	1.0C	110	52	12,000
	8/8/2002	50.54	22.50	-	28.04	3,800	70	<5.0	300	115	4,800
	11/8/2002	50.54	22.81	-	27.73	5,100	150	10	460	258	2,400

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Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-4 cont.	2/21/2003	50.54	21.48	-	29.06	3,200	98	66	220	360	6,600
	5/28/2003	50.54	21.24	-	29.30	6,200	140	46	200	790	2,300
	8/12/2003	50.54	22.32	-	28.22	7,500	180	57	220	1450	1,900
	10/9/2003	50.54	22.74	-	27.80	5,800	250	32	300	970	7,800
	1/15/2004	50.54	21.19	-	29.35	5,900	270	17 C	150	640	7,300
	5/25/2004	50.54	22.03	-	28.51	9,100	210	51	200	1190	1800
	9/21/2004	53.31	22.76	-	30.55	5,200	290	12	370	600	7300
	12/14/2004	53.31	21.99	-	31.32	8,937	538	114	416	2379	5021
	3/11/2005	53.31	20.01	-	33.30	12,300	225	39.6	80.1	1465	3870
	6/15/2005	53.31	21.25	-	32.06	7,690	114	32.6	77.1	555	1150
	8/26/2005	53.31	22.03	-	31.28	8,850	175	24.6	150	851	1380
	11/11/2005	53.31	22.43	-	30.88	9,990	356	<43	196	700	3,640
	2/9/2006	53.31	20.31	-	33.00	6,850	205	<43	67.2	255.2	5,120
	5/9/2006	53.31	20.33	-	32.98	1,290	18.1	<8.6	12.9	25.87	799
	8/10/2006	53.31	21.74	-	31.57	7,830	118	<8.60	25.3	174.6	919
	10/26/2006	53.31	22.29	-	31.02	1,540	81.9	<43	96	46.4	3,610
	1/25/2007	53.31	21.86	-	31.45	4,370	163	<8.6	85.1	269.1	1,050
	4/26/2007	53.31	21.63	-	31.68	4,380	140	<8.6	67	276.8	576
	7/25/2007	53.31	22.49	-	30.82	4,970	220	<8.60	198	241.5	1,040
	10/23/2007	53.31	22.69	-	30.62	4,200	267	<8.6	147	155.5	1,220
	1/22/2008	53.36	21.39	-	31.97	2,180	133	<22.0	43.1	32.2	1,800
	4/15/2008	53.31	21.9	-	31.41	4,240	90.4	<22.0	107	380	674
	7/2/2008	53.31	22.55	-	30.76	2,300	193	<22.0	212	183	4,050
	10/16/2008	53.31	23.13	-	30.18	8,900	320	3.7	430	1,160	450
	1/8/2009	53.31	22.42	-	30.89	19,000	430	44	590	3,380	440
	4/13/2009	53.31	21.51	-	31.80	21,000	400	38	450	2,880	330
	8/27/2009	53.31	22.94	-	30.37	16,000	960	64	560	2,120	290
	12/2/2009	53.31	22.36	-	30.95	4,400	480	6	170	640	110

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Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-4 cont.	3/17/2010	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
	12/1/2011	53.31	21.38	-	31.93	1,400 ^x	370	<0.84	110	30.6	110
	3/2/2012	53.31	22.02	-	31.29	3,100	780	<2.0	150	59.6	50
	6/7/2012	53.31	22.24	-	31.07	2,000	290	<2.5	66	23	29
	9/21/2012	53.31	22.87	-	30.44	2,900	820	<2.5	75	17	72
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	

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

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-5 cont.	2/9/2006	50.53	17.58	-	32.95	7,640	237	<22	187	50.2	2,050
	5/9/2006	50.53	17.54	-	32.99	8,360	111	<8.6	300	75.84	566
	8/10/2006	50.53	19.02	-	31.51	16,100	250	<22	455	187.4	1,590
	10/26/2006	50.53	19.61	-	30.92	10,100	430	<22	375	192.6	3,060
	1/25/2007	50.53	19.19	-	31.34	3,960	340	<22	323	150.1	1,740
	4/26/2007	50.53	18.89	-	31.64	4,590	187	<8.6	307	116.5	861
	7/25/2007	50.53	19.81	-	30.72	6,490	419	21.8	413	223.2	913
	10/23/2007	50.53	19.98	-	30.55	6,120	550	11	284	141.4	433
	1/22/2008	50.18	18.69	-	31.49	9,810	572	22	574	184.1	126
	4/15/2008	50.18	19.16	-	31.02	8,890	335	15.1	477	397.5	136
	7/3/2008	50.53	19.88	-	30.65	13,100	949	34.4	875	825.5	176
	10/16/2008	50.53	20.45	-	30.08	11,000	870	25	820	668	160
	1/8/2009	50.53	19.72	-	30.81	12,000	490	21	690	456	76
	4/13/2009	50.53	18.81	-	31.72	9,000 ^Y	200	11	390	198	44
	8/27/2009	50.53	21.30	-	29.23	7,400	610	15	320	185	66
	12/2/2009	50.53	20.00	-	30.53	8,400 ^Y	400	12	540	296	45
Pre-MPE	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
	9/9/2011	50.53	19.41	-	31.12	4,200	120	2.8	140	61.1	22
	12/2/2011	50.53	18.59	-	31.94	6,900 ^x	96	12	220	104	32
	3/2/2012	50.53	19.30	-	31.23	5,400	43	1.8	110	85	7
	6/7/2012	50.53	19.45	-	31.08	3,700	32	<1.0	100	59	4.4
	9/21/2012	50.53	20.17	-	30.36	3,900	68	1.5	140	88.5	9.8

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MW-6	9/21/2004	45.82	17.64	-	28.18	34,000	150	130	2200	8100	0.6
	12/14/2004	45.82	15.75	-	30.07	5,161	137	7	436	1136	<5.5
	3/11/2005	45.82	13.80	-	32.02	6,040	125	3.22	260	722.1	4.94
	6/15/2005	45.82	14.78	-	31.04	5,590	44.3	6.60	272	382	5.85
	8/26/2005	45.82	15.91	-	29.91	6,130	99	<8.6	378	492.9	5.66
	11/11/2005	45.82	16.55	-	29.27	11,400	101	<8.6	645	834.7	4.33
	2/9/2006	45.82	13.92	-	31.90	2,790	32.3	<8.6	131	131.22	7.30
	5/9/2006	45.82	13.95	-	31.87	3,730	25	<2.0	213	207.82	5.87
	8/10/2006	45.82	15.28	-	30.54	4,800	41.9	<2.0	201	189	10.4
	10/26/2006	45.82	16.11	-	29.71	6,080	37.4	<2.0	116	183	9.78
	1/25/2007	45.82	15.76	-	30.06	3,220	25.2	<2.0	219	174	14.7
	4/26/2007	45.82	15.18	-	30.64	3,110	28	<2.0	165	138.47	14.6
	7/25/2007	45.82	16.82	-	29.00	4,960	54.1	<2.0	199	255.87	8.05
	10/23/2007	45.82	16.91	-	28.91	9,610	64.3	<2.0	188	302.6	5.81
	1/21/2008	45.82	15.36	-	30.46	3,290	33	<2.0	149	131.31	3.86
	4/15/2008	45.82	15.73	-	30.09	2,070	10.8	<2.0	51.1	67	<0.5
	7/2/2008	45.82	16.9	-	28.92	7,900	42.4	<2.0	194	296	3.58
	10/15/2008	45.82	17.21	-	28.61	18,000 ^Y	42	1.4	320	673	1.7
	1/7/2009	45.82	17.08	-	28.74	13,000	47	<3.1	210	425	<3.1
	4/13/2009	45.82	15.52	-	30.30	7,200 ^Y	26	<1.3	170	312.6	2.6
	8/26/2009	45.82	17.82	-	28.00	10,000 ^Y	25	<2.0	130	294	2.2
	12/1/2009	45.82	17.34	-	28.48	11,000 ^Y	31	6.1	220	539	<2.0
	3/16/2010	45.82	14.81	-	31.01	31,000	63	140	970	4,200	64
6/3/2010	45.82	15.72	-	30.10	27,000	22	67	840	3,100	32	
9/1/2010	45.82	16.86	-	28.96	33,000	24	34	1,100	3,780	12	
12/2/2010	45.82	16.98	-	28.84	70,000	32	55	1,700	5,670	18	

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15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-6 cont.	3/3/2011	45.82	14.35	-	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
	12/1/2011	45.82	16.17	-	29.65	NA	NA	NA	NA	NA	NA
	3/2/2012	45.82	16.11	-	29.71	14,000	23	<4.2	400	694.4	<4.2
	6/6/2012	45.82	16.31	-	29.51	9,200	12	<1.7	210	320	<1.7
	9/20/2012*	45.82	17.36	17.32	28.49	NA	NA	NA	NA	NA	NA
MW-7	9/21/2004	44.74	15.21	-	29.53	2,900	<0.5	<0.5	52	61	8.1
	12/14/2004	44.74	13.90	-	30.84	<50	1.6	<0.5	29	58	6.0
	3/11/2005	44.74	11.46	-	33.28	2,230	<2.5	<2.5	39.4	51.4	12.4
	6/15/2005	44.74	12.97	-	31.77	2,940	0.85	<2.0	50.6	31.9	13.7
	8/26/2005	44.74	14.10	-	30.64	2,310	<0.50	<2.0	55.7	29.6	4.01
	11/11/2005	44.74	14.59	-	30.15	3,030	<0.5	<2.0	66.5	42.3	9.76
	2/9/2006	44.74	NM	-	NM	NA	NA	NA	NA	NA	NA
	5/9/2006	44.74	12.02	-	32.72	1,400	<0.5	<2.0	19.8	12.4	2.30
	8/10/2006	44.74	13.72	-	31.02	604	<0.50	<2.0	6.2	4.63	1.42
	10/26/2006	44.74	14.38	-	30.36	1,350	<0.50	<2.0	16.6	10.8	1.87
	1/25/2007	44.74	13.93	-	30.81	340	<0.5	<2.0	6.84	2.44	1.63
	4/26/2007	44.74	14.44	-	30.30	552	<0.5	<2.0	11.4	6.11	4.12
	7/25/2007	44.74	14.79	-	29.95	1,230	<0.5	<2.0	27	19.24	3.2
	10/23/2007	44.74	14.88	-	29.86	1,730	0.67	<2.0	20.7	17.31	8.44
	1/21/2008	44.74	13.34	-	31.40	610	1.15	<2.0	8.4	4.34	17.2
	4/15/2008	44.74	13.91	-	30.83	1,460	<0.5	<2.0	15.9	19.7	17.3
	7/2/2008	44.74	14.87	-	29.87	1,450	<0.5	<2.0	11	6.8	22.1
	10/15/2008	44.74	15.68	-	29.06	1,900 ^Y	0.56	1.2	27	39.5	55
1/7/2009	44.74	14.72	-	30.02	2,700	1.2	2.9	11	25	39	
4/13/2009	44.74	13.54	-	31.20	2,300 ^Y	<0.5	<0.5	15	6.3	63	
8/26/2009	44.74	15.84	-	28.90	2,700 ^Y	<0.5	<0.5	48	53	140	
12/1/2009	44.74	15.03	-	29.71	1,800 ^Y	<0.5	<0.5	22	15	120	

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MW-7 cont.	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	
	12/1/2011	44.74	13.57	-	31.17	1,500 ^x	<0.33	<0.19	12	5.7	13	
	3/2/2012	44.74	14.16	-	30.58	1,000	<0.5	<0.5	4	1.1	5.1	
	6/6/2012	44.74	14.00	-	30.74	780	<0.5	<0.5	2.9	1.0	2.6	
	9/20/2012	44.74	15.26	-	29.48	1,200	<0.5	<0.5	4.3	0.92	2.7	
	MW-8	9/21/2004	41.14	12.98	-	28.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5
		12/14/2004	41.14	11.22	-	29.92	<50	<0.5	<0.5	<0.5	<1.0	<0.5
3/11/2005		41.14	NM	-	NM	NA	NA	NA	NA	NA	NA	
6/15/2005		41.14	10.46	-	30.68	<200	0.53	<2.0	<0.5	<1.0	<0.5	
8/26/2005		41.14	11.53	-	29.61	<50	<0.50	<2.0	<0.50	<1.0	<0.50	
11/11/2005		41.14	11.92	-	29.22	<50	<0.5	<2.0	1.36	1.8	<0.5	
2/9/2006		41.14	9.74	-	31.40	<50	<0.50	<2.0	<0.50	<1.0	<0.50	
5/9/2006		41.14	9.90	-	31.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50	
8/10/2006		41.14	10.9	-	30.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50	
10/26/2006		41.14	11.68	-	29.46	<50	<0.50	<2.0	3.37	<1.0	<0.50	
1/25/2007		41.14	11.44	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5	
4/26/2007		41.14	10.81	-	30.33	<50	<0.5	<2.0	4.29	<2.0	<0.5	
7/25/2007		41.14	12.31	-	28.83	<50	<0.5	<2.0	4.39	<2.0	<0.5	
10/23/2007		41.14	12.37	-	28.77	<50	<0.5	<2.0	4.31	<2.0	<0.5	
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		

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MW-8 cont.	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											
MW-9	9/21/2004	40.26	12.18	-	28.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	40.26	10.91	-	29.35	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	40.26	10.52	-	29.74	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	6/15/2005	40.26	14.73	-	25.53	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	8/26/2005	40.26	10.59	-	29.67	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	40.26	11.25	-	29.01	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	2/9/2006	40.26	10.05	-	30.21	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	40.26	9.06	-	31.20	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	40.26	10.01	-	30.25	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	40.26	10.81	-	29.45	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	1/25/2007	40.26	10.67	-	29.59	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	40.26	10.05	-	30.21	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/25/2007	40.26	11.44	-	28.82	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/23/2007	40.26	11.59	-	28.67	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/21/2008	40.26	10.37	-	29.89	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	40.26	10.56	-	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	40.26	11.95	-	28.31	161	<0.5	<2.0	2.15	<2.0	<0.5
	10/15/2008	40.26	12.64	-	27.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	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											

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Extraction Wells											
EX-1	12/2/2009	47.36	17.02	-	30.34	2,900	120	4	64	410	25
	3/16/2010	47.36	19.08	-	28.28	2,200	150	18	94	326	210
	6/3/2010	47.36	17.02	-	30.34	3,600	180	6.3	150	428	83
	9/1/2010	47.36	16.88	-	30.48	550	6.5	0.5	6.9	31.7	38
	12/2/2010	47.36	19.84	-	27.52	<200	3.1	<2.0	<2.0	<2.0	210
	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
	12/1/2011	47.36	16.1	-	31.26	780 ^x	91	3	29	85	150
	3/2/2012	47.36	16.35	-	31.01	140	6	<0.5	3.5	8	14
	6/6/2012	47.36	24.76	-	22.6	250	22	<0.5	4.7	20	71
	9/20/2012	47.36	17.26	-	30.1	95	24	<0.5	<0.5	2.61	36
	Extraction Wells										
EX-2	12/2/2009	45.96	17.56	-	28.4	7,100 ^y	9.3	3.2	440	770	<3.1
	3/16/2010	45.96	19.65	-	26.31	13,000	600	360	770	2,250	15
	6/3/2010	45.96	17.10	-	28.86	16,000	590	400	700	2,500	9.5
	9/1/2010	45.96	16.99	-	28.97	6,100	230	74	200	890	11
	12/2/2010	45.96	20.87	-	25.09	14,000	510	270	640	2,170	15
	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
	12/1/2011	45.96	22.60	-	23.36	9,900 ^x	630	200	690	1,760	<3.3
	3/2/2012	45.96	16.48	-	29.48	5,000	220	25	200	600	7.1
	6/6/2012	45.96	18.90	-	27.06	6,900	290	97	310	790	5.2
	9/20/2012	45.96	17.49	-	28.47	1,800	170	14	62	204	5.0
	MPE Wells										
MPE-1	12/1/2009	51.96	21.41	-	30.55	NA	NA	NA	NA	NA	NA

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

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)	
MPE-1 cont.	3/16/2010	51.96	20.22	-	31.74	NA	NA	NA	NA	NA	NA	
	6/3/2010	51.96	21.18	-	30.78	NA	NA	NA	NA	NA	NA	
	9/1/2010	51.96	21.25	-	30.71	NA	NA	NA	NA	NA	NA	
	12/2/2010	51.96	21.64	-	30.32	NA	NA	NA	NA	NA	NA	
Pre-MPE	3/3/2011	51.96	19.33	-	32.63	NA	NA	NA	NA	NA	NA	
	5/19/2011	51.96	20.6	-	31.36	NA	NA	NA	NA	NA	NA	
	8/4/2011	51.96	NM	-	NC	49,000	210	100	840	7,070	45	
Post-MPE	9/8/2011	51.96	20.83	-	31.13	NA	NA	NA	NA	NA	NA	
	9/26/2011	51.96	20.94	-	31.02	62,000	6,300	3,700	1,800	9,400	1,200	
	12/2/2011	51.96	20.14	-	31.82	56,000	9,000	7,700	2,200	10,800	2,600	
	3/2/2012	51.96	20.73	-	31.23	97,000	11,000	11,000	2,600	12,600	2,700	
	6/6/2012	51.96	20.96	-	31.00	78,000	4,500	4,900	2,300	10,700	750	
	9/20/2012	51.96	21.58	-	30.38	89,000	8,600	9,200	3,400	14,800	1,900	
MPE-2	12/1/2009	53.72	22.87	-	30.85	NA	NA	NA	NA	NA	NA	
	3/16/2010	53.72	21.7	-	32.02	NA	NA	NA	NA	NA	NA	
	6/3/2010	53.72	22.35	-	31.37	NA	NA	NA	NA	NA	NA	
	9/1/2010	53.72	23.7	-	30.02	NA	NA	NA	NA	NA	NA	
	12/2/2010	53.72	22.7	-	31.02	NA	NA	NA	NA	NA	NA	
	Pre-MPE	3/3/2011	53.72	21.25	-	32.47	NA	NA	NA	NA	NA	NA
		5/19/2011	53.72	22.19	-	31.53	NA	NA	NA	NA	NA	NA
		8/4/2011	53.72	NM	-	NC	46,000	2,100	80	1,900	5,300	75
	Post-MPE	9/8/2011	53.72	22.31	-	31.41	NA	NA	NA	NA	NA	NA
		9/26/2011	53.72	22.38	-	31.34	37,000	1,800	33	1,700	2,760	<17
		12/2/2011	53.72	21.44	-	32.28	26,000	1,600	43	1,800	3,370	<17
		3/2/2012	53.72	22.24	-	31.48	36,000	1,100	19	1,700	2,970	<17
		6/7/2012	53.72	22.35	-	31.37	33,000	1,800	27	1,600	2,700	29
	9/21/2012	53.72	23.03	-	30.69	31,000	1,700	13	1,900	2,747	14	

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

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
2nd WBZ											
MW-1D	1/3/2008	54.42		-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	1/22/2008	54.42	22.85	-	31.57	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	4/16/2008	54.42	23.10	-	31.32	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/3/2008	54.42	23.44	-	30.98	75.9	<0.5	<2.0	0.54	<2.0	<0.5
	10/15/2008	54.42	23.82	-	30.60	120	1.6	<0.5	2.8	3.6	<0.5
	1/8/2009	54.42	23.44	-	30.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	54.42	23.06	-	31.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	54.42	23.73	-	30.69	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	54.42	23.59	-	30.83	330 ^Y	<0.5	<0.5	1.3	2.2	<0.5
	3/16/2010	54.42	22.60	-	31.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	6/4/2010	54.42	23.10	-	31.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	9/1/2010	54.42	23.51	-	30.91	<50	<0.5	<0.5	0.52	1.8	<0.5
	12/3/2010	54.42	23.41	-	31.01	61	<0.5	<0.5	1.0	3.73	<0.5
	3/3/2011	54.42	22.27	-	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	54.42	23.08	-	31.34	220	<0.5	<0.5	0.6	1.4	<0.5
	12/1/2011	54.42	22.26	-	32.16	<22	<0.33	<0.19	<0.15	<0.20	<0.38
3/2/2012	54.42	23.01	-	31.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
6/6/2012	54.42	23.18	-	31.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
9/20/2012	54.42	23.76	-	30.66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-3D	1/3/2008	54.10		-	-	<50	<0.50	<2.0	<0.50	<2.0	87.6
	1/22/2008	54.10	22.31	-	31.79	<50	<0.50	<2.0	<0.50	<2.0	88.3
	4/16/2008	54.10	22.64	-	31.46	<50	<0.5	<2.0	<0.5	<2.0	71.1
	7/3/2008	54.10	23.17	-	30.93	<50	<0.5	<2.0	<0.5	<2.0	67.4
	10/16/2008	54.10	23.62	-	30.48	<50	<0.5	<0.5	<0.5	<0.5	37
	1/8/2009	54.10	23.07	-	31.03	<50	<0.5	<0.5	<0.5	<0.5	29
	4/14/2009	54.10	22.36	-	31.74	<50	<0.5	<0.5	<0.5	<0.5	44
	8/26/2009	54.10	23.41	-	30.69	<50	<0.5	<0.5	<0.5	<0.5	20
	12/1/2009	54.10	23.27	-	30.83	110 ^Y	<0.5	<0.5	<0.5	0.52	24

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

Monitoring Well	Date	Casing Elevation ¹ (feet)	Depth to Groundwater (feet)	Depth to Free-Product (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B ² (µg/L)
MW-3D cont.	3/16/2010	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	54.10	22.68	-	31.42	69	<0.5	<0.5	<0.5	0.62	4.8
	12/1/2011	54.10	22.86	-	31.24	<22	<0.33	<0.19	<0.15	<0.20	10
	3/2/2012	54.10	22.60	-	31.50	<50	<0.5	<0.5	<0.5	<0.5	4.2
	6/6/2012	54.10	22.77	-	31.33	<50	<0.5	<0.5	<0.5	<0.5	4.8
	9/20/2012	54.10	23.42	-	30.68	<50	<0.5	<0.5	<0.5	<0.5	5.1
MW-4D	1/4/2008	53.12		-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
	1/22/2008	53.12	21.11	-	32.01	91.5	18.7	<2.0	7.08	11.42	219
	4/15/2008	53.12	21.67	-	31.45	<50	<0.5	<2.0	<0.5	<2.0	27
	7/3/2008	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 ^Y	<0.5	<0.5	1.4	2.3	2.3
	3/16/2010	53.12	21.02	-	32.10	<50	<0.5	<0.5	<0.5	<0.5	0.65
	6/4/2010	53.12	21.93	-	31.19	<50	<0.5	<0.5	<0.5	<0.5	1.1
	9/1/2010	53.12	23.32	-	29.80	<50	<0.5	<0.5	0.85	3.76	2.2
	12/3/2010	53.12	22.46	-	30.66	<50	<0.5	<0.5	<0.5	0.67	<0.5
	3/3/2011	53.12	20.45	-	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
	12/1/2011	53.12	21.19	-	31.93	<22	<0.33	<0.19	<0.15	<0.20	4.2

Table 1
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15101 Freedom Avenue, San Leandro, CA

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MW-4D cont.	3/2/2012	53.12	21.8	-	31.32	<50	<0.5	<0.5	0.85	1.2	2.7
	6/6/2012	53.12	22.00	-	31.12	<50	<0.5	<0.5	<0.5	<0.5	1.3
	9/20/2012	53.12	22.67	-	30.45	<50	<0.5	<0.5	<0.5	<0.5	1.6
1573 153 RD	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
Equipment Blanks											
EB-PMP	1/21/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PRB	1/21/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PMP2	1/22/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
EB-PRB2	1/22/2008	-	-	-	-	<50	<0.50	<2.0	<0.50	<2.0	<0.50
ESL (ug/L)	-	-	-	-	-	100	1	40	30	20	5

Notes:

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

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

NC: Not Calculated

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

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

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

<: Not detected above the laboratory reporting limit.

Y: Sample exhibits chromatographic pattern which does not resemble standard

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

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

H: Heavier hydrocarbons contributed to the quantitation.

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

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

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

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

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

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

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

ESL: Environmental Screening Levels per CRWQCB SFBay Region 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

* During September 2012 groundwater monitoring event, free-product was observed in MW-6. groundwater elevation in this well has been corrected for the presence of FP:

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

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

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

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

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

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

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

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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	
Pre- MPE	3/17/2010	570	<1.0	<1.0	<1.0	<1.0	<1.0	
	6/4/2010	340	<1.0	<1.0	<1.0	<1.0	<1.0	
	9/2/2010	320	<2.5	<2.5	13	<2.5	<2.5	
	12/2/2010	200	<3.1	<3.1	<3.1	<3.1	<3.1	
	3/4/2011	180	<0.5	<0.5	<0.5	<0.5	<0.5	
	5/20/2011	480	<1.0	<1.0	<1.0	<1.0	<1.0	
	8/4/2011	110	<0.71	<0.71	2.6	<0.71	<0.71	
	9/9/2011	260	<1.0	<1.0	11	<1.0	<1.0	
	12/2/2011	95	<3.2	<3.5	14	<2.4	<1.7	
	3/2/2012	59	<1.0	<1.0	4.1	<1.0	<1.0	
	6/7/2012	22	<1.0	<1.0	2.8	<1.0	<1.0	
	9/21/2012	66	<1.0	<1.0	<1.0	<1.0	<1.0	
	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		
12/1/2011	NA	NA	NA	NA	NA	NA		

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MW-6 cont.	3/2/2012	<83	<4.2	<4.2	<4.2	<4.2	<4.2
	6/6/2012	<33	<1.7	<1.7	<1.7	<1.7	<1.7
	9/20/2012	NA	NA	NA	NA	NA	NA
MW-7							
MW-7	9/21/2004	<10	<0.5	<0.5	1.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	<12.5	<2.5	<2.5	<10	NA	NA
	6/15/2005	<10	<0.5	<0.5	2.23	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	NA	NA	NA	NA	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	6.49	<0.5	<0.5	2.58	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	6.01	<0.5	<0.5
	4/15/2008	8.8	<0.5	<0.5	<2.0	<0.5	1.26
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	14	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	11	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	16	<0.5	<0.5
	8/26/2009	<33	<0.5	<0.5	33	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	30	<0.5	<0.5
	3/16/2010	11	<0.5	<0.5	<0.5	<0.5	<0.5
	6/3/2010	20	<0.5	<0.5	7.1	<0.5	<0.5
	9/1/2010	47	<0.5	<0.5	7.2	<0.5	<0.5
	12/2/2010	22	<0.5	<0.5	4.9	<0.5	<0.5
	3/4/2011	14	<0.5	<0.5	4.0	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	2.1	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	1.6	<0.5	<0.5
	12/1/2011	15	<0.36	<0.40	2.4	<0.28	<0.19
3/2/2012	<10	<0.5	<0.5	0.82	<0.5	<0.5	
6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5	
MW-8							
MW-8	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	NA	NA	NA	NA	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
8/27/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5	

Well Decommissioned 11/13/2009

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-9	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA	
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA	
	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA	
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA	
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA	
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA	
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA	
	5/9/2006	<10	<0.5	<0.5	<2.0	2.8	<0.5	
	8/10/2006	<10	<0.5	<0.5	<2.0	1.83	<0.5	
	10/26/2006	<10	<0.5	<0.5	<2.0	3.07	<0.5	
	1/25/2007	<2.0	<0.5	<0.5	<2.0	2.92	<0.5	
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5	
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5	
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5	
	1/21/2008	<2.0	<0.5	<0.5	<2.0	1.18	<0.5	
	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5	
	7/2/2008	<2.0	<0.5	<0.5	<2.0	2.07	<0.5	
	10/15/2008	<10	<0.5	<0.5	<0.5	1.5	<0.5	
	1/7/2009	<10	<0.5	<0.5	<0.5	1.4	<0.5	
	4/13/2009	<10	<0.5	<0.5	<0.5	0.97	<0.5	
8/26/2009	<10	<0.5	<0.5	<0.5	2.6	<0.5		
Well Decommissioned 11/13/2009								
EX-1	12/2/2009	150	<1.3	<1.3	<1.3	<1.3	<1.3	
	3/16/2010	980	<1.3	2.4	27	<1.3	<1.3	
	6/3/2010	570	<1.3	1.9	<1.3	<1.3	<1.3	
	9/1/2010	470	<0.5	1.4	2	<0.5	<0.5	
	12/2/2010	1,300	<2.0	3.6	15	<2.0	<2.0	
	3/3/2011	690	<0.71	2.5	12	<0.71	<0.71	
	5/19/2011	370	<0.71	1.9	13	<0.71	<0.71	
	9/8/2011	32	<0.5	<0.5	0.53	<0.5	<0.5	
	12/1/2011	1,200	<1.6	8.3	6.8	<1.2	<0.86	
	3/2/2012	31	<0.5	<0.5	<0.5	<0.5	<0.5	
	6/6/2012	390	<0.5	2.9	4.8	0.57	<0.5	
	9/20/2012	170	<0.5	1.5	<0.5	<0.5	<0.5	
	EX-2	12/2/2009	<63	<3.1	<3.1	<3.1	<3.1	<3.1
		3/16/2010	<100	<5.0	<5.0	<5.0	<5.0	<5.0
6/3/2010		<100	<5.0	<5.0	<5.0	<5.0	<5.0	
9/1/2010		<50	<2.5	<2.5	<2.5	<2.5	<2.5	
12/2/2010		<100	<5.0	<5.0	<5.0	<5.0	<5.0	
3/3/2011		<100	<5.0	<5.0	<5.0	<5.0	<5.0	
5/19/2011		<100	<5.0	<5.0	<5.0	<5.0	<5.0	
9/8/2011		<25	<1.3	<1.3	<1.3	<1.3	<1.3	
12/1/2011		74	<3.2	<3.5	<2.8	<2.4	<1.7	
3/2/2012		<25	<1.3	<1.3	<1.3	<1.3	<1.3	
6/6/2012		<33	<1.7	<1.7	<1.7	<1.7	<1.7	
9/20/2012		<33	<1.7	<1.7	<1.7	<1.7	<1.7	
MPE Wells								
MPE-1	8/4/2011	<500	<25	<25	<25	<25	<25	
	9/26/2011	<500	<25	<25	600	<25	<25	
	12/2/2011	830	<32	<35	750	<24	<17	
	3/2/2012	<710	<36	<36	1,200	<36	<36	
	6/6/2012	<630	<31	<31	430	<31	<31	
	9/20/2012	<1,300	<63	<63	1,200	<63	<63	
MPE-2	8/4/2011	<330	<17	<17	<17	<17	<17	
	9/26/2011	<330	<17	<17	<17	<17	<17	
	12/2/2011	<66	<16	<17	<14	<12	<8.6	
	3/2/2012	<330	<17	<17	<17	<17	<17	
	6/7/2012	<250	<13	<13	<13	<13	<13	
	9/21/2012	<250	<13	<13	<13	<13	<13	

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)
2nd WBZ							
MW-1D	1/3/2008	111	<0.5	<0.5	<2.0	NA	NA
	1/22/2008	12.9	<0.5	<0.5	<2.0	<0.5	<0.5
	4/16/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	8/26/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/16/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2011	<1.5	<0.36	<0.40	<0.32	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3D	1/3/2008	37.3	<0.5	3.12	15.3	NA	NA
	1/22/2008	15.6	<0.5	3.1	15.3	<0.5	<0.5
	4/16/2008	17.7	<0.5	<0.5	<2.0	<0.5	<0.5
	7/3/2008	<2.0	<0.5	<0.5	7.45	<0.5	<0.5
	10/16/2008	<10	<0.5	<0.5	4.7	<0.5	<0.5
	1/8/2009	<10	<0.5	<0.5	3.4	<0.5	<0.5
	4/14/2009	<10	<0.5	<0.5	5	<0.5	<0.5
	8/26/2009	<10	<0.5	<0.5	1.6	<0.5	<0.5
	12/1/2009	<10	<0.5	<0.5	2.2	<0.5	<0.5
	3/16/2010	<10	<0.5	<0.5	0.65	<0.5	<0.5
	6/4/2010	<10	<0.5	<0.5	1.8	<0.5	<0.5
	9/1/2010	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/3/2010	<10	<0.5	<0.5	0.93	<0.5	<0.5
	3/3/2011	<10	<0.5	<0.5	1.0	<0.5	<0.5
	5/19/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/8/2011	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	12/1/2011	<1.5	<0.36	<0.40	0.52	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
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
	12/1/2011	<1.5	<0.36	<0.40	<0.32	<0.28	<0.19
	3/2/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	6/6/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	9/20/2012	<10	<0.5	<0.5	<0.5	<0.5	<0.5

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)
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
2009											
8-Oct-2009	15,351	<50	120 ^Y	NA	NA	NA	NA	NA	NA	NA	NA
19-Nov-2009	8,287	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.7
9-Dec-2009	0	Installation of GWETS									
16-Dec-2009	20,000	<50	<50	<300	<0.5	0.65 C	<0.5	0.84 C	<10	<5	7.4
2010											
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
2011											
11-Jan-2011	1,179,075	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	12	6	6.6
10-Feb-2011	1,249,569	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.6
14-Mar-2011	1,336,784	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.5
11-Apr-2011	1,364,272	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.5
10-May-2011	1,466,472	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	12	7	6.6
7-Jun-2011	1,532,263	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	6	6.6

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

Date	Volume (gallons)	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	COD (mg/L)	TSS (mg/L)	pH
28-Jul-2011	1,573,295	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	5	6.3
25-Aug-2011	1,613,935	77	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.1
23-Sep-2011	1,631,273	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.7
27-Oct-2011	1,642,277	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	7	7.1
18-Nov-2011	1,676,170	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.8
1-Dec-2011	1,694,889	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.97
2012											
19-Jan-2012	1,715,163	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	7.02
23-Feb-2012	1,794,185	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	<5	6.98
20-Mar-2012	1,803,832	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<10	7	7.02
17-Apr-2012	1,876,439	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.95
29-May-2012	1,900,111	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	6.89
11-Jun-2012	1,914,130	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.1
12-Jul-2012	1,943,456	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	NA	NA	7.3
17-Aug-2012	1,955,438	<50	<52	<310	<0.5	<0.5	<0.5	<0.5	NA	NA	7.04
17-Sep-2012	1,979,852	<50	<54	<330	<0.5	<0.5	<0.5	<0.5	NA	NA	7.02

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

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

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

Date	Volume (gallons)	Influent Concentration (µg/L)					Mass removed (pounds)				
		TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes
2009											
9-Dec-2009	0	Installation of GWETS, began discharging treated groundwater to site sewer main									
2010											
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 ^Y	<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
2011											
11-Jan-2011	1,179,075	1,700	80	19	50	295	15.21	0.68	0.20	0.32	2.34
11-Apr-2011	1,364,272	1,200	41	3.3	23	185	17.06	0.75	0.20	0.36	2.63
28-Jul-2011	1,573,295	540	21	2.8	5.4	49	18.00	0.78	0.21	0.37	2.71
27-Oct-2011	1,642,277	<50	1.50	<0.5	<0.5	2.9	18.00	0.78	0.21	0.37	2.71
2012											
19-Jan-2012	1,715,163	110 ^Y	<0.5	<0.5	<0.5	<0.5	18.07	0.78	0.21	0.37	2.71
17-Apr-2012	1,876,439	1,100	60	6.8	24	161	19.54	0.87	0.22	0.40	2.93
12-Jul-2012	1,943,456	320	30	1.6	15	34	19.72	0.88	0.22	0.41	2.95

Notes:

< : Below laboratory-reporting limit

Y : sample exhibits chromatographic pattern which does not resemble standard

Appendix A

Standard Operating Procedures for Conducting Groundwater Monitoring Activities

Standard Operating Procedures for Conducting Groundwater Monitoring Activities

Water Level 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.

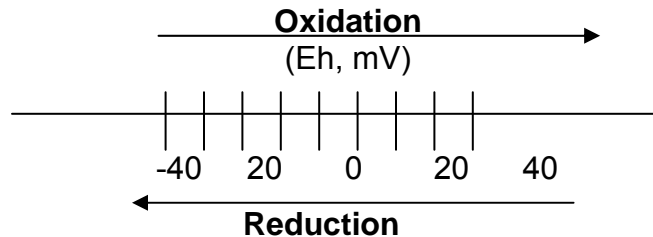
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater EC is directly related to the concentration of total dissolved solids (TDS) in solution.

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 O₂ in water is low (9 mg/L at 25 °C and 11 mg/L at 5 °C), and because the rate of O₂ 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 O₂ in the groundwater is consumed; however, the oxidizing agents (i.e., the constituents that undergo reduction) now become NO₃⁻, MnO₂, Fe (OH)₃, SO₄²⁻

and others (Freeze and Cherry, 1979). As these oxidizing agents are consumed, the groundwater environment becomes more and more reduced. If the process advances far enough, the environment may become so strongly reduced that the petroleum hydrocarbons undergo anaerobic degradation, resulting in the production of methane and carbon dioxide. The concept of oxidation and reduction in terms of changes in oxidation states is illustrated below.



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

Once stabilization occurs, the groundwater samples are also tested on-site for ferrous iron (Fe^{+2}), nitrate (NO_3^-), and sulfate (SO_4^{-2}) concentrations.

Fe^{+2} , NO_3^- , and 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, non-preserved glass containers. Samples are placed in an ice-filled cooler and maintained at 4°C. A chain of custody form for all samples is prepared to accompany the samples, which are promptly delivered to a California state-certified analytical laboratory.

Appendix B

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

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

TABLE OF ELEVATIONS & COORDINATES
 ON MONITORING WELLS
 SOMA ENVIRONMENTAL, PROJECT 15101 FREEDOM DRIVE - SAN LEANDRO

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

BENCH MARK: NGS BENCH MARK NO. HT1871

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

ELEVATION = 58.50 NAVD 88 DATUM

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

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

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

DATE: 12/11/2009

JOB# 09039

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

SOMA ENVIRONMENTAL ENGINEERING
15101 FREEDOM AVENUE
SAN LEANDRO, CA 94579

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

HORIZONTAL AND VERTICAL CONTROL

SURVEY BASED ON PREVIOUS SURVEY BY HARRINGTON SURVEY INC. DATED: 2/21/2008
COORDINATE VALUES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD83.
ELEVATIONS ARE NAVD 88 DATUM.

MW-2, PUNCH

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

MW-4 PUNCH

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

EQUIPMENT USED: TRIMBLE S6

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



[Handwritten Signature] 1 of 1



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1
 Casing Diameter: 4 inches
 Depth of Well: 30.50 feet
 Top of Casing Elevation: 54.46 feet
 Depth to Groundwater: 23.56 feet
 Groundwater Elevation: 30.90 feet
 Water Column Height: 6.94 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 21, 2012
 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
10:00	Started purging well						
10:01	2	1.15	6.11	19.96	1263	6.14	-15.3
10:03	6	0.90	6.05	19.98	1277	7.04	-20.8
10:05	10	0.72	6.08	19.98	1294	6.40	-29.3
10:08	14	0.55	6.12	19.96	1313	5.98	-31.4
10:12	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-2 Project No.: 2551
 Casing Diameter: 4 inches Address: 15101 Freedom Avenue
 Depth of Well: 30.15 feet San Leandro, CA
 Top of Casing Elevation: 52.41 feet Date: September 21, 2012
 Depth to Groundwater: 21.78 feet Sampler: Lizzie Hightower
 Groundwater Elevation: 30.63 feet
 Water Column Height: 8.37 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
09:28	Started purging well						
09:29	2	1.45	5.90	19.84	1516	10.5	-53.2
09:31	6	1.00	5.86	19.95	1343	11.4	-53.4
09:33	10	0.76	5.95	20.00	1384	10.5	-55.7
09:35	14	0.63	5.97	20.01	1359	7.56	-55.0
09:40	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: 23.17 feet
 Groundwater Elevation: 30.74 feet
 Water Column Height: 6.73 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 21, 2012
 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
10:35	Started purging well						
10:36	2	1.00	6.03	20.07	1215	17.1	-85.1
10:38	6	1.06	6.01	20.04	1216	11.1	-82.3
10:40	10	0.80	6.05	20.04	1222	9.68	-78.3
10:42	14	0.60	6.08	20.04	1229	8.61	-74.9
10:47	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4
 Casing Diameter: 4 inches
 Depth of Well: 30.20 feet
 Top of Casing Elevation: 53.31 feet
 Depth to Groundwater: 22.87 feet
 Groundwater Elevation: 30.44 feet
 Water Column Height: 7.33 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 21, 2012
 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
12:08	Started purging well						
12:09	2	1.62	6.19	19.61	1360	12.0	-102.1
12:11	6	0.88	6.04	19.49	1387	7.73	-86.5
12:13	10	0.61	6.05	19.48	1404	4.83	-84.6
12:15	14	0.48	6.08	19.49	1425	5.12	-82.6
12:20	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: 20.17 feet
 Groundwater Elevation: 30.36 feet
 Water Column Height: 9.73 feet
 Purged Volume: 14 gallons

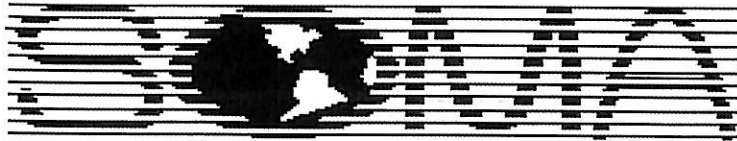
Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 21, 2012
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: Yes No Describe: _____
 Sheen: Yes No Describe: _____
 Odor: Yes No Describe: Slight Petro

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
11:43	Started purging well						
11:44	2	0.97	6.24	20.60	1171	14.3	+41.5
11:46	6	0.67	6.20	20.65	1167	9.94	+37.2
11:48	10	0.49	6.22	20.70	1165	9.65	+34.1
11:50	14	0.44	6.24	20.73	1164	9.74	+33.0
11:55	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 20, 2012
 Depth to Groundwater: 17.36 feet * Sampler: Lizzie Hightower
 Groundwater Elevation: 28.46 feet / 20.49 feet
 Water Column Height: 9.94 feet
 Purged Volume: - gallons
Not purged

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump Not Sampled

Color: Yes No Describe: Unknown
 Sheen: Yes No Describe: Free Product
 Odor: Yes No Describe: Strong Petro

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP

Depth to free product: 17.32 ft.
 0.04 feet of free product (FP)
 * Elevation - corrected for presence of (FP)



ENVIRONMENTAL ENGINEERING, INC

Well No.: MPE-1
 Casing Diameter: 4 inches
 Depth of Well: 30.00 feet
 Top of Casing Elevation: 51.96 feet
 Depth to Groundwater: 21.58 feet
 Groundwater Elevation: 30.38 feet
 Water Column Height: 8.42 feet
 Purged Volume: 14 gallons

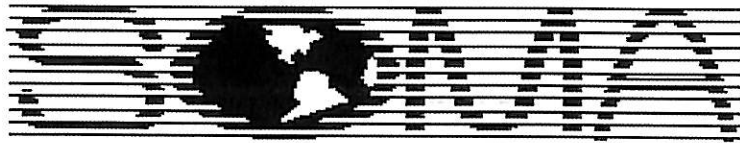
Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 20, 2012
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: Yes No Describe: Dark Gray
 Sheen: Yes No Describe: Rainbow Sheen
 Odor: Yes No Describe: Petro Odor

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
15:41	Started purging well						
15:42	2	0.87	5.81	19.37	1391	33.2	+28.2
15:44	6	0.96	5.75	19.35	1387	31.0	+26.0
15:46	10	0.73	5.85	19.34	1384	20.0	+22.5
15:48	14	0.62	5.87	19.36	1389	16.2	+20.2
15:53	sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MPE-2
 Casing Diameter: 4 inches
 Depth of Well: 30.00 feet
 Top of Casing Elevation: 53.72 feet
 Depth to Groundwater: 23.03 feet
 Groundwater Elevation: 30.69 feet
 Water Column Height: 7.97 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 21, 2012
 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
10:57	Started purging well						
10:58	2	0.95	6.27	20.36	1279	7.97	+84.3
11:00	6	0.72	6.26	20.34	1279	6.52	+78.3
11:02	10	0.51	6.26	20.29	1282	6.39	+74.8
11:04	14	0.46	6.29	20.27	1284	7.05	+72.4
11:09	Sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-1D
 Casing Diameter: 2 inches
 Depth of Well: 59.81 feet
 Top of Casing Elevation: 54.42 feet
 Depth to Groundwater: 23.76 feet
 Groundwater Elevation: 30.66 feet
 Water Column Height: 36.05 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 20, 2012
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump

Sampling Method: Bailer Pump

Color: Yes No Describe: Slightly Cloudy

Sheen: Yes No Describe: _____

Odor: Yes No Describe: _____

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
14:09	Started						
14:10	2	1.17	6.93	20.02	1248	84.5	+114.5
14:12	6	0.58	6.76	19.63	1253	134	+103.3
14:14	8	0.45	6.78	19.61	1255	37.2	+97.1
14:16	12	0.43	6.85	19.58	1255	21.1	+94.5
14:17	14	0.42	6.85	19.57	1256	18.6	+93.7
14:22	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: 23.42 feet
 Groundwater Elevation: 30.68 feet
 Water Column Height: 35.17 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 20, 2012
 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
14:43	started						
14:44	2	0.88	6.71	19.79	1103	20.0	+105.1
14:46	6	0.58	6.64	19.75	1193	7.16	+95.5
14:48	10	0.52	6.73	19.73	1220	7.13	+91.5
14:50	12	0.61	6.75	19.71	1230	5.51	+88.7
14:51	14	0.54	6.77	19.71	1233	4.70	+88.0
14:56	sampled						



ENVIRONMENTAL ENGINEERING, INC

Well No.: MW-4D
 Casing Diameter: 2 inches
 Depth of Well: 58.79 feet
 Top of Casing Elevation: 53.12 feet
 Depth to Groundwater: 22.67 feet
 Groundwater Elevation: 30.45 feet
 Water Column Height: 36.12 feet
 Purged Volume: 14 gallons

Project No.: 2551
 Address: 15101 Freedom Avenue
 San Leandro, CA
 Date: September 20, 2012
 Sampler: Lizzie Hightower

Purging Method: Bailer Pump
 Sampling Method: Bailer Pump

Color: Yes No Describe: _____
 Sheen: Yes No Describe: _____
 Odor: Yes No Describe: _____

Field Measurements:

Time	Volume (gallons)	D.O. mg/L	pH	Temp °C	E.C. (µS/cm)	Turb. NTU	ORP
15:11	Started purging well						
15:12	2	0.68	6.78	19.27	1211	8.09	+97.0
15:14	6	0.49	6.69	19.22	1222	4.97	+94.2
15:16	10	0.41	6.71	19.22	1233	6.55	+92.0
15:17	12	0.40	6.74	19.19	1233	9.15	+92.1
15:18	14	0.39	6.76	19.21	1232	6.12	+91.1
15:23	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
	3/2/2012	1.39	6.53	20.84	1309	12.00	-204.4
	6/7/2012	0.89	6.51	20.00	1234	3.92	-20.0
9/21/2012	0.55	6.12	19.96	1313	5.98	-31.4	
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
	3/2/2012	1.98	6.37	20.83	1014	11.8	-204.5
	6/7/2012	0.93	6.53	19.87	877	4.64	-22.9
9/21/2012	0.63	5.97	20.01	1359	7.56	-55.0	
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
	3/2/2012	1.72	6.58	20.87	1120	12.00	-162.7
	6/7/2012	0.54	6.66	20.13	1057	3.11	-20.9
9/21/2012	0.60	6.08	20.04	1229	8.61	-74.9	
MW-4	8/27/2009	2.90	6.26	20.11	1649	2.78	-115.5
	12/2/2009	0.87	6.4	20.12	1578	5.06	-173.2
	3/17/2010	2.30	5.63	20.39	1506	4.01	-119.4
	6/3/2010	1.90	6.14	20.45	1418	1.56	-131.8
	9/2/2010	1.80	6.06	20.21	1305	1.45	-101.5
	12/2/2010	1.63	5.89	20.28	1465	102	-180
	3/3/2011	1.89	6.66	20.47	1278	0.97	-90.5
	5/19/2011	1.78	6.42	20.51	1251	1.5	-168.3
	9/8/2011	1.77	6.27	20.32	1430	3.82	-157.4
	3/2/2012	1.55	6.39	20.21	1486	8.00	-165.9
	6/7/2012	0.58	6.58	19.53	1315	2.62	-0.3
9/21/2012	0.48	6.08	19.49	1425	5.12	-82.6	
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	

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

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity μS/cm	Turbidity NTU	ORP
MW-5 cont.	3/2/2012	1.70	6.72	21.34	1187	11.7	-228.6
	6/7/2012	0.40	6.68	20.29	1200	5.35	-50.7
	9/21/2012	0.44	6.24	20.73	1164	9.74	33.0
MW-6							
MW-6	8/26/2009	0.42	6.47	20.93	1201	6.53	-172.3
	12/1/2009	0.26	6.89	21.64	1171	6.83	-207.9
	3/16/2010	0.63	5.91	21.26	1544	6.72	-168.2
	6/3/2010	0.58	6.38	20.74	1346	2.61	-116.4
	9/1/2010	0.41	6.44	20.86	1419	2.77	-120.3
	12/2/2010	0.37	6.24	21.17	1362	4.5	-148
	3/3/2011	1.54	6.81	21	1262	1.87	-98.3
	5/20/2011	1.23	6.62	20.51	1312	2.53	-221.1
	9/8/2011	1.07	6.2	20.84	1292	5.17	-167.9
	3/2/2012	1.10	6.55	21.03	1197	13.2	-166.4
	6/6/2012	1.18	6.78	19.82	1091	3.46	-32.8
	9/20/2012	NA	NA	NA	NA	NA	NA
	MW-7						
MW-7	8/26/2009	0.98	6.36	19.24	1375	145	-128.3
	12/1/2009	1.05	6.83	19.51	1340	997	-4.3
	3/16/2010	0.83	5.88	18.37	1266	382	-37.9
	6/3/2010	0.77	6.46	18.67	1199	873	-30.4
	9/1/2010	0.98	6.4	19.83	1271	999	-60
	12/2/2010	1.01	6.23	19.17	1253	999	-85.6
	3/4/2011	3.66	6.68	18.33	1098	609	-49.5
	5/19/2011	1.35	6.42	17.71	1192	879	-53.7
	9/8/2011	2.01	6.07	18.91	1198	748	-17.8
	3/2/2012	1.82	6.39	18.12	1308	363	-69.3
	6/6/2012	2.78	6.57	17.41	1106	362	1.3
	9/20/2012	1.61	6.11	18.8	1303	1000	95.9
	MPE-1						
MPE-1	6/6/2012	1.73	6.83	19.34	1269	16.8	-41.9
	9/20/2012	0.62	5.87	19.36	1389	16.2	20.2
MPE-2							
MPE-2	3/2/2012	1.30	6.40	21.18	1303	8.70	-164.9
	6/7/2012	0.48	6.62	20.32	1309	3.63	-20.4
	9/21/2012	0.46	6.29	20.27	1284	7.05	72.4
2nd WBZ							
MW-1D	8/26/2009	0.45	7.04	19.93	1388	7.75	-11
	12/1/2009	0.51	7.4	19.79	1342	19.1	-21.7
	3/16/2010	0.57	6.45	19.99	1353	98.9	-28.2
	6/4/2010	0.58	6.66	19.98	1336	3.85	97.7
	9/1/2010	0.52	6.94	20.12	1404	4.41	-6.6
	12/3/2010	0.49	6.64	19.73	1328	7.12	-75.3
	3/3/2011	2.77	7.35	19.79	1294	9.97	18.8
	5/19/2011	2.81	7.07	19.95	1330	5.26	6.6
	9/8/2011	3.21	6.66	20.03	1309	9.98	-35.5
	3/2/2012	2.04	6.75	19.76	1306	22.0	-71.3
	6/6/2012	1.1	7.29	19.54	1228	10.8	58.7
	9/20/2012	0.42	6.85	19.57	1256	18.6	93.7
	MW-3D						
MW-3D	8/26/2009	0.73	6.93	20.17	1276	1.73	-18.8
	12/1/2009	0.98	7.3	20.04	1236	2.48	-23.5
	3/16/2010	0.69	6.38	20.29	1272	8.05	-27.8
	6/4/2010	0.77	6.54	20.2	1254	0.42	78.1
	9/1/2010	0.79	6.85	20.33	1304	0.25	-29.4
	12/3/2010	0.81	6.49	20.04	1252	1.49	-79.2
	3/3/2011	2	7.24	20.02	1254	0.85	54
	5/19/2011	1.99	6.91	20.21	1260	2.03	-14.8
	9/8/2011	1.73	6.52	20.19	1247	3.53	-32.6
	3/2/2012	2.17	6.99	20.02	1269	9.02	-84.2
	6/6/2012	0.33	7.16	19.76	1225	4.78	67.5
	9/20/2012	0.54	6.77	19.71	1233	4.70	88.0

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

Monitoring Well	Date	Dissolved Oxygen (mg/L)	pH	Temperature °C	Electrical Conductivity μS/cm	Turbidity NTU	ORP
MW-4D	8/27/2009	0.98	6.93	19.46	1280	4.31	-26.4
	12/1/2009	1.9	7.36	19.42	1249	4.66	-24.2
	3/16/2010	1.4	6.36	19.58	1283	24.8	-16.7
	6/4/2010	1.3	6.53	19.49	1259	5.1	115.8
	9/1/2010	1.44	6.92	19.67	1333	2.2	-26.9
	12/3/2010	1.3	6.5	19.4	1266	1.57	-116.6
	3/3/2011	2.11	7.36	19.42	1219	1.8	-96.4
	5/19/2011	2.12	6.95	19.56	1262	2.09	-15.5
	9/8/2011	2.03	6.57	19.62	1261	3.13	-54
	3/2/2012	2.15	6.92	19.39	1272	13.1	-86.5
	6/6/2012	0.32	7.27	19.25	1189	6.32	22.9
	9/20/2012	0.39	6.76	19.21	1232	6.12	91.1

EPA On-line Tools for Site Assessment Calculation

Hydraulic Gradient -- Magnitude and Direction

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

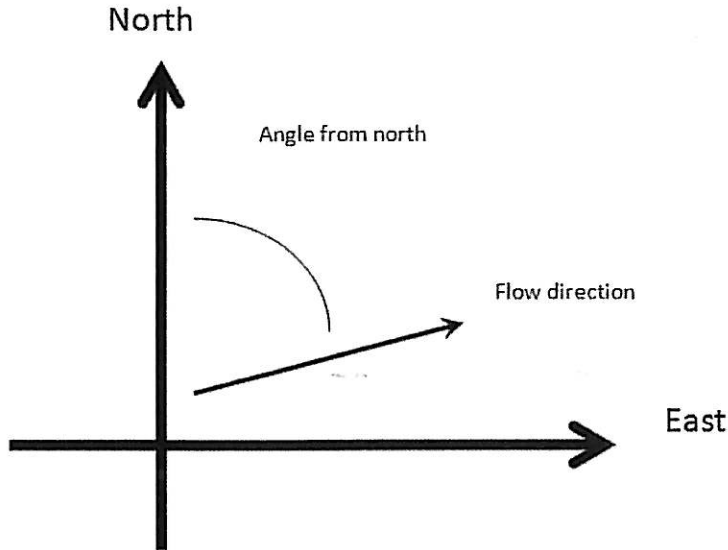
$$\begin{aligned}
 a x_1 + b y_1 + c &= h_1 \\
 a x_2 + b y_2 + c &= h_2 \\
 a x_3 + b y_3 + c &= h_3 \\
 &\dots \\
 a x_{30} + b y_{30} + c &= h_{30}
 \end{aligned}$$

where (x_i, y_i) are the coordinates of the well and h_i is the head

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

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

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



Inputs

Example Data Set 1 Example Data Set 2 Calculate Clear
 Save Data Recall Data Go Back

Site Name
 Date Current Date
 Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head	ft
1) MW-1	6092119.016	2084364.691	30.90	
2) MW-2	6092063.978	2084323.224	30.63	
3) MW-3	6092176.317	2084298.343	30.74	
4) MW-4	6092124.294	2084251.598	30.44	
5) MW-5	6092177.071	2084206.361	30.36	
6) MW-6	6092140.881	2084072.911	28.49	
7) MW-7	6092290.918	2084008.071	29.48	
8) EX-1	6092163.5	2084133.982	30.10	
9) EX-2	6092131.08	2084082.713	28.47	
10) MPE-1	6092125.048	2084212.393	30.38	
11) MPE-2	6092171.793	2084292.312	30.69	
12)				
13)				
14)				

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

Results

Number of Points Used in Calculation	11
Max. Difference Between Head Values	0.7407
Gradient Magnitude (i)	0.01070
Flow direction as degrees from North (positive y axis)	219.6
Coefficient of Determination (R^2)	0.851

WQMS

Last updated on Thursday, January 05, 2012

EPA On-line Tools for Site Assessment Calculation

Hydraulic Gradient – Magnitude and Direction

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

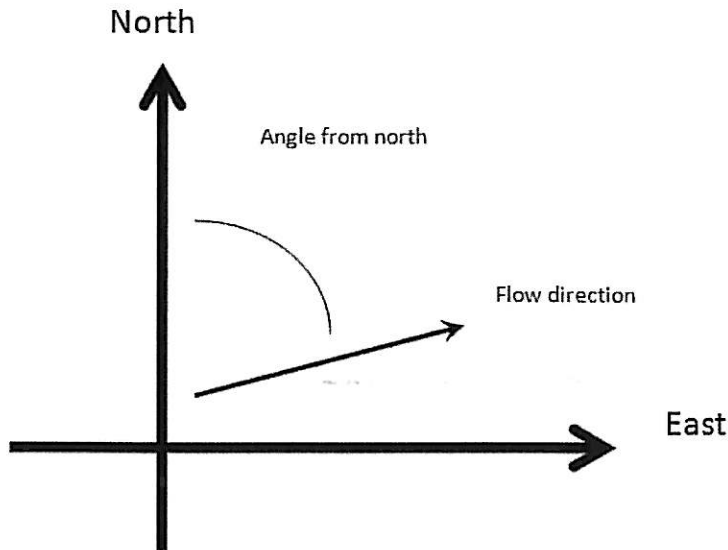
$$\begin{aligned}
 a x_1 + b y_1 + c &= h_1 \\
 a x_2 + b y_2 + c &= h_2 \\
 a x_3 + b y_3 + c &= h_3 \\
 &\dots \\
 a x_{30} + b y_{30} + c &= h_{30}
 \end{aligned}$$

where (x_i, y_i) are the coordinates of the well and h_i is the head

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

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

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



Inputs

Example Data Set 1 Example Data Set 2 Calculate Clear

Save Data Recall Data Go Back

Site Name

Date Current Date

Calculation basis

Coordinates

I.D.	x-coordinate	y-coordinate	head	ft
1) MW-1D	6092128.064	2084372.231	30.66	
2) MW-3D	6092183.856	2084303.621	30.68	
3) MW-4D	6092116.755	2084222.948	30.45	
4)				
5)				
6)				
7)				
8)				
9)				
10)				
11)				
12)				
13)				
14)				

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

Results

Number of Points Used in Calculation	3
Max. Difference Between Head Values	0.07010
Gradient Magnitude (l)	0.002290
Flow direction as degrees from North (positive y axis)	236.6
Coefficient of Determination (R^2)	1.00

WQMS

Last updated on Thursday, January 05, 2012

Appendix C

Laboratory Report and Chain of Custody Form
for the Third Quarter 2012 Monitoring Event



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

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


Laboratory Job Number 239813
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	239813-001
MW-2	239813-002
MW-3	239813-003
MW-4	239813-004
MW-5	239813-005
MW-7	239813-006
MW-1D	239813-007
MW-3D	239813-008
MW-4D	239813-009
EX-1	239813-010
EX-2	239813-011
MPE-1	239813-012
MPE-2	239813-013

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

Signature: 
Tracy Babjar
Project Manager
(510) 204-2226

Date: 09/28/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 239813
Client: SOMA Environmental Engineering Inc.
Project: 2551
Location: 15101 Freedom Avenue San Leandro
Request Date: 09/21/12
Samples Received: 09/21/12

This data package contains sample and QC results for thirteen water samples, requested for the above referenced project on 09/21/12. The samples were received cold and intact.

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

High RPD was observed for isopropyl ether (DIPE) in the MS/MSD for batch 190930; 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.

CHAIN OF CUSTODY

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

C&T LOGIN # 239813

Analyses

Project No: 2551

Sampler: Lizzie Hightower/

Project Name: 15101 Freedom Ave., San Leandro

Report To: Joyce Bobek

Turnaround Time: Standard

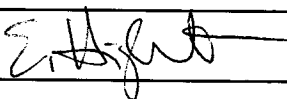
Company: SOMA Environmental

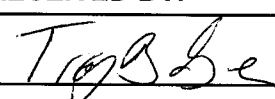
Telephone: 925-734-6400

Fax: 925-734-6401

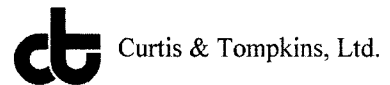
Lab No.	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				TPHg, BTEX, MIBE 8260B	Gasoline Oxygenates & Lead Scavengers
			Soil	Water	Waste		HCL	H ₂ SO ₄	HNO ₃	ICE		
1	MW-1	9/21/12 10:12	*			3-VOAs	*			*		
2	MW-2	9/21/12 09:40	*			3-VOAs	*			*		
3	MW-3	9/21/12 10:47	*			3-VOAs	*			*		
4	MW-4	9/21/12 12:20	*			3-VOAs	*			*		
5	MW-5	9/21/12 11:55	*			3-VOAs	*			*		
6	MW-6	9/21/12 11:55	*			3-VOAs	*			*		
6	MW-7	9/20/12 12:48	*			3-VOAs	*			*		
7	MW-1D	9/20/12 14:22	*			3-VOAs	*			*		
8	MW-3D	9/20/12 14:56	*			3-VOAs	*			*		
9	MW-4D	9/20/12 15:23	*			3-VOAs	*			*		
10	EX-1	9/20/12 13:02	*			3-VOAs	*			*		
11	EX-2	9/20/12 13:16	*			3-VOAs	*			*		
12	MPE-1	9/20/12 15:53	*			3-VOAs	*			*		
13	MPE-2	9/21/12 11:00	*			3-VOAs	*			*		

Notes: EDF OUTPUT REQUIRED
 Ethanol

RELINQUISHED BY:

 9/21/12 13:30 DATE/TIME

RECEIVED BY:

 9/21/12 1:35 PM DATE/TIME

COOLER RECEIPT CHECKLIST



Login # 239813 Date Received 7/21/12 Number of coolers 1
 Client SOMA Project 2551

Date Opened 7/21/12 By (print) EL (sign) E J J
 Date Logged in ↓ By (print) ↓ (sign) ↓

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

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

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

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

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

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

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

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

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

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

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

^{some} Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES NO

If YES, what time were they transferred to freezer? _____

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

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

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

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

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

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

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

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

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

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

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

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

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

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-1	Batch#: 190879
Lab ID: 239813-001	Sampled: 09/21/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 5.000	

Analyte	Result	RL
Gasoline C7-C12	8,000	250
tert-Butyl Alcohol (TBA)	ND	50
Isopropyl Ether (DIPE)	ND	2.5
Ethyl tert-Butyl Ether (ETBE)	ND	2.5
Methyl tert-Amyl Ether (TAME)	ND	2.5
Ethanol	ND	5,000
MTBE	2.6	2.5
1,2-Dichloroethane	ND	2.5
Benzene	300	2.5
Toluene	ND	2.5
1,2-Dibromoethane	ND	2.5
Ethylbenzene	410	2.5
m,p-Xylenes	340	2.5
o-Xylene	ND	2.5

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-127
1,2-Dichloroethane-d4	94	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-2	Batch#: 190879
Lab ID: 239813-002	Sampled: 09/21/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

Analyte	Result	RL
Gasoline C7-C12	1,400	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	11	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	110	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-3	Batch#: 190879
Lab ID: 239813-003	Sampled: 09/21/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 10.00	

Analyte	Result	RL
Gasoline C7-C12	12,000	500
tert-Butyl Alcohol (TBA)	ND	100
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Ethanol	ND	10,000
MTBE	8.2	5.0
1,2-Dichloroethane	ND	5.0
Benzene	710	5.0
Toluene	26	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	630	5.0
m,p-Xylenes	1,000	5.0
o-Xylene	230	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-127
1,2-Dichloroethane-d4	92	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS			
Lab #:	239813	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:	239813-004	Sampled:	09/21/12
Matrix:	Water	Received:	09/21/12

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	2,900	250	5.000	190879	09/24/12
tert-Butyl Alcohol (TBA)	1,300	50	5.000	190879	09/24/12
Isopropyl Ether (DIPE)	ND	2.5	5.000	190879	09/24/12
Ethyl tert-Butyl Ether (ETBE)	14	2.5	5.000	190879	09/24/12
Methyl tert-Amyl Ether (TAME)	ND	2.5	5.000	190879	09/24/12
Ethanol	ND	5,000	5.000	190879	09/24/12
MTBE	72	2.5	5.000	190879	09/24/12
1,2-Dichloroethane	ND	2.5	5.000	190879	09/24/12
Benzene	820	7.1	14.29	190997	09/26/12
Toluene	ND	2.5	5.000	190879	09/24/12
1,2-Dibromoethane	ND	2.5	5.000	190879	09/24/12
Ethylbenzene	75	2.5	5.000	190879	09/24/12
m,p-Xylenes	17	2.5	5.000	190879	09/24/12
o-Xylene	ND	2.5	5.000	190879	09/24/12

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	89	80-127	5.000	190879	09/24/12
1,2-Dichloroethane-d4	85	69-148	5.000	190879	09/24/12
Toluene-d8	97	80-120	5.000	190879	09/24/12
Bromofluorobenzene	99	80-121	5.000	190879	09/24/12

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-5	Batch#: 190878
Lab ID: 239813-005	Sampled: 09/21/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 2.000	

Analyte	Result	RL
Gasoline C7-C12	3,900	100
tert-Butyl Alcohol (TBA)	66	20
Isopropyl Ether (DIPE)	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	1.0
Ethanol	ND	2,000
MTBE	9.8	1.0
1,2-Dichloroethane	ND	1.0
Benzene	68	1.0
Toluene	1.5	1.0
1,2-Dibromoethane	ND	1.0
Ethylbenzene	140	1.0
m,p-Xylenes	79	1.0
o-Xylene	9.5	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	98	69-148
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-7	Batch#: 190878
Lab ID: 239813-006	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

Analyte	Result	RL
Gasoline C7-C12	1,200	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	2.7	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	4.3	0.50
m,p-Xylenes	0.92	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	100	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-1D	Batch#: 190878
Lab ID: 239813-007	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

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

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	104	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-3D	Batch#: 190878
Lab ID: 239813-008	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	5.1	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	100	80-127
1,2-Dichloroethane-d4	107	69-148
Toluene-d8	105	80-120
Bromofluorobenzene	105	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MW-4D	Batch#: 190878
Lab ID: 239813-009	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	1.6	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	102	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: EX-1	Batch#: 190878
Lab ID: 239813-010	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 1.000	

Analyte	Result	RL
Gasoline C7-C12	95	50
tert-Butyl Alcohol (TBA)	170	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	1.5	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	36	0.50
1,2-Dichloroethane	ND	0.50
Benzene	24	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	1.8	0.50
o-Xylene	0.81	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	102	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: EX-2	Batch#: 190878
Lab ID: 239813-011	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/24/12
Diln Fac: 3.333	

Analyte	Result	RL
Gasoline C7-C12	1,800	170
tert-Butyl Alcohol (TBA)	ND	33
Isopropyl Ether (DIPE)	ND	1.7
Ethyl tert-Butyl Ether (ETBE)	ND	1.7
Methyl tert-Amyl Ether (TAME)	ND	1.7
Ethanol	ND	3,300
MTBE	5.0	1.7
1,2-Dichloroethane	ND	1.7
Benzene	170	1.7
Toluene	14	1.7
1,2-Dibromoethane	ND	1.7
Ethylbenzene	62	1.7
m,p-Xylenes	160	1.7
o-Xylene	44	1.7

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	96	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MPE-1	Batch#: 190930
Lab ID: 239813-012	Sampled: 09/20/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/25/12
Diln Fac: 125.0	

Analyte	Result	RL
Gasoline C7-C12	89,000	6,300
tert-Butyl Alcohol (TBA)	ND	1,300
Isopropyl Ether (DIPE)	ND	63
Ethyl tert-Butyl Ether (ETBE)	ND	63
Methyl tert-Amyl Ether (TAME)	1,200	63
Ethanol	ND	130,000
MTBE	1,900	63
1,2-Dichloroethane	ND	63
Benzene	8,600	63
Toluene	9,200	63
1,2-Dibromoethane	ND	63
Ethylbenzene	3,400	63
m,p-Xylenes	11,000	63
o-Xylene	3,800	63

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	105	80-120
Bromofluorobenzene	102	80-121

ND= Not Detected
 RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #: 239813	Location: 15101 Freedom Avenue San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2551	Analysis: EPA 8260B
Field ID: MPE-2	Batch#: 190878
Lab ID: 239813-013	Sampled: 09/21/12
Matrix: Water	Received: 09/21/12
Units: ug/L	Analyzed: 09/25/12
Diln Fac: 25.00	

Analyte	Result	RL
Gasoline C7-C12	31,000	1,300
tert-Butyl Alcohol (TBA)	ND	250
Isopropyl Ether (DIPE)	ND	13
Ethyl tert-Butyl Ether (ETBE)	ND	13
Methyl tert-Amyl Ether (TAME)	ND	13
Ethanol	ND	25,000
MTBE	14	13
1,2-Dichloroethane	ND	13
Benzene	1,700	13
Toluene	13	13
1,2-Dibromoethane	ND	13
Ethylbenzene	1,900	13
m,p-Xylenes	2,700	13
o-Xylene	47	13

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190878
Units:	ug/L	Analyzed:	09/24/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657786

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	150.0	144.9	97	46-138
Isopropyl Ether (DIPE)	30.00	26.52	88	53-132
Ethyl tert-Butyl Ether (ETBE)	30.00	26.51	88	61-132
Methyl tert-Amyl Ether (TAME)	30.00	26.70	89	65-120
MTBE	30.00	26.33	88	59-120
1,2-Dichloroethane	30.00	28.45	95	72-139
Benzene	30.00	29.65	99	80-123
Toluene	30.00	29.53	98	80-120
1,2-Dibromoethane	30.00	29.48	98	80-120
Ethylbenzene	30.00	30.43	101	80-123
m,p-Xylenes	60.00	61.69	103	80-123
o-Xylene	30.00	29.00	97	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	101	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC657787

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	150.0	153.9	103	46-138	6	24
Isopropyl Ether (DIPE)	30.00	29.66	99	53-132	11	20
Ethyl tert-Butyl Ether (ETBE)	30.00	28.70	96	61-132	8	20
Methyl tert-Amyl Ether (TAME)	30.00	27.96	93	65-120	5	20
MTBE	30.00	28.93	96	59-120	9	20
1,2-Dichloroethane	30.00	30.30	101	72-139	6	20
Benzene	30.00	31.97	107	80-123	8	20
Toluene	30.00	33.09	110	80-120	11	20
1,2-Dibromoethane	30.00	30.64	102	80-120	4	20
Ethylbenzene	30.00	32.10	107	80-123	5	20
m,p-Xylenes	60.00	66.91	112	80-123	8	20
o-Xylene	30.00	31.75	106	80-122	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	98	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS		
Lab #:	239813	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:	QC657788	Batch#: 190878
Matrix:	Water	Analyzed: 09/24/12
Units:	ug/L	

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

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	103	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-121

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190878
Units:	ug/L	Analyzed:	09/24/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657789

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	934.7	93	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	102	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-121

Type: BSD Lab ID: QC657790

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,003	100	80-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190879
Units:	ug/L	Analyzed:	09/24/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657791

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	99.82	80	46-138
Isopropyl Ether (DIPE)	25.00	18.95	76	53-132
Ethyl tert-Butyl Ether (ETBE)	25.00	20.12	80	61-132
Methyl tert-Amyl Ether (TAME)	25.00	20.43	82	65-120
MTBE	25.00	20.70	83	59-120
1,2-Dichloroethane	25.00	26.16	105	72-139
Benzene	25.00	26.03	104	80-123
Toluene	25.00	27.88	112	80-120
1,2-Dibromoethane	25.00	27.98	112	80-120
Ethylbenzene	25.00	27.46	110	80-123
m,p-Xylenes	50.00	54.39	109	80-123
o-Xylene	25.00	28.66	115	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	101	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-121

Type: BSD Lab ID: QC657792

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	110.1	88	46-138	10	24
Isopropyl Ether (DIPE)	25.00	18.71	75	53-132	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	20.89	84	61-132	4	20
Methyl tert-Amyl Ether (TAME)	25.00	22.74	91	65-120	11	20
MTBE	25.00	21.98	88	59-120	6	20
1,2-Dichloroethane	25.00	25.77	103	72-139	2	20
Benzene	25.00	25.90	104	80-123	0	20
Toluene	25.00	28.06	112	80-120	1	20
1,2-Dibromoethane	25.00	28.87	115	80-120	3	20
Ethylbenzene	25.00	27.90	112	80-123	2	20
m,p-Xylenes	50.00	55.24	110	80-123	2	20
o-Xylene	25.00	28.82	115	80-122	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-127
1,2-Dichloroethane-d4	98	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190879
Units:	ug/L	Analyzed:	09/24/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657793

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,054	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC657794

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,038	104	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-127
1,2-Dichloroethane-d4	105	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS		
Lab #:	239813	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:	QC657795	Batch#: 190879
Matrix:	Water	Analyzed: 09/24/12
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	94	80-127
1,2-Dichloroethane-d4	108	69-148
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-121

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190930
Units:	ug/L	Analyzed:	09/25/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657989

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	131.2	105	46-138
Isopropyl Ether (DIPE)	25.00	22.98	92	53-132
Ethyl tert-Butyl Ether (ETBE)	25.00	23.63	95	61-132
Methyl tert-Amyl Ether (TAME)	25.00	23.17	93	65-120
MTBE	25.00	22.77	91	59-120
1,2-Dichloroethane	25.00	25.88	104	72-139
Benzene	25.00	25.51	102	80-123
Toluene	25.00	26.13	105	80-120
1,2-Dibromoethane	25.00	25.85	103	80-120
Ethylbenzene	25.00	26.68	107	80-123
m,p-Xylenes	50.00	54.00	108	80-123
o-Xylene	25.00	24.94	100	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-121

Type: BSD Lab ID: QC657990

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	117.7	94	46-138	11	24
Isopropyl Ether (DIPE)	25.00	22.72	91	53-132	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	23.58	94	61-132	0	20
Methyl tert-Amyl Ether (TAME)	25.00	23.13	93	65-120	0	20
MTBE	25.00	22.75	91	59-120	0	20
1,2-Dichloroethane	25.00	24.21	97	72-139	7	20
Benzene	25.00	26.26	105	80-123	3	20
Toluene	25.00	28.24	113	80-120	8	20
1,2-Dibromoethane	25.00	25.78	103	80-120	0	20
Ethylbenzene	25.00	28.03	112	80-123	5	20
m,p-Xylenes	50.00	55.88	112	80-123	3	20
o-Xylene	25.00	26.96	108	80-122	8	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	104	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS		
Lab #:	239813	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:	QC657991	Batch#: 190930
Matrix:	Water	Analyzed: 09/25/12
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	100	80-127
1,2-Dichloroethane-d4	107	69-148
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-121

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190930
Units:	ug/L	Analyzed:	09/25/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657992

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	898.6	90	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	105	69-148
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-121

Type: BSD Lab ID: QC657993

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	982.7	98	80-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	103	80-120
Bromofluorobenzene	104	80-121

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	190930
MSS Lab ID:	239784-002	Sampled:	09/19/12
Matrix:	Water	Received:	09/20/12
Units:	ug/L	Analyzed:	09/25/12
Diln Fac:	1.000		

Type: MS Lab ID: QC658107

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	3.543	125.0	117.9	91	59-150
Isopropyl Ether (DIPE)	<0.1000	25.00	20.66	83	68-120
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	21.61	86	74-123
Methyl tert-Amyl Ether (TAME)	<0.1000	25.00	19.76	79	73-120
MTBE	<0.1000	25.00	20.11	80	68-120
1,2-Dichloroethane	<0.1000	25.00	23.52	94	80-129
Benzene	<0.1000	25.00	23.25	93	80-121
Toluene	<0.1000	25.00	24.46	98	80-120
1,2-Dibromoethane	<0.1000	25.00	24.31	97	80-120
Ethylbenzene	<0.1022	25.00	25.66	103	80-120
m,p-Xylenes	<0.1357	50.00	50.60	101	80-120
o-Xylene	<0.1322	25.00	24.64	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-127
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	106	80-120
Bromofluorobenzene	100	80-121

Type: MSD Lab ID: QC658108

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	132.7	103	59-150	12	26
Isopropyl Ether (DIPE)	25.00	25.48	102	68-120	21	* 20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.21	101	74-123	15	20
Methyl tert-Amyl Ether (TAME)	25.00	22.98	92	73-120	15	20
MTBE	25.00	23.57	94	68-120	16	20
1,2-Dichloroethane	25.00	25.71	103	80-129	9	20
Benzene	25.00	26.53	106	80-121	13	20
Toluene	25.00	29.29	117	80-120	18	20
1,2-Dibromoethane	25.00	26.12	104	80-120	7	20
Ethylbenzene	25.00	28.53	114	80-120	11	20
m,p-Xylenes	50.00	57.72	115	80-120	13	20
o-Xylene	25.00	27.08	108	80-120	9	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	100	69-148
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-121

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS		
Lab #:	239813	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:	QC658271	Batch#: 190997
Matrix:	Water	Analyzed: 09/26/12
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	104	80-127
1,2-Dichloroethane-d4	90	69-148
Toluene-d8	98	80-120
Bromofluorobenzene	100	80-121

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	239813	Location:	15101 Freedom Avenue San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2551	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	190997
Units:	ug/L	Analyzed:	09/26/12
Diln Fac:	1.000		

Type: BS Lab ID: QC658272

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	99.07	79	46-138
Isopropyl Ether (DIPE)	25.00	26.96	108	53-132
Ethyl tert-Butyl Ether (ETBE)	25.00	25.73	103	61-132
Methyl tert-Amyl Ether (TAME)	25.00	23.12	92	65-120
MTBE	25.00	23.94	96	59-120
1,2-Dichloroethane	25.00	25.09	100	72-139
Benzene	25.00	26.88	108	80-123
Toluene	25.00	23.77	95	80-120
1,2-Dibromoethane	25.00	23.95	96	80-120
Ethylbenzene	25.00	24.19	97	80-123
m,p-Xylenes	50.00	48.69	97	80-123
o-Xylene	25.00	24.77	99	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-127
1,2-Dichloroethane-d4	88	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC658273

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	99.35	79	46-138	0	24
Isopropyl Ether (DIPE)	25.00	26.73	107	53-132	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.18	101	61-132	2	20
Methyl tert-Amyl Ether (TAME)	25.00	23.09	92	65-120	0	20
MTBE	25.00	24.52	98	59-120	2	20
1,2-Dichloroethane	25.00	24.57	98	72-139	2	20
Benzene	25.00	25.74	103	80-123	4	20
Toluene	25.00	23.09	92	80-120	3	20
1,2-Dibromoethane	25.00	24.02	96	80-120	0	20
Ethylbenzene	25.00	23.44	94	80-123	3	20
m,p-Xylenes	50.00	47.35	95	80-123	3	20
o-Xylene	25.00	24.06	96	80-122	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-127
1,2-Dichloroethane-d4	90	69-148
Toluene-d8	97	80-120
Bromofluorobenzene	98	80-121

RPD= Relative Percent Difference

Date : 24-SEP-2012 18:30

Client ID: DYNA P&T

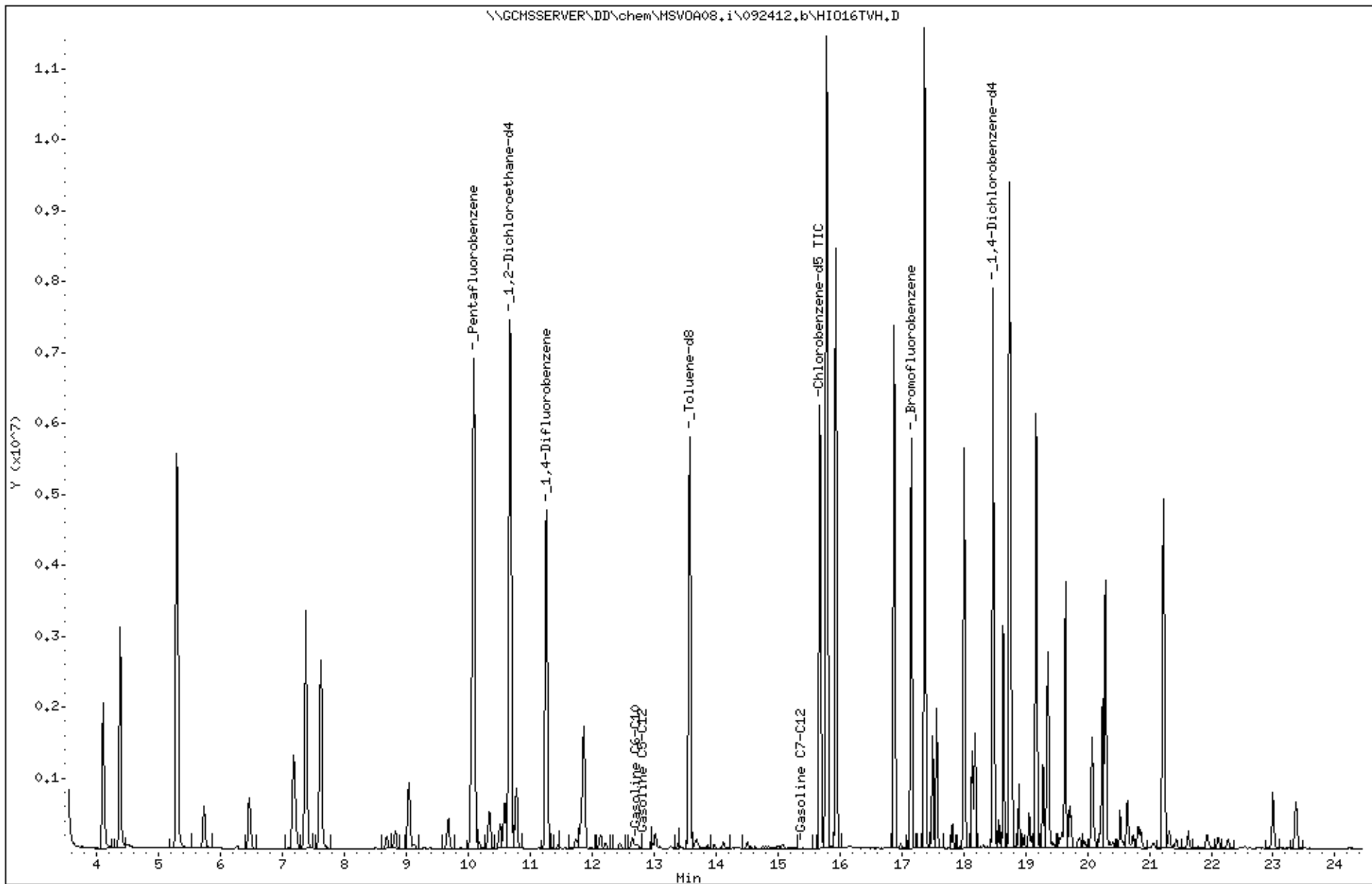
Sample Info: S.239813-001

Instrument: MSV0A08.i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 17:53

Client ID: DYNA P&T

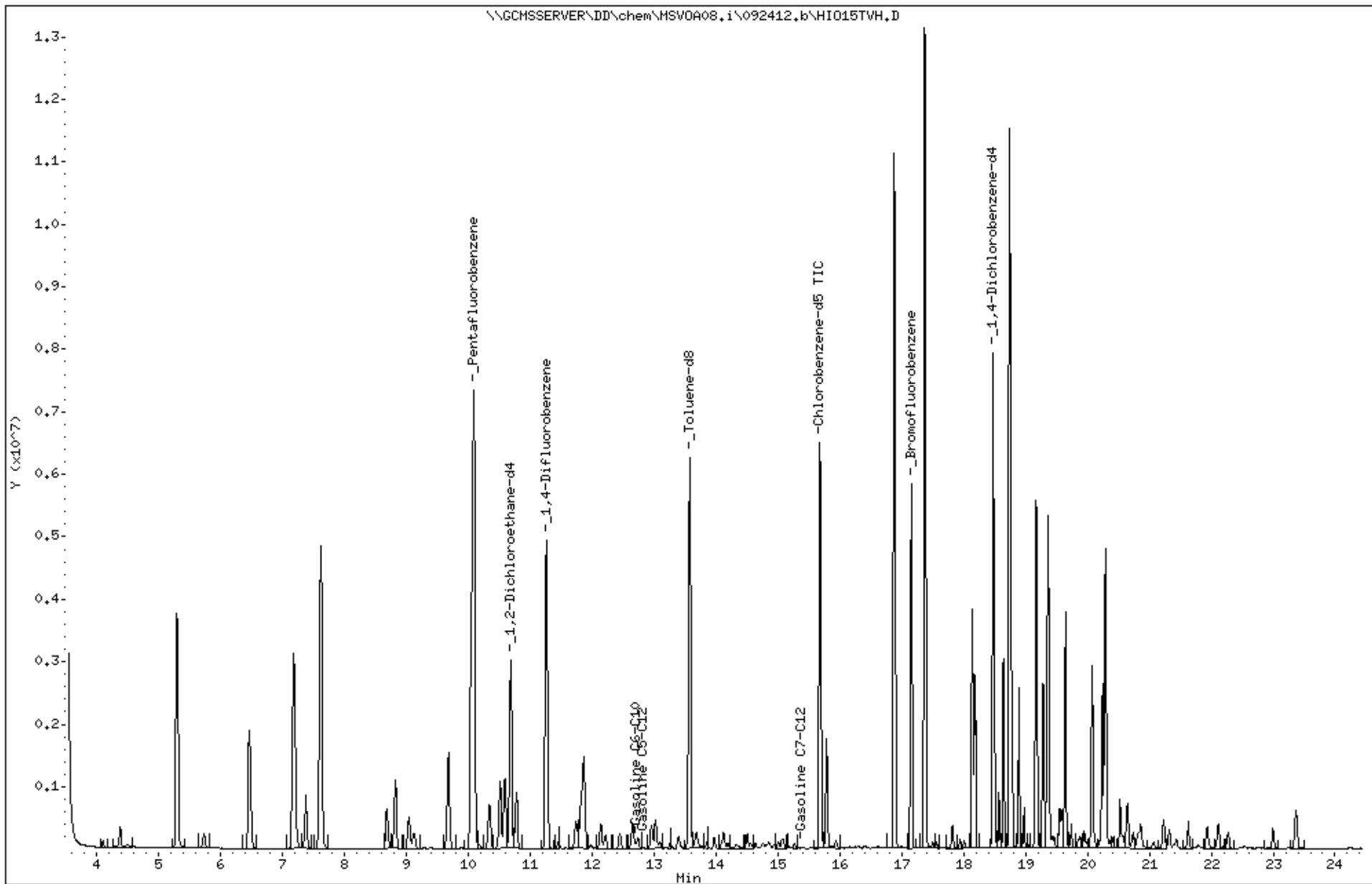
Sample Info: S,239813-002

Instrument: MSV0A08.i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 19:44

Client ID: DYNA P&T

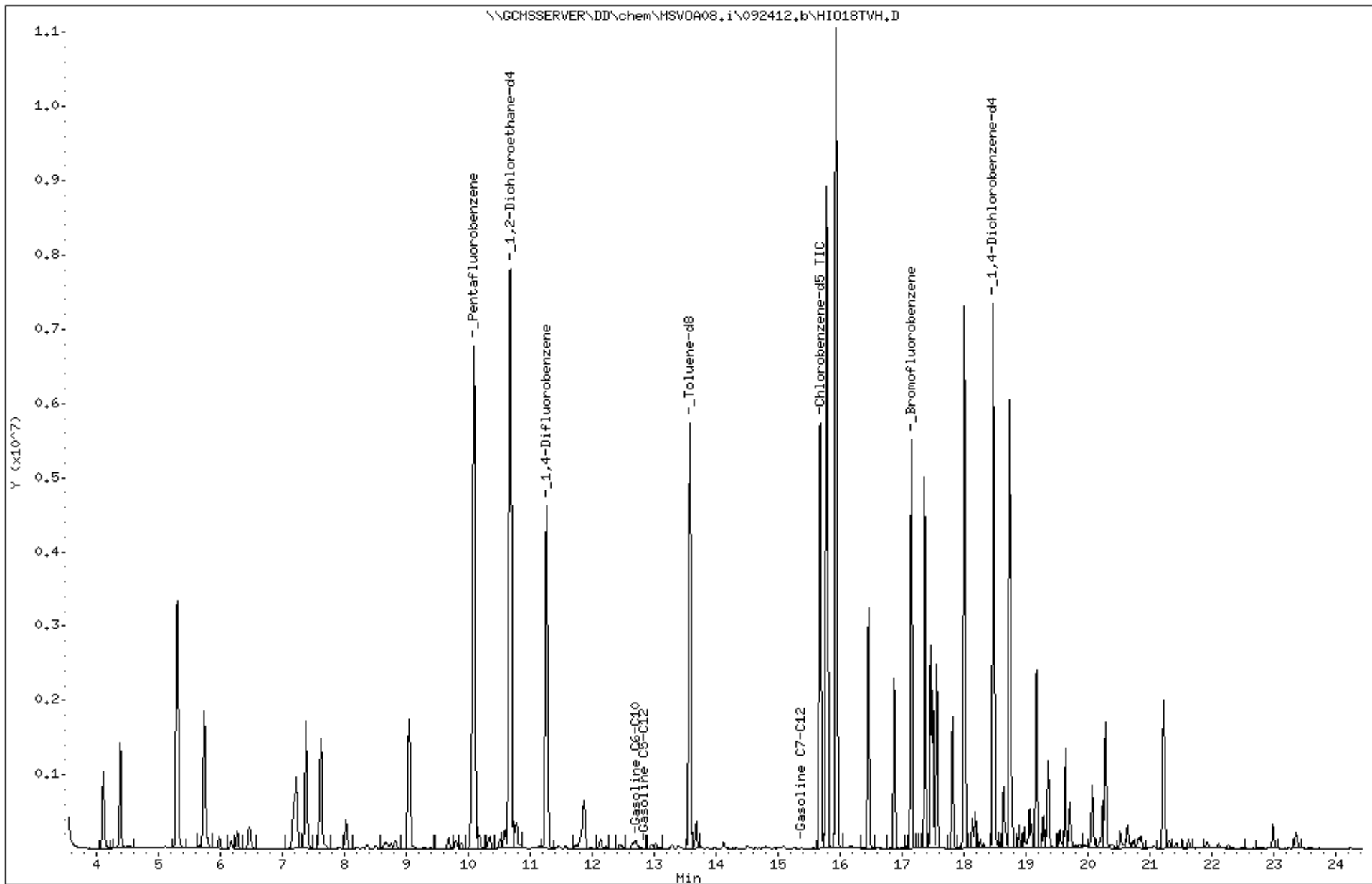
Sample Info: S,239813-003

Instrument: MSV0A08.i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 19:07

Client ID: DYNA P&T

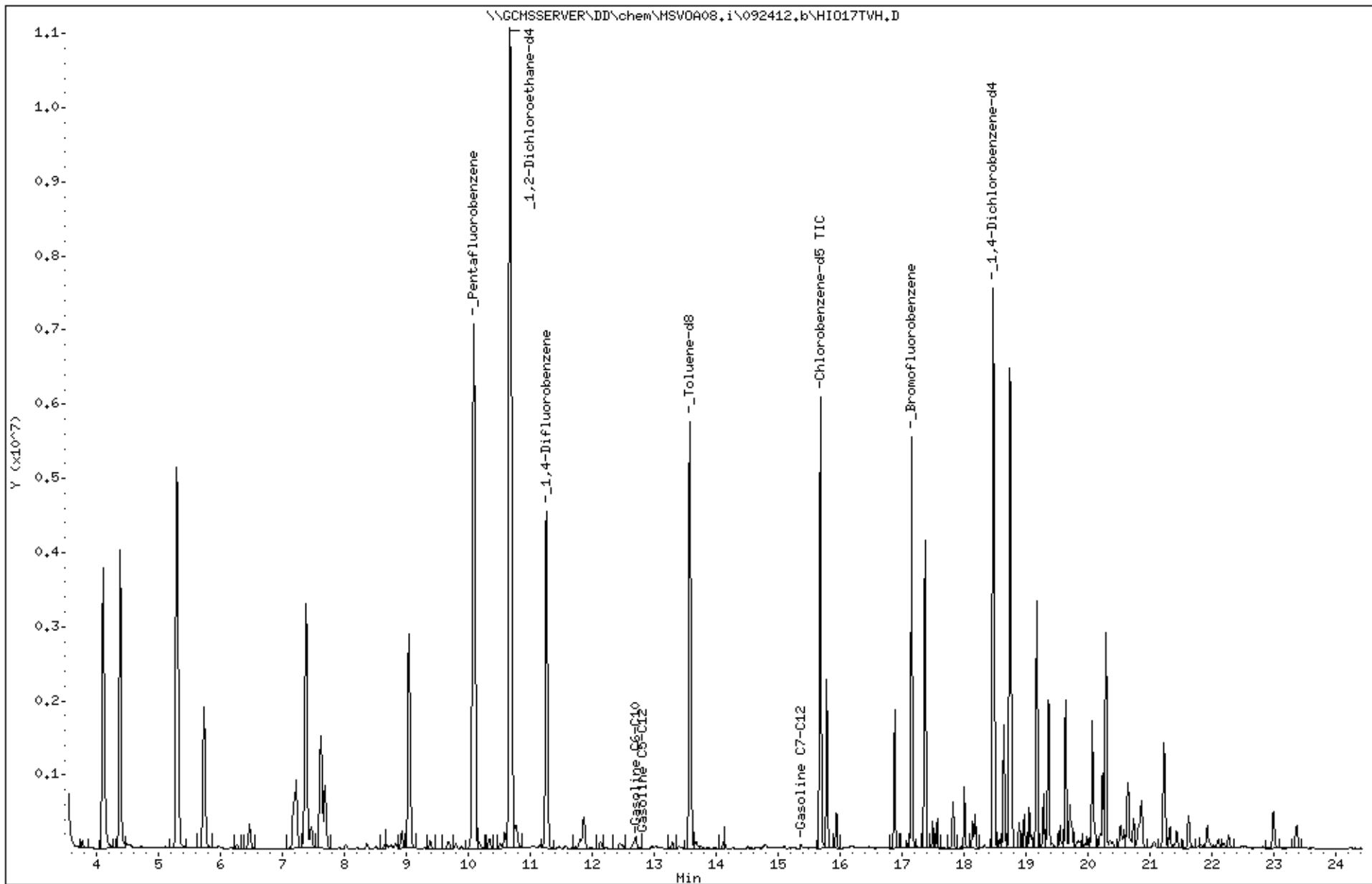
Sample Info: S,239813-004

Instrument: MSV0A08,i

Operator: VOC

Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 22:57

Client ID: DYNA P&T

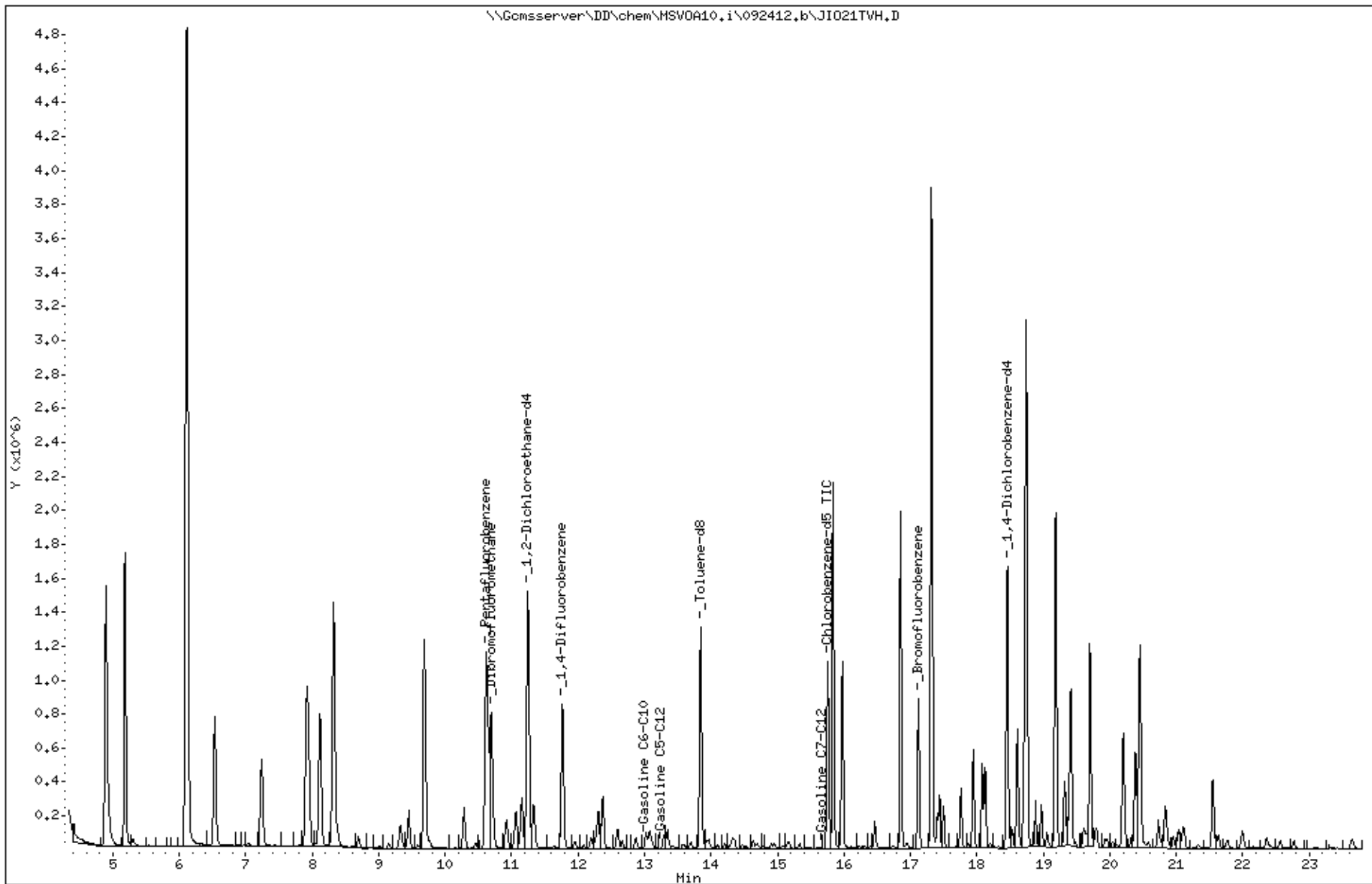
Sample Info: s,239813-005

Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 19:53

Client ID: DYNA P&T

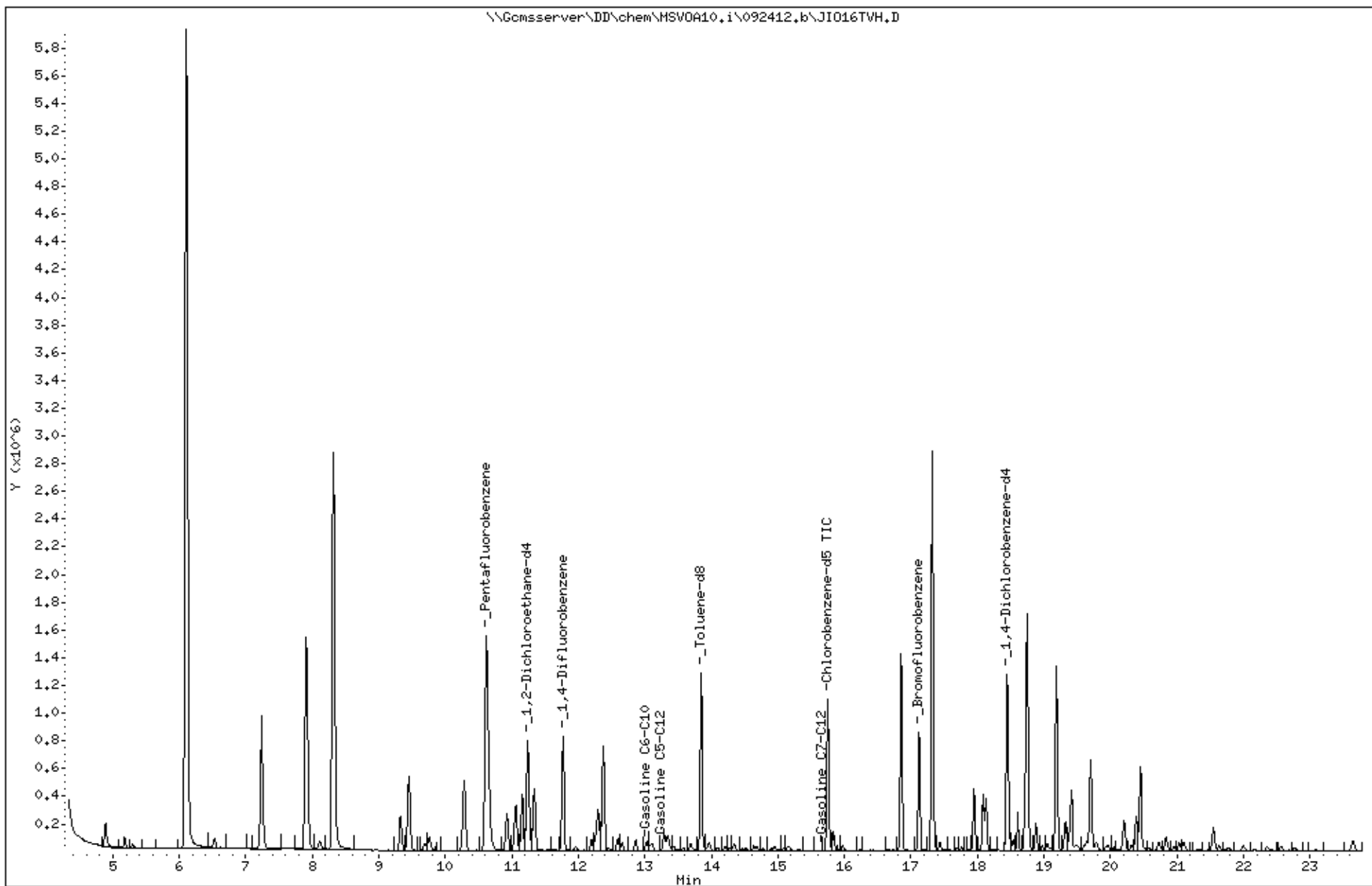
Sample Info: s,239813-006

Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:

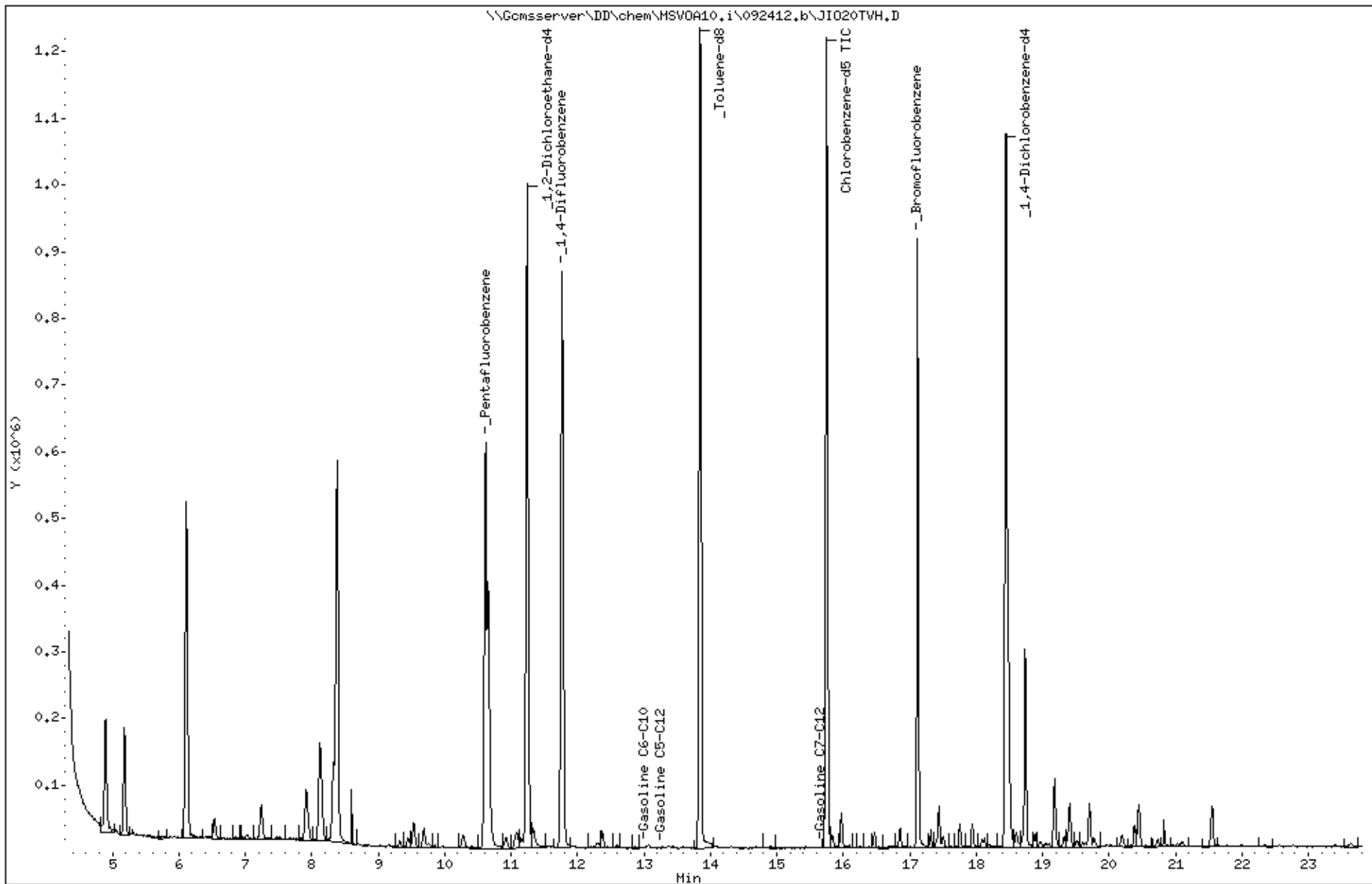


Date : 24-SEP-2012 22:21
Client ID: DYNA P&T
Sample Info: s,239813-010

Instrument: MSV0A10.i

Operator: VOA
Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 23:34

Client ID: DYNA P&T

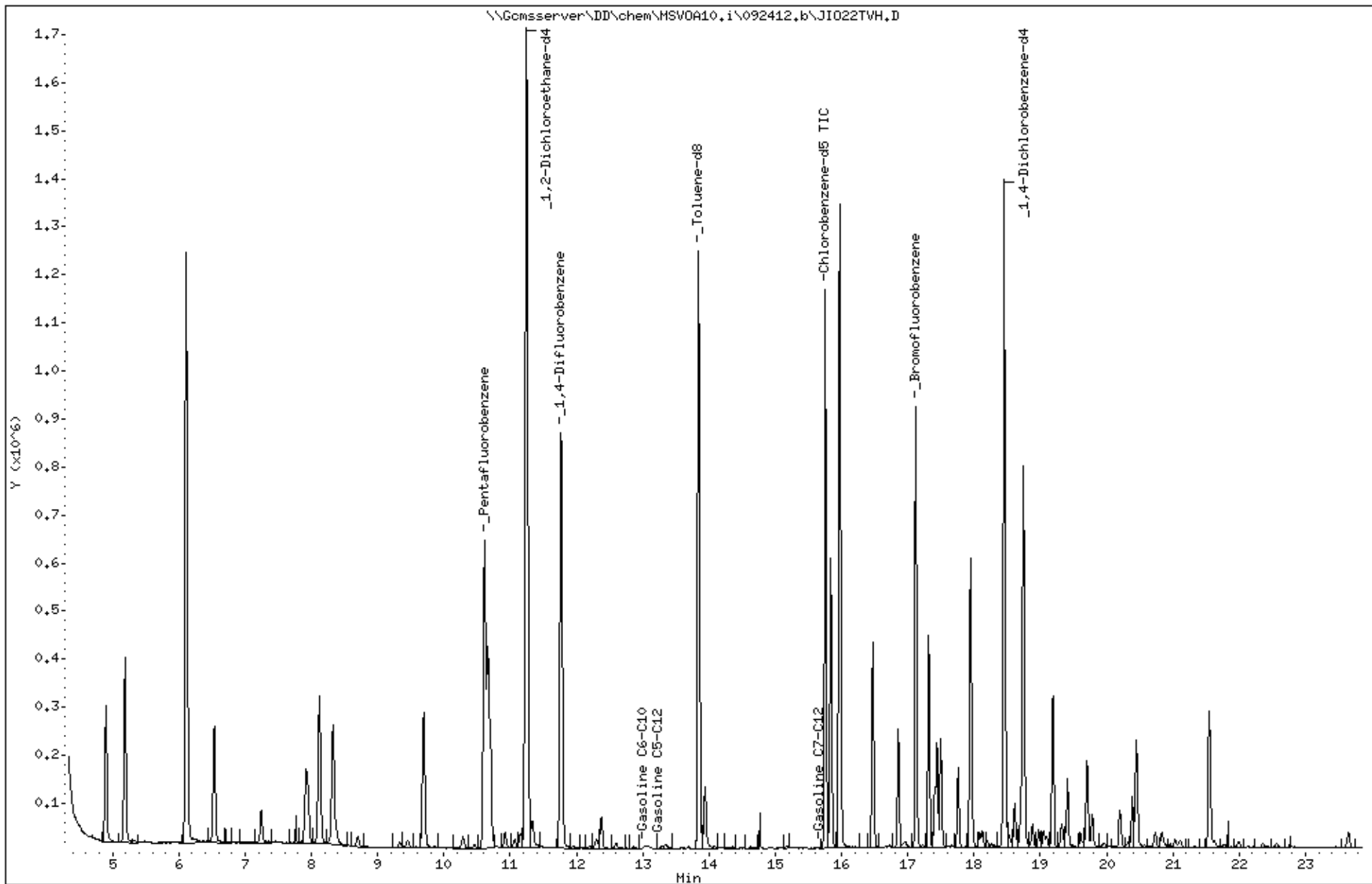
Sample Info: s,239813-011

Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:



Date : 25-SEP-2012 16:05

Client ID: DYNA P&T

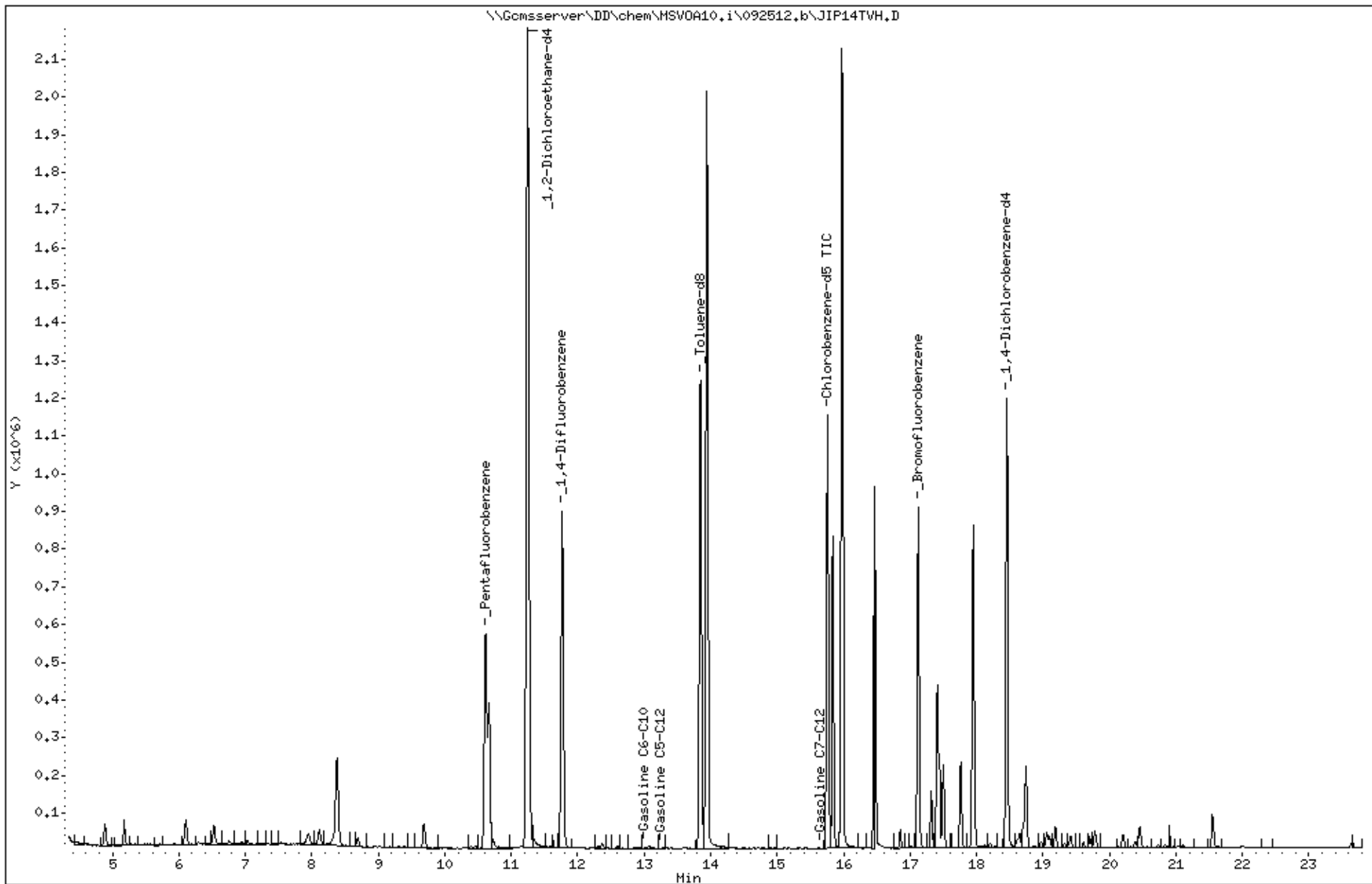
Sample Info: s.239813-012

Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:

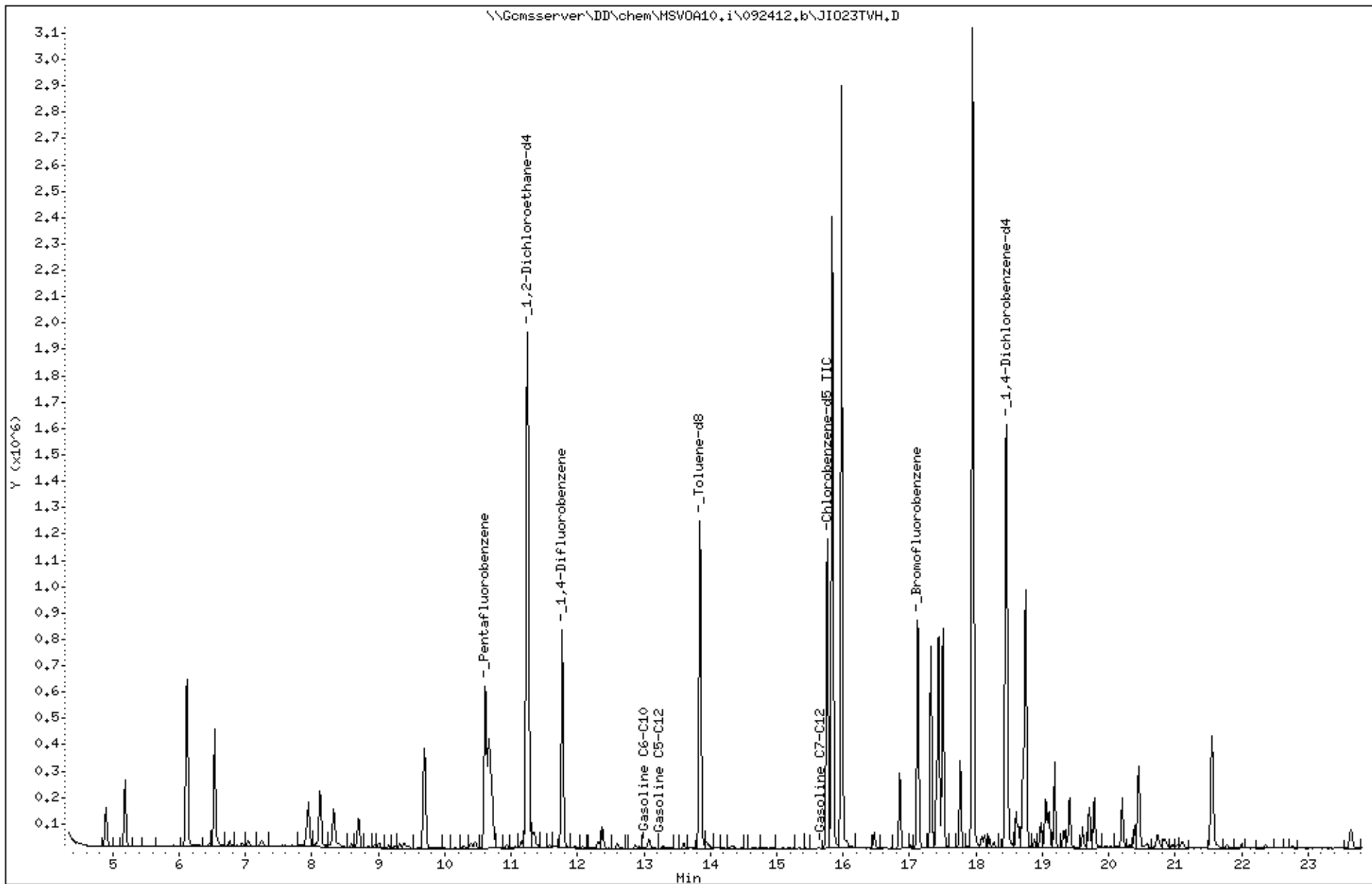


Date : 25-SEP-2012 00:11
Client ID: DYNA P&T
Sample Info: s,239813-013

Instrument: MSV0A10.i

Operator: VOA
Column diameter: 2.00

Column phase:



Date : 24-SEP-2012 12:17

Client ID: DYNA P&T

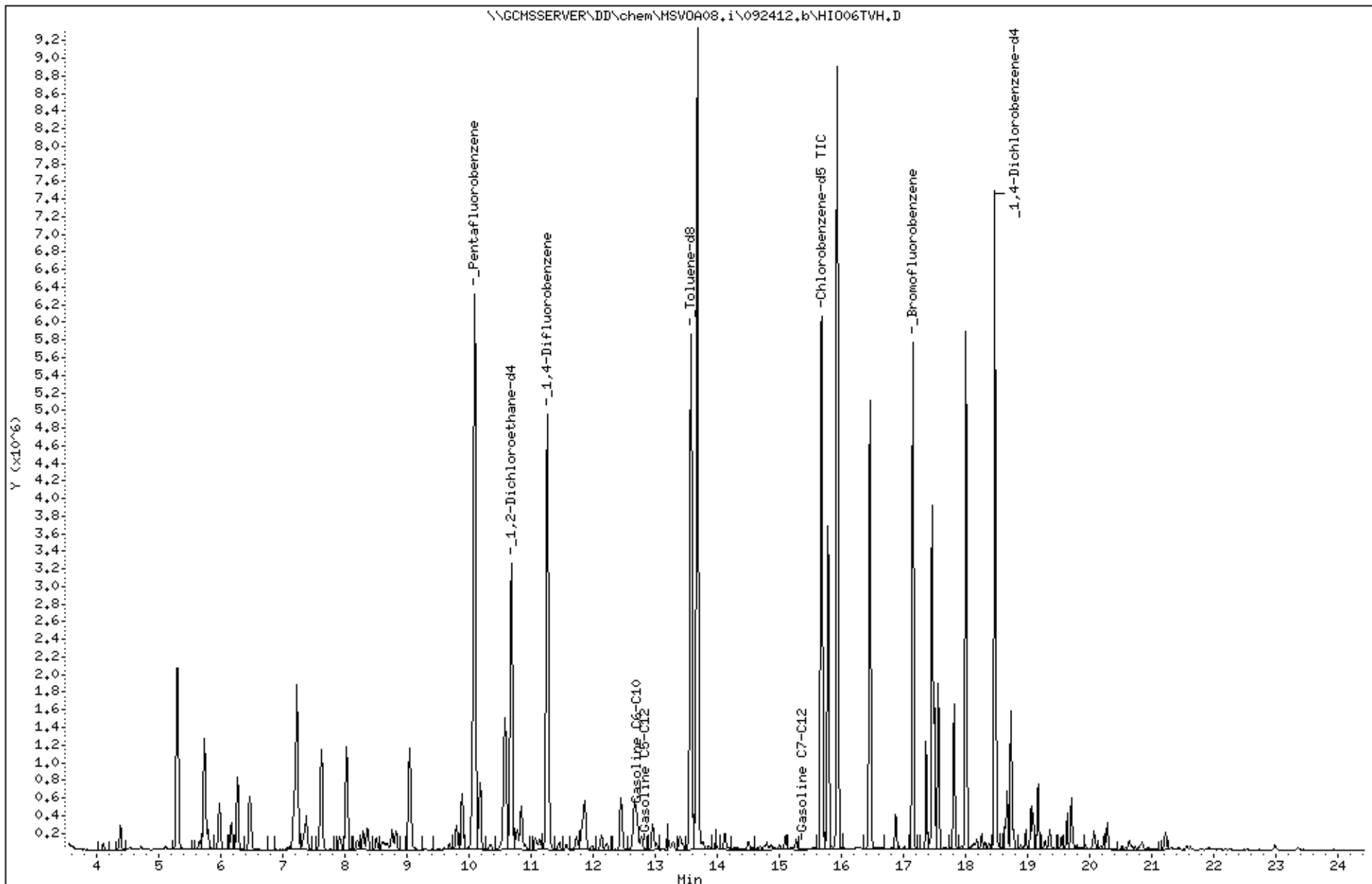
Sample Info: CCV/BS,QC657793,190879,S20354,,01/100

Instrument: MSV0A08,i

Operator: VOC

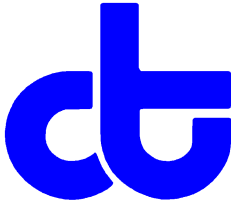
Column diameter: 2,00

Column phase:



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 237869
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	237869-001
GAC-1	237869-002
INFLUENT	237869-003

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: 
Project Manager

Date: 07/19/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 237869
Client: SOMA Environmental Engineering Inc.
Project: 2553
Location: 15101 Freedom Ave. San Leandro
Request Date: 07/12/12
Samples Received: 07/12/12

This data package contains sample and QC results for three water samples, requested for the above referenced project on 07/12/12. 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.

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 237809 Date Received 7/12/12 Number of coolers 0
Client SCMA Project 2553

Date Opened 7/12/12 By (print) Eileen Leung (sign) [Signature]
Date Logged in [Arrow] By (print) [Arrow] (sign) [Arrow]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS

Blank lines for handwritten comments.

Curtis & Tompkins Laboratories Analytical Report

Lab #: 237869	Location: 15101 Freedom Ave. San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2553	
Matrix: Water	Sampled: 07/12/12
Units: ug/L	Received: 07/12/12
Diln Fac: 1.000	

Field ID: EFFLUENT Lab ID: 237869-001
 Type: SAMPLE

Analyte	Result	RL	Batch#	Analyzed	Analysis
Gasoline C7-C12	ND	50	188535	07/17/12	EPA 8015B
Benzene	ND	0.50	188493	07/14/12	EPA 8021B
Toluene	ND	0.50	188493	07/14/12	EPA 8021B
Ethylbenzene	ND	0.50	188493	07/14/12	EPA 8021B
m,p-Xylenes	ND	0.50	188493	07/14/12	EPA 8021B
o-Xylene	ND	0.50	188493	07/14/12	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analyzed	Analysis
Bromofluorobenzene (FID)	100	75-124	188535	07/17/12	EPA 8015B
Bromofluorobenzene (PID)	89	62-134	188493	07/14/12	EPA 8021B

Field ID: GAC-1 Lab ID: 237869-002
 Type: SAMPLE

Analyte	Result	RL	Batch#	Analyzed	Analysis
Gasoline C7-C12	ND	50	188535	07/17/12	EPA 8015B
Benzene	ND	0.50	188493	07/14/12	EPA 8021B
Toluene	ND	0.50	188493	07/14/12	EPA 8021B
Ethylbenzene	ND	0.50	188493	07/14/12	EPA 8021B
m,p-Xylenes	ND	0.50	188493	07/14/12	EPA 8021B
o-Xylene	ND	0.50	188493	07/14/12	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analyzed	Analysis
Bromofluorobenzene (FID)	99	75-124	188535	07/17/12	EPA 8015B
Bromofluorobenzene (PID)	114	62-134	188493	07/14/12	EPA 8021B

Field ID: INFLUENT Lab ID: 237869-003
 Type: SAMPLE

Analyte	Result	RL	Batch#	Analyzed	Analysis
Gasoline C7-C12	320	50	188535	07/17/12	EPA 8015B
Benzene	30	0.50	188493	07/14/12	EPA 8021B
Toluene	1.6	0.50	188493	07/14/12	EPA 8021B
Ethylbenzene	15	0.50	188493	07/14/12	EPA 8021B
m,p-Xylenes	23	0.50	188493	07/14/12	EPA 8021B
o-Xylene	11	0.50	188493	07/14/12	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analyzed	Analysis
Bromofluorobenzene (FID)	98	75-124	188535	07/17/12	EPA 8015B
Bromofluorobenzene (PID)	93	62-134	188493	07/14/12	EPA 8021B

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #:	237869	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553		
Matrix:	Water	Sampled:	07/12/12
Units:	ug/L	Received:	07/12/12
Diln Fac:	1.000		

Type:	BLANK	Batch#:	188493
Lab ID:	QC647838	Analyzed:	07/13/12

Analyte	Result	RL	Analysis
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Bromofluorobenzene (FID)	92	75-124	EPA 8015B
Bromofluorobenzene (PID)	112	62-134	EPA 8021B

Type:	BLANK	Analyzed:	07/16/12
Lab ID:	QC648001	Analysis:	EPA 8015B
Batch#:	188535		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	Result	%REC	Limits
Bromofluorobenzene (FID)		95	75-124
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	237869	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	188493
Units:	ug/L	Analyzed:	07/13/12
Diln Fac:	1.000		

Type: BS Lab ID: QC647835

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.10	101	80-120
Toluene	10.00	8.931	89	80-120
Ethylbenzene	10.00	9.099	91	80-120
m,p-Xylenes	10.00	9.769	98	80-120
o-Xylene	10.00	8.937	89	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	113	62-134

Type: BSD Lab ID: QC647836

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	10.00	10.06	101	80-120	0	30
Toluene	10.00	8.989	90	80-120	1	20
Ethylbenzene	10.00	9.302	93	80-120	2	20
m,p-Xylenes	10.00	9.844	98	80-120	1	20
o-Xylene	10.00	9.354	94	80-120	5	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	113	62-134

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	237869	Location:	15101 Freedom Ave. San Leandro	
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B	
Project#:	2553	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC648000	Batch#:	188535	
Matrix:	Water	Analyzed:	07/16/12	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,033	103	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	75-124

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	237869	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	188535
MSS Lab ID:	237860-001	Sampled:	07/10/12
Matrix:	Water	Received:	07/12/12
Units:	ug/L	Analyzed:	07/16/12
Diln Fac:	1.000		

Type: MS Lab ID: QC648002

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,089	2,000	3,070	99	71-120

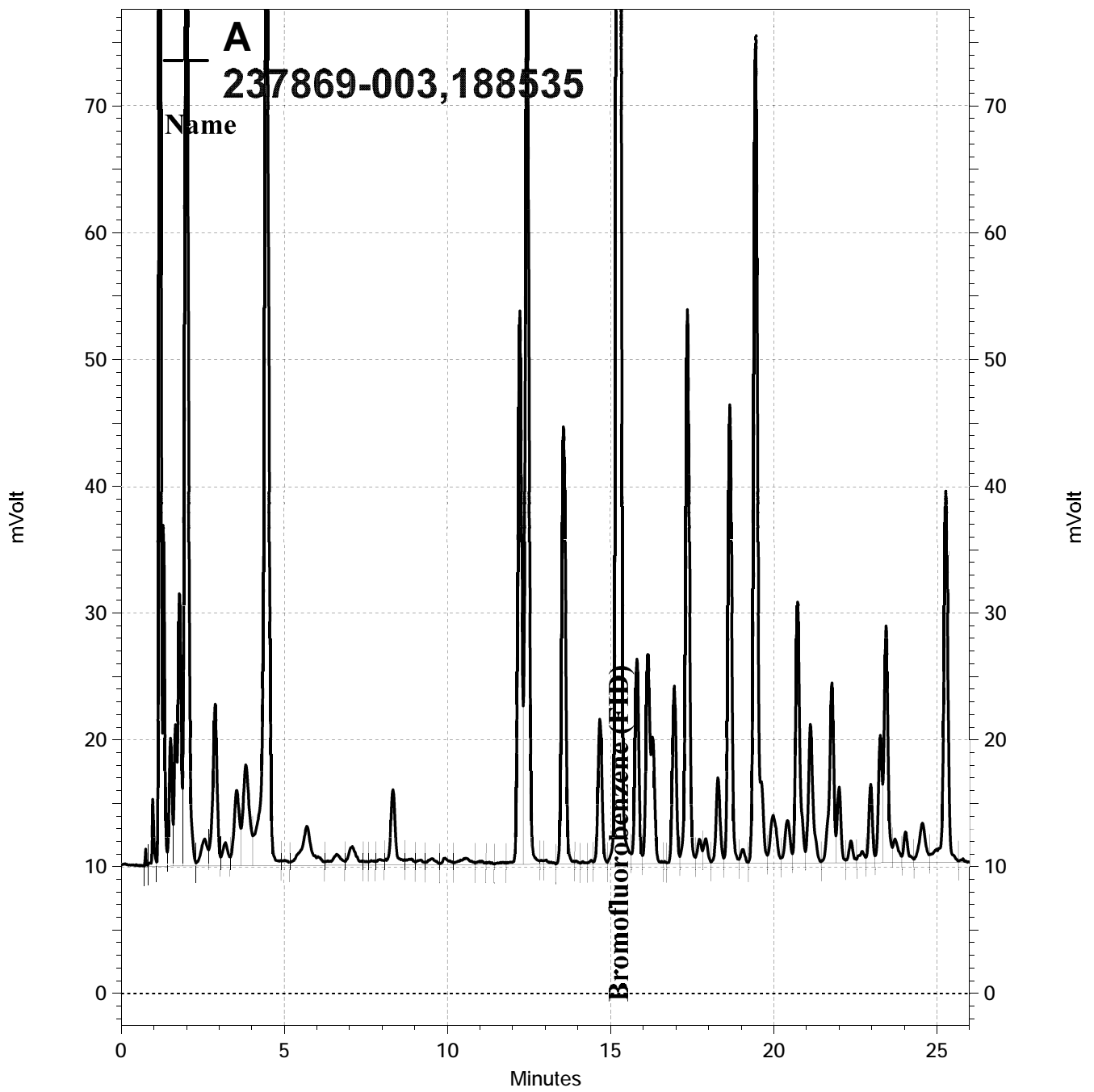
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	75-124

Type: MSD Lab ID: QC648003

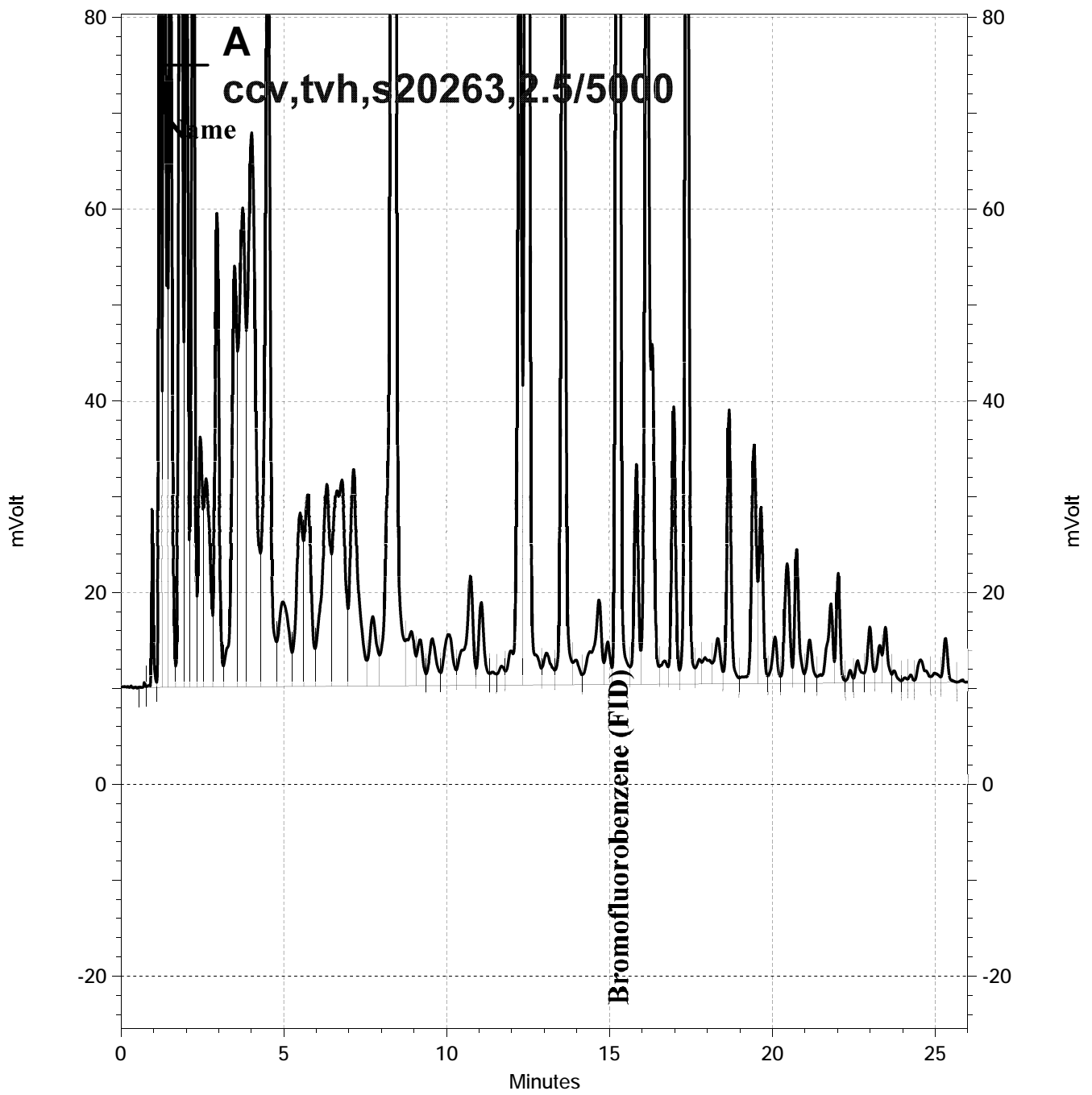
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	3,089	100	71-120	1	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	75-124

RPD= Relative Percent Difference



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Total Extractable Hydrocarbons

Lab #: 237869	Location: 15101 Freedom Ave. San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 3520C
Project#: 2553	Analysis: EPA 8015B
Field ID: EFFLUENT	Sampled: 07/12/12
Matrix: Water	Received: 07/12/12
Units: ug/L	Prepared: 07/13/12
Diln Fac: 1.000	Analyzed: 07/16/12
Batch#: 188491	

Type: SAMPLE Lab ID: 237869-001

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

Surrogate	%REC	Limits
o-Terphenyl	102	61-134

Type: BLANK Lab ID: QC647827

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

Surrogate	%REC	Limits
o-Terphenyl	100	61-134

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	237869	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	188491
Units:	ug/L	Prepared:	07/13/12
Diln Fac:	1.000	Analyzed:	07/17/12

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC647828

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,277	91	60-120

Surrogate	%REC	Limits
o-Terphenyl	119	61-134

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC647829

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,360	94	60-120	4	35

Surrogate	%REC	Limits
o-Terphenyl	123	61-134

RPD= Relative Percent Difference



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

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

**Laboratory Job Number 238975
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
238975-001

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

Signature: _____

Tracy Babjar
Project Manager
(510) 204-2226

Date: 08/27/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 238975
Client: SOMA Environmental Engineering Inc.
Project: 2553
Location: 15101 Freedom Ave. San Leandro
Request Date: 08/20/12
Samples Received: 08/20/12

This data package contains sample and QC results for one water sample, requested for the above referenced project on 08/20/12. The sample was received cold and intact.

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

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

CHAIN OF CUSTODY

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

Analyses

LOGIN # 238975

Sampler: LYDEN

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 ₂ SO ₄	HNO ₃	ICE
1	Effluent	8/17/12 10AM	*			6 VOAs	*			*
		8/17/12 10AM	*			2-500 mL Ambers				*

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

Notes: **EDF OUTPUT REQUIRED**

RELINQUISHED BY:

[Signature] 8/17/12 1305
 DATE/TIME
Rupp Mathen 8/20/12 947
 DATE/TIME
[Signature] 8/20/12 1039
 DATE/TIME

RECEIVED BY:

Rudi Mathen 8/17/12 1305
 DATE/TIME
[Signature] 8/20/12 947
 DATE/TIME
[Signature] 8/20/12 1039
 DATE/TIME

[Handwritten mark]

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 238975 Date Received 8/20/12 Number of coolers 1
Client SOMA Project 2553

Date Opened 8/20/12 By (print) Eileen Leung (sign) Eileen Leung
Date Logged in [down arrow] By (print) [down arrow] (sign) [down arrow]

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 [X] 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 [X] Foam blocks [] Bags [] None
[] Cloth material [] Cardboard [] Styrofoam [] Paper towels

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

Type of ice used: [X] Wet [] Blue/Gel [] None Temp(°C) 9.5

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21. Was the client contacted concerning this sample delivery? YES (NO)
If YES, Who was called? By Date:

COMMENTS

10) rec'd 7 VOAs, not 10 as noted on COC

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	238975	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Batch#:	189707

Type: BS Analyzed: 08/21/12
 Lab ID: QC652788

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	10.20	102	80-120
Toluene	10.00	9.611	96	80-120
Ethylbenzene	10.00	9.906	99	80-120
m,p-Xylenes	10.00	9.356	94	80-120
o-Xylene	10.00	9.545	95	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	86	62-134

Type: BSD Analyzed: 08/22/12
 Lab ID: QC652789

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	21.82	109	80-120	7	30
Toluene	20.00	20.73	104	80-120	8	20
Ethylbenzene	20.00	20.87	104	80-120	5	20
m,p-Xylenes	20.00	19.80	99	80-120	6	20
o-Xylene	20.00	20.25	101	80-120	6	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	89	62-134

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	238975	Location:	15101 Freedom Ave. San Leandro	
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B	
Project#:	2553	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC652790	Batch#:	189707	
Matrix:	Water	Analyzed:	08/21/12	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	888.4	89	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	91	75-124

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	238975	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	189707
MSS Lab ID:	239019-001	Sampled:	08/21/12
Matrix:	Water	Received:	08/21/12
Units:	ug/L	Analyzed:	08/22/12
Diln Fac:	1.000		

Type: MS Lab ID: QC652792

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	18.40	2,000	2,021	100	71-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	75-124

Type: MSD Lab ID: QC652793

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,963	97	71-120	3	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	75-124

RPD= Relative Percent Difference

Total Extractable Hydrocarbons		
Lab #:	238975	Location: 15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 3520C
Project#:	2553	Analysis: EPA 8015B
Field ID:	EFFLUENT	Sampled: 08/17/12
Matrix:	Water	Received: 08/20/12
Units:	ug/L	Prepared: 08/20/12
Diln Fac:	1.000	Analyzed: 08/21/12
Batch#:	189655	

Type: SAMPLE Lab ID: 238975-001

Analyte	Result	RL
Diesel C10-C24	ND	52
Motor Oil C24-C36	ND	310

Surrogate	%REC	Limits
o-Terphenyl	102	61-134

Type: BLANK Lab ID: QC652580

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

Surrogate	%REC	Limits
o-Terphenyl	107	61-134

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	238975	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	189655
Units:	ug/L	Prepared:	08/20/12
Diln Fac:	1.000	Analyzed:	08/21/12

Type: BS Lab ID: QC652581

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,114	85	60-120

Surrogate	%REC	Limits
o-Terphenyl	111	61-134

Type: BSD Lab ID: QC652582

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,101	84	60-120	1	35

Surrogate	%REC	Limits
o-Terphenyl	106	61-134

RPD= Relative Percent Difference



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

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

**Laboratory Job Number 239745
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
239745-001

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

Signature: _____

Tracy Babjar
Project Manager
(510) 204-2226

Date: 09/26/2012

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 239745
Client: SOMA Environmental Engineering Inc.
Project: 2553
Location: 15101 Freedom Ave. San Leandro
Request Date: 09/19/12
Samples Received: 09/19/12

This data package contains sample and QC results for one water sample, requested for the above referenced project on 09/19/12. The sample was received cold and intact.

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

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

CHAIN OF CUSTODY

Analyses

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

LOGIN # 239745

Sampler: Iden Yekan

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 ₂ SO ₄	HNO ₃	ICE
	Effluent	9/17/12 1000	*			6 VOAs	*			*
		"	*			2-500 mL Ambers				*

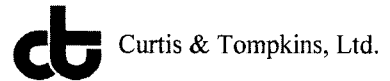
TPH-g, TPH-d, TPH-mo 8015																			
BTEX 8020																			
*	*																		
*																			

Notes: **EDF OUTPUT REQUIRED**

RELINQUISHED BY:
 9/17/12 [Signature] 1215 DATE/TIME
 Kuli Mathen 9/19/12 1510 DATE/TIME
 Tompkins 9/19/12 1635 DATE/TIME

RECEIVED BY:
 Kuli Mathen 9/18/12 12:15 DATE/TIME
 Tompkins 9/19/12 1510 DATE/TIME
 [Signature] 9/19/12 1635 DATE/TIME

COOLER RECEIPT CHECKLIST



Login # 239745 Date Received 9/19/12 Number of coolers 1
 Client SOMA Project 2553

Date Opened 9/19/12 By (print) EL (sign) E. Long
 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) 15.5

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21. Was the client contacted concerning this sample delivery? _____ YES NO
 If YES, Who was called? _____ By _____ Date: _____

COMMENTS

10) only rec'd 4 VOAs, not 6 as noted on COC

Curtis & Tompkins Laboratories Analytical Report

Lab #: 239745	Location: 15101 Freedom Ave. San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2553	
Field ID: EFFLUENT	Sampled: 09/17/12
Matrix: Water	Received: 09/19/12
Units: ug/L	Analyzed: 09/21/12
Diln Fac: 1.000	

Type: SAMPLE Lab ID: 239745-001

Analyte	Result	RL	Batch#	Analysis
Gasoline C7-C12	ND	50	190818	EPA 8015B
Benzene	ND	0.50	190836	EPA 8021B
Toluene	ND	0.50	190836	EPA 8021B
Ethylbenzene	ND	0.50	190836	EPA 8021B
m,p-Xylenes	ND	0.50	190836	EPA 8021B
o-Xylene	ND	0.50	190836	EPA 8021B

Surrogate	%REC	Limits	Batch#	Analysis
Bromofluorobenzene (FID)	87	75-124	190818	EPA 8015B
Bromofluorobenzene (PID)	99	62-134	190836	EPA 8021B

Type: BLANK Batch#: 190818
 Lab ID: QC657562 Analysis: EPA 8015B

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	Result	%REC	Limits
Bromofluorobenzene (FID)		85	75-124
Bromofluorobenzene (PID)	NA		

Type: BLANK Batch#: 190836
 Lab ID: QC657635 Analysis: EPA 8021B

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	Result	%REC	Limits
Bromofluorobenzene (FID)	NA		
Bromofluorobenzene (PID)		103	62-134

NA= Not Analyzed
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	239745	Location:	15101 Freedom Ave. San Leandro	
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B	
Project#:	2553	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC657561	Batch#:	190818	
Matrix:	Water	Analyzed:	09/21/12	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	934.8	93	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	90	75-124

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	239745	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	190818
MSS Lab ID:	239751-022	Sampled:	09/19/12
Matrix:	Water	Received:	09/19/12
Units:	ug/L	Analyzed:	09/21/12
Diln Fac:	1.000		

Type: MS Lab ID: QC657602

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<12.82	2,000	1,902	95	71-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	75-124

Type: MSD Lab ID: QC657603

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,789	89	71-120	6	22

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	95	75-124

RPD= Relative Percent Difference

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	239745	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2553	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	190836
Units:	ug/L	Analyzed:	09/21/12
Diln Fac:	1.000		

Type: BS Lab ID: QC657633

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	20.34	102	80-120
Toluene	20.00	19.13	96	80-120
Ethylbenzene	20.00	21.27	106	80-120
m,p-Xylenes	20.00	21.57	108	80-120
o-Xylene	20.00	21.31	107	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	107	62-134

Type: BSD Lab ID: QC657634

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	19.57	98	80-120	4	30
Toluene	20.00	18.66	93	80-120	2	20
Ethylbenzene	20.00	20.80	104	80-120	2	20
m,p-Xylenes	20.00	21.08	105	80-120	2	20
o-Xylene	20.00	20.86	104	80-120	2	20

Surrogate	%REC	Limits
Bromofluorobenzene (PID)	104	62-134

RPD= Relative Percent Difference

Total Extractable Hydrocarbons

Lab #: 239745	Location: 15101 Freedom Ave. San Leandro
Client: SOMA Environmental Engineering Inc.	Prep: EPA 3520C
Project#: 2553	Analysis: EPA 8015B
Field ID: EFFLUENT	Sampled: 09/17/12
Matrix: Water	Received: 09/19/12
Units: ug/L	Prepared: 09/20/12
Diln Fac: 1.000	Analyzed: 09/21/12
Batch#: 190772	

Type: SAMPLE Lab ID: 239745-001

Analyte	Result	RL
Diesel C10-C24	ND	54
Motor Oil C24-C36	ND	330

Surrogate	%REC	Limits
o-Terphenyl	105	61-134

Type: BLANK Lab ID: QC657351

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

Surrogate	%REC	Limits
o-Terphenyl	106	61-134

ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons				
Lab #:	239745	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:	QC657352	Batch#:	190772	
Matrix:	Water	Prepared:	09/20/12	
Units:	ug/L	Analyzed:	09/21/12	

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,148	86	60-120

Surrogate	%REC	Limits
o-Terphenyl	103	61-134

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	239745	Location:	15101 Freedom Ave. San Leandro
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2553	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	190772
MSS Lab ID:	239741-003	Sampled:	09/18/12
Matrix:	Water	Received:	09/19/12
Units:	ug/L	Prepared:	09/20/12
Diln Fac:	1.000		

Type: MS Analyzed: 09/22/12
 Lab ID: QC657353 Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	13.18	2,500	2,410	96	44-135

Surrogate	%REC	Limits
o-Terphenyl	125	61-134

Type: MSD Analyzed: 09/21/12
 Lab ID: QC657354 Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,615	104	44-135	8	42

Surrogate	%REC	Limits
o-Terphenyl	125	61-134

RPD= Relative Percent Difference