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**9:31 am, Nov 09, 2011**

Alameda County  
Environmental Health

November 8, 2011

Paresh Khatri  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

Re: **Report Submittal**  
Semi-Annual Monitoring Report - Third Quarter 2011  
76 (Former BP) Service Station No. 2611117  
7210 Bancroft Avenue  
Oakland, California

Dear Mr. Khatri,

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

If you have any questions or need additional information, please call me at (408) 826-1874.

Sincerely,

**Douglas K. Umland, P.G.**  
Senior Project Manager

Enc: Antea Group, *Semi-Annual Monitoring Report - Third Quarter 2011*

# *Semi-Annual Monitoring Report, Third Quarter 2011*

*76 (Former BP) Service Station No. 11117  
7210 Bancroft Avenue  
Oakland, California*

*Alameda County Environmental Health  
Case No. R00000356*

*Antea Group Project No. I42611117  
November 8, 2011*

*Prepared for:*  
**Paresh Khatri**  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

*Prepared by:*  
**Antea™Group**  
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*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



Appendix F      Time Series Graphs  
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## 1.0 INTRODUCTION

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Antea™Group has completed the *Semi-Annual Monitoring Report, Third Quarter 2011*, for the 76 (Former BP) Service Station No. 11117 site in Oakland, California (**Figure 1**). The subject site is an active gasoline station that includes a service station building with three 12,000-gallon gasoline underground storage tanks (USTs) and one 10,000-gallon diesel UST and associated piping and dispensers. The site has an asphalt or concrete surface except for planters along the southeastern and southwestern property boundaries and at the north corner of the property (**Figure 2**). Please refer to **Appendix A** for additional site information and for a history of the environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring event completed on August 15, 2011. Included herein are site figures, groundwater contaminant data tables, and a discussion of trends. This report has received a technical review by Mr. Doug Umland, California Professional Geologist No. 6159.

### 1.1 Work Performed in the Second and Third Quarter 2011

1. Antea Group submitted the *Semi-Annual Monitoring Report - First Quarter 2011* to Alameda County Environmental Health department (ACEH) on April 13, 2011.
2. Antea Group submitted a *Remedial Action Investigation Work Plan*, to ACEH on August 3, 2011.
3. Subcontractor Blaine Tech Services, Inc. (Blaine Tech) conducted the third quarter 2011 groundwater monitoring event on August 15, 2011.
4. Antea Group submitted the *Technical Report – Extension Request* letter to the ACEH on September 29, 2011 requesting a report submittal extension to accommodate a 90-day ISCO test

### 1.2 Work Proposed for the Fourth Quarter 2011 and First Quarter 2012

1. Antea Group will submit the *Semi-Annual Monitoring Report, Third Quarter 2011* (contained herein) to ACEH.
2. Antea Group will perform the field activities proposed in the August 2011 *Remedial Action Investigation Work Plan* and approved by the ACEH in an agency letter dated September 1, 2011.
3. Antea Group will continue semi-annual groundwater monitoring – the next event schedule is set for February 2011.

## 2.0 CURRENT PROJECT STATUS

---

Current phase of project:	Semi-Annual Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Environmental Health, Case No. RO0000356

Secondary agency(s):	San Francisco Bay Regional Water Quality Control Board
Monitoring well gauging schedule:	Semi-Annually (1Q, 3Q): MW-1, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, EX-1, and EX-2
Monitoring well sampling schedule:	Semi-Annually (1Q, 3Q): MW-4, MW-7, MW-9, MW-10, MW-11, EX-1, and EX-2 Annually (1Q): MW-1, MW-3, MW-6, and MW-8
Total number of monitoring/remediation wells (Table 1):	16 wells (9 monitoring wells - MW-1, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11; 7 remediation wells - EX-1, EX-2 and DPE-1, DPE-2, DPE-3, DPE-4, and DPE-5)
Range of well depths (total depth below ground surface, bgs) (Table 1):	35 to 45 feet bgs (Table 1)
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Yes, sporadic trace amounts in wells EX-2 and MW-4, and greater amounts in MW-2 between 1993 and 1998 (maximum of 4.25 feet was reported in well MW-2 on 1/25/1995).
Generalized site geology:	<u>Surface to ~3' bgs:</u> Gravel Fill <u>~3 to 30' bgs:</u> silt and silty sand <u>~30 to 45' bgs:</u> clay
Historical depth to water range, in feet below top of casing (BTOC):	Min: 9.49 (MW-3, Q2 2000) Max: 34.07 (MW-2, Q4 1993)
Historical groundwater elevation range (ft):	Min: 15.43 (MW-3, Q4 2008) Max: 41.91 (MW-3, Q2 2000)
Local receptors:	As many as 10 wells within one mile of the site, plus several sensitive receptors within 0.5 miles of the site. According to the October 2010 <i>Sensitive Receptor Survey</i> by Delta Consultants, no receptors likely to have been impacted by release from the site (See also <b>Appendix A</b> )
Current remediation technique	None (Remedial Action Investigation currently being performed)

## 2.1 Regulatory Correspondence

Antea Group submitted the *Remedial Action Investigation Work Plan*, dated August 3, 2011 to the ACEH. The ACEH approved the proposed scope of work in an agency letter to Antea Group dated September 1, 2011. Antea Group submitted the *Technical Report – Extension Request* letter to the ACEH on September 29, 2011 requesting a report submittal extension to accommodate a 90-day in-situ chemical oxidation (ISCO) bench-scale test.

## 2.2 Remedial Activities

Active remediation is not currently taking place on-site. However, Antea Group is currently performing field activities related to a remedial action investigation. For a summary of previous remedial activities and pilot testing, please refer to **Appendix A**.

## 2.3 Groundwater Monitoring

For the third quarter 2011 groundwater monitoring event, subcontractor Blaine Tech gauged 15 wells and purged/sampled nine wells per their standard sampling protocol (**Appendix B**). Blaine Tech was unable to locate well MW-9. **Appendix C** includes copies of Blaine Tech's field data sheets, and the table below summarizes the recent gauging and sampling data.

Well gauging and sampling date:	August 15, 2011
Wells gauged <sup>^</sup> :	MW-1, MW-3, MW-4, MW-6, MW-7, MW-8, MW-10, MW-11, EX-1, EX-2, and DPE-1 through DPE-5 (MW-9 was not able to be located)
Wells sampled <sup>^</sup> :	*MW-4, MW-7, MW-10, MW-11, EX-1, EX-2, DPE-1, DPE-4, and DPE-5
Purge method:	*3 well casing volumes via electric, submersible pump, purged through a flow cell
Sample collection method:	Disposable bailers
Groundwater parameters measured ( <b>Appendix C</b> ):	Temperature, pH, Conductivity, Oxidation-reduction potential (ORP), Turbidity, Dissolved Oxygen (DO)
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 14.58 (MW-11) Max: 17.76 (MW-10)
Current groundwater elevation range (ft):	*Min: 22.00 (MW-3) *Max: 23.24 (EX-2)
Change in groundwater elevation from previous event (average change for all gauged wells):	Decreased groundwater elevation averaging 0.8 feet between February 2011 and August 2011
Groundwater flow direction and gradient:	Variable, but generally to the northeast

<sup>^</sup>Antea Group gauged/purged/sampled additional wells in the 3<sup>rd</sup> quarter event to collect additional data in preparing for the remedial action investigation

\* Samples from wells EX-2 and MW-10 were collected without purging

\*\*Not including MW-6, this is not surveyed to the same datum as the other wells

### **2.3.1 Groundwater Flow Gradient and Directional Trends**

Currently, eleven wells present on the site are gauged on a semi-annual basis. Antea Group determined the groundwater flow direction and gradient to be variable in the recent event (**Figure 3**). Overall, it appears that groundwater flow is generally to the northeast and contaminant migration is to the southeast. The previous monitoring and sampling event (February 2011) reported the groundwater gradient and flow direction to be variable, but generally to the southeast. Historical groundwater flow and gradient data are included for reference in **Appendix D**.

### **2.3.2 Groundwater Quality Data**

Blaine Tech submitted the groundwater samples collected during the third quarter 2011 under chain-of-custody protocol to Pace Analytical Services, Inc. (Pace), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 01153CA). The complete analytical report is included in **Appendix E**. The chain of custody requested the laboratory to analyze groundwater samples were analyzed for the following contaminants of concern:

- Gasoline Range Organics (GRO) by California Method CA-LUFT;
- Benzene, toluene, ethylbenzene, total xylenes (BTEX compounds) by EPA Method 8260B.

- Methyl tert-butyl ether (MTBE), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), tertiary butyl alcohol (TBA), ethanol, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB) by EPA Method 8260B.

Groundwater analytical results are presented in **Table 2** (current) and **Table 3** (historical). The following table presents the ranges of contaminant concentrations reported in the groundwater samples collected on August 15, 2011 (only the reported contaminants are listed).

Constituents	Number of Samples Where Constituent was Reported Above LRL of the Total Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
GRO	6 of 9	571 (DPE-1)	57,600 (DPE-4)
Benzene	5 of 9	470 (EX-1)	5,920 (DPE-4)
Toluene	6 of 9	0.80 (MW-11)	7,240 (DPE-4)
Ethylbenzene	6 of 9	6.3 (DPE-1)	3,830 (DPE-4)
Total Xylenes	6 of 9	8.0 (MW-11)	12,100 (DPE-4)
MTBE	8 of 9	1.1 (DPE-1)	5,560 (DPE-4)
TBA	7 of 9	13.1 (MW-7 and MW-10)	6,920 (DPE-4)
ETBE	2 of 9	1.2 (DPE-5)	12.2 (DPE-4)
TAME	3 of 9	10.0 (DPE-5)	132 (DPE-4)
1,2-DCA	1 of 9	--	13.3 (EX-1)

Explanations:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

### 2.3.3 Groundwater Contaminant Trends

Levels of GRO, BTEX compounds, MTBE and TBA continue to be reported in several of the site’s monitoring wells. Overall, trending for contaminants show relatively steady or decreasing concentrations, except for the following (**Appendix F** includes concentration versus time graphs for selected wells):

- Concentrations reported in MW-4 during the current event indicated a significant increase in all compounds analyzed relative to the past three sampling events, but the concentrations are still below the historical maximum concentrations observed in the well.
- Well MW-10 reported a significant increase in MTBE and TBA concentrations since the last sampling event.
- Well EX-1 reported a decrease in most compounds since the last sampling event, but reported increases in TAME, TBA, and 1,2-DCA.

Before the current event, groundwater samples were last collected from the DPE wells in February 2009. In the three DPE wells sampled during this event, the reported concentrations of compounds are generally about half of those reported during the February 2009 sampling event.



During previous events, contaminant plumes in groundwater are limited to the eastern and southeastern portion of the site, and extend offsite into and only slightly beyond 73<sup>rd</sup> Avenue, near MW-9. This trend is consistent with the current event. However, MTBE and TBA contaminant plumes are also present on the northern portion of the site near wells MW-7 and MW-10. **Figures 4 through 7** included dissolved-phase isoconcentration maps, drawn using the most recent data.

### **2.3.4 Monitored Natural Attenuation and Engineering Parameters**

In addition to the gasoline and fuel oxygenate parameters listed in Section 2.3.2, Antea Group had the August 15, 2011 groundwater samples collected from wells DPE-1, DPE-4, DPE-5, EX-1, and EX-2 analyzed for one or more of the parameters listed below. Antea Group requested these analyses to establish baseline data for comparison to future data to evaluate the effectiveness of future remediation efforts.

- Methane headspace analysis by Robert S. Kerr (RSK) Method 175.
- Total Iron by EPA Method 6010.
- Ferric and ferrous iron by Standard Method (SM) 3500
- Nitrogen, Ammonia by SM 4500-NH3
- Iodometric Sulfide by SM 4500-S-2 F
- 5-day biological oxygen demand (BOD) by SM 5210B.
- Chloride and sulfate by EPA Method 300.0.
- Total Kjeldahl Nitrogen by EPA Method 351.2
- Nitrogen as nitrate and nitrogen as NO<sub>2</sub> plus NO<sub>3</sub> by EPA Method 353.2.
- Nitrate as N by SM 4500NO2-B.
- Chemical oxygen demand (COD) by EPA Method 410.4.
- Total and ortho-phosphorous by SM 4500PE.
- Total Organic Carbon (TOC) by SM 5310C
- Total and hexavalent Chromium by EPA Method 200.8

Groundwater analytical results for the listed additional parameters are presented in **Table 2A** (current) and **Table 3a** (historical). Antea Group will continue to analyze for monitored natural attenuation and engineering parameters during subsequent sampling events at the site.

### **2.3.5 Waste Disposal Summary**

Blaine Tech samplers generated approximately 200 gallons of waste water during well purging/sampling and equipment cleaning in the third quarter event. They transported the waste water to Blaine Tech's bulk facility in

San Jose, California. After the batching process, the wastewater was transported to Seaport Environmental in Redwood City, California for disposal. **Appendix G** includes copies of the first and third quarter 2011 non-hazardous waste manifests.

### 2.3.6 Quality Assurance / Quality Control

Antea Group’s QA/QC measures included use of a trip blank and a detailed QA/QC data validation check on the Pace Laboratory analytical results for the August 2011 sampling event. **Appendix E** includes Antea Group’s laboratory data validation checklist and the Pace laboratory report.

Trip Blank (TB1_20110831):	No contaminants reported
Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – multiple qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

\*2n - High bias (confirmed with secondary analysis) due to matrix interference.

\*3n - Matrix interference noted for this sample.

\* D4 - Sample was diluted due to the presence of high levels of target analytes.

In addition, the laboratory reported a number of qualifiers in their QA/QC data. However, none of them is expected to affect the gasoline or fuel oxygenate sample results that are the basis of this investigation (many of the qualifiers were for the additional compounds analyzed and discussed above in Section 2.3.4). Based on a review of the laboratory’s analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

- Antea Group and subcontractors continued semi-annual groundwater monitoring with an August 15, 2011 sampling event. Contaminants reported at concentrations above laboratory reporting limits were GRO, benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA, ETBE, and TAME.
- To monitor pre-remediation parameters, Antea Group collected additional groundwater samples for monitored natural attenuation and engineering parameter analyses. We requested these additional data from wells DPE-1, DPE-4, DPE-5, EX-1, and EX-2.
- Concentrations of GRO, benzene, and MTBE continue to remain steady or decrease in wells MW-7 and MW-11.
- Concentrations reported in MW-4 during the current event indicated a significant increase in all compounds analyzed in comparison to the recent data, but are still below the historical maximum concentrations observed in the well.

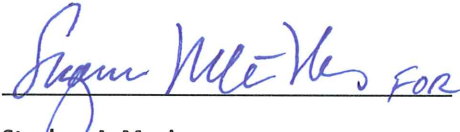
- Well MW-10 reported a significant increase in MTBE and TBA concentrations since the last sampling event, and well EX-1 reported a decrease in most compounds since the last sampling event, but reported increases in TAME, TBA, and 1,2-DCA
- Before the current event, groundwater samples were last collected from the DPE wells in February 2009. The reported concentration of compounds in these wells is generally half of those reported during the last sampling event.

At this time, Antea Group conducting field activities for the scope of work proposed in the August 11, 2011 *Remedial Action Investigation Work Plan*. Upon its completion, Antea Group will present the results of that investigation under separate cover. Meanwhile, Antea Group recommends continued semi-annual monitoring of groundwater per the existing monitoring schedule.

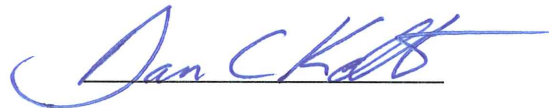
#### 4.0 REMARKS

The findings contained in this report represent Antea Group's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. For any reports cited that were not generated by Antea USA, Inc., the data from those reports are used "as is" and is assumed to be accurate. Antea USA, Inc does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. This report is based upon a specific scope of work requested by the client. The Contract between Antea Group and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea Group's Client and anyone else specifically listed on this report. Antea Group will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea Group makes no express or implied warranty as to the contents of this report.

Prepared by:



**Stephen A. Meninger**  
Project Geologist  
California Registered Professional Geologist No. 8853



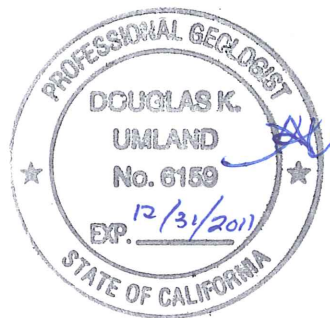
**Dan C. Keltner, REA**  
Project Manager

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature follows.

Licensed Approver:



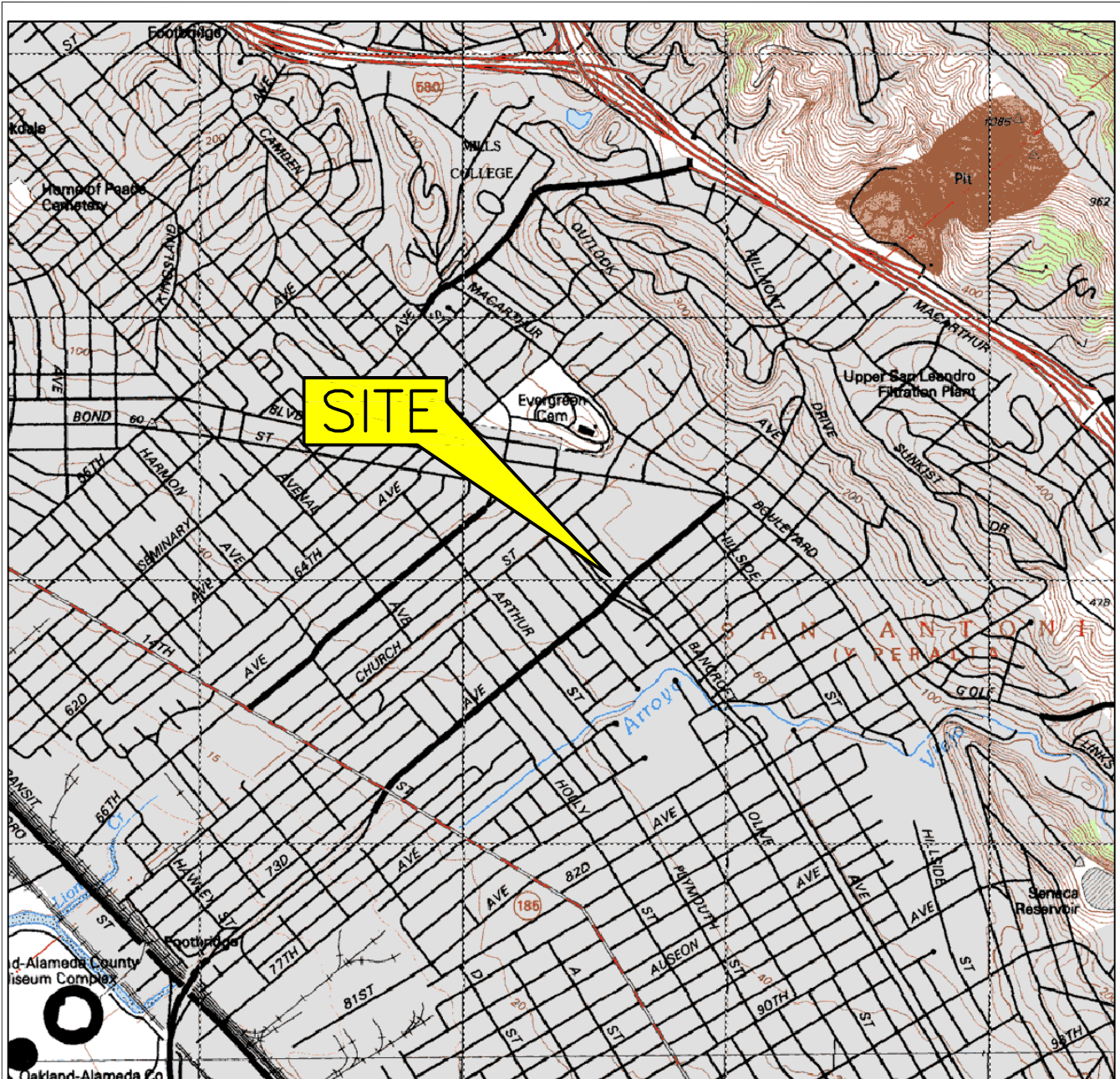
**Douglas K. Umland**  
Senior Project Manager  
California Registered Professional Geologist No. 6159



cc: Ms. Tiffany McClendon, One Eastmont Town Center, 7200 Bancroft Avenue, Oakland, CA 94605  
GeoTracker (upload)

## **Figures**

- Figure 1      Site Location Map
- Figure 2      Site Plan
- Figure 3      Groundwater Elevation Contour Map – August 15, 2011
- Figure 4      Dissolved Phase GRO Isoconcentration Map – August 15, 2011
- Figure 5      Dissolved Phase Benzene Isoconcentration Map – August 15, 2011
- Figure 6      Dissolved Phase MTBE Isoconcentration Map – August 15, 2011
- Figure 7      Dissolved Phase TBA Isoconcentration Map – August 15, 2011



0 2000 FT



SCALE 1:24,000



QUADRANGLE LOCATION

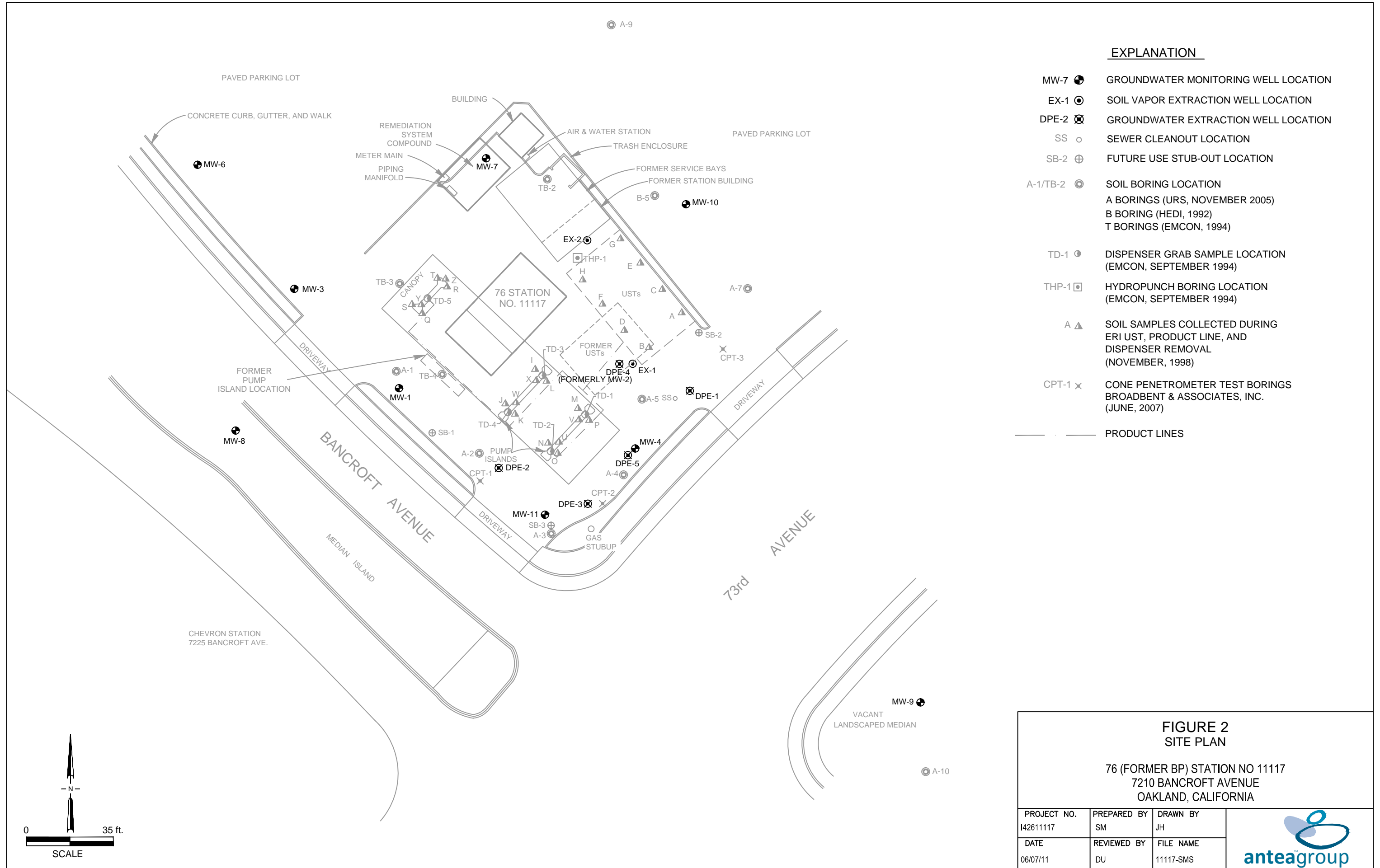
GENERAL NOTES:  
 BASE MAP FROM USGS, 7.5 MINUTE  
 TOPOGRAPHIC OAKLAND, CA. PHOTO REVISED 1980

FIGURE 1  
 SITE LOCATION MAP

76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND CALIFORNIA

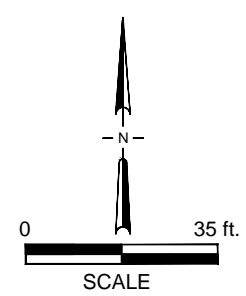
PROJECT NO. 142611117	PREPARED BY DK	DRAWN BY JH
DATE 03/30/11	REVIEWED BY DU	FILE NAME 11117-TOP0





**EXPLANATION**


- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ⊙ SOIL VAPOR EXTRACTION WELL LOCATION
- DPE-2 ⊗ GROUNDWATER EXTRACTION WELL LOCATION
- SS ○ SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- A-1/TB-2 ⊙ SOIL BORING LOCATION  
 A BORINGS (URS, NOVEMBER 2005)  
 B BORING (HEDI, 1992)  
 T BORINGS (EMCON, 1994)
- TD-1 ● DISPENSER GRAB SAMPLE LOCATION  
(EMCON, SEPTEMBER 1994)
- THP-1 □ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
 ERI UST, PRODUCT LINE, AND  
 DISPENSER REMOVAL  
 (NOVEMBER, 1998)
- CPT-1 ✕ CONE PENETROMETER TEST BORINGS  
 BROADBENT & ASSOCIATES, INC.  
 (JUNE, 2007)
- — — PRODUCT LINES

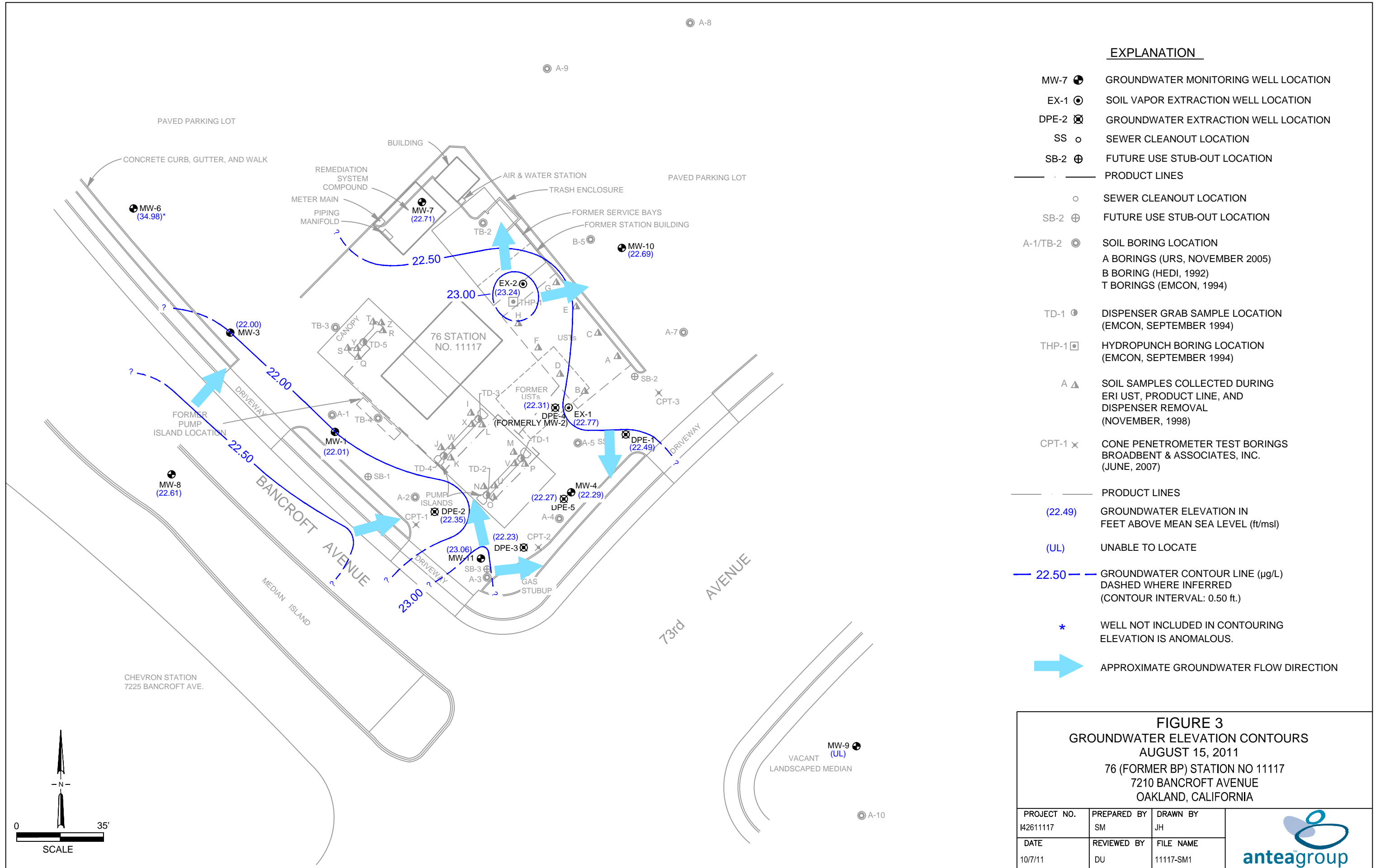


**FIGURE 2  
SITE PLAN**

76 (FORMER BP) STATION NO 11117  
7210 BANCROFT AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. 142611117	PREPARED BY SM	DRAWN BY JH
DATE 06/07/11	REVIEWED BY DU	FILE NAME 11117-SMS



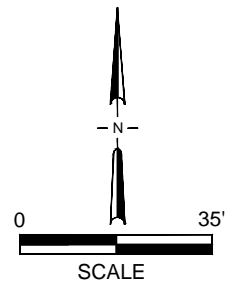


**EXPLANATION**

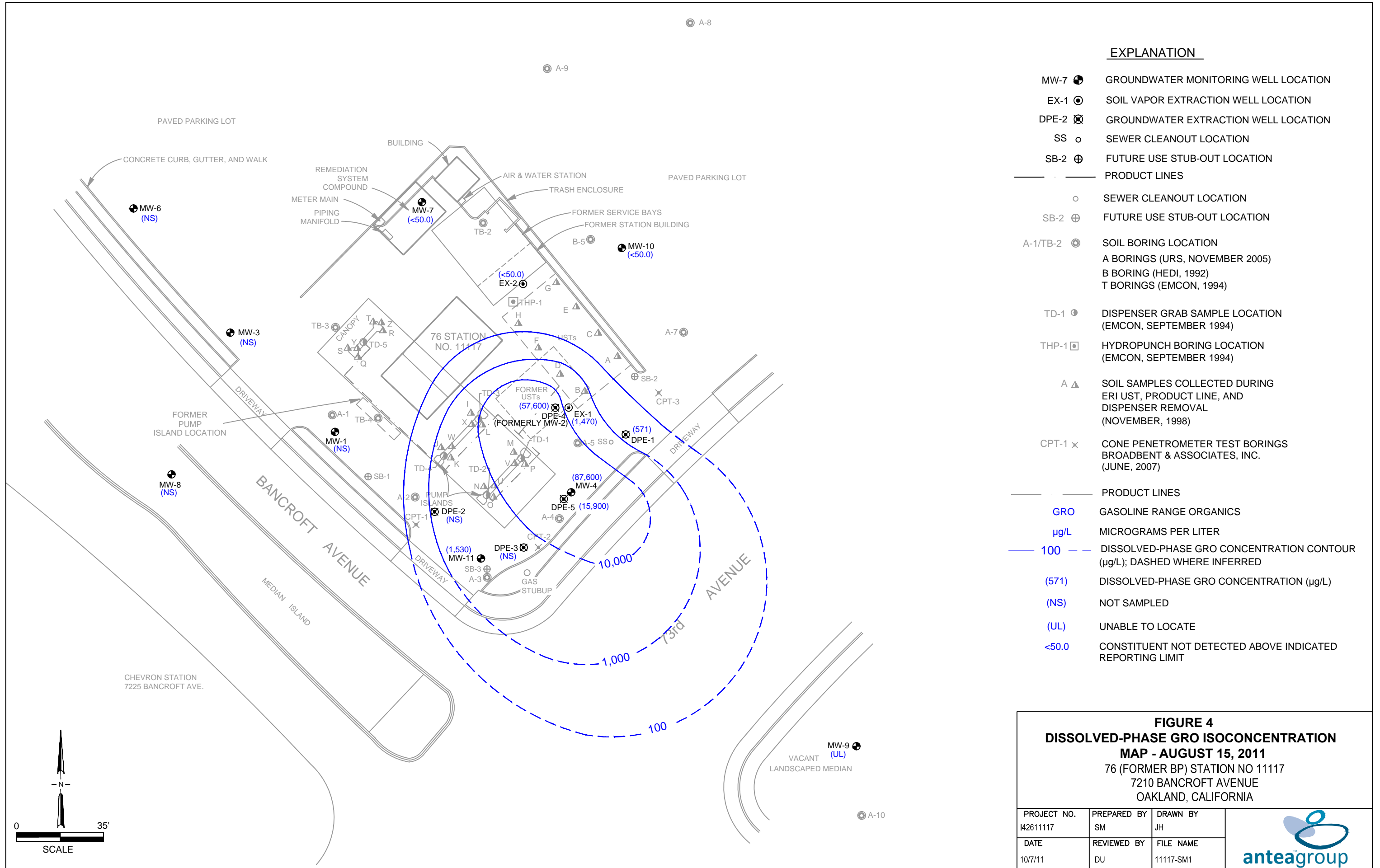
- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ○ SOIL VAPOR EXTRACTION WELL LOCATION
- DPE-2 ⊗ GROUNDWATER EXTRACTION WELL LOCATION
- SS ○ SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- — — PRODUCT LINES
- SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
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A BORINGS (URS, NOVEMBER 2005)  
B BORING (HEDI, 1992)  
T BORINGS (EMCON, 1994)
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(EMCON, SEPTEMBER 1994)
- THP-1 □ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
ERI UST, PRODUCT LINE, AND  
DISPENSER REMOVAL  
(NOVEMBER, 1998)
- CPT-1 × CONE PENETROMETER TEST BORINGS  
BROADBENT & ASSOCIATES, INC.  
(JUNE, 2007)
- — — PRODUCT LINES
- (22.49) GROUNDWATER ELEVATION IN  
FEET ABOVE MEAN SEA LEVEL (ft/msl)
- (UL) UNABLE TO LOCATE
- 22.50 — GROUNDWATER CONTOUR LINE (µg/L)  
DASHED WHERE INFERRED  
(CONTOUR INTERVAL: 0.50 ft.)
- \* WELL NOT INCLUDED IN CONTOURING  
ELEVATION IS ANOMALOUS.
- ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION

**FIGURE 3**  
**GROUNDWATER ELEVATION CONTOURS**  
 AUGUST 15, 2011  
 76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. I42611117	PREPARED BY SM	DRAWN BY JH
DATE 10/7/11	REVIEWED BY DU	FILE NAME 11117-SM1






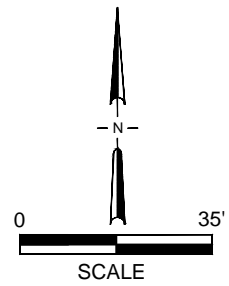


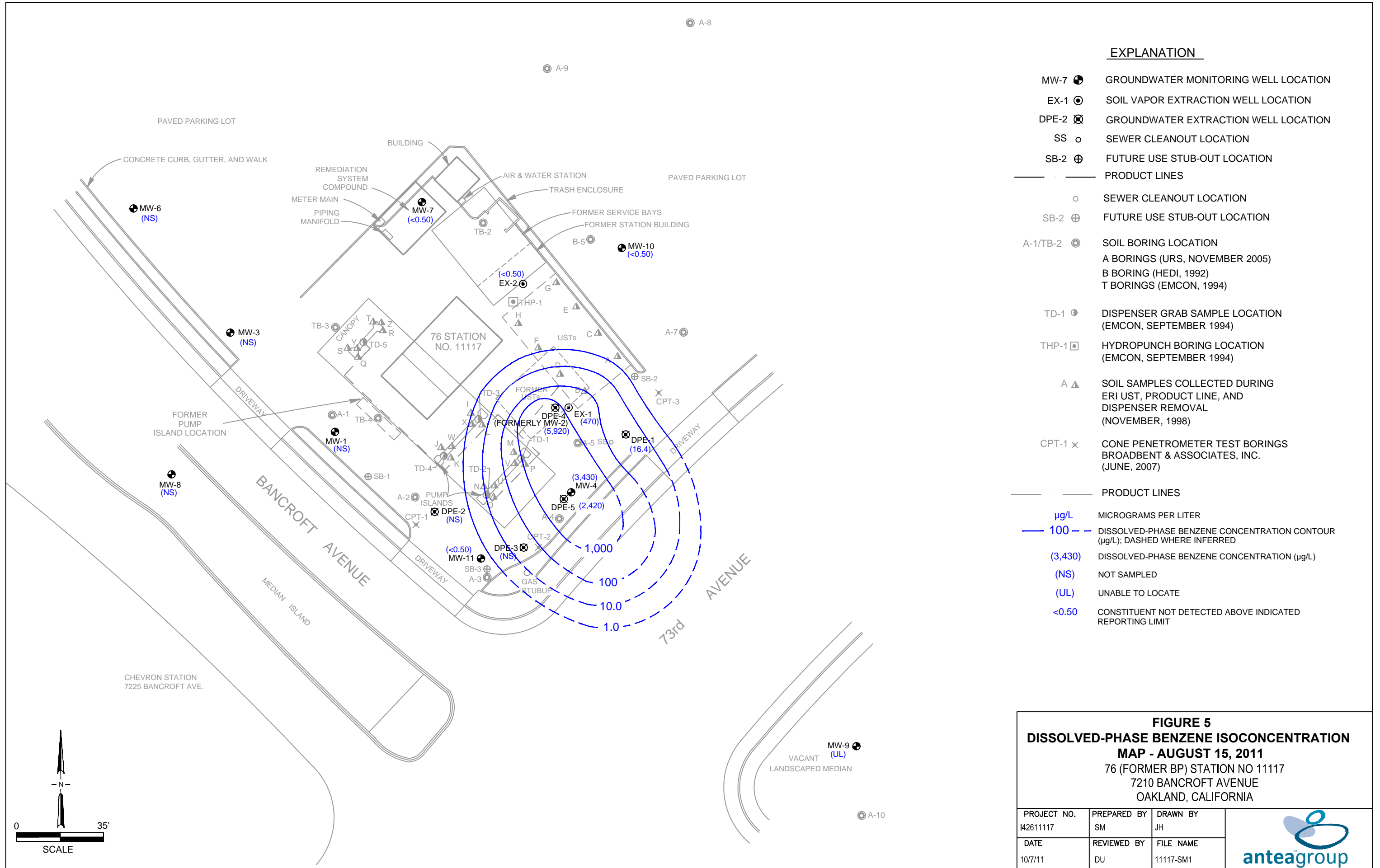
**EXPLANATION**

- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ⊙ SOIL VAPOR EXTRACTION WELL LOCATION
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- — — PRODUCT LINES
- SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- A-1/TB-2 ⊙ SOIL BORING LOCATION  
A BORINGS (URS, NOVEMBER 2005)  
B BORING (HEDI, 1992)  
T BORINGS (EMCON, 1994)
- TD-1 ⊙ DISPENSER GRAB SAMPLE LOCATION  
(EMCON, SEPTEMBER 1994)
- THP-1 ⊠ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
ERI UST, PRODUCT LINE, AND  
DISPENSER REMOVAL  
(NOVEMBER, 1998)
- CPT-1 × CONE PENETROMETER TEST BORINGS  
BROADBENT & ASSOCIATES, INC.  
(JUNE, 2007)
- — — PRODUCT LINES
- GRO GASOLINE RANGE ORGANICS
- µg/L MICROGRAMS PER LITER
- 100 — — DISSOLVED-PHASE GRO CONCENTRATION CONTOUR  
(µg/L); DASHED WHERE INFERRED
- (571) DISSOLVED-PHASE GRO CONCENTRATION (µg/L)
- (NS) NOT SAMPLED
- (UL) UNABLE TO LOCATE
- <50.0 CONSTITUENT NOT DETECTED ABOVE INDICATED  
REPORTING LIMIT

**FIGURE 4**  
**DISSOLVED-PHASE GRO ISOCONCENTRATION**  
**MAP - AUGUST 15, 2011**  
 76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. I42611117	PREPARED BY SM	DRAWN BY JH
DATE 10/7/11	REVIEWED BY DU	FILE NAME 11117-SM1

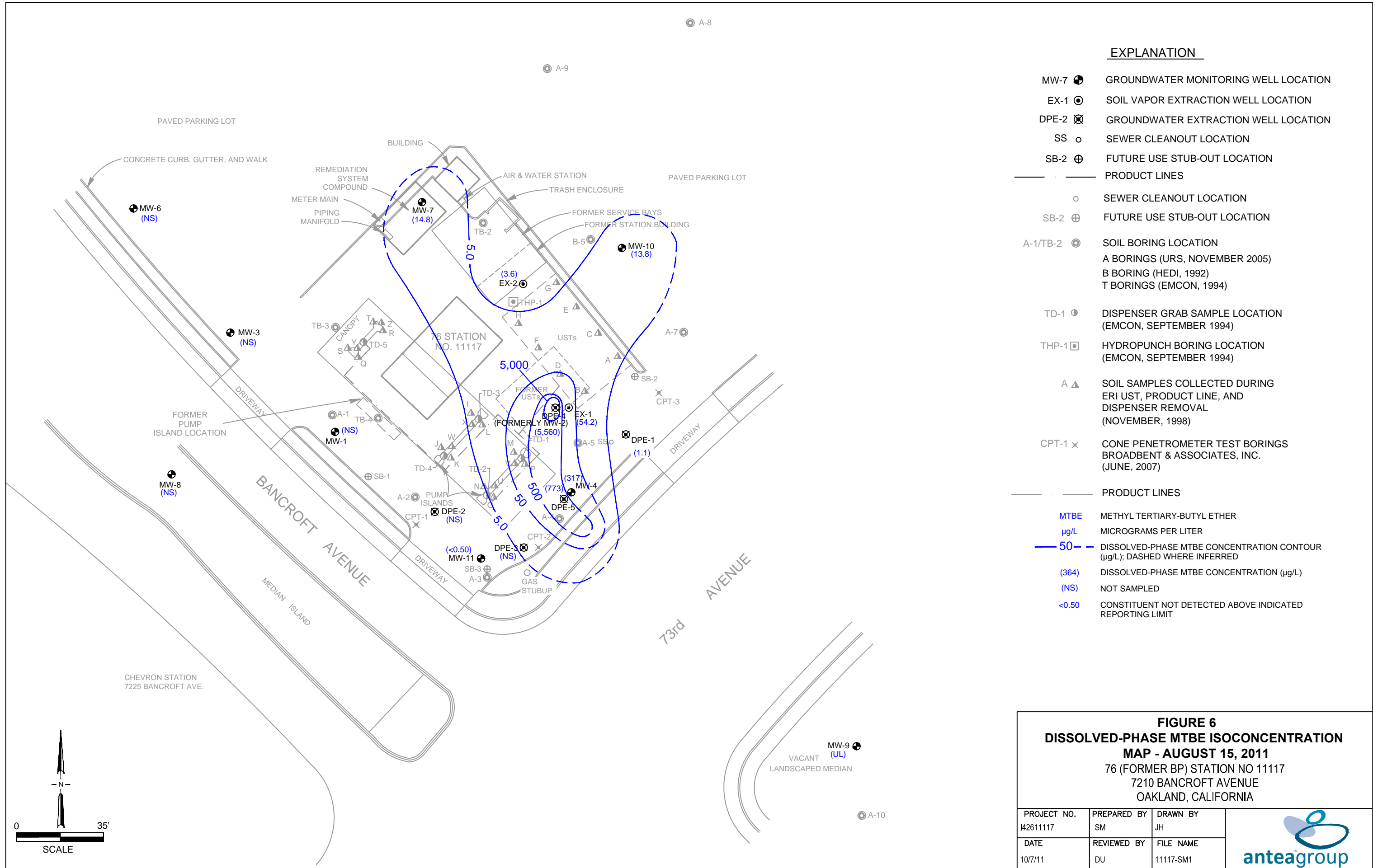


**EXPLANATION**

- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ⊙ SOIL VAPOR EXTRACTION WELL LOCATION
- DPE-2 ⊗ GROUNDWATER EXTRACTION WELL LOCATION
- SS ○ SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- — — PRODUCT LINES
- SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- A-1/TB-2 ⊙ SOIL BORING LOCATION  
A BORINGS (URS, NOVEMBER 2005)  
B BORING (HEDI, 1992)  
T BORINGS (EMCON, 1994)
- TD-1 ● DISPENSER GRAB SAMPLE LOCATION  
(EMCON, SEPTEMBER 1994)
- THP-1 ⊠ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
ERI UST, PRODUCT LINE, AND  
DISPENSER REMOVAL  
(NOVEMBER, 1998)
- CPT-1 × CONE PENETROMETER TEST BORINGS  
BROADBENT & ASSOCIATES, INC.  
(JUNE, 2007)
- — — PRODUCT LINES
- µg/L MICROGRAMS PER LITER
- 100 — DISSOLVED-PHASE BENZENE CONCENTRATION CONTOUR  
(µg/L); DASHED WHERE INFERRED
- (3,430) DISSOLVED-PHASE BENZENE CONCENTRATION (µg/L)
- (NS) NOT SAMPLED
- (UL) UNABLE TO LOCATE
- <0.50 CONSTITUENT NOT DETECTED ABOVE INDICATED  
REPORTING LIMIT

**FIGURE 5**  
**DISSOLVED-PHASE BENZENE ISOCONCENTRATION**  
**MAP - AUGUST 15, 2011**  
 76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. I42611117	PREPARED BY SM	DRAWN BY JH	
DATE 10/7/11	REVIEWED BY DU	FILE NAME 11117-SM1	



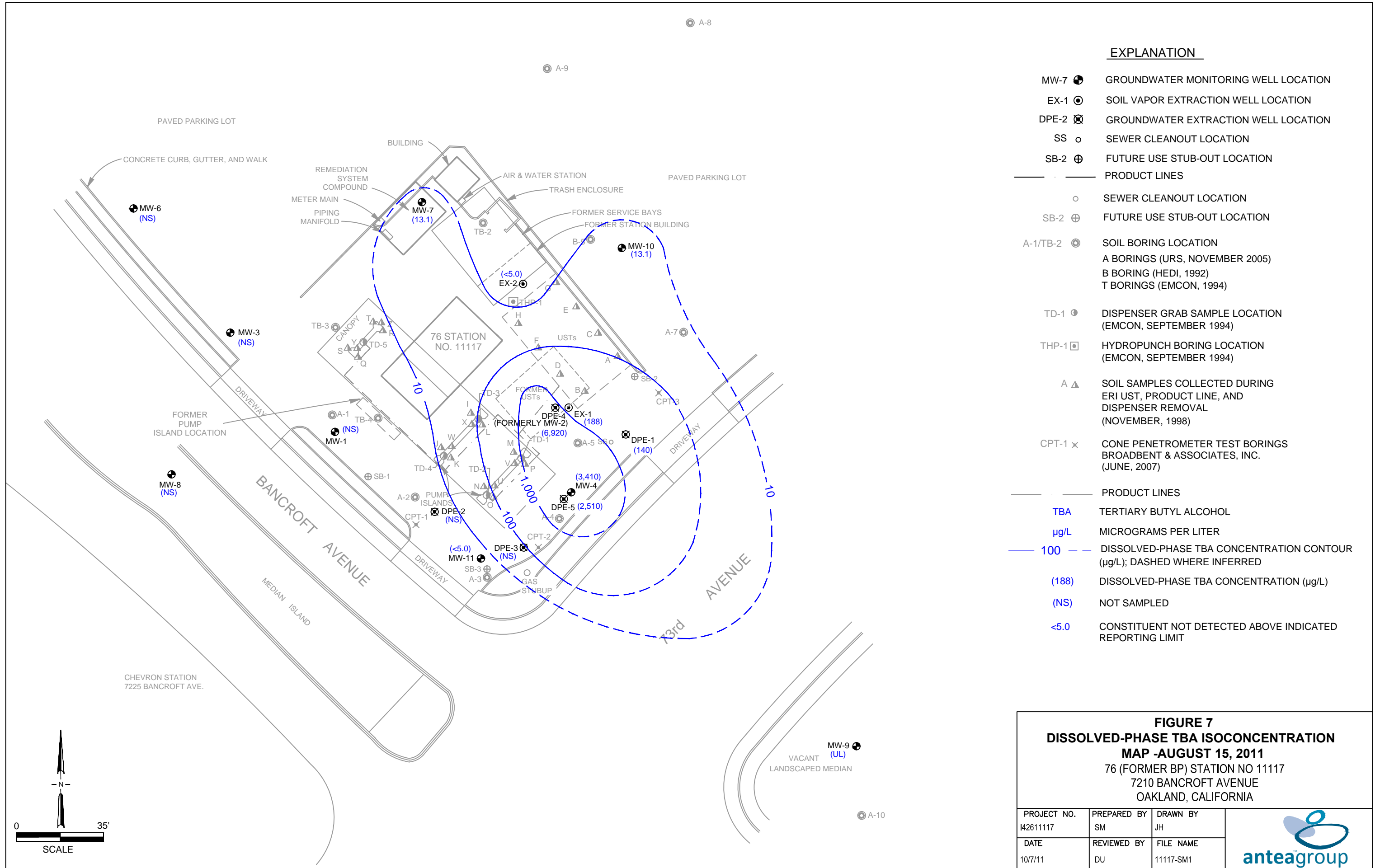
**EXPLANATION**

- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ○ SOIL VAPOR EXTRACTION WELL LOCATION
- DPE-2 ⊗ GROUNDWATER EXTRACTION WELL LOCATION
- SS ○ SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- — — PRODUCT LINES
- SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- A-1/TB-2 ● SOIL BORING LOCATION  
A BORINGS (URS, NOVEMBER 2005)  
B BORING (HEDI, 1992)  
T BORINGS (EMCON, 1994)
- TD-1 ● DISPENSER GRAB SAMPLE LOCATION  
(EMCON, SEPTEMBER 1994)
- THP-1 □ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
ERI UST, PRODUCT LINE, AND  
DISPENSER REMOVAL  
(NOVEMBER, 1998)
- CPT-1 × CONE PENETROMETER TEST BORINGS  
BROADBENT & ASSOCIATES, INC.  
(JUNE, 2007)
- — — PRODUCT LINES
- MTBE METHYL TERTIARY-BUTYL ETHER
- µg/L MICROGRAMS PER LITER
- 50 — DISSOLVED-PHASE MTBE CONCENTRATION CONTOUR  
(µg/L); DASHED WHERE INFERRED
- (364) DISSOLVED-PHASE MTBE CONCENTRATION (µg/L)
- (NS) NOT SAMPLED
- <0.50 CONSTITUENT NOT DETECTED ABOVE INDICATED  
REPORTING LIMIT

**FIGURE 6**  
**DISSOLVED-PHASE MTBE ISOCONCENTRATION**  
**MAP - AUGUST 15, 2011**  
 76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. I42611117	PREPARED BY SM	DRAWN BY JH
DATE 10/7/11	REVIEWED BY DU	FILE NAME 11117-SM1



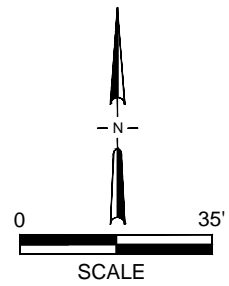


**EXPLANATION**

- MW-7 ● GROUNDWATER MONITORING WELL LOCATION
- EX-1 ⊙ SOIL VAPOR EXTRACTION WELL LOCATION
- DPE-2 ⊗ GROUNDWATER EXTRACTION WELL LOCATION
- SS ○ SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- — — PRODUCT LINES
- SEWER CLEANOUT LOCATION
- SB-2 ⊕ FUTURE USE STUB-OUT LOCATION
- A-1/TB-2 ⊙ SOIL BORING LOCATION  
A BORINGS (URS, NOVEMBER 2005)  
B BORING (HEDI, 1992)  
T BORINGS (EMCON, 1994)
- TD-1 ⊙ DISPENSER GRAB SAMPLE LOCATION  
(EMCON, SEPTEMBER 1994)
- THP-1 ⊠ HYDROPUNCH BORING LOCATION  
(EMCON, SEPTEMBER 1994)
- A ▲ SOIL SAMPLES COLLECTED DURING  
ERI UST, PRODUCT LINE, AND  
DISPENSER REMOVAL  
(NOVEMBER, 1998)
- CPT-1 × CONE PENETROMETER TEST BORINGS  
BROADBENT & ASSOCIATES, INC.  
(JUNE, 2007)
- — — PRODUCT LINES
- TBA TERTIARY BUTYL ALCOHOL
- µg/L MICROGRAMS PER LITER
- 100 — — DISSOLVED-PHASE TBA CONCENTRATION CONTOUR  
(µg/L); DASHED WHERE INFERRED
- (188) DISSOLVED-PHASE TBA CONCENTRATION (µg/L)
- (NS) NOT SAMPLED
- <5.0 CONSTITUENT NOT DETECTED ABOVE INDICATED  
REPORTING LIMIT

**FIGURE 7**  
**DISSOLVED-PHASE TBA ISOCONCENTRATION**  
**MAP -AUGUST 15, 2011**  
 76 (FORMER BP) STATION NO 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. I42611117	PREPARED BY SM	DRAWN BY JH
DATE 10/7/11	REVIEWED BY DU	FILE NAME 11117-SM1



## ***Tables***

Table 1	Soil Boring and Monitoring Well Construction Details
Table 2	Current Groundwater Gauging and Analytical Data
Table 2a	Additional Current Groundwater Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data
Table 3a	Additional Historical Groundwater Analytical Data

**TABLE 1**  
**SOIL BORING AND MONITORING WELL CONSTRUCTION DETAILS**  
**76 (FORMER BP) SERVICE STATION NO. 11117**  
**7210 BANCROFT AVENUE**  
**OAKLAND, CALIFORNIA**



Updated 5/24/2011

Boring/Well ID	Well/Boring Completion Date	TOC Elevation <sup>1</sup> (ft)	Borehole Depth (ft bgs)	Borehole Diameter (in)	Well Depth (ft)	Well Casing Diameter (in)	Well Casing Material	Well Screen Slot Size (in)	Well Screen Interval (ft bgs)	Cement Grout Seal Interval (ft bgs)	Bentonite Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Comments
<b>Soil Borings</b>													
B-5	Jul-92	NA	50.0	8.0	NA	NA	NA	NA	NA to NA	0.0 to 50.0	NA to NA	NA to NA	
THP-1	Sep-94	NA	45.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 45.0	NA to NA	NA to NA	
TB-2	Sep-94	NA	45.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 45.0	NA to NA	NA to NA	
TB-3	Sep-94	NA	45.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 45.0	NA to NA	NA to NA	
TB-4	Sep-94	NA	45.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 45.0	NA to NA	NA to NA	
A-1	Sep-05	NA	46.5	4.25	NA	NA	NA	NA	NA to NA	0.0 to 46.5	NA to NA	NA to NA	
A-2	Sep-05	NA	42.0	2.0	NA	NA	NA	NA	NA to NA	0.0 to 42.0	NA to NA	NA to NA	
A-3	Nov-05	NA	36.0	2.0	NA	NA	NA	NA	NA to NA	0.0 to 36.0	NA to NA	NA to NA	
A-4	Nov-05	NA	36.0	2.0	NA	NA	NA	NA	NA to NA	0.0 to 36.0	NA to NA	NA to NA	
A-5	Nov-05	NA	36.0	2.0	NA	NA	NA	NA	NA to NA	0.0 to 36.0	NA to NA	NA to NA	
A-7	Nov-05	NA	36.5	4.25	NA	NA	NA	NA	NA to NA	0.0 to 36.5	NA to NA	NA to NA	
A-8	Nov-05	NA	36.5	4.25	NA	NA	NA	NA	NA to NA	0.0 to 36.5	NA to NA	NA to NA	
A-9	Nov-05	NA	36.5	4.25	NA	NA	NA	NA	NA to NA	0.0 to 36.5	NA to NA	NA to NA	
A-10	Nov-05	NA	39.0	4.25	NA	NA	NA	NA	NA to NA	0.0 to 39.0	NA to NA	NA to NA	
CPT-1	Apr-07	NA	60.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 60.0	NA to NA	NA to NA	
CPT-2	Apr-07	NA	60.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 60.0	NA to NA	NA to NA	
CPT-3	Apr-07	NA	60.0	1.75	NA	NA	NA	NA	NA to NA	0.0 to 60.0	NA to NA	NA to NA	
<b>Groundwater Monitoring Wells</b>													
MW-1	Dec-91	37.41	40	8	40	2	PVC	0.02	20.0 to 40.0	0.0 to 17.0	17.0 to 18.0	18.0 to 40.0	
MW-2	Dec-91	51.07	40	8	40	2	PVC	0.02	20.0 to 40.0	0.0 to 17.0	17.0 to 18.0	18.0 to 40.0	Well destroyed November 17, 2007
MW-3	Dec-89	37.56	45	8	45	2	PVC	0.02	30.0 to 45.0	0.0 to 3.0	3.0 to 25.0	25.0 to 45.0	
MW-4	Jul-92	38.35	40	8	40	2	PVC	0.02	20.0 to 40.0	0.0 to 17.0	17.0 to 18.0	18.0 to 40.0	
MW-6	Jul-92	51.05*	40	8	40	2	PVC	0.02	20.0 to 40.0	0.0 to 17.0	17.0 to 18.0	18.0 to 40.0	
MW-7	Oct-94	38.99	45	8	45	2	PVC	0.02	25.0 to 45.0	0.0 to 21.0	21.0 to 23.0	23.0 to 45.0	
MW-8	Oct-94	38.44	40	8	40	2	PVC	0.02	25.0 to 40.0	0.0 to 21.0	21.0 to 23.0	23.0 to 40.0	
MW-9	Oct-94	38.63	40	8	40	2	PVC	0.02	25.0 to 40.0	0.0 to 21.0	21.0 to 23.0	23.0 to 40.0	
MW-10	Jul-97	40.45	37.5	8	35	2	PVC	0.02	15.0 to 35.0	0.0 to 13.0	13.0 to 14.0	14.0 to 37.5	
MW-11	Nov-07	37.64	40	10	40	4	PVC	0.02	15.0 to 40.0	0.0 to 10.0	10.0 to 13.0	13.0 to 40.0	Graphic log indicates TD = 35 ft bgs

**TABLE 1**  
**SOIL BORING AND MONITORING WELL CONSTRUCTION DETAILS**  
**76 (FORMER BP) SERVICE STATION NO. 11117**  
**7210 BANCROFT AVENUE**  
**OAKLAND, CALIFORNIA**



Updated 5/24/2011

Boring/Well ID	Well/Boring Completion Date	TOC Elevation <sup>1</sup> (ft)	Borehole Depth (ft bgs)	Borehole Diameter (in)	Well Depth (ft)	Well Casing Diameter (in)	Well Casing Material	Well Screen Slot Size (in)	Well Screen Interval (ft bgs)	Cement Grout Seal Interval (ft bgs)	Bentonite Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Comments
<b>Remediation Wells</b>													
EX-1	Nov-99	38.98	39.5	10	40	4	PVC	0.02	18.0 to 38.0	0.0 to 15.0	15.0 to 16.0	16.0 to 39.5	
EX-2	Nov-99	39.63	36.5	10	40	4	PVC	0.02	15.0 to 35.0	0.0 to 13.0	13.0 to 13.0	13.0 to 36.5	
DPE-1	Nov-07	38.95	40	10	38	4	PVC	0.02	15.0 to 40.0	0.0 to 10.0	10.0 to 13.0	13.0 to 40.0	
DPE-2	Nov-07	37.64	40	10	40	4	PVC	0.02	15.0 to 40.0	0.0 to 10.0	10.0 to 13.0	13.0 to 40.0	
DPE-3	Nov-07	37.82	40	10	40	4	PVC	0.02	13.0 to 38.0	0.0 to 8.0	8.0 to 11.0	11.0 to 40.0	
DPE-4	Nov-07	38.46	45	10	38	4	PVC	0.01	15.0 to 40.0	0.0 to 10.0	10.0 to 13.0	13.0 to 45.0	Installed in same borehole as destroyed well MW-2
DPE-5	Nov-07	38.23	40	10	35	4	PVC	0.01	15.0 to 40.0	0.0 to 10.0	10.0 to 13.0	13.0 to 40.0	Log indicates Screen Interval at 15-38 ft bgs

Notes:

ft = feet	B = soil boring
in = inches	A = hydropunch boring
TOC = Top of Casing	CPT = cone penetrometer boring
bgs = below ground surface	MW = monitoring well
NA = not applicable	EX = extraction well
	DPE = extraction well

<sup>1</sup> = TOC Elevations were surveyed to a local datum on the following dates:

MW-1 through MW-6 -- January 1, 1992 and July 27, 1992 by HETI

MW-1, MW-3, MW4, MW-7 through MW-11, EX-1, EX-2, DPE-1 through DPE-5 -- December 3, 2007 by Morrow Surveying

\* = Wells not included in 2007 re-surveying.

**TABLE 2**  
**CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVENUE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA												
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
DPE-1	8/15/2011	38.95	16.46	NP	22.49	571	16.4	5.4	6.3	12.0	1.1	<0.50	<0.50	<0.50	140	<250	<1.0	<1.0
DPE-2	8/15/2011	37.64	15.29	NP	22.35	--	--	--	--	--	--	--	--	--	--	--	--	--
DPE-3	8/15/2011	37.82	15.59	NP	22.23	--	--	--	--	--	--	--	--	--	--	--	--	--
DPE-4	8/15/2011	38.46	16.15	NP	22.31	57600	5920	7240	3830	12100	5560	<0.50	12.2	132	6920	<250	<1.0	<1.0
DPE-5	8/15/2011	38.23	15.96	NP	22.27	15900	2420	127	1340	1650	773	<0.50	1.2	10.0	2510	<250	<1.0	<1.0
EX-1	8/15/2011	38.98	16.21	NP	22.77	1470	470	516 (D4)	472	1270	54.2	<5.0	<5.0	17.8	188	<2500	<10.0	13.3
EX-2*	8/15/2011	39.63	16.39	NP	23.24	<50.0	<0.50	<0.50	<0.50	<1.5	3.6	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-1	8/15/2011	37.41	15.40	NP	22.01	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8/15/2011	37.56	15.56	NP	22.00	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/15/2011	38.35	16.06	NP	22.29	87600	3430	280	2880	8500	317	<12.5	<12.5	<12.5	3410	<6250	<25.0	<25.0
MW-6	8/15/2011	51.05	16.07	NP	34.98**	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	8/15/2011	38.99	16.28	NP	22.71	<50.0	<0.50	<0.50	<0.50	<1.5	14.8	<0.50	<0.50	<0.50	13.1	<250	<1.0	<1.0
MW-8	8/15/2011	38.44	15.83	NP	22.61	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	8/15/2011	38.63	VO	VO	VO	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10*	8/15/2011	40.45	17.76	NP	22.69	<50.0	<0.50	<0.50	<0.50	<1.5	13.8	<0.50	<0.50	<0.50	13.1	<250	<1.0	<1.0
MW-11	8/15/2011	37.64	14.58	NP	23.06	1530	<0.50	0.80	9.2	8.0	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
TB-1	8/15/2011	--	--	--	--	<50.0	<0.50	0.80	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0

**Gauging Notes:**

TOC - Top of Casing  
ft - Feet  
NP - LNAPL not present  
LNAPL - Light non-aqueous phase liquid  
\* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)  
VO - Unable to locate  
-- - No information available  
\* - Samples from wells EX-2 and MW-10 were collected without purging  
\*\*MW-6 is not surveyed to the same datum as the other wells  
TB-1 = Trip Blank

**Analytical Notes:**

< - Not detected at or above indicated laboratory reporting limit  
ug/L - micrograms/liter  
DRO- diesel range organics  
GRO- gasoline range organics  
MTBE- Methyl tertiary-butyl ether  
TBA- Tertiary-butyl alcohol  
DIPE- Di-isopropyl ether  
ETBE- Ethyl tertiary-butyl ether  
TAME- Tertiary-amyl methyl ether

**Analyte Qualifiers:**

D4 - Sample was diluted due to the presence of high levels of target analytes.



TABLE 2a  
**ADDITIONAL CURRENT GROUNDWATER ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																		
		Biochemical Oxygen Demand (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Methane (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, Ammonia (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Phosphate, Ortho (ug/L)	Phosphorous (ug/L)	Sulfate (ug/L)	Sulfide (ug/L)	Total Organic Carbon (ug/L)
DPE-1	8/15/2011	4560	27900	25200	0.66	<0.2	11100	9490	1600	1500	108	13.1	<1000	<100	121	219	236	14300	1040	3640
DPE-4	8/15/2011	55000	113000	26400	4	<0.2	10800	3230	7600	16100 (E)	<50.0	39.6	1770	<100	62.1	502	732	<1000	1080	14000
DPE-5	8/15/2011	21200	53900	32100	28	<0.2	20500	14000	6500	13900 (E)	<50.0	28.8	1320	<100	<50.0	240	134 (3n)	<1000	1600	9360
EX-1	8/15/2011	8680	29800	19100	2.9	<0.2	1420	<100	1400	5040	52.9	<10.0	1120	185	59.7	148	107 (3n)	3830	1080	11600
EX-2	8/15/2011	579000 (2n)	7420	17100	2.2	<0.2	932	932	<100	208	12100	<10.0	<1000	<100	12100	162	106 (3n)	17600	760	2010

**Analytical Notes:**

- - No information available
- < - Not detected at or above indicated laboratory reporting limit
- NS - Well not sampled.
- ug/L - micrograms/liter

**Analyte Qualifiers:**

- 2n - High bias (confirmed with secondary analysis) due to matrix interference.
- 3n - Matrix interference noted for this sample.
- E - Analyte concentration exceeded the calibration range. The reported result is estimated.

**TABLE 3  
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
76 (FORMER BP) SERVICE STATION NO. 2611117  
7210 BANCROFT AVE  
OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
DPE-1	12/14/2007	38.95	21.62	NP	17.33	--	360	24	<0.5	3.4	<0.5	--	<0.5	3.4	<0.5	1300	<300	<0.5	<0.5
	2/12/2008	38.95	16.13	NP	22.82	--	4700	2000	310	130	360	--	<10	<10	<10	3900	<2000	<10	<10
	5/22/2008	38.95	18.03	NP	20.92	--	16000	3900	94	510	1700	--	<40	<40	<40	4400	<24000	<40	<40
	8/25/2008	38.95	20.95	NP	18.00	--	1300	250	<20	<20	<20	--	<20	<20	<20	4000	<12000	<20	<20
	12/17/2008	38.95	22.33	NP	16.62	--	480	<5	<5	<5	<5	--	<5	<5	<5	1200	<3000	<5	<5
	2/25/2009	38.95	18.15	NP	20.80	--	1100	170	<10	<10	<10	<10	--	--	--	--	--	--	--
8/15/2011	38.95	16.46	NP	22.49	--	571	16.4	5.4	6.3	12.0	1.1	<0.50	<0.50	<0.50	140	<250	<1.0	<1.0	
DPE-2	12/14/2007	37.64	20.09	NP	17.55	--	2500	1.2	0.99	12	32	--	<0.5	<0.5	<0.5	<20	<300	<0.5	<0.5
	2/12/2008	37.64	14.35	NP	23.29	--	1100	9.1	9.3	33	91	--	<0.5	<0.5	<0.5	<10	<100	<0.5	<0.5
	5/22/2008	37.64	16.60	NP	21.04	--	1000	1.2	3.7	11	18	--	<0.5	<0.5	<0.5	<10	<300	<0.5	<0.5
	8/25/2008	37.64	19.47	NP	18.17	--	780	0.52	<0.5	7.1	6.6	--	<0.5	<0.5	<0.5	<10	<300	<0.5	<0.5
	12/17/2008	37.64	21.35	NP	16.29	--	21000	230	180	630	1900	--	<10	<10	<10	<200	<6000	<10	<10
	2/25/2009	37.64	16.60	NP	21.04	--	16000	170	180	580	1500	<10	--	--	--	--	--	--	--
8/15/2011	37.64	15.29	NP	22.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPE-3	12/14/2007	37.82	20.45	NP	17.37	--	1300	1800	840	830	1200	--	<25	<25	<25	1700	<15000	<25	<25
	2/12/2008	37.82	14.88	NP	22.94	--	50	31	55	140	300	--	<5	<5	<5	<100	<1000	<5	<5
	5/22/2008	37.82	16.92	NP	20.90	--	800	950	160	890	330	--	<20	<20	<20	<400	<12000	<20	<20
	8/25/2008	37.82	19.77	NP	18.05	--	3900	8.5	21	91	260	--	<2.5	<2.5	<2.5	<50	<1500	<2.5	<2.5
	12/17/2008	37.82	21.61	NP	16.21	--	24000	410	210	980	2900	--	<20	<20	<20	<400	<12000	<20	<20
	2/25/2009	37.82	17.18	NP	20.64	--	4400	22	12	130	150	<2.5	--	--	--	--	--	--	--
8/15/2011	37.82	15.59	NP	22.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DPE-4	12/14/2007	38.46	21.00	NP	17.46	--	510000	12000	27000	4900	27000	--	<500	<500	<500	<20000	<300000	<500	<500
	2/12/2008	38.46	15.43	NP	23.03	--	100000	6600	21000	3800	22000	--	<50	<50	55	<1000	<10000	<50	<50
	5/22/2008	38.46	17.38	NP	21.08	--	130000	9700	26000	5000	28000	--	<400	<400	<400	<8000	<240000	<400	<400
	8/25/2008	38.46	20.36	NP	18.10	--	190000	9100	19000	4100	22000	--	<400	<400	<400	<8000	<240000	<400	<400
	12/17/2008	38.46	21.89	NP	16.57	--	160000	10000	20000	4500	22000	--	<400	<400	<400	<8000	<240000	<400	<400
	2/25/2009	38.46	17.59	NP	20.87	--	130000	9900	21000	4600	22000	4500	--	--	--	--	--	--	--
8/15/2011	38.46	16.15	NP	22.31	--	57600	5920	7240	3830	12100	5560	<0.50	12.2	132	6920	<250	<1.0	<1.0	
DPE-5	12/14/2007	38.23	20.86	NP	17.37	--	300000	9200	4100	4600	20000	--	<500	<500	<500	<20000	<300000	<500	<500
	2/12/2008	38.23	15.20	NP	23.03	--	63000	5600	2200	3400	12000	--	<50	<50	<50	2000	<10000	<50	<50
	5/22/2008	38.23	17.37	NP	20.86	--	34000	6800	620	2600	6000	--	<200	<200	<200	4500	<120000	<200	<200
	8/25/2008	38.23	21.80	NP	16.43	--	40000	5200	940	2100	5400	--	<100	<100	<100	5100	<60000	<100	<100
	12/17/2008	38.23	21.96	NP	16.27	--	33000	4800	130	1700	2500	--	<100	<100	<100	6100	<60000	<100	<100
	2/25/2009	38.23	17.47	NP	20.76	--	50000	6600	590	2300	6100	3100	--	--	--	--	--	--	--
8/15/2011	38.23	15.96	NP	22.27	--	15900	2420	127	1340	1650	773	<0.50	1.2	10.0	2510	<250	<1.0	<1.0	
EX-1	5/4/2004	NSVD	16.29	NP	NSVD	--	12000	2300	430	740	1100	--	<25	<25	38	<1000	<5000	<25	<25
	8/31/2004	NSVD	19.39	NP	NSVD	--	13000	2500	95	650	1500	--	<50	<50	<50	<2000	<10000	<50	<50
	11/23/2004	NSVD	17.90	NP	NSVD	--	13000	2700	94	460	1700	--	<25	<25	74	<1000	<5000	<25	<25
	1/18/2005	NSVD	14.20	NP	NSVD	--	16000	2100	390	570	2500	--	<25	<25	54	<1000	<5000	<25	<25
	6/29/2005	NSVD	14.22	NP	NSVD	--	6400	1100	52	280	790	--	<25	<25	30	<1000	<5000	<25	<25
	9/1/2005	NSVD	17.22	NP	NSVD	--	7900	2000	94	400	870	--	<25	<25	46	<1000	<5000	<25	<25
	11/3/2005	NSVD	19.92	NP	NSVD	--	22000	3200	640	550	3300	--	<25	<25	87	<1000	<5000	<25	<25
	2/14/2006	NSVD	15.40	NP	NSVD	--	3500	<25	<25	<25	74	--	<25	<25	<25	<1000	<15000	<25	<25
	5/30/2006	NSVD	13.43	NP	NSVD	--	8600	1400	120	490	1300	--	<25	<25	37	<1000	<15000	<25	<25
	8/29/2006	NSVD	17.74	NP	NSVD	--	22000	2900	210	1400	3600	--	<25	<25	56	<1000	<15000	<25	<25
	11/29/2006	NSVD	20.25	NP	NSVD	--	15000	4000	110	770	2700	--	<50	<50	75	<2000	<30000	<50	<50
	2/20/2007	NSVD	16.75	NP	NSVD	--	10000	2500	<50	550	1300	--	<50	<50	<50	<2000	<30000	<50	<50
	5/25/2007	NSVD	17.04	NP	NSVD	--	8600	2100	88	700	1400	--	<50	<50	<50	<2000	<30000	<50	<50
	8/9/2007	NSVD	19.76	NP	NSVD	--	4800	870	40	230	460	--	<10	<10	15	440	<6000	<10	<10
11/9/2007	NSVD	21.57	NP	NSVD	--	5300	2700	29	220	200	--	<25	<25	<25	1900	<15000	<25	<25	
12/14/2007	38.98	21.60	NP	17.38	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/12/2008	38.98	15.92	NP	23.06	--	19000	2500	<50	360	860	320	<50	<50	<50	2200	<10000	<50	<50	







**TABLE 3**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-2	8/31/2000	49.95	21.97	NP	27.98	--	200000	16000	26000	2500	16000	--	--	--	--	--	--	--	--
	12/11/2000	49.95	22.05	NP	27.90	--	130000	18600	30000	3250	20600	--	--	--	--	--	--	--	--
	3/20/2001	49.95	17.75	NP	32.20	--	140000	15900	24800	3700	22100	--	--	--	--	--	--	--	--
	6/19/2001	49.95	20.15	NP	29.80	--	130000	15100	19500	3300	21400	--	--	--	--	--	--	--	--
	9/20/2001	49.95	22.14	NP	27.81	--	110000	12400	12600	2230	13000	--	--	--	--	--	--	--	--
	12/27/2001	49.95	18.17	NP	31.78	--	150000	17500	26000	3050	19500	--	--	--	--	--	--	--	--
	2/28/2002	49.95	17.42	NP	32.53	--	120000	13900	18800	3030	19600	--	--	--	--	--	--	--	--
	6/28/2002	49.95	17.04	NP	32.91	--	3700	190	23.3	139	287	--	--	--	--	--	--	--	--
	9/12/2002	49.95	19.52	NP	30.43	--	100000	13000	22000	3600	20000	--	--	--	--	--	--	--	--
	12/12/2002	49.95	21.08	NP	28.87	--	120000	13000	21000	4400	25000	--	--	--	--	--	--	--	--
	3/10/2003	49.95	17.84	NP	32.11	--	100000	17000	21000	3400	20000	--	--	--	--	--	--	--	--
	5/12/2003	49.95	16.66	NP	33.29	--	150000	16000	24000	3500	22000	--	--	--	--	--	--	--	--
	8/27/2003	49.95	19.65	NP	30.30	--	120000	14000	12000	3900	20000	--	<120	<120	140	<5000	<25000	--	--
	11/10/2003	49.95	20.80	NP	29.15	--	97000	12000	9500	3600	15000	--	<250	<250	<250	<10000	<50000	--	--
	2/3/2004	49.95	16.82	NP	33.13	--	130000	14000	19000	3400	20000	--	--	--	--	--	--	--	--
	5/4/2004	49.95	16.19	NP	33.76	--	120000	12000	16000	3700	22000	--	<250	<250	<250	<10000	<50000	<250	<250
	8/31/2004	49.95	19.50	NP	30.45	--	99000	10000	13000	3700	18000	--	--	--	--	--	--	--	--
	11/23/2004	49.95	18.20	NP	31.75	--	110000	8200	17000	4000	23000	--	<250	<250	<250	<10000	<50000	<250	<250
	1/18/2005	49.95	14.91	NP	35.04	--	96000	6500	14000	3500	21000	--	<100	<100	<100	<4000	<20000	<100	<100
	6/29/2005	49.95	13.98	NP	35.97	--	54000	6200	4900	3300	12000	--	--	--	--	--	--	--	--
	9/1/2005	49.95	17.00	NP	32.95	--	58000	6300	6000	3300	15000	--	<100	<100	100	<4000	<20000	<100	<100
	11/3/2005	49.95	20.25	NP	29.70	--	63000	7400	3700	3300	10000	--	<100	<100	100	<4000	<20000	<100	<100
	2/14/2006	49.95	13.72	NP	36.23	--	97000	7500	11000	4300	16000	--	<100	<100	<100	<4000	<60000	<100	<100
	5/30/2006	49.95	13.50	NP	36.45	--	28000	5200	2500	1500	3300	--	<100	<100	<100	<4000	<60000	<100	<100
	8/29/2006	49.95	18.16	NP	31.79	--	65000	7200	4500	3200	11000	--	<100	<100	100	<4000	<60000	<100	<100
11/29/2006	49.95	20.06	NP	29.89	--	46000	8500	4600	3300	10000	--	<120	<120	120	<5000	<75000	<120	<120	
2/20/2007	49.95	16.43	NP	33.52	--	78000	9700	12000	4100	16000	--	<100	<100	<100	<4000	<60000	<100	<100	
5/25/2007	49.95	16.80	NP	33.15	--	62000	7400	9500	4100	15000	--	<200	<200	<200	<8000	<120000	<200	<200	
8/9/2007	49.95	19.55	NP	30.40	--	58000	7400	5000	3800	12000	--	<100	<100	<100	<4000	<60000	<100	<100	
11/9/2007	49.95	21.53	NP	28.42	--	49000	6300	3300	2900	8300	--	<100	<100	<100	<4000	<60000	<100	<100	
MW-3	1/5/1992	NSVD	33.69	NP	NSVD	4000	7400	790	23	210	40	--	--	--	--	--	--	--	
	1/10/1992	NSVD	33.74	NP	NSVD	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	6/5/1992	NSVD	29.65	NP	NSVD	--	0	130	5.3	93	20	--	--	--	--	--	--	--	
	7/24/1992	NSVD	30.14	NP	NSVD	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	7/27/1992	NSVD	30.14	NP	NSVD	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/15/1992	NSVD	31.07	NP	NSVD	<50	450	55	3.1	34	7.1	--	--	--	--	--	--	--	
	12/15/1992	NSVD	31.93	NP	NSVD	710	12000	940	<50	310	120	--	--	--	--	--	--	--	
	3/15/1993	NSVD	25.71	NP	NSVD	60	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
	6/7/1993	NSVD	25.80	NP	NSVD	<50	150	3.6	<0.5	0.9	1.3	--	--	--	--	--	--	--	
	9/23/1993	NSVD	29.18	NP	NSVD	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	9/24/1993	NSVD	NG	NG	NG	<50	160	8.4	<0.5	3.7	1.3	--	--	--	--	--	--	--	
	12/27/1993	NSVD	29.25	NP	NSVD	--	9400	1100	48	530	120	--	--	--	--	--	--	--	
	4/5/1994	NSVD	26.84	NP	NSVD	--	7000	860	19	330	52	--	--	--	--	--	--	--	
	7/22/1994	NSVD	26.90	NP	NSVD	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
	10/13/1994	NSVD	27.83	NP	NSVD	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	
	1/25/1995	51.40	21.65	NP	29.75	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	4/19/1995	51.40	19.33	NP	32.07	--	2400	170	8	130	27	--	--	--	--	--	--	--	
7/5/1995	51.40	20.27	NP	31.13	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--		
10/5/1995	51.40	23.73	NP	27.67	--	2300	210	3.1	10	5.1	--	--	--	--	--	--	--		
1/12/1996	51.40	24.84	NP	26.56	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--		
4/22/1996	51.40	18.60	NP	32.80	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--		











**TABLE 3  
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA  
76 (FORMER BP) SERVICE STATION NO. 2611117  
7210 BANCROFT AVE  
OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	2/11/2008	51.05	15.08	NP	35.97	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<10	<100	<0.5	<0.5
	5/22/2008	51.05	17.07	NP	33.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/25/2008	51.05	19.82	NP	31.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2008	51.05	21.58	NP	29.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/25/2009	51.05	17.34	NP	33.71	--	120	<0.50	<0.50	<0.50	<0.50	13	--	--	--	--	--	--	--
	5/21/2009	51.05	16.85	NP	34.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/14/2009	51.05	20.03	NP	31.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/2010	51.05	15.31	NP	35.74	--	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	8/20/2010	51.05	16.60	NP	34.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/7/2011	51.05	14.86	NP	36.19	--	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
8/15/2011	51.05	16.07	NP	34.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-7	1/25/1995	51.40	21.67	NP	29.73	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	4/19/1995	51.40	25.27	NP	26.13	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	7/5/1995	51.40	24.63	NP	26.77	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	10/5/1995	51.40	28.21	NP	23.19	--	83	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	1/12/1996	51.40	29.29	NP	22.11	--	63	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	4/22/1996	51.40	23.11	NP	28.29	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	7/2/1996	51.40	23.56	NP	27.84	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	11/8/1996	51.40	20.06	NP	31.34	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	1/3/1997	51.40	23.42	NP	27.98	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	4/28/1997	51.40	24.12	NP	27.28	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	7/1/1997	51.40	26.40	NP	25.00	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	10/2/1997	51.40	28.14	NP	23.26	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	1/9/1998	51.40	24.02	NP	27.38	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	5/6/1998	51.40	21.00	NP	30.40	--	1900	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	7/21/1998	51.40	21.17	NP	30.23	--	50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	12/30/1998	51.40	22.13	NP	29.27	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/1999	51.40	22.08	NP	29.32	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/10/1999	51.40	18.58	NP	32.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/23/1999	51.40	24.29	NP	27.11	--	70	<1	<1	<1	<1	--	--	--	--	--	--	--	--
	12/23/1999	51.40	24.53	NP	26.87	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/27/2000	51.40	18.58	NP	32.82	--	910	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
	5/22/2000	51.40	19.49	NP	31.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/31/2000	51.40	22.53	NP	28.87	--	440	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
	12/11/2000	51.40	22.75	NP	28.65	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/20/2001	51.40	18.79	NP	32.61	--	1100	<0.5	<0.5	<0.5	<1.5	--	--	--	--	--	--	--	--
	6/19/2001	51.40	19.82	NP	31.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/20/2001	51.40	21.35	NP	30.05	--	1300	1.21	<0.5	<0.5	<1.5	--	--	--	--	--	--	--	--
	12/27/2001	51.40	20.36	NP	31.04	--	510	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	2/28/2002	51.40	21.86	NP	29.54	--	250	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	6/28/2002	51.40	22.64	NP	28.76	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--
	9/12/2002	51.40	23.51	NP	27.89	--	<50	<0.5	<0.5	<0.5	1	--	--	--	--	--	--	--	--
	12/12/2002	51.40	23.75	NP	27.65	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
3/10/2003	51.40	21.25	NP	30.15	--	61	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
5/12/2003	51.40	21.44	NP	29.96	--	<100	<1	<1	<1	<1	--	--	--	--	--	--	--	--	
8/27/2003	51.40	23.30	NP	28.10	--	120	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<20	<100	--	--	
11/10/2003	51.40	20.24	NP	31.16	--	230	<1	<1	<1	<1	--	<1	<1	<1	<40	<200	--	--	
2/3/2004	51.40	20.63	NP	30.77	--	<250	<2.5	<2.5	<2.5	<2.5	--	<2.5	<2.5	<2.5	<100	<500	<2.5	<2.5	
5/4/2004	51.40	21.89	NP	29.51	--	<250	<2.5	<2.5	<2.5	<2.5	--	<2.5	<2.5	<2.5	<100	<500	<2.5	<2.5	



**TABLE 3**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-8	6/28/2002	50.88	16.97	NP	33.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/12/2002	50.88	19.47	NP	31.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/12/2002	50.88	20.84	NP	30.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/10/2003	50.88	16.56	NP	34.32	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
	5/12/2003	50.88	13.63	NP	37.25	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/27/2003	50.88	18.90	NP	31.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/10/2003	50.88	19.68	NP	31.20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/3/2004	50.88	14.76	NP	36.12	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<20	<100	<0.5	<0.5
	5/4/2004	50.88	14.69	NP	36.19	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/31/2004	50.88	18.08	NP	32.80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/23/2004	50.88	15.77	NP	35.11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/18/2005	50.88	12.04	NP	38.84	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
	6/29/2005	50.88	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/1/2005	50.88	16.12	NP	34.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/3/2005	50.88	19.42	NP	31.46	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/14/2006	50.88	12.43	NP	38.45	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<20	<300	<0.5	<0.5
	5/30/2006	50.88	12.40	NP	38.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/29/2006	50.88	17.16	NP	33.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/29/2006	50.88	19.35	NP	31.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/20/2007	50.88	14.57	NP	36.31	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<20	<300	<0.5	<0.5
	5/25/2007	50.88	16.11	NP	34.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/9/2007	50.88	19.25	NP	31.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	11/9/2007	50.88	20.92	NP	29.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/2007	38.44	21.26	NP	17.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/12/2008	38.44	14.00	NP	24.44	--	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	<10	<100	<0.5	<0.5
	5/22/2008	38.44	16.86	NP	21.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/25/2008	38.44	19.92	NP	18.52	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2008	38.44	21.45	NP	16.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/25/2009	38.44	16.19	NP	22.25	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	
5/21/2009	38.44	16.10	NP	22.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
8/14/2009	38.44	20.17	NP	18.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2/10/2010	38.44	15.33	NP	23.11	--	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
8/20/2010	38.44	16.29	NP	22.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2/7/2011	38.44	14.35	NP	24.09	--	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0	
8/15/2011	38.44	15.83	NP	22.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	1/25/1995	51.05	22.32	NP	28.73	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	4/19/1995	51.05	19.86	NP	31.19	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	7/5/1995	51.05	20.78	NP	30.27	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	10/5/1995	51.05	24.33	NP	26.72	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	1/12/1996	51.05	25.44	NP	25.61	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	
	4/22/1996	51.05	18.01	NP	33.04	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
	7/2/1996	51.05	19.70	NP	31.35	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
	11/8/1996	51.05	19.96	NP	31.09	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
	1/3/1997	51.05	19.52	NP	31.53	--	<250	<2.5	<5	<5	<5	--	--	--	--	--	--	--	
	4/28/1997	51.05	20.22	NP	30.83	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
	7/1/1997	51.05	22.59	NP	28.46	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
	10/2/1997	51.05	24.33	NP	26.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/3/1997	51.05	NG	NG	NG	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	
1/9/1998	51.05	21.11	NP	29.94	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--		
5/6/1998	51.05	18.26	NP	32.79	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--		

**TABLE 3**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-9	7/21/1998	51.05	18.46	NP	32.59	--	70	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--
	12/30/1998	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/1999	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/10/1999	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/23/1999	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/23/1999	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/27/2000	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/22/2000	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/31/2000	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/11/2000	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/20/2001	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/19/2001	51.05	NG	NG	NG	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/20/2001	51.05	22.20	NP		28.85	--	6300	2.87	<0.5	<0.5	<1.5	--	--	--	--	--	--	--
	12/27/2001	51.05	18.92	NP		32.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/28/2002	51.05	17.22	NP		33.83	--	19000	1560	61.3	84	111	--	--	--	--	--	--	--
	6/28/2002	51.05	18.20	NP		32.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/12/2002	51.05	19.92	NP		31.13	--	5100	570	180	<25	220	--	--	--	--	--	--	--
	12/12/2002	51.05	21.78	NP		29.27	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/10/2003	51.05	18.25	NP		32.80	--	26000	2500	<100	<100	<100	--	--	--	--	--	--	--
	5/12/2003	51.05	16.29	NP		34.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/27/2003	51.05	19.69	NP		31.36	--	11000	830	<50	<50	<50	--	<50	<50	<50	<2000	<10000	--
	11/10/2003	51.05	19.97	NP		31.08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/3/2004	51.05	17.23	NP		33.82	--	6200	180	<50	<50	<50	--	<50	<50	<50	<2000	<10000	<50
	5/4/2004	51.05	17.17	NP		33.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/31/2004	51.05	19.71	NP		31.34	--	<2500	210	<25	<25	<25	--	<25	<25	<25	<1000	<5000	<25
	11/23/2004	51.05	18.58	NP		32.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/18/2005	51.05	14.98	NP		36.07	--	490	32	<2.5	<2.5	8.9	--	<2.5	<2.5	<2.5	150	<500	<2.5
	6/29/2005	51.05	14.74	NP		36.31	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/1/2005	51.05	17.42	NP		33.63	--	3500	1300	<25	<25	28	--	<25	<25	<25	2700	<5000	<25
	11/3/2005	51.05	19.90	NP		31.15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/14/2006	51.05	12.95	NP		38.10	--	2700	<25	<25	<25	<25	--	<25	<25	<25	<1000	<15000	<25
	5/30/2006	51.05	13.76	NP		37.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/29/2006	51.05	17.86	NP		33.19	--	1200	580	<25	<25	<25	--	<25	<25	<25	2100	<15000	<25
	11/29/2006	51.05	20.25	NP		30.80	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/20/2007	51.05	16.91	NP		34.14	--	780	66	1.5	2	1.4	--	<1	<1	<1	380	<600	<1
	5/25/2007	51.05	17.28	NP		33.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/9/2007	51.05	19.71	NP		31.34	--	650	150	<0.5	<0.5	2	--	<0.5	<0.5	<0.5	790	<300	<0.5
	11/9/2007	51.05	21.62	NP		29.43	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/14/2007	38.63	21.66	NP		16.97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/12/2008	38.63	16.30	NP		22.33	--	890	27	2.5	28	5.4	--	<0.5	<0.5	<0.5	37	<100	<0.5
5/22/2008	38.63	18.10	NP		20.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
8/25/2008	38.63	20.93	NP		17.70	--	180	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<0.5	75	<300	<0.5	
12/17/2008	38.63	22.86	NP		15.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/25/2009	38.63	18.78	NP		19.85	--	600	11	0.86	1.1	2.2	<0.50	--	--	--	--	--	--	
5/21/2009	38.63	17.95	NP		20.68	--	--	--	--	--	--	--	--	--	--	--	--	--	
8/14/2009	38.63	20.81	NP		17.82	--	--	--	--	--	--	--	--	--	--	--	--	--	
2/10/2010	38.63	16.71	NP		21.92	--	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	
8/20/2010	38.63	17.22	NP		21.41	--	137	26.5	<0.50	<0.50	<1.5	0.91	<0.50	<0.50	<0.50	92.5	<250	<1.0	
2/7/2011	38.63	16.18	NP		22.45	--	78.5	1.6	<0.50	<0.50	<1.5	0.64	<0.50	<0.50	<0.50	27.6	<250	<1.0	



**TABLE 3**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 (FORMER BP) SERVICE STATION NO. 2611117**  
**7210 BANCROFT AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
MW-11	12/14/2007	37.64	20.16	NP	17.48	--	8000	<10	72	230	760	--	<10	<10	<10	<400	<6000	<10	<10	
	2/12/2008	37.64	14.35	NP	23.29	--	5500	46	13	220	160	--	<2.5	<2.5	<2.5	<50	<500	<2.5	<2.5	
	5/22/2008	37.64	16.63	NP	21.01	--	5700	80	21	320	150	--	<5	<5	<5	<100	<3000	<5	<5	
	8/25/2008	37.64	19.48	NP	18.16	--	5300	<5	20	120	320	--	<5	<5	<5	<100	<3000	<5	<5	
	12/17/2008	37.64	21.26	NP	16.38	--	12000	2.4	2.6	30	54	--	<0.5	<0.5	<0.5	<10	<300	<0.5	<0.5	
	2/25/2009	37.64	16.38	NP	21.26	--	6800	0.86	20	150	390	<0.50	--	--	--	--	--	--	--	--
	5/21/2009	37.64	16.16	NP	21.48	--	2500	1.5	4.4	36	82	1.5	--	--	--	--	--	--	--	--
	8/14/2009	37.64	19.27	NP	18.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/10/2010	37.64	13.35	NP	24.29	--	820	0.53	0.86	9.0	15.4	1.4	<0.50	<0.50	<0.50	6.1	<250	<1.0	<1.0	
	8/20/2010	37.64	15.66	NP	21.98	--	1740	0.52	1.4	16.5	26.1	1.2	<0.50	<0.50	<0.50	8.2	<250	<1.0	<1.0	
2/7/2011	37.64	13.55	NP	24.09	--	1530	<0.50	1.3	14.3	24.1	1.1	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0		
8/15/2011	37.64	14.58	NP	23.06	--	1530	<0.50	0.80	9.2	8.0	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0		
QC-2	9/15/1992	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	12/15/1992	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	3/15/1993	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	6/7/1993	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	9/24/1993	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	12/27/1993	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	4/5/1994	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	7/22/1994	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	10/13/1994	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	1/25/1995	NSVD	NG	NG	NG	--	<50	<0.5	2	0.6	1	--	--	--	--	--	--	--	--	
	4/19/1995	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	
	7/5/1995	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--	
	10/5/1995	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--	
	1/12/1996	NSVD	NG	NG	NG	--	<50	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--	--	
	4/22/1996	NSVD	NG	NG	NG	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--	
7/2/1996	NSVD	NG	NG	NG	--	<50	<0.5	<1	<1	<1	--	--	--	--	--	--	--	--		

**Gauging Notes:**  
 TOC - Top of Casing  
 ft - Feet  
 NP - LNAPL not present  
 LNAPL - Light non-aqueous phase liquid  
 \* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)  
 NG - Not gauged  
 VO - Unable to Locate  
 NSVD - Not surveyed  
 -- - No information available

**Analytical Notes:**  
 -- - No information available  
 < - Not detected at or above indicated laboratory reporting limit  
 NS - Well not sampled.  
 ug/L - micrograms/liter  
 DRO- diesel range organics  
 GRO- gasoline range organics  
 MTBE- Methyl tertiary-butyl ether  
 TBA- Tertiary-butyl alcohol  
 DIPE- Di-isopropyl ether  
 ETBE- Ethyl tertiary-butyl ether  
 TAME- Tertiary-amyl methyl ether



TABLE 3a  
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA  
 76 (FORMER BP) SERVICE STATION NO. 2611117  
 7210 BANCROFT AVE  
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																		
		Biochemical Oxygen Demand (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Methane (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, Ammonia (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Phosphate, Ortho (ug/L)	Phosphorous (ug/L)	Sulfate (ug/L)	Sulfide (ug/L)	Total Organic Carbon (ug/L)
DPE-1	8/15/2011	4560	27900	25200	0.66	<0.2	11100	9490	1600	1500	108	13.1	<1000	<100	121	219	236	14300	1040	3640
DPE-4	8/15/2011	55000	113000	26400	4	<0.2	10800	3230	7600	16100	<50.0	39.6	1770	<100	62.1	502	732	<1000	1080	14000
DPE-5	8/15/2011	21200	53900	32100	28	<0.2	20500	14000	6500	13900	<50.0	28.8	1320	<100	<50.0	240	134	<1000	1600	9360
EX-1	8/15/2011	8680	29800	19100	2.9	<0.2	1420	<100	1400	5040	52.9	<10.0	1120	185	59.7	148	107	3830	1080	11600
EX-2	8/15/2011	579000	7420	17100	2.2	<0.2	932	932	<100	208	12100	<10.0	<1000	<100	12100	162	106	17600	760	2010

**Analytical Notes:**

- - No information available
- < - Not detected at or above indicated laboratory reporting limit
- NS - Well not sampled.
- ug/L - micrograms/liter

*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



## ***Appendix A***

Site Details and Summary of Previous Environmental Investigations

## SITE LOCATION AND BACKGROUND

The Site is an active 76-brand gasoline retail outlet located on the northern corner of Bancroft Avenue and 73rd Avenue at 7210 Bancroft Avenue in Oakland, Alameda County, California (**Figure 1**). The site consists of a service station building, three 12,000-gallon gasoline underground storage tanks (USTs), and one 10,000-gallon diesel UST with associated piping and dispensers. The site is covered with asphalt or concrete surfacing except for planters along the southeastern and southwestern property boundaries and at the north corner of the property.

Land use in the immediate vicinity of the site is mixed commercial and residential. BP acquired the facility from Mobil Oil Corporation in 1989. In January 1994, BP transferred the property to TOSCO Marketing Company (TOSCO) and has not operated the facility since that time.

## SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

**1984 UST Replacement:** In 1984, the pre-existing USTs at the site were removed and three single-walled fiberglass gasoline underground storage tanks (USTs) (6,000-gallon, 10,000-gallon, and 12,000-gallon) and one 6,000-gallon diesel UST were installed in a cavity immediately to the northeast of the former USTs. A UST removal/installation report is not on file, and it is unknown if one was ever prepared. No documentation was reportedly found referencing the conditions of the removed USTs or reporting evidence of the hydrocarbon impacts in the soil and groundwater, if any, at the time of the UST removal.

**1989 Phase II Environmental Audit:** In December 1989, Hunter Environmental Services, Inc. (Hunter) performed a Phase II Environmental Audit on the adjacent Eastmont Town Center site located to the north and northwest of the former BP Site. Part of the Phase II study included the installation monitoring well MW-3 near the western boundary of the former BP Site. Soil samples collected from 10 and 20 feet below ground surface (bgs) from MW-3 were analyzed for total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, and total xylenes (BTEX), and oil and grease. No analytes were reported above their respective laboratory reporting limits (LRLs). A groundwater sample collected from MW-3 was reported to contain TPH and benzene at concentrations of 2,700 micrograms per liter ( $\mu\text{g/L}$ ) and 530  $\mu\text{g/L}$ , respectively (Hunter, 1989).

**1991 Phase I Subsurface Investigation:** In December 1991, Hydro Environmental Technologies, Inc. (Hydro) drilled two on-site soil borings (MW-1 and MW-2) to total depths of 40 feet bgs, and soil samples were collected at 10-foot intervals between 5 and 25 feet bgs. First groundwater was encountered at approximately 30 feet bgs. The analytical results of the soil samples from MW-1 and MW-2 reported total petroleum hydrocarbons as gasoline (TPH-g) and BTEX at concentrations below their respective LRLs (Hydro, 1991).

**1992 Phase I Subsurface Investigation:** In July 1992, Hydro advanced boring MW-4 and MW-6 to total depths of 40 feet bgs, and boring B-5 was advanced to 50 feet bgs, First groundwater was encountered at approximately 30 feet bgs in borings MW-4 and MW-6, and no free water was encountered in boring B-5. The analytical results of soil samples collected at 30 feet bgs from B-5 and MW-6 reported TPH-g and BTEX at concentrations below their respective LRLs. The maximum TPH-g and BTEX concentrations in soil reported in MW-4 were 6,000 milligrams per kilogram (mg/kg) and 34 mg/kg, respectively, from a depth of 20 feet bgs. Borings MW-4 and MW-6 were subsequently converted into monitoring wells (Hydro, 1992).

**1994 Baseline Assessment Report:** In September 1994, EMCON performed a Supplemental Site Assessment at the site. Four exploratory soil borings (THP-1, TB-2, TB-3, TB-4) were advanced to a maximum depth of 45 feet bgs north of the former and existing UST complexes (THP-1), at the former service bays (TB-2), north of the northern pump island (TB-3), and at a former pump island (TB-4). Additionally, one soil sample was collected from beneath each of the five dispensers (TD-1 through TD-5). Groundwater was encountered in TB-2 and TB-3 at approximately 33 to 36 feet bgs and groundwater samples were collected from TB-2 and TB-3 via temporarily well points. Maximum concentrations of 16 mg/kg TPH-g (TD-3), TPH as diesel (TPH-d) at concentrations ranging from 110 mg/kg to 5,000 mg/kg (TD-1 through TD-5), and benzene at concentrations below LRLs were reported in soil samples. TPHg was not reported above the LRLs and a maximum concentration of 0.7 µg/L benzene (TB-3) was reported in groundwater samples (EMCON, 1994).

**1994 Well Installation:** In October 1994, Hydro advanced boring MW-7 to a total depth of 45 feet bgs, and borings MW-8 and MW-9 were advanced to total depths of 40 feet bgs. First encountered groundwater was at approximately 27 feet bgs to 32 feet bgs. TPH-g and BTEX were not detected above their respective LRLs in soil samples collected from 25 feet bgs in each boring. The three borings were subsequently converted into monitoring wells MW-7 through MW-9 (Hydro, 1995).

**1997 Offsite Well Installation:** In July 1997, Pacific Environmental Group (PEG) drilled one boring (MW-10) offsite to a depth of approximately 37.5 feet bgs. Soil samples were collected and the boring was subsequently converted into a monitoring well. First groundwater was encountered at approximately 26 feet bgs. No TPH-g, BTEX or methyl tertiary butyl ether (MTBE) was detected in soil samples at concentrations above their respective LRLs in MW-10. TPH-g and BTEX were not detected in the groundwater sample from MW-10 at concentrations above their respective LRLs. However, MTBE was detected at concentration of 13 µg/L using EPA Method 8020 (PEG, 1997).

**1998 UST and Associated Piping and Dispenser Removal:** In August 1998, Environmental Resolutions, Inc. (ERI) removed the three gasoline USTs (6,000-gallon, 10,000-gallon, and 12,000-gallon), one 6,000-gallon diesel UST, and associated dispensers and piping from the site. There was no visible evidence of leakage from the USTs removed. A total of eight native soil samples were collected from beneath each end of the removed USTs (denoted as A through H on **Figure 2**) at depths of 14 to 16 feet bgs, and a total of 18 soil samples (denoted as I through Z on **Figure 2**) were collected from the former dispenser locations and from beneath the associated product lines at three feet bgs (ERI, 1998).

TPH-g was reported in five of the eight UST excavation samples at concentrations ranging from 3.7 mg/kg (S-15-T2S) to 5,300 mg/kg (S-15-T1S). TPH-d was detected at 630 mg/kg (S-15-T1N) and 800mg/kg (S-15 T1S) into two samples, benzene concentrations ranged between 0.40 mg/kg (S-15-T1N) to 0.95 mg/kg (S-16-T3N) in three samples, MTBE concentrations ranged between 0.028 mg/kg (S-14-T4S) to 5.3 mg/kg (S-16-T3N) in seven samples, and lead was not reported in the sample analyzed for lead. TPH-g was reported in nine of the eighteen dispenser and product line samples with concentrations ranging between 1.4 mg/kg (S-3-PL12) to 7,200 mg/kg (S-3-D4). TPH-d was detected between 4.8 mg/kg (S-3-PL12) to 190 mg/kg (S-3-PL11) in five samples, benzene was detected between 0.0089 mg/kg (S-3-PL12) to 22 mg/kg (S-3-D4) in three samples and MTBE was detected between 0.048 mg/kg (S-3-PL12) to 15 mg/kg (S-3-PL1) in ten samples (ERI, 1998).

During the 1998 UST replacement activities, approximately 389 tons of soil and backfill were transported off-site disposal. The existing 10,000-gallon diesel and three 12,000-gallon gasoline USTs were installed as replacements (ERI, 1998).

**1999 Groundwater Recovery Test:** In April 1999, Alisto Engineering Group (Alisto) conducted groundwater recovery tests on wells MW-1 through MW-4, MW-6, MW-7 and MW-10 to assess the spatial variation in hydraulic conductivity in the shallow water-bearing zone across the Site. Testing by the Bouwer-Rice method yielded hydraulic conductivities of  $2.46 \times 10^{-2}$  ft/min for MW-1,  $2.42 \times 10^{-4}$  ft/min for MW-2,  $3.82 \times 10^{-4}$  ft/min for MW-3,  $5.75 \times 10^{-4}$  ft/min for MW-4,  $1.99 \times 10^{-2}$  ft/min for MW-6,  $1.09 \times 10^{-4}$  ft/min for MW-7 and  $8.78 \times 10^{-5}$  ft/min for MW-10. The geometric mean of the hydraulic conductivity and flow velocity values were calculated to be  $1.37 \times 10^{-5}$  feet per second and 73.85 feet per year, respectively (Alisto, 1999).

**1999 Extraction Well Installation:** In November 1999, Cambria Environmental Technology, Inc. (Cambria) installed two 4-inch diameter wells (EX-1 and EX-2) on-site to facilitate potential remedial activities at the site. Well EX-1 was drilled to 39.5 feet bgs and EX-2 was drilled to 36.5 feet bgs. Groundwater was first encountered at 26 feet bgs. No TPH-G or BTEX, and relatively low MTBE concentrations (below 0.012 mg/kg) were reported in soil samples collected from EX-1 and EX-2 (Cambria, 2000).

**2000 Interim Remedial Action and Recovery Testing:** Between March 16 and April 30, 2000, Cambria conducted interim remedial activities at the site to evaluate the effectiveness of hydrocarbon and MTBE reduction using short-term groundwater extraction. During eight extraction events, approximately 10,900 gallons of groundwater was extracted from wells EX-1, EX-2 and MW-2. During the extraction events, stable to slightly decreasing hydrocarbon and MTBE concentration trends were reported in samples collected from wells MW-2 and EX-1, located immediately southwest of the existing USTs. Samples from well EX-2, located north of the existing USTs, exhibited lower hydrocarbon and MTBE concentrations than MW-2 and EX-1. In April 2000, during the batch extraction events, recovery tests were conducted on wells EX-1, EX-2 and MW-2. Based on the recovery test measurements, the calculated hydraulic conductivity values ranged from  $1.85 \times 10^{-4}$  ft/min to  $8.33 \times 10^{-4}$  ft/min with resulting flow velocities of 16 ft/year to 73 ft/year at well MW-2 (Cambria, 2000).

The calculated hydraulic conductivity values ranged from  $2.02 \times 10^{-5}$  ft/min to  $3.85 \times 10^{-5}$  ft/min for well EX-1 with resulting flow velocities of 1.8 to 3.4 Ft/yr. And a well EX-2, the calculated hydraulic conductivity values ranged from  $3.04 \times 10^{-4}$  ft/min to  $2.13 \times 10^{-3}$  ft/min for resulting flow velocities of 27 ft/year to 187 ft/year. The geometric mean of these values is a hydraulic conductivity of  $3.0 \times 10^{-4}$  ft/min and resulting flow velocity of 26 ft/year (Cambria, 2000).

**2001 Dual-Phase Extraction Pilot Test:** From October 29, through November 2, 2001, Cambria performed a dual phase soil vapor and groundwater extraction (DPE) pilot test on the monitoring wells with the highest historical hydrocarbon concentrations (i.e., MW-2 and MW-4) and the extraction wells (EX-1 and EX-2) at the site. The DPE test results indicated that the vacuum influence was limited to within 18 to 28 feet of the extraction well. Water levels typically decreased several feet in the extraction wells and had a varied response in the observation wells. Estimated vapor-phase removal rates were approximately 200-pounds of hydrocarbon per day in wells MW-4 and EX-1, and less than 5-pounds of hydrocarbon per day in wells MW-2 and EX-2 (Cambria 2002).

Soil vapor concentrations showed a decreasing trend in wells MW-4 and EX-1 during the short-term pilot tests. Grab water samples collected before and after the pilot tests remained the same order of magnitude. A total of 6,500 gallons of water was extracted during the DPE pilot test and appropriately disposed off-site. Overall, the test results indicated that DPE is a feasible remedial alternative for the site (Cambria, 2002). Alameda County Environmental Health (ACEH) approved Cambria's August 8, 2002, *Dual Phase Extraction Pilot Test Report* as a Corrective Action Plan (CAP).

**2005 Soil and Water Investigation:** In Fall 2005, URS completed nine Geoprobe soil borings with co-located Hydropunch borings. The first phase of work was on-site source area characterization: five boring locations (A-1 through A-5) were advanced in the vicinity of the possible hydrocarbons source areas such as locations of former and current USTs, products dispensers, and in the vicinity of MW-4 to adequately characterize the lateral and vertical extent of petroleum hydrocarbons in soils in the identified source areas. An off-site assessment was completed during the second phase of work (borings A-7 through A-10) to further define the downgradient, cross-gradient, and up-gradient extent of the groundwater plume (soil boring A-6 was unable to be advanced due to close proximity to electric lines and product piping). Maximum concentrations of gasoline range organics (GRO), benzene, and MTBE were detected in soil at concentrations of 490 mg/kg [A-4 (23.5-24')], 0.11 mg/kg [A-5 (35-35.5')], and 0.84 mg/kg [A-1 (46-46.5')], respectively. Maximum concentrations of GRO, benzene, and MTBE were detected in ground water at concentrations of 510,000 µg/L [A-2 (21.3')], 11,000 µg/L [A-4 (34-36')], and 39,000 µg/L [A-4 (34-36')], respectively (URS, 2005).

The cross-gradient and downgradient lateral extents of the dissolved hydrocarbon plume were characterized during the last investigation. However, the vertical extent of the dissolved-phase hydrocarbons on the southern portion of the site was not defined. Specifically, significantly elevated concentrations were detected in Hydropunch groundwater samples collected from the bottom depths of soil borings A-2, A-3 and A-4. The bottom Hydropunch sample from boring A-2 (40-42 ft bgs) contained concentrations of GRO, benzene, and MTBE at 36,000 µg/L, 1,800 µg/L, and 110 µg/L, respectively. The bottom Hydropunch sample from boring A-3 (34-36 ft bgs) contained concentrations of GRO, benzene, and MTBE at 12,000µg/L, 21µg/L, and 8.3µg/L respectively. The bottom Hydropunch sample from boring A-4 (34-36 ft bgs) contained GRO, benzene, and MTBE concentrations of 120,000µg/L, 11,000µg/L and 39,000 µg/L respectively (URS, 2005).

Therefore, the vertical extent of dissolved phase petroleum hydrocarbon contamination remains unknown in this southern area of the site (URS, 2005). A work plan for soil and water investigation to delineate the vertical extent of contamination in the southern portion of the site was submitted to ACEH in October 2006.

**2007 Soil and Groundwater Investigation:** In April 2007, Stratus Environmental, Inc. (Stratus) advanced cone penetrometer test (CPT) borings in three locations onsite (CPT-1 through CPT-3) to maximum depths of 60 feet bgs. CPT-1 was advanced southwest of the dispenser islands and southeast of monitoring well MW-1; CPT-2 was advanced south of the dispenser islands and southwest of monitoring well MW-4; CPT-3 was advanced in the eastern corner of the side as requested by the ACEH. An Ultraviolet Induced Fluorescence (UVIF) module was used at each CPT boring location, analyzing the vertical extent of petroleum hydrocarbons in addition to providing soil profiling data. Groundwater samples were collected from multiple depths at each boring locations; physical soil samples were not collected during this investigation.

- GRO was detected above laboratory reporting limits in five of the seven groundwater samples, ranging from 170 µg/L (CPT-3-28-32') to 170,000 µg/L (CPT-1-37-41').
- Benzene was detected above laboratory reporting limits in four of the seven groundwater samples, ranging from 0.51 µg/L (CPT-3-23-27') to 7,700 µg/L (CPT-2-37-41').
- Toluene was detected above laboratory reporting limits in three of the seven groundwater samples, ranging from 57 µg/L (CPT-1-30-34') to 670 µg/L (CPT-2-28-32').

- Ethylbenzene was detected above laboratory reporting limits in four of the seven groundwater samples, ranging from 530 µg/L (CPT-2-37-41') to 2,600 µg/L (CPT-1-37-41').
- Total xylenes were detected above laboratory reporting limits in four of the seven groundwater samples, ranging from 290 µg/L (CPT-2-37-41') to 9,600 µg/L (CPT-1-37-41').
- MTBE was detected above laboratory reporting limits in five of the seven groundwater samples, ranging from 4.4 µg/L (CPT-3-56-60') to 6,500 µg/L (CPT-2-37-41').
- TBA was detected above laboratory reporting limits in groundwater sample CPT-2-37-41' at 2,400 µg/L.

**2007-2008 DPE System Installation:** Construction of the DPE system was started by Broadbent & Associates, Inc (BAI) and Stratus in late 2007. The system consists of a thermal/catalytic oxidizer with a 25 horsepower liquid ring blower designed to extract water and vapor from six on-site extraction wells. Extracted vapor were to be treated by thermal/catalytic oxidation and discharged to the atmosphere under the oversight of the Bay Area Air Quality Management District. Extracted groundwater was to be treated by a sediment filter and three 1,000 pounds carbon vessels before being discharged into the City of Oakland sanitary sewer system. DPE wells DPE-1 through DPE-5 were installed at the site to total depths ranging from 35 feet to 40 feet bgs. Well MW-2 was overdrilled and destroyed to allow DPE-4 to be installed in the same borehole. The system is currently connected to six wells (DPE-1 through DPE-5 and EX-1) (BAI, 2008a).

As of the end of the fourth quarter 2008 the system had not been started. BAI and Stratus were still coordinating with Pacific Gas & Electric (PG&E) to install electrical service to the system. Natural gas was completed to the site and system in third quarter 2008 (BAI, 2008a).

During DPE construction activities, on-site groundwater monitoring well MW-11 was installed to a total depth of 40 feet bgs on the southern corner of the site. Soil samples collected at 20 feet and 30 feet bgs reported maximum concentrations of 1.9 mg/kg GRO and 0.0089 mg/kg benzene. MTBE was not reported above the LRL in either of the soil samples (BAI, 2008a).

**2009-2011 DPE System Startup Efforts:** In 2009, Antea Group (formerly Delta Consultants) began coordinating with the neighboring Eastmont Mall to allow trenching for the 3-phase power across the parking lot from behind the AutoZone. The total cost for installation efforts was estimated at approximately \$70,000, which did not include Antea Group's efforts for oversight or extensive negotiations of an access agreement with the mall's property management firm. Additionally, the cost of providing power from this distance would have been significantly increased due to line loss. Total utility cost to run the system was estimated at approximately \$4,000 a month. Additionally, groundwater discharge fees were estimated at approximately \$4,000 to \$5,000 a month.

Due to the significant cost associated with running power lines through the mall parking lot, Antea Group also explored the possibility of having 3-phase power being provided for a transformer near the neighboring Burger King restaurant. This transformer provided 208V/200A power, and the system would have needed modifications due to the 230A/240V design requirements. The total cost of the installation efforts was estimated at \$75,000. Additionally, the system would have still required an approximate \$9,000 to \$10,000 a month in utility and discharge costs.

Antea Group also explored another alternative for the startup of the DPE system, which included reconfiguring the current system for single phase power. Single phase power is available at an underutilized transformer south of the site

across 73rd Avenue. Trenching would be required to install single phase power across the street and then across the site to the compound. A digital three phase converter would be required to convert single phase power to three phase power. PG&E would require a complete engineering evaluation to determine if our equipment will meet their specifications for single phase power (i.e., digital phase converter). The total cost of single phase power conversion and installation was estimated to be in excess of \$110,000, and would have still required an approximate \$9,000 to \$10,000 a month in utility and discharge costs.

**2011 Remedial Action Site Investigation:** Antea Group submitted the *Remedial Action Investigation Work Plan*, dated August 03, 2011 to the ACEH. The ACEH approved the proposed scope of work in an agency letter to Antea Group dated September 1, 2011. Field activities are currently being performed as of the fourth quarter 2011.

### **FREE PRODUCT RECOVERY DURING GROUNDWATER MONITORING EVENTS**

Free product was observed in groundwater monitoring well MW-2 between the 1993 and 1998, at thicknesses ranging from 2.60 feet (3/30/1994) to less than 0.01 feet (10/2/1997 to 7/21/1998). When free product was observed in the well, it was removed by bailer. Between 1993 and 1998, a cumulative total of 24.90 gallons of free product had been removed from the well (Alisto, 1998).

Free product was also observed in well MW-4 during the third quarter 2001 (0.03 inches), fourth quarter 2006 (0.11 inches), first quarter 2008 (0.01 inches), and third quarter 2008 (0.05 inches); and in EX-2 during the second quarter 2007 (0.01 inch). With the exception of 1.5 gallons of a free product/water mixture recovered from MW-4 during the third quarter 2008 (BAI, 2008b), free product was not recovered from these wells when observed.

### **SENSITIVE RECEPTORS**

**2000 Potential Receptor Survey, Expanded Site Plan and Well Search:** In October 2000, Alisto completed a potential receptor survey, prepared an expanded site plan with neighboring property parcel information and underground utilities mapped, and identified wells in the vicinity of the site. A review of the files of the California Department of Water Resources (DWR) was performed to identify all known wells within one-half mile radius of the site. The results of the well search revealed that there were 17 wells other than the on-site monitoring wells. Of these, 11 were offsite monitoring wells; four were cathodic protection wells, one an industrial well, and one an irrigation well for a nearby cemetery. No domestic/municipal water supply wells were identified from review of the DWR files (Alisto, 2000).

**2010 Sensitive Receptor Survey:** Delta Consultants (Delta) submitted a *Sensitive Receptor Survey* in October 2010. As part of that receptor survey, Delta conducted a records review (environmental database search), a well radius search, and a search for other sensitive receptors which have the potential to be affected by the petroleum hydrocarbon release at the site. Delta's review of the historical aerial photographs indicated that the site in 1939 was primarily used for agricultural purposes with small family residences. In general, the site was developed to the current conditions with the station building in 1974. The historical topographic maps support the indication of residential houses and agriculture in the site region as early as 1915 to 1948. The well search indicated that 10 wells were within a one-mile radius of the site. DWR indicated the presence of 7 wells within a one-mile radius of the site. However, no records were found for the status of these wells as being active or abandoned. The main surface water bodies were Lake Merritt located northwest of the site and San Leandro Bay located west of the site. Several churches, schools and day care centers were located within a





one-mile radius of the site. Based on the above identified receptors' distances from the site, directions from the site, and extent of hydrocarbon impact at the site, they were not anticipated to be affected by the petroleum hydrocarbon release at the site.

*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



## ***Appendix B***

Blaine Tech Services Groundwater Sampling Procedures

# BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS

## SAMPLING PROCEDURES OVERVIEW

### SAFETY

All groundwater monitoring assignments performed for DELTA comply with safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any DELTA COP/ELT site.

### INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot.

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing free product.

### EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

### PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less

than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

## DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewateres and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

## PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous manifest to a Blaine Tech Services, Inc. facility before being transported to an approved disposal facility.

## SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

## SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

## TRIP BLANKS

Upon request, a Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

## DUPLICATES

Upon request, one Duplicate sample is collected at each site. It is up to the Field Technician to choose the well at which the Duplicate is collected. Typically, a duplicate is collected from one of the most contaminated wells. The Duplicate sample is labeled DUP thus rendering the sample blind.

## SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

## DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

## DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is de-tuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps

and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

#### DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 550 meter). These meters are equipped with membrane probe that enables them to collect accurate in-situ readings.

The probe and reel is decontaminated between wells as described above. The meter is calibrated as per the instructions in the operating manual. The probe is lowered into the water column allowed to stabilize before use.

#### OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

Blaine Tech Services, Inc.  
Standard Operating Procedure

**Purge Water Handling Procedure**

**Purpose**

Control of non-hazardous purge water disposal. This procedure outlines the handling and disposing of non-hazardous purge water for the DELTA/COP portfolio.

**Procedure**

- 1) All purge and rinsate water will be contained in onboard truck tanks or trailers. Water may be commingled with other sites in the same portfolio of DELTA/COP sites.
- 2) A Non-Hazardous Waste manifest will be generated prior to leaving site.
- 3) All water will be offloaded into a commingled DELTA/COP tank at BLAINE facility.
- 4) Water will then be offloaded from the DELTA/COP tank and the BLAINE facility and transported to a disposal facility.

For Southern California sites water will be disposed at Crosby and Overton in Wilmington, CA.  
For Northern California water will be disposed at Seaport Environmental in Redwood City, CA.

Example Manifest:

**NON-HAZARDOUS WASTE MANIFEST**

Form designed by LabelMaster (see the VHS Terms Agreement)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Number No.		2. Page # of	
3. Generator's Name and Mailing Address							
4. Generator's Phone ( )							
5. Transporter 1 Company Name		6. US EPA ID Number		A. State Transporter ID			
7. Transporter 2 Company Name		8. US EPA ID Number		B. State Transporter ID			
9. Disposal Facility Name and Site Address				10. US EPA ID Number		C. State Facility ID	
						D. State Facility's ID	
						E. Facility's Phone	
11. WASTE DESCRIPTION				12. Containers		13. U.S. DOT	
				No. Type		Quantity	
a.							
b.							
c.							
d.							
14. Additional Descriptions for Materials Listed Above				15. Handling Codes for Wastes Listed Above			
16. Special Handling Instructions and Additional Information							
17. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this document are true and accurately describe the site in all respects pertinent thereto for transport. The manifest prepared on this manifest may be subject to federal hazardous waste regulations.							
Person's Typed Name				Signature		Date	
17. Transporter 1 Acknowledgment of Receipt of Manifest						Date	
Person's Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgment of Receipt of Manifest						Date	
Person's Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Person's Typed Name				Signature		Date	
						Month Day Year	

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THANK YOU FOR HELPING PROTECT OUR ENVIRONMENT

Rev. 3/05

*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



## ***Appendix C***

Blaine Tech Services Groundwater Sampling Field Data Sheets



## Well-Head Inspection & Well Gauging Form

Antea Group Project No: 261117 Site Address: 7210 Bancroft Ave Oakland  
 Field Technician: Ben Parrell Date: 8/15/11 Weather: clear  
(Print Full Name & Company\*)

### Well Condition

Sample Order	Field Point	Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
- 7	MW-1	G	G	G	G	G	N	2	0737	15.40	38.49	—	—	
- 4	MW-3	G	G	G	G	G	N	2	0719	15.56	40.63	—	—	
13	MW-4	G	P	G	P	P	N	2	0826	16.06	39.19	—	—	ext. system, vault
- 6	MW-6	G	G	G	G	G	N	2	0731	16.07	39.47	—	—	
2	MW-7	G	G	G	G	G	N	2	0707	16.28	44.19	—	—	replaced lock
- 1	MW-8	G	G	G	G	G	N	2	0700	15.93	39.54	—	—	
<del>8</del>	<del>MW-9</del>							2						UNABLE TO LOCATE
5	MW-10	G	G	G	G	G	Y	2	0725	17.76	35.36	—	—	
11	MW-11	G	G	G	G	G	N	4	0812	14.58	37.01	—	—	
10	EX-1	G	G	G	G	G	N	4	0805	16.21	37.35	—	—	
3	EX-2	G	G	G	G	G	N	4	0713	16.39	35.08	—	—	
15	DPE-1	G	P	G	P	P	N	4	0839	16.46	39.56	—	—	ext. system, vault
- 9	DPE-2	G	G	G	G	G	N	4	0758	15.29	39.63	—	—	
- 12	DPE-3	G	G	G	G	G	N	4	0819	15.59	39.42	—	—	replaced 3/2 bolts
14	DPE-4	G	G	G	G	G	N	4	0832	16.15	39.70	—	—	

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*\* All well caps opened at least 15 minutes or longer before gauging wells:  
**CIRCLE ONE: YES or NO\*** NO



\*Form provided by Antea Group

Note: Use G=good and P=poor for well condition

## Well-Head Inspection & Well Gauging Form

Antea Group Project No: 261117 Site Address: 7210 Bancroft + Ave Oakland  
 Field Technician: Ben Paneli Date: 8/15/11 Weather: clear  
(Print Full Name & Company\*)

Well Condition											Comments			
Sample Order	Field Point	Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)		Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)
16	DPE-5	G	P	G	P	P	N	4	0945	15.96	39.16	—	—	ext. system vault

Notes: \_\_\_\_\_

\*\* All well caps opened at least 15 minutes or longer before gauging wells:  
**CIRCLE ONE: YES or NO\*\***



\*Form provided by Antea Group

Note: Use G=good and P=poor for well condition

## Groundwater Sampling Form

Site Address: <b>7210 Bancroft Ave Oakland</b>	
Project No: <b>261117</b>	Field Technician: <b>Ben Panell</b>
Field Point: <b>EX-1</b>	Date: <b>8/15/11</b>
Depth to Water (DTW) (ft bgs): <b>16.21</b>	Well Diameter (in): <b>2 4 6 8</b>
Depth to LNAPL (ft bgs): <b>—</b>	Thickness of LNAPL (ft): <b>—</b>
Total Depth of Well (ft bgs): <b>37.35</b>	Water Column Height (ft): <b>15.14<sup>(D)</sup> 21.14</b>

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <u>3 casing volumes</u> Other: _____	<b>Purge Equipment:</b> Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <b>21 15.14</b>	X Conversion Factor (gal/ft): <b>0.66</b>	= Casing Volume (gal): <b>10.00</b>
Casing Volume (gal): <b>10.00</b>	X Specified Volumes: <b>3</b>	= Calculated Purge (gal): <b>30.00</b>

Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius<sup>2</sup> \* 0.163

Purge: _____		Start Time: <b>11:37</b>		Stop Time: <b>11:46</b>				
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>								
11:35	21.19	6.85	518	-77.4	31	2.11	5.0	
11:38	21.35	6.81	511	-80.4	17	0.77	10.0	
11:41	21.55	6.76	501	-84.3	12	0.59	15.0	
11:45	21.44	6.62	536	-81.8	10	0.57	20.0	
11:46	Well Dewatered @ 23.0 Gals							35.41
15:30	22.10	6.20	407	5.1	16	2.10		
<b>Post-Purge</b>								

Did Well dewater?  Yes    No    Total Purge volume (gal): **23.0**

**Other Comments:** **80% @ : 19.23 \* NP @ 18.5' \* MS/MSD \* purged through collected a flow cell**  
**DTW: 18.84 \* Post Fe<sup>2+</sup>: 1.4 mg/L**

<b>Sample Info:</b>	
Sample ID: <b>EX-1 - 20110831</b>	Sample Date and Time: <b>8/15/11 @ 1530</b>
Selected Analysis: <b>SEE COC</b>	

This form was provided by Antea Group and completed by: (Print Full Name) **Ben Panell**, an employee of Blaine Tech Services, Inc.

Signature:  Date: **8/15/11**



**Antea<sup>TM</sup> Group**, 1-800-477-7411

LNAPL = light non-aqueous phase liquids  
 bgs = below ground surface  
 ORP = Oxidation-Reduction Potential  
 D.O. = dissolved oxygen

gal = gallon/s  
 temp = temperature  
 NTU = Nephelometric Turbidity Units  
 mV = millivolts

## Groundwater Sampling Form

Site Address: <b>7210 Bancroft Ave Oakland</b>	
Project No: <b>261117</b>	Field Technician: <b>Ben Panell</b>
Field Point: <b>EX-2</b>	Date: <b>8/15/11</b>
Depth to Water (DTW) (ft bgs): <b>16.39</b>	Well Diameter (in): <b>2 4 6 8</b>
Depth to LNAPL (ft bgs): <b>—</b>	Thickness of LNAPL (ft): <b>—</b>
Total Depth of Well (ft bgs): <b>35.08</b>	Water Column Height (ft): <b>—</b>

### Purging Info and Calculations:

<b>Purge Method:</b> <del>Low-Flow</del> <del>3 casing volumes</del> Other: <b>ENP @ 15.5'</b>	<b>Purge Equipment:</b> <del>Disposable Bailor</del> <del>Electric Submersible</del> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <del>Disposable Bailor</del> <del>Extraction Port</del> Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <b>—</b>	X Conversion Factor (gal/ft): <b>—</b>	= Casing Volume (gal): <b>—</b>
Casing Volume (gal): <b>—</b>	X Specified Volumes: <b>3</b>	= Calculated Purge (gal): <b>—</b>
Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius <sup>2</sup> * 0.163		

Time	Start Time:		Stop Time:					
	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>								
<b>1015</b>	<b>20.84</b>	<b>7.51</b>	<b>298</b>	<b>-4.4</b>	<b>31</b>	<b>0.77</b>	<b>—</b>	
<b>Post-Purge</b>								

Did Well dewater?  Yes  No      Total Purge volume (gal): \_\_\_\_\_

**Other Comments:** **80% @ : — \*NP @ 15.5'** **\* purged through a flow cell**  
**DTW: — \*Post Fezt: 0.0mg/L**

**Sample Info:**

Sample ID: <b>EX-2 - 20110831</b>	Sample Date and Time: <b>8/15/11 @ 1015</b>
Selected Analysis: <b>SEE COC</b>	

This form was provided by Antea Group and completed by: (Print Full Name) **Ben Panell**, an employee of Blaine Tech Services, Inc.

Signature:      Date: **8/15/11**

## Groundwater Sampling Form

Site Address: <b>7210 Bancroft Ave Oakland</b>	
Project No: <b>261117</b>	Field Technician: <b>Ben Parrell</b>
Field Point: <b>MW-4</b>	Date: <b>8/15/11</b>
Depth to Water (DTW) (ft bgs): <b>16.06</b>	Well Diameter (in): <b>2</b> 4 6 8
Depth to LNAPL (ft bgs): <b>—</b>	Thickness of LNAPL (ft): <b>—</b>
Total Depth of Well (ft bgs): <b>39.19</b>	Water Column Height (ft): <b>23.13</b>

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <u>3 casing volumes</u> Other: _____	<b>Purge Equipment:</b> Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <b>23.13</b> X Conversion Factor (gal/ft): <b>0.17</b> = Casing Volume (gal): <b>4.0</b> Casing Volume (gal): <b>4.0</b> X Specified Volumes: <b>3</b> = Calculated Purge (gal): <b>12.0</b>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius <sup>2</sup> * 0.163		


Purge: Start Time: <b>1224</b> Stop Time: <b>1232</b>								
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>				—		—		
1226	20.92	6.81	927	-78.5	26	1.99	2.0	
1228	21.23	6.76	924	-73.1	20	0.96	4.0	
1229	21.46	6.74	914	-70.7	16	0.71	6.0	
1230	21.24	6.68	939	-69.0	13	0.71	8.0	
1231	21.25	6.66	948	-71.2	10	0.72	10.0	
1232	21.28	6.66	949	-72.0	8	0.71	12.0	
<b>Post-Purge</b>				—		—		


Did Well dewater? Yes  No  Total Purge volume (gal): **12.0**

Other Comments: **80% @ : 20.68** \* purged through a flow cell  
**DTW: 16.96**

<b>Sample Info:</b>	
Sample ID: <b>MW-4 - 20110831</b>	Sample Date and Time: <b>8/15/11 @ 1240</b>
Selected Analysis: <b>SEE COC</b>	

This form was provided by Antea Group and completed by: (Print Full Name) **Ben Parrell**, an employee of Blaine Tech Services, Inc.

Signature:  Date: **8/15/11**


LNAPL = light non-aqueous phase liquids
gal = gallon/s  
bgs = below ground surface
temp = temperature  
ORP = Oxidation-Reduction Potential
NTU = Nephelometric Turbidity Units  
D.O. = dissolved oxygen
mV = millivolts

## Groundwater Sampling Form

Site Address:	7210 Bancroft Ave Oakland		
Project No:	261117	Field Technician:	Ben Panell
Field Point:	MW-7	Date:	8/15/11
Depth to Water (DTW) (ft bgs):	16.28	Well Diameter (in):	(2) 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	44.19	Water Column Height (ft):	27.91

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <input checked="" type="checkbox"/> casing volumes Other: _____	<b>Purge Equipment:</b> Disposable Bailor <input checked="" type="checkbox"/> electric Submersible Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <input checked="" type="checkbox"/> Disposable Bailor Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 27.91	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 4.7
Casing Volume (gal): 4.7	X Specified Volumes: 3	= Calculated Purge (gal): 14.1
Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius <sup>2</sup> * 0.163		

Purge:		Start Time: 0745		Stop Time: 0956				
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>								
0947	22.48	7.52	497	-173.3	212	1.48	2.4	
0950	21.84	7.30	474	-155.8	117	0.88	4.7	
0951	21.69	7.29	438	-150.0	73	0.84	7.1	
0953	21.69	7.28	436	-146.5	51	0.77	9.4	
0954	21.85	7.24	454	-136.1	29	0.61	11.8	
0956	21.92	7.22	402	-130.3	25	0.55	14.1	
<b>Post-Purge</b>								
Did Well dewater? Yes <input checked="" type="checkbox"/> No		Total Purge volume (gal): 14.1						

**Other Comments:** 80% @ : 21.86 \* NP @ 25.5' \* purged through a flow cell  
 DTW: 17.05

<b>Sample Info:</b>	
Sample ID: MW-7-20110831	Sample Date and Time: 8/15/11 @ 1035
Selected Analysis: SEE COC	

This form was provided by Antea Group and completed by: (Print Full Name) Ben Panell, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 8/15/11



Antea™ Group, 1-800-477-7411

LNAPL = light non-aqueous phase liquids  
 bgs = below ground surface  
 ORP = Oxidation-Reduction Potential  
 D.O. = dissolved oxygen

gal = gallon/s  
 temp = temperature  
 NTU = Nephelometric Turbidity Units  
 mV = millivolts

(2)

# Groundwater Sampling Form

Site Address:	7210 Bancroft Ave Oakland		
Project No:	261117	Field Technician:	Ben Panell
Field Point:	MW-10	Date:	8/15/11
Depth to Water (DTW) (ft bgs):	17.76	Well Diameter (in):	2 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	35.36	Water Column Height (ft):	—

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <del>Casing Volume</del> Other: NP @ 15.5'	<b>Purge Equipment:</b> Disposable Bailor Electric Submersible Peristaltic Pump Bladder Pump Other:	<b>Sample Collection Method:</b> Disposable Bailor Extraction Port Dedicated Tubing Disposable Tubing Other:
Water Column Height (ft):	X Conversion Factor (gal/ft):	= Casing Volume (gal):
Casing Volume (gal):	X Specified Volumes: 3	= Calculated Purge (gal):
Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius <sup>2</sup> * 0.163		

Purge:	Start Time:	Stop Time:						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge								
1120	22.41	6.69	1049	32.1	1.77	2.00	—	
Post-Purge								
Did Well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Purge volume (gal):						

**Other Comments:** 80% @ : —      DTW: —      \* purged through a flow cell

<b>Sample Info:</b>	
Sample ID: MW-10-20110831	Sample Date and Time: 8/15/11 @ 1120
Selected Analysis: SEE COC	

This form was provided by Antea Group and completed by: (Print Full Name) Ben Panell, an employee of Blaine Tech Services, Inc.

Signature: [Signature]      Date: 8/15/11



LNAPL = light non-aqueous phase liquids  
 bgs = below ground surface  
 ORP = Oxidation-Reduction Potential  
 D.O. = dissolved oxygen

gal = gallon/s  
 temp = temperature  
 NTU = Nephelometric Turbidity Units  
 mV = millivolts

# Groundwater Sampling Form

Site Address:	7210 Bancroft Ave Oakland		
Project No:	261117	Field Technician:	Ben Panell
Field Point:	MW-11	Date:	8/15/11
Depth to Water (DTW) (ft bgs):	14.58	Well Diameter (in):	2 (4) 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	37.01	Water Column Height (ft):	22.43

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <u>3 casing volumes</u> Other: _____	<b>Purge Equipment:</b> Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>22.43</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>3.8</u> Casing Volume (gal): <u>3.8</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>11.4</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius <sup>2</sup> * 0.163		

Purge:	Start Time: <u>1203</u>	Stop Time: <u>1210</u>						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>								
1204	21.12	6.73	431	-60.1	23	4.90	1.9	
1205	20.07	6.89	470	-720	17	2.77	3.8	
1206	20.00	6.90	419	-84.3	15	2.00	5.7	
1207	19.90	6.91	418	-89.0	13	1.25	7.6	
1208	19.96	6.87	417	-89.8	11	0.90	9.5	
1209	20.05	6.86	418	-91.6	9	0.82	11.4	
1210	20.16	6.86	424	-93.2	8	0.80	13.3	
<b>Post-Purge</b>								
Did Well dewater?		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Purge volume (gal): <u>13.3</u>					

**Other Comments:** 80% @ : 19.06 DTW: 17.45 \* purged through a flow cell

**Sample Info:**

Sample ID: MW-11 - 20110831	Sample Date and Time: 8/15/11 @ 1215
Selected Analysis: SEE COC	

This form was provided by Antea Group and completed by: (Print Full Name) Ben Panell, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 8/15/11



LNAPL = light non-aqueous phase liquids  
 bgs = below ground surface  
 ORP = Oxidation-Reduction Potential  
 D.O. = dissolved oxygen

gal = gallon/s  
 temp = temperature  
 NTU = Nephelometric Turbidity Units  
 mV = millivolts



## Groundwater Sampling Form

Site Address: <u>7210 Bancroft Ave Oakland</u>	
Project No: <u>261117</u>	Field Technician: <u>Ben Powell</u>
Field Point: <u>DPE-1</u>	Date: <u>8/15/11</u>
Depth to Water (DTW) (ft bgs): <u>16.46</u>	Well Diameter (in): <u>2 4 6 8</u>
Depth to LNAPL (ft bgs): <u>—</u>	Thickness of LNAPL (ft): <u>—</u>
Total Depth of Well (ft bgs): <u>39.56</u>	Water Column Height (ft): <u>23.1</u>

### Purging Info and Calculations

<b>Purge Method:</b> Low-Flow <u>3 casing volumes</u> Other: _____	<b>Purge Equipment:</b> Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>23.10</u> X Conversion Factor (gal/ft): <u>0.66</u> = Casing Volume (gal): <u>15.2</u> Casing Volume (gal): <u>15.2</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>45.6</u>		
Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius <sup>2</sup> * 0.163		

Purge:	Start Time:	Stop Time:	Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
	<u>1350</u>	<u>1355</u>	<b>Pre-Purge</b>				—				
			<u>1333</u>	<u>21.82</u>	<u>6.87</u>	<u>673</u>	<u>-59.2</u>	<u>412</u>	<u>1.14</u>	<u>7.6</u>	
			<u>1336</u>	<u>22.27</u>	<u>6.79</u>	<u>666</u>	<u>-58.4</u>	<u>334</u>	<u>0.57</u>	<u>15.2</u>	
			<u>1339</u>	<u>21.92</u>	<u>6.79</u>	<u>636</u>	<u>-59.9</u>	<u>248</u>	<u>0.49</u>	<u>22.8</u>	
			<u>1341</u>	<u>22.03</u>	<u>6.75</u>	<u>662</u>	<u>-60.8</u>	<u>37</u>	<u>0.60</u>	<u>30.4</u>	
			<u>1344</u>	<u>22.04</u>	<u>6.75</u>	<u>678</u>	<u>-62.8</u>	<u>19</u>	<u>0.51</u>	<u>38.0</u>	
			<u>1347</u>	<u>22.06</u>	<u>6.74</u>	<u>692</u>	<u>-64.6</u>	<u>15</u>	<u>0.46</u>	<u>45.6</u>	
			<b>Post-Purge</b>				—				

Did Well dewater? Yes  No  Total Purge volume (gal): 45.6

Other Comments: 80% @ : 21.08 \* Post Fe 2+; 1.6 mg/L \* purged through a flow cell  
DTW: 20.49

**Sample Info:**

Sample ID: DPE-1 - 20110831 Sample Date and Time: 8/15/11 @ 1355

Selected Analysis: SEE COC

This form was provided by Antea Group and completed by: (Print Full Name) Ben Powell, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 8/15/11

# Groundwater Sampling Form

Site Address: <b>7210 Bancroft Ave Oakland</b>	
Project No: <b>261117</b>	Field Technician: <b>Ben Panell</b>
Field Point: <b>DPE-4</b>	Date: <b>8/15/11</b>
Depth to Water (DTW) (ft bgs): <b>16.15</b>	Well Diameter (in): <b>2 (4) 6 8</b>
Depth to LNAPL (ft bgs): <b>—</b>	Thickness of LNAPL (ft): <b>—</b>
Total Depth of Well (ft bgs): <b>39.70</b>	Water Column Height (ft): <b>23.55</b>

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <u>3 casing volumes</u> Other: _____	<b>Purge Equipment:</b> Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <u>Disposable Bailor</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>23.55</u> X Conversion Factor (gal/ft): <u>0.66</u> = Casing Volume (gal): <u>15.5</u> Casing Volume (gal): <u>15.5</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>46.5</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius <sup>2</sup> * 0.163		

Purge: Start Time: 12:45 Stop Time: 1:22

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>				—		—		
1308	21.10	6.76	889	-83.1	311	1.22	8.3	
1311	21.31	6.78	917	-89.2	182	0.79	15.5	
1313	21.30	6.79	925	-91.2	244	0.74	23.8	
1316	21.24	6.76	940	-94.6	303	0.68	31.0	
1319	21.23	6.75	939	-95.6	317	0.65	39.3	
1322	21.29	6.74	930	-97.1	298	0.64	46.5	25.38
<b>Post-Purge</b>				—		—		

Did Well dewater? Yes  No  Total Purge volume (gal): 46.5

**Other Comments:** 80% @ : 20% \* Post Fe<sup>2+</sup>: 7.6mg/L \* purged through a flow cell  
DTW: 16.77 \* ODR

**Sample Info:**

Sample ID: <b>DPE-4-20110831</b>	Sample Date and Time: <b>8/15/11 @ 1505</b>
Selected Analysis: <b>SEE COC</b>	

This form was provided by Antea Group and completed by: (Print Full Name) Ben Panell, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 8/15/11

## Groundwater Sampling Form

Site Address: <u>7210 Bancroft Ave Oakland</u>	
Project No: <u>261117</u>	Field Technician: <u>Ben Panell</u>
Field Point: <u>DPE-5</u>	Date: <u>8/15/11</u>
Depth to Water (DTW) (ft bgs): <u>15.96</u>	Well Diameter (in): <u>2 4 6 8</u>
Depth to LNAPL (ft bgs): <u>—</u>	Thickness of LNAPL (ft): <u>—</u>
Total Depth of Well (ft bgs): <u>39.16</u>	Water Column Height (ft): <u>23.2</u>

### Purging Info and Calculations:

<b>Purge Method:</b> Low-Flow <del>3 casing volumes</del> Other: _____	<b>Purge Equipment:</b> Disposable Bailor <del>electric Submersible</del> Peristaltic Pump Bladder Pump Other: _____	<b>Sample Collection Method:</b> <del>Disposable Bailor</del> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>23.2</u>	X Conversion Factor (gal/ft): <u>0.66</u>	= Casing Volume (gal): <u>15.3</u>
Casing Volume (gal): <u>15.3</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>45.9</u>
Conversion Factors (gal/ft): 2" = 0.17    4" = 0.66    6" = 1.5    8" = 2.6    Other = radius * 0.163		

Purge: \_\_\_\_\_ Start Time: 1415 Stop Time: 1430

Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
<b>Pre-Purge</b>				—		—		
<u>1417</u>	<u>21.17</u>	<u>6.83</u>	<u>1049</u>	<u>-94.5</u>	<u>23</u>	<u>3.96</u>	<u>7.6</u>	
<u>1420</u>	<u>21.55</u>	<u>6.80</u>	<u>1024</u>	<u>-94.9</u>	<u>19</u>	<u>0.77</u>	<u>15.3</u>	
<u>1422</u>	<u>21.33</u>	<u>6.75</u>	<u>1002</u>	<u>-98.8</u>	<u>17</u>	<u>0.72</u>	<u>22.9</u>	
<u>1425</u>	<u>21.24</u>	<u>6.73</u>	<u>991</u>	<u>-97.5</u>	<u>13</u>	<u>0.69</u>	<u>30.6</u>	
<u>1427</u>	<u>21.30</u>	<u>6.72</u>	<u>984</u>	<u>-80.1</u>	<u>13</u>	<u>0.65</u>	<u>38.2</u>	
<u>1430</u>	<u>21.53</u>	<u>6.71</u>	<u>993</u>	<u>-89.1</u>	<u>12</u>	<u>0.62</u>	<u>45.9</u>	
<b>Post-Purge</b>				—		—		

Did Well dewater? Yes  No  Total Purge volume (gal): 45.9

Other Comments: 80% @ : 20.60 \* Post Fg 2t: \* purged through a flow cell  
DTW: 19.16 0.5mg/L

**Sample Info:**

Sample ID: <u>DPE-5_20110831</u>	Sample Date and Time: <u>8/15/11 @ 1440</u>
Selected Analysis: <u>SEE COC</u>	

This form was provided by Antea Group and completed by: (Print Full Name) Ben Panell, an employee of Blaine Tech Services, Inc.

Signature: [Signature] Date: 8/15/11

LNAPL = light non-aqueous phase liquids
gal = gallon/s  
bgs = below ground surface
temp = temperature  
ORP = Oxidation-Reduction Potential
NTU = Nephelometric Turbidity Units  
D.O. = dissolved oxygen
mV = millivolts



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## PACE SEATTLE

3Q 2011 GW Event

<b>Required Lab Information:</b>		<b>Required Project Information:</b>		<b>Required Invoice Information:</b>	
Lab Name: Pace-Seattle	Site ID #: 2611117	Task: WG_Q_201108	Send Invoice to: David Sowle		
Address:		AnteaGrp proj#:	Address: 11050 White Rock Road, Suite 110		Turn around time (days): 10
940 S. Harney Street Seattle WA 98108		Site Address: 7210 BANCROFT AVE	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	QC level Required: Standard
Lab PM: Regina Ste. Marie	City: OAKLAND	State: CA 94605	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Special: <input type="checkbox"/> Mark: <input type="checkbox"/>
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Doug Umland	Send EDD to: copelldata@intelligentehs.com	NJ Reduced Deliverable Package? <input type="checkbox"/>		MA MCP Cert? <input type="checkbox"/>
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 408-225-8506	CC Hardcopy report to: dan.keltner@anteagroup.com	CT RCP Cert? <input type="checkbox"/>		Mark: <input type="checkbox"/>
Applicable Lab Quote #:	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to:	Lab Project ID (lab use):		

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WDP GROUND WATER WG WASTE WATER WW FREE PRODUCT LP SOIL SO SLURRY SL WIRE WIRE AMBIENT AIR AA SNG AIR AE SNG GAS GS	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lat Sample I.D.						
									Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	80157PHICRO	92489616MTEB7OYVCA			85K1175 Methane	300 Sulfate	16910-SEZ Sulfate	80110 Total Iron	1453-2 Nitrate	352-2 Nitrate
1	EX-1_20110831		WG	G	8.15.11	1530	10	N					X					X	X	X	X	X	X	X	X	
2	EX-2_20110831		WG	G	8.15.11	1015	6	N					X					X	X	X	X	X	X	X	X	7 Oxy's = DIPE, TBA TAME, ETBE, 1,2-DC EDB, Ethanol
3	MW-10_20110831		WG	G	8.15.11	1120	6	N					X					X	X	X	X	X	X	X	X	
4	MW-11_20110831		WG	G	8.15.11	1215	6	N					X					X	X	X	X	X	X	X	X	
5	MW-4_20110831		WG	G	8.15.11	1240	6	N					X					X	X	X	X	X	X	X	X	
6	MW-7_20110831		WG	G	8.15.11	1035	6	N					X					X	X	X	X	X	X	X	X	
7	MW-9_20110831		WG										X					X	X	X	X	X	X	X	X	
8	TB1_20110831		W	G	8.15.11	0800	4	N					X					X	X	X	X	X	X	X	X	
9	DPE-1_20110831		WG	G	8.15.11	1355	6	N					X					X	X	X	X	X	X	X	X	
10	DPE-4_20110831		WG	G	8.15.11	1505	6	N					X					X	X	X	X	X	X	X	X	
11	DPE-5_20110831		WG	G	8.15.11	1440	6	N					X					X	X	X	X	X	X	X	X	

Additional Comments/Special Instructions:  Global ID: T0600100201	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions		
	<i>[Signature]</i> / BTS		8.15.11	1655	<i>[Signature]</i>				Y/N	Y/N	Y/N
									Y/N	Y/N	Y/N
									Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)					SAMPLER NAME AND SIGNATURE						
UPS COURIER FEDEX					Ben Powell						
US MAIL					SIGNATURE of SAMPLER:		DATE Signed		Time:		
					<i>[Signature]</i>		8.15.11		1655		
Temp. in °C											
Samples on Ice?			Sample intact?			Trip Blank?					



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 Cooler #: \_\_\_\_\_ of \_\_\_\_\_

**PACE SEATTLE**

3Q 2011 GW Event

<b>Required Lab Information:</b>			<b>Required Project Information:</b>			<b>Required Invoice Information:</b>						
Lab Name:	Pace-Seattle		Site ID #:	2611117	Task:	WG_Q_201108	Send Invoice to:	David Sowle				
Address:	940 S. Hamey Street Seattle WA 98108		AnteaGrp proj#:	7210 BANCROFT AVE		City/State:	Rancho Cordova CA 95670					
Lab PM:	Regina Ste. Marie		Site Address:	7210 BANCROFT AVE		City/State:	Rancho Cordova CA 95670	Phone #:	1-800-477-7411			
Phone/Fax:	P: 206-957-2433 F: 206-767-5063		City:	OAKLAND	State:	CA 94605	Reimbursement project?		Non-reimbursement project?	Y	Mark one	
Lab PM email:	Regina.SteMarie@pacelabs.com		AG PM Name:	Doug Umland		Send EDD to:	coopeldata@intelligents.com		QC level Required:	Standard	Special	Mark one
Applicable Lab Quote #:			Phone/Fax:	P: 1-800-477-7411 F: 408-225-8506		CC Hardcopy report to:	dan.keithner@anteagroup.com		MA MCP Cert?		CT RCP Cert?	Mark One
			AG PM Email:	doug.umland@anteagroup.com		CC Hardcopy report to:			Lab Project ID (lab use)			

ITEM #	SAMPLE ID (A-Z, 0-9, -)	One Character per box. IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G-GENAB C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives												Requested Analyses	Comments/Lab Sample I.D.				
									Unpreserved	AsSO <sub>4</sub>	AsO <sub>3</sub>	AsO <sub>4</sub>	AsO <sub>2</sub>	AsO <sub>3</sub>	AsO <sub>4</sub>	AsO <sub>3</sub>	AsO <sub>4</sub>	AsO <sub>3</sub>	AsO <sub>4</sub>	AsO <sub>3</sub>			AsO <sub>4</sub>	AsO <sub>3</sub>	AsO <sub>4</sub>	
1	EX-1_20110831		WG	G	8-15-11	1530	11	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Fe= 1.4 mg/L
2	EX-2_20110831		WG	G	8-15-11	1015	11	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Fe= 0.0 mg/L
3	DPE-1_20110831		WG	G	8-15-11	1355	11	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Fe= 1.0 mg/L
4	DPE-4_20110831		WG	G	8-15-11	1505	11	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Fe= 7.0 mg/L
5	DPE-5_20110831		WG	G	8-15-11	1440	11	N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Fe= 6.5 mg/L

Additional Comments/Special Instructions:   Global ID: T0600100201	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions		
	<i>B. Zell / BIS</i>	<i>8/15/11</i>	<i>1655</i>				Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
	SHIPPING METHOD: (mark as appropriate)	SAMPLER NAME AND SIGNATURE		Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?		
	UPS COURIER / FEDEX	BEN JANE 11							
	US MAIL	SIGNATURE of SAMPLER:	DATE Signed	Time					
		<i>B. Zell</i>	<i>8-15-11</i>	<i>1655</i>					





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Cooler # \_\_\_\_\_ of \_\_\_\_\_

**McCampbell**

3Q 2011 GW Event

<b>Required Lab Information:</b>		<b>Required Project Information:</b>		<b>Required Invoice Information:</b>	
Lab Name: Paca-Seattle	Site ID #: 2611117	Task: WG_Q_201108	Send Invoice to: David Scwie		
Address: 940 S. Harnay Street Seattle WA 98108	AnteaGrp proj#: 7210 BANCROFT AVE	City/State: OAKLAND CA 94605	Address: 11050 White Rock Road, Suite 110	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411
Lab PM: Regina Ste. Marie	AG PM Name: Doug Umland	Send EDD to: copeidata@intelligentelabs.com	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to: dan.kethner@anteagroup.com	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>	Mark One
Lab PM email: Regina.SteMarie@pacelabs.com	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to: dan.kethner@anteagroup.com	Lab Project ID (lab use):	QC level Required: Standard	Special <input type="checkbox"/> Mark one
Applicable Lab Quote #:	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to:	Turn around time (days): 10	NJ Reduced Deliverable Package? <input type="checkbox"/>	

ITEM #	SAMPLE ID (A-Z, 0-9 / .)	Valid Matrix Codes MATRIX DRINKING WATER GROUND WATER PACIFIC WATER PAPER PRODUCT SOIL SLURRY WIRE WASTEWATER SOLID WASTE SOL GAG	MATRIX TYPE G-S/PAS C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives							Requested Analyses 209 & 210 (Chloroform) 216 (Perchloroethylene) 217 (Carbon tetrachloride)	Comments/Lab Sample I.D.	
								Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	HAcOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol			Other
1	EX-1_20110831		WG	8-15-11	1530	2	N		X					X	X	X	
2	EX-2_20110831		WG	8-15-11	1015	2	N		X					X	X	X	
3	DPE-1_20110831		WG	8-15-11	1355	2	N		X					X	X	X	
4	DPE-4_20110831		WG	8-15-11	1505	2	N		X					X	X	X	
5	DPE-5_20110831		WG	8-15-11	1440	2	N		X					X	X	X	

Additional Comments/Special Instructions:  <b>Global ID: T0600100201</b>	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions			
	<i>BS Scull / BBS</i>	8/15/11	1650	<i>Clark Kent</i>	8/15/11	1650	Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE					Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
UPS COURIER FEDEX	PRINT Name of SAMPLER:				DATE Signed	Time:				
US MAIL	SIGNATURE of SAMPLER:									





*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



## ***Appendix D***

Groundwater Flow and Gradient Data (Rose Diagram)



GROUNDWATER GRADIENT AND FLOW DIRECTION DATA  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

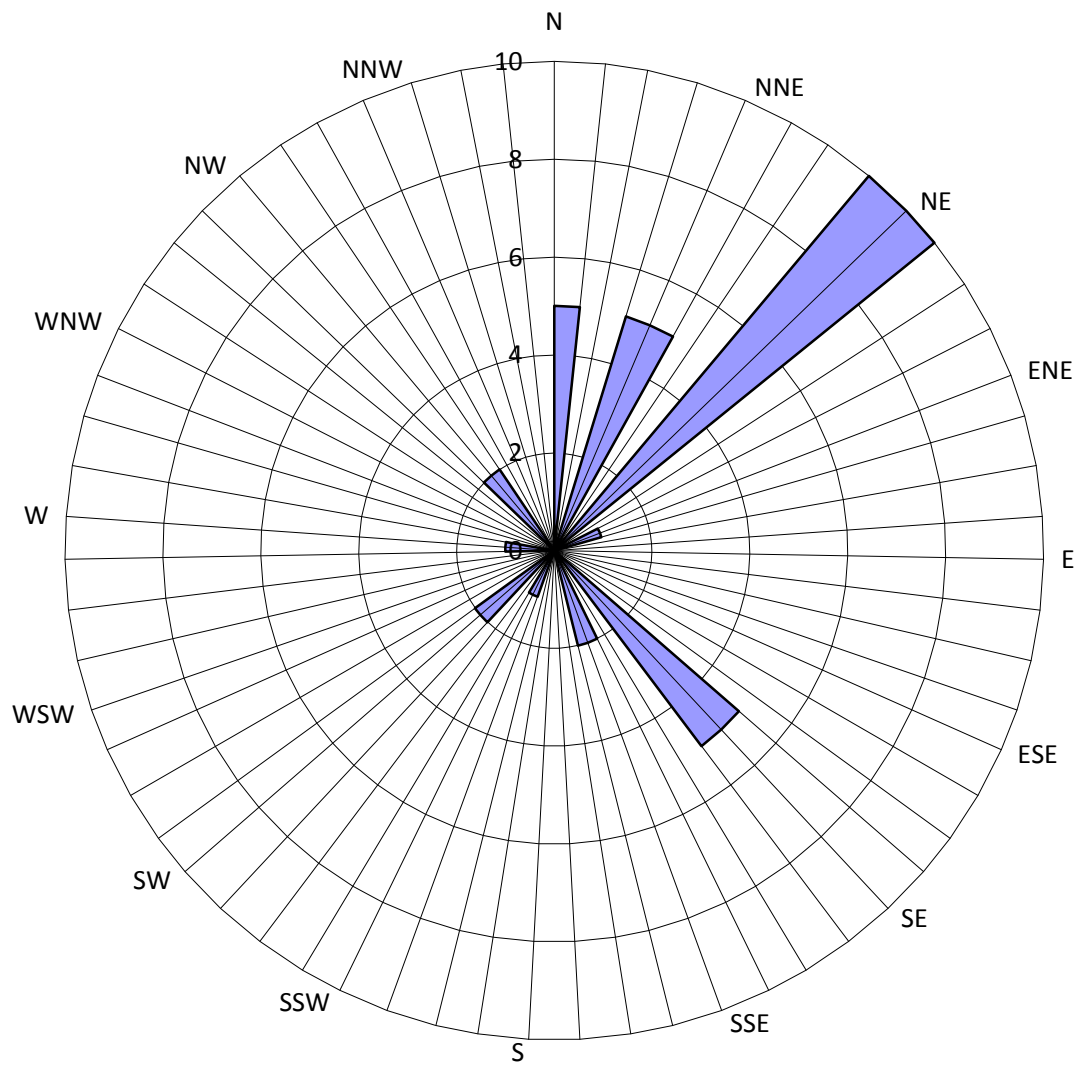


Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction															
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
11117	9/12/2002	0.03	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/12/2002	0.02	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3/10/2003	0.03	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5/12/2003	0.055	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/27/2003	0.036	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11/10/2003	0.012	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2/3/2004	0.013	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5/4/2004	0.015	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/31/2004	0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	11/23/2004	0.04	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1/18/2005	0.02	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/29/2005	0.003 V*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6/29/2005	0.006 V*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9/1/2005	0.03	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11/3/2005	0.008	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2/14/2006	0.02	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5/30/2006	0.03	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/29/2006	0.006	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	11/29/2006	0.002 *	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	11/29/2006	0.001 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2/20/2007	0.004	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5/25/2007	0.005	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/9/2007	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	11/9/2007	0.02	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/14/2007	0.005 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	12/14/2007	0.003 *	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	2/11/2008	0.02	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	5/22/2008	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	8/25/2008	0.003	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	12/17/2008	0.005	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	2/25/2009	0.006	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	5/21/2009	0.004	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	8/14/2009	0.006 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	8/14/2009	0.004 *	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	2/10/2010	0.011 *	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	2/10/2010	0.040 *	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	8/20/2010	0.022 *	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/20/2010	0.032 *	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	2/7/2011	V*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8/15/2011	V*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		<b>0.015 Average</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>

**Explanation**

V = Groundwater flow direction variable for reported event.  
 \* = Multiple groundwater flow directions and gradients reported for date.  
 Number of Events with determined flow direction = 34

GROUNDWATER FLOW DIRECTION ROSE DIAGRAM  
76 (FORMER BP) SERVICE STATION NO. 11117  
7210 BANCROFT AVENUE  
OAKLAND, CALIFORNIA



Legend  
Concentric Circles represent  
Quarterly Monitoring Events  
  
Third Quarter 2002 through  
Third Quarter 2011  
  
34 Data Points Shown

Groundwater Flow Direction

*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



## ***Appendix E***

Certified Laboratory Analytical Report and Data Validation Form

**Is the Data Set Valid?**

(circle)  
**Yes / No**

**Preservation Temperature**

(if Known): 1.0, 1.4 °C

**Antea™ Group Laboratory Data Validation Sheet**

**Project/Client:** 76 (Former BP) Service Station No. 1117

**Project #:** JU261117

**Date of Validation:** 10/6/2011 **Date of Analysis:** 8/15-8/30/2011

**Sample Date:** 8/15/2011 **Completed By:** Stephen Neuniger

**Signature:** 

Circle  
**Yes / No**  
(below)

**Analytical Lab Used and Report # (if any):** Page No. 258851

1. Were the analyses the ones requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m<sup>3</sup>, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**Yes / No**

**If any answer is no, explain why and what corrective action was taken (use additional sheet(s), as necessary:**

1n - Analyte was detected in the associated method blank below the report limit. Amount detected is above one-half of the report limit.  
 4n - The amount of this analyte observed in this sample was greater than ten times the amount observed in the method blank. Therefore, the amount observed in the method blank is insignificant.  
 B - Analyte was detected in the associated method blank as well as in the sample.  
 D6 - The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.  
 M1 - Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.  
 M2 - Matrix spike recovery was below QC limits due to sample dilution. Data acceptance based on laboratory control sample (LCS) recovery.  
 S5 - Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

August 31, 2011

Doug Umland  
Antea USA  
312 Piercy Rd  
San Jose, CA 95138

RE: Project: 2611117  
Pace Project No.: 258851

Dear Doug Umland:

Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Regina SteMarie

regina.stemarie@pacelabs.com  
Project Manager

Enclosures

cc: Tara Bosch, Antea USA  
Dennis Dettloff, Antea USA  
Jonathon Fillingame, Antea USA  
Lia Holden, Antea USA  
Dan Keltner, Antea USA  
Josh Mahoney, Antea USA  
Stephen Meninger, Antea USA  
Tony Perini, Antea USA

Nicole Persaud, Antea USA  
Don Pinkerton, Antea USA  
Ed Weyrens, Antea USA



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

## CERTIFICATIONS

Project: 2611117

Pace Project No.: 258851

### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alaska Certification #: UST-078

Alaska Certification #MN00064

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

EPA Region 8 Certification #: Pace

Florida/NELAP Certification #: E87605

Georgia Certification #: 959

Idaho Certification #: MN00064

Illinois Certification #: 200011

Iowa Certification #: 368

Kansas Certification #: E-10167

Louisiana Certification #: 03086

Louisiana Certification #: LA080009

Maine Certification #: 2007029

Maryland Certification #: 322

Michigan DEQ Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT CERT0092

Nevada Certification #: MN\_00064

Nebraska Certification #: Pace

New Jersey Certification #: MN-002

New Mexico Certification #: Pace

New York Certification #: 11647

North Carolina Certification #: 530

North Dakota Certification #: R-036

North Dakota Certification #: R-036A

Ohio VAP Certification #: CL101

Oklahoma Certification #: D9921

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Tennessee Certification #: 02818

Texas Certification #: T104704192

Washington Certification #: C754

Wisconsin Certification #: 999407970

### Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C555

## REPORT OF LABORATORY ANALYSIS

### SAMPLE ANALYTE COUNT

Project: 2611117  
Pace Project No.: 258851

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
258851001	EX-1_20110831	RSK 175	SK4	1	PASI-M		
		EPA 5030B/8015B	CC	3	PASI-S		
		EPA 6010	BGA	1	PASI-S		
		EPA 5030B/8260	ERB	16	PASI-S		
		SM 3500-Fe B#4	KMT	1	PASI-S		
		SM 3500-Fe B#4	KMT	1	PASI-S		
		SM 4500-NH3 D	KMT	1	PASI-S		
		SM 4500-S-2 F	KMT	1	PASI-S		
		SM 5210B	KMT	1	PASI-S		
		EPA 300.0	CMS	2	PASI-S		
		EPA 351.2	CMS	1	PASI-S		
		EPA 353.2	CMS	2	PASI-S		
		EPA 410.4	KMT	1	PASI-S		
		SM 4500-P E	CMS	1	PASI-S		
		SM 4500-P E	KMT	1	PASI-S		
		SM 5310C	KMT	1	PASI-S		
		SM 4500-NO2 B	KMT	1	PASI-S		
		258851002	EX-2_20110831	RSK 175	SK4	1	PASI-M
				EPA 5030B/8015B	CC	3	PASI-S
				EPA 6010	BGA	1	PASI-S
EPA 5030B/8260	LPM			16	PASI-S		
SM 3500-Fe B#4	KMT			1	PASI-S		
SM 3500-Fe B#4	KMT			1	PASI-S		
SM 4500-NH3 D	KMT			1	PASI-S		
SM 4500-S-2 F	KMT			1	PASI-S		
SM 5210B	KMT			1	PASI-S		
EPA 300.0	CMS			2	PASI-S		
EPA 351.2	CMS			1	PASI-S		
EPA 353.2	CMS			2	PASI-S		
EPA 410.4	KMT			1	PASI-S		
SM 4500-P E	CMS			1	PASI-S		
SM 4500-P E	KMT			1	PASI-S		
SM 5310C	KMT			1	PASI-S		
SM 4500-NO2 B	KMT			1	PASI-S		
258851003	MW-10_20110831			EPA 5030B/8015B	CC	3	PASI-S
				EPA 5030B/8260	LPM	16	PASI-S
258851004	MW-11_20110831			EPA 5030B/8015B	CC	3	PASI-S

### REPORT OF LABORATORY ANALYSIS

### SAMPLE ANALYTE COUNT

Project: 2611117  
Pace Project No.: 258851

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258851005	MW-4_20110831	EPA 5030B/8260	LPM	16	PASI-S
		EPA 5030B/8015B	CC	3	PASI-S
258851006	MW-7_20110831	EPA 5030B/8260	LPM	16	PASI-S
		EPA 5030B/8015B	CC	3	PASI-S
258851007	TB1_20110831	EPA 5030B/8260	LNH	16	PASI-S
		EPA 5030B/8015B	CC	3	PASI-S
258851008	DPE-1_20110831	EPA 5030B/8260	LPM	16	PASI-S
		RSK 175	SK4	1	PASI-M
		EPA 5030B/8015B	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	16	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 4500-NH3 D	KMT	1	PASI-S
		SM 4500-S-2 F	KMT	1	PASI-S
		SM 5210B	KMT	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 351.2	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 4500-P E	CMS	1	PASI-S
		SM 4500-P E	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
258851009	DPE-4_20110831	SM 4500-NO2 B	KMT	1	PASI-S
		RSK 175	SK4	1	PASI-M
		EPA 5030B/8015B	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	16	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 4500-NH3 D	KMT	1	PASI-S
		SM 4500-S-2 F	KMT	1	PASI-S
		SM 5210B	KMT	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 351.2	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	KMT	1	PASI-S

### REPORT OF LABORATORY ANALYSIS



### SAMPLE ANALYTE COUNT

Project: 2611117

Pace Project No.: 258851

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-P E	CMS	1	PASI-S
		SM 4500-P E	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
258851010	DPE-5_20110831	RSK 175	SK4	1	PASI-M
		EPA 5030B/8015B	CC	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	16	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 3500-Fe B#4	KMT	1	PASI-S
		SM 4500-NH3 D	KMT	1	PASI-S
		SM 4500-S-2 F	KMT	1	PASI-S
		SM 5210B	KMT	1	PASI-S
		EPA 300.0	CMS	2	PASI-S
		EPA 351.2	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		EPA 410.4	KMT	1	PASI-S
		SM 4500-P E	CMS	1	PASI-S
		SM 4500-P E	KMT	1	PASI-S
		SM 5310C	KMT	1	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S

### REPORT OF LABORATORY ANALYSIS

### HITS ONLY

Project: 261117

Pace Project No.: 258851

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>258851001</b>	<b>EX-1_20110831</b>					
RSK 175	Methane	5040	ug/L	10.0	08/17/11 22:39	
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	1470	ug/L	250	08/26/11 22:31	
EPA 6010	Iron	1420	ug/L	100	08/29/11 13:19	
EPA 5030B/8260	tert-Amylmethyl ether	17.8	ug/L	5.0	08/20/11 20:43	
EPA 5030B/8260	Benzene	470	ug/L	5.0	08/20/11 20:43	
EPA 5030B/8260	tert-Butyl Alcohol	188	ug/L	50.0	08/20/11 20:43	
EPA 5030B/8260	1,2-Dichloroethane	13.3	ug/L	10.0	08/20/11 20:43	
EPA 5030B/8260	Ethylbenzene	472	ug/L	5.0	08/20/11 20:43	
EPA 5030B/8260	Methyl-tert-butyl ether	54.2	ug/L	5.0	08/20/11 20:43	
EPA 5030B/8260	Toluene	516	ug/L	5.0	08/20/11 20:43	4n
EPA 5030B/8260	Xylene (Total)	1270	ug/L	15.0	08/20/11 20:43	
SM 3500-Fe B#4	Iron, Ferrous	1400	ug/L	100	08/15/11 15:30	
SM 4500-NH3 D	Nitrogen, Ammonia	185	ug/L	100	08/24/11 12:40	
SM 4500-S-2 F	Sulfide	1080	ug/L	400	08/16/11 13:40	
SM 5210B	BOD, 5 day	8680	ug/L	2000	08/22/11 14:00	
EPA 300.0	Chloride	19100	ug/L	2000	08/18/11 21:09	
EPA 300.0	Sulfate	3830	ug/L	1000	08/18/11 07:21	
EPA 351.2	Nitrogen, Kjeldahl, Total	1120	ug/L	1000	08/23/11 16:08	
EPA 353.2	Nitrogen, Nitrate	52.9	ug/L	50.0	08/29/11 14:30	
EPA 353.2	Nitrogen, NO2 plus NO3	59.7	ug/L	50.0	08/29/11 14:30	
EPA 410.4	Chemical Oxygen Demand	29800	ug/L	5000	08/18/11 13:05	
SM 4500-P E	Phosphorus	107	ug/L	10.0	08/30/11 13:15	3n
SM 4500-P E	Orthophosphate as P	148	ug/L	10.0	08/16/11 17:28	
SM 5310C	Total Organic Carbon	11600	ug/L	1000	08/19/11 14:11	
<b>258851002</b>	<b>EX-2_20110831</b>					
RSK 175	Methane	208	ug/L	10.0	08/17/11 22:50	
EPA 6010	Iron	932	ug/L	100	08/29/11 13:30	
EPA 5030B/8260	Methyl-tert-butyl ether	3.6	ug/L	0.50	08/26/11 13:49	
SM 3500-Fe B#4	Iron, Ferric	932	ug/L	100	08/30/11 11:45	
SM 4500-S-2 F	Sulfide	760	ug/L	400	08/16/11 13:40	
SM 5210B	BOD, 5 day	579000	ug/L	2000	08/22/11 13:47	2n
EPA 300.0	Chloride	17100	ug/L	2000	08/26/11 15:35	
EPA 300.0	Sulfate	17600	ug/L	2000	08/26/11 15:35	
EPA 353.2	Nitrogen, Nitrate	12100	ug/L	500	08/29/11 15:08	
EPA 353.2	Nitrogen, NO2 plus NO3	12100	ug/L	500	08/29/11 15:08	
EPA 410.4	Chemical Oxygen Demand	7420	ug/L	5000	08/18/11 13:05	
SM 4500-P E	Phosphorus	106	ug/L	10.0	08/30/11 13:15	3n
SM 4500-P E	Orthophosphate as P	162	ug/L	10.0	08/16/11 17:28	
SM 5310C	Total Organic Carbon	2010	ug/L	1000	08/19/11 14:11	
<b>258851003</b>	<b>MW-10_20110831</b>					
EPA 5030B/8260	tert-Butyl Alcohol	13.1	ug/L	5.0	08/26/11 14:06	
EPA 5030B/8260	Methyl-tert-butyl ether	13.8	ug/L	0.50	08/26/11 14:06	
<b>258851004</b>	<b>MW-11_20110831</b>					
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	1530	ug/L	50.0	08/26/11 21:22	
EPA 5030B/8260	Ethylbenzene	9.2	ug/L	0.50	08/26/11 14:23	
EPA 5030B/8260	Toluene	0.80	ug/L	0.50	08/26/11 14:23	

### REPORT OF LABORATORY ANALYSIS

### HITS ONLY

Project: 2611117

Pace Project No.: 258851

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>258851004</b>	<b>MW-11_20110831</b>					
EPA 5030B/8260	Xylene (Total)	8.0 ug/L		1.5	08/26/11 14:23	
<b>258851005</b>	<b>MW-4_20110831</b>					
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	87600 ug/L		5000	08/26/11 23:42	
EPA 5030B/8260	Benzene	3430 ug/L		12.5	08/26/11 18:02	
EPA 5030B/8260	tert-Butyl Alcohol	3410 ug/L		125	08/26/11 18:02	
EPA 5030B/8260	Ethylbenzene	2880 ug/L		12.5	08/26/11 18:02	
EPA 5030B/8260	Methyl-tert-butyl ether	317 ug/L		12.5	08/26/11 18:02	
EPA 5030B/8260	Toluene	280 ug/L		12.5	08/26/11 18:02	
EPA 5030B/8260	Xylene (Total)	8500 ug/L		37.5	08/26/11 18:02	
<b>258851006</b>	<b>MW-7_20110831</b>					
EPA 5030B/8260	tert-Butyl Alcohol	13.1 ug/L		5.0	08/22/11 18:46	
EPA 5030B/8260	Methyl-tert-butyl ether	14.8 ug/L		0.50	08/22/11 18:46	
<b>258851008</b>	<b>DPE-1_20110831</b>					
RSK 175	Methane	1500 ug/L		10.0	08/17/11 23:01	
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	571 ug/L		50.0	08/25/11 05:17	
EPA 6010	Iron	11100 ug/L		100	08/29/11 13:33	
EPA 5030B/8260	Benzene	16.4 ug/L		0.50	08/26/11 14:40	
EPA 5030B/8260	tert-Butyl Alcohol	140 ug/L		5.0	08/26/11 14:40	
EPA 5030B/8260	Ethylbenzene	6.3 ug/L		0.50	08/26/11 14:40	
EPA 5030B/8260	Methyl-tert-butyl ether	1.1 ug/L		0.50	08/26/11 14:40	
EPA 5030B/8260	Toluene	5.4 ug/L		0.50	08/26/11 14:40	
EPA 5030B/8260	Xylene (Total)	12.0 ug/L		1.5	08/26/11 14:40	
SM 3500-Fe B#4	Iron, Ferric	9490 ug/L		100	08/30/11 11:45	
SM 3500-Fe B#4	Iron, Ferrous	1600 ug/L		100	08/15/11 13:55	
SM 4500-S-2 F	Sulfide	1040 ug/L		400	08/16/11 13:40	
SM 5210B	BOD, 5 day	4560 ug/L		2000	08/22/11 13:53	
EPA 300.0	Chloride	25200 ug/L		5000	08/26/11 16:27	
EPA 300.0	Sulfate	14300 ug/L		5000	08/26/11 16:27	
EPA 353.2	Nitrogen, Nitrate	108 ug/L		50.0	08/29/11 14:33	
EPA 353.2	Nitrogen, NO2 plus NO3	121 ug/L		50.0	08/29/11 14:33	
EPA 410.4	Chemical Oxygen Demand	27900 ug/L		5000	08/18/11 13:05	
SM 4500-P E	Phosphorus	236 ug/L		10.0	08/30/11 13:15	
SM 4500-P E	Orthophosphate as P	219 ug/L		10.0	08/16/11 17:28	
SM 5310C	Total Organic Carbon	3640 ug/L		1000	08/19/11 14:11	
SM 4500-NO2 B	Nitrite as N	13.1 ug/L		10.0	08/16/11 16:25	
<b>258851009</b>	<b>DPE-4_20110831</b>					
RSK 175	Methane	16100 ug/L		10.0	08/17/11 23:11	E
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	57600 ug/L		5000	08/27/11 00:05	
EPA 6010	Iron	10800 ug/L		100	08/29/11 13:37	
EPA 5030B/8260	tert-Amylmethyl ether	132 ug/L		0.50	08/23/11 01:28	
EPA 5030B/8260	Benzene	5920 ug/L		25.0	08/26/11 18:21	
EPA 5030B/8260	tert-Butyl Alcohol	6920 ug/L		250	08/26/11 18:21	
EPA 5030B/8260	Ethylbenzene	3830 ug/L		25.0	08/26/11 18:21	
EPA 5030B/8260	Ethyl-tert-butyl ether	12.2 ug/L		0.50	08/23/11 01:28	
EPA 5030B/8260	Methyl-tert-butyl ether	5560 ug/L		25.0	08/26/11 18:21	

### REPORT OF LABORATORY ANALYSIS

**HITS ONLY**

Project: 2611117

Pace Project No.: 258851

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>258851009</b>	<b>DPE-4_20110831</b>					
EPA 5030B/8260	Toluene	7240	ug/L	25.0	08/26/11 18:21	
EPA 5030B/8260	Xylene (Total)	12100	ug/L	75.0	08/26/11 18:21	
SM 3500-Fe B#4	Iron, Ferric	3230	ug/L	100	08/30/11 11:45	
SM 3500-Fe B#4	Iron, Ferrous	7600	ug/L	100	08/15/11 15:05	
SM 4500-S-2 F	Sulfide	1080	ug/L	400	08/16/11 13:40	
SM 5210B	BOD, 5 day	55000	ug/L	2000	08/22/11 13:58	
EPA 300.0	Chloride	26400	ug/L	5000	08/26/11 16:44	
EPA 351.2	Nitrogen, Kjeldahl, Total	1770	ug/L	1000	08/23/11 16:16	
EPA 353.2	Nitrogen, NO2 plus NO3	62.1	ug/L	50.0	08/29/11 14:35	
EPA 410.4	Chemical Oxygen Demand	113000	ug/L	20000	08/26/11 13:30	
SM 4500-P E	Phosphorus	732	ug/L	10.0	08/30/11 13:15	
SM 4500-P E	Orthophosphate as P	502	ug/L	10.0	08/16/11 17:28	
SM 5310C	Total Organic Carbon	14000	ug/L	1000	08/19/11 14:11	
SM 4500-NO2 B	Nitrite as N	39.6	ug/L	10.0	08/16/11 16:25	
<b>258851010</b>	<b>DPE-5_20110831</b>					
RSK 175	Methane	13900	ug/L	10.0	08/17/11 23:22	E
EPA 5030B/8015B	CA TPH-GRO (C5-C12)	15900	ug/L	2500	08/26/11 22:55	
EPA 6010	Iron	20500	ug/L	100	08/29/11 13:40	
EPA 5030B/8260	tert-Amylmethyl ether	10.0	ug/L	0.50	08/23/11 01:45	
EPA 5030B/8260	Benzene	2420	ug/L	12.5	08/26/11 17:42	
EPA 5030B/8260	tert-Butyl Alcohol	2510	ug/L	125	08/26/11 17:42	
EPA 5030B/8260	Ethylbenzene	1340	ug/L	12.5	08/26/11 17:42	
EPA 5030B/8260	Ethyl-tert-butyl ether	1.2	ug/L	0.50	08/23/11 01:45	
EPA 5030B/8260	Methyl-tert-butyl ether	773	ug/L	12.5	08/26/11 17:42	
EPA 5030B/8260	Toluene	127	ug/L	12.5	08/26/11 17:42	
EPA 5030B/8260	Xylene (Total)	1650	ug/L	37.5	08/26/11 17:42	
SM 3500-Fe B#4	Iron, Ferric	14000	ug/L	100	08/30/11 11:45	
SM 3500-Fe B#4	Iron, Ferrous	6500	ug/L	100	08/15/11 14:40	
SM 4500-S-2 F	Sulfide	1600	ug/L	400	08/16/11 13:40	
SM 5210B	BOD, 5 day	21200	ug/L	2000	08/22/11 13:55	
EPA 300.0	Chloride	32100	ug/L	5000	08/26/11 17:01	
EPA 351.2	Nitrogen, Kjeldahl, Total	1320	ug/L	1000	08/23/11 16:17	
EPA 410.4	Chemical Oxygen Demand	53900	ug/L	5000	08/18/11 13:05	
SM 4500-P E	Phosphorus	134	ug/L	10.0	08/30/11 13:15	3n
SM 4500-P E	Orthophosphate as P	240	ug/L	10.0	08/16/11 17:28	
SM 5310C	Total Organic Carbon	9360	ug/L	1000	08/19/11 14:11	
SM 4500-NO2 B	Nitrite as N	28.8	ug/L	10.0	08/16/11 16:25	

**REPORT OF LABORATORY ANALYSIS**

### ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

Sample: EX-1_20110831	Lab ID: 258851001	Collected: 08/15/11 15:30	Received: 08/16/11 08:55	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>RSK 175 AIR Headspace</b>								
Analytical Method: RSK 175								
Methane	5040 ug/L		10.0	1		08/17/11 22:39	74-82-8	
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 5030B/8015B								
CA TPH-GRO (C5-C12)	1470 ug/L		250	5		08/26/11 22:31		
4-Bromofluorobenzene (S)	84 %		47-140	5		08/26/11 22:31	460-00-4	
a,a,a-Trifluorotoluene (S)	101 %		69-142	5		08/26/11 22:31	98-08-8	
<b>6010 MET ICP</b>								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	1420 ug/L		100	1	08/26/11 08:44	08/29/11 13:19	7439-89-6	
<b>8260 MSV</b>								
Analytical Method: EPA 5030B/8260								
tert-Amylmethyl ether	17.8 ug/L		5.0	10		08/20/11 20:43	994-05-8	
Benzene	470 ug/L		5.0	10		08/20/11 20:43	71-43-2	
tert-Butyl Alcohol	188 ug/L		50.0	10		08/20/11 20:43	75-65-0	
1,2-Dibromoethane (EDB)	ND ug/L		10.0	10		08/20/11 20:43	106-93-4	
1,2-Dichloroethane	13.3 ug/L		10.0	10		08/20/11 20:43	107-06-2	
Diisopropyl ether	ND ug/L		5.0	10		08/20/11 20:43	108-20-3	
Ethanol	ND ug/L		2500	10		08/20/11 20:43	64-17-5	
Ethylbenzene	472 ug/L		5.0	10		08/20/11 20:43	100-41-4	
Ethyl-tert-butyl ether	ND ug/L		5.0	10		08/20/11 20:43	637-92-3	
Methyl-tert-butyl ether	54.2 ug/L		5.0	10		08/20/11 20:43	1634-04-4	
Toluene	516 ug/L		5.0	10		08/20/11 20:43	108-88-3	4n
Xylene (Total)	1270 ug/L		15.0	10		08/20/11 20:43	1330-20-7	
4-Bromofluorobenzene (S)	114 %		79-121	10		08/20/11 20:43	460-00-4	D4
Dibromofluoromethane (S)	98 %		81-119	10		08/20/11 20:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		72-127	10		08/20/11 20:43	17060-07-0	
Toluene-d8 (S)	105 %		77-120	10		08/20/11 20:43	2037-26-5	
<b>Iron, Ferric (Calculation)</b>								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferric	ND ug/L		100	1		08/30/11 11:45	7439-89-6	
<b>Iron, Ferrous</b>								
Analytical Method: SM 3500-Fe B#4								
Iron, Ferrous	1400 ug/L		100	1		08/15/11 15:30		
<b>4500NH3D Nitrogen, Ammonia</b>								
Analytical Method: SM 4500-NH3 D								
Nitrogen, Ammonia	185 ug/L		100	1		08/24/11 12:40	7664-41-7	
<b>4500S2F Sulfide, Iodometric</b>								
Analytical Method: SM 4500-S-2 F								
Sulfide	1080 ug/L		400	1		08/16/11 13:40	18496-25-8	
<b>5210B BOD, 5 day</b>								
Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	8680 ug/L		2000	1	08/17/11 09:45	08/22/11 14:00		
<b>300.0 IC Anions 28 Days</b>								
Analytical Method: EPA 300.0								
Chloride	19100 ug/L		2000	2		08/18/11 21:09	16887-00-6	

## ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

<b>Sample: EX-1_20110831</b>		<b>Lab ID: 258851001</b>	Collected: 08/15/11 15:30	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Sulfate	<b>3830</b>	ug/L	1000	1		08/18/11 07:21	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	<b>1120</b>	ug/L	1000	1		08/23/11 16:08	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	<b>52.9</b>	ug/L	50.0	1		08/29/11 14:30		
Nitrogen, NO2 plus NO3	<b>59.7</b>	ug/L	50.0	1		08/29/11 14:30		
<b>410.4 COD</b>		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	<b>29800</b>	ug/L	5000	1		08/18/11 13:05		
<b>4500PE Total Phosphorus</b>		Analytical Method: SM 4500-P E						
Phosphorus	<b>107</b>	ug/L	10.0	1		08/30/11 13:15	7723-14-0	3n
<b>4500PE Ortho Phosphorus</b>		Analytical Method: SM 4500-P E						
Orthophosphate as P	<b>148</b>	ug/L	10.0	1		08/16/11 17:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	<b>11600</b>	ug/L	1000	1		08/19/11 14:11	7440-44-0	
<b>SM4500NO2-B, Nitrite, unpres</b>		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND	ug/L	10.0	1		08/16/11 16:25	14797-65-0	

<b>Sample: EX-2_20110831</b>		<b>Lab ID: 258851002</b>	Collected: 08/15/11 10:15	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>RSK 175 AIR Headspace</b>		Analytical Method: RSK 175						
Methane	<b>208</b>	ug/L	10.0	1		08/17/11 22:50	74-82-8	
<b>Gasoline Range Organics</b>		Analytical Method: EPA 5030B/8015B						
CA TPH-GRO (C5-C12)	ND	ug/L	50.0	1		08/25/11 00:59		
4-Bromofluorobenzene (S)	87	%	47-140	1		08/25/11 00:59	460-00-4	
a,a,a-Trifluorotoluene (S)	100	%	69-142	1		08/25/11 00:59	98-08-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	<b>932</b>	ug/L	100	1	08/26/11 08:44	08/29/11 13:30	7439-89-6	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	ND	ug/L	0.50	1		08/26/11 13:49	994-05-8	
Benzene	ND	ug/L	0.50	1		08/26/11 13:49	71-43-2	
tert-Butyl Alcohol	ND	ug/L	5.0	1		08/26/11 13:49	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/26/11 13:49	106-93-4	

Date: 08/31/2011 02:14 PM

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

Sample: EX-2_20110831	Lab ID: 258851002	Collected: 08/15/11 10:15	Received: 08/16/11 08:55	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>	Analytical Method: EPA 5030B/8260							
1,2-Dichloroethane	ND ug/L		1.0	1		08/26/11 13:49	107-06-2	
Diisopropyl ether	ND ug/L		0.50	1		08/26/11 13:49	108-20-3	
Ethanol	ND ug/L		250	1		08/26/11 13:49	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		08/26/11 13:49	100-41-4	
Ethyl-tert-butyl ether	ND ug/L		0.50	1		08/26/11 13:49	637-92-3	
Methyl-tert-butyl ether	3.6 ug/L		0.50	1		08/26/11 13:49	1634-04-4	
Toluene	ND ug/L		0.50	1		08/26/11 13:49	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		08/26/11 13:49	1330-20-7	
4-Bromofluorobenzene (S)	113 %		79-121	1		08/26/11 13:49	460-00-4	
Dibromofluoromethane (S)	98 %		81-119	1		08/26/11 13:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		72-127	1		08/26/11 13:49	17060-07-0	
Toluene-d8 (S)	104 %		77-120	1		08/26/11 13:49	2037-26-5	
<b>Iron, Ferric (Calculation)</b>	Analytical Method: SM 3500-Fe B#4							
Iron, Ferric	932 ug/L		100	1		08/30/11 11:45	7439-89-6	
<b>Iron, Ferrous</b>	Analytical Method: SM 3500-Fe B#4							
Iron, Ferrous	ND ug/L		100	1		08/15/11 10:15		
<b>4500NH3D Nitrogen, Ammonia</b>	Analytical Method: SM 4500-NH3 D							
Nitrogen, Ammonia	ND ug/L		100	1		08/24/11 12:40	7664-41-7	
<b>4500S2F Sulfide, Iodometric</b>	Analytical Method: SM 4500-S-2 F							
Sulfide	760 ug/L		400	1		08/16/11 13:40	18496-25-8	
<b>5210B BOD, 5 day</b>	Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	579000 ug/L		2000	1	08/17/11 09:45	08/22/11 13:47		2n
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	17100 ug/L		2000	2		08/26/11 15:35	16887-00-6	
Sulfate	17600 ug/L		2000	2		08/26/11 15:35	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND ug/L		1000	1		08/23/11 16:09	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	12100 ug/L		500	10		08/29/11 15:08		
Nitrogen, NO2 plus NO3	12100 ug/L		500	10		08/29/11 15:08		
<b>410.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	7420 ug/L		5000	1		08/18/11 13:05		
<b>4500PE Total Phosphorus</b>	Analytical Method: SM 4500-P E							
Phosphorus	106 ug/L		10.0	1		08/30/11 13:15	7723-14-0	3n

## ANALYTICAL RESULTS

Project: 2611117

Pace Project No.: 258851

Sample: EX-2_20110831		Lab ID: 258851002	Collected: 08/15/11 10:15	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500PE Ortho Phosphorus</b>								
Analytical Method: SM 4500-P E								
Orthophosphate as P	162	ug/L	10.0	1		08/16/11 17:28		
<b>5310C TOC</b>								
Analytical Method: SM 5310C								
Total Organic Carbon	2010	ug/L	1000	1		08/19/11 14:11	7440-44-0	
<b>SM4500NO2-B, Nitrite, unpres</b>								
Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND	ug/L	10.0	1		08/16/11 16:25	14797-65-0	

Sample: MW-10_20110831		Lab ID: 258851003	Collected: 08/15/11 11:20	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 5030B/8015B								
CA TPH-GRO (C5-C12)	ND	ug/L	50.0	1		08/25/11 01:46		
4-Bromofluorobenzene (S)	88	%	47-140	1		08/25/11 01:46	460-00-4	
a,a,a-Trifluorotoluene (S)	101	%	69-142	1		08/25/11 01:46	98-08-8	
<b>8260 MSV</b>								
Analytical Method: EPA 5030B/8260								
tert-Amylmethyl ether	ND	ug/L	0.50	1		08/26/11 14:06	994-05-8	
Benzene	ND	ug/L	0.50	1		08/26/11 14:06	71-43-2	
tert-Butyl Alcohol	13.1	ug/L	5.0	1		08/26/11 14:06	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/26/11 14:06	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/26/11 14:06	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		08/26/11 14:06	108-20-3	
Ethanol	ND	ug/L	250	1		08/26/11 14:06	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		08/26/11 14:06	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		08/26/11 14:06	637-92-3	
Methyl-tert-butyl ether	13.8	ug/L	0.50	1		08/26/11 14:06	1634-04-4	
Toluene	ND	ug/L	0.50	1		08/26/11 14:06	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		08/26/11 14:06	1330-20-7	
4-Bromofluorobenzene (S)	116	%	79-121	1		08/26/11 14:06	460-00-4	
Dibromofluoromethane (S)	100	%	81-119	1		08/26/11 14:06	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	72-127	1		08/26/11 14:06	17060-07-0	
Toluene-d8 (S)	106	%	77-120	1		08/26/11 14:06	2037-26-5	

Sample: MW-11_20110831		Lab ID: 258851004	Collected: 08/15/11 12:15	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Gasoline Range Organics</b>								
Analytical Method: EPA 5030B/8015B								
CA TPH-GRO (C5-C12)	1530	ug/L	50.0	1		08/26/11 21:22		
4-Bromofluorobenzene (S)	80	%	47-140	1		08/26/11 21:22	460-00-4	
a,a,a-Trifluorotoluene (S)	91	%	69-142	1		08/26/11 21:22	98-08-8	



## ANALYTICAL RESULTS

Project: 2611117

Pace Project No.: 258851

Sample: MW-11_20110831		Lab ID: 258851004	Collected: 08/15/11 12:15	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	ND	ug/L	0.50	1		08/26/11 14:23	994-05-8	
Benzene	ND	ug/L	0.50	1		08/26/11 14:23	71-43-2	
tert-Butyl Alcohol	ND	ug/L	5.0	1		08/26/11 14:23	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/26/11 14:23	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/26/11 14:23	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		08/26/11 14:23	108-20-3	
Ethanol	ND	ug/L	250	1		08/26/11 14:23	64-17-5	
Ethylbenzene	<b>9.2</b>	ug/L	0.50	1		08/26/11 14:23	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	0.50	1		08/26/11 14:23	637-92-3	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		08/26/11 14:23	1634-04-4	
Toluene	<b>0.80</b>	ug/L	0.50	1		08/26/11 14:23	108-88-3	
Xylene (Total)	<b>8.0</b>	ug/L	1.5	1		08/26/11 14:23	1330-20-7	
4-Bromofluorobenzene (S)	114	%	79-121	1		08/26/11 14:23	460-00-4	
Dibromofluoromethane (S)	101	%	81-119	1		08/26/11 14:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	72-127	1		08/26/11 14:23	17060-07-0	
Toluene-d8 (S)	106	%	77-120	1		08/26/11 14:23	2037-26-5	

Sample: MW-4_20110831		Lab ID: 258851005	Collected: 08/15/11 12:40	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Gasoline Range Organics</b>		Analytical Method: EPA 5030B/8015B						
CA TPH-GRO (C5-C12)	<b>87600</b>	ug/L	5000	100		08/26/11 23:42		
4-Bromofluorobenzene (S)	99	%	47-140	100		08/26/11 23:42	460-00-4	
a,a,a-Trifluorotoluene (S)	99	%	69-142	100		08/26/11 23:42	98-08-8	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	ND	ug/L	12.5	25		08/26/11 18:02	994-05-8	
Benzene	<b>3430</b>	ug/L	12.5	25		08/26/11 18:02	71-43-2	
tert-Butyl Alcohol	<b>3410</b>	ug/L	125	25		08/26/11 18:02	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	25.0	25		08/26/11 18:02	106-93-4	
1,2-Dichloroethane	ND	ug/L	25.0	25		08/26/11 18:02	107-06-2	
Diisopropyl ether	ND	ug/L	12.5	25		08/26/11 18:02	108-20-3	
Ethanol	ND	ug/L	6250	25		08/26/11 18:02	64-17-5	
Ethylbenzene	<b>2880</b>	ug/L	12.5	25		08/26/11 18:02	100-41-4	
Ethyl-tert-butyl ether	ND	ug/L	12.5	25		08/26/11 18:02	637-92-3	
Methyl-tert-butyl ether	<b>317</b>	ug/L	12.5	25		08/26/11 18:02	1634-04-4	
Toluene	<b>280</b>	ug/L	12.5	25		08/26/11 18:02	108-88-3	
Xylene (Total)	<b>8500</b>	ug/L	37.5	25		08/26/11 18:02	1330-20-7	
4-Bromofluorobenzene (S)	115	%	79-121	25		08/26/11 18:02	460-00-4	D4
Dibromofluoromethane (S)	103	%	81-119	25		08/26/11 18:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	121	%	72-127	25		08/26/11 18:02	17060-07-0	
Toluene-d8 (S)	106	%	77-120	25		08/26/11 18:02	2037-26-5	

## ANALYTICAL RESULTS

Project: 2611117

Pace Project No.: 258851

Sample: MW-7_20110831		Lab ID: 258851006	Collected: 08/15/11 10:35	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Gasoline Range Organics</b>		Analytical Method: EPA 5030B/8015B						
CA TPH-GRO (C5-C12)	ND ug/L		50.0	1		08/25/11 02:09		
4-Bromofluorobenzene (S)	88 %		47-140	1		08/25/11 02:09	460-00-4	
a,a,a-Trifluorotoluene (S)	101 %		69-142	1		08/25/11 02:09	98-08-8	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	ND ug/L		0.50	1		08/22/11 18:46	994-05-8	
Benzene	ND ug/L		0.50	1		08/22/11 18:46	71-43-2	
tert-Butyl Alcohol	13.1 ug/L		5.0	1		08/22/11 18:46	75-65-0	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		08/22/11 18:46	106-93-4	
1,2-Dichloroethane	ND ug/L		1.0	1		08/22/11 18:46	107-06-2	
Diisopropyl ether	ND ug/L		0.50	1		08/22/11 18:46	108-20-3	
Ethanol	ND ug/L		250	1		08/22/11 18:46	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		08/22/11 18:46	100-41-4	
Ethyl-tert-butyl ether	ND ug/L		0.50	1		08/22/11 18:46	637-92-3	
Methyl-tert-butyl ether	14.8 ug/L		0.50	1		08/22/11 18:46	1634-04-4	
Toluene	ND ug/L		0.50	1		08/22/11 18:46	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		08/22/11 18:46	1330-20-7	
4-Bromofluorobenzene (S)	115 %		79-121	1		08/22/11 18:46	460-00-4	
Dibromofluoromethane (S)	102 %		81-119	1		08/22/11 18:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	110 %		72-127	1		08/22/11 18:46	17060-07-0	
Toluene-d8 (S)	103 %		77-120	1		08/22/11 18:46	2037-26-5	

Sample: TB1_20110831		Lab ID: 258851007	Collected: 08/15/11 08:00	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Gasoline Range Organics</b>		Analytical Method: EPA 5030B/8015B						
CA TPH-GRO (C5-C12)	ND ug/L		50.0	1		08/24/11 23:50		
4-Bromofluorobenzene (S)	85 %		47-140	1		08/24/11 23:50	460-00-4	
a,a,a-Trifluorotoluene (S)	99 %		69-142	1		08/24/11 23:50	98-08-8	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	ND ug/L		0.50	1		08/26/11 10:24	994-05-8	
Benzene	ND ug/L		0.50	1		08/26/11 10:24	71-43-2	
tert-Butyl Alcohol	ND ug/L		5.0	1		08/26/11 10:24	75-65-0	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		08/26/11 10:24	106-93-4	
1,2-Dichloroethane	ND ug/L		1.0	1		08/26/11 10:24	107-06-2	
Diisopropyl ether	ND ug/L		0.50	1		08/26/11 10:24	108-20-3	
Ethanol	ND ug/L		250	1		08/26/11 10:24	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		08/26/11 10:24	100-41-4	
Ethyl-tert-butyl ether	ND ug/L		0.50	1		08/26/11 10:24	637-92-3	
Methyl-tert-butyl ether	ND ug/L		0.50	1		08/26/11 10:24	1634-04-4	
Toluene	ND ug/L		0.50	1		08/26/11 10:24	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		08/26/11 10:24	1330-20-7	
4-Bromofluorobenzene (S)	116 %		79-121	1		08/26/11 10:24	460-00-4	

## ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

Sample: <b>TB1_20110831</b>	Lab ID: <b>258851007</b>	Collected: 08/15/11 08:00	Received: 08/16/11 08:55	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

**8260 MSV**

Analytical Method: EPA 5030B/8260

Dibromofluoromethane (S)	100 %		81-119	1		08/26/11 10:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	109 %		72-127	1		08/26/11 10:24	17060-07-0	
Toluene-d8 (S)	105 %		77-120	1		08/26/11 10:24	2037-26-5	

**Sample: DPE-1\_20110831**

Lab ID: **258851008** Collected: 08/15/11 13:55 Received: 08/16/11 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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**RSK 175 AIR Headspace**

Analytical Method: RSK 175

Methane	<b>1500</b> ug/L		10.0	1		08/17/11 23:01	74-82-8	
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**Gasoline Range Organics**

Analytical Method: EPA 5030B/8015B

CA TPH-GRO (C5-C12)	<b>571</b> ug/L		50.0	1		08/25/11 05:17		
4-Bromofluorobenzene (S)	100 %		47-140	1		08/25/11 05:17	460-00-4	
a,a,a-Trifluorotoluene (S)	112 %		69-142	1		08/25/11 05:17	98-08-8	

**6010 MET ICP**

Analytical Method: EPA 6010 Preparation Method: EPA 3010

Iron	<b>11100</b> ug/L		100	1	08/26/11 08:44	08/29/11 13:33	7439-89-6	
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**8260 MSV**

Analytical Method: EPA 5030B/8260

tert-Amylmethyl ether	ND ug/L		0.50	1		08/26/11 14:40	994-05-8	
Benzene	<b>16.4</b> ug/L		0.50	1		08/26/11 14:40	71-43-2	
tert-Butyl Alcohol	<b>140</b> ug/L		5.0	1		08/26/11 14:40	75-65-0	
1,2-Dibromoethane (EDB)	ND ug/L		1.0	1		08/26/11 14:40	106-93-4	
1,2-Dichloroethane	ND ug/L		1.0	1		08/26/11 14:40	107-06-2	
Diisopropyl ether	ND ug/L		0.50	1		08/26/11 14:40	108-20-3	
Ethanol	ND ug/L		250	1		08/26/11 14:40	64-17-5	
Ethylbenzene	<b>6.3</b> ug/L		0.50	1		08/26/11 14:40	100-41-4	
Ethyl-tert-butyl ether	ND ug/L		0.50	1		08/26/11 14:40	637-92-3	
Methyl-tert-butyl ether	<b>1.1</b> ug/L		0.50	1		08/26/11 14:40	1634-04-4	
Toluene	<b>5.4</b> ug/L		0.50	1		08/26/11 14:40	108-88-3	
Xylene (Total)	<b>12.0</b> ug/L		1.5	1		08/26/11 14:40	1330-20-7	
4-Bromofluorobenzene (S)	116 %		79-121	1		08/26/11 14:40	460-00-4	
Dibromofluoromethane (S)	102 %		81-119	1		08/26/11 14:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	109 %		72-127	1		08/26/11 14:40	17060-07-0	
Toluene-d8 (S)	107 %		77-120	1		08/26/11 14:40	2037-26-5	

**Iron, Ferric (Calculation)**

Analytical Method: SM 3500-Fe B#4

Iron, Ferric	<b>9490</b> ug/L		100	1		08/30/11 11:45	7439-89-6	
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**Iron, Ferrous**

Analytical Method: SM 3500-Fe B#4

Iron, Ferrous	<b>1600</b> ug/L		100	1		08/15/11 13:55		
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**4500NH3D Nitrogen, Ammonia**

Analytical Method: SM 4500-NH3 D

Nitrogen, Ammonia	ND ug/L		100	1		08/24/11 12:40	7664-41-7	
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### ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

Sample: DPE-1_20110831	Lab ID: 258851008	Collected: 08/15/11 13:55	Received: 08/16/11 08:55	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>4500S2F Sulfide, Iodometric</b>	Analytical Method: SM 4500-S-2 F							
Sulfide	1040	ug/L	400	1		08/16/11 13:40	18496-25-8	
<b>5210B BOD, 5 day</b>	Analytical Method: SM 5210B Preparation Method: SM 5210B							
BOD, 5 day	4560	ug/L	2000	1	08/17/11 09:45	08/22/11 13:53		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	25200	ug/L	5000	5		08/26/11 16:27	16887-00-6	
Sulfate	14300	ug/L	5000	5		08/26/11 16:27	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND	ug/L	1000	1		08/23/11 16:15	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	108	ug/L	50.0	1		08/29/11 14:33		
Nitrogen, NO2 plus NO3	121	ug/L	50.0	1		08/29/11 14:33		
<b>410.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	27900	ug/L	5000	1		08/18/11 13:05		
<b>4500PE Total Phosphorus</b>	Analytical Method: SM 4500-P E							
Phosphorus	236	ug/L	10.0	1		08/30/11 13:15	7723-14-0	
<b>4500PE Ortho Phosphorus</b>	Analytical Method: SM 4500-P E							
Orthophosphate as P	219	ug/L	10.0	1		08/16/11 17:28		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	3640	ug/L	1000	1		08/19/11 14:11	7440-44-0	
<b>SM4500NO2-B, Nitrite, unpres</b>	Analytical Method: SM 4500-NO2 B							
Nitrite as N	13.1	ug/L	10.0	1		08/16/11 16:25	14797-65-0	
<b>Sample: DPE-4_20110831</b>	<b>Lab ID: 258851009</b>	Collected: 08/15/11 15:05	Received: 08/16/11 08:55	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>RSK 175 AIR Headspace</b>	Analytical Method: RSK 175							
Methane	16100	ug/L	10.0	1		08/17/11 23:11	74-82-8	E
<b>Gasoline Range Organics</b>	Analytical Method: EPA 5030B/8015B							
CA TPH-GRO (C5-C12)	57600	ug/L	5000	100		08/27/11 00:05		
4-Bromofluorobenzene (S)	90	%	47-140	100		08/27/11 00:05	460-00-4	
a,a,a-Trifluorotoluene (S)	99	%	69-142	100		08/27/11 00:05	98-08-8	

## ANALYTICAL RESULTS

Project: 2611117

Pace Project No.: 258851

Sample: DPE-4_20110831		Lab ID: 258851009	Collected: 08/15/11 15:05	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	<b>10800</b>	ug/L	100	1	08/26/11 08:44	08/29/11 13:37	7439-89-6	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	<b>132</b>	ug/L	0.50	1		08/23/11 01:28	994-05-8	
Benzene	<b>5920</b>	ug/L	25.0	50		08/26/11 18:21	71-43-2	
tert-Butyl Alcohol	<b>6920</b>	ug/L	250	50		08/26/11 18:21	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/23/11 01:28	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/23/11 01:28	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		08/23/11 01:28	108-20-3	
Ethanol	ND	ug/L	250	1		08/23/11 01:28	64-17-5	
Ethylbenzene	<b>3830</b>	ug/L	25.0	50		08/26/11 18:21	100-41-4	
Ethyl-tert-butyl ether	<b>12.2</b>	ug/L	0.50	1		08/23/11 01:28	637-92-3	
Methyl-tert-butyl ether	<b>5560</b>	ug/L	25.0	50		08/26/11 18:21	1634-04-4	
Toluene	<b>7240</b>	ug/L	25.0	50		08/26/11 18:21	108-88-3	
Xylene (Total)	<b>12100</b>	ug/L	75.0	50		08/26/11 18:21	1330-20-7	
4-Bromofluorobenzene (S)	113	%	79-121	1		08/23/11 01:28	460-00-4	
Dibromofluoromethane (S)	103	%	81-119	1		08/23/11 01:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	132	%	72-127	1		08/23/11 01:28	17060-07-0	S5
Toluene-d8 (S)	80	%	77-120	1		08/23/11 01:28	2037-26-5	
<b>Iron, Ferric (Calculation)</b>		Analytical Method: SM 3500-Fe B#4						
Iron, Ferric	<b>3230</b>	ug/L	100	1		08/30/11 11:45	7439-89-6	
<b>Iron, Ferrous</b>		Analytical Method: SM 3500-Fe B#4						
Iron, Ferrous	<b>7600</b>	ug/L	100	1		08/15/11 15:05		
<b>4500NH3D Nitrogen, Ammonia</b>		Analytical Method: SM 4500-NH3 D						
Nitrogen, Ammonia	ND	ug/L	100	1		08/24/11 12:40	7664-41-7	
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S-2 F						
Sulfide	<b>1080</b>	ug/L	400	1		08/16/11 13:40	18496-25-8	
<b>5210B BOD, 5 day</b>		Analytical Method: SM 5210B Preparation Method: SM 5210B						
BOD, 5 day	<b>55000</b>	ug/L	2000	1	08/17/11 09:45	08/22/11 13:58		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Chloride	<b>26400</b>	ug/L	5000	5		08/26/11 16:44	16887-00-6	
Sulfate	ND	ug/L	1000	1		08/29/11 18:31	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	<b>1770</b>	ug/L	1000	1		08/23/11 16:16	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	ND	ug/L	50.0	1		08/29/11 14:35		
Nitrogen, NO2 plus NO3	<b>62.1</b>	ug/L	50.0	1		08/29/11 14:35		

### ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

Sample: DPE-4_20110831		Lab ID: 258851009	Collected: 08/15/11 15:05	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>410.4 COD</b>		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	113000	ug/L	20000	4		08/26/11 13:30		
<b>4500PE Total Phosphorus</b>		Analytical Method: SM 4500-P E						
Phosphorus	732	ug/L	10.0	1		08/30/11 13:15	7723-14-0	
<b>4500PE Ortho Phosphorus</b>		Analytical Method: SM 4500-P E						
Orthophosphate as P	502	ug/L	10.0	1		08/16/11 17:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	14000	ug/L	1000	1		08/19/11 14:11	7440-44-0	
<b>SM4500NO2-B, Nitrite, unpres</b>		Analytical Method: SM 4500-NO2 B						
Nitrite as N	39.6	ug/L	10.0	1		08/16/11 16:25	14797-65-0	

Sample: DPE-5_20110831		Lab ID: 258851010	Collected: 08/15/11 14:40	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>RSK 175 AIR Headspace</b>		Analytical Method: RSK 175						
Methane	13900	ug/L	10.0	1		08/17/11 23:22	74-82-8	E
<b>Gasoline Range Organics</b>		Analytical Method: EPA 5030B/8015B						
CA TPH-GRO (C5-C12)	15900	ug/L	2500	50		08/26/11 22:55		
4-Bromofluorobenzene (S)	93	%	47-140	50		08/26/11 22:55	460-00-4	
a,a,a-Trifluorotoluene (S)	104	%	69-142	50		08/26/11 22:55	98-08-8	
<b>6010 MET ICP</b>		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	20500	ug/L	100	1	08/26/11 08:44	08/29/11 13:40	7439-89-6	
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
tert-Amylmethyl ether	10.0	ug/L	0.50	1		08/23/11 01:45	994-05-8	
Benzene	2420	ug/L	12.5	25		08/26/11 17:42	71-43-2	
tert-Butyl Alcohol	2510	ug/L	125	25		08/26/11 17:42	75-65-0	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/23/11 01:45	106-93-4	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/23/11 01:45	107-06-2	
Diisopropyl ether	ND	ug/L	0.50	1		08/23/11 01:45	108-20-3	
Ethanol	ND	ug/L	250	1		08/23/11 01:45	64-17-5	
Ethylbenzene	1340	ug/L	12.5	25		08/26/11 17:42	100-41-4	
Ethyl-tert-butyl ether	1.2	ug/L	0.50	1		08/23/11 01:45	637-92-3	
Methyl-tert-butyl ether	773	ug/L	12.5	25		08/26/11 17:42	1634-04-4	
Toluene	127	ug/L	12.5	25		08/26/11 17:42	108-88-3	
Xylene (Total)	1650	ug/L	37.5	25		08/26/11 17:42	1330-20-7	
4-Bromofluorobenzene (S)	110	%	79-121	1		08/23/11 01:45	460-00-4	
Dibromofluoromethane (S)	101	%	81-119	1		08/23/11 01:45	1868-53-7	

### ANALYTICAL RESULTS

Project: 2611117  
Pace Project No.: 258851

<b>Sample: DPE-5_20110831</b>		<b>Lab ID: 258851010</b>	Collected: 08/15/11 14:40	Received: 08/16/11 08:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 5030B/8260						
1,2-Dichloroethane-d4 (S)	112 %		72-127	1		08/23/11 01:45	17060-07-0	
Toluene-d8 (S)	104 %		77-120	1		08/23/11 01:45	2037-26-5	
<b>Iron, Ferric (Calculation)</b>		Analytical Method: SM 3500-Fe B#4						
Iron, Ferric	<b>14000</b> ug/L		100	1		08/30/11 11:45	7439-89-6	
<b>Iron, Ferrous</b>		Analytical Method: SM 3500-Fe B#4						
Iron, Ferrous	<b>6500</b> ug/L		100	1		08/15/11 14:40		
<b>4500NH3D Nitrogen, Ammonia</b>		Analytical Method: SM 4500-NH3 D						
Nitrogen, Ammonia	ND ug/L		100	1		08/24/11 12:40	7664-41-7	
<b>4500S2F Sulfide, Iodometric</b>		Analytical Method: SM 4500-S-2 F						
Sulfide	<b>1600</b> ug/L		400	1		08/16/11 13:40	18496-25-8	
<b>5210B BOD, 5 day</b>		Analytical Method: SM 5210B Preparation Method: SM 5210B						
BOD, 5 day	<b>21200</b> ug/L		2000	1	08/17/11 09:45	08/22/11 13:55		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0						
Chloride	<b>32100</b> ug/L		5000	5		08/26/11 17:01	16887-00-6	
Sulfate	ND ug/L		1000	1		08/29/11 18:48	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	<b>1320</b> ug/L		1000	1		08/23/11 16:17	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	ND ug/L		50.0	1		08/29/11 14:38		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		08/29/11 14:38		
<b>410.4 COD</b>		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	<b>53900</b> ug/L		5000	1		08/18/11 13:05		
<b>4500PE Total Phosphorus</b>		Analytical Method: SM 4500-P E						
Phosphorus	<b>134</b> ug/L		10.0	1		08/30/11 13:15	7723-14-0	3n
<b>4500PE Ortho Phosphorus</b>		Analytical Method: SM 4500-P E						
Orthophosphate as P	<b>240</b> ug/L		10.0	1		08/16/11 17:28		
<b>5310C TOC</b>		Analytical Method: SM 5310C						
Total Organic Carbon	<b>9360</b> ug/L		1000	1		08/19/11 14:11	7440-44-0	
<b>SM4500NO2-B, Nitrite, unpres</b>		Analytical Method: SM 4500-NO2 B						
Nitrite as N	<b>28.8</b> ug/L		10.0	1		08/16/11 16:25	14797-65-0	

**QUALITY CONTROL DATA**

Project: 2611117

Pace Project No.: 258851

QC Batch: AIR/12946 Analysis Method: RSK 175  
 QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 1035265 Matrix: Water  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	08/17/11 19:49	

LABORATORY CONTROL SAMPLE & LCSD: 1035266 1035267

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	60.7	66.2	65.7	109	108	70-130	.8	30	

SAMPLE DUPLICATE: 1035826

Parameter	Units	258846002 Result	Dup Result	RPD	Qualifiers
Methane	ug/L	ND	ND		

SAMPLE DUPLICATE: 1035827

Parameter	Units	92100523011 Result	Dup Result	RPD	Qualifiers
Methane	ug/L	10.9	9.8J		



### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: GCV/2424 Analysis Method: EPA 5030B/8015B  
QC Batch Method: EPA 5030B/8015B Analysis Description: Gasoline Range Organics  
Associated Lab Samples: 258851002, 258851003, 258851006, 258851007, 258851008

METHOD BLANK: 83352 Matrix: Water  
Associated Lab Samples: 258851002, 258851003, 258851006, 258851007, 258851008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	ND	50.0	08/24/11 22:40	
4-Bromofluorobenzene (S)	%	73	47-140	08/24/11 22:40	
a,a,a-Trifluorotoluene (S)	%	87	69-142	08/24/11 22:40	

LABORATORY CONTROL SAMPLE: 83353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	250	249	100	61-128	
4-Bromofluorobenzene (S)	%			83	47-140	
a,a,a-Trifluorotoluene (S)	%			98	69-142	

MATRIX SPIKE SAMPLE: 83561

Parameter	Units	258851006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	ND	250	193	73	45-124	
4-Bromofluorobenzene (S)	%				89	47-140	
a,a,a-Trifluorotoluene (S)	%				99	69-142	

SAMPLE DUPLICATE: 83560

Parameter	Units	258851002 Result	Dup Result	RPD	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	ND	8.3J		
4-Bromofluorobenzene (S)	%	87	87	.2	
a,a,a-Trifluorotoluene (S)	%	100	102	2	

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: GCV/2430 Analysis Method: EPA 5030B/8015B  
QC Batch Method: EPA 5030B/8015B Analysis Description: Gasoline Range Organics  
Associated Lab Samples: 258851001, 258851004, 258851005, 258851009, 258851010

METHOD BLANK: 83692 Matrix: Water  
Associated Lab Samples: 258851001, 258851004, 258851005, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	ND	50.0	08/26/11 19:02	
4-Bromofluorobenzene (S)	%	65	47-140	08/26/11 19:02	
a,a,a-Trifluorotoluene (S)	%	85	69-142	08/26/11 19:02	

LABORATORY CONTROL SAMPLE: 83693

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	250	225	90	61-128	
4-Bromofluorobenzene (S)	%			78	47-140	
a,a,a-Trifluorotoluene (S)	%			103	69-142	

MATRIX SPIKE SAMPLE: 83997

Parameter	Units	258851004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	1530	250	1660	50	45-124	
4-Bromofluorobenzene (S)	%				90	47-140	
a,a,a-Trifluorotoluene (S)	%				97	69-142	

SAMPLE DUPLICATE: 83998

Parameter	Units	258851010 Result	Dup Result	RPD	Qualifiers
CA TPH-GRO (C5-C12)	ug/L	15900	15600	2	
4-Bromofluorobenzene (S)	%	93	90	3	
a,a,a-Trifluorotoluene (S)	%	104	104	.3	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

QC Batch: MPRP/2435      Analysis Method: EPA 6010  
 QC Batch Method: EPA 3010      Analysis Description: 6010 MET  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 83618      Matrix: Water  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	08/29/11 13:12	

LABORATORY CONTROL SAMPLE: 83619

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	10100	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83620      83621

Parameter	Units	258851001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron	ug/L	1420	10000	10000	11500	11700	101	103	75-125	2	

### QUALITY CONTROL DATA

Project: 261117  
Pace Project No.: 258851

QC Batch: MSV/5178      Analysis Method: EPA 5030B/8260  
QC Batch Method: EPA 5030B/8260      Analysis Description: 8260 MSV Water 10 mL Purge  
Associated Lab Samples: 258851006

METHOD BLANK: 82723      Matrix: Water  
Associated Lab Samples: 258851006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/22/11 12:50	
1,2-Dichloroethane	ug/L	ND	1.0	08/22/11 12:50	
Benzene	ug/L	ND	0.50	08/22/11 12:50	
Diisopropyl ether	ug/L	ND	0.50	08/22/11 12:50	
Ethanol	ug/L	ND	250	08/22/11 12:50	
Ethyl-tert-butyl ether	ug/L	ND	0.50	08/22/11 12:50	
Ethylbenzene	ug/L	ND	0.50	08/22/11 12:50	
Methyl-tert-butyl ether	ug/L	ND	0.50	08/22/11 12:50	
tert-Amylmethyl ether	ug/L	ND	0.50	08/22/11 12:50	
tert-Butyl Alcohol	ug/L	ND	5.0	08/22/11 12:50	
Toluene	ug/L	0.65	0.50	08/22/11 12:50	1n
Xylene (Total)	ug/L	ND	1.5	08/22/11 12:50	
1,2-Dichloroethane-d4 (S)	%	109	72-127	08/22/11 12:50	
4-Bromofluorobenzene (S)	%	113	79-121	08/22/11 12:50	
Dibromofluoromethane (S)	%	100	81-119	08/22/11 12:50	
Toluene-d8 (S)	%	104	77-120	08/22/11 12:50	

LABORATORY CONTROL SAMPLE: 82724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	19.3	97	65-123	
1,2-Dichloroethane	ug/L	20	19.8	99	63-131	
Benzene	ug/L	20	18.4	92	66-123	
Diisopropyl ether	ug/L	20	21.1	105	70-136	
Ethanol	ug/L	800	843	105	40-160	
Ethyl-tert-butyl ether	ug/L	20	19.8	99	65-135	
Ethylbenzene	ug/L	20	18.9	94	67-122	
Methyl-tert-butyl ether	ug/L	20	19.3	97	65-138	
tert-Amylmethyl ether	ug/L	20	16.5	83	68-138	
tert-Butyl Alcohol	ug/L	100	92.9	93	57-153	
Toluene	ug/L	20	19.3	97	64-118	
Xylene (Total)	ug/L	60	53.4	89	68-122	
1,2-Dichloroethane-d4 (S)	%			107	72-127	
4-Bromofluorobenzene (S)	%			112	79-121	
Dibromofluoromethane (S)	%			99	81-119	
Toluene-d8 (S)	%			104	77-120	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

Parameter	Units	83256		83257		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		258811001 Result	MS Spike Conc.	MSD Spike Conc.								
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	18.0	19.1	90	95	61-127	6		
1,2-Dichloroethane	ug/L	ND	20	20	18.1	20.2	91	101	60-138	11		
Benzene	ug/L	ND	20	20	12.5	21.0	62	105	63-138	51	D6,M1	
Diisopropyl ether	ug/L	ND	20	20	20.0	22.6	100	113	68-146	12		
Ethanol	ug/L	ND	800	800	1040	811	127	99	40-160	25		
Ethyl-tert-butyl ether	ug/L	ND	20	20	19.4	21.1	97	106	63-138	9		
Ethylbenzene	ug/L	ND	20	20	9.2	21.6	46	107	65-135	80	D6,M1	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.8	19.2	94	96	59-143	2		
tert-Amylmethyl ether	ug/L	ND	20	20	16.8	17.3	84	86	62-142	3		
tert-Butyl Alcohol	ug/L	ND	100	100	109	85.2	108	85	46-156	25		
Toluene	ug/L	ND	20	20	11.4	21.9	53	106	64-128	63	D6,M1	
Xylene (Total)	ug/L	ND	60	60	28.0	60.4	45	100	65-133	73	D6,M1	
1,2-Dichloroethane-d4 (S)	%							107	106	72-127		
4-Bromofluorobenzene (S)	%							113	112	79-121		
Dibromofluoromethane (S)	%							99	101	81-119		
Toluene-d8 (S)	%							104	105	77-120		

### QUALITY CONTROL DATA

Project: 261117  
Pace Project No.: 258851

QC Batch: MSV/5188      Analysis Method: EPA 5030B/8260  
QC Batch Method: EPA 5030B/8260      Analysis Description: 8260 MSV Water 10 mL Purge  
Associated Lab Samples: 258851001

METHOD BLANK: 82792      Matrix: Water  
Associated Lab Samples: 258851001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/20/11 14:30	
1,2-Dichloroethane	ug/L	ND	1.0	08/20/11 14:30	
Benzene	ug/L	0.54	0.50	08/20/11 14:30	
Diisopropyl ether	ug/L	ND	0.50	08/20/11 14:30	
Ethanol	ug/L	ND	250	08/20/11 14:30	
Ethyl-tert-butyl ether	ug/L	ND	0.50	08/20/11 14:30	
Ethylbenzene	ug/L	ND	0.50	08/20/11 14:30	
Methyl-tert-butyl ether	ug/L	ND	0.50	08/20/11 14:30	
tert-Amylmethyl ether	ug/L	ND	0.50	08/20/11 14:30	
tert-Butyl Alcohol	ug/L	ND	5.0	08/20/11 14:30	
Toluene	ug/L	2.8	0.50	08/20/11 14:30	B+
Xylene (Total)	ug/L	1.7	1.5	08/20/11 14:30	
1,2-Dichloroethane-d4 (S)	%	108	72-127	08/20/11 14:30	
4-Bromofluorobenzene (S)	%	111	79-121	08/20/11 14:30	
Dibromofluoromethane (S)	%	98	81-119	08/20/11 14:30	
Toluene-d8 (S)	%	103	77-120	08/20/11 14:30	

LABORATORY CONTROL SAMPLE: 82793

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	17.4	87	65-123	
1,2-Dichloroethane	ug/L	20	18.7	93	63-131	
Benzene	ug/L	20	15.8	79	66-123	
Diisopropyl ether	ug/L	20	18.5	92	70-136	
Ethanol	ug/L	800	757	95	40-160	
Ethyl-tert-butyl ether	ug/L	20	18.6	93	65-135	
Ethylbenzene	ug/L	20	17.0	85	67-122	
Methyl-tert-butyl ether	ug/L	20	17.5	87	65-138	
tert-Amylmethyl ether	ug/L	20	15.7	79	68-138	
tert-Butyl Alcohol	ug/L	100	83.7	84	57-153	
Toluene	ug/L	20	16.3	81	64-118	
Xylene (Total)	ug/L	60	48.1	80	68-122	
1,2-Dichloroethane-d4 (S)	%			114	72-127	
4-Bromofluorobenzene (S)	%			110	79-121	
Dibromofluoromethane (S)	%			101	81-119	
Toluene-d8 (S)	%			102	77-120	

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

Parameter	Units	82794		82795		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		258829018 Result	MS Spike Conc.	MSD Spike Conc.								
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	17.0	7.9	85	40	61-127	73	D6,M1	
1,2-Dichloroethane	ug/L	ND	20	20	71.7	57.6	358	288	60-138	22	M1	
Benzene	ug/L	1590	20	20	874	821	-3600	-3870	63-138	6	E,M1	
Diisopropyl ether	ug/L	ND	20	20	19.8	9.0	99	45	68-146	76	D6,M1	
Ethanol	ug/L	ND	800	800	526	238J	66	30	40-160		M1	
Ethyl-tert-butyl ether	ug/L	ND	20	20	21.5	9.7	108	49	63-138	75	D6,M1	
Ethylbenzene	ug/L	552	20	20	519	481	-165	-355	65-135	8	E,M1	
Methyl-tert-butyl ether	ug/L	ND	20	20	16.5	7.8	82	39	59-143	71	D6,M1	
tert-Amylmethyl ether	ug/L	ND	20	20	19.1	9.8	95	49	62-142	65	D6,M1	
tert-Butyl Alcohol	ug/L	5.7	100	100	55.6	32.5	50	27	46-156	52	D6,M1	
Toluene	ug/L	3870	20	20	2350	2160	-7640	-8560	64-128	8	E,M1	
Xylene (Total)	ug/L	2650	60	60	2650	2440	.3	-365	65-133	9	E,M1	
1,2-Dichloroethane-d4 (S)	%						111	110	72-127			
4-Bromofluorobenzene (S)	%						107	107	79-121			
Dibromofluoromethane (S)	%						100	100	81-119			
Toluene-d8 (S)	%						104	104	77-120			

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: MSV/5196 Analysis Method: EPA 5030B/8260  
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge  
Associated Lab Samples: 258851009, 258851010

METHOD BLANK: 83562 Matrix: Water  
Associated Lab Samples: 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/23/11 00:03	
1,2-Dichloroethane	ug/L	ND	1.0	08/23/11 00:03	
Diisopropyl ether	ug/L	ND	0.50	08/23/11 00:03	
Ethanol	ug/L	ND	250	08/23/11 00:03	
Ethyl-tert-butyl ether	ug/L	ND	0.50	08/23/11 00:03	
tert-Amylmethyl ether	ug/L	ND	0.50	08/23/11 00:03	
1,2-Dichloroethane-d4 (S)	%	115	72-127	08/23/11 00:03	
4-Bromofluorobenzene (S)	%	116	79-121	08/23/11 00:03	
Dibromofluoromethane (S)	%	101	81-119	08/23/11 00:03	
Toluene-d8 (S)	%	106	77-120	08/23/11 00:03	

LABORATORY CONTROL SAMPLE: 83563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	20.4	102	65-123	
1,2-Dichloroethane	ug/L	20	22.1	110	63-131	
Diisopropyl ether	ug/L	20	23.6	118	70-136	
Ethanol	ug/L	800	1090	136	40-160	
Ethyl-tert-butyl ether	ug/L	20	20.8	104	65-135	
tert-Amylmethyl ether	ug/L	20	16.8	84	68-138	
1,2-Dichloroethane-d4 (S)	%			113	72-127	
4-Bromofluorobenzene (S)	%			112	79-121	
Dibromofluoromethane (S)	%			102	81-119	
Toluene-d8 (S)	%			104	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83564 83565

Parameter	Units	258871004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	18.8	21.8	94	109	61-127	15	
1,2-Dichloroethane	ug/L	ND	20	20	20.8	24.1	104	121	60-138	15	
Diisopropyl ether	ug/L	ND	20	20	22.6	25.8	113	129	68-146	13	
Ethanol	ug/L	ND	800	800	998	1170	125	146	40-160	16	
Ethyl-tert-butyl ether	ug/L	ND	20	20	19.8	22.1	99	111	63-138	11	
tert-Amylmethyl ether	ug/L	ND	20	20	15.9	17.5	79	87	62-142	10	
1,2-Dichloroethane-d4 (S)	%						113	113	72-127		
4-Bromofluorobenzene (S)	%						114	115	79-121		
Dibromofluoromethane (S)	%						102	102	81-119		
Toluene-d8 (S)	%						105	104	77-120		



### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

QC Batch: MSV/5227 Analysis Method: EPA 5030B/8260  
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge  
 Associated Lab Samples: 258851002, 258851003, 258851004, 258851007, 258851008

METHOD BLANK: 83631 Matrix: Water  
 Associated Lab Samples: 258851002, 258851003, 258851004, 258851007, 258851008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/26/11 09:50	
1,2-Dichloroethane	ug/L	ND	1.0	08/26/11 09:50	
Benzene	ug/L	ND	0.50	08/26/11 09:50	
Diisopropyl ether	ug/L	ND	0.50	08/26/11 09:50	
Ethanol	ug/L	ND	250	08/26/11 09:50	
Ethyl-tert-butyl ether	ug/L	ND	0.50	08/26/11 09:50	
Ethylbenzene	ug/L	ND	0.50	08/26/11 09:50	
Methyl-tert-butyl ether	ug/L	ND	0.50	08/26/11 09:50	
tert-Amylmethyl ether	ug/L	ND	0.50	08/26/11 09:50	
tert-Butyl Alcohol	ug/L	ND	5.0	08/26/11 09:50	
Toluene	ug/L	ND	0.50	08/26/11 09:50	
Xylene (Total)	ug/L	ND	1.5	08/26/11 09:50	
1,2-Dichloroethane-d4 (S)	%	111	72-127	08/26/11 09:50	
4-Bromofluorobenzene (S)	%	113	79-121	08/26/11 09:50	
Dibromofluoromethane (S)	%	101	81-119	08/26/11 09:50	
Toluene-d8 (S)	%	106	77-120	08/26/11 09:50	

LABORATORY CONTROL SAMPLE: 83632

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.7	93	65-123	
1,2-Dichloroethane	ug/L	20	19.0	95	63-131	
Benzene	ug/L	20	18.6	93	66-123	
Diisopropyl ether	ug/L	20	20.8	104	70-136	
Ethanol	ug/L	800	831	104	40-160	
Ethyl-tert-butyl ether	ug/L	20	18.6	93	65-135	
Ethylbenzene	ug/L	20	19.1	96	67-122	
Methyl-tert-butyl ether	ug/L	20	17.8	89	65-138	
tert-Amylmethyl ether	ug/L	20	15.7	78	68-138	
tert-Butyl Alcohol	ug/L	100	95.9	96	57-153	
Toluene	ug/L	20	19.8	99	64-118	
Xylene (Total)	ug/L	60	53.6	89	68-122	
1,2-Dichloroethane-d4 (S)	%			108	72-127	
4-Bromofluorobenzene (S)	%			113	79-121	
Dibromofluoromethane (S)	%			100	81-119	
Toluene-d8 (S)	%			106	77-120	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83633 83634												
Parameter	Units	258848009 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	17.8	19.3	88	96	61-127	8		
1,2-Dichloroethane	ug/L	ND	20	20	19.6	20.1	97	100	60-138	3		
Benzene	ug/L	1.8	20	20	23.2	22.5	107	103	63-138	3		
Diisopropyl ether	ug/L	ND	20	20	22.1	22.1	111	111	68-146	.06		
Ethanol	ug/L	ND	800	800	809	808	101	101	40-160	.09		
Ethyl-tert-butyl ether	ug/L	ND	20	20	19.6	20.7	98	104	63-138	5		
Ethylbenzene	ug/L	32.2	20	20	60.1	57.2	140	125	65-135	5 M1		
Methyl-tert-butyl ether	ug/L	2.0	20	20	18.8	20.6	84	93	59-143	9		
tert-Amylmethyl ether	ug/L	ND	20	20	15.8	16.7	79	84	62-142	5		
tert-Butyl Alcohol	ug/L	ND	100	100	76.3	84.0	72	80	46-156	10		
Toluene	ug/L	ND	20	20	23.1	22.3	113	109	64-128	3		
Xylene (Total)	ug/L	15.6	60	60	79.3	76.4	106	101	65-133	4		
1,2-Dichloroethane-d4 (S)	%						102	106	72-127			
4-Bromofluorobenzene (S)	%						117	114	79-121			
Dibromofluoromethane (S)	%						98	100	81-119			
Toluene-d8 (S)	%						105	106	77-120			

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: MSV/5228 Analysis Method: EPA 5030B/8260  
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge  
Associated Lab Samples: 258851005, 258851009, 258851010

METHOD BLANK: 83640 Matrix: Water

Associated Lab Samples: 258851005, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/26/11 09:33	
1,2-Dichloroethane	ug/L	ND	1.0	08/26/11 09:33	
Benzene	ug/L	ND	0.50	08/26/11 09:33	
Diisopropyl ether	ug/L	ND	0.50	08/26/11 09:33	
Ethanol	ug/L	ND	250	08/26/11 09:33	
Ethyl-tert-butyl ether	ug/L	ND	0.50	08/26/11 09:33	
Ethylbenzene	ug/L	ND	0.50	08/26/11 09:33	
Methyl-tert-butyl ether	ug/L	ND	0.50	08/26/11 09:33	
tert-Amylmethyl ether	ug/L	ND	0.50	08/26/11 09:33	
tert-Butyl Alcohol	ug/L	ND	5.0	08/26/11 09:33	
Toluene	ug/L	ND	0.50	08/26/11 09:33	
Xylene (Total)	ug/L	ND	1.5	08/26/11 09:33	
1,2-Dichloroethane-d4 (S)	%	109	72-127	08/26/11 09:33	
4-Bromofluorobenzene (S)	%	115	79-121	08/26/11 09:33	
Dibromofluoromethane (S)	%	100	81-119	08/26/11 09:33	
Toluene-d8 (S)	%	106	77-120	08/26/11 09:33	

LABORATORY CONTROL SAMPLE: 83641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.1	91	65-123	
1,2-Dichloroethane	ug/L	20	18.9	95	63-131	
Benzene	ug/L	20	18.9	95	66-123	
Diisopropyl ether	ug/L	20	20.8	104	70-136	
Ethanol	ug/L	800	817	102	40-160	
Ethyl-tert-butyl ether	ug/L	20	18.0	90	65-135	
Ethylbenzene	ug/L	20	19.7	98	67-122	
Methyl-tert-butyl ether	ug/L	20	16.9	85	65-138	
tert-Amylmethyl ether	ug/L	20	14.8	74	68-138	
tert-Butyl Alcohol	ug/L	100	88.4	88	57-153	
Toluene	ug/L	20	20.3	102	64-118	
Xylene (Total)	ug/L	60	55.0	92	68-122	
1,2-Dichloroethane-d4 (S)	%			106	72-127	
4-Bromofluorobenzene (S)	%			113	79-121	
Dibromofluoromethane (S)	%			99	81-119	
Toluene-d8 (S)	%			106	77-120	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

Parameter	Units	83642		83643		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		258853002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
1,2-Dibromoethane (EDB)	ug/L	ND	200	200	147	199	73	100	61-127	30	D6	
1,2-Dichloroethane	ug/L	ND	200	200	168	217	84	108	60-138	25	D6	
Benzene	ug/L	553	200	200	641	694	44	71	63-138	8	M1	
Diisopropyl ether	ug/L	ND	200	200	166	218	83	109	68-146	27	D6	
Ethanol	ug/L	ND	8000	8000	7630	10500	95	131	40-160	32	D6	
Ethyl-tert-butyl ether	ug/L	ND	200	200	136	187	68	94	63-138	31	D6	
Ethylbenzene	ug/L	161	200	200	287	338	63	89	65-135	16	M1	
Methyl-tert-butyl ether	ug/L	ND	200	200	138	182	69	91	59-143	28	D6	
tert-Amylmethyl ether	ug/L	ND	200	200	117	155	58	77	62-142	28	M1	
tert-Butyl Alcohol	ug/L	ND	1000	1000	802	1010	80	101	46-156	23		
Toluene	ug/L	163	200	200	291	343	64	90	64-128	16		
Xylene (Total)	ug/L	575	600	600	901	1050	54	80	65-133	16	M1	
1,2-Dichloroethane-d4 (S)	%							110	108	72-127		
4-Bromofluorobenzene (S)	%							114	112	79-121		
Dibromofluoromethane (S)	%							101	100	81-119		
Toluene-d8 (S)	%							105	106	77-120		

**QUALITY CONTROL DATA**

Project: 2611117

Pace Project No.: 258851

QC Batch: WET/3034 Analysis Method: SM 4500-NH3 D  
 QC Batch Method: SM 4500-NH3 D Analysis Description: 4500NH3D Nitrogen, Ammonia  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82542 Matrix: Water  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	ug/L	ND	100	08/24/11 12:40	

LABORATORY CONTROL SAMPLE: 82543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	1000	1070	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82544 82545

Parameter	Units	258783007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Ammonia	ug/L	195	1000	1000	1080	1130	89	94	80-120	4	

MATRIX SPIKE SAMPLE: 83317

Parameter	Units	258882001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	ug/L	0.15 mg/L	1000	1180	103	80-120	

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WET/3018 Analysis Method: SM 4500-S-2 F  
QC Batch Method: SM 4500-S-2 F Analysis Description: 4500S2F Sulfide, Iodometric  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 81903 Matrix: Water  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	ug/L	ND	400	08/16/11 13:40	

LABORATORY CONTROL SAMPLE: 81904

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	ug/L	9640	9560	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 81905 81906

Parameter	Units	258783004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfide	ug/L	960	9640	9640	9800	9960	92	93	75-125	2	

MATRIX SPIKE SAMPLE: 82092

Parameter	Units	258851002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	ug/L	760	9640	9880	95	75-125	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

QC Batch: WET/3021

Analysis Method: SM 5210B

QC Batch Method: SM 5210B

Analysis Description: 5210B BOD, 5 day

Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82086

Matrix: Water

Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	ug/L	ND	2000	08/22/11 13:42	

LABORATORY CONTROL SAMPLE: 82087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	ug/L	198000	175000	88	85-115	

SAMPLE DUPLICATE: 82088

Parameter	Units	258851008 Result	Dup Result	RPD	Qualifiers
BOD, 5 day	ug/L	4560	4530	.6	

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WETA/2129 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 258851001

METHOD BLANK: 82194 Matrix: Water  
Associated Lab Samples: 258851001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	ND	1000	08/17/11 20:13	
Sulfate	ug/L	ND	1000	08/17/11 20:13	

LABORATORY CONTROL SAMPLE: 82195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	5000	4530	91	90-110	
Sulfate	ug/L	15000	14500	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82196 82197

Parameter	Units	258863003 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Chloride	ug/L	2.2 mg/L	5000	5000	6680	6680	90	90	90-110	.02			
Sulfate	ug/L	ND	15000	15000	14700	14700	94	94	90-110	.4			

MATRIX SPIKE SAMPLE: 82198

Parameter	Units	258783004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	31200	25000	49600	74	90-110	M1
Sulfate	ug/L	25000	30000	56800	106	90-110	



### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WETA/2145 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 83405 Matrix: Water  
Associated Lab Samples: 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	ND	1000	08/26/11 14:27	
Sulfate	ug/L	ND	1000	08/26/11 14:27	

LABORATORY CONTROL SAMPLE: 83406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	5000	4630	93	90-110	
Sulfate	ug/L	15000	14700	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83407 83408

Parameter	Units	258851002		83408		MS		MSD		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Chloride	ug/L	17100	10000	10000	26800	26600	97	95	90-110	.6		
Sulfate	ug/L	17600	30000	30000	49600	49500	107	106	90-110	.1		

MATRIX SPIKE SAMPLE: 83409

Parameter	Units	258902001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L		2500000	2170000	85	90-110	M2
Sulfate	ug/L	2700 mg/L	7500000	9880000	96	90-110	

**QUALITY CONTROL DATA**

Project: 2611117

Pace Project No.: 258851

QC Batch: WETA/2138 Analysis Method: EPA 351.2  
 QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82843 Matrix: Water  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	ug/L	ND	1000	08/23/11 15:58	

LABORATORY CONTROL SAMPLE: 82844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	ug/L	5000	4910	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82845 82846

Parameter	Units	258783004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, Kjeldahl, Total	ug/L	3200	5000	5000	7120	7260	78	81	90-110	2	M1

MATRIX SPIKE SAMPLE: 82847

Parameter	Units	258860001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	ug/L	33.5 mg/L	5000	40500	140	90-110	M1

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WETA/2155 Analysis Method: EPA 353.2  
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 83877 Matrix: Water  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	08/29/11 14:06	

LABORATORY CONTROL SAMPLE: 83878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	903	90	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83879 83880

Parameter	Units	258846001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrogen, NO2 plus NO3	ug/L	0.14 mg/L	1000	1000	1250	1290	112	115	90-110	3	M1

MATRIX SPIKE SAMPLE: 83881

Parameter	Units	258851009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	62.1	1000	1160	110	90-110	

**QUALITY CONTROL DATA**

Project: 2611117

Pace Project No.: 258851

QC Batch: WETA/2130 Analysis Method: EPA 410.4  
 QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851010

METHOD BLANK: 82208 Matrix: Water

Associated Lab Samples: 258851001, 258851002, 258851008, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	ug/L	ND	5000	08/18/11 13:05	

LABORATORY CONTROL SAMPLE: 82209

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	50000	51200	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82210 82211

Parameter	Units	258783004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	ug/L	21600	50000	50000	72700	75500	102	108	90-110	4	

MATRIX SPIKE SAMPLE: 82393

Parameter	Units	258886002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	135 mg/L	50000	182000	94	90-110	

**QUALITY CONTROL DATA**

Project: 2611117

Pace Project No.: 258851

QC Batch: WETA/2150      Analysis Method: EPA 410.4  
 QC Batch Method: EPA 410.4      Analysis Description: 410.4 COD  
 Associated Lab Samples: 258851009

METHOD BLANK: 83423      Matrix: Water

Associated Lab Samples: 258851009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	ug/L	ND	5000	08/26/11 13:30	

LABORATORY CONTROL SAMPLE: 83424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	50000	46600	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 83425      83426

Parameter	Units	258851009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Chemical Oxygen Demand	ug/L	113000	200000	200000	329000	314000	108	100	90-110	5	

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

QC Batch: WETA/2156

Analysis Method: SM 4500-P E

QC Batch Method: SM 4500-P E

Analysis Description: 4500PE Total Phosphorus

Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 83886

Matrix: Water

Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	ug/L	ND	10.0	08/30/11 13:15	

LABORATORY CONTROL SAMPLE: 83887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	ug/L	100	100	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82857

83888

Parameter	Units	258874001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Phosphorus	ug/L	95.6	100	100	126	129	30	34	80-120	3	M1

### QUALITY CONTROL DATA

Project: 2611117

Pace Project No.: 258851

QC Batch: WETA/2128 Analysis Method: SM 4500-P E  
 QC Batch Method: SM 4500-P E Analysis Description: 4500PE Ortho Phosphorus  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82060 Matrix: Water  
 Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	ug/L	ND	10.0	08/16/11 17:28	

LABORATORY CONTROL SAMPLE: 82061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	ug/L	100	101	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82062 82063

Parameter	Units	258851002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Orthophosphate as P	ug/L	162	100	100	270	265	108	103	80-120	2	

### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WETA/2134 Analysis Method: SM 5310C  
QC Batch Method: SM 5310C Analysis Description: 5310C Total Organic Carbon  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82388 Matrix: Water  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	ND	1000	08/19/11 14:11	

LABORATORY CONTROL SAMPLE & LCSD: 82389 82390

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Total Organic Carbon	ug/L	10000	9900	9800	99	98	90-110	1	20	

MATRIX SPIKE SAMPLE: 82391

Parameter	Units	258879002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	51.1 mg/L	40000	86900	90	75-125	

MATRIX SPIKE SAMPLE: 82392

Parameter	Units	258886001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	584 mg/L	100000	685000	101	75-125	



### QUALITY CONTROL DATA

Project: 2611117  
Pace Project No.: 258851

QC Batch: WETA/2127 Analysis Method: SM 4500-NO2 B  
QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

METHOD BLANK: 82055 Matrix: Water  
Associated Lab Samples: 258851001, 258851002, 258851008, 258851009, 258851010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	ug/L	ND	10.0	08/16/11 16:25	

LABORATORY CONTROL SAMPLE: 82056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	ug/L	50	46.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 82057 82058

Parameter	Units	258851002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrite as N	ug/L	ND	50	50	52.4	52.5	86	87	71-109	.2	

MATRIX SPIKE SAMPLE: 82059

Parameter	Units	258846008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrite as N	ug/L	0.014 mg/L	50	58.5	88	71-109	

## QUALIFIERS

Project: 2611117

Pace Project No.: 258851

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

PASI-S Pace Analytical Services - Seattle

### BATCH QUALIFIERS

Batch: WET/3032

[1] Ferrous iron results obtained in the field and provided by the client. Total iron results obtained in the lab within acceptable hold times. No holding time violations occurred for ferric iron calculation.

Batch: WET/3033

[1] Ferrous iron results obtained in the field and provided by the client. Total iron results obtained in the lab within acceptable hold times. No holding time violations occurred for ferric iron calculation.

### ANALYTE QUALIFIERS

1n Analyte was detected in the associated method blank below the report limit. Amount detected is above one-half of the report limit.

2n High bias (confirmed with secondary analysis) due to matrix interference.

3n Matrix interference noted for this sample.

4n The amount of this analyte observed in this sample was greater than ten times the amount observed in the method blank. Therefore, the amount observed in the method blank is insignificant.

B+ Analyte was detected in the associated method blank as well as in the sample.

D4 Sample was diluted due to the presence of high levels of target analytes.

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M2 Matrix spike recovery was below QC limits due to sample dilution. Data acceptance based on laboratory control sample (LCS) recovery.

S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611117  
Pace Project No.: 258851

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258851001	EX-1_20110831	RSK 175	AIR/12946		
258851002	EX-2_20110831	RSK 175	AIR/12946		
258851008	DPE-1_20110831	RSK 175	AIR/12946		
258851009	DPE-4_20110831	RSK 175	AIR/12946		
258851010	DPE-5_20110831	RSK 175	AIR/12946		
258851001	EX-1_20110831	EPA 5030B/8015B	GCV/2430		
258851002	EX-2_20110831	EPA 5030B/8015B	GCV/2424		
258851003	MW-10_20110831	EPA 5030B/8015B	GCV/2424		
258851004	MW-11_20110831	EPA 5030B/8015B	GCV/2430		
258851005	MW-4_20110831	EPA 5030B/8015B	GCV/2430		
258851006	MW-7_20110831	EPA 5030B/8015B	GCV/2424		
258851007	TB1_20110831	EPA 5030B/8015B	GCV/2424		
258851008	DPE-1_20110831	EPA 5030B/8015B	GCV/2424		
258851009	DPE-4_20110831	EPA 5030B/8015B	GCV/2430		
258851010	DPE-5_20110831	EPA 5030B/8015B	GCV/2430		
258851001	EX-1_20110831	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258851002	EX-2_20110831	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258851008	DPE-1_20110831	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258851009	DPE-4_20110831	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258851010	DPE-5_20110831	EPA 3010	MPRP/2435	EPA 6010	ICP/2324
258851001	EX-1_20110831	EPA 5030B/8260	MSV/5188		
258851002	EX-2_20110831	EPA 5030B/8260	MSV/5227		
258851003	MW-10_20110831	EPA 5030B/8260	MSV/5227		
258851004	MW-11_20110831	EPA 5030B/8260	MSV/5227		
258851005	MW-4_20110831	EPA 5030B/8260	MSV/5228		
258851006	MW-7_20110831	EPA 5030B/8260	MSV/5178		
258851007	TB1_20110831	EPA 5030B/8260	MSV/5227		
258851008	DPE-1_20110831	EPA 5030B/8260	MSV/5227		
258851009	DPE-4_20110831	EPA 5030B/8260	MSV/5196		
258851009	DPE-4_20110831	EPA 5030B/8260	MSV/5228		
258851010	DPE-5_20110831	EPA 5030B/8260	MSV/5196		
258851010	DPE-5_20110831	EPA 5030B/8260	MSV/5228		
258851001	EX-1_20110831	SM 3500-Fe B#4	WET/3033		
258851002	EX-2_20110831	SM 3500-Fe B#4	WET/3033		
258851008	DPE-1_20110831	SM 3500-Fe B#4	WET/3033		
258851009	DPE-4_20110831	SM 3500-Fe B#4	WET/3033		
258851010	DPE-5_20110831	SM 3500-Fe B#4	WET/3033		
258851001	EX-1_20110831	SM 3500-Fe B#4	WET/3032		
258851002	EX-2_20110831	SM 3500-Fe B#4	WET/3032		
258851008	DPE-1_20110831	SM 3500-Fe B#4	WET/3032		

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611117  
Pace Project No.: 258851

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258851009	DPE-4_20110831	SM 3500-Fe B#4	WET/3032		
258851010	DPE-5_20110831	SM 3500-Fe B#4	WET/3032		
258851001	EX-1_20110831	SM 4500-NH3 D	WET/3034		
258851002	EX-2_20110831	SM 4500-NH3 D	WET/3034		
258851008	DPE-1_20110831	SM 4500-NH3 D	WET/3034		
258851009	DPE-4_20110831	SM 4500-NH3 D	WET/3034		
258851010	DPE-5_20110831	SM 4500-NH3 D	WET/3034		
258851001	EX-1_20110831	SM 4500-S-2 F	WET/3018		
258851002	EX-2_20110831	SM 4500-S-2 F	WET/3018		
258851008	DPE-1_20110831	SM 4500-S-2 F	WET/3018		
258851009	DPE-4_20110831	SM 4500-S-2 F	WET/3018		
258851010	DPE-5_20110831	SM 4500-S-2 F	WET/3018		
258851001	EX-1_20110831	SM 5210B	WET/3021	SM 5210B	WET/3026
258851002	EX-2_20110831	SM 5210B	WET/3021	SM 5210B	WET/3026
258851008	DPE-1_20110831	SM 5210B	WET/3021	SM 5210B	WET/3026
258851009	DPE-4_20110831	SM 5210B	WET/3021	SM 5210B	WET/3026
258851010	DPE-5_20110831	SM 5210B	WET/3021	SM 5210B	WET/3026
258851001	EX-1_20110831	EPA 300.0	WETA/2129		
258851002	EX-2_20110831	EPA 300.0	WETA/2145		
258851008	DPE-1_20110831	EPA 300.0	WETA/2145		
258851009	DPE-4_20110831	EPA 300.0	WETA/2145		
258851010	DPE-5_20110831	EPA 300.0	WETA/2145		
258851001	EX-1_20110831	EPA 351.2	WETA/2138		
258851002	EX-2_20110831	EPA 351.2	WETA/2138		
258851008	DPE-1_20110831	EPA 351.2	WETA/2138		
258851009	DPE-4_20110831	EPA 351.2	WETA/2138		
258851010	DPE-5_20110831	EPA 351.2	WETA/2138		
258851001	EX-1_20110831	EPA 353.2	WETA/2155		
258851002	EX-2_20110831	EPA 353.2	WETA/2155		
258851008	DPE-1_20110831	EPA 353.2	WETA/2155		
258851009	DPE-4_20110831	EPA 353.2	WETA/2155		
258851010	DPE-5_20110831	EPA 353.2	WETA/2155		
258851001	EX-1_20110831	EPA 410.4	WETA/2130		
258851002	EX-2_20110831	EPA 410.4	WETA/2130		
258851008	DPE-1_20110831	EPA 410.4	WETA/2130		
258851009	DPE-4_20110831	EPA 410.4	WETA/2150		
258851010	DPE-5_20110831	EPA 410.4	WETA/2130		
258851001	EX-1_20110831	SM 4500-P E	WETA/2156		
258851002	EX-2_20110831	SM 4500-P E	WETA/2156		
258851008	DPE-1_20110831	SM 4500-P E	WETA/2156		
258851009	DPE-4_20110831	SM 4500-P E	WETA/2156		
258851010	DPE-5_20110831	SM 4500-P E	WETA/2156		
258851001	EX-1_20110831	SM 4500-P E	WETA/2128		

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2611117

Pace Project No.: 258851

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258851002	EX-2_20110831	SM 4500-P E	WETA/2128		
258851008	DPE-1_20110831	SM 4500-P E	WETA/2128		
258851009	DPE-4_20110831	SM 4500-P E	WETA/2128		
258851010	DPE-5_20110831	SM 4500-P E	WETA/2128		
258851001	EX-1_20110831	SM 5310C	WETA/2134		
258851002	EX-2_20110831	SM 5310C	WETA/2134		
258851008	DPE-1_20110831	SM 5310C	WETA/2134		
258851009	DPE-4_20110831	SM 5310C	WETA/2134		
258851010	DPE-5_20110831	SM 5310C	WETA/2134		
258851001	EX-1_20110831	SM 4500-NO2 B	WETA/2127		
258851002	EX-2_20110831	SM 4500-NO2 B	WETA/2127		
258851008	DPE-1_20110831	SM 4500-NO2 B	WETA/2127		
258851009	DPE-4_20110831	SM 4500-NO2 B	WETA/2127		
258851010	DPE-5_20110831	SM 4500-NO2 B	WETA/2127		



# Analytical Report

Pace Analytical Services, Inc.  940 S. Harney Street  Seattle, WA 98108	Client Project ID: #2611117; WG_Q_201108	Date Sampled: 08/15/11
		Date Received: 08/15/11
	Client Contact: Regina Ste. Marie	Date Reported: 08/18/11
	Client P.O.:	Date Completed: 08/18/11

**WorkOrder: 1108459**

August 18, 2011

Dear Regina:

Enclosed within are:

- 1) The results of the **5** analyzed samples from your project: **#2611117; WG\_Q\_201108**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

***The analytical results relate only to the items tested.***



**COP ELT CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1  
Cooler # \_\_\_\_\_ of \_\_\_\_\_

3Q 2011 GW Event

1108459

**McCampbell**

<b>Required Lab Information:</b>		<b>Required Project Information:</b>		<b>Required Invoice Information:</b>	
Lab Name: Pace-Seattle	Site ID #: 2611117	Task: WG_Q_201108	Send Invoice to: David Sowle		
Address: 940 S. Haney Street Seattle WA 98108	AnteaGrp proj#: 7210 BANCROFT AVE	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	Turn around time (days): 10	QC level Required: Standard
Lab PM: Regina Ste Marie	City: OAKLAND State: CA 94605	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one	NJ Reduced Deliverable Package? <input type="checkbox"/>
Phone/Fax: P 206-957-2433 F 206-767-5063	AG PM Name: Doug Umland	Send EDD to: coppeldata@inteligentehs.com	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>	Mark One
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P 1-800-477-7411 F 408-225-8506	CC Hardcopy report to: dan.kelner@anteagroup.com	Lab Project ID (lab use)		
Applicable Lab Quote #	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to	Requested Analyses		

ITEM #	SAMPLE ID (A-Z, 0-9 / -) IDs MUST BE UNIQUE	Matrix Codes MATRIX DEIONIZED WATER SURFACE WATER WASTE WATER FIELD PRODUCT SOL DIL WATER DEION SOL	MATRIX WATER SURFACE WATER WASTE OIL SLUDGE SOLIDATE OTHER SAMPL TISSUE	MATRIX CODE	SAMPLE TYPE G-GRAB C-COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED (Y/N)	Preservatives							Requested Analyses 200.9 Total Chromium 210.9 Inorganic Chloride Cr+2 Calibration	Comments/Lab Sample I.D.	
										Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> O <sub>2</sub>	None/acid			Other
1	EX-1_20110831			WG	G	8-15-11	1530	2	N		X				X	X	X		
2	EX-2_20110831			WG	G	8-15-11	1015	2	N		X				X	X	X		
3	DPE-1_20110831			WG	G	8-15-11	1355	2	N		X				X	X	X		
4	DPE-4_20110831			WG	G	8-15-11	1505	2	N		X				X	X	X		
5	DPE-5_20110831			WG	G	8-15-11	1440	2	N		X				X	X	X		

Additional Comments/Special instructions:  <b>Global ID: T0600100201</b>	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	Bill / BS		8/15/11	1650	Dank last		8/15/11	1650	Y/N	Y/N	Y/N				
	Dank		8/16/11	1815	Dank		8/16/11	1815	Y/N	Y/N	Y/N				
									Y/N	Y/N	Y/N				
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE													
UPS COURIER FEDEX		PRINT Name of SAMPLER:										Temp in °C	Samples on Ice?	Sample Intact?	Trip Blank?
US MAIL		SIGNATURE of SAMPLER:		DATE Signed		Time:									

ICE/°C 4.8

GOOD CONDITION \_\_\_\_\_

HEAD SPACE ABSENT \_\_\_\_\_

DECHLORINATED IN LAB \_\_\_\_\_

PRESERVATION \_\_\_\_\_

APPROPRIATE CONTAINERS \_\_\_\_\_

PRESERVED IN LAB \_\_\_\_\_

VOAS | O&G | METALS | OTHER



**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 1108459**

**ClientCode: PASS**

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

**Report to:** Regina Ste. Marie  
 Pace Analytical Services, Inc.  
 940 S. Harney Street  
 Seattle, WA 98108  
 (206) 957-2427    FAX:

**Email:** Regina.SteMarie@pacelabs.com

**cc:**

**PO:**

**ProjectNo:** #2611117; WG\_Q\_201108

**Bill to:** Accounts Payable  
 Pace Analytical Services, Inc.  
 940 S. Harney Street  
 Seattle, WA 98108

**Requested TAT:** 5 days

**Date Received:** 08/15/2011  
**Date Printed:** 08/15/2011

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1108459-001	EX-1_20110831	Water	8/15/2011 15:30	<input type="checkbox"/>	B	A	A									
1108459-002	EX-2_20110831	Water	8/15/2011 10:15	<input type="checkbox"/>	B	A										
1108459-003	DPE-1_20110831	Water	8/15/2011 13:55	<input type="checkbox"/>	B	A										
1108459-004	DPE-4_20110831	Water	8/15/2011 15:05	<input type="checkbox"/>	B	A										
1108459-005	DPE-5_20110831	Water	8/15/2011 14:40	<input type="checkbox"/>	B	A										

**Test Legend:**

1	218_6_W	2	METALSMS_W	3	PREF REPORT	4		5	
6		7		8		9		10	
11		12							

**Prepared by: Zoraida Cortez**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.





### Sample Receipt Checklist

Client Name: **Pace Analytical Services, Inc.**

Date and Time Received: **8/15/2011 6:58:55 PM**

Project Name: **#2611117; WG\_Q\_201108**

Checklist completed and reviewed by: **Zoraida Cortez**

WorkOrder N°: **1108459** Matrix: Water

Carrier: Derik Cartan (MAI Courier)

#### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

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

- All samples received within holding time? Yes  No
- Container/Temp Blank temperature Cooler Temp: 4.8°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
- Sample labels checked for correct preservation? Yes  No
- Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
- Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted: Date contacted: Contacted by:

Comments: Sample 005 had to be preserved in house to pH<2 for total metals.



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
 Web: www.mccampbell.com E-mail: main@mccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc.  940 S. Harney Street  Seattle, WA 98108	Client Project ID: #2611117; WG_Q_201108	Date Sampled: 08/15/11
	Client Contact: Regina Ste. Marie	Date Received: 08/15/11
	Client P.O.:	Date Extracted: 08/16/11
		Date Analyzed: 08/16/11

**Hexachrome by IC\***

Analytical Method: E218.6

Work Order: 1108459

Lab ID	Client ID	Matrix	Hexachrome	DF	Comments
1108459-001B	EX-1_20110831	W	ND	1	
1108459-002B	EX-2_20110831	W	ND	1	
1108459-003B	DPE-1_20110831	W	ND	1	
1108459-004B	DPE-4_20110831	W	ND	1	
1108459-005B	DPE-5_20110831	W	ND	1	

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L
	S	NA

\* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # means surrogate diluted out of range or surrogate coelutes with another peak.

%SS = Percent Recovery of Surrogate Standard  
 DF = Dilution Factor

*AR* Angela Rydelius, Lab Manager



# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

Pace Analytical Services, Inc.

940 S. Harney Street

Seattle, WA 98108

Client Project ID: #2611117;  
WG\_Q\_201108

Client Contact: Regina Ste. Marie

Client P.O.:

Date Sampled: 08/15/11

Date Received: 08/15/11

Date Extracted: 08/15/11

Date Analyzed: 08/16/11

### Metals\*

Extraction method: E200.8

Analytical methods: E200.8

Work Order: 1108459

Lab ID	Client ID	Matrix	Extraction Type	Chromium	DF	% SS	Comments
1108459-001A	EX-1_20110831	W	TOTAL	2.9	1	95	
1108459-002A	EX-2_20110831	W	TOTAL	2.2	1	94	
1108459-003A	DPE-1_20110831	W	TOTAL	0.66	1	96	
1108459-004A	DPE-4_20110831	W	TOTAL	4.0	1	97	
1108459-005A	DPE-5_20110831	W	TOTAL	28	1	96	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	0.5	µg/L
	S	TOTAL	NA	mg/Kg

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / WET / DI WET / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.  
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.  
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard  
DF = Dilution Factor



### QC SUMMARY REPORT FOR E218.6

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 60397

WorkOrder: 1108459

EPA Method: E218.6		Extraction: E218.6							Spiked Sample ID: 1108405-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Hexachrome	0.080	25	101	99	1.68	98.4	97.9	0.489	90 - 110	10	90 - 110	10

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 60397 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1108459-001B	08/15/11 3:30 PM	08/16/11	08/16/11 4:25 PM	1108459-002B	08/15/11 10:15 AM	08/16/11	08/16/11 4:46 PM
1108459-003B	08/15/11 1:55 PM	08/16/11	08/16/11 5:06 PM	1108459-004B	08/15/11 3:05 PM	08/16/11	08/16/11 5:26 PM
1108459-005B	08/15/11 2:40 PM	08/16/11	08/16/11 5:46 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.  
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR E200.8

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 60434

WorkOrder: 1108459

EPA Method: E200.8		Extraction: E200.8							Spiked Sample ID: 1108428-002A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chromium	ND	10	90.5	86.9	4.09	93.5	90.8	2.97	70 - 130	20	85 - 115	20
%SS:	95	750	96	95	1.19	95	94	1.17	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 60434 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1108459-001A	08/15/11 3:30 PM	08/15/11	08/16/11 4:31 PM	1108459-002A	08/15/11 10:15 AM	08/15/11	08/16/11 4:38 PM
1108459-003A	08/15/11 1:55 PM	08/15/11	08/16/11 5:06 PM	1108459-004A	08/15/11 3:05 PM	08/15/11	08/16/11 5:13 PM
1108459-005A	08/15/11 2:40 PM	08/15/11	08/16/11 5:20 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.  
 % Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).  
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.  
 N/A = not applicable to this method.  
 NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

**PACE SEATTLE**

21889 Line 3

21835 Line 3/4 M3 081611

3Q 2011 GW Event

258851

Required Lab Information:				Required Project Information:				Required Invoice Information:					
Lab Name: Pace-Seattle		Site ID #: 2611117		Task: WG_Q_201108		Send Invoice to: David Sowle							
Address: AnteaGrp proj#				Address: 11050 White Rock Road, Suite 110				Turn around time (days): 10					
940 S. Harney Street Seattle WA 98108				Site Address: 7210 BANCROFT AVE		City/State: Rancho Cordova CA 95670		Phone #: 1-800-477-7411		QC level Required: Standard		Special: Mark one	
Lab PM: Regina Ste. Marie		City: OAKLAND		State: CA 94605		Reimbursement project?		Non-reimbursement project? Y		Mark one		NJ Reduced Deliverable Package?	
Phone/Fax: P: 206-957-2433 F: 206-767-5063		AG PM Name: Doug Umland		Send EDD to: copelldata@intelligenttechs.com		MA MCP Cert?		CT RCP Cert?		Mark One			
Lab PM email: Regina.SteMarie@pacelabs.com		Phone/Fax: P: 1-800-477-7411 F: 408-225-8506		CC Hardcopy report to: dan.keltner@anteagroup.com		Lab Project ID (lab use)							
Applicable Lab Quote #:		AG PM Email: doug.umland@anteagroup.com		CC Hardcopy report to:		Requested Analyses							

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WP GROUND WATER WG WASTE WATER WW FREE PRODUCT LP SOL SO OIL OL DIPE SW AMBIENT AIR AA EYE AIR AE SOL GAS GS	MATRIX WATER WS SURFACE WATER WS WATER QC WQ SLUDGE SL RINSEATE WH OTHER OT ANIMAL TISSUE TA	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.							
										Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol	Other	80157 PH/ORO	82208 Hex/MIBE/TOTYCA			854115 Methane	300 Sulfate	4500-SCE Sulfide	6010 Total Iron	3532 Amide	3522 Amine	52108 Biological Oxygen
1	EX-1_20110831	WG	G	8.15.11	1530	10	N								X			X	X	X	X	X	X	X	X	X		
2	EX-2_20110831	WG	G	8.15.11	1015	6	N								X			X	X	X	X	X	X	X	X	X		
3	MW-10_20110831	WG	G	8.15.11	1120	6	N								X			X	X	X	X	X	X	X	X	X		
4	MW-11_20110831	WG	G	8.15.11	1215	6	N								X			X	X	X	X	X	X	X	X	X		
5	MW-4_20110831	WG	G	8.15.11	1240	6	N								X			X	X	X	X	X	X	X	X	X		
6	MW-7_20110831	WG	G	8.15.11	1035	6	N								X			X	X	X	X	X	X	X	X	X		
7	MW-9_20110831	WG	G	8.15.11	1035	6	N								X			X	X	X	X	X	X	X	X	X		
8	TB1_20110831	W	G	8.15.11	0900	4	N								X			X	X	X	X	X	X	X	X	X		
9	DPE-1_20110831	WG	G	8.15.11	1355	6	N								X			X	X	X	X	X	X	X	X	X		
10	DPE-4_20110831	WG	G	8.15.11	1505	6	N								X			X	X	X	X	X	X	X	X	X		
11	DPE-5_20110831	WG	G	8.15.11	1440	6	N								X			X	X	X	X	X	X	X	X	X		

Additional Comments/Special Instructions:  Global ID: T0600100201	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	<del>Bill</del> / BTB		8.15.11	1655						Y/N	Y/N	Y/N			
	Fedex		081611	0855	Jothi Sway/PACE		081611	0855	10	Y/N	Y/N	Y/N			
									14	Y/N	Y/N	Y/N			
SHIPPING METHOD: (mark as appropriate)				SAMPLER NAME AND SIGNATURE											
UPS COURIER <del>FEDEX</del>				Ben Powell											
US MAIL				SIGNATURE OF SAMPLER: <del>Bill</del>				DATE Signed: 8.15.11		Time: 1655		Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?



**COP ELT CHAIN-OF-CUSTODY / Analytical Request Document**

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Page: 1 of 1  
Cooler # \_\_\_\_\_ of \_\_\_\_\_

**PACE SEATTLE**

**3Q 2011 GW Event**

258851

Required Lab Information		Required Project Information		Required Invoice Information							
Lab Name: Pace-Seattle	Site ID #: 2611117	Task: WG_Q_201108	Send Invoice to: David Sowle								
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#: 7210 BANCROFT AVE	Address: 11050 White Rock Road, Suite 110		Turn around time (days): 10						
Lab PM: Regina Ste Marie	City: OAKLAND	State: CA 94605	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	QC level Required: Standard						
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Doug Umland	Send EDD to: copetdata@intelligentelms.com	Reimbursement project?:	Non-reimbursement project?: Y	Mark one						
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 408-225-8506	CC Hardcopy report to: dan.ketner@anteagroup.com	Reimbursement project?:	Non-reimbursement project?: Y	Mark one						
Applicable Lab Quote #:	AG PM Email: doug.umland@anteagroup.com	CC Hardcopy report to:	Lab Project ID (lab use)								
<b>SAMPLE ID</b> One Character per box IDs MUST BE UNIQUE Samples: (A-Z, 0-9, /, -)		Valid Matrix Codes MATRIX: DRINKING WATER, GROUND WATER, INDUSTRIAL WASTE, LEAD PIPING, LIQUID, SOLID, WASTEWATER, AIR, SOIL, SLURRY MATRIX: SURFACE WATER, WASTE OIL, BULK OIL, WASTELAND, OTHER, GENERAL TOILET, AIR, SOIL	MATRIX CODE	SAMPLE TYPE G-ORIGAS C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved, H2SO4, HNO3, HCl, NaOH, Na2S2O8, Manual, Other	Requested Analyses: 5310C Total Organic C, 3511 Total Kjeldahl N, 3511 Ammonia, 3511 Nitrate, 3511 Nitrite, 3511 Phosphate, 3511 Chloride	Comments/Lab Sample I.D.
1	EX-1_20110831	WG	G	8-15-11	1530	11	N	X X X X	X	X X X X X X X	Fe= 1.4 mg/L
2	EX-2_20110831	WG	G	8-15-11	1015	11	N	X X X X	X	X X X X X X X	Fe= 0.0 mg/L
3	DPE-1_20110831	WG	G	8-15-11	1355	11	N	X X X X	X	X X X X X X X	Fe= 1.0 mg/L
4	DPE-4_20110831	WG	G	8-15-11	1505	11	N	X X X X	X	X X X X X X X	Fe= 7.0 mg/L
5	DPE-5_20110831	WG	G	8-15-11	1440	11	N	X X X X	X	X X X X X X X	Fe= 6.5 mg/L
6-13											
Additional Comments/Special Instructions:		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions			
		<del>Ben Panell</del> / BTS	8/15/11	1655				Y/N	Y/N	Y/N	
Global ID: T0600100201		Fedex	08/16/11	0855	Jyothi Swamy/PACE	08/16/11	0855	1.0	Y/N	Y/N	Y/N
								1.4	Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE		TEMPERATURE		SAMPLES ON ICE?		SAMPLES INTACT?		TRIP BLANK?	
UPS COURIER: FEDEX		Ben Panell		8-15-11		1655					
US MAIL		SIGNATURE OF SAMPLER:		DATE SIGNED		TIME					
		<del>Ben Panell</del>		8-15-11		1655					



## Sample Container Count

CLIENT: Antea



COC PAGE 1 of 1

COC ID# -

258851

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP3N BP2N	BP2S	WGFU	WGKU	VSG	DG9V	BP2Z	Comments
1	10 6				2			1 <sup>2</sup>	2 <sup>2</sup>			3	2	1710	
2	6				2			1 <sup>2</sup>	2 <sup>2</sup>			3	2	1710	
3	↓														
4	↓														
5	↓														
6	6														
7	—														
8	4														
9	6				2			1 <sup>2</sup>	2 <sup>2</sup>			3	2	1713	
10	6				2			1 <sup>2</sup>	2 <sup>2</sup>			3	2	1710	
11	6				2			1 <sup>2</sup>	2 <sup>2</sup>			3	2	1710	
12															Trip Blank? <i>yes</i>

AG1H	1 liter HCL amber glass		BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass		BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass		BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass		BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass		BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass		BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass		BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic		DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic		DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic		DG9M	40mL MeOH clear vial	WGFV	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac		DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic		DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic			Wipe/Swab		





**Sample Condition Upon Receipt**

Client Name: Antea Project # 258851

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 87561770 0550

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_ Temp. Blank  Yes  No

Thermometer Used 132013 or 101731962 or 226099 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temperature 1.0°C, 1.4°C Biological Tissue is Frozen: Yes No  
Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: NS 08/16/11

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>300, NO<sub>2</sub>, Ortho-P</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Follow Up / Hold Analysis Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/Analysis Matrix:	<u>Water</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions <u>VOA, coliform, TOC, O&amp;G</u>		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blanks Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>072911</u>	

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N  
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: RSM Date: 08/16/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

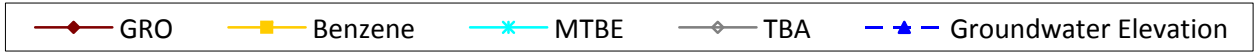
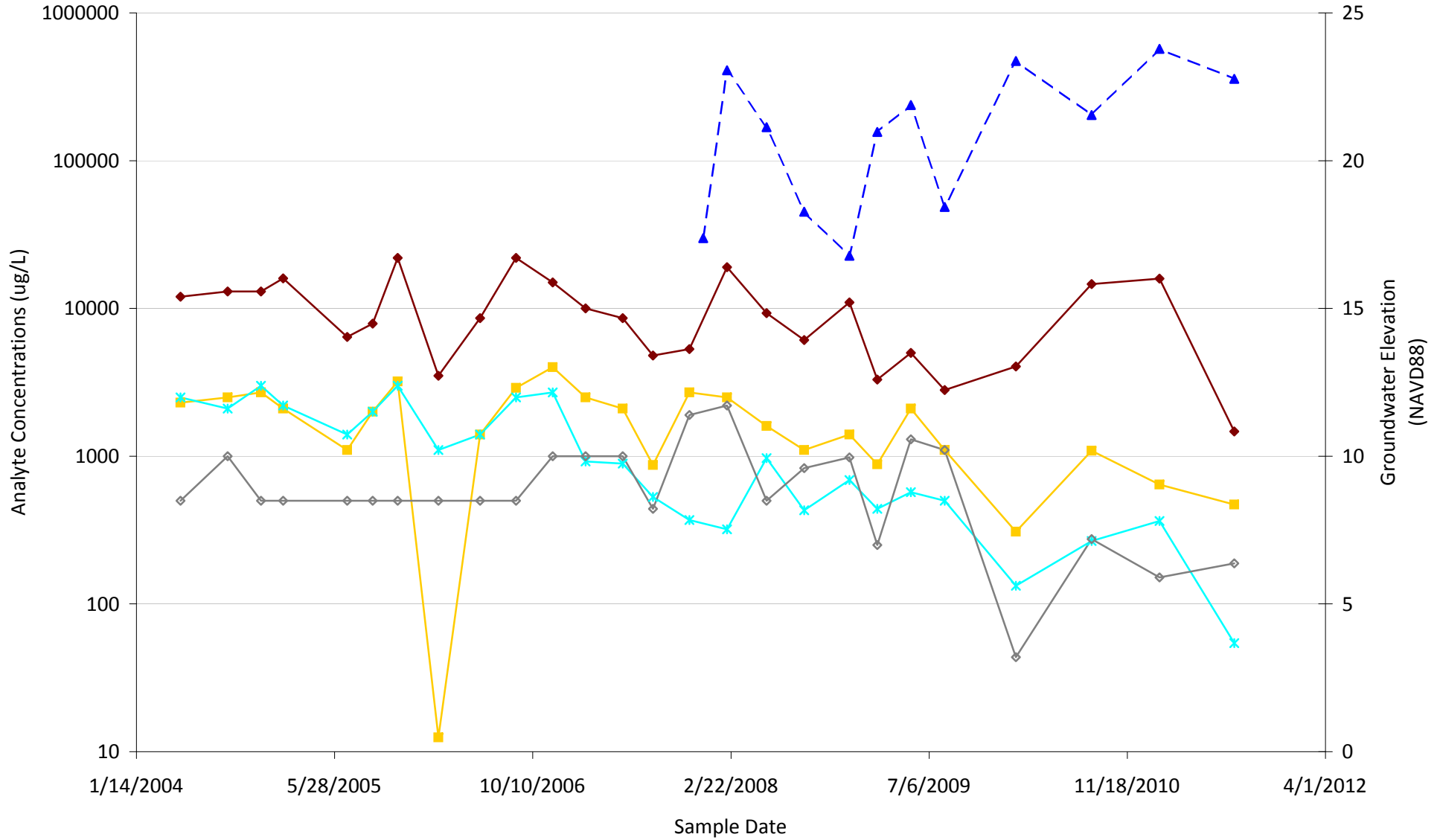
*Semi-Annual Monitoring Report, Third Quarter 2011*  
*76 (Former BP) Service Station No. 11117*  
*Oakland, California*  
*Antea Group Project No. I42611117*



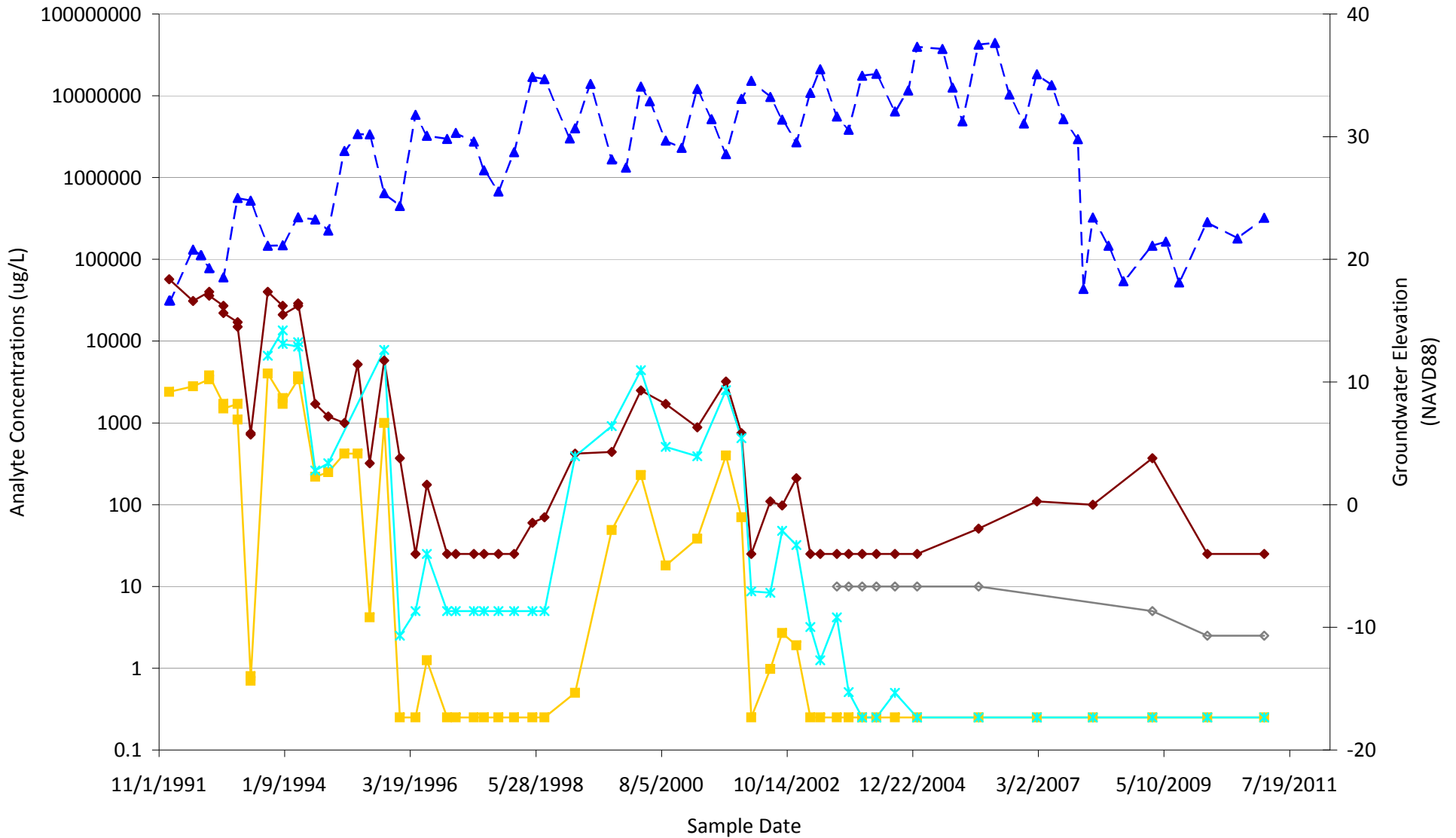
## ***Appendix F***

Time Series Graphs

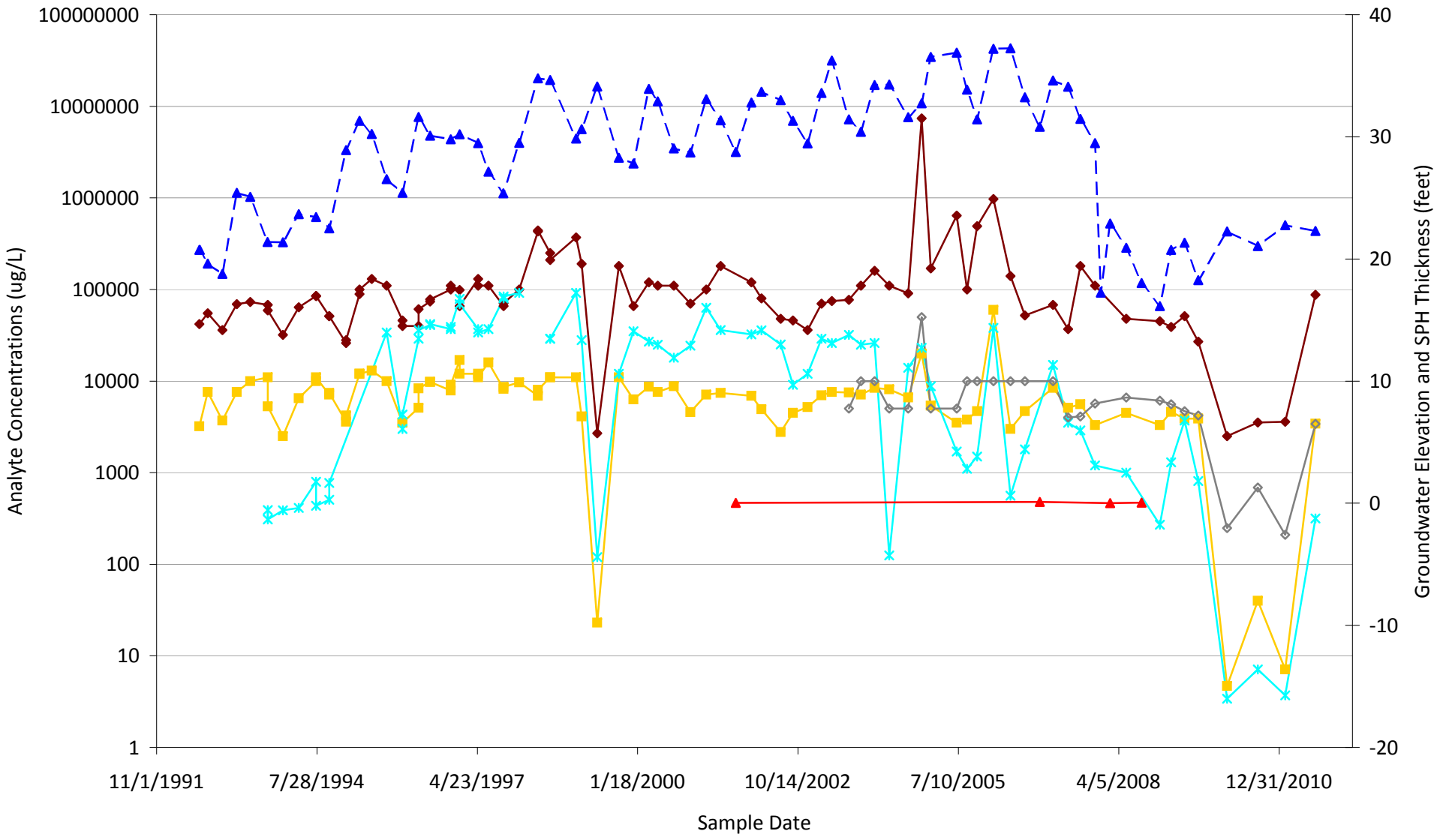
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 CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



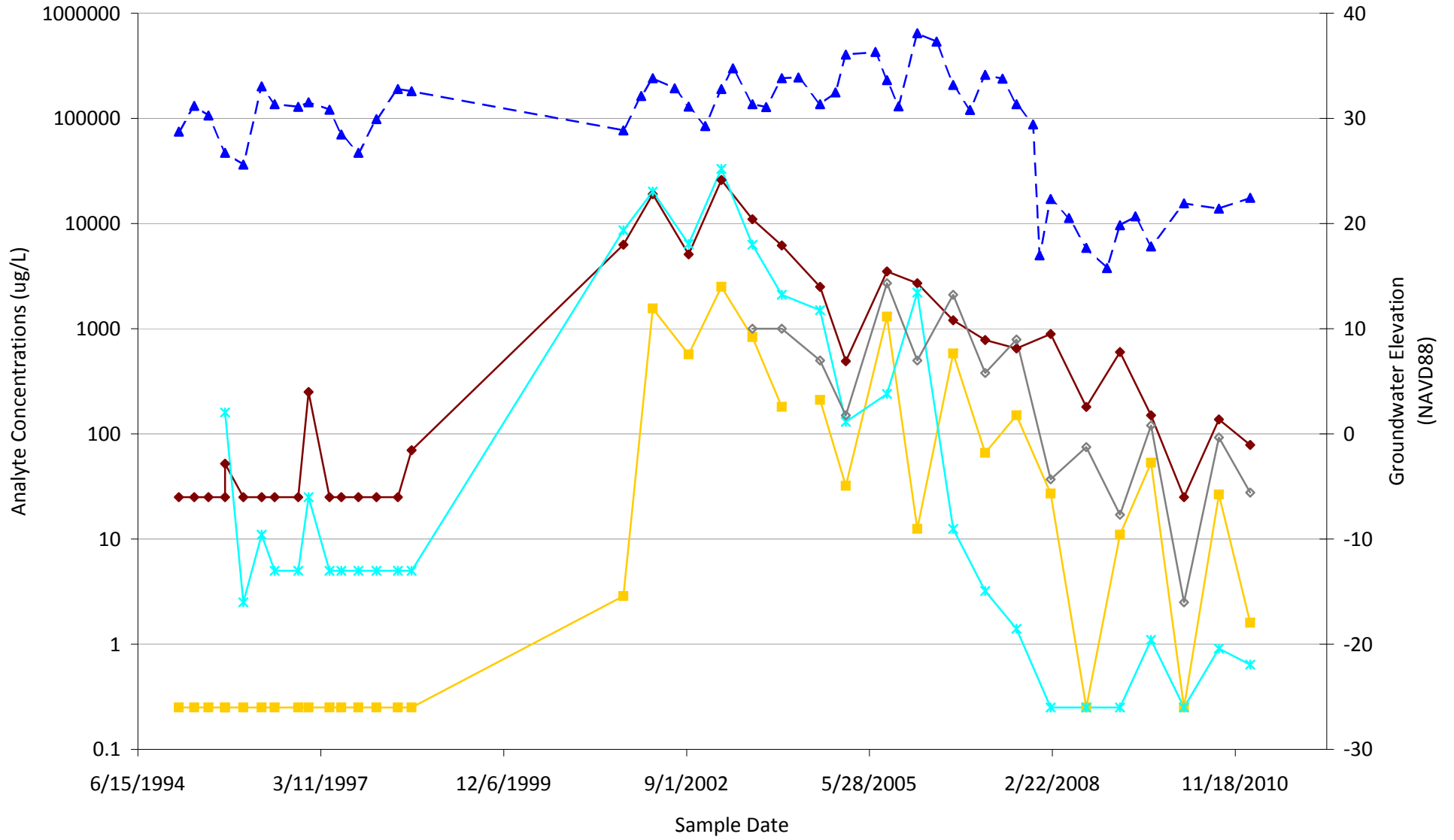
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 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



WELL MW-4  
 CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

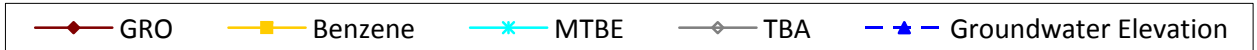
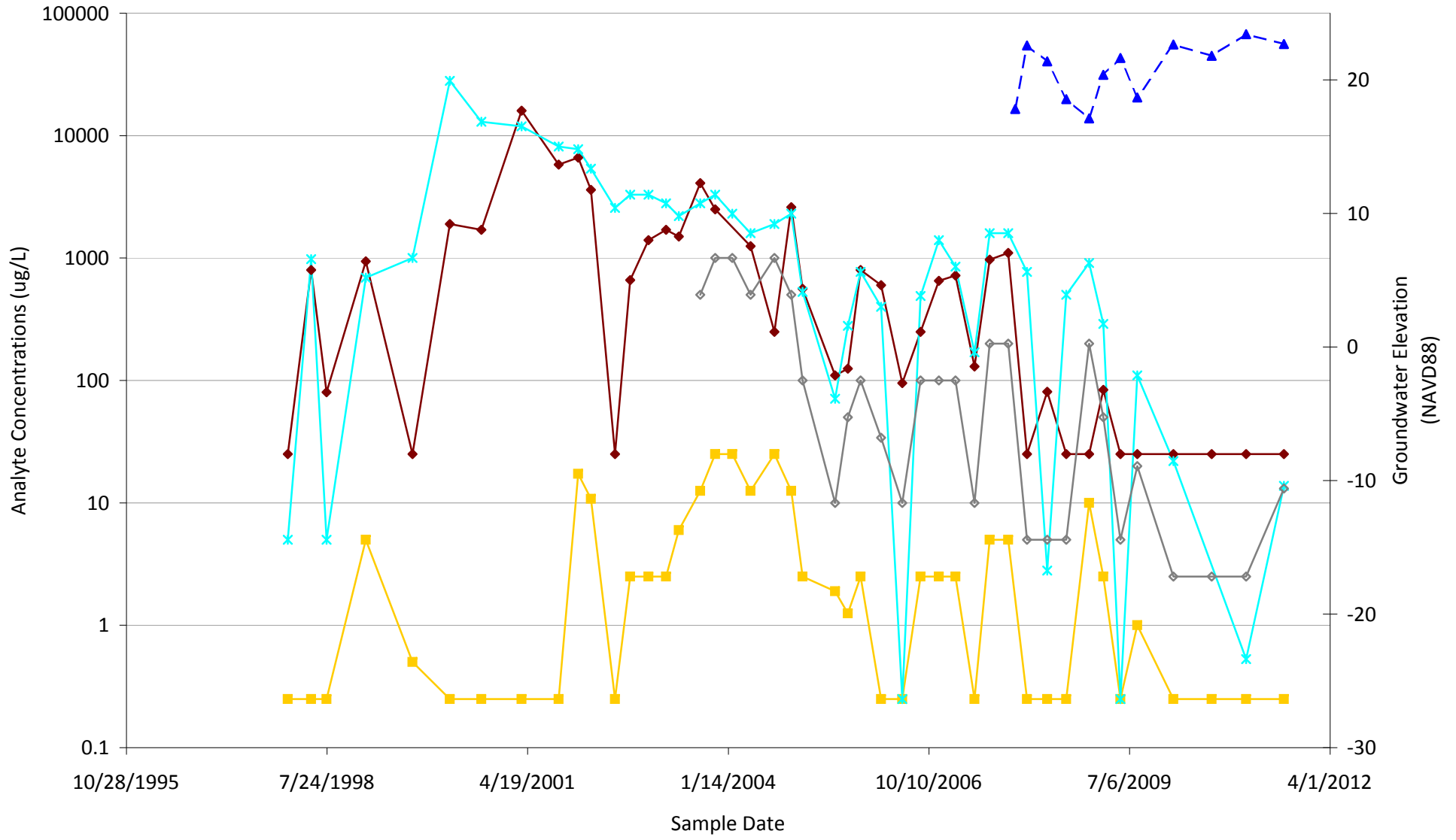


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 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA

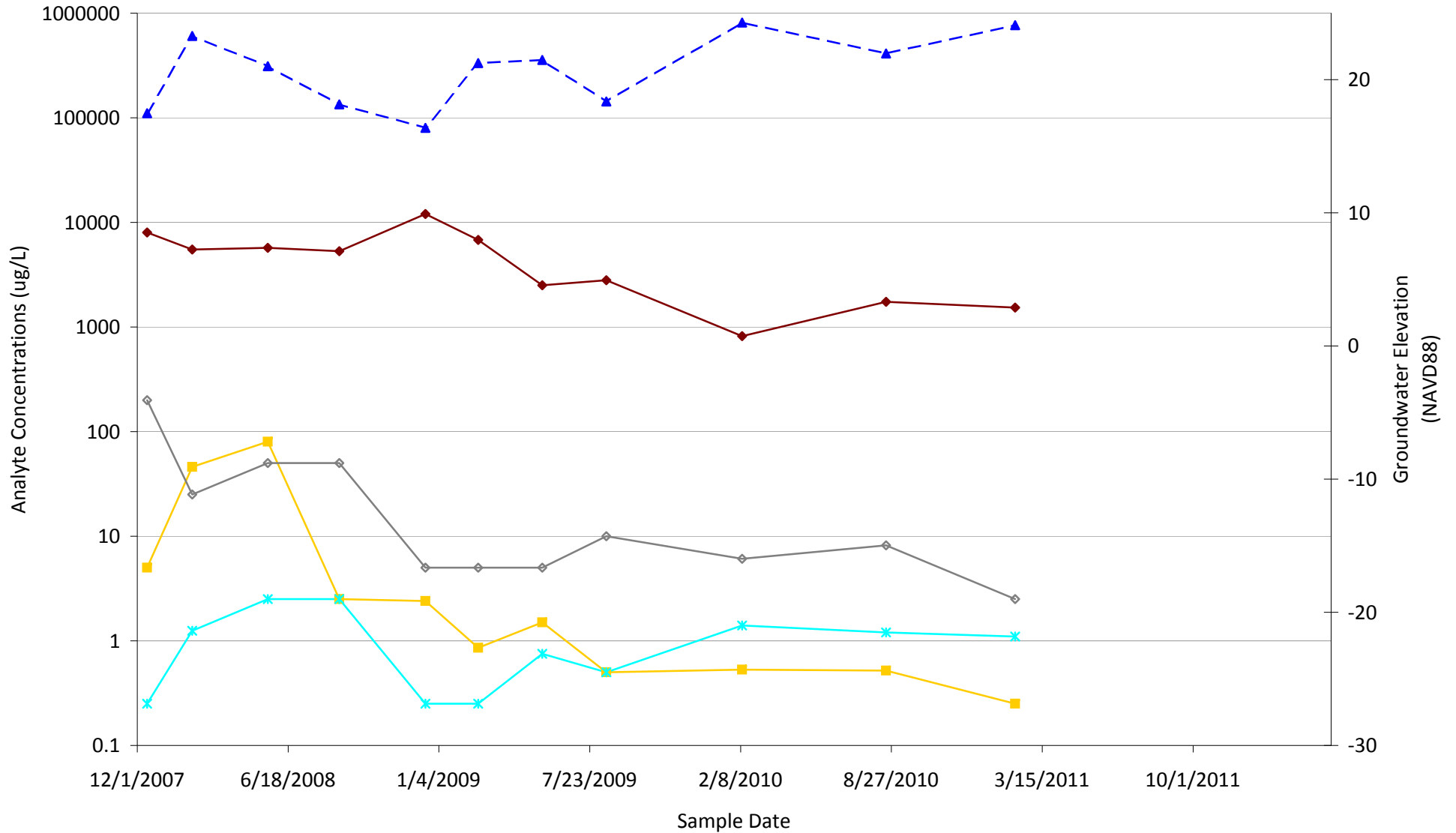


Legend: GRO (dark red line with diamond), Benzene (yellow line with square), MTBE (cyan line with asterisk), TBA (grey line with diamond), Groundwater Elevation (blue dashed line with triangle)

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CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
76 (FORMER BP) SERVICE STATION NO. 11117  
7210 BANCROFT AVENUE  
OAKLAND, CALIFORNIA



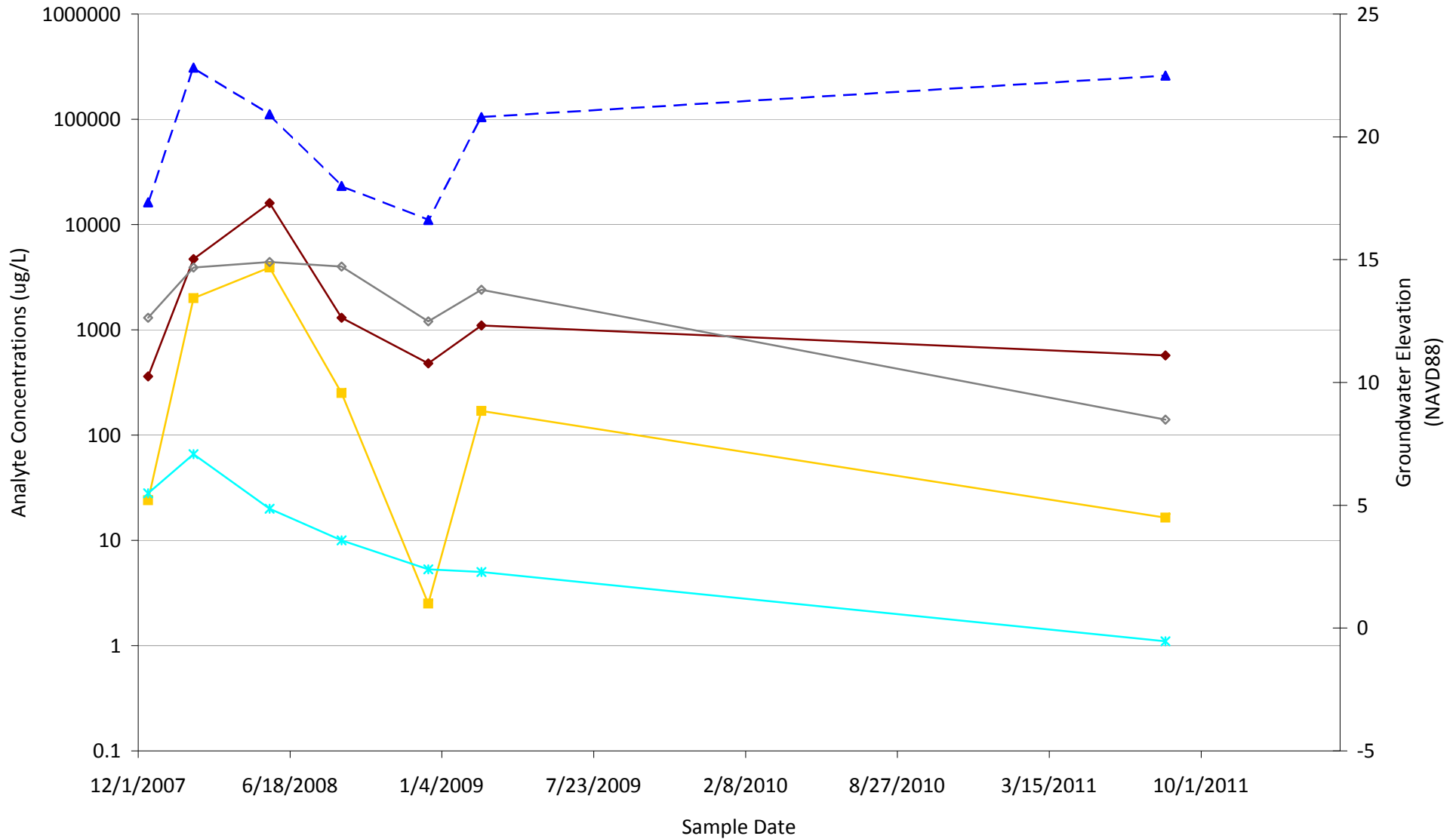
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 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



Legend: GRO (Red line with diamonds), Benzene (Yellow line with squares), MTBE (Cyan line with asterisks), TBA (Grey line with diamonds), Groundwater Elevation (Blue dashed line with triangles)

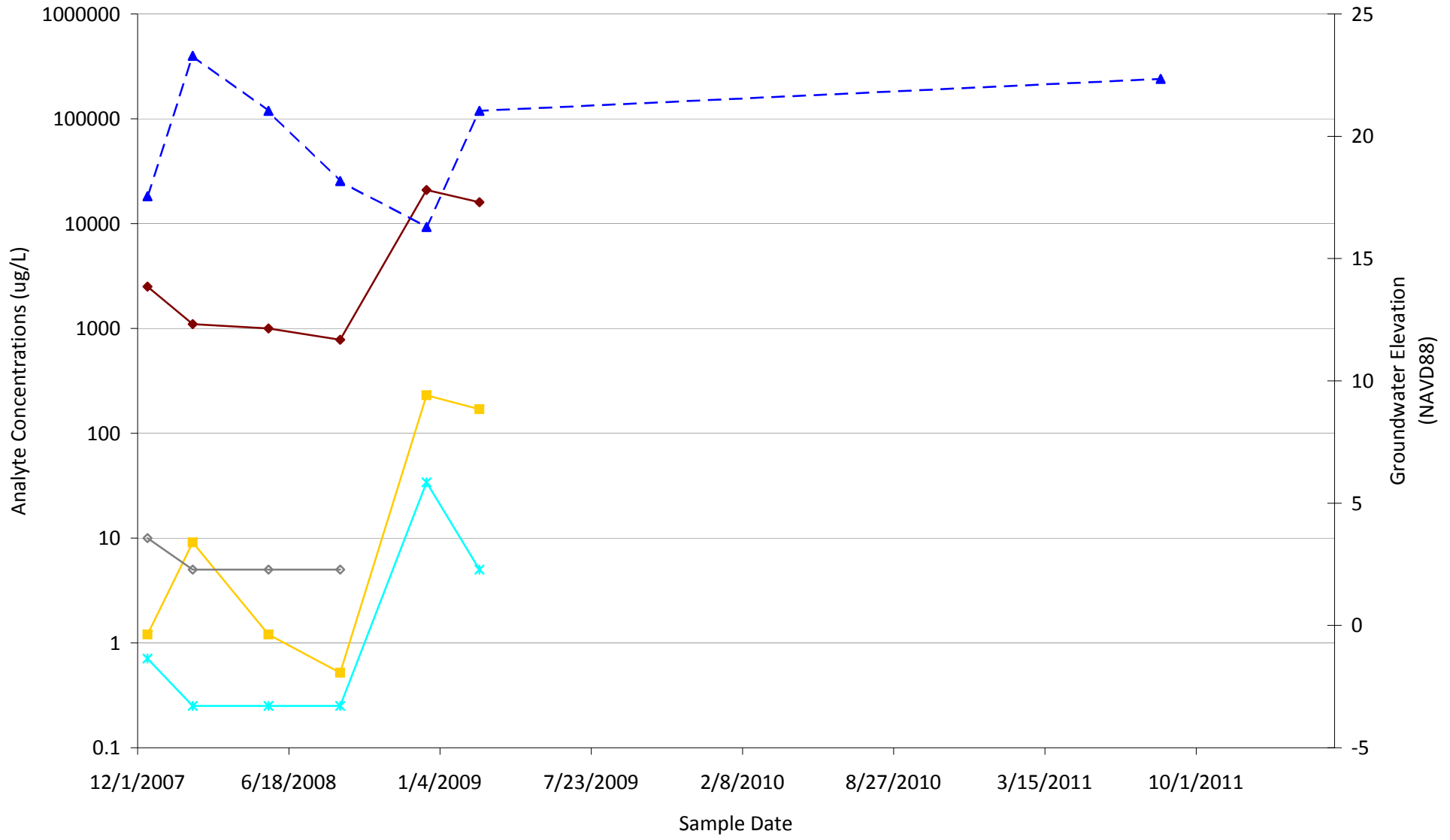


WELL DPE-1  
 CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



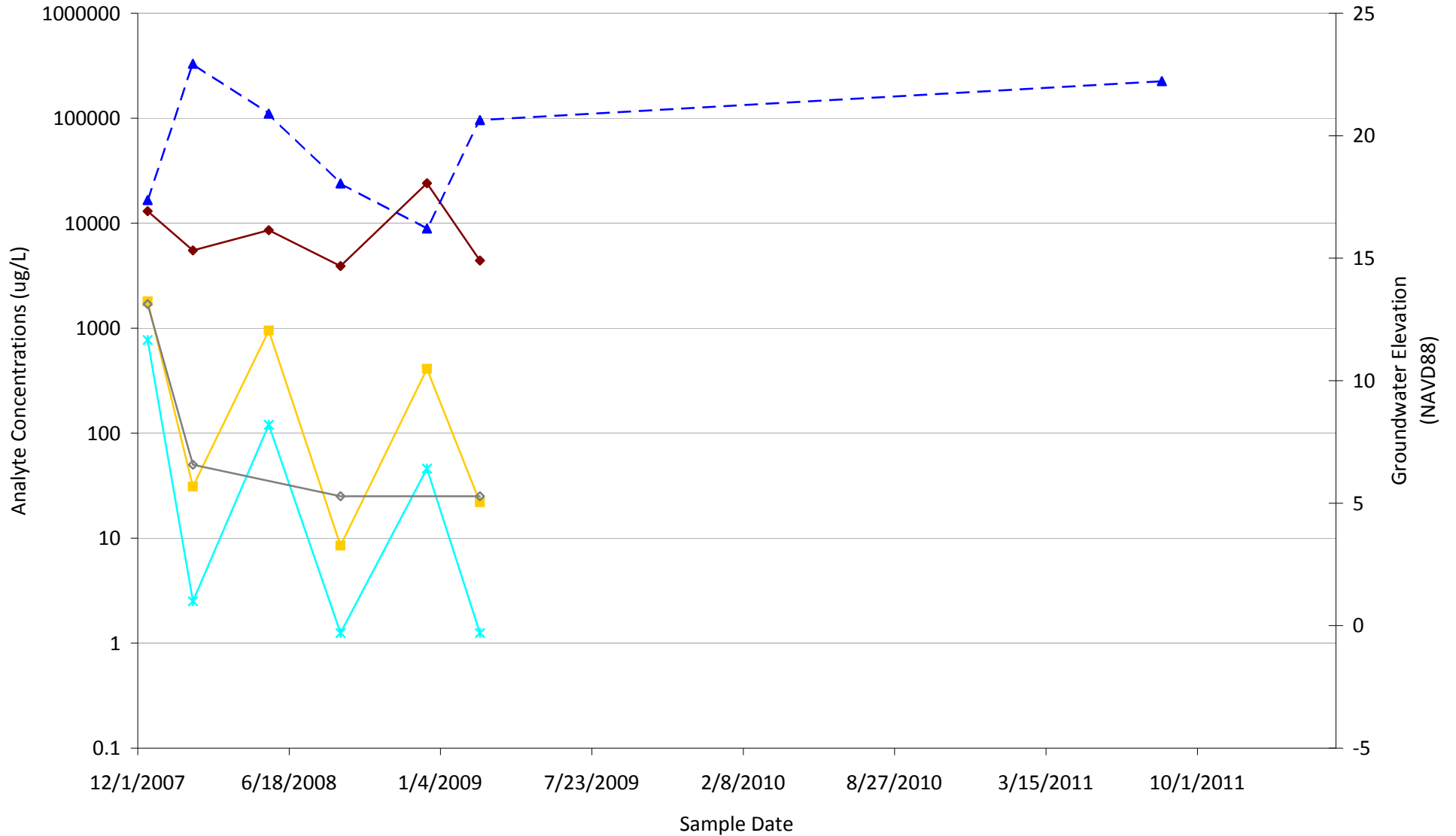
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 ■ Benzene   
 ✱ MTBE   
 ◇ TBA   
 ▲ Groundwater Elevation

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 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



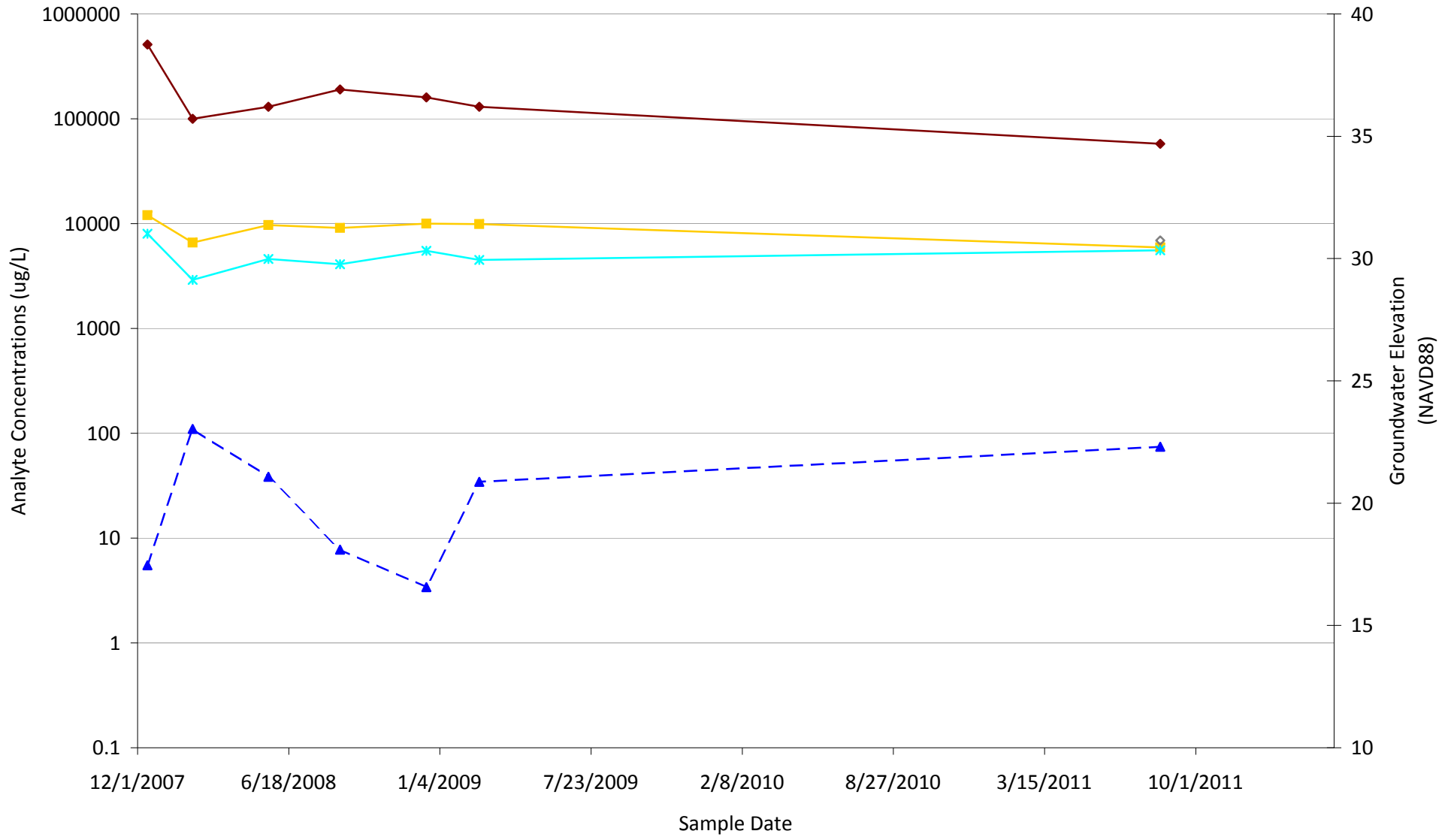
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 —■— Benzene   
 —\*— MTBE   
 —◇— TBA   
 -▲- Groundwater Elevation

WELL DPE-3  
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 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



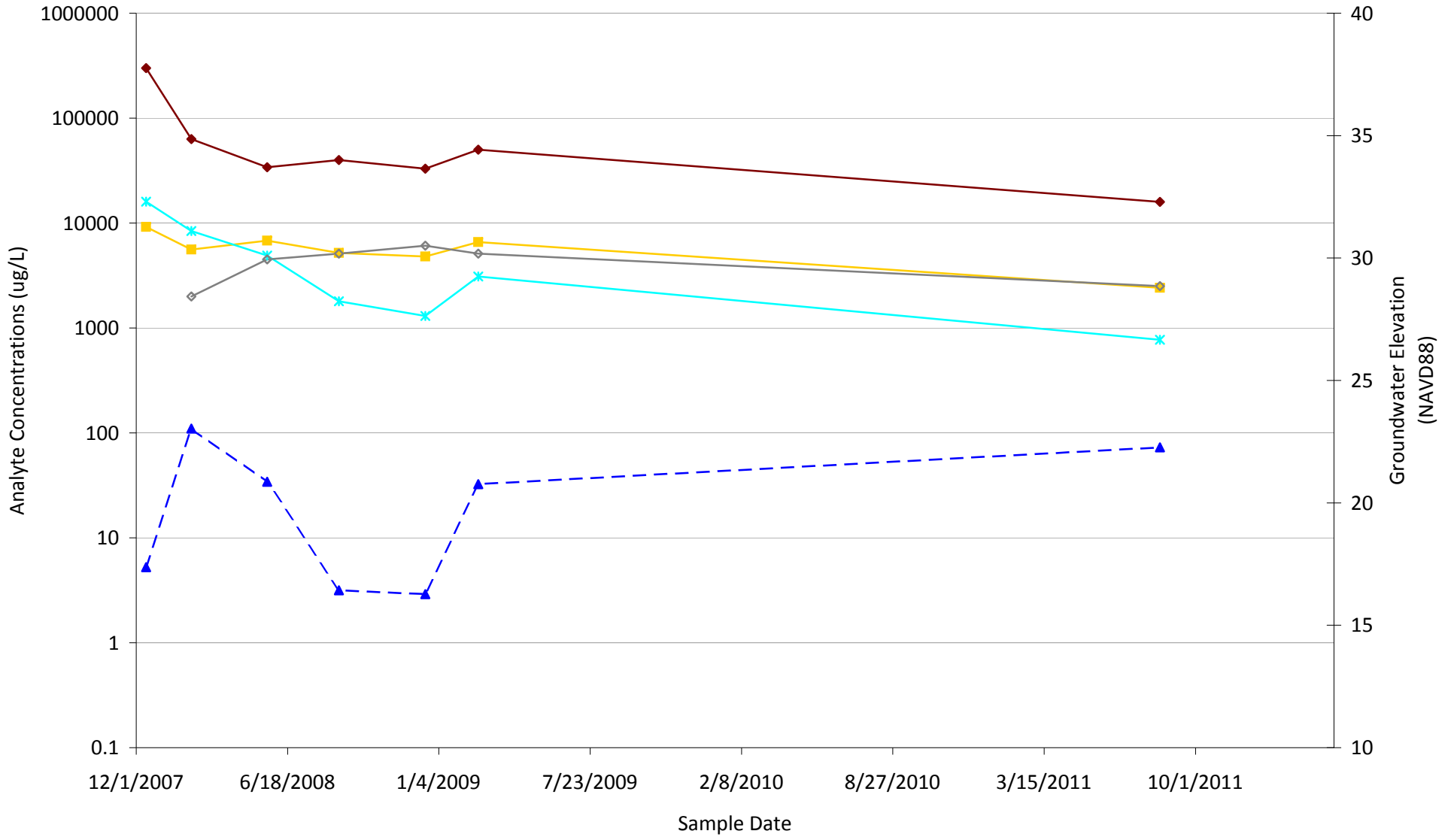
—◆— GRO   
 —■— Benzene   
 —\*— MTBE   
 —◇— TBA   
 - -▲- - Groundwater Elevation

WELL DPE-4  
 CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



—◆— GRO   
 —■— Benzene   
 —\*— MTBE   
 —◇— TBA   
 -▲- Groundwater Elevation

WELL DPE-5  
 CONTAMINANT CONCENTRATIONS AND GROUNDWATER ELEVATION VERSUS TIME  
 76 (FORMER BP) SERVICE STATION NO. 11117  
 7210 BANCROFT AVENUE  
 OAKLAND, CALIFORNIA



Legend: GRO (dark red line with diamonds), Benzene (yellow line with squares), MTBE (cyan line with asterisks), TBA (grey line with diamonds), Groundwater Elevation (blue dashed line with triangles)

*Semi-Annual Monitoring Report, Third Quarter 2011  
76 (Former BP) Service Station No. 11117  
Oakland, California  
Antea Group Project No. I42611117*



## ***Appendix G***

Non-Hazardous Waste Manifests

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <i>N/A</i>	Manifest Document No. <i>2101117-0211</i>	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>POWER QUALITY &amp; ELECTRICAL SYS. TEJINDAR SINGH 7210 BANCROFT AVE OAKLAND, CA 94605</i>		SITE <i>2101117</i> <i>7210 BANCROFT AVE</i> <i>OAKLAND, CA 94605</i>		
4. Generator's Phone <i>(510) 553-0107</i>	6. US EPA ID Number _____	A. State Transporter's ID _____		
5. Transporter 1 Company Name <i>BLAINE TECH SERVICES</i>	8. US EPA ID Number _____	B. Transporter 1 Phone <i>310-885-4455</i>		
7. Transporter 2 Company Name _____	10. US EPA ID Number _____	C. State Transporter's ID _____		
9. Designated Facility Name and Site Address <i>SEAPORT ENVIRONMENTAL 700 SEAPORT BLVD REDWOOD CITY, CA 94063</i>	10. US EPA ID Number <i>000013572</i>	D. Transporter 2 Phone _____		
11. WASTE DESCRIPTION		E. State Facility's ID _____		
a. <i>Non hazardous waste liquid</i>		12. Containers No.	Type	13. Total Quantity
				14. Unit Wt./Vol.
		<i>1</i>	<i>TT</i>	<i>165</i>
				<i>6</i>
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above		H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information <i>Wear protective equipment while handling Weights and volumes are approximate 24hr emergency phone number (310) 885-4455</i>				
<i>Approval Number 510-1049 Direct Bill Blaine Tech Services Blaine Tech PD#: AN-031611-F51</i>				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name <i>CANTER GROUP</i>		Signature <i>[Signature]</i>	Date <i>1/24/11</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>Ben Panell (Blaine Tech)</i>		Signature <i>[Signature]</i>	Date <i>2/7/11</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature	Date	
19. Discrepancy Indication Space				
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name <i>Jaquim D. Camar</i>		Signature <i>[Signature]</i>	Date <i>03/16/11</i>	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY



# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <i>n/a</i>	Manifest Document No. <i>201117-0811</i>	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>Power Quality &amp; Electrical Systems C/O Tejinder Singh 7210 Bancroft Ave. Oakland, CA 94605</i>		Site # <i>261117</i> <i>7210 Bancroft Ave. Oakland, CA 94605</i>		
4. Generator's Phone <i>(510) 553-0109</i>				
5. Transporter 1 Company Name <i>Blaine Tech Services</i>	6. US EPA ID Number	A. State Transporter's ID		
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter 1 Phone <i>310-885-4455</i>		
9. Designated Facility Name and Site Address <i>Seaport Environmental 700 Seaport Blvd Redwood City, CA 94063</i>		10. US EPA ID Number <i>000013572</i>		C. State Transporter's ID
				D. Transporter 2 Phone
				E. State Facility's ID
				F. Facility's Phone <i>650-3104-1024</i>
11. WASTE DESCRIPTION		12. Containers	13. Total Quantity	14. Unit Wt./Vol.
a. <i>Non hazardous waste liquid</i>		No. <i>1</i>	Type <i>TT</i>	<i>220 G</i>
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above		H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information <i>Wear protective equipment while handling Weights and volumes are approximate 24hr emergency phone no. (310) 885-4455</i>				
<i>Approval No. 500-1049 Direct bill Blaine Tech Blaine Tech P.O. #1190611-051</i>				
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name <i>(Antia Group) Jenifer Mendes</i>		Signature <i>Jenifer Mendes</i>		Date <i>7/19/11</i>
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <i>Ben Panell</i>		Signature <i>[Signature]</i>		Date <i>8/15/11</i>
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Date
19. Discrepancy Indication Space				
20. Facility Owner or Operator, Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name <i>Joaquin D. Camara</i>		Signature <i>[Signature]</i>		Date <i>09/06/11</i>

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

